

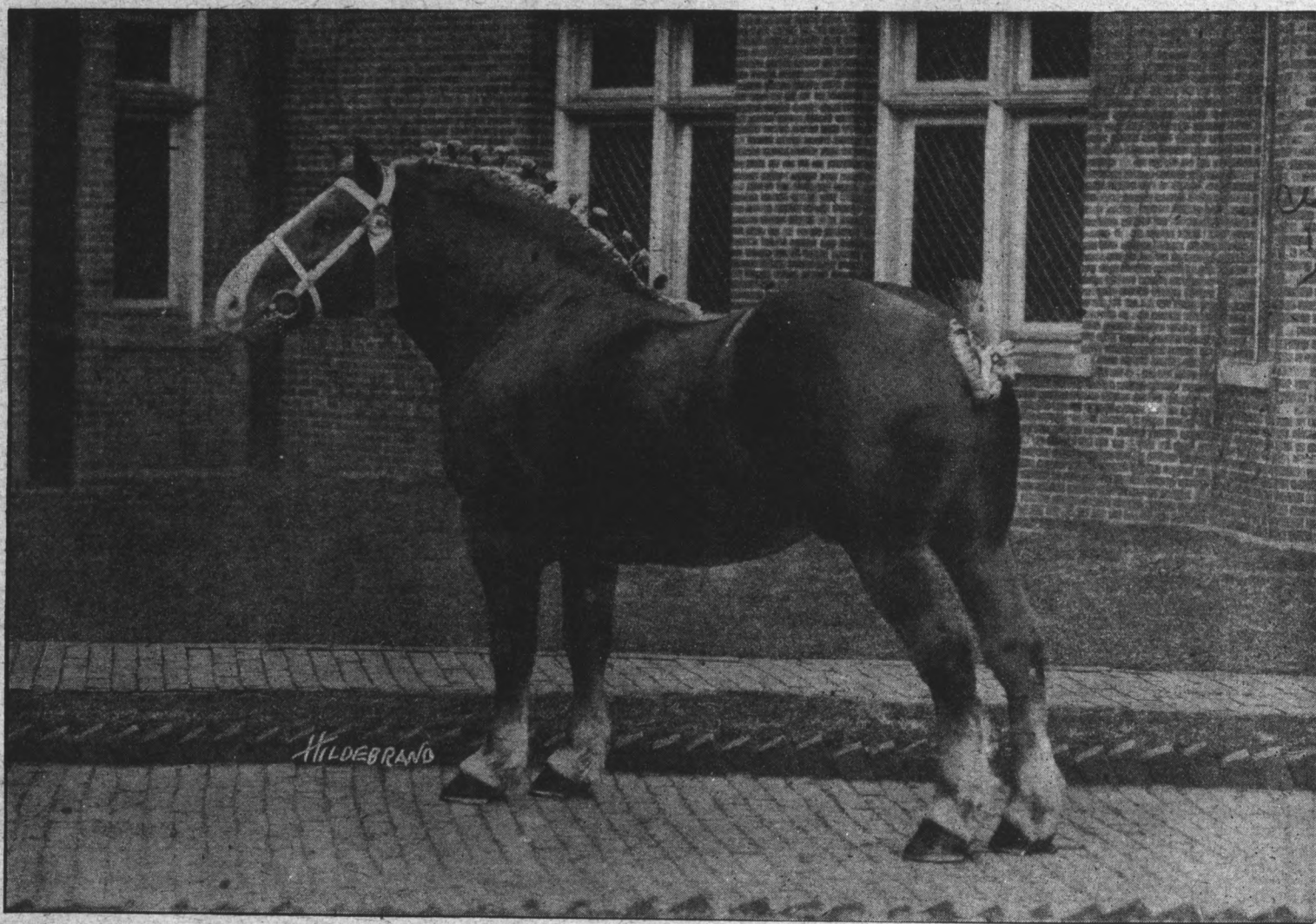
MICHIGAN FARMER

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DETROIT, MICH., SATURDAY, APRIL 22, 1922

ONE YEAR \$1.00
FIVE YEARS \$3.00



International Grand Champion Comes to Michigan

"George Henry" is Imported to this State by W. E. Scripps, owner of Wildwood Farms

THE name of Wildwood Farms has ever been synonymous with superlative excellence in the breeding of Angus cattle and to its already extraordinary prestige is now added the distinction of being the possessor of "George Henry," the Grand Champion Belgian Stallion at the Chicago International in 1921. The traditions and ideals of Wildwood Farms linked with the painstaking care in breeding which has always been in evidence should insure their success as the breeders of Belgian horses of exceptional merit. The one dominating idea of Mr. Scripps, the owner of Wildwood Farms, is pure breeding, and with this point in view, success is assured.

The rise of "George Henry" to the most coveted prize of its kind in the world has

been gradual. As a two-year-old in 1920, he was first Junior Champion and Reserve Champion at the Indiana State Fair. Later the same year he won the same prizes at the International held at Chicago in December. His wonderful size, finish, action and well-balanced conformation as a two-year-old caused prominent horsemen to predict big things for him as a three-year-old. Amid the keenest of competition at the 1921 International, where the finest animals on the continent are assembled for the decision of the "Supreme Court" in live stock matters, he was first placed at the head of the three-year-old class, then Senior Champion over the winners of the two older classes, and then with the unanimous approval of the ringside, "George Henry"

was awarded the Grand Championship over the Junior Champion, "St. Marc." Both of these horses are out of the same mare, "Lina de St. Marc." These two wonderful colts, showing together in the "Produce of Dam" class, were outstanding winners. This famous old matron is still alive and has a permanent home in Indiana.

Glancing over the pedigree of "George Henry," the connoisseur immediately recognizes the name of "Camille," the sire. This horse is recognized today as one of the three best Belgian sires living. The dam of "George Henry," "Lina de St. Marc," a daughter of "Hippocrate du Fosteau," and grand-daughter of the famous old champion and sire, "Brin d'Or," holds a most unique record.

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Editors and Proprietors

1632 LaFayette Boulevard Detroit, Michigan
TELEPHONE CHERRY 8394

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CHICAGO OFFICE-1109 Transportation Bldg.
CLEVELAND OFFICE-101 1-1013 Oregon Ave., N. E.
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DETROIT, APRIL 22, 1922

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

He who listens not to his stomach will mind the doctor.

Let the mule do the kicking.

Latches lift when courtesy knocks.

Education is the heavy artillery in our national defense.

Trials trail to triumphs.

The man who borrows plows sows late.

Arguments win few friends.

Riches are measured by contentment.

Small birds build small but complete nests.

Better Crop Statistics

THIS is the season when our supervisors are making their annual round of their respective townships for the purpose of taking the assessment. This year in addition, they are collecting information relative to the acreage of crops that have been planted and will be planted, the number of bearing fruit trees, and numbers of each kind of live stock. While it is the first time that these data have been collected in this form in Michigan, they have been collected in all of the other corn belt states and other important crop states for a number of years. These states have found that it enables them to secure the proper viewpoint from which to construct their marketing programs and furnishes them at the minimum of cost the statistics necessary for intelligent action.

These items constitute the basic information upon which to build production estimates and are used solely for that purpose, having no relation to the assessment work. Neither does the information for any farm go beyond the statistician's office. Only the state and county totals are published.

By this simple plan, other states have very complete and accurate statistics to hand out to their farmers and marketing associations. Many of these states are growing and marketing crops in competition with our own. Unless we have equally accurate, timely and reliable information we are at a distinct disadvantage.

Both the state and federal departments of agriculture are constantly besieged with special requests for more special and detailed information about

our various crops, especially the fruit and truck crops, beans, potatoes and live stock, which are our leading cash commodities. These departments are anxious to meet these requests, coming as they do from those engaged in improving our marketing facilities and building up cooperative shipping and marketing associations and from many individual farmers.

The collection of these statistics by supervisors and assessors while visiting each farm for assessing purposes, saves the greater part of the expense that would be involved if done as a separate job. It provides what is practically an annual census with very little additional cost, and far cheaper than it can be obtained in any other way.

A number of the states are already sending out the crop and market figures by wireless. The development of this service will, in a short time, make all such information available as soon as prepared, to every farming community. Only by thus thoroughly informing ourselves on crop and marketing conditions as they exist, not only in our state, but in competing states, can we hope to successfully compete with our aggressive neighbors in those states or curb the activities of the speculative public. In return, each community should feel its responsibility in furnishing cheerfully, promptly and accurately the information as required. Only in this way can those charged with the responsibility of preparing and issuing our statistical reports adequately fulfill their duties in a manner satisfactory to themselves and to the public.

Big Days For the Dairyman

THESE are the big days for the man who keeps dairy cows. The plans he puts into execution right now are going to count much toward his success or failure during the year. This is the season when the great majority of dairy farmers take the first step in the growing of feed which will be consumed by the dairy cows during the coming feeding season.

In looking over his accounts with the dairy herd, the farmer finds that the feed bill is the big item. In comparison with the total cost of dairy products, the expense of materials for feed and bedding the animals during the winter is fully sixty per cent of the total. Less than twenty per cent is for labor, while about nineteen per cent is for other costs. Even in summer time the average cost for feed and bedding represents over forty per cent of the total spent; labor about twenty-seven per cent and other costs about thirty-one per cent.

It is apparent from these figures that to make money with cows the farmer must look well to the production of inexpensive yet suitable feeds for his herds. He will figure out rather closely what he should grow, not only to provide an abundant amount of feed but also to supply the animals with a well balanced and appetizing menu that will serve to give a heavy flow of milk.

Large or Small Seed

SHALL we use large potatoes or small potatoes for seed purposes? There appears to be a gradually increasing number of growers who believe that as good or better results follow the use of the whole small tubers as compared to pieces of larger potatoes.

A report on work done along this line at the experiment station at Geneva, New York, has just been made. There it was found that plants grown from whole small tubers yielded at the rate of 529.13 bushels per acre, as compared with 511.83 bushels per acre

from a crop started with pieces of large potatoes. The usual objection raised against the use of small potatoes is that the crop will consist of a larger proportion of small potatoes and hence be less valuable. The results of this experiment did not seem to bear out this objection, as the experimenters found a difference slightly in favor of the whole small seed potatoes.

