

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

VOL. CXXXIII. No. 26. Whole Number 3483. DETROIT, MICH., SATURDAY, DEC. 25, 1909.

75 CENTS A YEAR \$1.50 THREE YEARS



Seeding New Land.

Seeding New Land.

I have been cutting off about 50 acres of timber on my farm in Lapeer county and will have the brush piled and ready to burn when it is dry enough in the spring. Would like to get this into a pasture for sheep until the stumps are rotted and should be pleased to hear thru the Michigan Farmer from someone who has had the experience, what the best way would be to handle it to get a good pasture as soon as possible, and not let the brush get started so it will have to be cut again. Whether to crowd the sheep the first year or so or to give the grass a good chance the first year and take chances on the sheep killing back brush that may have started. Also, what is the best grain to sow? The land is slightly rolling clay loam. Would Merino or fine wooled sheep be better to do this job than coarse wools?

Lapeer Co. A. W. Weidemann.

the seed is easily grown under Michigan The best way to handle newly cleared land is to sow it to clover and timothy seed as soon after it is burned off as possible. When the burning is done in the late summer, the seed will get sufficiently well covered by simply sowing it on in the early spring as other land is seeded. If the land is comparatively level and the seed can be sown soon after burning and before a heavy rain falls, considerable of it will be sufficiently well covered to grow and even a partial stand of these tame grasses will greatly improve the pasture and will many times repay the cost of the seed required. The will take kindly to the tender browse and will kill much of it back, but it will be necessary to sprout this new ground off once or twice before the grubs are all killed. The fine wooled breeds of sheep will better endure continuous grazing on the same land than will the coarse or middle wooled breeds, but whatever kind of sheep you have can be profitably utilized as suggested.

Of course, a crop of wheat can be grown and the grass seeded in the wheat, but the labor of fitting this new ground and of harvesting the wheat by hand will reduce the profit to a low point, and all things considered, it is questionable if this course would prove as satisfactory as the one first suggested.

Spurry as a Forage Crop-Fertilizer Question,

Spurry as a Forage Crop—Fertilizer Question.

I have an eight-acre field of high sandy soil that had not been plowed for 20 years, and last spring I planted it to corn. It grew fairly well until the dry spell came on, then stopped, so I suppose the soil was lacking in humus. This I was not in a position to know, being a farmer of only two years' experience. Here and there on this field are patches of moss and places where sour grass springs up and it is 35 ft. down to water. I wanted to sow this field to some crop that would make feed for cattle and make a pasture afterward, if it is possible. I saw a seed in one of the catalogues last year called giant spurry, and planted a small piece on land similar to this field which grew fairly well, and made its growth in six weeks. It had a top root seven inches long, about the size of a lead pencil; but I wanted to know if this plant gathered nitrogen from the air the same as clover, and have not as yet had anyone to tell me. I also have several barrels of oak ashes and chicken manure and would like to know how to use them in the garden to the best advantage. That is, shall they be mixed or kept separate and when shall they be put on the land?

Mushegon Co. C. G. Seely.

Spurry is not a legume, and consequently has not the power to gather nitrogen from the air which makes clover such a valuable soil improver. It has, however, a value as a forage crop, and a crop to supply humus on very light sandy lands. It is, however, very much inclined to become a troublesome weed. It belongs to the purslane family, and is a very persistent grower and being an annual plant which matures quickly it scatters its seed plentifully. Cattle will not eat it readily at first but learn to like it better after they have become accustomed to it. It is questionable if this plant has a very useful place in Michigan agriculture. Some of the leguminous crops might be more profitably used to supply humus to the soil or pasture for stock. It would pay better to seed the land to clover if it is possible to get a stand of clover upon it and if the soil is fairly well fitted and the clover is sown alone, it will seldom fail. It is, however, difficult to grow a crop which will make feed for cattle, and seed this kind of land at the same time.

Ashes should not be mixed with any manure before applying to the land, the lime in the ashes liberates the nitrogen from the manure, and it is lost in the form of volatile ammonia. For this reason ashes should always be applied to it independently of manure, the manure being plowed down and the ashes applied to the surface and harrowed in to mix with the surface soil.

Sand Vetch for Michigan.

For some time there has been a good deal of interest among Michigan Farmer readers regarding the adaptability of

vice has generally been given in our col- it spreads to healthy beans and so reumns to the effect that while it is un- produces itself. doubtedly a vigorous grower on thin soils jection being that it is inclined to become makes it of questionable value where the clovers can be successfully grown. It has, however, many strong advocates among the farmers on our lighter soils,

conditions. The tendency of this plant to spread as sent a sample of sand vetch for identiand for hav, and there are instances on cases it has proven a valuable forage and there is a prossibility that with proper handling, it could be made of some econdifficulty in securing a stand of clover upon light or thin land, we believe it is much better to resort to a hardy legume such as sand vetch, or even sweet clover, in preference to an annual plant like smurry, which is more of a menace as a weed than any plant which has the power will supply as much or more humus to

However, where our common clovers can be successfully grown, it is undoubtedly better to grow them in preference to these legumes of more questionable value, and wherever alfalfa, that greatest of leguminous forage plants can be successfully grown, we believe that even the common clover will in time give place to it right here in Michigan. The question of soil improvement by the growing of clovers of this nature must, however, remain largely a question for the personal solution of the individual farmer. He knows his own soil conditions better than anyone else, and by giving the question his best that and experimenting with plants which are new to him on a small scale, he will be able to decide their relative merit for the up-building of his soil, as well as their relative value for the production of forage needed for the live stock maintained upon the farm.

the soil.

BEAN ANTHRACNOSE INVESTIGA-TIONS.

For more than three years the Cornell Experiment Station has been devoting considerable time to observations and experiments on the anthracnose or pod-spot of beans. Bean Anthracnose is known to growers under a number of different names, depending largely upon the local-Perhaps the most common one apity. plied to this malady is "rust." However, as a matter of fact the disease is not rust at all, tho the spots do have a reddish yellow color in their early stages. There is a true rust of beans which is rarely met with in ordinary bean fields. Podspot is a name which is frequently applied to the disease, as it appears in the pods, Blight is also commonly used, but incorrectly so, as there is a true bacterial blight of beans, which is not only very common, but frequently quite destructive. Whatever name may be locally given to the anthracnose, it is still one and the same disease that most bean growers have

nized by the appearance which it gives to the infected pods, and it is here that the trouble is usually first recognized.

The disease is caused by a fungus which lives as a parasite in the tissues of the bean. This fungus is a plant, as much a plant as the bean on which it lives. It works its way into the tissue

sand vetch to Michigan soils, and its of the bean to obtain food for its growth usefulness as a forage plant and a soil and development and it produces spores that serve the purpose of seeds by which the serve the purpose of seeds by which that serve the purpose of seeds by which the serve

and of considerable value as a soil reno- Station have shown that there are three vator or improver, yet there are some or four possible means of combating the serious objections to its use, one such ob- disease, but of them the planting of clean seed is best. Clean seed will grow clean a weed where it is grown to any consid- beans. In the spring of 1904 a variety of erable extent, which fact, together with Black Wax beans were brot from Indiana the comparatively high price of the seed, and planted in a garden where no beans had been grown for many years. These beans gave a crop perfectly free from the anthracnose and this was more remarkable, since practically all the beans grown who do not fear any weed which is ac- in the neighborhood were badly spotted ceptable to live stock and who claim that that season. The following year seed saved from this crop was planted in a garden where, the previous season, beans had been badly affected with the podweed is shown by a recent inquiry spot. Again they gave a crop perfectly from a Muskegon county subscriber who free from the anthracnose, while the same variety grown from seed purchased in the fication stating that his land was well city market gave a diseased crop. In 1906 with it, and desiring to know another planting was made alongside of whether it would make a good feed for one from seed of the same variety purgoats, sheep or other animals. With re- chased in open market. Shortly after the gard to this plant, Dr. Beal, of M. A. C., beans were up the disease became quite says that it is probably the most prom- virulent in the plants grown from the ising of all the vetches for Michigan, and purchased seed, while none was to be that cattle and other stock will eat it if found in that grown from selected seed they can get no feed that they like bet- of the previous season. This clearly in-It is often the case that live stock dicated that the absence of the disease at first refuses to feed upon plants to the two preceding years had not been due which make very good forage when they to varietal resistance. It could be exlearn to like them. Sweet clover, for in- plained only on the basis that there had stance, is regarded as wholly a weed in been no disease in the seed. These and Michigan, but in many sections of the other experiments indicated—first, that south, it is utilized both as green forage the disease is carried over entirely in the seed; second, that the disease is not ordirecord in which animals have cultivated narily carried for any considerable disa taste for it in our own state. In such tance by natural agents, such as rain, cases it has proven a valuable forage and wind, etc., and third, that if perfectly clean seed is planted and ordinary precaution taken to prevent the introduction of omic value as a forage plant and a soil the disease on tools, or by workmen, a improver in Michigan. Where one has perfectly clean crop can be produced, even in seasons the most favorable to the development of the fungus.

Considering the manner in which the fungus finds its way into the seed, it seems evident that if no spots are to be found on the pods, none of the seed within will be diseased. That is to say, of gathering nitrogen from the air, and healthy pods contain healthy seed. The selections should be made at the time when the pods begin to shrivel but before they have become perfectly dry. It has been found that hand-picking and sorting of these pods is not nearly so difficult a problem as one might expect. The anthracnose cankers are so large and readily recognized that any person of ordinary intelligence and care may be depended upon to sort out the healthy pods. It is necessary, however, to examine both sides of every pod.

Washington, D. C. G. E. M.

MICHIGAN AT THE NATIONAL CORN EXPOSITION.

Michigan's representation at the National Corn Exposition held at Omaha, December 6-18, was a very creditable one. The entries in the Michigan class were not only well filled but there was a very good representation in exhibits of small grains entered in the classes open to the world and a fair proportion of these prizes were also pulled down by the Michigan exhibitors. There were 13 exhibitors from Michigan in these various classes who won a total of 36 premiums accounted for the report of Mr. O. J. Bemiss, who superintended the placing of the Michigan exhibit, as follows: Classes Open to Michigan Only.

Classes Open to Michigan Only.

Ten ears dent corn, and color—R. C. Rawling, Caledonia, Ist; A. W. Jewett, Mason, 2nd; G. J. Friedrich, Brooklyn, 3rd; Frederick Graff, Ionia, 5th.

Ten ears flint corn, any color—G. J. Friedrich, Ist; R. Hayward, Bay City, 2nd; A. W. Jewett, 3rd.

Best single ear dent corn, any color—Jessie W. Pickett, Caledonia, Ist; A. W. Jewett, 2nd; G. J. Friedrich, 3rd.

Best peck of wheat—A. W. Jewett, 2nd; G. J. Friedrich, 3rd.

Best peck of soy beans—G. D. Gross-man, 10th.

R. Hayward, 4th.

Best peck of timothy seed—A. W. Jewstation have shown that there are three

CEMENT DRAIN TILE.

With regard to cement tile, mentioned by Mr. Redmond in a recent article, will say that I see no reason why they would not be entirely practical. Few of them have ever been used. I know nothing about them from actual experience. I have seen these tile. They look good and I have no doubt they are good, and if a four-inch tile can be manufactured for \$10 per 1,000, as he states, I believe that I would lay them in preference to any other tile, because I have no doubt they will last in the ground or anywhere else just as long as the other tile. Up to this time, however, and even at the present time, there are no cement tile on the market. If a man can buy a tile machine and make his own tile, well and good, otherwise he must content himself with the kinds on the market.

COLON C. LILLIE.

FREE BOOK ABOUT CANCER.

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

Good News for Buyers of Manure
Spreaders.

We want to give all our readers a bit of good news. The American Harrow Company, of Detroit, Mich., (well known to farmers of America for over a quarter of a century), say, that in spite of all the great improvements in their manure spreaders, they were going to be able to make a cut of many dollars in the price of every size. The drop in price is due to improved factory facilities. They have turned out machines that are right, have sold direct at small profit over actual cost, and have followed a remarkably liberal policy in their dealings. For instance, they give credit to any farmer that a dealer would trust. Some of the big advantages of their improved spreader are these: More steel is used than in any other; cylinder or beater is all steel and so is rake, which also serves as end gate. It has the only direct chain drive used on a spreader—no gears to break or cause needless draft. The feed mechanism is wonderfully simple and effective, and six changes are possible without leaving seat or stopping horses. The roller bottom equipped with force feed is a splendid feature. Altogether, the manufacturers point out 19 improved features of importance, all found on no other spreader. We are sure everyone of our readers who considers the purchase of a manure spreader this season would be greatly interested in this company's new book and their cut prices, freight prepaid. Address a card to American Harrow Co., 1048 Hastings St., Detroit, Mich., and they will be pleased to send the book and complete price-list.

One Big Industry that Makes Its Business Grow.

One Big Industry that Makes Its Business Grow.

The Mayer Boot & Shoe Company, Milwaukee, the largest shoe establishment in the Northwest, has attained this enviable position in the trade thru the genuine merit of the goods which it places on the market. Because of the high standard of that, product, and the consequent favor with which Mayer shoes have been received by the buying public, the Mayer line of shoes have become universally and popularly known as "shoes of merit." The leading brands are "Honorbilt' fine shoes for men; "Leading Lady" fine shoes for women; "Yerma" Cushion shoes for both men and women (these are exceptionally fine shoes for people troubled with tender feet); the popular "Martha Washington" Comfort shoes, which have the largest sale of any shoes of their kind in the world, and the "Special Merit' School shoes (a strong and sturdy line of seamless school shoes that wear like iron). In addition to these brands, the Mayer Boot & Shoe Company make a complete line of every-day and Sunday shoes for all purposes. In fact, there is a Mayer shoe for every purpose and for every member of the family. The next pair of shoes or boots you buy get a "Mayer." They are the best and you can then prove it.

13

Page Fence Sales Boom.

Best peck of wheat—A. W. Jewett, 2nd;
G. J. Friedrich, 3rd.
Best peck of oats—A. W. Jewett, 1st;
R. Hayward, 2nd; G. D. Grossman, Constantine, 3rd.

Classes Open to the World.
Best peck of barley, and variety—R. Hayward, 3th; A. W. Jewett, 13th.
Best peck of rye—G. D. Grossman, 5th; A. W. Jewett, 11th.
Best peck of buckwheat, any variety—A. W. Jewett, 1nd.
Best peck of buckwheat, 2nd; G. D. Grossman, 8th;
R. Hayward, 10th.
Best peck of navy or pea beans—A. W. Jewett, 2nd.
Best peck of beans other than navy or Best peck of beans other than navy or Best peck of beans other than navy or Mich.

The Page Woven Wire Fence Company is doing a great business. The new plan of sending out actual samples showing Page wire and the Page construction, has attracted widespread interest, and we understand that this distribution of wire the fedition of the Page Fence atalog, which is now being malled, gives much information of value to the prospective purchaser of wire fence. Copies may be obtained free, together with a free sample of Page Wire. by addressing The Page Woven Wire Fence Co., Box 254, Adrian, Mich.

Please Send In Your Renewal Early.

One year 75 cents. Three years \$1.50. Five years \$2.00. A premium free with each subscription.

Markets.

Patten, who has made such phenomenal success in the speculative grain markets, in his contention as to the operation of grain trading in futures, justifies himself on the ground that he is a student of crops and of their demand. The farmer is primarily the first to sell and with the jingle: modern means at hand can be reasonably posted. No farmer ought to be without his agricultural journal. An examination of the mailing lists of the Michigan Farmer in Michigan will show a perspective of the general status of the farmers in their respective communities. It is among these farmers that an intelligent knowledge of the markets exist. Not only the actual prices but market rules and the necessity of knowing the effects of classifications. Live stock buyers have nitrogen, potassium, etc., that will enable a regular "Dun" and "Bradstreet" of the the farmer to intelligently approach the radius in which they buy. The non-reading farmer is simply at the mercy of any shrewd and not over scrupulous buyer. The farmer who is not posted in the ways of the market is not able to calculate as to whether it pays to finish or not. While no one can foretell the markets, certain calculations can be made with some degree of accuracy. The reading farmer is the easiest to buy from and the buyer simply calculates cost of handling and does not aim at an excessive profit. make up for lack of knowledge of the markets the non-reading farmer adopts a code of ethics which compels the buyer to always pay money on the stock to 'bind the bargain," as the buyer mentally marks such in his ratings as "tricky;" "will not deliver the goods unless cinched," is another rating. Swinchange human nature," yet the checks and counter checks that a knowledge of the markets gives of business makes for good citizenship.

Somewhat aside from the matter of markets, but nevertheless correlated. I have thot what the effect would be in a series of years if on Michigan farms there was posted, neatly but not excessively conspicuously, the farmer's name

the plow, drag and a crude cultivator, privacy belonging to the family and the now can master the mechanics of the adjustment of labor to the conditions mowing machine, binder, manure spread- of changed or changing farm life is imer and gang-plow. Likewise he can learn peratively demanded in the removal of the necessary technical expression of the farm by actual association, use and comparison.

A Chicago paper printed the following

"Some necessary things you will note Can never be learned by rule. You cannot learn to milk a goat In a correspondence school."

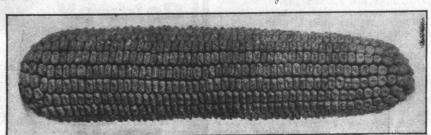
Likewise one cannot expect to learn all about farming from others' experience. Unlike the legal digests of cases and medical reports, there are so many variable factors and ensuing combinations that the farmer must discriminate. It is use of commercial fertilizers. In many tographs of the exhibits winning highest

THE BUSINESS SIDE OF FARMING. The farmer who several decades ago used by this habit of outdoor life. The proper the burden of hired help from the house. No one thing has done so much to emhitter the women of the farm home toward farm life as the hired help question. Familiarity breeds contempt on the part of both employer and employe. Adjustment to environment is the title to a chapter in evoltion, and it is the business of the farmer to do some adjusting in the matter of hired help--or else change the environment.

Shiawassee Co. JAS. N. McBRIDE.

THE CHAMPION EXHIBITS AT THE CORN SHOW.

The accompanying cuts are from pho-

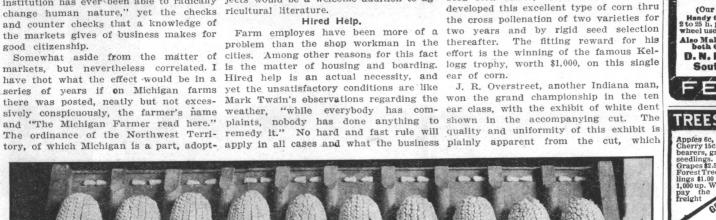


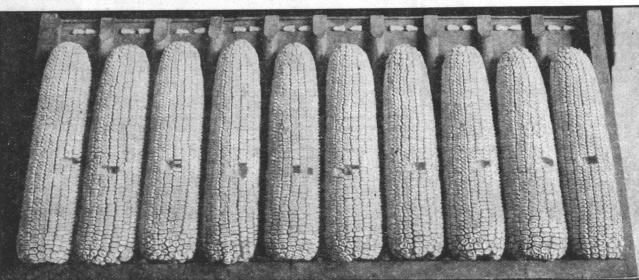
The Grand Champion Ear of Corn at International Corn Exposition.

ricultural literature.

Hired Help.

portions of the country the word phos- honors in the world class at the Interphate is used for all fertilizers and is as national Corn Exposition, at Omaha. The ambiguous as the Missourian's use of ear winning the grand championship is "gears" for harness. A bulletin on the an ear of yellow corn shown by Fred C. ton, the historian, says that "no human technical terms appertaining to farm sub- Palin, of Indiana. Mr. Palin is not a institution has ever been able to radically jects would be a welcome addition to ag- seed corn dealer, but a feeder who has developed this excellent type of corn thru





The Ten-Ear Exhibit Winning the Championship in its Class at the International Corn Exposition.

of education and should forever be enthe markets to the farmer, as well as a knowledge of many other subjects.

Knowledge of Farm Technical Terms.

as they are necesary terms in his vocafarmer must be familiar with and use the technical terms relating to his business such as protein, carbohydrates and ash, in feeds. In soil matters he should use and understand such terms as nitrogen, potassium, phosphorus, calcium silica, humus, etc. In matters of the dairy, butcasein, lactometer, etc., should

ality and knowledge being necesary to farmer will plan in one of two directions, of the ears. good government and the happiness of viz., to decrease his business to the operamankind, schools and the means of education shall forever be encouraged." Agsufficiently to take the hired help out of 70 ears in the world class, thus making ricultural journals are one of the means the household. Several decades ago the a clean sweep for Indiana in the sweeplatter proposition was not so easily ac- stakes prizes. couraged, for they give a knowledge of complished as now. The summer season we want to direct the special attention of our readers to the advertising of Atkins silver Steel Saws, which will appear from time to time in this paper. These for when the work season is ended he must shift for himself and, unfortunately, cannot fly southward with the wild geese ture of design and are well worth getting acquainted with. The makers, E. C. Atkins & Co., Inc., Indianapolis, Ind., have issued a booklet telling how to select saws and how to take care of them, This should be of interest to any farmer who realizes the value of first-class tool further complement. This book is sent free to those who write to E. C. Atkins & Co. In the mechanical professions the terms for when the work season is ended he belonging are used with a sort of profes- must shift for himself and, unfortunately, pride, and their use is the entree cannot fly southward with the wild geese to the line. The electrical engineers talks on the approach of winter. The problem of watts, amperes, voltage, transformers, is, then, to employ the help by the year, etc. The mining engineer discusses tun- and increase the farm operations by nels, adits, winzes, shafts, etc., with ease, dairying, stock feeding and other forms equipment. of winter employment. A neat cottage The time has come when the on the farm is a standing invitation for competent help. A ramshackle tenant house will get an employe of similar description. The western ranch house has men's quarters, usually a separate building, where the men sleep and live; but they board at the ranch dining table, where often a man cook is employed for the household as well. The western labe familiar terms to him. Language is borer provides his own blankets and bed given to express ideas and, as a business and more often rolls out from the alfalfa might choose as a Christmas gift was the expands in knowledge, additional terms stacks than elsewhere. Many a case of renewal of your subscription, and we had must be used to express that knowledge. incipient tuberculosis has been conquered but one choice we would choose that.

ed in 1787, declared that "religion, mor- farmer will do is merely suggestive. The shows the type of the kernels as well as

C. L. Krelin, still another Indiana man,

We want to direct the special attention equipment. This book is sent free to those who write to E. C. Atkins & Co. for it.

H. C. Cramton, Metamora, Mich., the well known breeder of Shropshires, writes: "Please discontinue my advertisement as I am nearly sold out. I have sold all my surplus stock except two, at prices ranging from \$12.50 to \$40.00, and the results from my "ad" in your paper have been very satisfactory, and I will have an ad, ready for you next fall."

Our Choice of a Christmas Clft.

If among the thousands of things we

















CEDAR POSTS for sale. Write for prices.
JESSE L. BARRETT, Missaukee, Mich.

FEEDERS' PROBLEMS.

Charcoal for Swine.

I would like a reply thru The Farmer as to whether slack from soft coal in unlimited quantities is beneficial to fattening hogs or otherwise?

Monroe Co. O. J. L.

Hogs that are kept under the more or less artificial conditions prevailing upon every farm, seem to crave substances which contain little nutriment and which would not seem to be the result of a healthy appetite. This craving is sometimes satisfied by the feeding of coal slack. While it is probable that this is not the best corrective of the kind which may be employed, yet, if their appetite for it is satisfied at the start there cannot be any danger in feeding them all of this material that they will consume.

Experienced hog feeders generally prefer charcoal to coal slack for this purpose, that made from corn cobs being considered best. This can easily be made by digging a hole in the ground three or four feet across at the top, and small at the bottom, and by starting a little fire in the bottom of this hole and adding the cobs gradually until the hole is filled, thus keeping the flame at the top then covering the hole with a sheet iron or other metal cover, and throwing a little dirt about the edges to keep out the air, the cobs will be converted into charcoal. A little salt and air-slacked lime added to this charcoal at the rate of 8 lbs of salt and 4 lbs. of lime to 6 or 8 bushels of charcoal makes an ideal mixture which can profitably be kept before the hogs at all times. This satisfies their craving for mineral substances. The lime in the mixture furnishes material for bone, and the charcoal prevents indigestion, where a heavy grain ration is being fed.

Coal slack will answer the same purpose fairly well, but either wood or ccal ashes will probably answer as well better for occasional use, in case the mixture above advised is that to invlve too much trouble.

A PLAN FOR PRESERVING VALU-ABLE INFORMATION.

The Michigan Farmer contains a department which may be made of considerable value to any farmer who keeps Each week there are prescriptions for diseases which are likely to be found useful at some time by owner. At different times the writer has found occasion to consult the veterinarian who edits this department, regarding some disease of his domestic animals, but as a rule it has been concerning something that has appeared in the Michigan Farmer only a short time before. The paper has been destroyed, however, and there has been no way of gaining the information except to describe the symptoms and ask for the prescription again. But in the meantime several days must elapse and the disease run its course while awaiting the reappearance of the prescription.

The thot has occurred, why not save these articles as they appear and so be in a measure, prepared for these emergencies. So for some time these prescriptions have been cut out and filed away for future use. The result is a collection of matter covering nearly all of the ordinary diseases that the farm stock is subject to and very many that are not so common. I expect soon to cut these apart and classify them so that in case of need I can readily refer to just what This is going to make a collection that will be more valuable than any medical work I know of.

There are different ways of arranging pear to suffer much damage this matter. It may be pasted in a scrap-book or may be kept in envelopes or in a portfolio for the purpos haps with some, the simplest and easiest manner of classifying would be to put the matter relating to each ordinary disease by itself, and make a general collection of that which concerns special diseases. The common diseases are not so many that such an arrangement would be found cumbersome. The plan I have in mind for myself is to classify the diseases. One division will cover diseases of the skin, another those of the nerves, another those of the digestive organs, still another of the respiratory organs, one will relate to diseases of the circulation and one to the kidneys and their related subjects, one to the reproductive organs and their functions, and so on.

This information will possess a special value for the ordinary farmer because the

diseases are described in the language of the ordinary farmer and not in the terms more familiar to specialists and the medical profession. The directions treatment, too, are clearly stated and easily comprehended Then again, the man who arranges matter like this for himself will be more familiar with it and will more readily refer to just what he wants than he would if he had to look it up in some work with which he is not especially acquainted.

A very safe thing to do, too, is to keep a medicine chest or closet containing a supply of a number of the simple remedies which are likely to be called for. A quart of raw linseed oil, a supply of both epsom and glauber salts, some of the remedies for colic found in these prescriptions, as well as some for difficulties of the bladder and kidneys may be found quite advantageous and timely in cases of emergency. And probably among not the least of the benefits gained will be the efficiency derived from the thot and obsrvation that one gives in the preparation of such material.

Allegan Co.

THE FEEDING VALUE OF CORN-STALKS.

In the November 27 issue of the Michigan Farmer a subscriber inquires as to the feeding value of cornstalks compared with timothy hay. As I happened to be interested in the same problem I made experiment to determine just how much cornstalks would be worth per ton, assuming that the available portion has practically the same feeding value as timothy hay. I purchased cornstalks this fall at three cents per bundle, delivered at my barn; which is considered a good price here. They were about six feet in length and averaged three bundles to the shock, which was cut eight hills square. If each hill contained three stalks, each bundle would consist of 64 stalks. I counted out this amount, dried them, tied into a bundle, weighed it and found that it weighed 22 lbs. I think that it is safe to say that bundles of this size would average 20 lbs. each. At this rate 100 bundles would make a ton, and cost \$3.00. The New Jersey experiment station found that in feeding cornstalks 30 per cent remained uneaten. This is nearly one-third and so we may say that one ton of cornstalks costing \$3.00 contains two-thirds of a ton of available food, which would make the real cost \$4.50 per ton. So one ton of timothy hay at \$12.00 would buy over two and onehalf tons of cornstalks, of equal feeding These conclusions are based on full stand of good sized corn, not frozen cut into shocks of 64 hills, and tied three bundles to the shock. Many, and I presume most, farmers make four bundles to the shock, and if these were sold at 21/2c or 3c each it would bring the price a little higher per ton. But they would still be much cheaper than timothy hay. If the shocks were made into four bundles, each would weigh 15 lbs. and it would take one hundred and thirty-three and one-third bundles to weigh a ton. At 21/2c per bundle a ton would cost about \$5.00 and at 3e, \$6.00 for the available food.

Cornstalks are a better food than timothy hay for cattle; they relish them fully well-and I believe much better-and will thrive and maintain their liking for them as an exclusive diet for a longer period than any other dry food that I know of, for winter feeding. Horses like them, too, but it is claimed that they cause worms in horses, and some will not feed them on that account.

I have no way of knowing how freezing affects the cornstalks. Tho if cut immediately after freezing they do not ap-

P. G. BACHELDER. Wexford Co.

GREAT HARNESS HORSE DIES.

"Directum, 2:05¼, champion trotting stallion for seven years and one of the greatest harness horses the world has ever known, is dead at the International Stock farm, Savage, Minn. In some unknown manner the horse sustained aslight scratch over the groin, blood poison set in and after two days of suffering the famous animal died.

"At four years of age Directum set a mark of 2:0514 in a race, getting three records by the performance. It was the fastest mile ever trotted by a four-year-old stallion, the fastest heat by a four-year-old in a race and the fastest third heat ever trotted.

"Directum was 20 years all a set the fastest mile the state of the set of the set

heat ever trotted.

"Directum was 20 years old and started in 29 races, winning 20 first places, one second and one third, and was unplaced seven times. In the latter instances it was when he started against his record. His total winnings during his racing days footed up to \$40,000, and as a sire he has brot thousands of dollars to his owner.





Get Galloway's Biggest and Best FREE GASOLINE BOOK

Write today for my beautiful new 50-page Engine Book in four plors, nothing like it ever printed before, full of valuable information, wing how I make them and how you can make more money with a

Wm. Galloway, Pres., Wm. Galloway Co. 845 Galloway Station, Waterloo, Iowa



One man can make from 300 to 400 perfect cement tile a day with an IDEAL CEMENT TILE MACHINE

at one half the cost of other tile, including labor. You can drain your farm more cheaply with cement tile than with the ordinary clay tile and they are better.

The Ideal Cement Tile Machine is so simple that a boy can operate it. The only tile machine that does its own tamping. Nothing complicated, nothing to get out of order. It is both a power and hand machine. One machine makes three sizes—three, four and six inch. Our Water Proof Flexible Casing holds the tile in perfect shape until the cement is set.

Ien Days Free Irial You can try one of these money saving machines are with entire satisfaction and prove every claim, return at our expense. The price of the machine will be saved in making the tile for draining a small field. Supply your neighbor's needs at a profit to yourself and improve the value of your own farm a hundred per cent. Can you afford to be without it? A postal will bring you complete description of the machine and valuable information concerning cement tile.

IDEAL CEMENT TILE MACHINE CO., St. Johns, Mich.

FEEDING BEET-TOPS.

Horse Owners Should Use **GOMBAULT'S** CAUSTIC BALSAM

The Great French Veterinary Remedy. A SAFE, SPEEDY & POSITIVE CURE.



SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce any scar or blemish. The safest best Blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses

matism, Sprains, Sore Throat, etc., its invaluable.

WE GUARANTEE that one tablespoonful of Caustic Baisam will produce more actual results than a whole bottle of any liniment or spavin cure mixture ever made. Every bottle of Caustic Baisam sold warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

ABSORBINE

Will reduce inflamed, strained, swollen Tendons, Ligaments, Muscles or Bruises, Cure the Lameness and Stop pain from a Splint, Side Bone or Bone Spavin No blister, no hair gone. Horse can be blister, no hair gone. Horse can be ed. Horse Book 2 D free. \$2.00 a

bottle at dealers or deivered.

ABSORBINE JR., for mankind, \$1.
Reduces Strained Torn Ligaments, Enlarged glands, veins or muscles—heals ulcers—allays pain. Book Free.

W. F. YÖUNG, P.D.F., 268 Temple St., Springfield, Mass.

he E. W. Ross Co. (Est. 1850)







DUNHAMS' PERCHERONS





Prairie Stock Farm

The Leading Horse Importers in the State Of Michigan, We have opened the eyes of in the State Of Michigan, we have opened the eyes of all Michigan horsemen by our large extra properties. The state of the Metz Horse Importing Co.,

Some time ago I wrote an article for The Farmer, stating that feeding beettops had caused heavy loss in my stock, especially among the sheep. Since then I have been investigating further and believe this to be the cause of the unusually heavy losses among many farmers who have been feeding beet-tops.

Mr. Lillie, in his reply to my previous article, evidently believed that only "excessive feeding of beet-tops would cause injury." As, "too much of any kind of feed would be injurious."

Altho I hardly think that a fair statement, it would be true to a limited extent, under certain conditions. I infer that he thot from my article, where I "that I gave them what they wantsaid, ed," that they were given free access to the beet tops, as I have known many farmers to do, turning stock right into the field to help themselves.

alic acid. The heaps are covered with earth until required for feeding.'

When we remember that Europe has grown beets for so many years and that every product of the farm is carefully preserved and made the most of, and that so much trouble is incurred in saving the beet-tops with the added labor and expense of using the lime, a process deemed necessary by long experience, is certainly worthy our investigation.

I asked Doctor Marshall, of M. A. C.

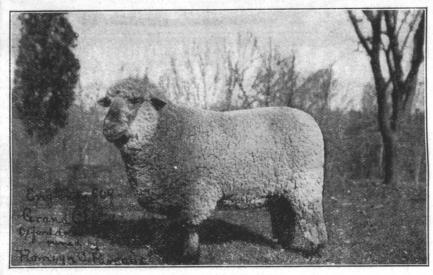
concerning the matter and he said there had been many losses of sheep reported but they had not taken up the matter in the feeding station here as Iowa College was making extensive experiments feeding beet to sheep and other stock.

I wrote the Iowa station in regard to the matter, stating practically what I have said here about my experience, and they replied that their bulletin was not yet printed, but Prof. H. R. Killdee of the Animal Husbandry Department, wrote me the following letter:

This was not true in my case. During the first four years I raised beets and fed the beet-tops, I put them in a silo and last as a succulent food for my stock all winter. The largest feeding during this time would be about a beetfork full twice a day to a cow, which was certainly a very limited quantity.

During this time I fed a bunch of steers for market, giving them a ration of corn, clover hay and beet-tops, with the result that after a winter's feeding I was uable to put them on the market.

I also lost two cows from then, unknown causes. And a bunch of eight-



feeding I gave stock was at this time cow, and about half as much to the sheep, (counting ten sheep for a cow). mineral matter than the beet.

grade heifers I was unable to grow into good dairy cows and sold them to the butcher. They simply did not thrive except in the summer when on pasture.

My loss in sheep was fully 20 per cent during this time.

The fall of 1908 I put up corn silage that I did not wish to open until cold weather so fed beet-tops from the middle of October until into December. The largest feeding I gave stock was at this time.

According to have the gall stones at the conclusion of the test, while the lambs getting dry feed, with no roots, were found to be perfectly healthy. So you see that it is need to feed sugar a very dangerous practice to feed sugar beets or mangels to sheep, especially to the rams. We have found less trouble in case of the ewes, but have found that there is some danger in the case of bulls at the experiment station died from the formation of stones in the bladder, due apparently to the feeding of roots."

According to have the gall stones at the conclusion of the test, while the lambs getting dry feed, with no roots, were found to be perfectly healthy. So you see that it is nearly a perfectly healthy. So you see that it is need to feed sugar beets or mangels to sheep, especially to the rams. We have found less trouble in case of the ewes, but have found that there is some danger in the case of bulls at the experiment station died from the formation of stones in the bladder, due apparently to the feeding of roots."

According to have found less trouble the rams. We have found less trouble in case of the ewes, but have found that there is some danger in the case of bulls at the experiment station died from the formation of stones in the bladder, due apparently to the feeding of roots."

According to the following table from when I fed 30 to 40 lbs, per day to a the Ohio Experiment Station beet-tops contain a very much higher per cent of

Apple Gooseberry Strawberry Orange Potato Sugar beet Sugar beet leaves. Furnip Turnip leaves	$148.8 \\ 80.1$	Potas- sium 4.27 10.87 5.94 9.31 18.89 16.89 32.44 30.19 22.63	So-dium 2.79 2.49 7.18 3.08 .83 2.54 15.18 5.85 8.16	Cal- cium .42 2.96 3.45 5.40 .70 1.67 21.48 6.07 27.39	Mag- nesium .76 1.20 1.50 1.13 1.82 10.18 1.79 2.78	Iron .14 1.08 1.40 .26 .29 .31 .56 .45	Phos- phorus .86 2.91 2.05 1.49 2.79 2.04 3.09 4.44 3.71	Sul- phur .35 .80 .43 .46 .99 .64 3.16 3.59 4.38
			in one t					Cul

This certainly could not be called excessive, as it is less than corn silage and in my sheep began to pick up, but none of comparison with beet-pulp as given in them did as well as they should this sumexperiments at Cornell University, where mer, and many of the lambs were small

among the sheep, and digestive troubles Ingham Co. And as I stated pre-COWS viously, excessive urination and thirst of the animals, and the deposits of lime in the kidney and bladder ducts in the animals examined by Doctor Geltner and myself forced me to believe that beet-tops must cause a great strain on the kidneys

carrying off so much mineral matter. In "Feed and Feeding," W. A. Henry, Dean of Agriculture, Wisconsin, makes a very clear distinction between beetspulp—and beet-tops. In speaking of the beet-tops he says: "Because of the ox-alic acid in the leaves they can be fed pulp—and beet-tops. In speaking of the beet-tops he says: "Because of the oxalic acid in the leaves they can be fed to stock only in limited quantities without injurious effects." And he says further, in Europe beet leaves are builded up in layers and lime sprinkled over each layer for the purpose of neutralizing the ox-

When turned out to pasture last spring they fed 100 to 125 lbs. per day and con-sidered 88 lbs. a limited quantity. This fall I sold the whole flock to the butcher and bot a new bunch This year my loss was over 40 per cent which will not be fed beet-tops.

F. M. STOCKMAN.

Good for Man and Beast.

Fort Wayne, Ind., Feb. 13, '09.
DR. J. B. KENDALL CO.,
Sirs:—Please send me your Treatise on the Horse. Have used your Spavin Cure for treatment with my horses, also for Sprains, etc., on myself, and have always had the very best results from its use. Yours respectfully,
D. W. Bitner, 2916 Calhoun St.

Satisfactory Advertising Results.

Tuberculosis

Plenty of fresh air, moderate exercise, sleeping in the open air under cover, and a nourishing diet, are all good and helpful, but the most important of all is

Scott's Emulsion

It is the recognized treatment and prescribed by Physicians all over the world for this dread disease. It is the ideal food-medicine to heal the lungs and build up the wasting body.

FOR SALE BY ALL DRUGGISTS

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



New Autostyle Buggy—Twin Auto-Belgian type seat, rith large round corners and beautiful curves. Handsome, tylish, comfortable. All wrought gear and best second growth elokory gear woods. Axles—arch, high arch, or very high arch, se desired. Soft, casy riding springs, oil tempered. 2,500-mile ong distance, dust-proof axles. Our A-grade select hickory may be a season of the seaso

Beware of Mail Order Evil

Your buggy is an investment of good hard dollars. You can't afford to take chances on a vehicle you never saw. That's just what you do when you sign your name to a letter agreeing to receive a vehicle direct from the catalogue house.

The Reliable Michigan Line

Quality for quality, your Reliable Mich Quality for quality, your Reliable Michigan dealer will sell you a vehicle as low or lower than you can get any vehicle by mail. You don't have any freight to pay when you buy of the Reliable Michigan dealer.

Your Reliable Michigan dealer—a man you know—is there all the time to come back to, in case you are ever dissatisfied. We authorize him to make good any defect of workmanship or material not only in one year but any time after your purchase. Write us and we will send you our new Catalog "A," showing our newest types and patterns, the handsomest you ever saw. 256 models to

choose from.

MICHIGAN BUGGY CO., 53 Office Bldg., Kalamazoo, Mich.

We also manufacture the famous Holdfast Storm
and Stable Blankets, in which the Reliable Michigan
standard of quality is rigidly maintained.

(2)



15000 Bu, EAR CORN Ground very fine with one set of Rollers and Concaves used in the

"BULL DOG" Grinds all grain perfectly fine and is very light running, because all work is done only 1½ inches from center of shafts. Sizes 2 to 50 h. p. Get our Catalog.

CROWN POINT MFG. CO.
133 E. ROAD, CROWN POINT, IND

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

SIX DAYS' TREATMENT FREE to new customers, if you send 4c to pay postage. If your druggist can't supply you

Send \$1 for 30 Days' Treatment

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

The All-Around Farm Mill.

Our Buhr Stone Mill grinds more and better stock feed than any mere feed grinder. Also grinds highest grade cornmeal and table flours. s little power and no experience. ine old fashioned mill stones, not iron grinders, Easily kept good as new. Widely sold for 40 years; breakdowns or repairs un-heard of. Low first cost. Fully guaran-teed. Write for testimonials from your state and our
"Book on Mills."

Nordyke & Marmon Co. (Estab. 1851) 1264 Kentucky Av., Indianapolis, Ind. America's Leading Flour Mill Builders.

HARNESS AT WHOLESALE PRICES



Direct from our shops to you. FREIGHT PAID We Can Save You Money Why pay the long price?
Write today for a copy of our Harness Bargain Catalog.

JOE'S HONEST HARNESS CO., Caro, Michigan.

Death to Heaves Guaranteed



Rosebud Herd **AUCTION SALE** DUROC JERSEY CILTS

13 sired by H. Ge King 41917 and from dams of the best breeding, and bred to H. Ge Chief 22745, and 12 sired by him and bred to S. Be Col. 27071, the by Chief of Col. 22959; dam Tye Belle 37324. Here is a bunch of gilts that is worth looking after. Write for cat. H. G. KEESLER, Cassopolis, Mich.

KENTUCKY MAMMOTH JACKS.

Registered Mammoth Jacks, Saddle Horses, Tratting and pacing stallions. 260 head to select from. Catalogues are now ready. J. F. COOK & Co., Lexington, Ky.

O'NE good, young registered Percheron mare (in foal) and one stallion coming one year old.
M. A. BRAY, Okemos, (Ingham Co.) Mich.

PERCHERON STALLIONS. One 4 and one 2 years, record-os, reasonable prices. T. M. Southworth & Son, R. 13, Allen, Mich.

BREEDERS' DIRECTORY.

CATTLE

ABERDEEN-ANGUS.

Herd headed by UNDULATA BLACKBIRD 1TO \$3836, one of the best sons of PRINCE ITO 50006, and Grand Champion Bull at the Detroit and Grand Rapids Fairs of 1907, 1908 and 1909. Herd consists of Ericas, Blackbirds, Prides, etc.

WOODCOTE STOCK FARM. Ionia, Mich.

A BERDEEN-ANGUS and POLLED DURHAM BULL Bargains. Choice registered Show Bulls. Blue-blooded pedigrees. No reasonable offer refused. The Clover Blossom Farm, Port Austin, Mich.

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

PEGISTERED GUERNSEY COW due to freshen Dec. 29th, 1999. Also Chester White sows and gitts bred for March and April farrowing, for sale. Will W. FISHER, Watervilet, Mich.

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

LONG BEACH FARM. 40 HOLSTEINS All Registered.

4 Young Bulls-One \$30; three at \$45; one at \$100, F. S. KENFIELD, Augusta, (Kalamazoo Co.) Mich.

FOR SALE bino Johanna 61542, born Oct. 22, 1907. Sire—Segis Korndyke Johanna De. Kol 34866, with seven A. R. O, daughters—one with a record of 21 lbs, butter in 7 days at 3 years old. Dam—Albino 3d Clothide Princess B 60310, A. R. O, record of 24.98—lbs, butter in 7 days and over 100 lbs. in 30 days—siso a record of 15.67 lbs. butter in 7 days 8 months after calving. This bull is sure, active, kind and seentle, good size and well built; has won 1st premium every time he has been shown. Write me. FRANK N. DURFEE. R. F. D. No. 4, Howell, Mich.

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, Onto, Michigan and West Michigan State Fairs, 1998. Prices 320 to 385 each.

GREGORY & BORDEN, D No. 2, Howell, Mich.

HOLSTEINS

Butterboy Ella De Kol No. 49509 is for Sale. Also three extra good bull calves, 5 yearlifts helfers, 8 good young cows. Must be sold before winter. L. E. CONNELL, Fayette, Ohio.

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

BOARDMAN STOCK FARM, Holstein Cattle. JACKSON, MICH.

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

TOP NOTCH HOLSTEINS. Top Notch registered young Holstein Bulls combining in themselves the blood of cows which now hold and have in the past held World's Records for milk and butter-fat at fair prices.

McPHERSON FARMS CO., Howell, Mich.

HOLSTEIN FRIESIANS headed by Canary B. Rock cockerels. W. B. JONES, Oak Grove, Mich.

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

China hogs. R. E. ALLEN, Paw Paw, Mich.

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

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

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

Northern Grown Jerseys. ROYCROFT FARM, Sidnaw, Mich.

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

Pure St. Lambert JERSEYS and some nearly pure. CLARENCE BRISTOL, Fenton, Mich. R. F.D.No. 5,

THE MICHIGAN FARMER.

This is the Important Point

About Fertilizers-Do they Pay?

If fertilizers result in bigger and better crops, more money out of your land, then you want to use them. You don't care whether or not they are absolutely "necessary."

So don't let anyone side-step this important point, when you're talking about fertilizers at the Farmer's Institute, or anywhere else. What you want to find out about, is the greater profit.

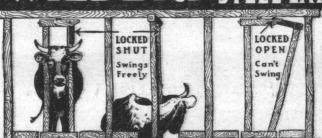
> Your dealer can supply you with Potash. We will sell it to him.

> > Write to Sales Office:

GERMAN KALI WORKS

Continental Building, Baltimore, Md.

WILDER'S SELF ADJUSTING STANCHION



Open or Shut—It's Always Locked

Stays where you put it—and easily "put" without taking off your gloves or mittens. Only smooth, polished hardwood touches the animal—no metal, no splinters—yet the steel latch, the blind bolts and the solid construction make it the STRONGEST. SAFEST and MOST DURABLE Stanchion at any price. The most convenient fastening for you—the most comfortable for your cows. Keeps your stable clean, saves feed, saves your time and means SOLID SATISFACTION all year round—summer and winter. Money back it you say so.

WRITE TODAY for catalog and factory price to you. WILDER STRONG IMPLEMENT CO. Box 13. Monroe Mich.

NICORN DAIRY RATION The acknowledged beneat nive and profiled the land of the honest, pure and practical ration—has increased the profits of hundreds of "every day dairymen"—it will increase yours. The most economical feed. Write us for particulars and official records. CHAPIN & CO., Inc., Milwaukee, Wis.

Register of Merit Jerseys. Official yearly records.

T. F. MARSTON, Bay City, Michigan.

Bull calf dropped Dec, 12, 09 solid favor. Dam s prize-winner at the Nati. Dairy Show is No. 149 Reg. of Mortt, 9438 lbs. milk, 536 lbs. fat equal to 631 lbs. butter, 351 days. Maternal 608 lbs. butter I year. Sire Grand Champlon, March 26 days. Grand Champlon, March 26 days. Sire Grand Champlon, March 26 days. The costed Frince. Book grand cires in the E. of E. with 25 days.



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

COLON C. LILLIE, Coopersville, Mich.

JERSEY BULL CALF born Mar. 13, '09, 2nd ca''' of a heifer that gave 8224 lbs. of milk in 1 year; first calf as 2-year-old, fine individual. The MURRAY-WATERMAN Co., R. 6, Ann Arbor, Mich.

DAIRYBRED Shorthorn Bull Calves For Sale-Also a few helfers, good notes as good as cash (Citizens Telephone). J. B. Hummel, Mason, Mich.

SHEEP.

PARSONS OXFORDDOWNS
Hornless delalue, Black tops.
ROME YN C, PARSONS. Grand Ledge, Mich.

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

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

OXFORD DOWN EWES B. F. MILLER, Flint, Michigan,

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

FOR SALE-Registered Ramboulliets. 30 ewes and 42 ram lambs, THOS. FLETCHER & SON, Chelsea, Mich.

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

KOPE-KON FARM, Kinderhook, Mich., offers year-ewes and bucks at prices you can afford to pay.

10 (Reg.) RAMBOUILLET ewes and 1 ram cheap. A. A. WILSON, Grand Rapids, Mich.

SHROPSHIRES—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.

SHROPSHIRES CHOICE RAMS AND EWES.

SHROPSHIRE HALL STOCK FARM.

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

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

HOGS.

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

LARGE ENGLISH BERKSHIRES.

Have a fine lot of spring pigs, both sexes. The type for profitable pork production. Vigorous and strong and of best blood lines. Satisfaction guaranteed. F. A. BYWATER, Memphis, Mich.

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

tra choice individuals & the best breeding on earth Also 2 very fine young boars. C. D. Woodbury, Lansing, Mich

BERKSHIRES of the most fash 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. PATTULIO, Deckerville, Michigan.

A DAMS BROS. Improved Chester Whites, Litch-field, Mich., won 125 premiums in '09. Booking orders for bred saws; boars ready for service. Buff Rock, W. Orpington, W. Leghorn cock' is. Shorthorn-bulls ready for service

IMPROVED CHESTERS. Choice young Boars ready open. 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, plenly of growth and quality. Boars ready for service. Prices right. Write J. C. Barney, Coldwater, Mich.

DUROC JERSEYS CAREY U. EDMONDS, Hastings, Mich.

Registered Hampshire PIGS for Sale.

\$25 a plece.

JOHN GRAHAM, Byron, Mich.

O. I. C. SWINE-Grandson of Jackson Chief, the World's Champion and Grand Champion O. I. C. Boar, heads my herd, he is also a grandson of Tutesy, the World's Champion sow. I am sold out of spring and June farrow of both sexes.

A. J. GORDEN, R. F. D. No. 2. Dorr, Mich.

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

O. I. C'S-50 HEAD of Fine Spring 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.

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. CONBAD & SON, B. 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.

POLAND-CHINAS -Perfection strain. Choice 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. SOWS Bred for spring WOOD & SONS, Saline, Mich.

P. C. BOARS of great quality and of the best breeding. Satis-faction guaranteed. R. W. MILLS, Saline, Mich.

LARGE IMPROVED YORKSHIRES—September far-sex, \$12.00 each. Satisfaction guaranteed. If you want the most economical feeders possible, breed your sows to a Yorkshire boar. Yorkshires are sure to be the most popular breed of the future. COLON C. LILLIE, Coopersville, Mich.

LIVE STOCK NOTES.

The hog "crop" is without doubt the smallest in years, but it is generally reported that young hogs are unusually healthy, extremely little sickness prevailing in breeding districts. Stock hogs were never before so scarce, and farmers re-fuse to part with their brood sows as a rule, altho more are coming on the market than might be expected at such a ket than might be expected at such a time. Were it not for the extraordinary shortage of hogs thruout the country, it would be in the natural order of events to expect the usual marketing at this time of brood sows, but selling them now is bad business judgment, as every prolific sow will be needed for assuring a fair pig "crop" for another year. The well tested old sows that have not outlived their usefulness should be retained, and all the promising young sows will be needed and should not be sold. It will pay the farmer to give his sows the best of care and feed. The country is growing rapidly in population, while the production of hog meats has been undergoing a lamentable falling off in recent years. No better means for making money on the farm than by raising hogs is known at the present time.

The extraordinary scarcity of lard tends to make the demand for fat, heavy lard hogs unusually strong in Chicago and other leading markets of the country, and such consignments continue to sell at a handsome premium over the lighter weights. Recent sales have been made at the highest prices of the year, and the market has been the best ever witnessed in December.

Thos. Studley, of Burean Co., Ill., believes in raising hogs these times with plenty of weight, and a short time ago he sold some hogs in the Chicago market that averaged 410 lbs. Every additional pound counts now.

Many farmers who had been planning to stock up with stocker and feeder cattle late this year have been greatly disappointed in their hope that they would be able to secure plenty of suitable cattle at reduced prices in the Chicago and other western markets. Within a short time an unexpected demand has been seen, numerous Michigan and Ohio farmers who failed to obtain lambs to fatten deciding to buy feeder cattle for short feed, while supplies have fallen off, causing a high range of prices.

The great stock show has been a great success in instructing stockmen how to successfully mature stock in from eighteen to thirty months.

Visitors to the Were it not for the extraordinary shortage of hogs thruout the country,

statements, both being lew in number and in lively demand.

The Chicago stocks of provisions on December 1, amounted to only 43,170,725 lbs., compared with 38,170,185 lbs. a month earlier and 83,574,161 lbs. a year ago. In all the principal western markets stocks on the first day of this month aggregated 82,848,000 lbs., being 94,564,000 lbs. less than a year earlier. During November, 1908, such stocks underwent an increase of 46,558,000 lbs., but during November this year the increase was only 3,365,000 lbs. The packers are unable to make any considerable headway in increasing their stocks of provisions with such greatly reduced marketings of hogs and a big call for fresh meats.

for fresh meats

reduced marketings of hogs and a big call for fresh meats.

Compound lard has been selling about four cents a pound below the price asked for pure lard, and it is stated that very few Chicago bakers now use the pure kind, while the big bakeries are buying compound lard by the car, owing to its relative cheapness. This substitution may be expected to continue as long as lard sells at present high prices.

A. A. Neale, of Montrose, Col., the famous Shorthorn breeder, who carried off the honors for feeder cattle in the recent International Live Stock Exposition at Chicago, describing his methods of handling his cattle, says: 'I cull my herd very closely each year, keeping only the best. The cattle are run in fenced pastures and during the winter are roughed thru on alfalfa. I usually allow twelve acres to each animal during the summer pasturing, which lasts about eight months of the year with us. It is profitable to handle pure-bred cattle in the west under fenced pastures. This year I sold yearing bulls as high as \$65 and bull calves at \$50."

elling at the highest prices seen in 27 ears, owing to their scarcity, and \$9 hogs re predicted.

Fat sheep, yearlings

are predicted.
Fat sheep, yearlings and lambs sold recently in the Chicago market at the highest prices recorded since last summer, there being a pressing local demand for fat mutton flocks for the Christmas holi-

days.

The grand champion hogs from the International Live Stock Exposition, bot at \$9 per 100 lbs., yielded \$2 per cent with heads on. The champion wethers dressed of steers bot by Armour & Co., at \$15 per 100 lbs. dressed 66.2 per cent beef. That percentage was exceptionally high and compared to a yield of 65.5 per cent from the highest dressing cattle bot by Chicago packers out of last year's show.

Exporters are in the Chicago cattle market once more, and recent sales for shipment to England show good gains, the purchases being mainly for the Christmas holiday trade. Prices are too high for the usual British market trade.

The week's export of hog products from

The week's export of hog products from this country are only 14,444,000 lbs., compared with 24,666,000 lbs. a year ago. The falling off is due to the almost unprecedentedly high prices of pork, bacon and

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.

Bunch on Upper Jaw.—I have a 4-year-old cow that has a lump on upper jaw about the size of a man's hand, caused by a blow. M. C. M., Saline, Mich.—Apply tincture iodine to bunch daily; also give 1 dr. iodide potassium in feed night

give 1 dr. iodide potassium in recument and morning.

Pin Worms.—My horse is troubled with what I suppose are pin worms, small white worms from one to two inches long and pointed at both ends. The anus is frequently covered with a dry, brown sort of powder. M. H., South Haven, Mich.—Drop 4 ozs. quassia chips into 2 qts. of warm water and after letting it remain in the water one hour wash out bowel with the liquid. These applications should be made two or three times a week for two weeks.

with the liquid. These applications should be made two or three times a week for two weeks.

Malignant Tumor on Hock Joint.—I have a 5-year-old horse that has a bunch on hock joint that cracks open every now and then and when healed does not remain so. He is not lame but I would like to have him cured. F. L. M., West Branch, Mich.—I am inclined to believe that the bunch on hock is malignant and will be benefited by a little burning with caustic or a red-hot iron. Use the iron or nitrate silver pencil, lunar caustic.

Hide-bound.—I have an old horse that I am very anxious to fatten. He does little else than eat. He is fed two quarts of shelled corn and one quart of bran twice a day, with plenty of corn fodder. I have given him tobacco, sugar and linseed meal, but he shows no improvement. G. H. L., Hart, Mich.—First of all you should ascertain if his teeth are in a proper condition. You will perhaps find that the sharp edges should be filed off the outside of upper grinder teeth and the inside of lower rows.

Hard, Dry Hoofs.—My horse's feet are inclined to harden when standing on a plank floor; would pack with clay, but fear thrush. Would you advise me to apply Neat's foot oil and bran? A. G., Union City, Mich.—You will obtain fairly good results by using linolin, but, of course, the horse should be made daily.

Diabetes.—Have a horse 14 years old that passes water too often; besides, his water is of a high color at times; it seems as tho he urinated with difficulty. What should I do for him? B. C., Freeland, Mich.—Give your horse 1 dr. iodide potassium and 2 drs. powdered sulfate iron at a dose in feed three times a day until he shows decided improvement, then give the medicine twice a day until a recovery takes place. Be sure and supply him with a good quality of food.

Weakness.—I have a large horse that has been gradually losing flesh for the past three months; at last he became so weak that he was unable to get up without help. This horse passes considerable blood with urine. However, he does not appear to

feed two or three times a day until he recovers.

Diseased Molar Tooth.—I have a mare that I bot last March which has had a discharge from one nostril and has run down in flesh until she is quite thin. I imagine she improved somewhat during the summer while on grass, but since winter came on she is stabled and is as bad as ever. How had I better treat her? A. H., Kewadin, Mich.—I am inclined to believe that the discharge is caused by a diseased grinder tooth and after the tooth is extracted the discharge will cease and the mare improve. It must interfere with her masticating food. Give ½ dr. ground nux vomica, ½ oz. ground gentian, ½ oz. ground ginger and 2 drs. powdered buchu at a dose in feed three times a day.

gentian, ½ oz. ground ginger and 2 drs. powdered buchu at a dose in feed three times a day.

Thin Milch Cow.—I have a 6-year-old cow that has always been thin and low in flesh but since milking she is altogether too thin. What had I better give her to build her up? G. F., St. John's, Mich.—It is just as natural for some animals to remain thin as it is for others to lay on flesh and I believe your cow is one of the good milkers that should be excused for looking bad and keeping thin. This is on account of her giving milk in return for the food which she consumes. Now, in order to build her up increase her food supply, giving more starchy and fat producing food. If this fails then she must remain thin. I take it that your cow is perfectly healthy for you do not mention her having any symptoms of disease. Give her 1 oz. ground ginger, 1 oz. ground gentian and 1 oz. bicarbonate soda at a dose in feed night and morning.

Abortion.—I would like to know how to treat a mare that foaled six weeks too early. I am unable to state what caused it. Can anything be done for the mare that will prevent her from having a miscarriage again? Is there such a thing as a mare being too fat? I would also like to know how to treat a mare that in clined to bite herself. However, I might say that she seems to be in perfect condition. A. S., Mt. Clemens, Mich.—If your mare suffers from infectious abortion and did not meet with any accident then you will have to treat her thoroly for some time, or else she may have a (Continued on page 563).

(Continued on page 563).

This Ad Saves Dealer, Jobber, Supply Men, Catalog-House Profits

Nobody Can Beat It 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

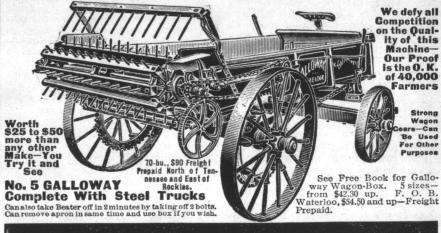
mous quantity. Galloway No. 5 Complete Spreader -BY FARMERS OF AMERICA

Get my Clincher Proposition for 1910 with proof—lowest price ever made on a first-class spreader. No. 5, complete with steel trucks, 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. Stee, 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





The Climax of Manure-Spreader Value-\$QQ.50 Freight Paid

Value boosted—price dropped—on the spreader that has led them all in spreader that has led them all in quality for 17 years—that's your opportunity this season. We jump years ahead again, with 19 improved features—all found on no other spreader made. Yet, with increased facilities and the largest output in the business, we slash prices while increasing values. Others have always imitated the old famous "American" as closely as they dare—even imitated the name of our machines—that's why we now call it "Detroit-American." But don't be blinded by claims—get the books and compare. Note our offers—

30 Days' Trial—Cash or Credit

Get our proposition before you buy—see why others are getting excited, making extravagant promises and harping on price, with little to say about construction. But do they even beat these prices with their makeshifts? We deliver to you, freight prepaid, in Michigan, \$3.50; in Indiana or Ohio, \$85.00; in Illinois, \$86.50; in Wisconsin, Iowa, Minnesota or Missouri, \$90.00; and these figures are for a spreader that is better than any one thought a spreader could be—the improved—

Detroit-American

Made in all sizes. More steel used than in any other spreader; cylinder all steel; steel rake and end gate; simplest feed—6 changes made from seat; the only direct chain drive—no gears; lightest in draft—all together 19 special features.

Free Books—The best published on value of manure; how to spread, etc., and how to buy at the right prices on the right terms. Shows and prices the original Tongueless Disc and the finest line of Cultivators too. Send coupon or postal today.

AMERICAN HARROW CO.

1048 Hastings Street Detroit, Mich.



840

FRESH IMPORTATION ARRIVED SEPT 8, 1909. **BLACK PERCHERONS**

ENGLISH HACKNEYS

These Horses are all Prize-Winners

from the leading shows in Europe; ages from two to four years old; terms to suit the purchaser. Byron is located on the Toledo & Ann Arbor R. R., 44 miles north of Ann Arbor and seven miles south of Durand, immediate

connections off the Grand Trunk R. R. Every horse guaranteed, and all at low prices. CALKINS & AUGSBURY Props., BYRON, MICH.

When writing to Advertisers mention the Michigan Farmer.

ECONOMY IN BUYING FEEDS.

To make poultry raising pay, good judgment and economy must be exercised in every phase of the business. However, to the man with a big outside income, who has bot a farm for pastime, it matters little whether his flock of poultry pays a profit or not. He may indulge in the luxury of building an elaborate house for his poultry, with all the modern conveniences, and he may feed all the high-toned and high-priced feed mixtures that are to be found on the market. His poultry may do well or not, and it matters little whether he is producing market meat and eggs at a profit or is losing all the time.

The remainder of us, however, go into the poultry business to make money, and if the balance is the wrong way we soon quit. That competition is strong, as in everything else, and that profits are not easy, are proved by the fact that many go into the poultry business only to give it up in a year or so. It is apparent that every branch of the work must be managed with economy, and especially is this true in the matter of supplying feed.

have to buy, and some are tempted to put their fowls on half rations. One might just as well quit at once as to do this, for poultry are profitable only when they are doing their best, and they will not

on village lots, are tempted to purchase some of the many specially prepared or mixed feeds which are so highly recom-Many of these feeds are very excellent, but the price is considerably over what the staple feed can be bot for from the farm. Much of this prepared food consists of cracked corn, with a small percentage of wheat, kaffir corn, millet, etc., and perhaps a few sunflower seeds. There is nothing better than the staple products of the farm for poultry-corn, wheat, oats, buckwheat, clover and cabbage-and while it is advisable to feed these in variety, often one can save considerable by feeding more largely of some one particular kind which may, for the time being, be low in price.

There can be no doubt that farmers who make a specialty of poultry have a decided advantage from the fact that they can produce feed more cheaply than it can be purchased. If one has but a small piece of land it can be profitably used for growing feed for the chickens; at the same time it can be made fertile and kept so by utilizing the poultry manure. Most all feeds are high at the present time. Clover with me is one of the cheapest, considering its market value, and this is a feed not to be despised by the poultryman, not only because it is lower priced, less than 1/2c handle, such as long spears of dry grass, protein feed and may be used to balance can be purchased from farmers for about one cent a pound. Corn meal and a little wheat bran, mixed with cut clover hay, in eggs has no superior. Wheat is an ideal food for poultry, adapting itself well mills for much less. However, I seldom ing the latter part of the season. use the screenings, preferring the better

kept before them. They are usually bet- early, the packed contents of the crop ter used in this way than given in the may often be broken up and made to suade the average farmer to keep bees, ter used in this way than given in the may onto the other digestive organs by litter, as the fowls ado not like them so move on to the other digestive organs by it might be mentioned that as much as in litter.

in the prepared feeds referred to above, but I have found that the most rational way to use these is to have them in selffeeding hoppers, from which the hens can help themselves, as they will not eat enough of such to hurt them. I might add that I usually make an exception in the case of young chicks, as I believe for young chicks. While it costs more, it does not require much for small chicks.

problems confronting the poultryman who downward, so that the opening to be is working for profitable egg production. made in the crop will not coincide with meats are sometimes relied upon, and with warm water containing a few drops both are excellent for the purpose, but of carbolic acid. Some prefer stitching under present conditions it is hardly pos- the openings with silk thread, but some sible to employ either without increasing good poultrymen now claim it is not the cost of the ration. Fresh bone, how- necessary. The inner slit will, of course, the same. As to the labor involved there gradual return to the regular ration. is little to choose between the two processes. In the case of the bone, it is ready for feeding when it comes from the cutting machine, while the clover must go thru another process in its preparationthat of steaming. Where fresh bone or cheap meat scraps are available, their The feed bill is a bugbear to those who value as a part of the laying ration should, therefore, not be overlooked .- Ed.)

IN ANSWER TO INQUIRIES.

do their best unless they have the best of treatment and attention. It makes a great deal of difference whether you can get feed for 1½c per lb. or are paying 2½c.

Many small poultrymen, especially those on village lots, are tempted to purchase

Your geese are undoubtedly Embdens. The presence of gray feathers, however, would seem to indicate that they are not mended as fatteners and egg producers. full-bloods. There are only two of the recognized large breeds of geese which have the yellow or orange bill and feetthe Embden and the Toulouse. The standard calls for pure white plumage in the first named, while the plumage of the Toulouse ranges from dark gray on the back and wings to light gray below, shading off to white on extreme under part of body. The eyes are also distinguishing marks, being bright blue in the Embden and dark brown in the Tou-

A Case of Crop Bound.

Please tell me what to do for chickens affected in the following manner: A pullet was found, on Monday morning, standing around looking quite sick; on examination I found the crop packed full altho they had not been fed since 2 p. m Sunday. On Tuesday the fowl died with its crop still distended as tho from overeating. Having never had experience with sick fowls I guessed at a remedy, giving a little black pepper and milk, also powdered charcoal. I feed oats every morning, either cooked or chopped, raw potatoes mixed with bran, and wheat at night; I think they have plenty of grit. Montana. FORMER MICHEANDER.

The pullet was crop bound, this condi-

The pullet was crop bound, this condition being due, no doubt, to her eating something which the crop could not per lb., but is a very valuable source of grass roots, pieces of string, etc. This protein feed and may be used to balance trouble seems most common during the up the corn, which is fattening and which latter part of the season, quite a number is about the next cheapest feed. Corn of cases having been reported this fall, which inclines us to the belief that the long dead grass to which many fowls have access is largely at fault. A patch makes a very cheap feed and for results of blue grass which has remained unclipped thruout the season is, we believe. very apt to cause considerable trouble of to feeding in litter. It can be bot for this kind if fowls are allowed to run upon 1½c per lb., and oftentimes one can get it. At any rate a close examination of screenings or low grade wheat at the the crop in all ailing fowls is advised dur-

The ease with which relief may be given will depend upon whether the in the tree. This swarm gave me about rade.

Oats are good for poultry and may be trouble is discovered early or late. If 100 lbs. of surplus comb honey that year. well and there will be waste when fed giving a dose of sweet oil, or a tablespoonful of castor oil in a like quantity with bees; that they house, nurse and Grit, charcoal, etc., are sometimes used of hot water, and kneading or manipulating the crop with the fingers for some time. When this proves ineffective the time than chickens, and, best of all, they fowl is sometimes hung up by the feet and the crop manipulated until its contents are removed thru the mouth.

Where these means fail an operation is the only recourse, but even this is neither difficult nor dangerous where ordinary that the prepared food cannot be excelled regard for cleanliness is observed. The knife and any other instrument used should be boiled a few minutes before be-Illinois.

R. B. Rushing. ginning. Remove the feathers from a for only \$1.35, including a free premium.

(As this writer intimates, the securing spot about as large as a dollar, high up Address all orders to Michigan Farmer.

to balance the highly carbonaceous or knife make a slit an inch long in the fattening grains is one of the greatest outer skin. Then slipping the outer skin As he says, clover hay which has been the outer opening, cut a 1/2 to 1/4-inch slit chopped and steamed is a fairly econ- in the wall of the crop. Insert a small omical source of protein and it increases rubber tube and flush the crop with warm the palatability of the ration. However, water, endeavoring to wash out, thru the there are other sources, from some of opening, the entire contents. If string or which this much needed element can be long grass is found it may easily be taken obtained more cheaply than from good out with the aid of a buttonhook. When clover hay. Skim-milk and the cheaper the crop has been emptied, wash it out ever, is almost as good and, where an be covered by the outer skin, which, no ample and continuous supply is available, doubt, is sufficient, but a few stitches in constitutes the cheapest source of pro- the outer wound would seem desirable. tein. The expense and labor of preparing For a day or two after such an operation it for the hens is no greater than that the fowl should receive nothing but water. of preparing clover hay. In fact, the Salicylic acid in the water, one or two advantage would appear to lie with the drops to the quart, is advised by one bone, since the cost of a cutting box for authority. Then give soft food only, for preparing the clover, and of a good bone a few days more, by which time the fowl cutter for slicing the bone would be about should be ready for a little grit and a

BEES AID THE FARMER.

All said and done, the only argument vast army of farm folk have the against the bee is that it has a sting, tho a few go further and say, "Really, I have no time to attend to bees.

I have argued the matter with farmer friends many times, and used to take this latter statement as a whole; now, however, I do not, for I have found that it was not a lack of time but the possession of ignorance of bees and their ways which kept the vast majority of my rural friends from conserving the swarms the good Lord sent them in the spring, swarms which any bee man would gladly give \$1 to \$5 for.

With a bee veil, smoker, a pair of gloves with cloth gauntlets to fasten above the elbows, and a pair of bicycle clops to fasten down the pantaloon legs, a man, woman or child can work with bees all day and not get stung. Instead of the clips the women should have bloomers to slip on. In addition to the veil one should have a smoker-a little stove with a bellows attached in which is burnt rotten wood, cotton cloth, corncobs, etc. A cloud of smoke blown over the bees will subdue the most irritable swarm, unless it be the blacks and their crosses with other bees, and they will sometimes resist quite a while.

I do not know of anything of value which is so thrown at the average farmer as are bees, for not a spring passes without dozens and even scores of swarms going over every farm. The next thing, of course, is to catch them, and here is how I made my start. Securing a store box, preferably of pine, I gave it one coat of white lead. Then, in one end, close to the back, or what had been the bottom, I put two holes about one-eighth of an inch in diameter and these about two inches apart. Into this I tied a loop of galvanized wire to be used to hang it up by; then across this end, one-half the way down, I put slender stocks from corner to corner and from side to side to give support to the comb the bees subsequently built.