We hope that our readers will not misunderstand and think that these experiments will justify them in scraping up a lot of small seed potatoes from indiscriminate sources and expect to receive satisfactory returns. What we do mean is this, that where small potatoes have been selected from a good crop that the results are as certain to be satisfactory as where the large tubers from the same crop are cut and used for seed. In other words, the plan of reserving these small potatoes for seed is an economical one for the potato grower. At least, the practice has been followed by such good results that it deserves a trial by every progressive potato grower.

The Plunger vs The Plugger

THESE two types of men are common and may be found in every line of business. Never yet have we talked with a farmer who could not find among his neighbors one or more persons who belonged to either the class known as plungers or to those listed as pluggers.

In some lines of business the chances for the plunger may be fair. In merchandising and trading it occasionally happens that one may stock up on goods when prices are attractive and sell in a short time at good advantage when values have advanced. But in farming this situation seldom occurs. There are so many persons concerned in the production of farm crops and the long period of time between the day for seeding and the day to market gives too wide a chance for conditions to change completely from one extreme to another that plunging has not advanced the farmer as it has some other kinds of businesses.

Take for example the poultry and the hog departments of farming today. These two lines have been among the best profit makers this past year. The chances are that so many farmers will forget that prices are still controlled very largely by supply and demand and go in strong for these two lines of production with the almost certain result that prices will break from an over supply and the anticipated profits will shrink or fade away entirely. Booms are invariably followed by breaks. The farmer who works out a system of farming well suited to his soil, climate and market conditions and then sticks to his system through sunshine and storm is the one who is most likely to prosper in the long run. Our best advice is, therefore, to plug and not to plunge. It is better to eat moderate meals regularly than to feast today and to have nothing tomorrow.

The Diversified Community

ONE finds a number of people who predict with some anxiety that the future of the race will be a less interesting period for its members than the past has been. They hold that our modern schools and community institutions are so breaking down the barriers between man and man that a more homogenous people will result. They fear, in other words, that folks are going to grow more and more alike—that they will become standardized.

We have no idea what the future has in store—what surprises and disappointments we are going to meet. But we do have a hunch that life is going to be more interesting instead

of being less so. There is unlimited room for race improvement. There is infinite possibilities in the development of our public institutions. We little know what can be wrought through collective effort. With improved transportation, with a comprehensive educational program, with a better understanding between neighbors, communities, states and nations, we are going to remove many of the restraints with which the individual must now contend. This will enable us to give him a bigger chance to develop a better mind for thinking out old and new problems and to furnish him a more fertile field for the cultivation of a higher code of ethics. And to these may be added the stimuli coming from a thousand additional contacts with life everywhere.

Then instead of communities where everyone knows everything about everybody there will be opportunity and incentive for persons to become interested in a great variety of subjects, to the end that the majority of them through specialization will have something well worth while to contribute to the entertainment and edification of the society in which they may move.

Correspondence

THE other day the Michigan Farmer folks sent me this letter what come to me at their office. I give it as it was wrote, with the spellin' and everything like it was.

It goes like this:

Mr. Hy Syckle
Cr. Michigan Farmer
Detroit, Mich.

Dear Mr. Syckle:

If I was Mrs. Syckle I would not let you write some of the things you do. You pay too much attention to the women. And from reading your writings I cannot tell just what your attitude toward the women is.

But there is one thing regarding this matter to which I seriously object. You have said that women are all alike and if a man would act "broke-like," they would use their chicken money to furnish the table.

The woman who does that is not standing upon her rights. A woman has a right to what she earns and is being decidedly underpaid as it is. I for one do not follow this practice and have upheld the dignity of women by doing so.

Thus far I have not found a man who is man enough to agree to my views on this matter, but I shall stick to my views even if I am a martyr to the cause.

Yours truly,

CLARA WILSON.

Now, I ain't going to give this woman's address as I ain't wantin' her to be bothered with a lot of male mail.

Yes, I agree, most women don't stand on their rights. I know Sophie, for inst., stands on both feet most of the time.

My what-you-call attitude toward women is what you call appreciative and attentive. I got in the habit of admirin' them when I was young and somebody says the habits of youth is hard to break, which is correct in this case. And Sophie ain't tried to stop the habit, as she knows it's harmless, like enjoying the beauties of Nature.

I say you got a job upholdin' the dignity of women and admire you for your undertakin'.

Now, Miss Wilson, I find advertisin' is awful good for results. Maybe if you advertise you kin find a man accordin' to your specificashuns.

I'm hopin' this is a satisfyin' answer. If it ain't I got to rally others to my defense.

Kin any of you folks help me?

HY SYCKLE.



And Again We Declare War

This Time Our Guns will be Trained on the Purple Barberry Bush

By G. H. Coons

A MICHIGAN farmer told me that his neighbor after threshing his oats had said, "I never remember seeing such a rusted crop. What about this barberry business?"

This farmer probably spoke the general mind of Michigan farmers, "What about this barberry business?"

Barberry eradication as a national move took its origin in war time, but it was not the result of snap judgment. In 1865 a great botanist, DeBary, proved that the black stem rust of grains required two entirely different species of plants on which to complete its life cycle—(1) the grain or grass, and (2) the common or purple barberry. Slowly the case made by DeBary was accepted by scientific men and countless other examples of this peculiar phenomenon of requiring two hosts to complete the life cycle were discovered.

Although scientists were slow to accept the facts, the case was quite different with the farmer. He not only accepted the facts when presented, but he anticipated the scientific discovery by a little more than a century. In 1755 the legislature of the colony of Massachusetts passed a law:

"An act to prevent damage to English grain arising from barberry bushes:

"Whereas, it has been found by experience that the blasting of wheat and other English grain is often occasioned by barberry bushes, to the great loss and damage of the inhabitants of this province:

"Be it therefore enacted by the governor, council, and house of representatives, that whoever, whether community or private person, having any barberry bushes standing or growing on his or their land, within any of the towns in this province, he or they shall cause the same to be extirpated or destroyed on or before the thirteenth day of June, Anno Domini, one thousand seven hundred and sixty." From the Province Laws of Massachusetts, 1736-1761, p. 153.

Now this law was a good law and a wise one. It had just one fault—it gave the people five years to destroy the bushes and, like many another which has graced the statute books, it became a dead letter before the barberries were eradicated.

The people of Massachusetts kept their barberries but gave up their grains. Look, if you care to, at the grain production of those states which once garnered in enormous yields and you will see the situation. The New

England hills teem with wild bushes, the offspring of the bushes which the shrewd farmers of a century ago sought to "extirpate." The story of New England grain production, or rather the lack of it, is writ on those rocky hills festooned with the spiny bush.

It remained for the scientist to take the mystery out of the pernicious behavior of the barberry. DeBary showed that stem rust is caused by a fungus with many stages in its life cycle. On the grain the rust is first red, then

again and again, produces wholesale infection and the epidemic is on.

Farmers fought the barberry wherever they felt its local effects, but scientific men mulled over the situation and in the meanwhile the barberry got established.

Every New Englander who settled in Michigan seems to have brought his barberries with him. It was his nemesis. Bushes seventy-five or eighty years of age are to be found commonly in the older parts of Michigan and each one of these has become the

and develops irrespective of the barberry.

Doubtless in the great variations of nature some conditions exist which permit wintering of the red rust spores. They winter commonly in the south, probably uncommonly in the north. The significant thing is that the surge of rust starts only after the barberries have rusted and shed their yellow dust.

The efforts of the first two years were concentrated on the city barberries. Then with the cities freed from barberries, survey of the farms was begun. In 1920, a force of five men with three automobiles began a systematic farm to farm survey in Monroe county. Every road in the county was traversed, every dooryard inspected, and where suspicion pointed to a woodlot this was gone over. This work continued until October 1, and five of the counties of the lower tier were covered thoroughly.

The results from Lenawee county showed thirty-one farm locations with a total of nearly 5,000 bushes. In two cases, the barberries were wild in woodlots. Those in the country are in greater numbers than the city plantings and they are so placed as to do the most harm. This year work started in St. Joseph county and this county, too, shows what may be expected in old settled districts. Probably five more counties will be covered this year. In every county country hedges and old bushes are found.

Wild Barberries.

Were barberries merely exerting their influence from this dooryard or that, the situation would be bad enough. But in the survey work done so far, barberries have been found wild in many places. They were found wild in woodlots in Lenawee, Hillsdale and St. Joseph counties. They are wild all along the Huron River. They are wild along the Kawkawlin River in Bay county, and in the woods near Midland, Michigan. They are wild in the sand dunes along Lake Michigan, especially around Saugatuck and Fennville. They are wild in the dunes about Empire, Benzie county, and in the Old Mission Peninsula. There are barberries in the upper reaches of the upper peninsula along the railroad tracks near Chatham, Michigan. In every case the barberry has been in-

(Continued on page 509).



For More than a Century Farmers with Keen Eyes Have Observed that the Barberry Bush is Not a Friend of the Grower of Small Grains.

changes to black. The black rust remains in the field in the stubble and from the stubble a peculiar spring stage is blown by the wind to the barberry.

Here the rust produces cluster cups filled with "yellow dust," and this dust is capable of infecting the grain. It is a peculiarity of the rust that the spores ("yellow dust") produced on the barberry will not infect the barberry again, but can only infect the grass host on which the red rust is formed.

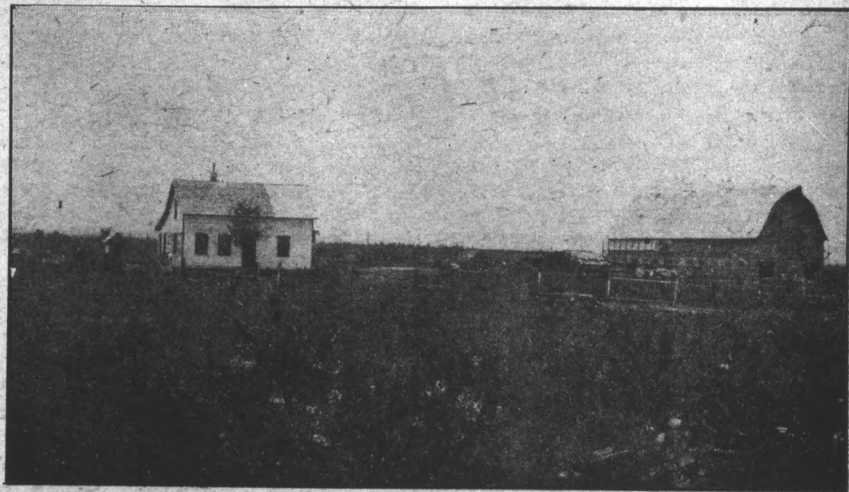
Thus the cycle is completed. But the fungus is especially equipped to bring about its spread. The red rust stage is a repeating stage and is capable of infecting the grass host over and over again. Thus, starting from a few spots here and there in the field, the red rust, by infecting the grass

great-great-grandfather of barberries which have escaped far and wide in the woodlots. Carried by birds, the seeds have sprouted and produced thickets which almost seem to defy destruction.

The barberry campaign started against the protest of the scientific men. The Tri-state Grain Growers' League, taking notice of the single-handed attempt of North Dakota to eradicate barberry, passed resolutions which called on congress to act, and congress, when presented with the evidence, appropriated \$150,000 annually to eradicate the "pesky" bush.

Complications.

But the situation is not so simple as the story outlined so far would lead you to believe. There is always the possibility that the red rust spores live over winter, and thus rust begins



HERE he is—the new settler. This young man has the new idea in wresting a farm from nature. The log hut at the left was his start, while eighteen months later besides clearing a good bit of his land, he had erected the splendid buildings which you see.

One of the things which handicapped the average settler of the past was too little cleared land and equipment to go ahead with production on a profit-making basis. The practice then was to clear an acre or two about the house and on this small plot to eke out a poor living for himself and family until he, single-handed, could clear enough ground and build buildings suitable for raising crops and growing stock on a profit-making basis.

The modern settler is endeavoring to put his farm on a paying basis as soon after he arrives as possible. He seeks credit, if he lacks money, and puts a gang to work getting ground ready for the plow and immediately plans his buildings in order to make life worth while and to give him a chance to make his farming profitable. In other words, the new settler goes about his task in a business-like way.

LATE AGRICULTURAL NEWS

MINING SITUATION INVESTIGATED.

THE strike of the coal miners has led to an extensive investigation of the coal mining situation in hearings before the house committee on labor. Representatives of the miners' unions have testified to the unsatisfactory condition of labor in the mining districts. One union leader voiced the sentiment of the miners' spokesmen when he said that it is "our belief that an industry which gives only one hundred days' work a year needs a reorganization." The miners have displayed a strong leaning toward government operation of the mines.

The mine operators have testified that if the miners secure their demands, it will mean a further advance in the price of coal. It is apparent from the evidence brought out so far that the operators are making a determined effort to break up the collective bargaining system with organized labor. Evidence was also given that so far as bituminous coal is concerned, there are too many mines in operation and too many persons dependent upon coal mining for a livelihood.

FARM CREDIT BILLS MOVE SLOWLY.

THE snail-like pace at which farm credit bills are traveling through the house banking and currency committee is causing some comment in Washington. The Anderson-Lenroot bill, McFadden-Kenyon bill, Simmons bill, Strong bill and several other rural credit propositions all appear to have considerable difficulty in getting by this committee. However, hearings are being given on the general credit situation. J. D. Phillips, a member of the rural credits committee of the National Bankers' Association, appeared before the committee this week and gave his impressions of the situation in the middle west.

Mr. Phillips said he did not believe the long-term personal credit to farmers should be made through the Federal Farm Loan system or the Federal Reserve system.

ESCANABA WANTS RELIEF.

AN unusual situation has been presented to the State Commission of Inquiry into taxation by Representative Peter Jensen and Orren I. Bandeen, secretary of the Chamber of Commerce, Escanaba, Michigan.

Escanaba has railroad property having an estimated value of from \$8,000,000 to \$15,000,000. The income derived from the tax on this property goes into the primary school fund of which Escanaba receives no more than any other city, having the same school census. An assessed valuation of \$8,200,000, exclusive of railroad property in Escanaba, must bear the burden of providing schools, streets, sewers, police and fire protection, garbage disposal, parks, etc., for the population of 14,000, approximately forty per cent of which are the employees, and families of the employees of railroad industries, which help in no direct way to share the burden of the city.

The result in Escanaba is that her tax rate in 1921 was \$52.41 per thousand as against \$28.83 per thousand; the average for the state, and her assessed valuation per capita is less than \$600. Her high school attendance has increased forty-five per cent within the last three years, and additional school facilities must be provided. In her request for relief Escanaba asks that an exception be made in the present meth-

od of distributing primary school interest money only in those cities and townships in which the value of railroad property other than rolling stock, as shall have been determined by the state board of assessors, exceeds twenty per cent of the total assessed value of all other assessable property.

In this case it is requested that eighty per cent of the income derived from the tax on said railroad property be paid to the treasurer of the board of education in the city in which the property is located. It is probable that only three towns would come under this exception, and that the primary school interest fund would not be affected by more than two or three per cent.

The Escanaba Chamber of Commerce invites inquiries concerning the proposal.

HARDING PRESENTED WITH VIRGIN WOOL CLOTH.

AN interesting incident recently took place at the White House when George M. Wilbur, of Marysville, Ohio, chairman of the executive committee of the Ohio Wool Growers' Association, and Oscar Bradfute, president of the Ohio Farm Bureau Federation, representing the Farm Bureau Federation, presented President Harding with what is thought to be the finest piece of wool cloth ever woven in the United States. It is made of virgin wool and is an exemplification of truth-in-fabric. The cloth went through a finishing process four times instead of once as with ordinary cloth. It is a pin stripe blue and sufficient cloth was

given the President to make a three-piece and two pairs of trousers.

Motion pictures were taken of the presentation which will be used in a picture being prepared jointly by the Ohio Farm Bureau Federation and the manufacturers. The film in part will show the need for labeling of woolen fabrics so that the proportion of virgin wool, shoddy, mungo, silk, cotton and other fibers which they contain may be easily ascertained by the purchaser.

ADVOCATES IMMIGRATION HOLIDAY.

ONE method of relieving the labor situation was suggested by Mrs. Lillian Russell Moore in hearings before the house immigration committee, when she advocated an "immigration holiday for a period of five years."

As a result of her trip abroad under a commission by President Harding to inspect conditions in France, England and Italy, Mrs. Moore said, "the conviction that America should care for Americans first has assumed first importance in her mind among all other phases of the immigration problem."

A FEDERAL FERTILIZER CORPORATION PROPOSED.

CHAIRMAN NORRIS has introduced a resolution designed to create a government owned corporation, and pending the creation of the corporation the bill provides that the secretary of war shall proceed to the completion of dams Nos. 2 and 3 at Muscle Shoals and then shall cause a survey of the Tennessee River and its tributaries to

be made with a view of locating storage reservoirs.

The federal chemical corporation provided in the bill shall have authority in time of peace to manufacture fertilizer and to establish an agency for the selling of fertilizer anywhere in the United States, and in order to prevent a monopoly in the fertilizer business they have authority to make a complete fertilizer, and to sell chemicals for the manufacture of fertilizer. Authority is given if necessary to sell direct to the farmer and to organizations of farmers.

THE NEW PRODUCE EXCHANGE.

RULES and regulations to govern the Farm Bureau Produce Exchange to be established shortly on the Detroit market, were adopted by the State Farm Bureau board of directors on April 12. It was announced that Mr. F. A. L. Bloom, of Detroit, for several years manager of the American Fruit Growers, Inc., Michigan territory, will be manager of the Farm Bureau Produce Exchange. The Exchange expects to begin operations between May 15 and June 1 and will receive produce only from member associations, according to the rules and regulations. The Exchange is organized as a department of the State Farm Bureau.

The Farm Bureau Produce Exchange has for its purpose, according to its regulations, to provide "without profit and on a purely cooperative basis a reliable distribution and sales service for the produce handled by local units of the Michigan State Farm Bureau and by other cooperative associations of producers which are now or later to become affiliated with the bureau;" also, to establish at Detroit as conditions may warrant, offices, warehouses and other facilities for carrying on such a business. The Exchange will not charge more than the customary commission for its service and will endeavor to effect sales and distribution service savings for its members, it said. The Exchange plans to maintain close contact with its member associations when it begins to market and will notify them when it is ready. Thirty local farm bureau associations were reported ready to sign membership contracts at the time the rules and regulations were adopted.

Membership in the Exchange is limited to producers organized to market farm product on purely cooperative lines and who conform to the rules of the Exchange, affiliation with the State Farm Bureau being necessary for membership. Each local association at the time of uniting with the Exchange is to pay a membership fee of \$25 and sign a marketing contract with the Exchange. The fee goes into a fund to provide working capital for the Exchange.

The Produce Exchange plans to develop grades and brands which will identify its products, will assist in the collection and dissemination of produce crop information, will work to develop Michigan and outside markets for Michigan produce and will assist the members with their produce transportation difficulties.

April 21 County Farm Bureau representatives from the Thumb districts were to meet in Detroit to consider organization and operation of the Produce Exchange.

Yes, the Producers' Live Stock Shipping Association at East St. Louis, the only one being backed by the farm bureaus of that section, is after a few short months, the largest receiver of live stock on that important market.



Wednesday April 12.

THE recent gale in Texas picked up a boy and carried him two hundred yards, dropping him into a hay stack.—Serious floods are reported at Cheboygan. Damage from high water is also reported at Onaway, Alpena and Menominee.—The Russian foreign minister tells the Genoa economic conference that Russia has quite the soviet fold.

Thursday, April 13.

THE body of Rev. Henry F. Reynolds, Detroit pastor, has been found in the Saginaw River. A thorough search was made for him in rural as well as urban sections in the state. He was missing since last November.—All of the railroad lines of Canada, consisting of 22,000 miles, have been put under government control, financial deficits of the individual roads making this necessary.

Friday, April 14.

THE Big League base ball season opened April 12 with Detroit losing to Cleveland.—A Hungarian hypnotist hypnotized three subjects in New York by radio while he was in Boston.—A parley between the adherents of the Free State and the powers of Valera failed to unite the Irish Republic.—The department of commerce reports that foreign trade increased rapidly during March.

Saturday, April 15.

THE Gleaner Clearing House Association has gone into bankruptcy.—The Russian delegates at the Genoa

conference are advocating world disarmament.—Four die in riots at Belfast, Ireland, on Good Friday.—Uncle Sam's new prohibition navy is now in operation.—A West Virginia judge stops union from attempting to organize the men in three coal mines.

Sunday, April 16.