In the front, or what was the top, close to the bottom, I cut a hole one-third of an inch wide and six inches long for an entrance, and over that a little door swung on a screw. A hole in the door covered with wire gave ventilation when the door was closed. I finished by fastening a bit of honey comb to the top of

In the latter part of May I put this box up, with 19 more just like it, and hadn't the last one up when bees were in the first. Taking them down and dumping them into a hive I put the box back This swarm gave me about

If any argument were needed to per-\$15 per hive is not infrequently made feed themselves, and that, dollar for dollar yielded, they require less work and require practically no attention at all from October until May.

A. F. BONNEY. Iowa.

A Great Combination,

The Michigan Farmer and the Detroit Semi-Weekly Journal, both a year each,

of economical protein feeds with which on the fowl's breast and with a sharp Steam Power For Farm Use

Best because sure, cheap, safe, easily understood, works in all weathers. No coaxing or annoyance with a

It's a willing servant. You are master. Always dependable. Styles and sizes for all uses. Book free. Send now.

James Leffel & Co. Box 230, Springfield, O.



ILLUSTRATED OUR TRAPPERS GUIDE FREE

EVERY HUNTER, TRAPPER AND SHIPPER EVERY HUNTER, TRAPPER AND SHIPPER in America should have a Free Copy. It's an Expensive Book, full of interesting information, worth big money to you. It gives the Game Laws of all sections, valuable Hints on the Art of Trapping, and pictures of hundreds of our Shippers. We have thousands of unsolicited letters from satisfied patrons everywhere. Bon't Go Through Another Season Without our Free Price-Lists. They will keep you posted on real Fur-values. Deal with the House that exports its Furs to the great markets of the world. After you've worked hard to gather your Furs, you want all the good money they are worth. That's why you should deal with us. You Get More Money. Look Before You Leap. There's a difference in Fur Houses, Our responsibility is unquestioned. Ask Your Nearest Bank. Ship to us. We hold each shipment separate. Write To-day. WEIL BROS & CO., Est. 40 Years. Fort Wayne Ask for Free Trappers Guide, Price list K Tags, Blan

LET ME CURE YOUR CATARRH and BRONCHITIS FREE! 50c. Package.

Don't despair if you have failed to get relief from doctors, inhalers, smoke powders, douches, or anything else. My Remedy curse quickly and permanently. No case of Asthma, Catarrh or Bronchitis has yet failed me, no matter how chronic. The agontage outping, gasping, fainting, hawking, splitting foul breath, etc., was relieved instantly. Send your name and address and 4c, in stamps to help cover postage and wrapping, and to show good faith, and I will mail you FREE 50c. Package of my Remedy in plain wrapper. Write today.

T. GORHAM, 397 Gorham Bidg., BATTLE CREEK, MICH.

90% Hatches

CYPHERS INCUBATORS





\$ 55 Buys Best 140-Egg * Incubator Freight Prepaid

We ship strong the strong stro

Racine, Wis. Belle City Incubator Co., Box 14

EGGS 1c. A DOZEN.

It costs ic a dozen to preserve eggs from one to two
years by using the Yuelli Chemical Co's. Egg preservative. Cannot distinguish them from newly
laid eggs. Send for Circulars.

YUEILI 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 cach in lots to suit. Bronze, Buff and White Turkeys, all varieties of Geese and Ducks, largest and best collection at Sta Fair in 1909. E. J. HASKINS, Pittsford, Mich.

Buff Rocks and Shropshire Ewes. Choice Cock-cheap. ALBERT WELLS, Saranac, Mich.

LIGHT BRAHMA, White Wyandotte and Barred Plymouth Rock Cockerels for sale, good stock. E. D. BISHOP, Route 38, Lake Odessa, Mich.

SINGLE COMB R. I. Reds. The great winter layers. 30 Farm Raised Cockerels at \$1.00 and \$2.00 each. Order from this ad, Elmer Mathewsen, Natiawa, Mich.

R. C. R. I. Reds for sale. Cockerels \$2 to \$5, pullets \$1 to \$3, 5 pullets and one cockerel \$10. All good stock. Egg th season, B. A. Frascr, Dept M. F. Fountain Farm, Rosebush, Mich.

DARGAINS, TILL JANUARY I.—Buff and White Orpingtons.

B. Rock, W. C. B. Polish, Houdans, S. C. Black & R. C. White Minorcas cockerels, \$1.50 cach, few left. Satisfaction or money back.

H. H. KING, Willis, 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.

DOGS.

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

FERRETS.

4,000 FERRETS—They hustle rats and book mailed free. N. A. KNAPP. Bochester, Ohio.

MENTION THE MICHIGAN FARMER when writing to advertisers.

CONDUCTED BY COLON C. LILLIE.

A DAIRY AND ICE HOUSE.

A public speaker who was lamenting the sad fact that the purse-proud farmer would soon own all of the land, remarked that good butter would soon sell for \$1.00 common price of a good dairy cow. While we suspect the "Gent" was joking, there is no question but what good dairy proas so much cash. But good dairy products, like all other products, call for proper facilities, proper management, sanitary buildings, etc., if we expect to turn out high-grade goods. Our city cousin readily adapts any new device or improvement that will increase the quantity or quality of his product, or that will save expense in his labor bill.

equip same with sterilizing ovens, etc., many of us are amply able to erect a building along the lines herewith illusseparator, tester, and other dairy fixtures, of 4.6, of course indicates that the herds is about 0.5 of one per cent. There was and the expense for installing the remaining machines shown on the floor plan, would be small. The floor plan requires no explanation, except to say, G. E. is the gas engine, B. the boiler or steam generator, B. W. the butter worker, S. the separator, T. the milk tester, and P. steam pipes, for scalding milk cans, pails, etc. As shown, the building is 31 ft. long, 13 ft. of which is used for the ice house, and the remaining space is devoted to the dairy room. The entire structure has a stucco finish, both exterior and interior, that is, the walls are covered with wood or metal lath, which is in turn covered with two coats of a Portland cement plaster. The building 10 ft. in height, and of the ordinary balloon frame construction, covered with rough boxing, over which is placed the lath and plaster. The floors and porch in this association are largely Jerseys no variation in water content between or drive, is of concrete, the columns are 10-inch round timbers cut in the woodyard, with the bark removed. The roof is made of composition roofing materials. and a ventilator is built for both the of fat was 23.9c and the average cost of dairy and the ice house. The spaces between the rafters, over the ice house are left open for ventilation, the cornice ley Association is: around the dairy house is plastered with cement.

The studding for the dairy is of 2x4inch timbers, those for the ice house of 2x8 timbers, the spaces between timbers in the ice house are filled with sawdust, and the boxing on the exterior covered with several layers of building paper. The studding around the cooling room is of 2x4 inch stuff, covered with material to keep in the sawdust. This room has no ceiling but is left open clear to the roof. By using the cool room, much ice will be saved, and it is ample in size for storing several cases of eggs, or crates of fruit.

The trenches for foundation of the ice house are excavated about three feet deep and filled in two feet with broken stone for draining the water away. The floor of ice house is filled in about six inches with clay or dirt, and covered with straw or sawdust. The cost of this building will, of course, depend on location, sand, gravel, etc., but as all the lumber may be of native stock, and the labor done with home help, it should not be prohibitive in almost any section. for the man who keeps ten or more cows.

J. E. B. Missouri.

WHAT COW TESTING ASSOCIATIONS ARE DOING FOR MAINE.

It might prove interesting to Michigan Farmer readers who are more or less familiar with Michigan cow testing associations to compare figures with similar associations in Maine.

detail of two associations which make quite interesting reading for dairymen.

The results show plainly the need of improvement in a good many herds. A few herds show actual loss, while some show a splendid profit.

The principal grains fed are bran at the principal gra

\$26 to \$33 a ton, corn meal at \$26 to \$37 a ton, cottonseed meal at \$30 to \$35 a tion. The other does not materially ton, and gluten meal at \$30 to \$33 a ton. differ.

It is somewhat surprising to note that corn meal is fed more extensively than who are depending on cows for their ingluten, and cottonseed meal leads by a come, sell the profitable, and retain the big margin over any other grain fed. unprofitable cows.

This can no doubt be accounted for in quite a measure when we know that by the members of these asociations. there are still very many that adhere to Live questions of feeding and co-operative the old theory that they can feed fat buying are discussed, and no doubt in into the milk by using corn meal and time, the idea of retaining the best cows cottonseed.

In the Waterford and Norway associations, 31 herds are recorded, aggregating what it actually costs in feed to produce about 320 cows. The figures that tell the a quart of milk. The calf and dressing result are as follows: Average pounds milk per cow for 12 months was 4,702; average fat test, 4.6; pounds fat per cow per pound, and that \$1,000 would be the 218.1; average price of fat, 30.8c; total value butter-fat, \$67.25.

Cost of roughage, (pasture figured at a better chance to give a 50c to \$1 a month), per cow, was \$26.06; of itself, than the present. ducts, and good dairy cows, are the same cost of grain per cow, \$26.23; total cost of feed, \$52.29; average profit per cow. The price charged for hay ranged A STUDY OF BUTTER COMPOSITION. \$14.90. from \$8 to \$16 for mixed, \$5 to \$8 for swale hay. Ensilage, \$2 to \$4. The mixed hay and ensilage form the largest part of the roughage.

One herd of 22 cows, eighteen of which were in the test the full 12 months, av- Illinois Station to make such a study. eraged 7,006 lbs. of milk per cow. Only The following is a summary of the find-Now, while it is true we are not all those cows that were in the test for 12 ings of the station after an extended inable to build a \$2,500 dairy building and months are considered in the average vestigation: figures given. Eight out of 12 in another herd averaged 3,222 lbs. in 12 months. Sixteen herds averaged less than 5,000 trated. Many of us have the gas engine, lbs. each in 12 months. The average test

A good deal of interest is being shown will obtain.

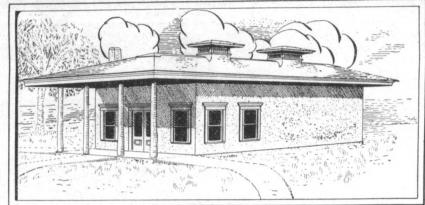
The foregoing figures show pretty well in these associations is set against the labor of caring for the cows.

There is no doubt that with good cows well handled, there has not been a period of many years when the dairy had a better chance to give a good account

D. J. RYTHER.

The importance of a study of the factors which enter into the composition of butter from the standpoint of science and of commercial butter making, led the

There is a variation in the water content, ranging from 0.1 to 1.0 per cent between different samples representing the same butter. The average variation



Perspective View of Inexpensive Dairy and Ice House.

or their grades.

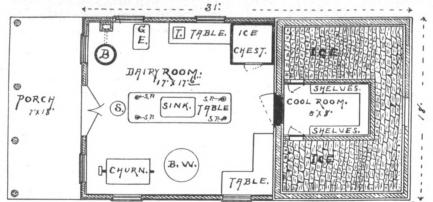
The herds testing 3.3, 3.6 and 3.9, indicating the milk breeds, average 6,143 lbs. a cow. The average cost of one pound one quart of milk was 2.36c.

The summaries for the Kennebec Val-

Lbs. milk per cow 4,8	07
Average test 5	.:
Lbs. fat per cow 246	
Avreage price 31.	
Total value butter-fat\$77.	9
Cost of roughage per cow\$27.	7
Cost of grain\$18.	7 :
Total cost\$46.	
Profit\$31.	
Cost of one pound of fat 18.	80
Cost of one quart of milk 1.9	6
7 111 11 11 11 11 11 11	

In this asociation timothy hay is fig-

half worked and worked butter or after the third revolution of the churn until working was completed. There was no difference in composition of samples taken from the middle or either end of the churn. The per cent of water in butter is affected by the make of churn. There was no difference in composition of butter made from cream held one to three hours and that held 12 to 15 hours at churning temperature. Butter of the same composition can be made from either pasteurized or unpasteurized cream. Dry and wet salting methods are identical as far as composition is concerned. Churning of butter washed with water, differing ten degrees in temperature, produced butter with an average difference in ured at \$5 to \$12, with ensilage \$2.50 to \$5, water content in 40 comparisons of 1.99 There is comparatively little difference per cent. In churifing 7241.16 pounds of



Floor Design of Dairy and Ice House. (For explanation see article)

ence in price of hay as it is charged 108 tubs, 7154.43 pounds of fat were rewould make considerable difference in favor of the Kennebec Asociation.

In commenting on the results we find this:

The question arises, why will dairymen

in the cost of grain fed by the members butter-fat in 56 different churnings; acof the different associations. The differ- cording to analyses of samples taken from butter, giving a of 1.23 per cent.

The approximate composition of a quantity of butter may be obtained by the analysis of a sample from any tub of that butter. In terms of averages, samples taken from the butter in the churn will contain nearly one per cent more moisture than samples taken from the butter in the tubs. The same decrease is true of samples taken from tubs of butter before and after storage. Two The above is for the Waterford Associa- lots of butter each represented by 40 churnings, two tubs of butter from each churning, with an average difference in water content of 1.99 per cent were identical in quality. It is possible to make butter from day to day of uniform and desired composition.

Would you buy 40 to 60 milk pails just because someone with pails to sell said you needed that many to milk a cow? Certainly not! Certainly not!

Would you buy or bother with an old style cream separator, with 40 to 60 disks in the bowl, just because



Sharples Dairy Tubulars are The World's Best Cream Separators-and have no con-traptions. Twice the skimming force. Fastot needed.



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

Write for Catalogue No. 152



Only the Good Silo Makes the BIG Money

Out of the dozens of Silos on the market only one is really worth buying. All the others have some fatal weakness somewhere which makes them a costly EXPENSE instead of a wise INVESTMENT. You must buy one and use it for a season before you can tell which is which. Then it is too late if you have not bought a Saginaw Silo.

It's better to know first than to buy wrong and be sorry afterwards. So goslow-investigate-study all kinds—talk with users—ask for the names of those who have used silos for years—and then decide.

If you do this the Saginaw Silo is bound to be your choice. For we honestly believe it to be the best silo ever offered to a farmer. We have spent thousands of a farmer we have spent thousands of the conditions it is present state of supreme perfection.

There is no comparison and never can be between the Saginaw Silo and so-called silos made by carpenters or cistern makers who have no knowledge of the conditions the silo must meet to give long and satisfactory service. And who would not know how to meet such conditions if they did know them, who meet such conditions if they did know them, who may be such a such as a such a such as a s

nuity and decide cautiously.

Don't think of making up your mind until you have read our Silo book. It will open your eyes on the silo question and will be of great help to you in deciding on ANY silo. Better write for it now while you think of it. It's FREE. Also ask for special price on Whirlwind Silo Fillers. [3]

FARMERS HANDY WAGON CO. Main Office and Factory: Station O, Saginaw, Mich.

Branches:
Lock Box 64, Des Moines, Ia. Box 64 Minneapolis, Minn.

Six Thousand Indiana Silos

Finest Farms in America

Is absolute proof that "Indiana Silos are the best in the World," Ask Any Man Who Uses One !

An Indiana Silo saves half your feed, it pays for itself in one season. High priced feed makes it imperative that you investigate and decide upon your silo now. The best materials make Indiana Silos by far the best. We own saw milis and timber lands, and thereby get stock selected, seasoned and prepared exclusively for our silos.

Factories at Anderson, Ind., Des Moines, Iowa, North Son.

Write for THE SILO ADVOCATE FREE

These contain much valuable information you should have. Address all communications to the General Offices of the INDIANA SILO CO.,

382 Union Building, Anderson, Indiana
We are the largest Silo Manufacturers in the World

MICHIGAN HORTICULTURAL SO CIETY REPORT.

(Continued from last week). General Observations on the Fruit Industry.

Prof. H. J. Eustace of the Michigan Making Small Fruits Pay for an Orchard. Agricultural College, was the next speak-He reviewed the present status of the fruit industry. He sees in the present the basis of the discussion of the above often leaves them in for from 12 to 14 advancement of the industry a healthy subject by S. B. Hartman, of Calhoun Co. years, which often is not best for the prosperity. Better work is being done One of his orchards of which one-third and those who are making new plantings are taking every precaution to inform themselves regarding the needs of the or at the rate of 8% cents per year per the value of spraying. Men are rather inquiring as to how they can spray their trees effectively and at the least expense. The fertility problem is still a matter of per tree. In the last orchard during the gin study. Usually the fruit grower can not first five years corn and potatoes were find upon his farm sufficient material to grown to the amount of \$53.00, potatoes, properly feed his orchard trees and how to supplement what he has, is a question that is being thoroly studied by practical to the amount of \$596.18, making a total amounts of potash and phosphoric acid men. He advised the use of more cover net return of \$737.86 from the orchard the land, hasten the ripening of the wood the fall, prevent washing of soil on the orchard, including labor, trees, rent until the latter part of July and still grow besides and conserve some plant foods that otherwise would be lost. He believes that our system of marketing is sadly in need of being revised. Marketing is largely a local question. He suggested as one means of improvement the method used in northern Ohio where fruit growers take their products to a local market and buyers come and bid off the fruit in competition with each other. The auctioneer is usually paid one cent per bushel for selling the goods. While western fruits sell at a very high figure, it must be remembered that the association there pays a good price for advertising and are to other expenses that the eastern grower does not have. A large part of the better grades of fruit is sold to peddlers in the cities. Many of the peddlers are foreigners and cannot read English. When they once become accustomed to a certain label any change therein is likely to challenge their suspicion. One western grower has cards which he places in the boxes of fruit. These cards tell the customer how the fruit is grown, harvested and packed, and the card tells the truth, which is the important part of the scheme. Prof. Eustace stated the results of some experiments conducted to determine the value of thinning. The work of Mr. Lindsley, of Emmet county, was especially commended and decidedly proved the value of thinning apples. The crop from his trees was shown in the fruit exhibit at the armory. The different grades were each piled by themselves. The trees that had been thinned not only had a larger yield but the amount of fruit in the higher grades was decidedly larger than for the trees not thinned. Mr. Lindsley has promised to give the readers of The Farmer an article on this experiment this winter. Spraying with the lime-sulphur for fungus diseases was also mentioned in the review by Prof. Eustace, who declared that present knowledge pointed strongly to a change from the Bordeaux to the lime-sulphur as a general summer spray. As regards cover crops he stated that several different plants were being tried out but as yet the tests were not carried on far enough to make a basis for conclusions.

Presentation of Visitors, Business, Etc.

Visitors from other states and delegates from local societies were presented to the convention following Prof. Eustace's ad-Mr. Heaton spoke for Illinois, Mr. Telfer for Wisconsin, Mr. Farnsworth for Ohio, Mr. Heaster for Pennsylvania, Mr. Falvay for New York, and Mr. Smith for Ontario. The Pere Marquette railway was represented by Mr. Gains, and the Ontario. Commercial Club of Kalamazoo, by Mr. Clement. Following these presentations reports of the different departments of the society were heard. Treasurer Satterlee's report showed the society to be in good financial condition and also that the Lyon memorial fund was gradually increasing in value and that these accumulating moneys were being invested in well-secured mortgages. Secretary Bassett's review of the work in his office for the past year was to the effect that larger amount of material had been handled by the society for the period than was ever handled before, and also that the efforts of the society in securing materials for members at reduced cost was getting better quotations in the open market for materials needed in orchards. phoric acid to the land. He grows small spread the straw over an adjacent field

The splendid work which the secretary fruit in his young orchard. Tile drains has done and is doing for the organization are put in about every 90 feet apart. Piles Quickly acceptance of the report. The election of fertilizes so that neither the orchard nor Charles E. Bassett, of Fennville, securer, T. A. Farrand, of Eaton Rapids, upon the small fruit. Potatoes is a comand Edward Hutchins, of Fennville, mem- mon crop among the young trees. bers of the executive board.

was cultivated and the remaining twothirds kept in sod, cost, for care, \$65.91, There is no question now as to tree. Another orchard of 140 trees in sod cost eight cents per tree, while the third orchard consisting of 476 trees demanded an annual expense of 8 1-10 cents beans and raspberries to the amount of \$88.68; strawberries and strawberry plants These crops add to the fertility of soil during the first five years after the

brot forth enthusiastic applause upon This furnishes good drainage. He then officers resulted in the re-election of R. A. the small fruit want for plant food. In Smythe, of Benton Harbor, as president, mulching strawberries and currants, he so manages it, as to throw the straw retary, James Satterlee, of Lansing, treas- about the trees after he is thru with it follows this with rye sown immediately after the potatoes are dug. He has found A review of the work in his orchard currants a very successful crop to grow which has been planted six years, formed and because the profits are so large, he growing trees. He sprays his plums and currants at the same time during the early part of the season. He has practiced fertilizing with manure and cover crops, for eight or nine years, and he believes it policy to furnish the trees with an abundance of nitrogen so that they get a good growth before they bebearing fruit. But where this method is practiced during the early life of the orchard, it may be necessary to take steps later to bring the trees into bearing such as the adding of liberal to the soil. As regards cover crops used the winter sand vetch is a favorite with trees were planted. The total cost of him because he can cultivate the orchard



Nest of Brown-Tail Moth. This Moth is Particularly Injurious to the Pear and Other Fruits. Recently Found on Seedlings Imported from France.

and other expenses amounted to \$322.23, a good amount of vegetable matter before possible to produce enough from a single nitrogen, to bring it into bearing.

talk, Mr. Munson, of Kent county, suggested the use of gooseberries as a good crop to grow between trees while they Hartman did not find that the poison can be secured in sufficient quantities to falling upon the strawberries while spray- keep the soil supplied with the necessary ing the trees with arsenites would harm the fruit for consuming purposes.

Increasing Soil Fertility.

thus giving a total credit in favor of the the ground freezes; besides, the plant land of \$415.63. These returns were starts early again the following spring conclusive in the mind of the speaker in and it also makes a splendid protection that he finds his trees in excellent condi- during the winter months. An advantage tion at the end of the period. From his of rye is that it can be sown late in the experience he believe that strawberries fall and yet make some growth. Clovers are the best and most profitable plants are too slow starting in the spring to to grow among the trees. He suggested make ideal cover crops, however, they that where one has a market for young are quite extensively used and bring plants, breeding plants can be put in much fertility to orchard soil on account the rows of trees while those producing of their ability to gather nitrogen from fruit may be planted between the tree the atmosphere. It may be necessary to From his experience it was found starve the orchard a little, especially of crop to pay for the erchard and its care, if it once acquires the bearing habit, then and from two crops to pay for the or- one can feed it liberally and get proporchard, its care and the rent of the land tional returns for his care. Mr. Farnstill fruit should be borne upon the trees. worth believes strictly in a good liberal Discussion.—Following this interesting amount of humus in the soil.

Discussion.-He would advocate the mulch system of caring for the orchard under circumstances where cultivation is are coming to the bearing period. Mr. not convenient and also where mulch fertilizing elements. He believes that \$3.00 to \$4.00 per ton could be paid for spoiled clover hay for mulching, with Profitable crops only come from well- profit. He suggested that the mulch fed lands, was the first thot in the excel- should be kept a short distance from the lent address by W. W. Farnsworth, of trunks of the trees in that otherwise The wise grower uses stable ma- mice would be encouraged to do damage. nure and supplements this with ashes, In order to prevent weed seeds from getcommercial fertilizers and other materials ting distributed among his strawberry that they may bring potash and phos- plants thru the addition of straw, he

Cured at Home

Instant Relief, Permanent Cure—Trial Package Mailed Free to All in Plain Wrapper.

Piles is a fearful disease, but easy to ure, if you go at it right.

An operation with the knife is dangerous, cruel, humiliating and unnecessary. There is just one other sure way to be cured-painless, safe and in the privacy of your own home-it is Pyramid

We mail a trial package free to all who write.

Pile Cure.

It will give you instant relief, show you the harmless, painless nature of this great remedy and start you well on the way toward a perfect cure.

Then you can get a full-sized box from any druggist for 50 cents, and often one box cures.

Insist on having what you call for.

If the druggist tries to sell you something just as good, it is because he makes more money on the substitute.

The cure begins at once and continues

rapidly until it is complete and permanent. You can go right ahead with your work and be easy and comfortable all the time. It is well worth trying.

Just send your name and address to Pyramid Drug Co., 92 Pyramid Building, Marshall, Mich., and receive free by return mail the trial package in a plain wrapper.

Thousands have been cured in this easy, painless and inexpensive way, in the privacy of the home.

No knife and its torture.

No doctor and his bills.

All druggists, 50 cents. Write today for a free package.

What Governor Deneen, of Illinois, Says About It:



125 Million Bushels of Wheat in 1909

Western Canada field crops for 1909 will easily bring \$170,000,000.00 in cash. Free Homesteads of 160 acres, and pre-emption of 160 acres at \$3.00 an acre. Railway and Land Companies have land for sale at treasonable prices. Many farmers have paid for their land out of the proceeds of one crop.

HUNDREDS OF CARLOADS OF

Fruit and Ornamental Trees

1200 acres, 50 in Hardy Roses—none better grown. 44 greenhouse of Palims, Ferna, Ficus, Everblooming Roses, Gerantums and other things too numerous to mention. Mail size postpaid. Safe arrival and satisfaction guaranteed. Immense stock of SUPERB OANNAS, the queen of bedding-plants. Fifty choice collections cheap in Seeds, Plants, Roses, etc. Catalogue No. 1, 112 pages, FREE to buyers of Fruit or Ornamental Trees and Shrubs. No. 2, 168 pages, Palms, Paconics, Gerantums, and Greenhouse and Bedding plants in general. Direct deal will insure you the best and save you money. Try it. 66 years.

THE STORRS & HARRISON CO. Box 199, Painesville, Ohio.



"MORE POTATOES"

From ground planted secured by use of the KEYSTONE POTATO PLANTER than by any other method of planting. Work perfectly accurate. A simple, strong, durable ma-chine. Write for catalog, price and full description

A. J. PLATT, Migr. STERLING, ILL.

FRUIT TREES the best for Michigan Planters. Healthy, finely rooted. Direct to you at great Money-Saving Prices. Handsome 1910 Catalog and proce List FREE. write to-day. CELERY CITY NURSERIES, Kalamazoo, Mich-SEED CATALOG—Send your name and address and we will mail free January 1, our 1910 catalog of Seed Potatoes, Seed Corn, Seed Oats, Alfaifa, Garden Seed, in fact everything in seeds. MACE & MANSFIELD, Greenville, Ohio.

EEDS—CLOVERS, TIMOTHY, BLUE GRASS, Orchard Grass, Red Top, etc. Send for prices and samples ZACK DAVIS CO., Delaware, Ohio.

The Vineyard.

This topic was the caption of a very instructive and well written paper by M. H. Pugsley, of Van Buren county. His advice was to select soils that are right, make as thoro preparation as if going into a profession and then use the knowledge at every stage of the work. He suggested that Michigan was in line with the great vineyards of the world, it being the same latitude as France and Bordeaux, as New York and the great vineyards of California as well as those spoken of in biblical history in Palestine. In growing grapes commercially it is important to get the vineyards close to a market. The elevation need not be the highest point in the surrounding country, but it should be well above the lowest parts. A plateau is best for the is a necessity. other vineyards because the community of interests will be beneficial to all concerned. Plant where it is possible to secure plenty of help. Grapes will not stand in soil that is too moist. In buying nursery stock secure No. 1 yearling vines. Dig the holes large and do not prune the roots severely. It is best to have the nursery stock shipped in a box and, if a delay occurs after the stock has been received, moisten it without taking from the receptacle. Plant the vines in the vineyard ten feet each way, and make the rows straight. Use a plow in setting, throwing a furrow each way from where against the land-side of the last furrow. He uses a horse to fill in the furrow after While grape the vines are planted. vines love sunshine, the fruit must be shaded, which is done by the broad leaves of the plant. Corn therefore is not a good crop to put in a vineyard. Potatoes are better. About December first he selects the vines for training. He selects two of medium size that grow straight from us. The associations, which have super-the crown of the plant. In trellising a vision of the selling of the crop sends post is placed for every six vines. He suggested that not more than 50 or 60 vines be trained to a single wire, in as much as cleaning out the prunings would be difficult where the rows are longer, is grown as it does the eastern grower to He uses a cut-away harrow for cultivating. The sections are put about two feet apart which enables him to completely cultivate between two rows by passing the ground. up and down, the harrow crowding one side of the row each time across. He land is irrigated, as the water settles in sprays with Bordeaux using a 4:5:50 mixture, applying about 50 gallons per acre when the canes are one foot high. A second spraying is made about the middle of July during the first year of trouble. the vineyard. Pruning may be done any ness of cultivation the same as in eastern time before the sap starts in the spring. The anchor posts should be firmly set and the wires for trellising stretched very tight. In securing the up-right vines to sprayers than the best men of the west. the wires he passes the string around the But they thin thoroly and from this they vine and crosses, then around the wire get a better grade of fruit. But the pracand ties; with the laterals all that is necessary is to pass the twine about the market they patronize. The cost of land vines and wire together and tie. When in the better fruit sections is from \$400 to the vines have reached bearing age, they \$500 per acre and even higher, while in are sprayed four times per season. An Michigan as good land can be secured for argument in favor of planting vineyards \$50 per acre. is that they will last for 50 or 60 years other kinds of fruit.

Chautauqua Grape Methods.

lake. about eight feet each way while the for their fancy packed fruit. present plantings are about six or seven feet. With vines closer fewer buds are allowed per vine. Commercial fertilizer county, lecturer of the State Grange, was develop them intellectually. As much as

tedder and then raked up the straw and sidered necessary to take about six years present. She reviewed in a charming drew it upon his strawberry patch. The to get a good strong vineyard. In the manner, the life of "Johnny Appleseed," results from this operation were satis- latter few years the importance of cul- as he was known to his contemporaries, tivation is being pressed upon the minds who lived in the early days of the states of the growers and the work is being and who had a mania for planting apple done more carefully and more thoroly, seeds over large areas of the central The new vineyards are set deeper so that states. culture instruments can be safely run come with large loads of apple seeds and, deeper close to the vines. The best producers are cautious about cultivating too Ohio, Indiana and other places and, where late as the vines are not so apt to winter the location seemed good, would plant as safely and the fruit will not ripen as apple seeds and enclose the plot with a early. By the use of up-to-date machin- fence. As a result of these plantings the ery it is possible for two men to spray states thru which he ventured became the exception. Some years ago the shell- erous heart. Not only was "Johnny" deing of grapes gave considerable trouble but the exact cause, or causes, of the task, but to the scattered settlers he was difficulty has never been determined. At a most welcome visitor and the children vines. The low lands would be better if guilty of the shelling but the trouble dis- This life to us seems almost legendary, a running stream passes thru them. Air appeared quite as mysteriously as it came yet but few have done more for those Plant near and is only now and then troublesome in who lived after them than "Johnny Apabout 90 or 100 days following the bloomregular method of selling. Different men when 8,000 carloads were shipped away. The one great need, he held, was a more perfect system of selling. He believes it is a mistake to hold grapes for higher markets, the deterioration of the berries in almost every instance makes up for the advance prices that might be gained the row will come and set the plants and often more than covers the advance.

The evening session for Wednesday was opened by a discussion of the subject,

Western vs. Eastern Fruit Methods. by Prof. L. R. Taft of the Michigan Agricultural College. "Our fruit growers, stated the professor, "are well up-to-date as to understanding the work and orchard methods. Packing has been and is the chief point where the western man excells inspectors to supervise the packing of all the fruit that goes out to the eastern markets. It costs the westerner as much to put his crop on the market after it grow his fruit. They use one-year-old trees and plant them carefully, prune so as to get low heads about two feet from They are much troubled with pockets in the ground where the these places and the trees die of a root rot, due to the alkali in the land. In some sections they do not irrigate and of course there the pockets do not give any There are all degrees of thoroorchards. Spraying there is more expensive. We have many men in the east who are more careful and more thoro tice is forced upon them because of the

Disucssion .- In considering the matter and the crops are more certain than with of color of fruit for which the west is more convenient for his men, he has wells so noted it was the general opinion that all about the farm to supply fresh water the application of liberal amounts of While the audience was still in mind potash and phosphoric acid to the orchard of the many good things brot to their at- land will aid in getting a better color for tention by the former speaker, Mr. Fal- the fruit. The same effect is aided by vay, of the Chautauqua grape belt, of having the trees properly pruned that caught out in the fields in a storm, they New York, gave a very interesting de- the maximum of sunshine can get to the scription of that famous producing sec- fruit. In the west the amount of sun-For 90 years growers have been shine is larger and for this reason they producing grapes in that section. The set color with less effort. In controlling finds that his men have a better spirit location is from 500 to 700 feet above the the scab it is generally sufficient to apply In 1830 there were ten gallons of three sprays, but the varieties and the wine made, while in 1880 there were car season will have much to do with the careful not to give too detailed informaloads sent out of the district. Now number of times spraying is necessary. there is 40,000 acres devoted to the culture Thinning of fruit was considered a laborof the vine. The Concord is the most saving operation. The box has proven a for working out the job according to their prominent variety. Rows are planted profitable package for Michigan apples own ideas. The thinking out of things closer than in Michigan and the later and growers have found where they did always makes a man a better workman, plantings are placed closer than formerly the work carefully that it was possible and he finds as the men improve in use----the earlier vineyards being planted to secure as much as the westerners do

Apples of Gold.

is used generally. The third year the assigned this subject. While the paper possible he gives employment to the wives vines are tied to the trellis. The first was not purposed to extend advice for wire is placed about 23 inches from the application in real orchards, it was a ground and the second from 26 to 28 most happy innovation in the program inches from the first. The tree system and furnished an hour that was most

and went over it several times with hay of pruning is used. It is generally con- thoroly enjoyed by the large audience Out of Pennsylvania he would westward bent, would stop at points in from 12 to 15 acres and even more per dotted with small orchards, some of the day when the facilities are handy by trees even to this time are standing as Today the man who does not spray is monuments to the work of a most genvoted to this seemingly simple-minded different times it has been claimed that were ever glad at his coming and were the weather, the composition of the plant made loyal to him by the stories he told foods in the soil, or plant diseases were of ventures in other parts of the land. varying degrees. Harvest time is present pleseed" and it was this generous spirit which moves men to become benefactors ing period. Usually the grapes are packed of their race that the speaker commended in the field and drawn to the house and to those present. In our anxiety to gain wilted for about 24 hours. There is no commercial ends we are prone to forget moral opportunities and to the end that sell in different ways. The largest crop our lives and works should be balanced ever sent out of the district was in 1900 and healthy we should seek to accomplish some things for which we expect no pecuniary gain. Thruout the reading of the paper the strictes attention from every part of the armory was given.

Labor Problem on Fruit Farm.

The above was the last topic of Wednesday's session and was handled by W. W. Farnsworth, of Ohio. His extensive experience in dealing with a large number of men on his own fruit farms, fitted him for handling this topic. He advised fruit men to make friends with their help. His effort is to enable the men to have and keep good homes and in this way he can secure more valuable services from them, as they are then better contented. Ten hours a day is all that a man should be required to work. If he can not do a day's work in that time, he should not be employed. He endeavors to get his men to take a pride in the farm and in the work they are doing. One of the difficult problems on the fruit farm is to get work to do during the winter months. Mr. Farnsworth ceeded in overcoming this difficulty by arranging to do as much of the duties about the farm as is possible during celder weather. Among other things, he has the men cut fuel, make berry crates, working in the storage houses sorting fruit, pruning during the milder days, and painting buildings and fences and making such repairs as are necessary about the general farm. He keeps a memorandum of odd jobs that should be done and he finds that it is impossible to clear his note book of these duties. In order to provide fertilizing material for his plantation, he now keeps on hand a considerable amount of stock, and the men are employed not only in caring for the stock, but in hauling straw, hay, grain and other material to supply feed for the animals. Dairying makes a splendid auxiliary work with fruit growing as it furmishes considerable labor during the winter time. In order to make the work and fruit houses supplied with stoves and fuel, and also chairs, tables and other furniture, together with good reading matter so that, should the workmen be could readily retire to one of these fruit houses and enjoy themselves, perusing some up-to-date magazine. Besides, he when they are treated as if they had some intelligence. For instance. tion regarding the performance of ordinary work, giving the men responsibility fulness, he can advance their wages according. Brains is an important thing on a fruit farm, and he endeavors to Miss Jennie Buell, of Washtenaw handle his help in such a manner as to and children of the men, and they are almost always anxious to secure the work.