DETROIT'S first radio show opens April 19.—The soviets agree at Genoa to pay all Russian debts.—The house of representatives approves the "big" navy plan for 86,000 men.—It is anticipated that President Harding will issue an order restricting the application of the civil service law only to employees receiving \$3,000 or less per year.

Monday, April 17.

EUGENE MEYER, director of the War Finance Corporation, states after a ten thousand mile trip that the outlook for farming is bright.—A powder blast in Webster Springs, Pennsylvania, wrecks \$30,000 worth of property. This place is in the strike region.

Tuesday, April 18.

THE recognition of the Mexican government by America depends upon a guarantee that American life and property will be protected.—On Good Friday religious services in Detroit were broadcasted by radio. At one o'clock the Lord's Prayer was broadcasted, and was said to be one of the greatest accomplishments of its kind in history.

Michigan's Vegetable Crops Important

High Acre Value Justifies Intensive Culture and Liberal Fertilization



Harvesting Peas for the Canning Factory. Michigan Ranks Second Among All the States in Pea Production.

PEOPLE are eating more vitamins than ever before. Consequently there has been an increased demand for the vitamin foods—vegetables and dairy products, particularly the former. Celery growers say that there is a greater demand for celery. Increased acreages of vegetable crops grown for canning point to a greater consumption of canned products. People are becoming more and more accustomed to the liberal use of vegetables in their diet.

Growth in population also has necessitated the withdrawal of land used for ordinary field crops to be devoted to the more intensive vegetable crops. The production of canning and truck crops is no longer limited to the eastern states, but is gradually spreading through the middle western states.

In Michigan the cereals occupy about five million acres, potatoes, sugar beets and beans—the cash crops—approximately 700,000 acres, and the canning and truck crops about 50,000 acres. The value of the latter, however, is often several times that of the

cereal crops or even the more widely grown cash crops.

This land must be handled in an entirely different manner than that in field crops. Intensive crops require intensive methods and therefore special treatment of the soil is generally highly profitable. Canning and truck crops are heavy feeders, and the soil can hardly be too rich if maximum yields are to be obtained. The liberal use of manure supplemented with acid phosphate or complete fertilizers is essential. Good care and fertilization are doubly important and doubly profitable in years when natural conditions are not so favorable to the crop. results in Washington county, Ohio reported in Ohio Bulletin 334, are an example of how yields may be increased, and are given below.

Quality Is Important.

Quality is a most important factor in the market value of vegetable crops. Succulency, tenderness, firmness, ability to stand up well, color and freedom from stringiness are necessary and can be influenced to a mark-

Recommendations for Different Crops and Soils

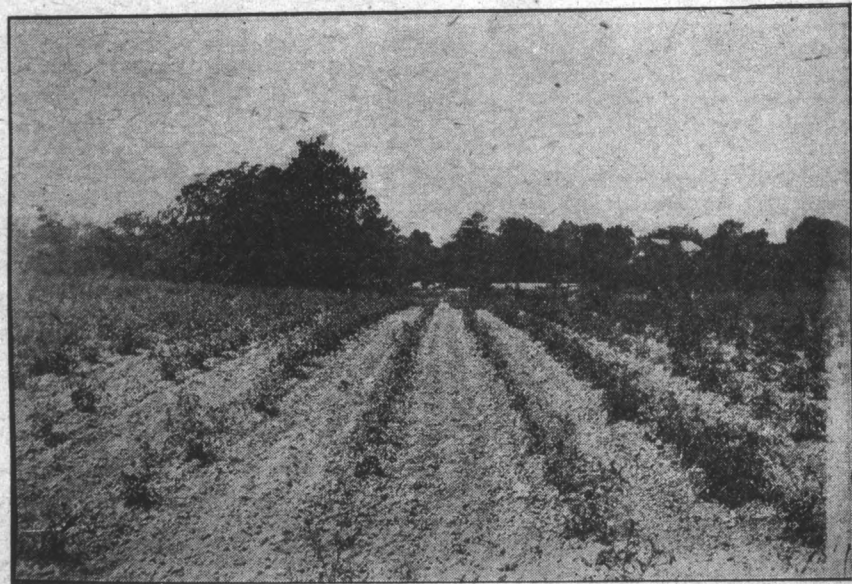
Crop.	Sand.	Loam.	Clay.	Muck.
Celery	3-10-4	3-10-2	3-12-0	0-10-10
Tomatoes	2-10-4	2-10-4	2-10-4	
Cabbage, cucumbers, sweet corn	3-10-4	3-10-2	3-12-0	
Asparagus	5-7-2	5-7-2	5-7-2	
Beans (green)	3-10-4	2-10-4	2-10-4	
Peas	3-10-4	2-10-4	2-10-4	
Onions	2-8-8	2-8-8	2-8-8	0-8-16

ed degree by soil treatment. Plenty of available nitrogen makes for succulency and tenderness. Potash gives a more highly colored, and firmer product. Phosphoric acid makes plants more prolific, though when used alone this tendency is apt to occur at the expense of size and quality. Therefore a well-balanced fertilizer is necessary. Most soils are deficient in phosphorus, and usually respond at first to this more than to the other fertilizing elements.

A well prepared seed-bed and good seed or strong plants are essential to the best results from fertilizer, remembering, of course, that humus is the life of the soil. Soils containing plenty of organic matter start the plants more quickly, cultivate more easily, and carry the plants through a period of drought in better condition than soils lacking humus. Low yields are often

caused by exhaustion of the soil or organic matter. Barnyard manure is not always available in sufficient quantities, and it is usually too expensive to buy. Cover and green manure crops must therefore be depended upon very largely to maintain the humus supply. Rye and vetch are two of the most valuable cover crops for Michigan conditions. Rotation of vegetable crops with legumes and cereal crops is very good practice.

Accompanying table gives some fertilizer recommendations for vegetable crops for various soils. Where manure is used heavily, the ammonia and potash can be cut down. Under certain conditions the ammonia and potash can be increased to good advantage. Applications of from two hundred and fifty to one thousand pounds per acre are recommended, depending on the crop and the fertility of the soil.



The Two Tomato Rows in the Center of this Picture were Unfertilized, while the Others Received 300 Pounds of a 2-10-4 Mixture Per Acre.

What Liberal Soil Feeding Did

	Pounds Per Acre—Five-year Average..			
	Sweet Corn.	Cucumbers.	Cabbage.	Tomatoes.
None	6,791	10,979	14,478	11,636
400 lbs. 0-16-0	7,575	13,192	16,609	13,467
700 lbs. 4-9-0	7,702	13,906	18,240	14,267
700 lbs. 4-9-3½	7,444	14,152	18,248	13,139

Sanilac Making Drive for Drier Soils

County Agent Martin is Conducting a Big Drainage Campaign

MUCH greater interest and success has attended the opening meetings in the preliminary drainage campaign recently staged in Sanilac county than the promoters of the project had dared to expect. Interested crowds turned out for every meeting during the three weeks, the average number attending most of the meetings being fifty. At the meetings held in Croswell, Carsonville, Brown City and Snover over a hundred turned out for the gatherings. During the entire time a total attendance of more than 1,100 heard the discussion of local drainage problems.

A lecture on drainage given by O. E. Robey, extension drainage specialist from M. A. C., featured each meeting. In his talks Mr. Robey discussed methods and showed effects of the work that has been done in the past. Slides showing the beneficial effects were used to a very good advantage in showing how much good an intelligent and careful draining of low land can

increase the production of an entire farm.

R. J. Baldwin, director of extension at M. A. C., spent two days in the county attending meetings at Brown City and Marlette. His attendance at these meetings showed the great interest of the college in projects of this kind and he assured the crowds at these towns that M. A. C. was ready to back up the work in every way possible.

Many farmers took advantage of the opportunity offered to have Mr. Robey survey their farms during the coming summer for future drainage operations. Over seven thousand acres were listed by the drainage specialist for "looking over."

"Twenty-four farmers signed to have demonstration drainage plots on their farms during the coming campaign which will open just as soon as the weather conditions permit. These plots are well distributed throughout the country so that there will be ample

opportunity afforded every farmer to watch the operations and note the results in the years to come.

Three hundred thousand of Sanilac's 624,000 acres need ditching, says Mr. Robey, who points out that the added benefits to be derived from this work, in removing excess water, letting air into soil, mellowing soil, warming soil, relasing plant food, and lengthening the growing season, have in many cases paid for the actual operations in one or two years' crop production.

Bankers and business men of the country, realizing what increased prosperity for the farmers of their locality means to them, are cooperating with the enterprise in every way possible and thus the financial side of any drainage project undertaken seems assured.

An essay contest is to be conducted in the high schools among the classes taking agriculture whose members actually come from the farm. The subject of the essay is to be, "What will

Systematic Farm Drainage Mean to Sanilac County?" As a reward, the winner of the contest is to receive a trip to the Smith-Hughes camp at M. A. C. next August. In addition the winning school is to receive banners and insignia. All of the prizes are to be paid for by the Sanilac County Farm Bureau.

The college farm management department will make an exhaustive study of the drainage project soon to be carried out in this county in order to determine the value of the investment and publish data which will be of value to other counties which may desire to carry out systematic drainage operations.

Five pounds of nitrate of soda per orchard tree has increased yield 450 per cent, in some instances.

Hens that laid eighteen eggs in March did well, say poultry scientists. Flies swatted now mean millions less next summer.

OUR SERVICE DEPARTMENT

WIVES MUST SIGN.

A sells farm to B on contract. A and B sign contract, would it be necessary for the wives of A and B to sign contract also?—W. E. R.

Yes. The farm, being occupied as a homestead, a contract signed by the husband only would be void.—J. R. R.

FORECLOSURE.

I have a mortgage on my farm which was due the first of the year. My interest is paid up. They say they will foreclose if I can't pay the mortgage. I can not pay it before the first of the year. Please write me the proceedings of foreclosure. How long would I have to redeem the mortgage?—M. R.

A mortgage cannot be foreclosed in less than fifteen months.—J. R. R.

RENEWAL OF ENDORSED NOTE.

I signed a note for Mr. O., with the understanding that it was to be paid when due in three months from date. Mr. O. made a payment of \$10 on the note and had it extended for three months more. Neither Mr. O. or the bank notified me. The note was again renewed for three months without my knowledge. I thought the note had been paid when first due, and forgot all about it until I received a notice from the bank in January to call and pay \$40, as Mr. O. failed to do so. Can the bank compel me to pay the \$40, or did my obligations cease when the bank renewed the note?—P. G.

Renewal and extension of a note without notice to the prior endorser releases him.—J. R. R.

COWPEAS OR SOY-BEANS FOR SOIL BUILDING.

I have some light sandy soil, in a run-down condition, and would like to know which is the better to use, cowpeas or soy-beans for rebuilding same, and also for hay. How much of either should be sown per acre? Would you advise me to inoculate the seed? Some folks advise using cowpeas and others soy-beans, therefore making it hard for me to decide.—G. W. L.

Results of tests conducted at the M. A. C. Experiment Station show that for the greater part of Michigan, the soy-bean is a higher yielder and a more dependable crop than the cowpea. Good yields of cowpeas are frequently secured in the southwestern part of the state in favorable seasons.

The cowpea is not so resistant to cool weather when first planted and is more susceptible to fall frosts than the soy-bean. We believe you will find the soy-bean more dependable over a period of years than cowpeas.

The Manchú, Ito San and Black Eyebrow are the leading varieties of soy-beans under Michigan conditions. When sown in twenty-eight-inch rows, would recommend from thirty-five to forty pounds of seed per acre. When drilled in solid, ninety pounds of seed per acre should be sown.

If the crop has not been grown on the soil previously, would recommend inoculating the seed. Material for inoculation may be secured from the Department of Bacteriology, East Lansing, Mich., for twenty-five cents per bottle. One bottle contains sufficient material to inoculate one bushel of seed, directions for using accompany the bottles.—J. F. C.

CANNOT GET BUTTER.

Can you tell me what is the matter with the cream or the cows? After churning for about fifteen hours I still could not get it to come to butter. I finally threw the cream out. I thought it too sour, so now I am trying some that is not very sour and I have no results yet.—B. E.

It is often difficult to make butter from cream from cows that are nearly

dry. This may account for the trouble you are having, or it may be that the feed is causing the trouble. Some feeds produce butter-fat of small globules, which are difficult to gather into masses of butter-fat known as butter. Timothy hay, cornstalks and cottonseed meal all produce butter-fat of small globules. If you are not already feeding any bran or oil meal, a little of one or both of these feeds might prove helpful.

As soon as you have fresh cows, or they are turned out to pasture, the difficulty will probably disappear. If you will warm the cream considerably above the temperature in which you ordinarily churn by setting the cream in warm water before churning and, if necessary, pour hot water into the cream after you begin churning, you probably will be able to get the butter to come. But on the other hand, you may have some difficulty in working it because of the fact that it would be

rather soft at the start and it will be necessary to cool it down considerably before trying to work it at all.

If none of these changes eliminate the difficulty, please write us again, giving more in detail the feeds you are feeding and the dates your cows last freshened.—J. A. W.

WHAT CAN HE SOW FOR HAY CROP?

What would be best to sow on four acres of corn ground for hay this coming summer? How would rye and winter vetch be? What amount should be sown and when to sow?—W. P.

Fall rye sown in the spring does not usually produce a satisfactory yield.

We have found a mixture of two bushels of oats and twenty pounds of hairy vetch quite satisfactory as a hay crop. Over a three-year period, we have secured an average yield of over two tons of well cured hay per acre.

We believe this mixture will be found much more satisfactory than the rye and vetch mixture for spring sowing.

Either soy-beans or Sudan grass could be sown. An average yield of two and three-fourths tons of soy-bean hay and three and three-tenths tons of Sudan grass hay has been secured at the station the past three seasons. Sudan grass has about the same feeding value as timothy hay, while well-cured soy-bean hay has about the same feeding value as clover and alfalfa.

The Manchú, Ito San and Black Eyebrow are the three leading varieties for Michigan conditions. Soy-beans should be sown in twenty-eight-inch rows at the rate of from thirty-five to forty pounds of seed per acre, while Sudan grass should be drilled solid at the rate of from twenty to twenty-five pounds of seed per acre. Both the soy-beans and Sudan grass should be sown from the middle of May to the first of June.—C. R. MEGEE.

HATCHING TURKEY EGGS.

Please give me your advise on turkeys. I have two hens and the tom died a short time ago. Will it be necessary to get another tom? Both hens have been covered once that I know of. I have been told that once is enough for a season.—L. K.

One mating is usually enough to fertilize several eggs and might be enough to produce a good per cent of fertility in an entire setting. The number of fertile eggs produced from one mating seems to depend on the individuality of the birds. If the eggs are laid soon after the death of the tom they will be apt to be all right, but after several weeks I should consider it necessary to have a new male with the flock in order to be sure of fertile eggs.—R. G. K.

POOR STAND OF SWEET CLOVER.

I have about six acres which I had in corn last year, which we seeded to sweet clover and got a poor stand. The land is a sandy loam and has been run badly. We wish to seed it to sweet clover. It is free from all weeds. Would it pay to sow sweet clover on it the first thing this spring by inoculating the seed and then take a spike-tooth harrow and go over it to cover the seed? Do you think we could get a stand that way on the same ground?—A Reader.

Sweet clover is very valuable as a crop for building up a sandy soil. Sweet clover, however, is sensitive to acid soils and since your soil is a sandy loam and badly run, it is quite likely that it is acid.

Two tons of finely ground limestone or from three to five cubic yards of marl should be applied to correct this condition. This should be applied while preparing the seed-bed for sweet clover.

Since the land is quite free from weeds and it is very essential that the seed-bed be well firmed for sweet clover, would recommend that you go over the land with a harrow, seed broadcast and then cover with a light application of the spike-tooth harrow.

The seed should be inoculated. Material for inoculation may be secured from the Department of Bacteriology, East Lansing, Mich., at twenty-five cents a bottle. One bottle contains enough material to inoculate one bushel of seed, directions accompany the bottle.

From twelve to fifteen pounds of scarified biennial white sweet clover seed is the amount usually sown per acre.—C. R. M.

Another Important Service Added

Dr. Lerrigo, Health Adviser, Joins Staff This Week

FOR the past year and more we have been searching for the right man to fill the important position of health advisor on the Michigan Farmer staff. At last we have found him. In the person of Dr. Charles Lerrigo, who has now joined the staff of this journal, we have one of the very best health advisors in the country. His services, within reason, are at the disposal of every subscriber.

The first appearance of Dr. Lerrigo's writings in the Michigan Farmer will be found in this issue. Each week the department will be filled with information of value to the various members of the family. His column is to be our own health department.

It is not our intention to supplant the family physician, nor to advocate any particular line of medicine, nor further to exploit any particular school or plan of medical treatment. No strange theories are to be offered, but simply the plain truth about daily living—truth that will aid the reader in keeping his body healthful and his soul unruffled.

It is unwise to prescribe drugs without a careful examination of the patient. Dr. Lerrigo's aim will be, therefore, to tell what to do, rather than what to take; how to stay well, rather than how to get well. But in order to make this department of the greatest aid to Michigan Farmer readers and knowing that infirmities are sure to creep into the lives of the most careful persons, the Doctor will always extend a helpful sympathy to the man or woman who finds himself or herself in physical difficulties.

"One of our greatest physicians," said Dr. Lerrigo, a short while ago, "expressed an opinion that the widest absurdity found in clever America is in the action of certain deluded citizens—shrewd enough in most matters—who soak up great quantities of medicines solely on the recommendation of those who make enormous profits by their sale, pouring into their bodies, the construction of which they know nothing, poisonous mixtures, the composition of which they know less."

Sane people everywhere recoil against the practice of taking any medicine, the action of which is not understood, particularly by people who do not know the nature of their ailments and the proper remedies for curing them. The reason for this is that sane people realize that it is often expensive if not fatal to conduct experiments with the human body.

Here are some of the things that Dr. Lerrigo hopes to do. To help readers maintain healthful premises; to bring up babies properly; to safeguard children from contagion and to adjust their school life that they may grow up with keen minds in sound bodies.

For a score of years and more we have been answering questions about colic in horses, ringworms, indigestion, mange and a thousand other things to aid the farmer in keeping upon his premises more healthful herds and flocks. Is not the human race of greater importance than these? So why shouldn't a live farm paper maintain its own health department and answer questions about babies and measles, earache, pains in the back and all of the hundreds of other ills that assail mankind?

We believe thoroughly that Dr. Lerrigo's department conducted on the commonsense basis that it will be, is one of the most important services that the Michigan Farmer has added to its program in recent years. It rounds out the various departments so completely as to make it a thorough-going all-around family paper for the farm home.—Editors.

The Best Way to Help Europe

By Senator Arthur Capper

ON the eve of our conferences with European nations in regard to the eleven and one-third billions of war debt they owe Uncle Sam, and how it shall be refunded and paid, I have just seen a pamphlet emanating from New York's financial district which urges us to make the allied debt a perpetual trust fund to be administered by the allied governments for the benefit of the allied peoples.

This beautifully altruistic dream is not at all after the usual manner of our table-pounding, hard-fisted financiers. Reading further we learn:

"This would be good business, for the United States. It would relieve Europe from the necessity of sending us five hundred millions of dollars in gold per annum for interest which Europe would have to pay in goods (our financiers having the world's gold supply pretty well cornered) for in sending us these goods Europe would have to underbid our manufacturers in the home market and so would take work away from our workers."

I believe we can meet that situation, when it develops, without making Europe a present of eleven or twelve billion dollars from the pockets of American taxpayers.

If this statement had come out flat-footedly and said: "We think you ought to forgive Europe this debt. We fear if you do not she will have to repay her debt in goods and that would slow down our corporate industries and they would pay us lower dividends"—that wouldn't sound so altruistic, but I think it would be a good many notches nearer the truth.

It is easy to be generous with other folks' money. In the main it was the people of the United States and not the financier, you remember, who lent those billions to the allies during the war that the allies might buy munitions, equipment and war supplies from our corporations, chiefly owned, or financed, by the big financiers. And how those dividends rolled in.

Now what these financiers modestly ask is that the American people who lent Europe this money, make an out-and-out contribution of these billions to the allies at an average cost of \$100 for every man, woman and child in the United States.

In other words, let the people pay this debt of the European governments by taxing themselves for it.

It hardly seems likely that the people will see the matter in this light, and I much question that they should.

Why, for instance, should American farmers and wage-earners pay the three and three-quarter billions France owes us? That France may continue to maintain 800,000 men in arms, the largest army in the world?

Why should our taxpayers pay the one hundred and forty-eight millions that Poland owes us? To assist that country to keep an army of 600,000 men?