(Continued next week).

etter arming A John Deere Book -Just Out A Farmer Can Get It Free IF interested in farming, get our FREE book called "BETTER FARMING." It tells all about-Making Hay Alfalfa Fighting Frost Dairying Seed Wheat Silos Cultivation Corn Crops Stock Feeding Cotton Crops Art of Plowing Soil Fertility Gasolene Engines Boll Weevil Controlling Weeds Adjusting Plows Hired Help

Costs Big Money

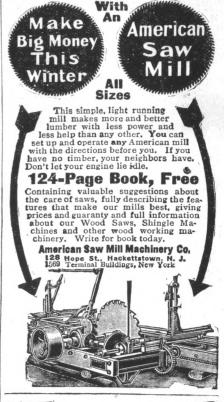
Your land is high priced and hired help expensive. There is only one way to make big money—use im-plements that cut down the cost of your crops. Isn't t true that when you break something on a plow it is nearly always a cast part? Wherever strain comes on a John Deere Plow there you will find steel—tool steel. Take any plow that has had hard work for five years, put it along side of a John Deere which has been in service that long-and see the difference Then there is no paint to cover up poor material. You can see the wear and the defects. The John will be solid, staunch and ready for the hardest job. Then you begin to know that quality counts

You can take pride in owning a John Deereworld for two generations. We will send you the 80-page, illustrated book free if you write and ask fo

Package No. 5

Mention the package number sure, then you will get exactly the right stuff.

DEERE & COMPANY, MOLINE, ILL





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

The Michigan Farmer ESTABLISHED 1843.

THE LAWRENCE PUBLISHING CO., EDITORS AND PROPRIETORS.

39 to 45 Congress Street West, Detroit, Michigan.

TELEPHONE MAIN 4525. NEW YORK OFFICE-725 Temple Court Building. CHICAGO OFFICE-1736 First Nat'l Bank Building.

CLEVELAND OFFICE-1011-1010	Oregon Ave., N. E.
M. J. LAWRENCE M. L. LAWRENCE P. T. LAWRENCE	

Associate
O. E. YOUNG
BURT WERMUTH
ASSOCIATE
Editors. B. H. HOUGHTON

...... Business Manager. TERMS OF SUBSCRIPT ON:

Five Years 260 Coples Postpaid \$2.00

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

RATES OF ADVERTISING:

40 cents per line agate measurement, or \$5.60 per inch, each insertion, with a reasonable discount on orders amounting to \$20 or over. No adv't inserted for less than \$1.20 per insertion.

27 No lottery, quack dctor or swindling advertisements inserted at any price.
Entered as second class matter at the Detroit, Michigan, postonice.

COPYRIGHT 1909.

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

WE GUARANTEE to stop THE MICHIGAN FARMER immediately upon expiration of time subscribed for, and we will pay all expenses for defending any suit, brot 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.

ls started.

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

The Lawrence Pub. Co.,

Detroit, Mich.

DETROIT, DEC. 25, 1909.

LEADING ARTICLES OF THE WEEK.

Anthracnose Investigations.-Clean seed proven to be a sure preventive of pod-spot, commonly called rust, of beans546

The Business Side of Farming.-The second of a series of articles touching upon different phases of this important topic547

A Plan for Preserving Valuable Information .- How one reader preserves the valuable information published in the Veterinary Department548

The Feeding Value of Corn Stalks .-The record of an interesting experiment to determine this important point548

Economy in Buying Feeds.—Some facts regarding the protein feeds so much needed in balancing the egg

A Dairy and Ice House. - Specific directions, accompanied by illustrations, for constructing an inexpensive dairy room and ice house under one roof..553

Report of Annual Meeting of State Horticultural Society.—A review of the papers and discussions at the December meeting, continued from last

.....554 week Telling Children About Santa Claus .-A sane discussion of this much mooted topic, with conclusions that will please the children560

The Ortega Gold .- A well-written serstory of ranch life, with synopsis of preceding chapters564

TO GET YOUR OWN PAPER FREE.

figure them as follows:

- A 1 year subscription as 25 points. A 2 year subscription as 30 points.
- A 3 year subscription as 40 points.
- A 5 year subscription as 50 points.
- We will send you free a
- A 1 year subscription for 75 points. A 2 year subscription for 90 points.
- A 3 year subscription for 100 points. A 5 year subscription for 150 points.

As an example: Should you send us two one-year subscriptions and one fiveyear subscription it would make 150 of that experience in response to requests points and would give you a five-year received from members of some of these subscription free. You would send us insurance companies, we find that accu-

Michigan Farmer one year free. All get

CURRENT COMMENT.

Our cover design is based upon 1910. a text of four words, part of a verse in the book of Ecclesiastes-"Years should teach wisdom."

In ancient times when trained minds were rare and usually attached to the priestly office, the man of learning was held in great reverence and was clothed about in great dignity and in atmosphere ceremonial.

The wise men of the Babylonial ascendency, the expounders of the Zend-Avesta the prophets of Israel, each in the sombre dress peculiar to his particular Order, commanded the respectful regard of all the people of the Orient.

As the disciples of poverty, they travviolence of the universal brigandage, and the honor of their company was regarded a generous return for their entertain-

The very tew and very precious books nothing. that existed in the form of written scrolls, were retained in the sacred keeping of the temple and its priests prophets or wise men, and only on rare experience which will be gained where occasions and with most solemn ceremonies were they exhibited and read to the unlettered masses. And then they companies in the future, the results will read with care, as we are told in be more conclusive. That the percentage Nehemiah: 'So they read in the book, of losses from lightning varies greatly in in the law of God, distinctly and gave different seasons will be conceded by any the sense and caused them to understand the reading."

In this spirit the venerable wise man in our picture, possibly one of the aged prophets of Israel, reverently unrolls and displays a sacred parchment into which our artist reads four declarations appropriate to the modern New Year.

These are not the hackneyed phrases nual "swearing off" but the deep purpose protected buildings into separate classes by realizes increasingly that "Life is earnest, life is real."

The four brief injunctions, in as many laconic sentences, cover the myriad relations of life.

They speak for themselves and to the earnest reader, are at once appropriate texts and unanswerable sermons. Let us repeat them:

"I will strive to be worthier, in all things, of my life's opportunities and responsibiltes.

"For my country, I will improve every opportunity, especially of primary and election, to exert my influence for justice and progress and against graft.

"To my home, I will endeavor to bring harmony, cheerfulness, culture and the these columns during the last session of wholesomeness of a genuine Christian

"To my neighbor. I will try to be patient, helpfully sympathetic, and to exemplify the golden rule

A New Insurance legislature in amend-Problem. ing the law under which the Farmers'

Mutual Fire Insurance Companies of the state are organized, which provides that those companies may classify their risks with reference to their protection from lightning, brings this class of companies face to face with a new problem in in-

the law required that all classes of risks, their quality should be standardized so regardless of their prices, we will reduce them to points and are very generally amending their charters so that they may place the risks which are protected by properly installed lightning rods in one class, and those not so protected in another class. Under this arrangement which is being adopted by many companies, these different classes of risks will be assesed in accordance with their experience and that experience prevent state legislation, it would in most will result in more accurate statistics upon this point than are obtainable at the present time. In seeking for figures upon which to base the probable outcome

is the amount you collected for them. these statistics are not yet obtainable so get a free premium. A Class A premium are concerned, the general results which reputable manufacturer. for one year, or a two-year subscription, are a matter of record are of such a Two Class A premiums or one Class B nature as to make it aboslutely certain premium for a three-year or a five-year that this movement on the part of insursubscription. It will not take long to get ance companies is well advised. The figa few new subscribers. Try it. Three ures compiled by a committee of the Naone-year subscriptions will give you the tional Fire Protection Association appointed to investigate this subject will prove of interest to the reader. According to these figures of 357,346 fires occurring from 1898-1902, 15,755 were caused by lightning, occasioning an aggregate loss of \$21,757,185. It was also found that buildings that were isolated as farm buildings, are much more susceptable to fire from lightning than buildings in more thickly populated sections. It was further noted that in the classification of these losses, barns were found to be more susceptible than dwellings, in the ratio of 9,375 barns and 3,842 dwellings. The high proportion of barns destroyed or damaged would clearly indicate that the bulk of these losses were suffered by of Farther India, the Magi of Persia, and farmers. In 1907 the Ohio fire marshal reported 154 buildings fired by lightning in that state, resulting in a total loss of \$252,447, while in 1906 the loss was a third greater on account of a larger number of electrical storms. The secretary of one eled with comparative freedom from the large mutual insurance companies stated that in that year, 60 per cent of the losses sustained by his company had been caused by lightning but that the losses on buildings properly rodded was almost

Of course, comparisons between such widely differing number of buildings in the same class are not conclusive but the the rodded buildings are separately classified as they will be in many Michigan person who has made any effort to arrive at an accurate basis of estimating the relative proportion of losses by lightning in any company for any given year, but that this proportion will be greatly reduced by the proper protection from lightning is assured by experience already gained, and we believe that there could be no more wholesome lesson to this end than of the shallow mind indulging in his an- the segregation of the protected and unof the earnest soul who as the years roll by our farmers' mutual insurance companies, who carry practically all the rural risks in the state.

> Now that Congress is Important again in session, those who Legislation, are interested in National Legislation along any line,

should make that interest known to their representatives in the National Congress. While the discussion of congressional matters will not be so general as during the special session, when the tarilff bill was under discussion, yet there are important bills pending which merit the attention of those interested in agricultural matters. One of these is the so-called Pure Insecticide Bill. Concerning this bill, which was frequently discussed in Congress, Prof. E. D. Sanderson, director of the New Hampshire station and chairman of the executive committee of the manufacturers, entomologists and agricultural chemists who met last year to The action of the last discuss this proposition, writes as follows:

"At the last session of Congress a bill was introduced in both the Senate and House providing for the government control of the purity of insecticides and fungicides in much the same manner as the purity of foods and drugs is now cont-olled. This bill was introduced at the instance of the Association of Economic Entomologists. With the increased use that definite recommendations not be imposed upon the farmer. In if you do not renew at once. view of the fact that many states are enacting such legislation the manufacturers are warmly in favor of a national who have been taking the paper for a and will tend to secure greater uniformity of state legislation. While the passage of such a national law would not cases make special legislation by the states unnecessary and where states desired to legislate they would tend to pass three years, or \$2.00 for five years, with laws similar to the national law. Sev. liberal free premiums, as noted in the eral conferences of entomologists, agri- last issue. These are money saving propcultural chemists and manufacturers have ositions and should appeal to the regular been held and practically all of the large readers of the paper. But in any event,

\$1.50 for the two yearly subscriptions and rate statistics bearing upon this specific manufacturers of insecticides and fungi-\$2.00 for the five-year subscription, which point are not very plentiful. But while cides are heartly in favor of the measure which is drawn to protect the legitimate Each subscriber, including yourself, would far as comparative results in Michigan interests of both the consumer and the

"The measure has been again introduced at the present Congress in the House (H.R.2218) by Hon. E. A. Hayes, of California, and has been referred to the Committee on Interstate Commerce. The bill will also be introduced in the senate and an earnest effort will be made by the executive committee representing the entomologists, chemists and manufacturers to bring the measure to a vote before Congress. Practically all the leading horticultural and agricultural organizations of the country have endorsed the measure. It seems probable that the bill will be passed by Congress if the members of Congress become convinced that the people wish and need such legislation. At the last session of Congress the bill was favorably reported by the senate committee on agriculture but this report was so late in the session that pressure other business prevented vote at the short session. In their report this committee stated as follows:

'The bill was referred to the Secretary of Agriculture with the request for his views thereon and the measure as amended is exactly in line with his recommendation. The legislation has the unanimous endorsement of practically all the organizations of practical growers in the country, as well as the National Grange, the National Apple Growers' Congress, the American Association of Economic Entomologists and, in fact, all the organizations representing the consumers. On the other hand, practically all of the leading manufacturers are heartily in favor of the measure. Your committee consider the legislation of vital interest to the fruit and truck growers of the country and recommends its enact-

ment in a law." "We hear very frequent complaints of impure or ineffective insecticides. In many cases these complaints are unwarranted and lack of success is due to improper usage rather than poor quality, but there is no question that inferior goods are on the market as shown by the publication of analyses by some of the experiment stations. In the last yearbook of the U.S. Department of Agriculture it is stated that the Bureau of Chemistry has analyzed samples of arsenate of lead which were practically nothing but white arsenic. This would, of course, be quite injurious to foliage. The sale of such an article is not only unfair to the consumer but hurts the sale of properly made arsenate of lead, than which there is no better arsenical insecticide. If the fruit and truck farmers of the country desire such legislation for the control of the purity of insecticides and fungicides they should let their congressmen hear from them in favor of the passage of this measure (H.R.2218) at once and make

"If you are interested in this write your congressman at once, stating that the bill is before the Committee on Interstate Commerce and you wish their influence towards favorable report by the committee and prompt action by the House. Write at once as the matter is being pushed for speedy consideration. If everyone interested will thus show their interest the law can probably be passed."

their position clear as to the need of such

Among those who re-Is This Your ceive this paper, there are Last Issue? quite a large number for whom it will be the last issue received, unless their subscription is renewed. The Michigan Farmer always stops at the end of the time subscribed If your subscription expires with this issue, you will have received a notice by mail before this reaches you, and the of manufactured insecticides and fungi- tab on your paper will also indicate Before this amendment was made cides it has become very necessary that whether or not this will be your last issue. If the tab is without date or if "Jan." for the Michigan Farmer, as we have assessed ratably. But since the law was use may be made with accuracy and so will be your last issue and you will surely reads or "1Jan.0" then this different subscription periods at different amended in this regard, these companies that adulterated and inferior articles may miss one or more numbers of the paper

Among those whose subscriptions expire with this issue are a large number law which will govern interstate traffic few weeks or months on trial at a special trial subscription rate. If they have read the paper during the trial subscription period, we believe that they will want to become regular readers, and for the benefit of our regular readers we have made our long term offers of \$1.50 for

the reader who has found the paper suited to his needs during the term of his trial subscription will find it much more valuable to him during the succeeding as larger editions are pubmonths, lished during the winter season than during the busy season on the farm, and the paper will be more comprehensive in months, hence every trial subscriber who has found the paper adapted to his needs should become at least a yearly subscriber at 75 cents, in order to derive the greatest possible benefit from being a member of the Michigan Farmer family. If this is your last issue, renew at once and 30. avoid missing a single number.

AMERICAN BREEDERS' ASSOCIATION.

It was my privilege to be invited by Assistant Secretary Hays of the Department of Agriculture, to read a paper on Cow Testing Associations before the American Breeders' Association, which convened in Omaha on December 8-9-10. I confess I did not really comprehend the scope of the American Breeders' Association until I attended this meeting, this being the first one that I ever attended. This organization is broad enough in its scope to include every phase of biology and both animal and plant breeding and nearly every phase of the subject is discussed at the meeting. The members are largely experimenters connected with various experiment stations and others interested deeply in scientific investigation. The readers of The Farmer might wonder why a farmer was invited to read a paper on cow testing asociations before this scientific body. There is one phase of breeding which has not been developed very much as yet in this country, but which is to receive considerable attention by both the government and the various state experiment stations in the very near future, and that is, co-operative breeding of both plants, and animals. This idea has been carried out quite successfully with plants; that is, a beginning has been made. But heretofore little has been done along the line of co-operative breeding in animals. The idea of a cow testing association is co-operative and each cow testing association should be the nucleus of a co-operative breeding in animals. The idea of a cow testing association is co-operative and each cow testing association should be the nucleus of a co-operative breeding in animals. The idea of a cow testing association is co-operative and each cow testing association should be the nucleus of a co-operative breeding in animals. The idea of a cow testing association is co-operative and each cow testing association should be the nucleus of a co-operative breeding in the production of the interest in this subject to these scientific men. The idea is that if each cow testing association would breed the same breed of dairy cattle that the effects of prepotency of the different sires used in the community could be noticed and when a prepotent sire was found, one that was exceptionally good in the production of heifers, it would be known by the community and thus his prepotency and value preserved. It is a well established fact that many of the best dairy sires have been slaughted productive proven of the dairy breed.

Ahe American Breeders' Alsociation in the productive power of the dairy breed.

Ahe American Breeders' Alsociation in the productive power of the dairy breed.

Ahe American Breeders' Alsociation in the productive power of the dairy breed.

Ahe American Breeders' Alsociation in the productive power of the dairy breed.

Ahe American Breeders' Alsociation in the productive power of the dairy breed.

Ahe American Breeders' Alsociation in the productive power of the dairy breed.

Ahe American Breeders' Alsociation in the productive power of the dairy bre tention by both the government and the various state experiment stations in the

was a great show indeed. While the name would seem to imply that nothing except corn was exhibited, in reality it was an exhibition of not only corn, but all the grass family and the cereals, and many other of the agricultural products of the United States. Indeed, it might be said to be an exposition of the agricultural production of the Union. Many of the states were represented at this show and practically all of the states in the central and western part of the Union. Our Michigan Experiment Station made very creditable exhibit. It was large, compared with some of the other exhibits, but it was well selected, the natural productions of the state were brot out rather strikingly, and withall it was a very great credit to Michigan. The exhibit of corn from Michigan was one of the poorest parts of the Michigan exhibit. Talking with those in charge from the Agricultural College, I learned that the corn growers of Michigan seemed to take but little interest in this show. That not enough samples were sent so that good selections could be made and Turkish it really showed a lack of enthusiasm on the part of the corn growers, but a larger quantity of each variety would, of course, have made a better show.

COLON C. LILLIE.

BY THE CART LOAD.

When we have to go to the post office with a cart to get our mail you may know there is something doing among the farmers of Michigan and how they show their appreciation of a good farm paper. One cause for our heavy mails just now is character and broader in the scope of its that we offered in addition to two class every department during the winter A premiums or one class B premium one that we offered in addition to two class of our handsome art calendars to all who would send their order for five years at \$2.00 and mail their order on or before Should we have any of December 25th. the calendars left after the 25th we will continue to send them up to December The five-year offer is certainly a good one. It saves \$1.75 in money besides remitting expenses and insures a continuous subscription without a break for 260 weeks. It is less than the wholesale agents' rate on yearly subscription. very large percentage of our orders are for five years.

2 FOR I.

Any person who will send with his own subscription a new subscriber may have in addition to his own premium, another selection to be of the same class as the new subscriber is entitled to. One class A premium is given with a one-year subscription at 75 cents; two class A or one class B premium is given with a threeyear subscription at \$1.50 or the same with a five-year subscription at \$2.00. A list of premiums is given in December 11 Will send illustrated premium booklet free on request. Providing you have already sent your own order for every new subscriber you send you will get for yourself one selection of the same class as the subscriber.

HAPPENINGS OF THE WEEK.

Foreign.

the control of the Provincial authorities.
The French government has established a board of horticulture in connection with the ministry of agriculture for premoting horticultural work in that country.
Because German agriculture is unable to provide for the wants of the German people when protected by a high tariff it is being argued on the floor of the second chamber that the embargo on meats should be raised.

National.

Notice has been served on about 75 different railway companies east of the Mississippi river, demanding an increase in wages for trainmen, of from five to forty per cent over the present scale. The order represents a demand from about 75,000 trainmen. No ultimatum has been made in case the demand is not granted. The telegraphers of the Big Four road have voted to go on a strike in case the demand for an increase in wages is not forthcoming from their employers. About 1,000 men are involved in the demand.

Congress will attempt to reorganize the government of the Panama Canal Zone during its present session.

A passenger train traveling over the Southern Pacific railroad at a high rate of speed was derailed at Tucson, Arizona, causing two deaths and the injury of 23 other persons.

The captain of the steamer Cosmopolis.

causing two deaths and the injury of 23 other persons.

The captain of the steamer Cosmopolitan Prince was recently arrested in New York upon the charge of having the steerage of his vessel in an unsanitary condition. The recent report regarding the transportation of immigrants to this country pointed out the deplorable condition under which they were compelled to travel and the authorities have begun a campaign toward correcting the nuisance.

Five cars on the southern railroad were thrown into a creek near Greensboro, North Carolina, and 11 persons were killed.

thrown into a creek near Greensboro. North Carolina, and 11 persons were killed.

Ex-Pension Commissioner Dudley, of Indiana, died in Washington last week, after a long illness.

President Taft has finally consented to the demands made upon him for an investigation into the circumstances leading up to the Ballinger-Pinchot controversy. It was thot by members of the cabinet and others that the charges raised by Glavis would work to the disadvantage of the party should the matter remain uninvestigated.

Eight men were reported killed in the United States, Monday, in race wars—three, two negroes and a white man, were killed in an open battle at Grand Cane, La., one negroe was killed by a mob at Sumner, Miss., another who had shot down the mavor of Rosebud, Texas, was put to death by a mob at that place, at Devall's Bluff, Ark., another negro was shot to death in his cell at the local jail, and at Magnolia, Ala., a negro was burned in a hut by a mob of enraged citizens. Gov. Deneen, of Illinois, called out eight companies of troops to protect negro prisoners at East St. Louis and Belleville, in case a mob attempts to take them from the custody of the officers.

A sudden inflow of slushy material from a higher level entombed four miners in the Cleveland Iron Mines of the Upper Peninsula of Michigan. Two of the unforunate miners have been taken out after seven days work, one of them was dead but the other was able to walk after the long imprisonment. Two others are still missing.

Judge Lurton was confirmed without an opposing vote by the senate Monday, as justice of the United States Supreme Court.

Ex-United States Senator Harris, of Kanasas, died suddenly of heart disease in Chicago. Monday.

Court.

Ex-United States Senator Harris, of Kansas, died zuddenly of heart disease in Chicago, Monday.

The American bankers association have dropped the Pinkerton detective agency after a service of twenty years.

The battleship Georgia has been placed in dry dock at Norfolk, Va., to be repaired of injuries received in a collision with another ship.

A new plant for manufacturing sheet iron and tin plate products will be located at Gary, Ind. The concern is capitalized at \$4,500,000.

CROP ACREAGE AND YIELD FOR 1909.

The final estimates of the Crop Reporting Board of the Bureau of Statistics, United States Department of Agriculture, based on the reports of the correspondents and agents of the bureau, indicate the harvested acreage, production, and value of important farm crops of the United States, in 1909 and 1908, to have been as follows:

Farm Value December 1.

	Acreage.	Froduction.	rei bu.	I Otal.
Crop.	Acres.	Bushels. x	Cents.	Dollars.
Corn, 1909		2,772,376,000	59.6	\$1,652,822,000
Corn, 1908	101.788.000	2,668,651,000	60.6	1.616,145,000
Winter wheat, 1909	28.330.000	446,366,000	102.9	459,154,000
Winter wheat, 1908	30 349 000	437,908,000	93.7	410,330,000
Spring wheat, 1909	18 393 000	290,523,000	93.1	270,892,000
Spring wheat, 1908	17, 208, 000	226,694,000	91.1	206,496,000
All wheat, 1909	46.723.000	737,189,000	99.0	730,046,000
All wheat, 1908	47 557 000	664,602,000	92.8	616,826,000
Oats, 1909	33 204 000	1,007,353,000	40.5	408,174,000
Oats, 1908	32 344 000	807,156,000	47.2	381,171,000
Barley, 1909	7,011,000	170,284,000	55.2	93,971,000
Barley, 1909		166,756,000	55.4	92,442,000
		32,239,000	73.9	23,809,000
Rye, 1909		31,851,000	73.6	23,455,000
Rye, 1908		17,438,000	69.9	12,188,000
Buckwheat, 1909		15,874,000	75.6	12,004,000
Buckwheat, 1908		25,856,000	152.6	39,466,000
Flaxseed, 1909	0 000	25,805,000	118.4	30,577,000
Flaxseed, 1908	720,225	24,368,000	4 79.4	19,341,000
Rice, 1909	655,000	21,890,000	81.2	17,771,000
Rice, 1908	3,525,000	376,537,000	54.9	206,545,000
Potatoes, 1909	3,257,000	278,985,000	70.6	197,039,000
Potatoes, 1908		* 64,938,000	°\$10.62	689,345,000
Hay, 1909		* 70,798,000	° 8.98	635,423,000
Hay, 1908		† 949,357,000	§10.1	95,719,000
Tobacco, 1909	975 000	† 718,061,000	\$10.3	74,130,000
Tobacco, 1908	875,000 * Tons.	Per ton.	† Pounds.	§ Per pound.

in the records to justify the claims made by the explorer.

Edhem Pasha, commissioner of the Turkish troops during the Greco-Turkish war of 1897, died in Caro, Egypt, last Friday.

Announcement was recently made before the corn growers' convention at Winfore the corn growers' convention at Winfore that the Province of Manitoba has taken over all the grain elevators in that Province, which will hereafter be under

Why Use a Ten-Year Nail for Laying Thirty-Year Shingles Send postal for samples, prices and particulars of the M. I. F. CO. ZINC COATED" Brand of iron cut nails. They will last a life-time. Malleable Iron Fittings Company,



BRANFORD, CONN.

THE LARGEST AND BEST LINE OF

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

12 Grape Vines, Delivered, \$1.10

Select Vines, Choice Family Varieties.
All the grades a family can use all thru the season. 4 Delaware, KED, midseason. 4 Niagara, WHITTE, late. 4 Worden, BLUE, early.

Postpaid for \$1.10.
If in need of nursery stock, any kind 1 or 1000 write us. GRAND RAPIDS NURSERY CO., Grand Rapids, Michigan.



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

Farmers. Almanac

Ask Secretary., Columbus Savings and Trust Co., Columbus, Ohio. A postal card will do; while they last.

SALESMAN WANTED or \$100.00 per month with ex-PREMIER CIGAR CO., Cincinnati, Ohio,

SALESMEN WANTED—To sell trees and plants.
Highest commissions payable weekly. Write for free outfit. Perry Nurseries, Rochester, N. Y.

WANTED—Men to learn barber trade. Bar, bers wanted daily. Tuttion and tools \$25. Catalog free. MICHIGAN BARBER COLLEGE, 37 East Congress Street, Detroit, Mich

WANTED-Reliable man for general farming, married preferred. Steady work.

A. BLAESS, Saline, Michigan,

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

CALVES RAISE THEM WITHOUT MILK
BOOKLET FREE.
J. E. Bartlett Co., Jackson, Mich.

254	PAGE	CATA	LOG FREE
			BER, SHINGLES, T. ALSO DESCRIB-
ING FULL	LINE OF	ENGINES, B	D MILL GEARING
			357 Bridgeport, Alabama,

I Gured My Rupture

I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you, Fill out the coupon below and mail it to me today.

CAPT.	w.	A.	COLL	INGS,		
		Bo	x 219	Wate	rtow	n. N. Y.
Dear Sin	r:-P	leas	e send	me free	of all c	ost you
TAGM	Diac	ove	ry for	the Cur	e or F	tupture.
Name					e or 1	upture.

When writing to advertisers please mention the Michigan Farmer.

THE ANNUAL MEETING.

(Continued from last week).

The evening session of Tuesday was by the delegates assembled, then followed taxes can be delivered to the nearest 15 years ago did our state pass the \$2,a humorous reading by Mrs. D. S. Morrison, of the Essex Farmers' Club. After another musical number came the president's address. President Chandler op- be an extension of the benefits of rural 000,000. The speaker took note of the ened his address with the assertion that mail delivery and that some practical increased cost of our charitable and penal the past year has been one of great plan should be provided by law for carry- institutions for which purpose the tax prosperity for the farmers and noted the fact that our farmers, as a class, stand higher today, financially, intellectually, and in the scale of good citizenship than they did five years ago. The extent of duty on all oleo colored like butter is a the farmer's prosperity was commented law in the interest of good farming, not by the legislature has increased about upon and verified by quotations from the so much from the direct value we get \$1,000,000 over that for 1895. But with erence was made to the fact that the fraud and deceit should be practiced in tax levy is still from \$1,000,000 to \$1,500, United States is rapidly becoming a great the sale of wholesome foods of any kind manufacturing nation and statistics were and this law being one of pioneer kind seem to warrant. This fact he explained quoted to show that more and more of in that direction we object to its repeal our products are being consumed at home or the encroachment of fraud in the food islature at successive sessions to apeach year. The great falling off of ex- line upon either the producer or con- propriate as much money into several ports in the face of unprecedented high sumer. prices for farm products shows that there is need for a closer study of the home markets in our own centers of population of the tariff commission before the Payne bill, simply for the reason that they did and trade. After stating that it is no bill was prepared and passed that no farm not desire to have it appear that state great gratification to the farmer that the consumer is at the present time paying enormous prices for his living, for the reason that with few exceptions, the for the manufacturer, with the farmer porarily to the general fund until taxes farmers are not receiving their proper standing back at a respectful distance part of the retail price of such products, and acting purely as an audience, President Chandler continued as follows:

The farmers of this state as reasonable men are only asking for a fair profit upon their investments and a reasonable price and the application of better business principles in their calling they can raise more of meat with the same expenditure of money and effort where they raised one their prices and they are content with their progress. Their study continuously is one of economic production.

exhausted. They must now learn to raise ered as exhausted and what applies to necessarily have been a drain upon the fertility of the soil.

Farmers of the future must study and better understand the subject of animal the people whom they are trying to dehusbandry and economic meat production. fraud. This alone can return fertility to the soil and preserve their investment.

The fact that lumber has been driven from the market either by lavish waste of placing them upon sugar, rice, flour of timber on the farm or the high price and any other commodity which is an maintained by the lumber trust, we are absolute necessity for the support of the driven to use cement or iron as building poor. materials and the new question of building and fencing in the future must be considered by the farmer before he is an expert in his business.

The dairy question has passed beyond that of a dual purpose cow to the question of a dual purpose man. Like other branches of farming he is compelled today to be not only a good farmer but a good business man. It is little use to confine our attention solely to the production of the question of a central bank, but such choice was made on the first ballot in record crops, if some other man is to set our prices for all we have to sell and dictate the division of our profits.

This does not mean that farmers should tence. combine to boost prices which are now commit the same sin that we charge upon the subject of "Practical Temperance." for social improvement and enjoyment, mention. for a place to discuss economic farming and to best breed and feed all kinds of last address of the session was given by will permit, we will review some of them if to these meetings we invite our neighbeing, "The State's Financial Predica- will be made the subject of comment by bors from smaller villages and towns ment." Mr. Heman's address was most the delegates in their reports as most of and dignified.

tween the towns, furnishing greater delight for pleasure seekers and joy-riders

Parcels Post.

thousands of dollars. We believe, also, that the Grout bill fixing a 10 per cent auditors in increased expenditure in new

The Tariff.

We deeply regret that at the hearing organization had its representative at any hearing and that said law was allowed to become, and was, a bargain counter

organized agriculture would have helped frame a law which would have protected 60 per cent of the population of the Unifor their labor and if by scientific study ted States and 75 per cent of its total speaker stated that even then the estivaluation, instead of turning this important function over to men who represent to a point which made it probable that two bushels more of grain or two pounds the great corporate and banking interests of the United States.

I note that Senator Aldrich stated in before, then farmers are satisfied with Detroit that the farmers are fast becoming bankers. I think the statement would cial problem was the same as that which have been nearer correct if he had said that men, bankers and stockholders, are In the past wheat has been considered becoming farmers and that the loans only a pioneer crop and has followed up upon the farms are fast weeding out poor the clearing of wild lands until all such farmers who are not learning the business new land and virgin soil is now well nigh and putitng their agricultural knowledge to the best practical use. We believe wheat on soils which have been consid- that those corporate agents, interests and should be practiced in the administration trusts which have a monopoly of any wheat, in Michigan at least, must apply trade or business in the United States to clover, potatoes and other crops which and those who, selling their commodities in foreign markets cheaper than they do in the administration of business affairs, in the home market, should receive very contending that by this plan a further little tariff protection at the hands of

The import duties under the tariff law we believe should be placed largely upon past. the luxuries used by the wealthy instead

Whatever may have been the necessity which wiped out the principle of reciprocity in the tariff bill, it is certain that the sugar trust and tobacco interests could have withstood a reciprocity treaty with a foreign country where it is necesto farm products.

Finance.

It is important for farmers to discuss experiments have been exploded so many years ago that even the schoolboy in his history is able to explain some of its As soon as possible farmers must and features and at the present time we can every community, not only in breeding form of organized greed which is an at- Treasurer, Henry T. Ross, Brighton; Dikinds of seeds, machinery and fertilizers. such a nest of corruption and incompe- Wrigst,

Following President Chandler's address, as high as the consumer can afford to Mrs. Anna McCarty, of Laingsburg, gave A. R. Palmer, of Jackson. pay, and which combination would be to an exceptionally well received paper on combinations for organized greed, but it As this paper will be either published in of the other features of Wednesday's dies mean that we combine in an inter- full or summarized in a future issue, we sessions, but the various addresses menchange of the best ideas of our calling pass it for the time being with this brief tioned in the program were of a charac-

stock. Such meetings are a benefit to Hon. Lawton T. Hemans, of Mason. The in the consumer as well as to ourselves and subject assigned to him on the program Without question, the addresses delivered they will be a benefit to us and make carefully prepared and eloquently deliv- them were attentive listeners, and many the home life on the farm more pleasant ered. He began it by stating that if the took copious notes. wording of the subject had been left to

present is that of buildings better and as it appeared upon the program. He of the Association to be in good shape more good roads. We believe that with reviewed the history of our state and its with a balance of \$111.30 in the treasury. the advent of the automobile has come growth and said that practically all there the idea to many of the highway com- is to the "predicament" is that the state of the Maple River Farmers' Club, read missioners that roads should be built be- has performed more activities and provided more jobs, than it has provided funds to pay for. He stated that during instead of developing the trunk lines into the 75 years which Michigan has been opened with music by the pupils of the the greater producing districts where a state it has levied a total in state taxes Blind School, which was much appreciated farmers' products of those who pay the of \$71,000,000 in round numbers. Not until 000,000 mark in its state tax levy, which has been increased from year to year We believe, also, the parcels post would until our present tax levy is nearly \$6,ing small parcels between the town and levy has increased about \$1,500,000 as country and which would save the farmer compared with 1895. He also stated that the expenditure allowed by the state and enlarged state departments created annual report of Secretary Wilson. Ref- from it as from the principle that no these sums added he noted that the state 600 higher than these conditions would as resulting from the failure of the leghundred thousand dollars each year as the state accountant estimated should be appropriated in the general appropriation taxes were being increased. This deficit has been obviated by the transferring of the primary school and other funds temcould be collected. But a recent decision of the Attorney General to the effect We believe that the representatives of that such a course was illegal, compelled the appropriation of a sum of money at the last session of the legislature which would make up for this deficit. The mates of the state accountant were cut this deficit would not be entirely made up by the increased tax levy of the present The speaker summed up his remarks by stating that the state's finanperplexes any individual who finds ways to spend his money faster than he provides revenue to meet obligations. He conceded that the institutions which we now have will continue with us and must be supported with that liberality which becomes the state, but believes there of government the same reduction of administrative force and combination of functions which is the order of the day rapid increase in our tax budget would not prove necessary, but that otherwise it would increase in the future in the same startling ratio that it has in the Honorary Members.