Also, ought we to tax ourselves to

make Italy a present of one thousand eight hundred and fifty million dollars, in order that Italy may continue to maintain the third largest military establishment in Europe?

I think not. I shall certainly not stand for any such transactions.

We have repaid ten times over the debt of gratitude we owed to France for what she did for us in Washington's time. And both during the war and since, the old world has had no cause to complain of a lack of substantial evidence of our friendship, or of our kindness of heart. Notwithstanding the allies seem to love us so much, judged by the conduct of their several governments, that in dividing a few billions of gold marks from Germany they ignore our bill for keeping our army on the Rhine, although this was requested by them and the terms agreed on at the armistice.

Germany, it seems to me, is setting the rest of Europe a most valuable example at this time. Without friends and knowing it must depend on itself, Germany has resolutely turned its back on the past and gone to work with a will. As soon as our friends, the allies, find they cannot work Uncle Sam for any more beneficiaries, I believe they will follow in Germany's footsteps. The greatest kindness we can show to Europe at this time is not to make it any billion dollar gifts.

What this country must demand, and I believe will demand, both for its own sake and for the effect it will have in compelling European governments to settle down, if not settle up, is prompt payment in future, of the interest on this foreign debt and a thorough understanding in regard to the payment of the principal.

The conference to be held with representatives of European nations in Washington this month should result in a debt-funding commission providing for these governments to issue bonds at a uniform rate of interest, the bonds to mature and be retired at stated periods, in this way extinguishing the debt by degrees. The bonds being negotiable, could be sold to private individuals as are the bonds of our own government.

The idea that the allied governments cannot pay their debts has been exploded and here is the proof: In addition to the big war loan from Uncle Sam, these governments have floated more than two and one-half billion dollars of private loans in the United States. J. P. Morgan & Company report that one thousand seven hundred sixty-nine millions of these loans have been paid off, reducing the total to eight hundred and eighteen millions.

It is therefore quite evident Europe can pay, for Europe is paying. Let us hear no more nonsense about a cancellation of the foreign debt owed to the taxpayers of this country. "From every man according to his ability to every man according to his need."

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The boy who started to town with \$100.00



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from Michigan Farmer Readers

DO YOUR OWN GARAGE WORK.

SAY, boys, the next time you want your valves ground get a valve grinder and the necessary wrenches, a box of grinding compound and go to it. See what you save on the first job and when those rods need taking up or the rear axle goes to pieces follow the same course, and you soon will have a good bunch of tools, (purchase quality and not quantity). You will not miss the money half as much as paying the big garage bills.—L. M. Taylor.

THE SWEET CLOVER QUESTION.

I RARELY indulge in criticism, but sometimes I do, but not till I feel quite sure that I have gone to the bottom of the matter in question. In my mind, the Michigan Farmer is just about as good a paper as it is possible for human minds to conceive and direct. Most of my neighbors think about the same. We feel that we could not farm properly without it.

Now, in an effort to satisfy your appetite for criticism, I'll drop just a word here. In your issue of March 18, your editor saw fit to publish a rather pessimistic article about sweet clover, by Mr. Hutchins. According to his own statements, Mr. Hutchins' experience with the plant has been very limited. Yet he ventured to advance the opinion that lack of lime in the soil was not the cause of failure in his case.

A careful experimenter would not venture to express a positive opinion after such a limited experience, but it looks very much as if the lack of lime was the only limiting factor, in his case. Then he sounds a warning against becoming too enthusiastic over sweet clover.

We farmers who, for many months past have been feeding tons of sweet clover hay, while skeptical and less progressive farmers have been buying their roughage, will smile and continue to sow sweet clover and alfalfa. However, many who do not know, will heed Mr. Hutchins' false warning and continue to plod in the rut.

Though I have been experimenting with sweet clover for many years I still have much to learn. My experience with lime has been limited to a study of results under natural conditions. Part of our soil is full of lime, and part is very sour. This year I shall use ground limestone on at least one demonstration plot. Will send you a photo, some day, that will prove that my enthusiasm is pardonable.—Leslie E. Perry, Cheboygan County.

HUBAM VS. BIENNIAL SWEET CLOVER.

THERE is a great deal said the present day in favor of the Hubam or white blossom annual sweet clover. I have raised some myself, but really for myself prefer the biennial as I usually get three cuttings and never less than two. Of course where one wants a quick crop the Hubam will fill the place very satisfactorily. But when one can get a crop of hay the same season with biennial I think much is gained even though the first season crop be not so heavy as with annual. The biennial being much hardier will do much better in a cool season and almost as well in a warm season. I find the Hubam is very slow to start and weeds and grass make good headway long before the Hubam gets much of a start. The Hubam I raised I cultivated several times and hoed it once. It attained a growth of an average of six feet tall. The biennial sowed the

same spring six weeks earlier, and not cultivated, made a growth of around eighteen inches. I noticed several stalks of biennial mixed in with the Hubam, this made a growth of four feet and much thicker foliage and more branches. The biennial was in full bloom when the Hubam was ready to cut for seed.

My idea is if the biennial is given the same cultivation the annual is, it would produce as much or more and a much better quality of hay.—W. M. Schworm.

ON THE SCHOOL QUESTION.

I HAVE been an interested reader of the for and against rural and consolidated school articles.

Our school house has been built for about eight years and has room for about sixty pupils.

The school house is built in one corner of an acre lot, level and hard and grassy. We have a drive well, drinking fountain, library, woodshed and outbuildings. In fact, ours was the first standard school in the county and has kept its place.

We have somewhere around two thousand dollars in grounds, buildings, etc. We have been very lucky in getting good teachers who took an interest in the scholars as well as their pay check.

One of our fourteen-year-old pupils passed over ninety-eight last fall at the examination and took the free trip to the State Fair. Two of our scholars are now attending high school.

Now, then, we are not in the center of the town. The center is on a sand hill and a poor old school house with some of the roughest scholars that ever went to school. In fact, in one term they had four teachers before they found one to finish the term.

Now, is it likely we would be willing to scrap our standard school and help build a new school house and turn our quiet children into such a bunch of rowdies? I'll say not, for they can get all the exercise they need playing ball, as the district owns a ball and bats, and all the books used. This is quite an item when parents are moving from one district to another, as some parents are fond of doing.

I would like to ask the gentleman whose little girl was learning too much trash what better off she would be in a consolidated school as she would have the same children, and perhaps worse ones. And if he lived very far from the school she would be with them longer going and coming, unless he took her himself.

In my opinion, country boys do very well without a gym.—A Farmer's Wife.

A DECIDED IMPROVEMENT.

THE change made in the "make-up" of the Michigan Farmer during recent months, is truly a great improvement from its former make-up, which consisted very largely, of lengthy articles written in a rather dry vein and which the busy farmer did not feel that he had time nor temper to peruse.

But the now added departments with the cordial invitation to its readers to contribute their thoughts and desires, makes the Michigan Farmer a much more welcome and helpful weekly visitor in the homes of the "Tillers of the Soil."—J. T. Daniels, Clinton County.

Medium weight hens of any variety are usually most profitable.

Hatch chicks early; the heavy breeds by May 1; the light breeds by May 15.

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A Story of a Good Grange

How It Transformed a Community

By W. F. Taylor

IT is forty-eight years since Fraternal Grange was organized in the then little village of Shelby, Oceana county. Just a word about the village back there in 1874 when I first saw it as a boy. A very few small stores on either side of a sandy street out of which enterprising citizens of the town were digging the last of the stumps. A humble school building which soon proved too small for the needs of the town; no church but a hall over a store in which Congregationalists and Methodists worshiped together each Sabbath morning. In the background on one side was a large mill and on the other the trees came within a short walk of the center of the village.

Among the charter members of Fraternal Grange were some very capable people. Brother George W. Woodward who used to tour the country installing Grange officers, delivering addresses and encouraging the new Granges to do better work. Then there were W. H. Barry, Mrs. Payne and Brother and Sister Adams, father and mother of A. J. Adams, past master of Fraternal Grange and past master and lecturer of Oceana Pomona. There were other splendid men and women in that company who, like those we have mentioned contributed liberally to the success of this Grange and who, like them, have one by one completed the labors of the day and passed to their final reward.

Back there in the 70's the Grange had not been tested out. It was rather a dream, a hope or a prophecy of the future. This being true, most of the Granges in Oceana county ceased to meet after a few years and only Fraternal and Sylvan Granges remained alive. At different times each of these experienced a short period of rest but never for long and there has been no time when one of them was not holding regular meetings. These Granges exchanged visits not long ago, the return visit being made to Fraternal Grange. For several years the meetings have been held out of town in a rural school building. The membership of two strong Granges filled the room to overflowing, on the day of which we write. The good people of Fraternal Grange proved royal entertainers and it was there and then that the writer resolved to pass on to the readers of this paper the story of their success.

"By their fruits ye shall know them," said the great teacher, looking back over nearly five decades, the membership of this Grange can afford to be thus known. During those years every great question in legislation affecting the farmer has been fully discussed. A large number of men and women have felt the obligation of citizenship in a more definite way and have come to take a deeper interest

in matters pertaining to the public good. Fraternal Grange has numbered among its lecturers some of the best to be found anywhere and Sister Roth, the present lecturer, should be included. Her programs are highly interesting and, along with plenty of entertainment, one may find questions in agriculture, home economics, legislation and community betterment. Along with the Grange has come a literary society opening its doors to all and cooperating with the Grange, thus developing a fine community spirit and assisting in the work of "the great school out of school."

Much has been written and said about Americanization and doubtless there is room for a great deal more on the subject but, no matter how much at variance our opinions may be, all agree that one thing at least is vital, and that is the betterment of life in the country. No farm organization in existence is better fitted to serve the people in the country than the Grange. Fraternal Grange is doing its part and thus is it justifying the hopes and expectations of the pioneers who long ago brought to the altar of the order, at each successive meeting, the best in their lives.—W. F. TAYLOR.

POTATO SHIPMENTS HEAVY.

THE Michigan potato Growers' Exchange made a new record this year on its March shipments, moving 421 cars which aggregated \$225,000. Of the 129 associations affiliated with the exchange, ninety-three of them shipped one or more cars each. The Falmouth local led with twenty-six cars, making a total for the season of 121 cars. The associations at Barryton, Baraga, Escanaba, Falmouth, Houghton, Lake City, Lewiston, Lakeview and Merritt have each shipped more potatoes this season than they did a year ago with a bumper crop.—R.