By the adoption of the report by the committee on honorary membership, Ex-Presidents J. W. Edgar and A. N. Kimmis were added to the list of honorary members of the State Association.

The New Officers.

The election of officers was quickly disposed of after the report of the nominating committee, which was made at the close of Wednesday morning's sessary to open the markets of the world sion, at which the resolutions published in the last issue were considered and adopted. This committee reported a list of several names for every office, and the each instance, the following new officers being elected for 1910: President, B. A. Holden, Wixom, Mich.; Vice-President, Mrs. C. A. Mathews, St. Johns: Secrewill learn the value of co-operation in not help but look with suspicion on any tary, Mrs. Jennie E. Johnson, Metamora; and raising stock but in procuring all tempt to have the government establish rectors elected for full term, C. L. Caro, and E. W. Woodruff. chard; to fill vacancy caused by the election of Director Holden, as president,

Other Features of the Meeting.

Space will not permit us to give details ter to not only entertain but to instruct Following another musical number, the and enthuse delegates present. If space this department in future issues.

The treasurer's report which was given

Another question which interests us at him, he surely would not have worded it at the last session showed the finances At this session, Mrs. A. G. Heartshorn an excellent paper, entitled "The Golden Age of America," which was well received. Mr. John Hamilton, Farmers' Institute Specialist of the Department of Agriculture at Washington, gave the address of the evening. Mr. Hamilton's address was full of good suggestions for the future of the Farmers' Club movement in Michigan, and will be reviewed in an early issue.

Thus closed the 17th annual meeting of the State Association, admitted by all present to have been fully up to those that have preceded it in point of interest

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 \$1.86\$. 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 78c 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-y ear 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.

Times, Detroit	NAME OF PUBLICATION.	t	ior	1	abi	V C	e.
Journal, Detroit, Mich on rural route 2 60 3 2 5 2 5 7 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Daily. (6 a Week.)	1		I		I	8
Times, Detroit. 2 00 2 00 1 50 1 News Grann Rapids, Mich. 2 00 2 00 1 50 1	Journal, Detroit, Mich on rural route		50	3	25	2	5
News Grand Rapids, Mich., (inc. 200 201 50 201 50 201 50 201 50 201	" off " "		00	2	50		7
Tri-Weekly, (3 a Week.) 1 00 145 71 100 145 72 100 145 73 100 145 74 100 135 74 100 135 74 100 135 74 100 135 75 100 135 100 13	News Grand Rapids, Mich						5
Tri-Weekly, (3 a Week.) Semi-Weekly, (2 a Week.) Journal, Detroit, Mich	Courier-Herald, Saginaw, Mich., (inc.	0	50	2	30	1	A
Tri-Weekly, (3 a Week.) Semi-Weekly, (2 a Week.) Journal, Detroit, Mich	News, Cleveland, Ohio	2	00	2	60	1	8
Tri-Weekly, (3 a Week.) Semi-Weekly, (2 a Week.) Journal, Detroit, Mich	Tribune, Bay City, Mich	2		2	25		
Semi-Weekly, (2 a Week.) 1 00 1 35 75 76 76 76 76 76 76 7	Tri-Weekly. (3 a Week.)	1		1		1	
Semi-Weekly, (2 a Week.) 1 00 1 35 7.	World, New York, (8 a week)	1	00	1	45	1	7
Weekly Newspapers and Ourrent Comment. Blade, Toledo, Ohio	Semi-Weekly, (2 a Week.)					1	
Blade, Toledo, Ohlo		1	UU	1	30	1	"
Harper's Weekly, N. Y.			00	١.	05	1	
Harper's Weekly, N. Y. 4 00 4 00 3 5	Commoner. Wm J. Bryan, Editor,	1		1		-	8
Cattle, Sheep Swine, Poultry, etc. American Poultry Journal, Chicago(m) American Sheep Breeder, Chicago (m) Farm Poultry Boston, Mass. (s-m) Farm Poultry Boston, Mass. (s-m) Farm Poultry Boston, Mass. (s-m) Farm Poultry Boston, Mass. (m) Farm Poultry Advocate Boston, Mass. (m) Farm Poultry Boston, Mass. (m) Farm Poultry Boston, Mass. (m) Farm Poultry Advocate Boston, Mass. (m) Farm Poultry Advocate Boston, Mass. (m) Farm Poultry Boston, Mass. (m) Farm Poultry Boston, Mass. (m) Farm Poultry Advocate Boston, Mass. (m) Farm Poultry Boston, M	Lincoln, Neb	1	00	1	85		
Americ'n Poultry Journal, Chicago(m) American Poultry Advocate, Syracuse. N. Y. (m)	Cattle Sheen Swine. Poultry.etc.		00	3	00	0	0
Hoard's Dairyman, Fort Atkinson, Wis.	Americ'n Poultry Journal, Chicago(m)	1	50	1	05		8
Hoard's Dairyman, Fort Atkinson, Wis.	American Poultry Advocate, Syracuse,	1				-	
Hoard's Dairyman, Fort Atkinson, Wis.	American Sheep Breeder, Chicago (m)	1	00	1	50	1	8
Hoard's Dairyman, Fort Atkinson, Wis.	American Swineherd, Chicago, (m)		50	1		1	
Hoard's Dairyman, Fort Atkinson,	Gleanings in Bee Culture, Medina, O.	L				1	- 7
Poultry Reeper, Quincy, III. (m)	Hoard's Dairyman, Fort Atkinson,	1			-	1	7
Poultry Reeper, Quincy, III. (m)	Wis. (W)		00	1			0
Poultry Reeper, Quincy, III. (m)	Horseman, Chicago, (m)	2	00	2	30	1	6
Poultry Reeper, Quincy, III. (m)	Jersey Bulletin, Indianapolis, Ind. (w) Kimball's Dairy Farmer, Waterloo.		00	1	60	1	0
American Magazine, (m)	Ia., (s-m)	1	40	1	05	1	
American Magazine, (m)	Poultry Reeper, Quincy, III. (m) Poultry Success, Springfield, O. (m)	1	50	1	05	1	
American Magazine, (m)	Reliable Poultry Journal Quincy, Ill. (m	1	80			-	
Popular Magazines.			50	1	05		8
Outling Magazine, N. Y. (m)	Popular Magazines.			1			
Outling Magazine, N. Y. (m)	American Magazine, (m)	1		1	50		80
Outling Magazine, N. Y. (m)	Century Magazine, N. Y. (m)	4	00	4	30	8	8
Outling Magazine, N. Y. (m)	Country Life in America, N. Y. (m)	4	50	4	00	4	
Outling Magazine, N. Y. (m)	Garden Magazine, N. Y. (m)	i	00	1	45	ľ	71
Outling Magazine, N. Y. (m)	Good Health, Battle Creek, Mich. (m)	1	.00	1	20		7
Outling Magazine, N. Y. (m)	Hampton's Magazine, N. Y. (m)	1	50	1	75	1	10
Outling Magazine, N. Y. (m)	Harper's Magazine, N. Y. (m)	4	00	4	00	3	
Outling Magazine, N. Y. (m)	Mechanical Digest Grand. Rapids (m)	1	50		85	L	2
Outling Magazine, N. Y. (m)	Musician, Boston, Mass. (m)	1	50	1	80	1	50
Designer, N. Y. (m) 75 1 30 60	Outing Magazine, N. Y. (m)	3	00	3	00	3	00
Designer, N. Y. (m) 75 1 30 60	Pearson's Magazine, New York (m)	1	35 50	1	50	1	80
Designer, N. Y. (m) 75 1 30 60	Red Book Magazine, Chicago, Ill. (m)	1	50	1	95	1	28
Designer, N. Y. (m) 75 1 30 60	Success, N. y. (m)	1	00	3		3	
Designer, N. Y. (m)	World To-Day, Chicago Ill. (m)	1	50	î		1	
American Boy, Detroit, Mich. (m) 1 00 1 25 75 11tle Folks, Salem, Mass. (m) 1 00 1 55 1 00 1 155 1 100 1 55 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100	Designer, N. Y. (m)						
American Boy, Detroit, Mich. (m) 1 00 1 25 75 11tle Folks, Salem, Mass. (m) 1 00 1 55 1 00 1 155 1 100 1 55 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100	Everyday Housekeeping, Salem,			1			
American Boy, Detroit, Mich. (m) 1 00 1 25 75 (Little Folks, Salem, Mass. (m) 1 00 1 55 1 00 1 100 1 55 1 100 1 55 1 100 1 55 1 100	Harper's Bazar, N. Y. (m)	1			05	1	
American Boy, Detroit, Mich. (m) 1 00 1 25 75 (Little Folks, Salem, Mass. (m) 1 00 1 55 1 00 1 100 1 55 1 100 1 55 1 100 1 55 1 100	Housewife, N. Y. (m)	-	35	1	00	•	30
American Boy, Detroit, Mich. (m) 1 00 1 25 75 (Little Folks, Salem, Mass. (m) 1 00 1 55 1 00 1 100 1 55 1 100 1 55 1 100 1 55 1 100	Mother's Mag., Elgin, Ill. (m)		50	1	10		
American Boy, Detroit, Mich. (m) 1 00 1 25 75 11tle Folks, Salem, Mass. (m) 1 00 1 55 1 00 1 155 1 100 1 55 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100	Modern Prescilla, Boston, Mass (m)		75	1	30		60
American Boy, Detroit, Mich. (m) 1 00 1 25 75 11tle Folks, Salem, Mass. (m) 1 00 1 55 1 00 1 155 1 100 1 55 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100 1 155 1 100	Woman's Home Companion, N. Y	1	25	1	75	1	
Sunday School Times, Philadelphia 1 00 1 55 58 Pa. (w)				-	-		
Sunday School Times, Philadelphia, Pa. (w)	American Boy, Detroit, Mich. (m)	1	00	1	25		
st. Nicholas, N. Y. (w)	Sunday School Times, Philadelphia		- 1		- 1	_	-
Young People's Weekly, Elgin, Ill. (w) 751 20 75 Youth's Companion, Boston, Mass. (w) 751 20 75 (new or old).	St. Nicholas, N. Y. (w)	1 2	00	1	55	9	85
(new or old)	Young People's Weekly, Elgin, Ill. (w)	J	75	1	20	4	
	(new or old)		- 1			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. under any circumstances.

GRANGE

"The Farmer is of more equence than the farm, and should be improved." Our Motto-"The Farmer

THE STATE GRANGE MEETING.

To cover in detail all of the work which week's meeting of the Michigan State Grange at Traverse City, would require an entire issue of The Farmer. Even the meeting the best ever held in this state can scarcely be given the space they deserve at this time, and some of the more important ones will receive further atmeeting.

Whatever may have been the opinion the Grange. as to the wisdom of taking the State direction of the executive committee this Grange to the "north country," none but sub-committee purchased, during words of commendation were heard at the close of this meeting. The cordial and sincere reception given the Grange by the citizens of Traverse City and the Patrons of that section, and the excellent accommodations afforded in the way of convention hall, committee rooms, etc., added much to the comfort and convenof the busy delegates and unquestionably had a bearing on their almost unanimous decision to return to Traverse City for next year's meeting. An unusual number of visitors were in attendance, many of whom found time to inspect the committee was instructed to prepare a these as were hitherto strangers to this system evolved was put in force this section of the state returned home con- year. Being new, it did not work pervinced that its agricultural possibilities are far greater than they had dared be- ily remedied. tined to work great benefit to the progressive farmers of northern Michigan. The excellent showing of agricultural products, especially the magnificent exhibit H. F. Baker, of Cheboygan county, and of apples, made by the Granges of the F. G. Palmer, of Gratiot county, for anvarious counties of that region proved other term. a complete surprise to Patrons from the southern part of the state. A portion of this big apple show had been prepared by the Granges and exhibited at the Na- It was a very strong Grange paper and tional Irrigation Congress at Chicago at Traverse City spoke volumes for the delegates upon the present satisfactory keeping quality of this fruit.

to many Patrons the complete realization planted in new territory, the Grange still that the Grange is a state-wide organization in Michigan, and that this meeting, instead of being held "away up north," as many supposed, occurred at what is may be properly given, the continuance state. While every county of the state predecessor entitled to representation, a failed to respond, 77 of the 83 counties support of the county deputies and the had been predicted, was the largest that resented the Pomonas.

The Order's Financial Condition.

to be quite satisfactory. The annual re- that while the practice of allowing the high. This has largely been true of fraport of Secretary Hutchins stated that 98 Grange to choose its speaker has given Granges had been added to the roster the best of satisfaction, he believed that nothing to recommend them but insursince last year's meeting, 90 of which a more careful consideration, by the ance. But it seems to me that the great were new Granges and eight re-organ- Grange requesting the service, of the work of the Grange outside of insurance ized. approximately 48,000, an average of nearly scheduling speakers, would materially re-60 per Grange. Appended to this report duce the expense of this service. was a financial statement which showed urged the Pomona Granges to give more as it is bound to do, and that we will thus was crowded into four busy days at last expenses for the past year aggregating careful supervision to the work of their \$20,195.05. Prominent among the items subordinates and recommended that the in this statement were: Expenses of last executive committee of each Pomona hold State Grange, \$5,355.47; National Grange at least four meetings each year for the outstanding features which stamped this fees and dues, \$2,173.13; organization express purpose of devising ways and work, \$1,858.73; supervision work, \$1,876 .- means for organizing new Granges and 93; Grange rallies, \$1,226.56. The receipts for strengthening its weak subordinates. for the year, including balance of \$7,152 .on hand a year ago, aggregated \$24,- regular sessions of the Pomona. tention in future issues. The least that 774.04. The treasurer's report was practically covered by the above statement can be said is that the success of the meeting clearly exceeded the expectations of the organization's leaders, and the mittee. This report related that the subdelegates separated with renewed deter- committee on co-operation had received from percentage on trade contracts the of their responsibility for the success of past year, a total of \$8,568.32. The exthe new lines of work laid out at this penses of this sub-committee were \$2,-364.64, leaving \$6,203.68 to the credit of The invested funds were of Patrons in the older Grange counties reported in satisfactory condition. At the the year, 6 per cent Oklahoma school bonds to the amount of \$13,000, the total cost, including premium and interest, being \$14,881.70. On December 1 of last year the total securities and cash in the care of this sub-committee aggregated \$39,-355.36. On December 1 of this year the total of same was \$43,266.55, a gain of \$3.911.19.

An innovation was the election of offihas been in vogue since the early days of the Grange. Last year the executive fectly, but the slight defects will be easresulted in the recognition of the Upper Peninsula by the election of Jerry Lawson, of Chippewa county, and the return of

State Master's Recommendations.

of State Master Hull's annual address. was well received by the delegates. Rethree weeks previous to this meeting, and viewing the splendid organization work contribute something to his needs their uniformly good condition when seen of the past year, he congratulated the Attendance at last week's meeting brot that while the Grange banner has been has a duty to perform in encouraging and aiding the new organizations in every was recommended. value of summer rally and field meetings, to supply them. He spoke eloquently of against fraternal insurance that after a

The condition of the Order was shown dinate and Pomona Granges and declared thing new and the rates go unreasonably The membership in the state is expense entailed, and a better system of is bound to appeal to the young farmers These meetings should be held before the

Grange Life Insurance.

A portion of Master Hull's address which was listened to with rapt attention was the section on insurance, as it was pretty generally known that the subject of Grange life insurance would come up at this meeting. After briefly mentioning the success which has attended the Grange fire and cyclone insurance companies in the past, and giving them credit for having brot many good farmers into the Order, he said:

"For some years back a part of our membership have been asking for Grange life insurance. But there did not seem to be sufficient call for it to warrant its establishment. During the past year we have organized a large field of hitherto unoccupied Grange territory. There seems to be, in this new field, a need of some form of efficient life insurance. I am not one of those extremists who becers by a system other than that which lieve that everyone should carry life insurance, neither do I especially recommend life insurance as an investment. But I do believe that there are many in new method of election, to be patterned and out of our Order who ought not to cursions into the country, and such of after the Australian ballot system. The be without it. Many young men and a committee had been appointed to formsome young women have parents who ulate a plan looking to the practical cowill be or are partly or wholly dependent upon them. If they live, all will be well, The election for three but if they should, as is always possible, lieve, and that the Grange, already very members of the executive committee meet an untimely end, it means privation strong in some of these counties, is des- whose terms expired with this meeting and perhaps humiliation to those dependent ones. It would seem that every man who has a wife and children, and has not of material things enough to provide for them were he taken, is in duty bound to make some provisions against such a disaster as having his family separated, all their home ties broken and the Space will not permit the publication wife reduced to want. I like the idea of fraternal insurance. If my brother's home has been marked by the grim destroyer, I am willing from my means to .And inasmuch as we are all dependent upon our brothers when we are establishing condition of the Order, but warned them ourselves in this world, and again when we are loosening our moorings and slipping out into the great beyond, it is well that our fraternity should teach us not to forget. * * * An ideal insurance to forget. * possible manner. In order that this aid company is the one that combines the best risks with efficient inexpensive maapproximately the Grange center of the of the deputy system as organized by his chinery. It seems to me that no organi-He zation is better equipped to furnish ideal strongly urged a more general and hearty insurance than is the Grange. Mortuary tables prove that farmers are the best sending delegates. The delegate body, as general and state deputies. Touching the life risks in the world, and in our Granges we already have the desired ma- shall favor the enactment into law of has ever composed a Michigan State he declared that the demand for special chinery. There is bound to be expense measures making telephone companies Grange, numbering 423. Of these 320 speakers for such meetings has grown connected with insurance, but we ought were subordinate delegates, while 103 rep- almost beyond the ability of the Grange to be able to minimize it. It is urged

the value of such meetings to the subor- time the younger class take up someternal insurance companies that had of Michigan more and more as the value He of organization becomes more apparent, be enabled to recruit our insurance ranks.

> "So much for Grange life insurance in the abstract. In the concrete, we just now need its holding power in our order. In new Grange fields it takes some time for the members to appreciate the great educational, social, and influential value of our Order. And to hold our new members until they become inoculated with the true Grange spirit, we must furnish these material benefits that appeal to them more directly at the present time. I would not have the great crowning features of Grange work overshadowed nor detracted from, but would have everything tend to strengthen them. To that end, I recommend that this session of the State Grange direct its executive committee to organize and establish a Grange fraternal beneficiary life insurance company.

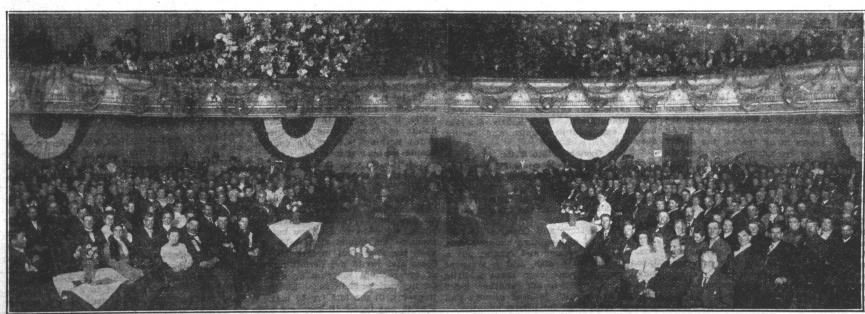
This part of the address was placed in the hands of the committee on Insurance and, at a later session, the Grange instructed the executive committee to organize such a company.

The State Master's plea for the betterment of rural schools was the subject of much favorable comment and it will be given to the readers of this department in a later issue, as will also his sound sensible talk on the subject of good roads. The need of strengthening weak Granges, he advised the delegates, had received much attention at his hands and at those of the Executive Committee, and that operation of the Agricultural College with the Grange in an effort to bring practical agricultural training directly to the farmers. The plan submitted by this committee at a later session met with the universal approval of the delegates and will be given in full in a later portion of this report. It constitutes one of the new lines of Grange work to be undertaken during the coming year.

On the matter of finances, Master Hull reminded the delegates that with the expansion of the organization the expenses of the State Grange increase. The importance of patronizing the trade contracts liberally was brot out in the statement that, owing to the admirable manner in which these contracts had been handled during the past year by Past Master Horton, the Grange had, despite its heavy expenses, been able to increase its invested funds.

Evidently believing that best results, in the direction of securing needed legislation, may be obtained by concentrating the efforts of the Grange upon one or two measures, the matter of desired legislation was dismissed with the recommendation that the legislative committee be instructed to use all fair means to create sentiment and conditions which common carriers, and specifically taxing iron ore and copper.

(Continued next week).



The Delegates from 77 Counties, Comprising the Michigan State Grange of 1909, in Session in the Opera House at Traverse City, December 14, 1909.

OF INTEREST & TO WOMEN

Telling Children About Santa Claus.

the keen delight they took in his antici- recognize the mittens." pated yearly arrivals, they bring up their deceit. If their parents held all such downright sinful, then these present day parents take the same attitude with their boys and girls.

"I don't believe in Christmas," says a mother of four little tots. "We never rapture of watching for him every year little, nor any of that silliness about have once really believed in him, never Santa Claus. We didn't even go to the get over his spell, and if they are taught Sunday school Christmas tree. Father that they must help him out and pass try or rich cakes. The supper should be and mother taught us the religious mean- on some of their gifts to the boys and light, bread and milk, a little rice, or Sunday school Christmas tree. ing of the day and that was all we knew about it. I never got a Christmas present that they will not get plenty of religion in my life until I had a beau, and my children aren't going to be indulged in such foolishness.'

Didn't Christmas mean more to you that year when someone that of you and gave you a remembrance?"

the mother. mas for four children. It is too much work and takes too much money."

faces I had seen that morning as the little ones with the bug-a-boo man who which accomplishes great things in cases neighbors' children bragged of what Santa runs away with naughty boys and girls, of indigestion, is a dose of castor oil. The thoroly salted the following day. This Claus was to leave them. And I couldn't and these same mothers will threaten to but wonder if that mother would not give crying children to the ragman, or think he is a poor digestor. show more religious devotion if she ex- call for a policeman to come to their aid. her babies' lives, than she could by talk- quinine isn't bitter or castor oil doesn't ing to them all day long about the birth taste bad, if they want to give a dose of Christ.

a big fur coat and fur mittens that looked untruths.

What shall we teach our children about just like father's. Every year he asked Christmas? The question comes up to us about our behavior for the past year every young father and mother when the and upon being assured that we had been first little one is old enough to prattle models, he always left the identical things and to understand the beauty of giving we had hoped for. I remember the last and of receiving. Shall we teach them year he came. I told mother next day 1 about Santa Claus and his wonderful thot it was funny Santa Claus had to reindeer, have them hang up their stock- wear father's mittens, and that I knew ings to be filled by the good old saint, or they were father's because there was the shall we simply teach them the religious patch on them just where she sewed it significance of the day and have nothing on the week before. Santa Claus never to do with the festivities and frolic of called on us after that. But he has been Yuletide? Of course, many parents an- a regular visitor at my own home ever swer the question without any thot either since the first Christmas that my boy If they were brot up to believe in saw on this old globe, and he, is coming Santa Claus and have fond memories of every year until Jack gets old enough to

So we have two views, each with a babies to believe in the same innocent multitude of adult adherents. But I am sure if the decision could be left to the Christmas observances foolish, if not boys and girls there would be an overwhelming majority rolled up for Santa Claus. What if the time is coming when they will all know him for the old deceiver he is? Just think of the untold had any stockings hung up when I was until that time comes. The children who that they must help him out and pass girls he overlooked, there is small danger of the kind the world needs most out of Christmas and its observance.

Of course, the Santa Claus view means "But didn't that first present from your extra work for the mother and a call for beau make you very happy?" I asked, money from father. And I have often wondered if that isn't the reason so many parents get suddenly worked up ever deceiving children about Christmas "Well, yes, I suppose it did," replied time, and declare loudly against the evil "I know I was greatly of teaching children to believe in a myth. pleased. But I can't bother with Christ- A good many mothers who think it is a sin to teach their children about Santa Claus, haven't the least compunction of I thot of the four forlorn, wishful baby conscience when they try to scare their rest. An old-fashioned remedy, but one erted herself to bring a little pleasure into They will tell the youngsters, too, that of either medicine, and then lament af-"Of course I'm going to teach my kid- terwards that they can't get their childies all about Santa Claus," said a big, dren to mind. Of course, these deceits jovial man. "Why, Christmas isn't are excusable (?), as being necessary Christmas if there isn't a youngster to discipline. At least, I suppose the somewhere about trying to keep awake mother thinks so. But to my mind the until Santa Claus arrives. He always Santa Claus falsehood is spotless beside came to our house, and he always wore the enormity of these other downright DOROTHY HUDSPITH.

> in the days of the Roman Empire, when they were a luxury only to be indulged in by the Roman gourmets, who dined

Most people like them two ways, as This toothsome bivalve is one of the Mr. Walters' did his turnips, "cooked and lowest forms in animal life, and, from raw," but a respectable minority prefer

kingdom. His organism is of the simplest have devised many ways of preparing kind; he has no power of locomotion, and them for the table. One of the simplest his senses of seeing, hearing and feeling is the ordinary soup or stew; when they should be cooked only long enough to "flute their ruffles."

The following recipes are more complex:

Oysters with Chicken. Chop or grind very fine a pint of cold cooked chicken, add to this one egg, three tablespoons of cream, one-fourth cup of white sauce, one teaspoon of onion juice. ployment to many people. Hundreds of Wash and drain two dozen large oysters millions are invested in this shell fish, then cover each with the prepared chick-It is estimated that 30,000,000 bushels are en, shaping nicely. Flour lightly, dip into roll in crumbs and

Oyster Potato Balls.

Add to cold grated or mashed potatoes, salt, pepper, beaten egg yolks and melted The oyster is more procreative than the butter. Mix well together, then make

Ovsters and Corn.

Maryland has always been famous for melted butter, then add another layer her oysters and, probably, always will be. of corn, cover with butered crumbs and bake in brisk oven for fifteen minutes.

the oysters are cooked the bacon will be crisp and free of grease.

MOTHER ASKS ADVICE ON FEEDING HER CHILD.

Dear Editor:—As Mrs. Hudspith says she is a mother and will answer any questions about children, I want to ask her about my boy who is four years old. He is active, but fretty. Last August duestions about the control of the c fever and more pain. At the close of another 27 days he had another attack and we then gave him vermifuge two days each week until time for the fourth attack. I have heard it was because the child wasn't given proper proportions in his food combination. Will she tell me what to feed him?—Mrs. F. S. C., Carson City

If I only knew what your boy ate on that "pleasantly passed day!" It is hard It is hard to tell you how to regulate his diet as I know nothing of what you feed him. In general, it is well to confine a child of his age to cereals, farina and other wheat products, oatmeal, etc., for breakfast, with cream and no sugar. For dinner, well cooked potatoes, mashed or baked, chicken, mutton or beef, all well cooked. but never pork or the young of animals. For a dessert give them baked apples, custards, tapioca and similar light dishes, but never under any circumstances, pasperhaps the custard at night instead of at noon. Oranges might be fed, but not bananas, nor should such children be allowed to be constantly nibbling candy and peanuts. The coarse vegetables like rutabagas, squash, etc., should not be fed, but they might eat creamed vegetable soups, corn, celery, tomato and the like. After his next illness try the experiment of having him fast at least a day, two days might not hurt, if he is usually a hearty eater. Give him plenty of water, but no food. Mothers make a mistake in coaxing their children to eat after such sick spells. Better give the stomach a fact that your child is fretful leads me to

THE BOY'S ROOM.

BY E. E. R.

Up to a certain age the youngster pays this line is supplied him satisfies.

he takes to "specimens," he will have Farmer, Detroit, Mich. mounted bits of stones and arrows, which he has picked up. Should botany be to his taste, plants and flowers pressed and gummed to cards will surround the walls. Fishing tackle appeals almost inevitably to the youth, and with most boys a gun of some kind comes in for a share of his attention. So that with his books and papers, if inclined that way, his room presents an aspect not at all in accord with feminine ideas of what it should be.

There are two courses open to the mother of such a boy. One is to give him perfect freedom to arrange this particular room exactly to his taste. other is to exert some sort of jurisdiction over it and by so doing make it bear a more orderly appearance. To leave a lad perfectly free in such matters often results in such a litter that it is an annoyance to his mother and sisters. Meanwhile, it fosters in the occupant himself habits of disorder and untidiness bodes nothing but trouble for his wife should he ever posses one.

Recently I was talking with a man of about 24 about this very thing. said, "When I was a kid I used to like to carry to my room every old thing I came across. These I wanted to hang on the walls or keep stored away in boxes, or, what pleased me better, allow them to lie around upon table or chair, even the floor; but mother had different of my room a museum or a laboratory for my various endeavors. She would talk it over with me and try to make me see that it was better to keep my room tidy.

Drain and dry the oysters, cut the bacon given free rein to follow his inclinations in this matter because his mother de-

two or three oysters on each slice of cided that since the room was his own bacon, roll up and fasten with tiny skew- he should have the privilege of arranging ers, or tie with cord. Bake in brisk oven it to suit himself. A state of affairs befifteen or twenty minutes. By the time gun which grew to be quite an annoyance but she put up with it because he liked it that way. Today that boy is away from home but those habits cling to him and his room is perpetually in a clutter.

Do habits acquired in youth follow boys after they go out from the parental roof? Indeed they do! And while it is not always safe to judge the mother, by the son, still one can quite accurately decide whether he was made to pick up his belongings and preserve tidiness, or whether he was left free to follow his own will and leave things for others to pick up.

It means a great deal of work for the mother to get her sons started right in this respect for the average boy is careless and inclined to make light of instructions along that line. Since it is a life time one way or the other for him. and usually means much to others as well, it is effort that pays in the end. If the boy marries, the mother may be assured that his wife will be glad, if he has been trained to pick things up instead of scattering them abroad and to remember that other people have rights as well as he.

TO CURE HAMS AND CORN BEEF.

Dear Editor:-I noticed a request in your paper some time ago for these recipes, so I am sending mine, which I know are good ones. In curing hams, to 100 pounds of meat use six pounds of fine salt, three pounds of brown sugar or three quarts of molasses and one quart of salt-petre, pulverized. Mix well together and rub each piece with the mixture, all but the skin, and pack down in a cask or tub. Let them remain a few days, say five or six, then turn them over and sprinkle lightly with salt. Let them remain a few more days then add brine strong enough to bear up an egg, and let them remain covered with it for three or four weeks. when they are ready for the smokehouse.

To corn beef, use, for 100 pounds of meat, four pounds of salt and one-quarter pound of saltpetre. Dissolve in water and when thoroly dissolved, have brine boiling hot and pour it over the beef which has been packed in a cask. The beef will be recipe has been used in our family for over thirty years .- Mrs. A. E. Arnold.

A NOBBY DRESS AND A HANDY WORKING APRON.

Price, 10 cents each. Waist and skirt little attention to the furnishing or the patterns are usually separate, making a ornamenting of his room. Whatever in charge for each, but not if in one Order by number and title piece. There comes a time, however, when he of pattern. If for children, give age; manifests more interest. If he is fond for adults, give bust measure for waists, of sports he has bats and balls, with the and waist measure for skirts. Be sure to various paraphernalia which accompanies give size when you order. Address orders them, and these he wants in his room. If to Pattern Department, The Michigan



No. 8604-Practical Work Apron.-This covers the entire front of the waist. The skirt flares prettily and as it meets in the back, the whole skirt is protected. Generous sized pockets add greatly to its usefulness. Linen, percale, gingham and Holland are all used in the making. The medium size requires 51/2 yards of 36-inch material. Sizes small, medium and large.

No. 8612-Misses College Dress .- This up-to-date and popular model is fashioned ted by side front, side back and underarm seams, and is joined to a plainted skirt portion. The dress may be cut in high neck style or with a sailor collar. The Another young man whom I know was pattern is cut in three sizes, 14-16-18 years, and requires 5% yards of 36-inch material for the 16-year size.

THE OYSTER.

BY EMILY L. RUSSEL.

"Now gaily comes that jolly royster The merry, blithe and boneless oyster." a biological standpoint, is a very insig- them another way-far away. nificant and worthless part of the animal are very imperfect. He simply has a sluggish existence in the water, far from being "jolly" or "merry." But the oyster has one characteristic that sets him above animals of far higher instincts and in a more respectable sphere of life—the power to tickle the palates of mankind, also, to add to our industries, giving em-AS onsumed in this country there are tricks in all trades, the oyster deep fat. business is no exception. One consists in "bloating" them in fresh water. This is now forbidden by law.

rabbit. The female lays millions of eggs into balls, enclosing two or three oysters, in a year, from which the young are place on a buttered tin and bake in quick hatched without the trouble of being oven. "set" upon. The egg floats about until it "catches on;" begins to grow and shells out, with marvelous rapidity. This wonderful reproductive power has prevented layer of this in a dish, add a layer of ideas and would not permit me to make on "Moyen Age" lines. The waist is fitthe extinction of the oyster.

The Chesapeake Bay, and the numerous rivers and inlets form an ideal home for them. So plentiful are they that even the very poor can feast on them, unlike in slices about one-half inch thick. Lay

also on nightingale's tongues.

Famous chefs and careful housewives

To a pint of canned corn chopped very fine, add salt, pepper and cream; put a small oysters, pour over them a little

Oysters and Bacon,

the body is a link in the Chain of Life. A chain is no stronger than its weakest link, the body no stronger than its weakest organ.
If there is a weakness of stomach, liver or lungs, there is a weak link in the chain of life which may snap at any time. Often this so-called "weakness" snap at any time. Orten this so-called "weakness" is caused by lack of nutrition, the result of weakness or disease of the stomach and other organs of digestion and nutrition. Diseases and weaknesses of the stomach and its allied organs are cured by the use of Dr. Pierce's Golden Medical Discovery. When the weak or diseased stomach is cured, diseases of other organs which SEEM remote from the stomach but which have their origin in a diseased condition of the stomach and other organs of digestion and nutrition, are cured also.



The strong man has a strong stomach. Take the above recommended "Discovery" and you may have a strong stomach and a strong body.

GIVEN AWAY.—Dr. Pierce's Common Sense Medical Adviser, new revised Edition, is sent FREE on receipt of stamps to pay expense of mailing ONLY. Send 21 one-cent stamps for the book in paper covers, or 31 stamps for the cloth-bound volume. Address Dr. R. V. Pierce, Buffalo, N. Y.

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.

FARMS AND FARM LANDS FOR SALE OR EXCHANGE

I SELL FARMS IN OCEANA. The best county in the United States; fruit, grain and stock Write for list. J. D. S. HANSON, Hart, Mich.

FOR SALE-155 Acres of first-class food buildings and fences. On account of other business I offer this farm at a bargain. No agents, deal with owner. J. C. SAYLES, Stockbridge, Mich.

Virginia Farms and Homes E CATALOG OF SPLENDID BARGAINS R. B. CHAFFIN & CO. Inc., Richmond, Va.

235-AGRE FARM—well fenced, 2 silos, barn son tenant house; the dwelling house has 14 rooms, hot & cold water, bath room, furnace, and gas plant, telephone and rural mail; 1½ miles from Jerome. Pitch, 600. J. Chandler, Jerome, Hillsdale Co., Mich

CHOICE VIRGINIA FARMS \$10per Along the C&O Ry. Through the Heart Acre Maple S. for Jlandsome Booklet and Low and State Acres address G.B.WALL.Real Estate Up. SORY, BOX KK. Richmond, Virginia, v.

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

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

FOR INFORMATION AS TO LANDS IN



along the Atlantic Coast Line RAILROAD

in Virginia, North and South Carolina, Georgia, Alabama and Florida, write to WILBUR McCOY,
Agricultural and Immigration Agent,
Atlantic Coast Line, - Jacksonville, Fla.

Each of the chief organs of HOW WE SOLVED THE SANTA CLAUS QUESTION.

BY E. H. M'DONAGH.

Last year we told the Santa Claus story willingly, and enjoyed the baby wonder and glee over his coming, but this year the baby is four, and a serious person who wants to know the "how" and "why of everything. He has learned of God, who is the "Maker of all made," and says his bed-time prayer, and is an individual with a religion. But his greatest faith and reverence, so far, is, as it should be, centered in his father and mother, and to him, as to every child, the first ideas of power and truth and goodness are derived from the parent. Only gradually can he develop clear religious perception enough to think of a God, personifying all good.

The beginning is made. We do not dare to confuse his present idea of one all-powerful God, by introducing a second and lesser (?) god, who watches over children to find them either good or bad, a terrible, everpresent all-seeing being, who comes at Christmas to reward the good or, if we carry the beautiful old German fairy story further, to leave only a bundle of whips for the naughty or dis-"Why do we have Christmas?" we have his parents' word.

We have told the legend to our boyas a legend. When he asks, "is there a Santa Claus?" we answer frankly, "no—you asked what to do for chilbiains. no Santa Claus but lots of people play Santa Claus, and to play Santa Claus himself, with a big cap, and some wonderful white cotton whiskers that his mother made for him, and a belt and bells-just like the pictures. And he has hid treasures-he and mamma, for all the family, to surprise them with on Christmas Day, and he plays his splendid game, and plans to wear those wonderful whiskers, and go clear over to Grandma's and play Santa Claus for her, and for the little cousins. So full of the joy of anticipation is our small son, that no one could convince us that in telling the truth and securing his faith in us, we have deprived him of one jot of Christmas joy.

EASY WAY TO COOK PUMPKIN.

Dear Editor:-Some one told me of such a convenient method of preparing pumpkin for pies, that I should like to pass the method on. Cut a square from the stem end, having the stem for a handle, and scoop out the seeds, replace the cover to retain the steam, and set into the oven to bake .- Mrs. S. K. G.

THE CHARGE OF THE SHOPPING BRIGADE.

Half a black, half a block, Half a block onward; Half a block onward;
All on the bargain hunt
Go the s'teen hundred.
"Forward the Shop brigade!
Charge double price;" he said,
Into the jamboree
Salesmen to right of them
Shopshis to-left of them,
Volleyed and thundered.
Like a Yale rush, pell mell,
Boldly they plunged and well,
Into the jaws of death,
Into the shoppers' hell
Dash the s'teen hundred.
Torn clothes and crumpled hair,
Pockets picked everywhere, Torn ciothes and crumpled hair, Pockets picked everywhere, Raising Old Harry there, All playing Santa Claus, Patience surpassing. Honor the charge they made, Honor the Shop brigade. Who was the fool that said: "Times will be hard, I'm 'fraid!" Guess he was "gassing."

One-half cup of black coffee containing a teaspoonful of lemon juice will often cure sick headache. A glass of lemonade, without sugar, in which one-fourth of a teaspoonful of soda is dissolved, will often cure billious headache.

AGENTS you will get more orders and make more money by so doing during the next few weeks, than in double the time any other season of the year. Go after them is the way to get them.

Home Queries Exchange Column Conducted By Elisabeth. **Φαρορορορορορορορορορορο**

Jennie R .: Heliotrope plants can be grown in the house all winter, if the pots have perfect drainage and the plants are kept in a rather cool temperature. Too much moisture will cause the leaves to turn back. They should be given just enough water to keep them from drying out. There is no reason why you should not be successful with them if care is taken .- J. Y.

Mrs. Smith:-You should not have allowed your light quilts to become so soiled on the edges. Take a strip of white cloth and baste over each end of new light quilts, so it extends several inches down this saves the soil from the quilt and they can be taken off and washed. If you do not want to wash the whole quilt that is soiled, dip the soiled ends in a pan of gasoline and clean that way. Keep it away from the fire.-Mary T.

Housewife:-Several other excellent obedient child. For the boy who has recipes for plum pudding have been sent reached this age and asked the question, in but most of them are similar to the one published last week. The following to give either the Christian story of one is a little different: one cup of beef the birth of the Savior, or the other suet, chopped fine, one cup of brown story, beautiful if you please, but never- sugar, one pound of currants, one pound theless pagan, of the fairy sprite, god, or of raisins, chopped and seeded, quarter saint, whichever way you choose to tell pound of citron, chopped, and lemon if it, who comes on the great day to reward you like. Stir this into a batter made as the good and punish the bad. No use follows, and quite stiff: Four eggs well seriously telling the two stories for fact, beaten, two cups of sour milk, and soda for the pagan idea to supercede the to sweeten it, two slices of bread crumbed Christian. Even if we could look in the fine, season with all kinds of spices, a trustful eyes and tell a lie to our son. little salt and two tablespoons of molaswe should not dare destroy his only "evi- ses. Steam four hours. This is enough dence of things not seen," his belief in for about fifteen. Serve with sweet or sour sauce.-Mrs. S. T., Hastings.

Ed. S .: - In last week's query column we just play Santa Claus." And when would advise a new treatment, which is he asks if he really comes down the also effective for one bothered with cold chimney he is shown the absurdity of the feet. Soak the feet once a day in real idea. But he is nevertheless absorbed in hot water, with a little soap added. Let plans for this wonderful day, the birthday them remain in the water at least half of the Christ-child. Of course, there is an hour. When it is for chilblains apply a flaxseed poultice over the affected parts immediately after soaking. treatment should be continued at least a week and if a cure is to be effected a dark spot will begin to show and then turn black as the treatment progresses. In time the spot will come to the surface and can be shaved off or allowed to disappear of itself. But unless it does this. do not consider it cured .- T. Y. B.,

Dear Elisabeth:—I am keeping steady company with one young man and I have another fellow I love better and would like to go with him. What would be the most friendly way of leaving him, and tell me how to win the other one?—Miss N. B.

If you do not care to have the young man you are going with continue his attention to you, tell him frankly that you do not care to have him call any more, as you do not have the time to receive him. I can not tell you how to win the other fellow. If he has shown any inclination to be interested in you, you may ask him to call upon you, and make pleasant for him, but don't let him think that you are throwing yourself at him, as that will only disgust him. It is best for a young lady not to show a young man that she admires him too much, as he wants to be the wooer.

Dear Elisabeth:—I know a young man who is always friendly towards me and talks to me whenever he has the opportunity. I think he has hinted several times about wanting to call on me, but has never said so right out. Would it be all right if I asked him to call, or should I wait until he asked me if he might?—Perplexed Maiden, Holly.

Yes, it is perfectly proper for you to ask him to call, as nowadays young ladies are supposed to give the invitation and most voung men wait for it, altho it is contrary to the oldtime custom of the gentleman taking the initiative. new way relieves the young lady of the embarrassment of having to refuse undesirable men, and allows her to choose

Dear Editor:—I wish some of the readers of this column would send in a good recipe for some kind of home-made cheese; not cottage cheese. Hoping to soon see it appear in this column.—An Interested Reader, Ionia Co.

Dear Editor:—Will some one plase tell me what carpet bugs and furniture bugs look like? Are they the same thing? What color are they? How is the best way to get rid of them? Any information about them would be appreciated by a young housekeeper.—Livingston Co.

HOUSEHOLD ECONOMY

Household Economy

How to Save \$2 on Cough

Medicine by Making it at Home

Cough medicines, as a rule, are mostly syrup. To make the best syrup, take a pint of Granulated Sugar, add 1/2 pint warm water, and stirred about 2 minutes.

Get two and one-half ounces of Pinex (50 cents worth), put it in a clean pint bottle, and fill up with the Granulated Sugar Syrup. This makes a full pint of unequaled cough syrup, for about 54 cents. Keeps perfectly. You couldn't buy as much ready-made cough syrup for \$2.50.

This home-made remedy is pleasant to take, and usually stops even the most obstinate cough in twenty-four hours. It is splendid, also, for colds, whooping cough, bronchial ailments, etc. Take a teaspoonful every one, two or three hours.

The Sugar Syrup is an excellent sedative. The Pinex is the most valuable concentrated compound of Norway White Pine Extract, rich in all the healing elements of Norwegian pine. Be sure to use the real Pinex itself. Your druggist has it or can easily get it for you.

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



Don't get cold feet; don't shiver and freeze on coldweather

coldweather drives. Be warm and cozy and happy. This 12-in. metal heater is strong and durable. Will not bend or break, and gives good, healthy heat for from 12 to 16 hours with no attention. The dozen bricks of fuel are enough for all winter. No flame, smoke or smell—just heat. If not perfectly satisfied and pleased, money will be refunded. SEND TODAY or write for our big, new catalogue.

This offer is \$3.00 value and pleased the strong and pleased the satisfied and pleased, money will be refunded. SEND TODAY or write for our big, new catalogue.

CHICAGO FLEXIBLE SHAFT CO., 615 La Salle Ave. Chicago

LET US TAN

Whether Cow, Steer, Bull, or Horse Hide, Calf, Dog. Deer, or any kind of hide or skin, soft, light, odorless and moth-proof for robe, rug, coat or gloves, and make them up when so ordered. But first get our illustrated catalog, with prices, shipping tags and constoned of the country of the

The Crosby Frisian Fur Company,



Malt Coffee

Samples and Circulars Free

MILWAUKEE IMPORTING CO. Milwaukee, Wis.

506 37th Street







ICE PLOWS Double row equals 20 men with saws. Pays for itself first season. 6 sizes, also ICE TOOLS. Ask for Catalog H. WM. H. PRAY, Verbank, N. Y

DETROIT WHOLESALE MARKETS.

December 22, 1909. Grains and Seeds.

Wheat.—The range of prices the past week has been above the quotations for the preceding week, but on the opening Monday there was a bearish feeling that to be partially due to the distraction caused by the interest in the holidays. While the receipts from farmers have brightened up a little yet the millers, in the northwest especially, are after everything they can get hold of for flouring purposes and this, with the decrease in the visible supply of the continent and of the world, gives the bulls hope in the present basis, and whenever the slump is on they take offerings with confidence. Cables have been strong during the week, and in Argentine rains have disturbed the harvesting of the crop in some sections. and in Argentine rains have disturbed the harvesting of the crop in some secvere paying Quotations

the harvesting of the crop in som tions. One year ago we were | \$1.04 for No. 2 red wheat. Quot for the week are as follows:

No. 2 No. 1

Red. White. May.

Thursday . 1.25 | 1.25 | 1.28

Friday . . 1.25½ 1.25½ 1.28½

Saturday . 1.26 | 1.26 | 1.28½

Monday . 1.25 | 1.25 | 1.28

Tuesday . 1.25 | 1.25 | 1.28

Wednesday . 1.23½ 1.23½ 1.26½

Corn.—Prices have been on a little 1.04½ 1.05½ 1.06 1.06½ 1.05½ 1.04½

Wednesday .1.23½ 1.23½ 1.26¼ 1.04½ Corn.—Prices have been on a little better basis this week. The cold weather appears to have given the trade a brisker demand and with the heavier feeding on the farms incident to the real winter conditions and the better prices for wheat there is a firmer feeling in the market. Visible supply shows a decrease of nearly a million bushels. The local market rules firm and the demand is getting more and more urgent here as the cold weather continues. One year ago we were paying for No. 3 corn, 59c. Quotations for the week are:

					No. 3
			No. 3	2	ellow.
Thursday		 	 62		63
Friday .		 	 62		63
Saturday		 	 62		63
Monday		 	 621/2		63 1/2
Tuesday					63 1/2
Wednesd	ay .	 	 621/2		63 1/2
			a trada	ic 1	argely

Oats.—The tone of this trade is largely dependent upon the character of the corn and wheat deals and consequently there has been during the past week a firm feeling at most of the sessions. The demand is urgent considering the high price ruling. Receipts are small. The visible supply for the continent shows a liberal decrease. One year ago the price for No. 3 cats was 51c per bu. Quotations are: Standard.

													2	sta	andare	a
Thursday			 												461/2	
Friday .															461/2	
Saturday															461/2	
Monday															461/2	
Tuesday															461/2	
Wednesda	Ly														463/4	

Beans.—There appears to be a good demand for beans but holders of the product are not in a disposition to let the legumes go and conequently there is no trading and the prices given below are only nominal. They are:

nominal.	٠.	Ľ	h	e	Z	7	8	u	3:	:						
														(Cash.	Jan
Thursday															\$2.05	\$2.07
Friday															2.05	2.07
Saturday																2.07
Monday .																2.07
Tuesday																2.07
Wednesda	у														2.05	2.07

Cloverseed.—The factors in the clover-seed market did not sustain the advance made last week and quotations are lower. The dealing has been real active for the past few days, however. Following are

the quotations for the week:	
Prime Spot. I	Mar. Alsike.
Thursday\$9.00 \$9	9.20 \$7.85
Friday 9.00	9.20 7.83
Saturday 9.00	9.20 7.83
Monday 8.95	9.15 7.85
Tuesday8.80	9.00 7.83
Wednesday 8.70	8.90 7.8
	111

Rye.—Trade is quiet and easy with quotion 1½c above the price given last eek. No. 1 is quoted at 78c per bu.

				٧	/ j	S	i	b	1	е		S	ŝ	u	р	p	ı	У		c	of		G	ra	lis	n.					
																Ì	1]	n	is	5	W	7 e	ek	۲.	Ι	36	as				
Wheat																		2	28	,	0	18	,0	0()	1	28	, 4	0.0),(0(
Corn																			6	i,	6:	18	,0	0()		5	, 6	63	١, ()()(
Oats																		1	1	,	5	20	,0	00)						000
Rve .																					8();	,0	0()						000
Barley										•							•		2	,	9()6	, 0	0(31	, (000
	F	Ξ	k	0	u	r	,		F	ė	•	9 (t,	,		P	r	O	2	'i	S	0	ns	5,	E	= 1	tc				

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

38@40c.

Provisions.—Family pork, \$26@26.50;
mess pork, \$25; medium clear, \$25.50@
26.50; pure lard, 15¼c; bacon, 17@17½c;
shoulders, 12½c; smoked hams, 15c; picnic

shoulders, 12½c; smoked hams, 15c; picnic hams, 12½c.

Dairy and Poultry Products.

Butter.—Creamery butter made another advance of a cent the past week. The supply keeps gradually growing smaller as the season progresses. Dairy goods remain unchanged. Quotations are: Extra creamery, 35c per lb; first do., 34c; dairy, 24c; packing stock, 22½c.

Eggs.—Dealers are not finding as many

OTHER MARKETS.

Grand Rapids.

Grand Rapids.

The bean market is quiet, white beans selling on a \$1.75 basis all over the state. Dealers are paying on a \$2.50 basis for red kidney beans. The acreage of red kidneys is increasing, tho it is still very small as compared with the white peabeans. Wheat is up 2c, with other grains unchanged. Butter, both dairy and creamery, is up 1c. Eggs are firm at quotations. The onion market is a little higher. In poultry, spring ducks are 1c higher. Dressed hogs are steady at 10½c. Quotations follow:

Grain.—Wheat, \$1.21; oats, 47c; corn, 60c; buckwheat, 55c per bu; rye, 68c.

Beans.—White, machine screened, \$1.75; red kidney, \$2.50 basis.

Butter.—Buying prices, Dairy, No. 1, 26c; creamery in tubs or prints, 34c per lb.

Eggs.—Case count, 27@28c.

26c; creamery in tubs or prints, 34c per lb.
Eggs.—Case count, 27@28c.
Apples.—50@75c.
Vegetables.—Potatoes, 35@40c; onions, 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, 12½c; parsley, 20c doz; cucumbers, 80c doz.
Hogs.—Dressed, 10½c.
Live Poultry.—Fowls, 10½@11c; roosters, 8@9c; spring chickens, 11@12c; spring ducks, 12@13c; young geese, 9@10c; young turkeys, 17@18c.

Chicago.

Wheat.—No. 2 red, \$1.27@1.28; May, \$1.11%; July, \$1.02½. Corn.—No. 3, 61c May, 66%c; July, 66c. Oats.—No. 3 white, 44¼@45½c; May,

44%c.
Butter.—Creamery grades are higher and dairy goods steady. Demand good and supply short. Creameries, 27@35c; dairies, 25@30c.

Eggs.—A strong advance was made in egg trade and the market is steady at the new figures. Prime firsts. 36½c; firsts, 35c; at mark, cases included, 25½@30½c per dozen. at

and Straw.—Market firm at Hay and Straw.—Market firm at higher prices. Quotations: Timothy, choice, \$18@18.50; No. 1, \$17@17.50; No. 2 and No. 1 mixed, \$16@16.50; No. 3 and No. 2 mixed, \$13@13.50; rye straw, \$9@10; oat straw, \$7.50@8; wheat straw, \$6.50@7.50.

Potatoes.—Market has fair demand at steady prices. Choice to fancy quoted at 42@43c per bu; fair to good, 35@40c.
Beans.—Higher. Choice hand-picked, \$2.15 per bu; fair to good, \$2.10; red kidneys, \$2.50@2.90.

St. Louis.

Grain.—Wheat, No. 2 red, \$1.28½@1.32;
corn, No. 2 white, new, 63c; oats, No. 2.

45c. Hay.-45c.

Hay.—Steady. 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

at \$17.50@18 for No. 1 and \$15@17 for No. 2.
Potatoes.—Market easy and lower. Fancy, well-matured stock, in car lots on track, quoted at 50c per bu; common to fair, 33c.

New York.

Butter.—Market strong with nearby goods higher. Western factory firsts, 23½ @25c; creamery specials, 37c.
Eggs.—Prices higher. Market strong.
Western first to extras, 32@37c; seconds; 28@31c; fancy refrigerator stock, 20½ @24½c.
Poultry—Pressed

oat @24½c, rancy reirigerator stock, 20½
Poultry.—Dressed, steady. Western
chickens, broilers, 18@23c; fowls, 13@
nid-17½c; turkeys, 23½@26c. Live.—Steady.
),50; Chickens, 15c; fowls, 15c; turkeys, 15@23c.
\$27; Potatoes.—Market a little draggy. Tone
weak. State and Michigan potatoes in
burbulk now selling at \$1.50@1.75 per 180
last
title
Hay and Straw.—Prices steady the
past week and market.

Hay and Straw.—Prices steady the past week and market is steady on the old basis. Hay, timothy, prime, large bales, per 100 lb., \$1.02\(\frac{1}{2}\) iNo. 3 a 1, 87\(\frac{1}{2}\) c @\(\frac{1}{2}\) 1.00; shipping, \$2\(\frac{1}{2}\) @\(\frac{1}{2}\) 67\(\frac{1}{2}\) c packing, 50\(\frac{1}{2}\) 55\(\frac{1}{2}\) c lover and clover mixed, \$9\(\frac{1}{2}\) 95\(\frac{1}{2}\) 5traw, long rye, \$0\(\frac{1}{2}\) 95\(\frac{1}{2}\); short and tangled rye, 60c; oat and wheat, 55c.

Wool.—With a revival in the demand for Californian and western stock the wool trade has shown some life the past week. Prices have not given evidence of softening up and the manufacturers are compelled to pay the values asked by holders. In the west representatives of eastern houses are continuing to make contracts for the new clip, but the local dealers are not in a disposition to con-

fresh eggs on the market as is needed and consequently the price is up 1½c since a week ago. Current offerings, cases included, are quoted at 30c per doz. Poultry.—The active holiday demand has run prices for the different kinds of poultry to a higher basis. Turkeys and chickens are easier. Quotations for the week are easier. Quotations for the week are: Live.—Spring chickens, 14c; hens, 13c; ducks, 14@15c; geese, 12@13c; turkeys, 20@21c. Dressed.—Chickens, 15c; ducks, 16@17c; geese, 12@13c; turkeys, 20@21c. Dressed.—Chickens, 15c; ducks, 16@17c; geese, 13@14c; turkeys, 22@23c per lb.

Cheese.—Steady. Michigan full cream, 18c; limburger, 17c; schweitzer, 21c; brick cream, 18e per lb.

8@9c per lb.

Calves.—Choice to fancy, 10@11c; ordinary, 9@10c per lb.

Calves.—Higher. Home-grown, \$1.75

@2 per bu.

Onions.—Domestic offerings 65@70c per bu. Spanish, \$1.35 per crate.

Apples.—Snow, \$5.50@2.50 per bbl.

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

Nuts.—Buternuts, \$1 per bu; walnuts, 75c; shell bark hickory, \$2@2.25.

Vegetables.—Beets, 60c per bu; carrots, 60c per bu; cauliflower, \$1.75@2 per doz, green onions, 12%c per doz; green peppers, 60c per bu; mint, 25c per doz; green peppers, 60c per bu; watercress, 35c per doz.

OTHER MARKETS.

OTHER MARKETS.

December 20, 1909.

Buffalo.

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

Receipts of sale stock here today as follows: Cattle, 140 loads; hogs, 16,000; sheep and lambs, 18,000; calves, 700.

The cattle market today was steady to strong at last week's prices. We look for the trade to be better from now on. Bulls sold from 15@25c per hundred higher while the stockers and feeders were steady. The best fresh cows and forward springers sold strong but the common kinds and the late springers 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-lb. do., \$5.50 @6; medium 1,050 to 1,150-lb. steers, \$5.50 £5; light butcher steers, \$4.75@5; best fat cows, \$4.50@5, few shade higher; fair to good do., \$3.50@3.75; trimmers, \$2.50@2.75; best fat heifers, \$5.65.25, some fancy at 6c; fair to good do., \$4.25@4.50; 700 to 750-lb. dehorned stockers, \$4.45.15; 600 to 650-lb. do., \$3.50@3.75; best feeding steers, \$90 to 900 lbs., \$4.60@4.85; best feeding steers, \$00 to 900 lbs., \$4.25.45; foot to 650-lb. do., \$3.25.35; best bulls, \$4.50@5; \$0.350; best fresh cows and springers, \$45.60@3.80; little common stockers, \$3.25.35; best fresh cows and springers, \$45.60@3.80; best fresh cows and springers, \$45.60@3.80; best fresh cows and springers, \$45.60@3.80; odd and you shalbs being late in arriving today we obtained strong

@60; fair to good do., \$30@40; common, \$20@25.
Owing to a good many lambs being late in arriving today we obtained strong prices this morning. We sold one load for Harrison Walters, of Clarkston, Mich., at \$8.85. They were a very fine load of lambs and topped the market today. The market is closing about 10c lower tonight, tops selling at \$8.65 and with heavy receipts we think they may sell a little lower the last of the week.

We quote: Best lambs, \$8.65@8.75; fair to good, \$8@8.60; culls, \$7.07.50; skin culls, \$4.50@5.50; best calves, \$9.50@10.25; fair to good, \$8@9; heavy, \$4@4.50; yearlings, \$6.75@7.25; wethers, \$5.50@6; ewes, \$5.25@5.75; cull sheep, \$2@4.

The hog market this morning opened strong 5@10c higher than Saturday and closed steady at opening prices. Fair clearance.

We quote: Choice heavy, \$8.50@8.66; mixed and medium, \$8.50@8.60; best yorkers, \$8.40@8.50; light yorkers and pigs \$8.35@8.40; roughs, \$7.80@7.90; stags, \$7.97.25.

\$8.35@8.40; roughs, \$7.80@7.90; stags, \$7@7.25.

Chicago, December 20, 1909. Cattle. Hogs. Sheep. Received today19,000 47,000 20,000. Same day last year27,587 35.536 11,264. Received last week84,270 202,717 112,689. Same week last year 69,028 210,315 111,315. Cattle were marketed too freely last week, stormy winter weather and the high price of corn tending to discourage holding stock any longer, particularly as many stock feeders had little faith in the future of the market. Fully 14,000 cattle were left unsold Monday night, and large accumulations made it hard work later in the week to keep values from slumping. Many cattle marketed by shippers sold considerably below their first cost in the country, and instances of steer sales at \$5.50@6, which showed declines of 40@50c below country cost were numerous. The feeders fared about as bad, however, as many of them sold at prices that meant serious losses on their investments. A large share of the beef steers sold at \$5@6.50, with the poorer lightweight steers bringing \$3.70@4.75, while a limited number of finished cattle brot \$7.50@8.65. This is a bad showing, but many feeders state that feed yard conditions are in such bad shape that selling the cattle is a necessity, as corn can no longer be fed except with much waste. Good 1,300 to 1,400-lb, steers went at \$6.25@7, with choice heavy steers at \$7.50@7.75, while a few yearlings topped the market at \$8.65. Butcher stock participated in the bad breaks in prices, cows and heifers bringing \$\$1.50@6, while canners and cutters sold at \$2@3.10 and bulls at \$3.05. Calves had a good outlet when of good quality, the best lightweight vealers selling up to \$10 per 100 lbs., and sales were made all the way down to \$3.04.75 for the coarser heavy lots. There was a good stocker and feeder trade, with no weakening in prices for the better class of feeders, but otherwise values were considerably lower under much larger offerings. Feeders sold at \$2.05.04.40, columns and the selection of feeders but otherwise valu turkeys, 23½, 26c. Live.—Steady.

Ins. 15c; fowls, 15c; turkeys, 15@23c.

Market a little draggy. Tone
State and Michigan potatoes in
Ow selling at \$1.50@1.75 per 180

and Straw.—Prices steady the
week and market is steady on the
lass. Hay timothy, prime, large
per 100 lb., \$1.02½ No. 3 a 1, 87½c
is shipping, 82½, 285c; packing, 50%
lover and clover mixed, 80@95c;
long rye, 80@95c; short and tangled
loc; oat and wheat, 55c.

Boston.

With a revival in the demand
liffornian and western stock the
rade has shown some life the past
Prices have not given evidence of
ing up and the manufacturers are
led to pay the values asked by
I. In the west representatives of
In houses are continuing to make
the formal time to the state of the review of the new clip, but the local
are not in a disposition to con-

pleted stocks of provisions. Hence, the hogs were well taken, and bad breaks in prices failed to take place, while speedy recoveries usually followed moderate declines. Packers wanted hogs with plenty of weight, as usual, and lighter weights suffered discrimination, causing some widening out in the spread in prices. The week's top price, \$8.70, was the top of the year, and even the commonest hogs sold far above prices seen in former years, altho the demand for swine was mainly local, with eastern purchases far behind those of one and two years ago. Spring pigs are now growing rapidly and are coming to market in steadily increasing numbers. Little sickness is reported among droves of pigs, and everything now favors feeders, there being every prospect of a continuance of the good demand from killers. Another week begins today with large receipts and a good demand at largely steady prices, hogs selling at \$7.95@8.60. Best light hogs sell at \$8.40 and pigs at \$6.75@8.

Sheep and lambs that had good quality met with a good demand last week for the Christmas holiday trade, and, with hardly enough of the best class offered, extremely high prices were obtained by sellers, the best lambs selling at \$8.60, the highest figure seen since the middle of July. The worst feature was the marketing of a good many unfinished lambs, these being slow of sale at a market discount. With sheep and yearlings it was much the same as with lambs, buyers exercising discrimination in making up their selections and taking the less attractive looking consignments only when they were unable to secure better lots. A feature of trade was the marketing of fed sheep and lambs finished on stubble fields and beet tops. The sheep feeding industry is growing in some regions. There was a good demand for feeders whenever the weather was mild enough to make the compulsory dipping process less dangerous to stock, and feeder lambs sold at \$8.67.50.7.15. The market for sheep and lambs was depressed and lower late in the week, but it railied sharply today un

LIVE STOCK NOTES.

Within a short time the Santa Fe railroad has made the first step toward complying with the promises of the various roads to aid in making Chicago a great wool market by equalizing the wool rates from the west thru Chicago with those thru St. Louis and other markets. Nearly \$400,000 already has been invested in the wool market project in Chicago by the National Wool Storage & Warehouse Co. The wool markets of the country have had a remarkably prosperous year, there having been a complete recovery from the financial panic that began two years ago and extended into last year. The National Association of Wool Manufacturers, in its twenty-first annual estimate, says nnancial panic that began two years ago and extended into last year. The National Association of Wool Manufacturers, in its twenty-first annual estimate, says that the wool business experienced during 1907-8 was the most disastrous season that American wool growers had experienced since the free wool period of 1894 to 1897. It states that Ohio wools, which averaged 48 cents a scoured pound October in the previous year, averaged 64 cents in the previous year, averaged 64 cents in the previous year, averaged 56 cents in the previous year, averaged 67 cents in the previous year, averaged 68 cents a scoured pound October in the previous year, averaged 69 cents in the previous year, averaged 69 cents in the previous year, averaged 69 cents in the previous wool has risen from 49c to 67c in the same time. For the entire country the average price of scoured wool based on Boston prices was 46.6c in 1908 and 63.6c in 1909, the average price now being practically the same as it was in 1906. Reports from widely separated sections indicate a tendency toward the production of finer wools. The total wool production of the United States last year is estimated at 328,110,749 lbs., an increase of 6,863,137 lbs, over the preceding year. The total value of the wool clip this year is estimated at \$88,829,746, compared with \$61,707,516 last year. The Chicago wool warehouse, the joint enterprise of western growers and Chicago business men, with a capacity of 25,000,000 lbs., has been erected, the outgrowth of discontent among western sheepmen with methods of eastern wool buyers. Boston is still in the business actively, however, and one of the largest wool warehouses in the world has been erected in South Boston, with a capacity of 125,000,000 lbs of wool.

On a recent Monday 45,640 head of cattle were unloaded at the Chicago stock

On a recent Monday 45,640 head of cattle were unloaded at the Chicago stock yards, the supply being increatsed to libdie eral proportions by the wide-spread desire of cattle feeders to set rid of their shorted of their shorted feeders to set rid of their shorted of their shorted feeders to set rid of the same feed feeders the market on subsequent days. Cattle feed from sixty to sequent days have comprised the greater part of the marketings for some weeks past, and most cattlemen are not disposed to feed for longer periods. Prices have experienced severe reductions, and, as was expected, prime corn-fed cattle have ceased to bring the exceptionally large premium that was paid a few weeks ago. When beeves were in lively demand for the Christmas holiday trade at home and abroad. Still, feeding prospects appear good, cattle prices being still higher than at corresponding dates in recent years, and well-bred steers and heifers that are made good and fat within a few months are likely to make money for feeders. On a recent Monday 45,640 head of cat-

THIS IS THE LAST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market.

December 23, 1909. Cattle.

Cattle.

Receipts, 729. Market dull at last week's prices on all grades.

We quote: Extra steers and heifers, \$5.50@5.75; steers and heifers, \$1,000 to 1,000, \$5.40@5.50; steers and heifers, \$00 to 1,000, \$5.25; steers and heifers that are fat, 500 to 700, \$3.75@4.15; choice fat cows, \$4.50; good fat cows, \$3.50@4; common cows, \$2.50@3; canners, \$1.50@2.25; choice heavy bulls, \$4.25; fair to good bolognas, bulls, \$3.50@4; stock bulls, \$3.00@3.50; choice feeding steers, 800 to 1,000, \$4.25@4.50; fair feeding steers, 800 to 1,000, \$4.25.04.50; fair feeding steers, 800 to 1,000, \$4.50.00; fair feeding steers, 800 to 1,000, \$4.50.00; fair feeding steers, 800 to 700, \$4.50.00; fair stockers, 500 to 700, \$3.50@3.75; stock heifers, \$3.00.30; milkers, large, young, medium age, \$40.050; common milkers, \$20.030.

8 av 145 at \$9; to Newton B. Co. 5 av 110 at \$6, 19 av 150 at \$9.

Sheep and Lambs.

Receipts, 4,185. Market 10@15c lower than last week but fairly active at the decline.

Best lambs, \$\$@8.10; fair to good lambs, \$7.25@7.50; light to common lambs, \$6.50 @7; yearlings, \$6.50; fair to good sheep, \$4.50@5; culls and common, \$2.50@3.75.

Spicer & R. sold Newton B. Co. 18 lambs av 67 at \$7.50; to Nagle P. Co. 19 do av 60 at \$7.50, 96 do av 75 at \$7.85, 4 sheep av 100 at \$4; to Mich. B. Co. 11 do av 77 at \$3.50, 15 lambs av 70 at \$6.60, 8 do av 48 at \$6.50.

Bishop, B. & H. sold Breitenback Bros. 22 lambs av 67 at \$7.75, 11 do av 87 at \$8, 1 buck weighing 150 at \$3.50, 2 do av 110 at \$5.25; to Voungs 39 sheep av 140 at \$5.25, 11 do av 110 at \$5.25; to Nagle P. Co. 32 lambs av 75 at \$7.80, 46 do av 80 at \$7.35, 6 sheep av 115 at \$3.25, 20 do av 100 at \$3.50; to Youngs 39 on the 50 at \$4.12 lambs av 90 at \$8.7 sheep av 140 at \$3.50; to Strauss & A. 88 lambs av 90 at \$8.10; to Young 10 yearlings av 100 at \$6.50.

Carmody sold Eschrich 8 sheep av 85 at \$3.50, 31 lambs av 75 at \$7.85.

Solution (Carmody sold Eschrich 8 sheep av 85 at \$3.50, 31 lambs av 75 at \$7.85.

Heney sold Young 63 lambs av 70 at \$7.50.

Heney sold Young 63 lambs av 70 at \$7.50.

Dancer & K. sold Thompson 15 sheep av 75 at \$3.25, 37 do av 85 at \$3.65.

Duelle sold same 12 do av 80 at \$3.50.

Jedele sold Parker, W. & Co. 42 lambs av 85 at \$8.

Roe Com. Co. sold Mich. B. Co. 4 sheep av 130 at \$4, 37 lambs av 80 at \$7.50.

Downing sold Newton, B. Co. 37 lambs av 75 at \$7.75.

Allen sold Mich. B. Co. 13 sheep av 90 at \$3.60.

Haley & M. sold Mich. B. Co. 46 lambs

CROP AND MARKET NOTES.

Lapeer Co., Dec. 18.—Winter weather continues to be steady and disagreeable. The wheat fields are under a snow cover but corn husking is practically over, altho an occasional field can be seen with a few shocks of corn remaining. A large part of the hay crop has been moved marketward, prices remaining quite good. The droughty fall made short pastures, and as a consequence some stock are not in very good flesh. Hogs are scarce and big prices result. The price of potatoes holds at about the same level, 25c per bu. Wheat and oats are pushing up. Apples are bringing a big price. Horses not as quick sales as a few weeks ago. Shiawassee Co., Dec. 14.—Heavy winds, accompanied with rain and sleet. Much damage to farm buildings and wood lots by recent storms. Roads very icy altho smooth. A few farmers cutting logs for building purposes. Very little timber being cut for lumbering. Sugar factory about ready to close down as the larger portion of the beet crop is harvested. The season has been rather short on account of less acreage grown and the poor season. Corn about all removed from the field, altho a few farmers have been delayed as to husking with the machine on account of the icy roads.

Gratiot Co., Dec. 17.—At this date we have enough snow for quite good sleighing, as it came at three different falls, the first preceded by rain. The rain began with a sleet on December 12 but warmed enough to remove it before it turned cold. Auction sales are in full blast and it is possible to attend one nearly every day within a range of two hours' drive. Stock of all kind is selling high. Sheep range from \$5.50@7.75 for stock ewes; cows range from \$5.60. 60, while hogs are worth their weight in gold? The shipments in hogs and lambs are lighter than in late November as most of the farmers expected a fall before tax paying time and so disposed of their surplus. Poultry is bringing good prices, 11½c for chickens, straight, regardless of age or sex; turkeys, 17½c. Doubtless never before has there been so much

The state of the control of the cont

THE MICHIGAN FARMER.