SOUTHERN POTATOES.

THE early planting of potatoes in Louisiana and South Carolina is now under way. Excessive rains reduces prospects in the former state. The Florida crop has been tolerably satisfactory.

SWITZERLAND NEEDS WHEAT.

THE Swiss hold 100,000 tons of grain stocks. A three-months' supply, according to a cablegram from A. P. Dennis, special representative of the United States Department of Commerce. The wheat imports needed for 1922 are estimated at 500,000 tons, of which 30,000 tons remain to be purchased before the coming harvest. The state monopoly on grain in Switzerland will continue until 1923.



Empires perish, but lead pipe lasts

THIS piece of lead pipe had been buried in the ground nearly 1900 years when it was dug up by workmen excavating for a sub-cellar in Rome.

Vespasian was emperor when this pipe was made—the inscription tells that. When Vespasian laid water-pipes of lead in the streets of Rome, he followed the example of Julius Caesar, who sent plumbers with his legions into barbarian lands. Lead pipe laid by these Roman invaders has been dug from English soil.

~ ~ ~

For centuries lead's non-corrosive qualities have made it the favored metal for water-pipes. Lead gutters, pipe-heads and leader pipes have been used for hundreds of years to carry off the rain from the roofs of buildings. Such lead work is often very beautiful and ornamental.

Often you see a steel skeleton, a bridge, a roof, a railing that has been painted a flaming orange-red. This brilliant coat is red-lead, an oxide of lead. "Save the surface and you save all" is an imperative maxim where exposed metal surfaces are concerned; and red-lead is the most reliable protection against rust that has yet been discovered.

You are surrounded by lead, in your home and on your travels. There is lead in your rubber boots, in the tires of your automobile, in the bearings of the machinery that makes things for your use or transports you from place to place.

~ ~ ~

Civilization has found hundreds of uses for lead and its products, and of them all the use of white-lead in paint is undoubtedly the most important.

Paint is used to decorate and preserve almost everything that is built or made, and the principal factor in good paint is white-lead—made by corroding pure metallic lead and mixing it with linseed oil.

Most painters simply add more linseed oil to the white-lead, in order to make the paint they use. Paint manufacturers use white-lead, in varying quantities, in the paint they make. The quality of any paint is largely dependent on the amount of white-lead it contains, for it is the white-lead that gives to good paint its durability.

"Save the surface and you save all" means that paint prevents decay and ruin. The highest protective power is found in those paints which contain the most white-lead.

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Room off your farm with American Fence. Big, standard gauge wires. Galvanized proof against wear, and woven with a mechanically hinged joint. Springy, yet bull strong and hog tight.

Also use American and U. S. Steel Posts and have a fence that lasts a life-time.

We sell both heavy and light weight fences, each the best quality on the market. But we strongly urge you to buy heavy fence if you want to save money. Large wires are not only stronger, but take a heavier coat of gal-

vanizing, assuring longer life and protection.

Our light weight fence is made to answer the trade's demand. We use, however, only the highest quality steel and finest grade of galvanizing.

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News From Cloverland

By L. A. Chase

SUGGESTS AN AGRICULTURAL BUREAU FOR U. P.

SPEAKING before the Gladstone Rotary Club on April 3, Mr. A. C. Moore urged the creation of a separate bureau of the Michigan Department of Agriculture to be located in the upper peninsula and deal directly with upper peninsula problems which he described as quite distinct from lower peninsula problems and incapable of being handled effectively at Lansing. He urged the Rotarians and other service organizations to push the idea along.

RAINFALL IN CLOVERLAND.

THE average precipitation for all points in the upper peninsula where official weather bureau records are kept, was 29.1 inches during 1921, according to recent figures given out from the Lansing office of the bureau. It may be interesting to compare this with the conditions in the southern peninsula. In the southern counties the precipitation was 34.94 inches; in the central counties, 32.26 inches, and in the northern counties, 30.56 inches. It will thus be seen that, last year, the upper peninsula had somewhat less rainfall and snowfall than the southern counties of the state. This may be due to the light snowfall of the winter of 1920-1921. The heaviest rainfall of the year was in September with 6.12 inches.

A SILAGE TEST AT CHATHAM.

THE special report of the Upper Peninsula Experiment Station of the Michigan Agricultural College, deals, among other matters, with the tests conducted at Chatham relating to sunflower ensilage. "During the winter of 1920-1921, comparative results were observed on the use of sunflower silage vs. pea and oat silage," says the report. "Eleven tons of pea and oat silage had been placed in the center of the silo with sunflower silage on the bottom and top of the silo. The same grain and hay ration was used with both types of silage and the same care given. The change from sunflower silage to pea and oat silage was made January 17, and the change back to sunflower silage was made on February 13. Careful milk records of the herd were kept with the following results: Average daily total milk production for the last fifteen days before changing from sunflowers to pea and oat silage was 484.6 pounds; average for the twenty-seven days while being fed on the pea and oat silage was 483.8 pounds; average daily production for the first fifteen days after making the change back to sunflower silage was 466.2 pounds. The cows relished both types of silage about equally well, but owing to the bulkiness of the pea and oat silage they did not consume more than thirty-five pounds per head per day, while they would take forty pounds of the sunflower silage." From the standpoint of economy, if not of pound for pound consumed, the sunflower silage has the better of the two feeds, says the report, since it can be produced at half the cost of its competitor.

PAUL BUNYAN'S HAMMER.

WHAT is a Paul Bunyan's Hammer? L. F. Livingston, land-clearing specialist of the Michigan Agricultural College, answers this query thus: "Paul Bunyan's hammer is nothing more than a large mallet for pulling stumps. The mallet part is of some light wood and the handle is of seasoned ironwood or some other

strong, flexible piece of wood. It is an entirely home-made device with a cost of nothing more than a little time." Specifications and drawings for this device can be had by corresponding with Mr. Livingston at Marquette.

DEVELOPMENT BUREAU ISSUES TOURIST BOOKLET.

ABOUT the middle of April the Upper Peninsula Development Bureau will have ready for distribution a tourist booklet and map, designed to show travelers through the upper peninsula the location of camp-sites, springs, garages, hotels, and points of scenic interest. Undoubtedly this information will be greatly appreciated. The Marquette office of the bureau will handle this material.

NEW FISH HATCHERIES PROM- ISED FOR CLOVERLAND.

MR. ALBERT STOLL, the new secretary of the Michigan Conservation Commission, discussed the project for new fish hatcheries in the upper peninsula, at the annual meeting of the Upper Peninsula Development Bureau, held at Iron River, April 6. Mr. Stoll definitely stated that the upper peninsula would receive at present two new hatcheries in addition to the two already located at Thompson, Schoolcraft county, and at Sault Ste. Marie, but he made clear that the reports that the sites of the new hatcheries had already been determined upon, were premature. The locations will be determined by a committee of experts. His own personal preference was for sites near Watersmeet, Gogebic county, and in Marquette county. Mr. Stoll also announced that the conservation department's fish car, the "Wolverine," would make fourteen visits to the upper peninsula, this season, and would transport hither eight million fingerlings and fry. He said this was a quantity greater than was distributed throughout the entire state two years ago.

APPLES FOR CLOVERLAND.

MR. C. P. HALLIGAN, of the Michigan Agricultural College, announces a plan for propagating hardy varieties of apples to meet upper peninsula conditions. After consultation with Mr. L. B. Scott, of the United States Bureau of Plant Industry, it has been determined to undertake this work at South Haven, where apples will be propagated on their own roots and the standard roots upon which they are commonly grown. "It is possible," writes Mr. Halligan to J. A. Doelle, of the Bureau of Agricultural Development, "that much of the trouble with the trees in the upper peninsula is due to the variability in the vigor of the stocks upon which they are grafted. I do not think that a root stock on trees of the upper peninsula has to be particularly hardy in so far as the soil is usually covered over winter with a heavy blanket of snow, and hence the soil temperatures over winter are not extreme; nevertheless, the roots of the trees exercise quite an influence over the vigor and hardiness of the tops." Mr. Scott, says Mr. Halligan, is interested in the propagation of apples upon their own roots since nursery stock is variable in character. It will require a couple of years, he says, to get stock ready for testing out in the upper peninsula. In the meantime conditions in the upper peninsula will be given further study with the possibility of gaining additional information in relation to the culture of tree fruits there.

Horticulture

The Strawberry Patch

Its Place in the Farm Garden

By E. V. Root

THERE is no fruit that appeals to the universal taste like the strawberry. However, comparatively few people have the pleasure of taking the fruit from their own vines, not seeming to realize how very easy it is to grow this wonderful berry and what a wealth of goodness can be taken from a small patch.

The strawberry, while supposed to do its best on a sandy loam will grow on any soil and is found in the wild state everywhere from swamp to hill-top. Soil is not then a disadvantage to be reckoned with.

The best time to plant is spring, as soon as plants have made a growth. From April 15 to May 1 in the southern counties. Plants should be taken from a setting of the preceding year. Roots of plants set should be white and fibrous. Do not set plants with stalky, dark colored roots as they will not make a satisfactory growth. The ground should be prepared as for any crop and if the patch to be set is small a string can be stretched in place of marking. The easiest way to plant is to use a straight spade to make the holes. Shove the spade straight down six or eight inches, move handle back and forth, parting the ground, remove spade and make another hole two feet beyond. After making holes for two or three rows (dirt should not dry out in hole) take your basket of plants which previously have been trimmed to the last leaf but with stems of outer leaves left to protect crown, and picking up plants by the stubs of the leaves whip the roots into hole made by the spade pressing the soil firmly around the plant with the foot.

The best time to set plants is when the dirt is moist following a rain, although unless soil is very dry there will be practically no loss. In a commercial field berries are usually set two feet apart and in rows four feet apart and it takes from fifty-two to fifty-five hundred plants to set an acre. If soil is fertile and the ground of such composition that it does not easily dry out, plants may be set three feet apart in the row and it will then take about 3,500 plants to the acre. If the ground is in good condition for planting, that is, dry enough so that dirt does not cling to tool used for making holes, and moist enough so that dirt does not run back into holes two men will plant an acre a day. The writer has set three-quarters of an acre alone and in addition dig and

trimmed his plants but, of course, was working for himself. Setting a patch of one or two hundred plants for the home garden is a matter of just a few minutes.