8 av 145 at \$9; to Newton B. Co. 5 av 110
at \$3.50, 610 av 170 at \$3.35, 201 av 155 at \$3.50, 20 av 150 av 150

NEW YEAR'S DAY.

BY B. F. M. SOURS.

A happy day is breaking o'er the hills.

The past is past with all its joy and

ter blow; hearts are warm, warm in their

ter blow;
But hearts are warm, warm in their human glow,
And faith the spirit with its triumph fills.
Year! Year new-born—we have no fear of thee!
Our Father rules the constellated realm;
Why should a few short storms our courage slay?
Thou art the bearer of glad jubilee!
We quote a lad: "My father's at the helm!"
We hail thee herald then glad New

of bells, blowing of whistles and other noises that proclaim the advent of the advent of the New Year in Washington, New Year in the part, of the United the capitol of the United States, goes States that "goes" by Eastern time.

but the operators in the "Eastern" timebelt are the only ones to pass it on to the quarter of a minute. In some countries public. Just sixty minutes later the signal is repeated for the benefit of the "Central" belt. Then, after another hour snow.

And winter's grip the heart of nature an hour after the "Mountain" belt. United States. And who will fail to Again, it flashes across the country and imagine the sensation of the American an hour after the "Mountain-time" peo- abroad who sees his country thus hon-chills.

A year is dead; a year is born, and rills Are ice-bound, and the winds of winter blow;

The snew is a possible to those in the "Mountain" belt. United States. And who will fail to Again, it flashes across the country and imagine the sensation of the American an hour after the "Mountain-time" peo- abroad who sees his country thus hon-order is dead; a year is born, and rills who greet the New Year on "Pacific" that New-Year has arrived in the United States.

When that first signal, proclaiming the flashing around the world on overhead This first signal goes all over the world wires and under-water cables it reaches the farthermost country in less than a it is broad day, yet the instant the message reaches them time-balls drop and flags are "dipped" in compliment to the United States. And who will fail to

THE ORTEGA GOLD

BY HOPE DARING.

We quote a lad: "My father's at the helm!"

We hail thee, herald, then, glad New Year's Day!

UNCLE SAM'S NEW-YEAR AN-NOUNCEMENT.

BY EVA RYMAN-GAILLARD.

When the clock in the farm home strikes twelve for the last time in the year, those hearing it will, half-consciously, perhaps, wonder if the clock is just right, but in city or town those who hear bells and whistles signal the hour know the signal is given on astronomically correct time. In either case, comparatively few give thot to the fact that the signal marking the advent of the New Year for them does not affect all the people of our broad United States—to say nothing of the rest of the world.

We have, in the United States, four distinct "time belts" in which time is designated as Eastern, Central, Moun
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 the people of our broad United States—to say nothing of the rest of the world.

We have, in the United States, four distinct "time belts" in which time is designated as Eastern, Central, Moun-

order these men to leave the ranch a once, or must I do it?"

"You have forgotten, Sener Ortega, that Guy Cross and I own this ranch," John said, his clear eyes meeting and holding the other's gaze. "I regret that you were obliged to give up the old place, but, now that it has passed out of your hands, you cannot expect to dictate as to how the ranching operations shall be carried on. These ditches are to be put

"I will not have it so," the old man screamed. "You have driven me out, but I am master here still, and I will be What if I could not pay the mortgage? The money is there in the house, more than enough to pay all my Because I cannot just now lay debts. hands upon it does not matter, not in the least. No gentleman would mind waiting until some member of the Ortega family chances upon the gold."

"Father! Father, what is it?"

Both men turned at the sound of Carina's voice. As soon as she had seen her father she had hurried out to join him. Standing there, in the direct rays of the sun, she made a striking picture. wore a simple house dress of brown linen trimmed with white bands. The neck was cut square, showing the delicate lines of her rounded throat. Her head was uncovered, and her black hair glistened in the sunlight.

"It is the ditches, Miss Ortega," John said. "Your father is very angry because the men are at work upon them, and I do-

"How dare you-a common workingman-address my daughter-the Senorita Ortega? Carina, child, go to the house. Nay, stay a moment and add the weight of your authority to mine against this outrage.'

"Come to the house, father, and we will talk it over," the girl coaxed, putting her hand thru his arm. "Just now I do not see, but, if you tell me all about it, I will understand."

"But you may side with the American. Why did we let him drive us from our home? If I had my revolver I would shoot the scoundrel."

"O, father! Come home with me, please do!" Carina coaxed.

Impatiently he shook off her hand and started for the spot where the men were a+ work. John knew that they had all been listening to the dispute. He walked at Carina's side as she followed her

"What can we do?" he asked in a low voice. "Would it do any good to send for Doctor Encino?"

"Oh, if you would do that! I do not know what to do, for I have never seen

Already the old man had reached the spot where the ditchers were at work. wrong with one and Uncle Sam be unigs a success, you may be able to see the He addressed the foreman in a hard, able to make his announcement on time. matter in a different light from what you resolute voice. "You get yourself and your men off the place at once. If there is one of you left on the ranch in an hour.

"Now see here, you old duffer, that'll We'll take no more of-"

John had stopped a minute to bid Sin to go at once for Doctor Encino. He has-

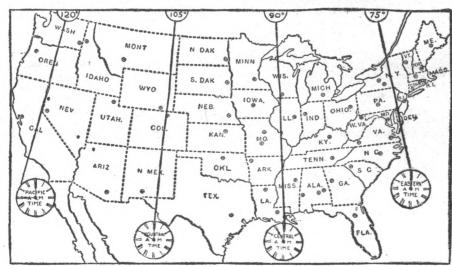
"That will do, Mr. Mott. I am very sorry that you and your workmen are annoyed, but you must see that Senor Or-John was more perplexed than angry; tega is not responsible for what he is he saw that the old man's mind was not saying. If you will be patient for a few

> With a snarl the old man faced John. "How dare you even think concerning the

You see him along the barrel of a INCHESTER HE'S YOURS!

This handy little terrshot rifle repeats itself, the recoil being utilized to do the reloading. The novelty of its operation affords possibilities for practice and pleasure which no other "twenty-two" does. Look one over. &

SOLD BY DEALERS EVERYWHERE,



satisfied that this clock gave true astronomical time, the the hundredth part of a second, he would correct, by it, two smaller clocks, which are transmitting ditches upon the ranch.

boy, but a snort time after this, still harboring resentment and the feeling that he was still the rightful master of the ranch, he undertook to interfere with workmen who were digging irrigation ditches upon the ranch. clocks, that can be connected with the telegraphic lines running out from the

At three minutes before midnight one do now." sands of miles of wires stretching across ments, operated by the transmitting clock in Washington, begin ticking off the secoff, one (the thirtieth) is skipped. When this "break" comes every operator takes their business." warning and watches with senses alert while twenty-five more are ticked off. while twenty-nve more are ticked on. he saw that the old many limit was not minutes, I think his daughter can per-Then, silence for almost five seconds, but clear. "Let us send for Doctor Encino minutes, I think his daughter can per-in the last fraction of the last second to advise us in the matter," he suggested. suade him to return home with her." in the last fraction of the last second the circuit clicks shut and the operator gives his signal to the waiting people who start the firing of cannot, ringing dle in his neighbors' affairs. Will you Ortegas? You a - a" and, throwing

tain and Pacific, and the way in which the arrival of New Year is announced to the people of each "belt" is well worth investigating.

If we could be in the United States Naval Observatory, in Washington, half an hour before midnight of December 31, we might see an astronomer studying the stars thru a telescope that he would speak of as a "transit instrument." After watching the stars and making many intricate calculations he would correct a large clock standing near him and, when satisfied that this clock gave true astro-

Chapter V .- (Concluded).

"I am sorry to displease you, sir," John observatory. These clocks cost hundreds said. He was at a loss how to proceed and of dollars apiece, but two are included in went on slowly. "Just wait until we have Already the old man had reached the the outfit for fear something might go given the system a fair trial. Then, if it

distorted the old man's face sneer into the telegraphic circuit and watching "A success! All the meaning you cursed I'll set the dogs on you." operators along the thousands upon thou- Americans attach to that word is the making of money. Ortega Ranch stands do. the country catch the signal and all wire for the old life when a ranchman was a work is stopped. With the first second man of leisure, a gentleman. I will never Le, who had joined the throng, tell Pedro of the last minute of the year the instru- see this act of desecration completed. You think that you are master here, but I tened to step in front of Carina, interwill show you that my authority is still rupting the foreman. onds. When twenty-nine have been ticked above and beyond yours. I tell you that these men are to be sent at once about

"Doctor Encino, indeed!! He is a good physician, but too much inclined to med.



High Rock Fleece-Lined Underwear The ideal winter underwear for Outdoormen, City men and Traveling men. It never "sheds" or stretches. It tever "pills up" after washing, and it is guaranteed not o shrink or get out of shape.

ONLY 50c. A GARMENT ret it will outlast most underwear that costs twice as nuch. Look for the RED trade-mark.

much. Look for the RED trade-mark.

High Rock Underwear
is sold by dealers everywhere. If yours should not sell
it, let us know. We will see that you are supplied
quickly and conveniently. We will also send you our
attractive

FREE BOOK
Send for it today. It will fell you many interesting things about
underwear manufacture which you probably do not know.

HIGH ROCK KNITTING CO., Dept. R Philmont, N. Y.



WE WANT YOUR RAW FURS AND CUSTOM TANNING. W. W. WEAVER, Custom Tanner, Reading, Mich

Cash Paid for As New York is the best we can and do pay high we can and do pay high set cash prices for hides of Skunks, Minks, Coons, Muskrats, Opposition, Muskrats, Oppositio

PATENTS that PROTECT-Our 3 books for inventors mailed on receipt of 6 cts. stamps. R. S. & A. B. LACEY, Washington, D. C., Dept. 89 Est. 1869 up his hands, Jose Ortega fell to the ever knew. earth, unconscious.

Chapter VI.—The Coming of a Bride. John who took affairs into his own hands. working near the house that they at-Now that the question of quieting the. crazed old senor was postponed for a time, the young man was his usual cool, resourceful self.

not be frightened, Miss Ortega; it is only what to do until the arrival of Doctor gets that Ortega Ranch is no longer his." Encino."

Just then Wana appeared. She had been to the village for needed household only supplies.

"What is it, senorita?" she asked. Carina briefly explained. John had ordered a cot brot from the ranchhouse. Upon it they lifted the unconscious man and bore him home.

The adobe contained but four rooms besides the loft where Wana slept. It was to the larger one of the two chambers that the old senor was carried. There was much about the apartment to connect Jose Ortega with a past of pride and power. The furniture was massive, and the hangings, tho worn and faded, of silk and fine lace.

John had removed the senor's shoes, while Wana prepared a fragrant lotion with which to bathe his hands and face. The workmen went back to their digging. Carina moved about, bringing what was needed. John stole a look at her, to find her face set in sad lines. Soon they heard the sound of a horse's hoofs. It was Doctor Encino, and Carina went out to meet him.

"I am glad to see you here, Mr. Martin," the old physician said, shaking hands with John.

Doctor Encino entered the sick room. Then John looked questioningly Carina.

"I shall be glad to do anything I can for you, , Miss Ortega. Tell me frankly, do you consider my presence here an intrusion? I know that it would be so considered by your father, but I feel that he is not himself, and I do not blame him for one hard word that he has said to me."

For a moment the girl's composure gave way, and tears rained down her John held out his hand; she clung to it like a frightened child.

"An intrusion? No, no! It means much to me that I have a friend near by who is so strong and forbearing."

John went home, to give Pedro some directions about the work. He returned to the little adobe, for he was anxious to hear the physician's verdict. The living room was deserted; Doctor Encino, Carina and Wana were all with the sick man. John sat down, glancing around with eager interest in Carina's home life.

The large, low room was a pleasant There was a fireplace, Carina's place. piano, a case of books, a couch heaped with cushions, and a cabinet of china. On the walls were many family portraits. After a little the door of the inner room opened to admit Carina and the doctor.

'Senor Ortega has regained consciousness, but he seems dazed," the physician "He is sleeping. For a few days from the hills. he must be kept in bed, but I do not think it will be difficult to do that, as he will doubtless be too weak to rise."

voice. "Was it simply the beginning of his illness? Or was it his mental condi-

tion that made him ill?" "It's not easy to reply to those questions, my child. Your father is failing."

"For some time I have been afraid of of the ranch. his mind giving way," the girl said slowly, her lips quivering. "It has been hard for him to remember, for a week past, that we were not living at the ranchhouse."

"Well, a few days in bed may clear his menta vision. Do not worry, child. will be here again this evening. Good- back upon in time of trouble." bye, and may our Blessed Lady comfort

He went away. John drew forward a chair.

frankly with you. Do you think it would be a real benefit to your father if Guy and I postponed the putting in of the first few months passed. ditches for a time?"

"But you could not do that. Your contract has been made."

"I think we could arrange it. It seems heartless to carry on the work when it grieves your father."

tin! I think you are the noblest man I heat. The ocean fogs freshened the air,

But you must not think of putting off this work. It would do no good for you to change your plans. Carina's distress was pitiful. It was Doubtless it was because the men were tracted father's attention. I that he was sleeping or I should not have let him get away from me. Last week he was just as unreasonable when he saw that "We will carry him to the house. Do you were digging out some of the old and worthless fruit trees. He does not mean Where is Wana? She will know to be abusive, Mr. Martin; he really for-

"I know, I know! It is a heavy burden for your slender shoulders. If I could only help you. I hope you will pardon my speaking so plainly, but if you need financial aid—"

She interrupted him with a quick gesture. Thank you, but I have plenty for our present needs. There were a few hundred dollars coming to us when the business was settled up. I have been trying to earn enough for our expenses, saving that for a time of need.'

"How can I help you? Tell me." Steadily her eyes looked into his. "By being my good friend, by letting me feel that you do not blame him. It is lonely here, and I—I am alone."
"Not while I am at Ortega Ranch. I

would be a villain to blame that broken old man for anything. If I can do nothing to lighten your burdens, I can at least trust that sympathy helps a little."

"It is the wine of life. Wana is calling Faithful Wana! It is unjust to say that I am alone while I have her."

Again John held out his hand. For a moment he held that of Carina in a close clasp, then he walked away.

It was six weeks before Senor Ortega sat up. There were days when he was perfectly rational, when he grieved over his ruined fortunes and showered maledictions upon the heads of the presuming young Americans who had dared buy his old home. Again, for days at a time he lived in the past. At times he fretted a little because his room was in some way unfamiliar upbraiding his daughter and Wana for having moved the furniture about. Usually he lay, babbling contentedly of his crops, his flocks and herds, his fine horses, his books, and his friends.

Carina devoted herself untiringly to him. She read to him, sang for him, listened to his stories, and told him of the arious events of his little world. The old man had once had an artistic nature and much of his olden delight in the outdoor world awoke to life in those shadowy days. When Carina returned from one of the daily rides that Doctor Encino insisted upon her taking, she always had a word picture of mountain, valley, mesa, or sea to paint for him.

The girl's neighbors across the way managed to make her feel their interest The choicest of the fruit and in her. flowers of the ranch were carried to the Ortegas. When Carina demurred, they silenced her by declaring that to do even a little for someone served to keep them from being homesick. They lent her their books and magazines. It was rarely they entered the house, altho there came times when John could not deny himself the pleasure of giving into the girl's own hands the wild flowers he had brot home

Even after Senor Ortega was able to leave his bed, there was little change in the relation existing between the inmates "But about this unsettled mental con- of the two houses. When the old man dition?" Carina asked in a trembling was himself he growled about the changes wrought on the ranch, but the irrigation ditches annoyed him no more than did dozens of other things. On the days when he lived in the past Jose Ortega spoke proudly of the prosperous condition

"I always knew that the tide would turn in our affairs," he would say to Carina. "A few more years like this, and it will not matter whether the Ortega gold is found by this generation or the next one. While it is unfound, there something for the famil

The ranching operations of the cousins were generally successful. some mistakes, but their hard work and thoro-going methods were bringing in "Sit down, Miss Ortega. I want to talk good returns. Both of the young men were well pleased with the west. they made friends, their loneliness of the

The summer months went by, and the sun burned the hills and valleys to a deep, rich brown. Where irrigation did its life-giving work, fields and gardens wore a garb of emerald. Here and there on the chaparral-covered hillsides low-Carina leaned forward, a soft pink flush growing live oaks held up their crowns staining her pale cheeks. "O, Mr. Mar-





Something New from Kalamazoo

urself in your own home, that the Kalamazoo is the most momical—most satisfactory stove or range for you to use ck if it's not. Send for Catalog No.113, with special terms armazoo prices with others.

Cash or Time Payments

We want every housewife to know the comfort and convenience of a Kalamazoo in her home. You can buy on easy time payments or pay cash. Either way—you save 85 to 840 on any stove in the catalog. We make it assy for responsible people to own the best stove or range in the world. HUNDREDS OF THOUSANDS ARE NOW IN USE

alamazoo Kalamazoo Stove Co., Mfgrs. Kalamazoo, Mich.

LOOK FOR



Are You a Plumber?

And a steam fitter and a machinist? If so you can keep an ordinary gasoline engine running part of the time,—unless you forget to drain it and have a freeze up! That puts it out of commission.

THE NEW Way" Air Cooled

not an ordinary engine, and an ordinary man can get a lil day's work out of it every day in the year. No water, no lunks, no ploes, no packing; nothing to freeze up or leak. THIS BRAND Write for Catalog C.

The only air cooled engine INE NEW HAY HETER COMPANY guaranteed for all work. LANSING, RICHICAM, U.S.A.

Wise Trappers Ship Their to us because we treat them right. Do likewise, send for price list and ship to

M, F. Pfaelzer & Co., 6 E. 12th St., (Desk 4) N. Y.

alist in the world. We remove the cancer the use of the knife, and grow new flesh in ing. We accept no money until the work

THE EASY TRUSS CO.

KKEEPING TAUGHT

wish to earn \$20 to \$40 per week, write us. We teach okkeeping at home in a few weeks of your spare time, and ljolms. Our new system is so simple anyone can learn. Employment Bureau open to all our pupils. One free rahip in every town. Write for particulars. n Commercial School, 947 Ohio Bidg., Tolado, Ohio.

LEARN AUCTIONEERING

Trained, competent men make big money with no capital invested. You can be independent. Others are JONES NATIONAL SCHOOL OF AUCTIONEERING

TEACHES YOU HOW.
TEACHES YOU HOW.
Over 500 graduates in the U. S. and Canada).
Ild-winter term opens January 3, closes February 11.
Write today for free catalog. Address CAREY M. JONES, President, 2856-2858 Washington Boulevard, CHICAGO, ILL

Let Me Start You in Business! I will furnish the capital and the advertising. I want one sincere, earnest man in every town and township. Farmers, Mechanics, Builders, Small business men, anyone anxious to Improve his condition. Address Anderson Mig. Co., Dept. D 30, Elyris, Ohio.

AGENTS 200% PROFIT HAME FASTENER

F. Thomas Mfg. Co., 845 Wayne St., Dayton, Ohlo

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

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

The Standard Farm Papers BEST FOR THE READER THEREFORE

BEST FOR THE ADVERTISER Arranged according to location, reading from east to west.

Ohio Farmer, Guaranteed One 1,000 Circulation Line Lines 180,0 0 \$.80 \$.64

Michigan Farmer. Detroit, Mich. (Rate 40c per line.) Home and Farm, 100,000 .60 .45 Louisville, Ky.

Indiana Farmer, 40,000 .25 .16 Indianapolis, Ind. Breeder's Gazette, 70,000 .35 .35 Chicago, Ill. Hoard's Dairyman, 50,000 .30 .24 Ft. Atkinson, Wis. Wisconsin Agri-60,000 .25 .23 culturalist. The Farmer. 115,000 .50 .45 allace's Farmer Des Moines, la. 55,000 .30

Kansas Farmer, 50,000 .25 .25 Field and Farm, 30,000 .15 .13 750,000 \$3.75 \$3.172

These publications are conceded to be the authoritative farm papers of their individual fields. For further information address

GEORGE W. HERBERT, estern Representative, First National Ba Building, CHICAGO, ILL. WALLACE C. RICHARD ON, Inc.,

Eastern Representative, 41 Park Row NEW YORK CITY.

lways mention the Michigan Farmer when writing to advertisers.

breeze tempered the heat.

As the days went by the heart of Guy The first of Sep-Cross sang for joy. tember he was to go east for his bride, returning a month later.

"I am sorry the little girl will get her first glimpse of California when it is so brown and parched," Guy said to Carina one sunny morning when he had overtaken her returning from a ride. He was on horseback, and he rode along at her side, his face bright and animated.

That will not greatly matter; those brown hills have a loveliness of their And your flower garden and grounds are beautiful. I hope that you will be very, very happy, Mr. Cross."

"Thank you. I mean to be good to the little girl. It's a great deal that I am asking of her, to leave her home and kindred, just for me."

"That is what my mother did, only she left her past life more completely than your wife will. And mother never regretted it. When I say that, it will make you realize the change wrought in my father by her death and by years."

Guy looked thotfully into the girl's face. "I'm not just sure a man is ever worthy of the love of a good woman," and his voice fell into a low, reverent tone. "But sorry for coming here. You'll help me a little, Miss Ortega, if you can?"

"Indeed I will be glad to do that. If father remains as he now is, I think I may see something of Mrs. Cross. miss my girl friends. I cannot leave father to go to them, and, since we left the ranchhouse, I can ask them to come to me but rarely. So you see I hope to get companionship as well as to give it."

John was very lonely after Guy went This was not alone because he missed his cousin's presence, but because he knew that the old intimacy between them was at an end. He rejoiced in Guy's happiness, but he knew that henceforth his own life would be a little more solitary.

About that time Senor Ortega was again confined to his bed for a week. One evening John was about to start for a tramp along the highway when he chanced to see Carina seated on a rustic bench that stood only a little way from her own door, in the share of a great fig The night was silver-gray with starlight, and a new moon hung low in the western sky. John could see that the figure drooped a little, as with weariness. He leaped over the fence and approached her, saying: "May I come and tell you about the wedding? It takes place today, and Guy's letters have given me so good an idea of it that I think I can enable you to see it as a whole.

"Oh, do tell me about it!" she cried "I am so tired! No, father is no worse, but for a little while I want to but the tender protective love of a good be a care-free girl, enjoying weddings man is hers, ready to stand between her and parties. Just for a little while, Mr. and the world." Martin; then I will go back to my duties."

They chatted gaily for a time.

"A week from today the bridal couple will reach here, on the late afternoon train. I would like to give Ruth somehouse pretty, not even with all the gar-

den flowers at my command." Carina clapped her hands softly. will help you. On that afternoon I will come over and help make the dear old swered in his cheery tone, "If you think ranchhouse ready for the coming of 'the it will help you, Alice, go by all means.

ranchhouse ready for the coming of 'the it will help you, Alice, go by all means. little girl' whose praises Mr. Cross never I can get on very well by myself just tired of singing."

She kept her word. The day on which Guy and his bride were expected was a warm one. The sky was veiled by a whitish mist, and the sea breeze was free vent to her sorrow, throwing herself fresh and invigorating. At two o'clock Carina arrived at the ranchhouse, accompanied by Madgre Cornell. Each girl her will help you, Alice, go by all means.

I can get on very well by myself just ing the since we have well and since we have no man I can manage the cooking."

With that he went to the barn to finish the chores. Left by herself Alice gave the chores. Left by herself Alice gave free vent to her sorrow, throwing herself the chores. Left by herself Alice gave free vent to her sorrow, throwing herself the chores. Left by herself Alice gave free vent to her sorrow, throwing herself the chores. Left by herself Alice gave free vent to her sorrow, throwing herself then?

Acidity in soil, correcting then 234

After haying then?

Cheboygan county .302

Farm barn, a good ...350

Farm home, heating the .326

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .326

Farm barn, a good ...350

Farm home, heating the .491

Farm Notes.—Harvest-experience with ...146

Farm Notes.—Harvest-experienc companied by Madge Cornell. Each girl her slight body. carried a basket

Carina asked. "Now we will make Ortega next day he's planning crops and doing Ranch a bower of beauty for the homecoming of the bride."

John put himself at the disposal of the party, yet there were times when a grave, almost sad, look came to her face. Realizing how well she loved her old home John knew that she could not forget that it had passed into the hands of strangers. "If one day I might ask her to come

back to it!" he said to himself. The dining room was decorated with branches of the pepper trees whose feathery foliage and scarlet berries lent themselves admirably to the purpose. In the ranch garden grew a great bed of carnations. Carina selected the red ones

and Sin Le bringing from the attic a a quaint old buffet of time-darkened oak, it is. boughs back of it and placed upon it a rustic basket piled high with clusters of purple and amber grapes, a tall pitcher that Carina found among the cousins' scant stock of dishes, it took away the bare look of the room.

In the great living room were pink carnations and roses arranged with ferns. On a small table Carina spread a beautithe bride. The Marshalls had sent a cut-glass olive dish, and Madge had brot a burntwood nut bowl. Those gifts were placed on the table.

The sleeping room of Mr. and Mrs. Cross was decorated with white carnations. On dresser and washstand Carina spread white lined covers that she had brot with her. For the living room lamp they made a shade of rose-colored crepe paper. There was even a plate of homemade candy.

"We want the bride to know that there are real live girls in California," Madge "No, Mr. Martin, you do not understand, and it is not worth while for a man to try."

When John started for the village to I don't mean that the little girl shall ever , meet the travelers, Madge returned to her cousin's home with him. Carina lingered for a little time after they had There was a mournful pleasure gone. for her in going over the old home changed as it way. She and Madge had laid the table, and Sin Le, who had become warmly attached to Carina, had an excellent dinner under way.

> "I hope the bride will be very happy the girl said to herself as she paused on the threshhold of the dining room for one last look. "All things will be strange to her, and this old home will never be to her what it was to me."

> Carina hurried home. Her father was sleeping. Wana listened with her usually impassive fact to the account of the afternoon. All the comment she made was: "It is your home, senorita; the money to buy does not give one real possession."

> From the window of her own little room Carina saw the home-coming of Guy Cross and his wife. John drove up close the veranda steps, and, after the Crosses had alighted, he went on to the barn with the team. The two lingered a moment on the veranda, then, ere, they entered the house, Guy stooped and kissed his bride.

> Carina stood still until the sunset's crimson glow had faded and the purple tint of a California evening jeweled the distant mountain tops. Then, when she turned away from the window, tears filled her eyes.

> "Why should she not be happy? She has left home ties and friends behind her,

(To be continued).

A MAN'S WAY.

BY JANET THOMAS VAN OSDEL.

"I am going tomorrow, Will. thing like a home-coming. Sin Le can Betsey's letter says that I must come for be trusted for the dinner, but I am not awhile or this lonely grief will kill me,' sure that I can be trusted to make the said Alice as she pushed her chair from the table and walked to the window that her husband might not see the tears "I about to fall.

There was a long pause then Will an-

bab "Was it not dear in Madge to come" moaned. "It's a mere incident and the chores as if nothing had happened. While to a woman it's her life taken."

The next day Will drove Alice to the girls. Carina was the life of the little station. In the back of the light road wagon was her big trunk and both knew that the taking of it meant a protracted stay. Will put her on the train and kissed her good-bye. The last she saw of him he was smiling cheerily. "If it were the last good-bye on earth to me, he'd smile just the same," she that bitterly.

Aunt Betsy met her at the train with open arms. Ah, here is sympathy, thot Alice! And putting her head on the shoulder of the woman who had mothered her from infancy, the tired girl gave free course to her feelings while Aunt Betsey

and every afternoon the salt-ladened for the table. She insisted upon John patted her on the back with, "There, to see that it was a strong face of wonthere, honey! It's hard dearie! I know drous refinement and beauty. There, there!" As soon as Alice home and there let her rest and talk of soul who won't give up." content.

During the first part of her visit, Alice and aloud she said, "It may be that Will's gave but little that to her husband, aside heart is breaking beneath his smile." from writing him an occasional perfunction. With feverish haste Alice consulted Baby Bessie two years before, she had found little room in her heart for the big ful drawn-work lunch cloth, her gift to man who had won her five years ago. The mite of a baby seemed to fill every and life seemed wholly empty.

One day when Alice seemed to have almost her usual strength and somewhat of her former calmness, she went to the little room which had been hers until the day of her marriage. Everything was as she had left it then, and seating herself path leading to the kitchen door, and at the writing desk she picked up a taking the key from its usual place unletter and idly opened it, wondering what der the stone she let herself in. But on the world had held for her five years the threshhold she stopped with a cry of It was a letter from Will. As she ago. read a faint color came to her cheeks and this mean? She stepped to the kitchen long over the last line:

to share with you all the best that comes touch it while he ate was the little crib, into my life. I would that you were here on the other side of the table was the that you might be partaker with me in little high chair and propped up against all those experiences that would surely with me. There is much in store for us which rained down her cheeks as she

She let the paper slip from her fingers the bitter waters of the sea. while she lived again in those days of wooing. How much marriage seemed to promise she came across some other evidence of and how gladly she had left her city home her husband's loneliness but bravely she health required the outdoor life. But to do and she dressed for tea, not in what a change! In the uncommunicative the black gown she had been wearing man whose name she now bore could she but in a dress of old rose which she knew recognize the lover whose ardour had so to be a favorite of Will's. thrilled her years before. Did he know

A whistle, sweet and clear and boyish, and thin and gray. old, so badly afflicted with some nervous lit the lamp. The step paused for a mo-It took him two hours to go down Alice spoke. the block and back on the other side of him. bursting out into song. wards the heavens and she was startled something of what he cared.

"Good God!" she cried, "he surely isn't When the girls had massed the pepper became calmer, Aunt Betsey took her glad he's that way. He's simply a big And then there Baby Bessie's short life to her heart's arose before her eyes another brave face that wore ever the same bright smile

> tory letter. Indeed, since the coming of time tables. The evening train would reach her station early the next morning. She could ride out home with one of the milk teams. Wise Aunt Betsey understood and helped Alice. That night she bit of the woman's heart, and life and lived again her life from the time she when it was snatched from her the heart had first met Will, and with her new power of vision she saw who it was that had raised the barrier between them.

> One of the neighbors gave her a ride from the station and told her that Will had gone to an auction over in the next township. Eagerly she sped up the little pain. He hadn't cared? What then, did a brightness to her eyes. She lingered table and looked at the pitiful collection of worn toys set out there. Not one was "I love you so, my own, that I want missing. Close at hand where he could the coffee pot was her own picture taken so much more beneficial were you with Baby Bessie in her arms. The tears when you come out here. I'll have you put the precious things away were as here before long, dear, and then we will different from the tears she had shed a know what it means to be alive." few weeks before as is morning dew from few weeks before as is morning dew from

> Eagerly she worked all day making the What a lover Will had been. little house homelike. Now and again to live with him on the farm when it busied herself, cleaning and cooking and was decreed by men who knew, that his baking. At last there was nothing more

> When she heard the wheels it was althe meaning of love? No, or he could most dark but she had not yet lighted never have taken Baby Besie's death as the lamps. Peeping from the window she watched him. He looked old and bent Suddenly he drew aroused her. She stepped to the window himself straight and began to whistle. to see who was filling the air with such "Ah," she whispered, "he forgot for a gladsomeness on so dark and stormy a moment. He is one of the big men, too." day. A man, probably forty-five years When he turned toward the house she disease of the lower limbs, that he made ment and she could imagine the look of his way over the ground by inches, was surprise on his face. In another moment working his way over the slippery, slushy the door was thrown open and the man sidewalk from house to house selling the saw the light room, the cozy tea table and goods he carried in a case in his right the pretty woman, and with the glance

> "Will, your wife's come back. Not the the street and thru it all she watched baby's mother but your wife as well. seeming never discouraged, but And, my husband, if God gives us anwhistling bravely and once in a while other baby it shall have its own dear When he was place in my heart but it shall never take opposite her house he took off his cap yours. She was crushed to the strong for a moment and turned his face to- man's heart with a fervor that told her

NDEX

FOR VOL. XXXIII.

From July I, 1909, to January I, 1910.

ing the hay utilize the oats and peas, the potato crop, 1; spraying potatoes for thight, eradicat in general control of the co 1; spraying potatoes for blight, eradicat in g wireworms, effect of fertilizer on seeds, 21; late seeding of alfalfa, some alfalfa problems, the fall seeding of clover, 37; seeding the muck land, applying muck to sandy land, 38; eradicating dodder, the cost of spraying potatoes, the English sparrow pest, 57; cultivation proble ms, draining the muck land, 73; the dodder pest, inoculating the soil for alfalfa, 89; late cultivation of beans and potatoes, 90; the tomato borer, clover dodder natching the tomato borer, clover dodder, patching a poor seeding, growing alfalfa seed, late sowing of alfalfa, 109; potatoes in the crop

rotation, cement floor for granary, seeding a marsh to red top, ice storage in the cel-lar, 110; potato dis-eases, early blight, tip burn or scald, late blight, 125; seeding low land to grass, 126; burn or scald, late blight, 125; seeding low land to grass, 126; treating seed wheat for smut, seeding alfalfa in corn, 145; preparing the land for wheat, 165; yellow or hop clover, 166; maintaining soil fertility, 189; saving seed corn, the seed potatoes, 209; handling cowpeas for fodder and green manure, 210; preparing for next year's potato crop, eradicating sand burrs, do fertilizers injure the land, 233; fertilizer for wheat, alfalfa for low land, 234; harvesting the potato crop, 253; seeding the sandy land, 254; the osage orange hedge, summer crops for hay, growing beans on sandy land, 277; the fertilizing value of the clover crop, a thin seeding of clover, two crops on the same ground, 301; a problem

DEC. 25, 1909.	
	tures toint oras
in tillage, alfalfa on sandy land, 325; does it pay to sowl salt, crops for the barn lot, 326; important autum work, wood ashes as a fertilizer, the clover root borer, old insect enemies troublesome,	farm horses, for and caring for
for the barn lot, 326;	stock, getting
important a u t u m work, wood ashes as	stock, getting from
a fertilizer, the clover root borer, old insect	Feed cooker, value
enemies troublesome, cost of sowing wheat,	mer care of fe
cost of sowing wheat, 349; more alfalfa ques- tions, drainage for the	grain ration, 11
349; more alfalfa questions, drainage for the cellar, 370; the corn crop, corn smut, the gopher nuisance, painting rough lumber, 401; big potato yields, smothering thistles and quack grass, seed-	cost of win
gopher nuisance, paint- ing rough lumber, 401;	calves and 168; corn vs. meal for hogs ration for brook
big potato yields,	ration for broom 211; the br
and quack grass, seed-	season, 255; k
and quack grass, seed- ing clover alone and with wheat, fall vs. spring plowing for	shredded fodd breeding ewes
oats, 422; elosing up	ration for brood 211; the br season, 255; k feeders to buy shredded fodd breeding ewes feeding potatt horses, 405; h feed the calves
with wheat, fall vs. spring plowing for oats, 422; closing up the farm work, treat- ment of manure with acid phosphate, soy beans, red top as a hay and pasture grass, 445; crops for green manure, concrete vs.	feed the calves and cob meal fattening the stock, 447; w
beans, red top as a	fattening the stock, 447; w
445; crops for green manure, concrete vs.	the stock, 46
stone wall for cement,	miora ration
465; a summer crop for the wheat field, seeding to clover with-	vs. white cor age vs. si corn, 493; f
out a nurse crop, apple pomace as a fer- tilizer, 490; seed selec- tions and fertilization,	value of som products, 516.
tilizer, 490; seed selec-	Flooding corn W
	Flock, improving
Fertilizer and seed selection did not pay. 490 Fertilizing wheat 160 Grain notes 350 Grasshoppers, remedy	husking Flock, improving Hay, palatability Hog cholera exper house and work
Grain notes350	a convenient
for destroying 90	Hogging corn fro
Harrying wicked seed	down corn Hog, the farmer's
Grasshoppers, remedy for destroying	Horse, feeding an
Hydraulic ram for sup- plying water51	Horse, feeding an of Horses, breeding
in the west27	developing and ing draft
International, the48 Keeping things in their	Horse stable,
In the west International, the48 Keeping things in their place35 Land roller, improving a 2 Lillian formstoad notes.	floors for Is show stock exa
Land roller, improving a Lillie farmstead notes, 74, 90, 190, 210 254, 326, 402. Makes farming pay46 Mortar for plastering a	ed? Lamb crop, ripent Live stock at the
326, 402. Makes farming pay46	Live stock at the relative terms
Mortar for plastering a	to2 notes, 76, 114, 1 237, 280, 304, 3 373, 405, 42; 6 469, 494, 517, ocean transpo
Nitrogen capturing plant 2 Oak timber, native va-	2 237, 280, 304, 3 373, 405, 428
rieties of46 Oats for green manure	6 469, 494, 517. ocean transpo
Oak timber, native varieties of	a ve goil fortility
Pasture, ox-eye daisies	2 or's
in	5 Morgan horse, p
new seeding14	
Planting forest trees27	
Piowing, experiments in 22 Poisoning gophers 49 Potato and bean experience	Pigs, effect of f 6 bone in 3 summer trouble
Potato crop, the42	Summer trouble Pork producers,
the	for
Dura air intakes in ce-	Sheen and lamb
ment block basement	2 of in August Sheep as land im
Root system of field crops40 Rotation, a three or four	gning into
year	6 going out of
tion of soil35	tape worms in stomach worms
value of	the type to pr
Seed corn rack44	6 cow
Seed corn rack	O Sows at farrowing
Silo, filling the 5	breeding from or young Stables, white the Story of the
Soil fertility11	the
Spraying potatoes, cost	Hereford catt
Spring wheat for Mich-	8 Straw, economic of
Stable manure, value and deterioration37	Thinning out for Veterinar
State and county fairs30 Stone or cement wall for	Abnormal tooth . Abscess, 148, 25 1 343, 393.
and deterioration	1 343, 393. 7 Abortion, 194, 24
Tile, hard vs. soft27	Acidity of stoma 406, 483. 2 Acidity of stoma 60, 343, 375, 4 1 Acinimycosis Anaemía Apoplexy
Wagons, draft of farm 2 Waterproofing concrete	2 60, 343, 375, 4 1 Actinimycosis
Weeds as soil renova-	8 Anaemia
tors 5 nuisance, the 2 Wheat as a nurse crop for permanent pas- ture 19 how late to sow 25 Wheat crop preparing	2 Atrophy of quart following azotu
for permanent pas- ture19	Barb wire cut, 4,
how late to sow25 Wheat crop, preparing	4 Barren heifer
Wheat crop, preparing for the16	7 cow
Awards at International, 51	e 393
fair19 Awards at state fair, 212, 237, 256.	Blocked quarter
212, 237, 256. Awards at West Michigan fair28 Beet tops injure stock. 4	Blotches
Beet tops injure stock. 4	Big leg Blocked quarter Blood poison Blotches Bog spavin Boils Bone spavin Bowel parasites Brain and spinsl
Big production for the general farmer12	
Boar, handling the newly purchased30	Broken wind
purchased	Bruised udder Bruised throat an
	on hock
Breeding drafters as a business32	9 Bursal swellings .
Breeding steers, ensilage32 Brood mares, corn silage	Cat has worths ,
Colves fooding flavored	n fowls
meal to	2 Chronic cracked
meal to	hip lameness lymphangitis looseness of bo
feed	7 looseness of bo
Does top-dressing pas-	Colic

	TH	IE MICHIGA	COLUMN TO SERVICE
	tures taint grass211 Farm horses, feeding and caring for235 stock, getting most from	Colt cut tendon on mowing machine 76 S	i
	and caring for235 stock, getting most	Cough114, 353, 375 S	
	Federal meat inspection,	constantly bellows483 S gives bloody milk, 128,	3.7
	Feed cooker, value of 425 Feeders' problems—sum-	238, 256,	2
	Feeders' problems—sum- mer care of feeders, 91; rye in the horses' grain ration, 112; the	Crib-biter	C
	cost of wintering calves and sheep,	Cut parotid duct 24 The Dandruff	r
	168; corn vs. corn meal for hogs, 192; ration for broad sow,	Decayed tooth	F
	211; the breeding season 255; kind of	Dislocated stifle253 T	U
	feeders to buy, 328; shredded fodder for	Dog has indigestion414 Dropsy331, 354 Drying up cows375	VVV
	feeding potatoes to	Drying up cows	V
	feed the calves, corn and cob meal, 424; fattening the young stock, 447; will the available feed carry the stock 488; the		V
	fattening the young stock, 447; will the	knee	
	miere ration vellow	Fire ejects food353	V
	vs. white corn, sil- age vs. shocked corn, 493; feeding value of some by-	Feeding colt375 Fibrous thickening on	V
		upper part of hock406 Fibrous tumors129	7
	Feeding corn without	Fistula of withers 4	
0	Hay palatability of 59	Foot soreness448	7
60	Hog cholera experiments 23 house and work shop, a convenient 469	Fracture hip 92	H
0	a convenient	Fresh cow gives too lit- tle milk	
2	down corn	Geese have sore mouths 24 Grease heel406	11 11 11
7	Horses, breeding and care of	Growth on eye ball331 Grub in head148, 194 Hand milker519	I
4	developing and train- ing draft203	Heart disease114 Heifer gives bloody	
9	developing and training draft	Fresh cow gives too little milk	
0 2	Is show stock exaggerated?	Heifer has bunches on	
	Live stock at the state	shoulders and legs 214 Heifers injured while calving 4 Hernia 60 B Hog had lock jaw 319 Infected bull 129 udder 40, 406, 451 Indigestion, 15, 46, 60, 76, 114, 129, 148, 194, 214, 295, 319, 331, 343, 353, 354, 393, 406, 415, 451, 483, 495, 537, 519, Inflammation of skin 4	(
6	relative terms applied to	Hog had lock jaw319 Infected bull129	
2		udder40, 406, 451 Indigestion, 15, 46, 60,	(
6	ocean transportation	214, 295, 319, 331, 343, 353, 354, 393, 406, 415,	(
6	vs, soil fertility373 Meat supply the farm-	214, 295, 319, 331, 343, 343, 353, 354, 393, 406, 415, 3451, 483, 495, 537, 519. Inflammation of skin 47 Inflamed parotid glands 4	(
5	er's280, 447 Morgan horse, preserv-	udder353	
6	meetings 494	Irregular strangles 4 Irregular teeth214	
1886	disease169	Hampas	
1	Pigs, effect of 1000 on	2 Influenza 426 Irregular strangles 4 4 Irregular teeth 214 Knuckling 238, 319, 426 9 Lameness 256 Lampas 451 5 Leucorrhoea 76, 353, 451 Lice 495 1 Liver disease 128	-
3	Pork producers outlook	9 Loggonogg of howels 415	-
4	production, supple-	Loss of appetite	(
2	of in August113	Mange129, 495	-
3	going into352	Mare had miscarriage353 Medical question495 Muco-enteritis24	
6	going out of 3 starting with 59	Nail puncture448 Nasal catarrh, 114, 194, 256, 495.	
3	stomach worms in112 the type to preed235	256, 495. Nasal gleat	
6		2 Norwayspage 295	
0	Sows at farrowing time.328 breeding from mature	Nutrition	
8.0	Stables, whitewashed	Ophthalmia, 92, 129, 194, 495, 519. Out of condition256	
8	Hereford cattle 39	9 Tractical dialogation of ma	
26	of	tella	
1	Veterinary	loss of power331, 406	
1	Abscess, 148, 256, 319,	Digg course 09	
9	Abortion, 194, 247, 343, 406, 483. Acidity of stomach, 24	unable to use hind quarters	
1	60, 343, 375, 483. Actinimycosis60, 495	Perspires too freely406 5 Punctured foot537	
18	Atrophy of quarter319	G Question about wild parsnips	
0.0	Barb wire cut 4 40 194	Dielzota 94	
4	Barren heifer 4 cow 24	4 Roarer238	
16	mare	6 Roup	
2		Scrotal tumor	
1	Blotches	4 Snaggy coat	
10	Bog spavin 375 Boils 451 Bone spavin 76	1 teeth 4 6 Sick dog	1
3	Bowel parasites	8 Spagged foot]
	Bronchocele	6 Sore neck]
7	Bunch on navel194	Strained fetlock joint 92	I
9	Bursal swellings448 Calves scours537	8 back]
0	Cat has worms519 Catarrh238	1 leg	I
2	Chronic cracked heel,	Stocking, 256, 331, 393,	II
53	247, 406. hip lameness537 lymphangitis375	426, 579. 7 Stomach vertigo76, 343 5 Strangles238, 448, 495	
77	hip lameness 537 lymphangitis 375 looseness of bowels 495 Colte 353, 537 Collar gall 76	5 Strangles 238, 448, 495 5 Striking 60 7 Suppurating fetlock joint 214	I

IG.	IN	FARME	R
on 76	foot Surfeit	129, 295, 375, 426, 495, 76, 256, 194, 194, 194, 194, 256, 194, 256, 194, 256, 194, 256, 194, 256, 194, 256, 194, 256, 194, 256, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 194, 257, 257, 257, 257, 257, 257, 257, 257	re
3, 375	buds . Sweeney		Wil
483	Swine p Swollen paster	hocks426 n and fetlock353	Mill
0, 114	sheath Teat op	enings	Mis
66, 448	Teeth Ki Tetanus Thrush	nocked out579	Nat
24	Thumps Torpid	glands519	Non
331	kidney liver		Oat
253	Tumor Uneven	teeth331	fo Pas
31, 354	Ventral Vertigo	hernia	Ry
13, 519	Warts Weak b	oack60, 238, 295	Ser
406,	stifle Weakne	joint	Sha
448	join of	t	Shi
353	Wind g	all	Sile
375	Worms, 354,	all 443 4 49, 76, 128, 148, 393, 448, 483, 537, goslings 148 ed hock 114 238 fetlock, causing sking 451 pigs scour 426 The Dairy, ards, sanitary 502	S
on k406 129 331 4 ep114 448 th331	Wounde	ed hock114	Sile
331	teat	fetlock, causing	Th Th
p114	Young	pigs scour426	Tir
393	Parn y Beet to	pigs scour	We
lit- 343	not tops,	taint milk335 are they injur-	Alf
ob, 483 1ths 24 406	will	it pay to put in	An
331 48, 194	Butter,	estimating yield 52	Ar
519	how t	to make good 63	Be
319	cre	am affects 53	Be
on 914	for qualit	ty, is it improv-	Do
hile 4	why Calves	deteriorating115	Be Be Bu
60 319	ring	worm on503 ator milk for503	Bu
06, 451	Camem	bert cheese prob-	Ch
60, 194,	Milk, r	or silo	Ch
343, 415, 519.	Corn	silage, compared h clover hay503	r
inds 4	Cottons	seed meal or oil	Cle
353	rati	ed	Co
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	71	940	
19, 426 256 451 353, 451 495	Cowpe	eased germs	Co
495	Cows,	plan of stabling467 oes for503	Du
	cow st	able, refitting a334 dimensions 62	Dr
426 93, 451 393 114,	wh	at is a149	Eg
20 405	Cream	separator, best 467 ery, cost of equip-	Eg
e495	Dairy, Dairy	a model229 breeds and breed-	Fa
e353 495 24 448	Dairy	separator, best . 467 ery, cost of equip- grammator, best . 467 ery, cost of equip- grammator, los a model	Fo
256	busin	ness, seeing only	Fo
	cattle	e awards at West chigan fair287	Go
295 114, 128	Dairy o	de408 department at the	Gr
256, 451 194,	farm	, cash or market	На
256	farm N	ers' meeting at ational Dairy	H
393 pa- 495	herd herd	and its care407	H
tifle 148 331, 406	of fall	care of149	In
92, 238 92	winte	annual output annual output 140 care of 149 ner feeding of .52 er food for 356 ng and fertility 184 rork production 184	La
Land	and as a	pork production184 business408	Ma
28, 214	In Li	ivingston county520 know how of355	Ma
483 426 128, 214 406 537 wild	Dairy Ensilas	ng and fertility .184 bork production .184 business	Mi
426 194 128, 393	silo	ing damaged229 and feeding, care d economy in376	Mo
105	and	d economy in376 comparison of140	Ol
238	Garget	comparison of .140 ng	Or
343, 451 $343, 451$ $343, 451$ $343, 451$	Grain	ration with corn over and clover	Ou Po
148	Guerns	sey cattle467 a remarkable467	Po
537	Hand	separator, econ- y in	(
194	ing Heifer	calves for the	Po
29, 354	dai fails	ration with corn wer and clover 7	Po
353 $.92, 519$ $ 24$	Herdsn	s, wintering441 nen, higher stand- l for287 tv and environ-	Po
519 76	Heredit	ty and environ- nt	Pr
t 92 148 331	Litter	carriers, are they	Ra
295	Market	carriers, are they ctical?196 milk producing407	Rh
343 343 393,	regni	isites in produc- 	Ro Ry
76, 343	clul	o, summer meet-	Sha
48, 495	milk,	of	Str
c k	meth	ods of getting	NW

methods

of

getting

better	The exercise problem in winter
ater rising on307 k fever, cause and	the
king, the art of453 takes in feeding	Turkeys for the holi- day trade, finishing.396
dates for	for hens
th Ottawa cow test- ing association, June	Vegetable food, winter supply of
meeting of25, 239 as as a grain ration for cow feed306	Wheat vs. rye as poul- try food215
or cows	When colonies become queenless
grain	Wheat vs. rye as poultry food
th Ottawa cow testing association, June meeting of25, 239 s as a grain ration for cow feed306 or cows	American pomological society274 Ants on fruit trees27
edded corn fodder for roughage with corn and oats for grain453	
roughage with corn and oats for grain. 453 o, filling the	Apple and peach crops. 360 Apples and peaches, outlook for 68 Apple crop, the 1909 84
of ground115 of questions335 man behind the	
rout wall for 62 tarting below surface of ground 115 of questions 335 e man behind the cow 286 e robbed calf 407 nothy vs. clover and cornstalks 453 der treating inflamed 79	August spraying of apples
nothy vs. clover and cornstalks453	work on fruit farms. 456 Berries, early fall work in186 Berry notes120, 156 Black rot of grapes186 Borers troubled with156
der, treating inflamed 79 sight of silage520 neat after corn150	Dorers, crounted with 1.120
alfa for poultry	Cabbage, storing late crop 290 decay in storage 339
ts as apiary pests 61 tificial hatching, be-	Cane blight
e hints and observa- tions	Care of diseased rough- age156
es, keeping a lew	Cane blight
tion	eaten
with the	Cranberry, the red339 Cultivate the garden late228 Curculio deforms apples 84
ckwheat as a honey crop	Curculio deforms apples 84 Duties for late autumn. 360 English walnuts, why
dentifying the	Duties for late autumn. 360 English walnuts, why not grow?
profitable241 nid-season with the growing26 aring out old stock11	the orchard 68 Fire blight142
with the choice 357	Fruit exhibit, improving
lony poultry house for the farmers 5 handy and inexpen- sive	Fruit notes18, 228
sive	
icks, a boy's success with	crops, storing the338 Gardening suggestions 27 Good fruits, admiration
early development . 452 g production, how af- fected by date of	Good fruits, admiration of338 Gooseberry is neglected, the84
hatching	the
eding poultry, meth- ods of	ungs
ul brood, is it increas- ing?284	Handling fruit
with horse hair 26 ose, the brown china. 357	Horticulture, science of,
ading stock during hot weather 26 indling cappings after extracting honey 321	Late fall garden work. 442
tions	ers of spray materials
thing about197 oney fields, moving bees to41	Machinery improves fruit husbandry200
outlook, the111 breeding as it effects the farm crop357	Meeting of state society.412 Michigan as an apple state484
ce, ridding fowls and	report538
arketing honey409 arket, preparing poul- try for197	Mildew, to control, 498 Morning glory in the orchard
quarters of 41 urketing honey 409 urket, preparing poul- try for 197 eat as food for growing fowls 171 chigan poultry shows 497 oulting period the 111	Mushrooms 55 growing 442 National apple day 338 Nitrogen as a factor in fruit production 360
ts as part of layers' ration409	fruit production360
ter eggs471 as egg producers496	Odd jobs
pingtons, the496 tdoor wintering, pre- paring hives for333 ultry at state fair215	maggots
omical	on muck land291
the open front215 questions about open front259	down
ultry manure, preservation and value of 396 ultry market situation	new life in the old499
ultry notes284 ultry situation, some observations of141	Peach tree, a good 394
actical beeman's ex- planation of "ob- stacles,"496	borers, controlling499 scalding the
therefrom534 eumatism or leg weak	Pears, handling the290 Plants for winter bloom-
ness	ing395 Protecting grape vines and fruit trees Protection against for-
e vs. wheat for feeding	eign enemies120 Pruning and fertilizing
arms that won't stay	Saving seed and its
hived 26	care106

E MICHI

568 (24)	
Setting the price 290 Soil culture in the or- chard 484 Strawberries in the fall .291 Sweet corn, a good .499 Sweet potatoes, north- ern grown 412 Thinning apples .54 fruits 27 season delayed .106 Timely topics 142 Tomatoes, raising for market 200 Tricks in the trade .68 Tussock moth, description and work of .142 Utilizing potato ground .54 Vegetables, late sown .18 Vendor of fruit, the .244 Will peaches succeed .322 Editorial.	tained
chard	minated the
Sweet corn, a good499 Sweet potatoes, north-	How Saul Simpson came a busi
ern grown412 Thinning apples 54	man In school days
fruits	made toys
Timely topics142 Tematoes, raising for	quakes
Tricks in the trade 68 Tussock moth, descrip-	Jimmy gets away Keeping the children
tion and work of142 Utilizing potato ground. 54	school
Vegetables, late sown 18 Vendor of fruit, the 244	Mack, a faithful and
Editorial.	Mackinac the beau
A winning proposition454 A worthy ambition130	school Little essays Little farm fables. Mack, a faithful and telligent dog Mackinac the beau island Pessimism vs. optim Poetry on the farm Siberian ivory
Advantages of attending state fair	Siberian ivory Smile provokers Setting the captive is Some of our wild flo
American vs. foreign	Some of our wild flo
roads	Spring poet's Christr Suggestions for v tlers
Beware of this swindle 500 Busines side of farming 522 Christmas	Telephone, get most
Do it now	of
Do it now	The chemistry of
Evidence of prosperity 288 Fire losses and the	The clover party
Fire losses and the farmer	The Fourth of July
Good roads for Wexford	torically The hunting of bara's turkeys . The irrepressibles .
Growth of the sugar beet industry	The irrepressibles.
industry 28 Honor where honor is du 428 How we celebrate 28 How to stop the paper 378 Most	The judge's decision The neglected grav Tyler The Ortega Gold,
How we celebrate 28 How to stop the paper378	000, 020.
Meat prices and the farmer500 Michigan farmers' insti-	The Peters' washing The pinnated grous prairie chicken.
tutes, dates for500 Mortinger William Law-	
Tence	good clothes The romance of meadow
Our imports of hides 6. 6 Our public domain commission 80 Our second big fair 152 Our young men's column 378 Potato prospects 216 Prepare for the state fair 130 Pure food vs. pure reading 336	meadow The turn of the road The Uncompander of mation project The woman who day The worm that turn Those old rubbers Three centuries Henry Hudson To wake you up in morning Tree story.
Our second big fair152 Our young men's col-	The woman who day
Potato prospects216 Prepare for the state	Those old rubbers.
fair	Henry Hudson To wake you up in
Fure 100d Vs. pure read- ing	morning
Reader vs. advertiser522	Tree story
Concernor housets low 479	
Take care of your eyes.308 Thanksgiving428	when the tribe of ford moved When Wm. Ward sh
Take care of your eyes 308 Thanksgiving	Who is who Young men's col 433, 477, 529.
The census of 1910 260	Poetry. A change of heart
The country's produc- tion358	A dual mind A rosary of joys . A vacation memory
	An adage of the do
The federal census 472 The danger from light- ning 42 The game law and the hunter 288 The highway problem .358 The immigration prob-	Baby s prayer
ning	Cleon and I
hunter288 The highway problem358	Cheerfulness
The immigration prob- lem	
The investment of sav- ings	Defeat in victory Do I know Mrs. B. Drifting back home
The investment of sav- ings	Drifting back home Girls that are want Grandpa and I a
The memory day move- ment	ing In autumn days Independence Day
The memory day move- ment	in midnight watche
The potato outlook454 The potato situation410	Knowing how Legend of the wate Life's little deeds .
The problem of futures 80 The state fair198 The tariff bill94 The West Michigan fair 242	Life's little deeds. Meal time at our ho Men of the long ago
The West Michigan fair. 242	Monarchs of the pl My creed
That wheat controversy. 80 The wheat situation152 Magazine Section and	No unbelief Peeping thru mem
Home Youth.	My creed
A brute of a husband. 96 A case of identity	Reward of rest
A hunter hunted296 A novel hollowe'en	Still ahead
A novel hollowe'en party	The chicken's thanking The little cares fretted me The living past The missing The passing of sur The point of view The price of a glass The problem The pumpkin The recompense The rosary
A pioneer providence429	The living past
A simple gin power for the ingenious boy263	The missing The passing of sum
A successful failure345 A study in history, Rob-	The price of a
A word about August . 96	The problem
Arthur's method132 As I saw Butte311	The recompense The rosary The sea call
Boys vs. corn525 Catching the wily fox220	The secret
A study in history, Robert Clive	The secret The school bell The song of supper The Sunday school
Compensations in camping	The turkey's solilo
—James Fennimore	The winter rose Their majesties Turkey's Thanksg
Cooper	Two points of view
	Wasted happiness When Bobby stubs
Going to grandfather's	Household.
Grandma's story of Tom	Accidents, guard
Harvest time among the Mapuche Indians131	Acquiring an intere personality Adversities as char
Henry Wadsworth Long- fellow 99 Holding the sack 122 How correct time is ob-	builders
How correct time is ob-	A girl's lost chance A movable trellis .

T	A novel pin cushion .48 Ancient hair rats .31 A Honolulu heroine .31 An ounce of prevention .32 Are we misers of love and kindness .22 Aunique doll .53 Beans, ancient and modern .17 Bread, the secret of making good .17 Bread, the secret of making good .17 Bread, the secret of .17 Bread, the secret of .17 Bread, the secret of .20 Cake, Lady Baltimore .38 Caster bean, the .31 Children, teaching to save .22 Chocolate blanc-mange .29 Christmas bargains .47 Christmas gifts that please .53 Christmas gift contest offer .34 Christmas gift contest offer .34 Christmas gift contest offer .34 Christmas resents, making .41 Christmas tree suggestions .53 Coffee, making good .7 Comfort in the farm home .38 Contributed recipe schow-chow, canning cabbage, grape marmalade, peach cobbler, 224; chilisauce, 248; good tomato, 249; making piccallil, mustard pickles, spiced cucumber pickles, spraed cake, 268; fried cakes, cabbage
tained	A novel pin cushion48
minated the land	A Honolulu heroine31
w Saul Simpson be-	Are we misers of love
man	A unique doll533
structive and easily	ern
the land of eagth-	making good17
the secret safe?176	powder
eeping the children in	Cake, Lady Baltimore38
ttle essays311, 345	Children, teaching to
ack, a faithful and in-	Chocolate blanc-mange .29
ackinac the beautiful	Christmas gifts that
essimism vs. optimism. 298	Christmas dont's for re-
berian ivory	Christmas gift contest
tting the captive free.346	Christmas ideas, more
oring poet's Christmas. 523	Christmas presents, mak- ing
tlers	Christmas tree sugges- tions53
of528	Coffee, making good 7 Comfort in the farm
mothers508 ne case of Louise Ann.460	home
ne chemistry of com- mon things 98	contributed recipes: chow-chow, canning cabbage, grape mar- malade, peach cob- bler, 224; chili- sauce, 248; good to- mato, 249; making piccallii, mustard pickles, spiced cu- cumber pickles, orange cake, 268; fried cakes, cabbage
he clover party 45 he evidence of a cam-	malade, peach cob- bler, 224; chili-
era364 he Fourth of July his-	sauce, 248; good to- mato, 249; making
torically 9 he hunting of Bar-	piccalili, mustard pickles, spiced cu-
bara's turkeys311 he irrepressibles86	cumber pickles, orange cake, 268;
he judge's decision310 he neglected grave of	fried cakes, cabbage salad, 292; canning
Tyler309 he Ortega Gold, 473,	corn, canning peas, 12; raspberries can-
bara's turkeys	orange cake, 268; fried cakes, cabbage salad, 292; canning corn, canning peas, 12; raspberries canned without cooking, peaches preserved, 36; Dutch currant bread, 135; elderberry pie, 164;
ic pilitated Broade or	served, 36; Dutch currant bread, 135;
prairie chicken475 he question of good good clothes385 he romance of crow meadow380 he turn of the road204 he Uncompahgre recla- mation project379 he woman who dared33 he worm that turned33 hree centuries after Henry Hudson174	plums, putting up,
he romance of crow meadow380	
he turn of the road204 he Uncompangre recla-	Cool as a cucumber 20 Cold drafts, keeping out 38 Cooling drinks and ices 15 Corn, canning 18
mation project379 he woman who dared33	Country's attitude to-
he worm that turned174 hose old rubbers218	ments46
Henry Hudson174 by wake you up in the	Cooling drinks and ices. If Corn, canning
morning	
ree story	Cucumber pickles, making 24 Cure for biliousness 16 Curtain holdbacks 48 Dahlias, success with 15 Dainty handbag 48 Delicious beverages 17 Delicious desserts 20 District schools, improving our 16
entilation in rural	Dainty handbag48
Then the tribe of Mul-	Delicious desserts20
ree story	District schools, improving our
Tho is who	rule women5
Poetry.	selfishness?3 Domestic service and
change of heart527 dual mind524	seinsnness? Domestic service and what women make it
vacation memory 297	Dust problem48 Economizing time and
aby's prayer180	energy20 Embroidered corset cov-
onny morning-glory177 heerfulness365	er, by hand15 waist, any design for 29
1	er, by hand
owherd's harp524	Fall fruits, preparing13 Family birthday cele-
aily game 70 efeat in victory 432 o I know Mrs. B 480	Fall fruits, preparing . It Family birthday cellebrations
o I know Mrs. B480	Filling the picnic basket
rifting back home 382 irls that are wanted 386 randpa and I a-fish- ing 35 autumn days 263	tell20
ing	the really is2
midnight watches384	Fireless cooker, the con- venience of and food
egend of the water-lily 34	chopper
ife's little deeds431 leal time at our house. 532 len of the long ago345	Flowering plants, grow-
len of the long ago345 Ionarchs of the plain . 86	some
1 1 1 1 1 1 1 1 1 1	Frozen daities for hot days
eeping thru memory's	German Christmas
eeping thru memory's door	Gifts and givers5 Gloves, cleaning3
cussy's thots382 eward of rest179	un 9
chool time	preserves
ing	Green tomate mines
fretted me248	meat
fretted me	Hallowe'en frolics3
he point of view 34	Health hints, hot weath-
glass	er
he pumpkin312 he recompense98	Home-made holiday can-
he rosary	Home nurse, for the1
he secret	Home queries ex- changed4 Home-made bookcase
he song of supper508 he Sunday school pic-	and writing case3
he turkey's soliloguy. 432	ces for family seam-
heir majesties429	serve a1
urkey's Thanksgiving conundrum435	letters on preserving, 315, 341, 366, 293, 223, 267.
wo points of view411	223, 267. Irons, scour the
Vasted happiness346 Vhen Bobby stubs his toe134	Irons, scour the3 Jealous spirit an imp of destruction3
Household.	of destruction3 Jealousy, woman tells how she cured her
ccidents, guarding against	husband of4 Jelly economics Jelly making, concern-
personality266	Jelly making, concern-

4	HE MICHIG	AN FARMEI	2
Iow Miss Fatama ter- minated the land	A novel pin cushion480 Ancient hair rats314 A Honolulu heroine314 An ounce of prevention. 248 Are we misers of love and kindness222 A mingue dell533	Late fall fruit, the266	Jı
Iow Saul Simpson be-	Are we misers of love and kindness222	Lines to accompany gifts505 Look for the roses315	L
man	A unique doll533 Beans, ancient and mod-	Lotion for rough hands. 267	L
made toys381	and kindness 222 A unique doll 533 Beans, ancient and modern 178 Bread, the secret of making good 179 Buttermilk with baking powder 478 Cake, favorite recipes 207	Making comfortables292 Medallions, how to make pretty316	M
quakes	Buttermilk with baking powder478	pretty	M
immy gets away160 Keeping the children in	Cake, Lady Baltimore 388	Mother sage bed162 Mr. Fig-raisin as a Christmas greeting .504	M M
ittle essays311, 345 Little farm fables 71, 96	Children, teaching to save	Nassau currant bread314	
Mack, a faithful and intelligent dog133 Mackinac the beautiful island43	Christmas bargains478 Christmas gifts that please532	Needle work exhibit at the state fair222 Neighborhood nuisances 248 New and useful recipes 388	
essimism vs. optimism.200		Newspaper made of dough340 Novel hymns101	M
Poetry on the farm 87 Siberian ivory 70 Smile provokers 298, 365	ceiving532 Christmas gift contest offer341 Christmas ideas more	Observeth yourself in a	N
Smile provokers 298, 365 Setting the captive free 346 Some of our wild flowers 97	good463	glass340	N
Epring poet's Christmas.523 Suggestions for whit- tlers431, 476	Christmas presents, mak- ing	chance 434 Patterns 101 Patterns, two children's dresses 389 coat and dress 315 Penny party 386 Pineamples as medicine 179	N
		dresses389 coat and dress315 Penny party 386	N
of	Coffee, making good 71 Comfort in the farm home386 Contributed recipes:	Playing with fire266	P
The chemistry of common things 98 The clover party 45 The evidence of a cam-	cabbage grane mar-	Plaques, beautiful and inexpensive340 Plum jelly251	P
The evidence of a camera364	malade, peach cob- bler, 224; chili- sauce, 248; good to- mato, 249; making piccalili, mustard pickles, spined au-	Prize-winning Christmas	Q
era	mato, 249; making piccalili, mustard	suggestions435 Quinces248 some delicious ways	5
bara's turkeys311 The irrepressibles 86	pickles, spiced cu- cumber pickles, orange cake, 268;	to serve292 Red kidney beans—new way of cooking, 268, 387	22
The judge's decision310	salad, 292; canning	Rheumatism, proven cure for315	S
Tyler	12; raspberries can- ned without cook-	Salads, seasonable136	200
The Peters' washing297 The pinnated grouse or	12; raspberries can- ned without cook- ing, peaches pre- served, 36; Dutch currant bread, 135; eldebberry, ne 164;	Salt rising bread386 Sandwiches for evening refreshments387	Т
prairie chicken475 The question of good good clothes385 The romance of crow	plums, putting up,	School, going away to	U
The romance of crow meadow	Cool as a cucumber207 Cold drafts, keeping out.387	School, has the country gone to seed207 School lunch baskets268	COL
mation project379	Cooling drinks and iggs 199	Screens, winter care of 419 Sealing fruit jars, and the use of glycerine .162	77
The woman who dared 33 The worm that turned174 Phose old rubbers218	Corn, canning180 Country's attitude to- ward life's refine- ments462 Crophomics deliciously	Serving green peas, ways of 47	1
Three centuries after	Cranberries deliciously prepared366 Cucumber pickles, mak-	Shall we send our girls to college?178 Shirtwaist pattern, sim-	· ·
Henry Hudson174 To wake you up in the morning527 Tree story122	ing	Sofa pillows, filling for 162	
river	Curtain holdbacks480 Dahlias, success with135 Dainty handbag480	Some favorite recipes178 Spices we use163 Stenciling as unique	A
When the tribe of Mul-	Delicious desserts268	Styles and freaks of fall	A
ford moved217 When Wm. Ward shaved 86 Who is who134	ing our100	fashions	
Young men's column, 433, 477, 529.	rule women530 Does unselfishness breed selfishness?366	Teach the child kindness to animals314	A
Poetry. A change of heart527 A dual mind524	Domestic service and	tizing224 Thanksgiving and St.	A
A rosary of joys340 A vacation memory297	it	The chameleon rose 251	
An adage of the dove134 Baby's prayer180 Bonny morning-glory177	Embroidered corset cov-	The food problem for the other half"504 The spare room163	В
Cheerfulness365 Cleon and I316	er, by hand152 waist, any design for 293 Entertaining on the	The summer hostess 47 Thinks farmers could	C
Complacency	lawn	improve533 Threshers, when I cook- ed for136	
Christmas madrigal530 Daily game	Farm home, modern im-	Turkey, preparing the434 Useful fall hints367	T
Defeat in victory432 Do I know Mrs. B480 Drifting back home382	Filling the picnic basket 35	Using the veranda101 Valuable hints135 Valuable household clean-	
Girls that are wanted386 Grandpa and I a-fish- ing	Fireless cooker, what	sers	
In autumn days263 Independence Day 9	Fireless cooker, the con-	Wage war against flies101 Warm defense from Laingsburg533 Washing dishes249	G
In midnight watches384 Knowing how314 Legend of the water-lily 34	Chopper207	Washing dishes249 Was the criticism on the farmer just504	T
Life's little deeds431 Meal time at our house532 Men of the long ago345	Flowering plants, grow-	Watermelon the249) _
Monarchs of the plain . 86 My creed418	Fresh air in the home366	What the shops are showing478, 530 What you should know 223 Why the William's girls	I
My Lord and I	days	Why not teach girls how) -
door	Gifts and givers504	Woman, the greatest292	N
Pussy's thots	Grapes, about putting up251	Women as bargain hunt- ers462	
Still ahead475 The chicken's thanksgiv- ing431	preserves206 Grass stains179	Women cause slaughter of birds314 Grange.	S
The little cares that fretted me248	meat293	Adrian fairs, fine Grange exhibits323	3
The living past310	do with266	Alger and Dickinson be- come Grange coun-	2
The passing of summer 219 The point of view 34 The price of a social	Ar 101	Among the live granges,	Ī
glass	Health values, some	157, 201, 245, 299, 347, 457, 511. A tribute to the faithful.187	7 V
The recompense 98 The rosary	dies	August programs 85 Big prairie grange fair .511	1
The sea call	changed	ages voling beoble413	P
The song of supper508 The Sunday school pic- nic46	and writing case367 Home-made convenien-		P
The turkey's soliloquy. 432 The winter rose527	stress386	forces	7
Their majesties429 Turkey's Thanksgiving conundrum435	serve a	Essentials to highest success in county	E
Two points of view477 Wasted happiness346	315, 341, 366, 293,	Granges and farmers'	
When Bobby stubs his toe134	Jealous spirit an imp of destruction386	institutes	E
Household. Accidents, guarding against	how she cured her husband of436	02, 00.	В
against	Jelly economics 87 Jelly making, concern- ing	Tally, a preasant	BBB
A girl's lost chance505	ished?341	wives increase their	E
A movable trellis480	Kitchen conveniences162		

Ionia Pomonas annual
July programs, the 157
July programs, the 157
July programs, the 157
July programs, the 157
July programs, the 158
In any granges | 168
In every granges | 168
In