During the first summer the plants should be hoed or cultivated often, the first runners being straightened out with a little dirt thrown on them to hold them in place, and thus fill the row with plants. The rows of plants should be held to two feet in width, leaving two feet between rows and when a matted row two feet wide has formed other runners should be cut off. This is not at all a particular job. If a cultivator is used always cultivate the same way and the tool will straighten out the runners and, of course, keep the middle of the row clean. It hardly seems possible that single plants set three feet apart will make a row of matted plants two feet wide in a single growing season, but with a favorable season this always happens.

It is a good plan to mulch the bed with coarse manure in the fall, the straw offering a protection in case of extreme weather and little snow. Commercial growers, however, do not usually do this, it being difficult to get the manure and the straw being a nuisance if the patch is to be cultivated the following season. After the crop is harvested the ground should be thoroughly cultivated between the rows and the rows cut down to six inches in width which is done by simply cultivating out about nine inches of the plants on each side of the row. This simply gives new plants a chance to set out and the method of care the second year will be the same as the first.

It is a good plant to attempt to crop a patch two years only, although I have known patches to produce well for five or six years.

For the garden patch it is a good plan to set say one hundred plants every spring and leave the vines two years. This would give say four rows one hundred feet long. These four rows one hundred feet long and taking up a rod in width will supply any family with berries and give plenty to can, in other words, from this small patch will be picked from 125 to 200 quarts. This may sound big but the estimate is conservative, being based on years of experience. I have known four hundred quarts to be picked from a patch

(Continued on page 496).



This Excellent Stand of Thrifty Thirty-two-year-old Elbertas in the Orchard of R. B. Closson, in Berrien county, Shows what Cultivation, Fertilization and Pruning will Accomplish.

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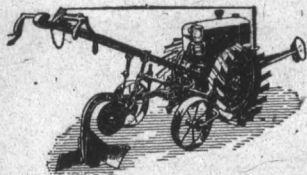


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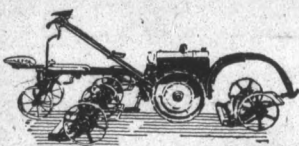
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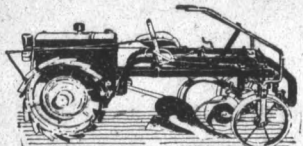
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The Busy Farmer's Page

Experiences and Experiments for the Practical Husbandman

DIMMING THE HEADLIGHTS.

IF your headlights are too bright dissolve as much epsom salts as possible in half cup of warm water. Spread the water evenly on the inside of the headlight glass. When the water is evaporated a fair frosting will result. It is good for several months.—V. G.

FENDER CRACKS.

VERY frequently small cracks make their appearance on the edge of the fender or other sheet metal parts which will rapidly become big breaks unless they can be attended to as soon as they make their appearance. Drill a small hole through the crack, near its outer end. Slip a rivet through the hole, run on a washer and then rivet the head firmly. This method prevents vibration of the edges of the crack which causes the spreading of the crack. A brushful of enamel or paint will render this repair invisible.—V. A. G.

KILLING A WILLOW CLUMP.

GRUB out the roots of the willow as thoroughly as possible. Continue persistent sprouting at regular intervals until winter, not allowing any willow sprouts to remain long above the ground before cutting them off. Repeat the sprouting next year and as long as necessary until the willow clumps are filled out. If you do not object to making the soil sterile you can soak the soil about the clump with hot water in which you have dissolved two or three pounds of salt per gallon. Then repeatedly chop out all the sprouts as suggested above.—V. A. G.

THINKS IT BETTER TO KEEP UP GRAIN.

DAIRYMEN differ in opinion as to the practicability of continuing the grain ration after the cows are turned out to pasture. It has been our experience that it pays to keep the grain up, and especially with heavy-milking cows. There are cows in every herd that are beginning to decline in milk flow as they are turned out to pasture. These cows I do not consider profitable to grain, but as a rule cows do much better and hold up longer on their milk flow if given a liberal grain ration even on good pasture. Early spring pasture is highly succulent and for a short time will produce an increased milk flow, but as the season wanes the supply gradually becomes insufficient to insure maximum milk production. Heavy milch cows, to produce a profitable flow of milk during the pasture months, should receive some concentrated feed to balance up the pasture.—L. R.

LATE SOWN CLOVER.

CLOVER sown in March or early April invariably succeeds best, because moisture conditions are usually more favorable to a quick germination of the seed and an early and vigorous growth of roots.

However, circumstances are such at times that seeding is delayed until late in April or to the middle of May. Partial drowning out of old stands, late freezes that injure old stands, or the necessity of thickening meadows or pastures may necessitate late seeding.

Late seeding may be a success or failure, depending to a great extent on the method used in sowing. The simple scattering of the seed on top of the ground like is often done with success early in the spring will surely be

disappointing. The seed may germinate, but a hot sun will blight the half exposed seedling. If the weather should happen to be dry the seed may lay unsprouted until a rain falls. The competition and shade of grasses, other clovers and weeds will tend to hold the new seeding back, because they will all have attained considerable growth by the time the late seeding is up.

The surest and safest plan in late seeding is to cover all the seed as soon as sown. This will insure its reaching a moist bed immediately and a much larger percentage of the seed will produce strong plants. A disc drill is an excellent way to put it in, or the soil may be disced lightly after the seed has been broadcasted. It will not hurt to put the seed down an inch deep if it is necessary to go that far to reach moisture. It is not safe to depend on rains washing it in or covering it.—J.

DAIRYMEN SHOULD GROW MORE FEED.

IAM becoming more firmly convinced every day that dairymen should grow more grain upon their farms and cut down feed bills. There is little profit in dairying nowadays if all the grain, or even a large portion, has to be purchased. During the pasture months I feed equal parts of ground oats, corn meal, wheat bran, with an allowance of one and a half pounds of cottonseed meal daily per animal. I do not have any fast and set rule as to amount of grain I feed daily, but I find that under average conditions a pound of grain to three pounds of milk is about right. I do not attempt heavy grain feeding, but maintain my herd under average farm conditions.—L. R.

MIXING GRAINS INCREASES THE YIELDS.

MIXED hay usually gives a larger tonnage than hay from a single kind of plant. The question has been raised in regards to the production of grains for feeding. In Minnesota experiments extending over five years have been conducted to learn the advantages, if any, in mixing grains. The results have shown conclusively that an increased yield results from this practice.

Early oats and six-row barley sown at the rate of thirty-two pounds of the former and forty-eight pounds of the latter per acre averaged 2,324 pounds, as compared with 2,241 pounds for barley and 1,983 for oats sown alone.

Marquis wheat and Victory oats sown together at the rate of forty-five pounds of wheat and thirty-two pounds of oats per acre yielded at the rate of 2,056 pounds. Sown at the rate of sixty pounds of wheat and thirty-two pounds of oats the yield per acre of the mixture was 2,196 pounds. Wheat alone yielded 2,021 pounds and oats alone 2,011 pounds.

The crop from the wheat and oats mixture sown at forty-five and thirty-two pounds per acre respectively consisted of thirty per cent wheat and seventy per cent oats. When the larger amount of wheat was included in the mixture, the percentages of the crop were forty-five per cent wheat and fifty-five per cent oats.

"When grains are grown for feed on the farm, mixtures of about the proportions mentioned may well be considered in preference to growing either grain alone," says Professor Arny. "Wheat grown in mixtures with oats is usually somewhat less severely affected by black stem rust than when grown alone and the crop of wheat and oats grown together is less apt to lodge than the oats grown alone."

Francisco Farm Notes

By P. P. Pope

MANY years ago that greatly beloved, and inspiring writer, Joseph E. Wing, was abroad in the British Isles. He found himself greatly admiring the luxuriant meadows and rich pastures of old England, and in reply to his query as to how they were handled the English lad says, "We rolls them, Mister, and then we rolls them." I have often thought that the peasant lad told a greater truth than we would at first be inclined to believe when he attributed the greater luxuriance of the meadows to the rolling.



For many years we have made the job of rolling the meadows one of the first field jobs in the spring. As soon as the ground is dry enough to bear up the horses without leaving deep foot prints, the roller is started, and we are convinced that, when harvest time comes the cost is well repaid.

There are many reasons for this practice. In the first place, the alternate freezing and thawings of the late winter days and nights have left many of the little plants with their crowns heaved above the surface, their roots more or less exposed, and many of the little side rootlets broken off. We have often of late heard people wishing for a warm rain to settle the ground and give the tender plants a root hold. In the absence of the rain the roller will do the same thing. It will overcome the heaving to a certain extent. It will firm the ground around the roots and practically replant many a weakened clover that might otherwise succumb. If the roller can precede the beating rains and go over the fields while they are still more or less spongy from the winter's freezing, they will be left very smooth for the mowing and other haying operations. The numerous small stones that harass the drive by getting into the knives and stopping or breaking or dulling the sections, will be "planted"

down into the soft soil and heard from no more that season, and if there may be an occasional one too large to be properly "planted," as happens to be the case sometimes on Francisco Farm, the box on top of the roller furnishes a convenient receptacle.

The instance has happened in the past where for good reasons, perhaps of work or weather, a part of the meadow has been left unrolled and whenever this has happened the effects have been easily and uncomfortably noted later. Not only in the rougher running of the machines, but in the thinner growth in some places as well. It is important that this work be done early, if we would secure the best results, and it is a practice that I believe is universally practicable regardless of soil type.

Dragging the Wheat.

Another practice that we find satisfactory on the soils of our boulder clay plains, is the dragging in of the clover seed on the wheat fields. We have not always practiced it, but the fields that we have dragged well after sowing the grass seed are not the fields on which we have lost a seeding. When we have been able to top-dress the higher and more clayey portion of the wheat fields with a light dressing of manure from the barnyards, we have preferred to sow the seed very early when the ground was honey-combed by the frost, and we have secured some most excellent stands in this way. Our plan, however, has not called for the use of much manure on the young wheat, so we have generally considered it a safer practice to delay the seeding until the ground was dry enough to work and then follow the seeder with the spike drag. Clover seed as well as any other seed, is appreciative of a good seed-bed, and the drag often helps. The slight damage to the wheat plants will be more than overcome by the cultivating it receives. Some people claim it is very beneficial to the wheat, but I do not know. The one thing I do not like about it is the tendency for the drag to dig up numerous small stones and leave them high and dry for the grain binder to bump over.



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Mark Hain
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Do you know you can obtain more health, pleasure and profit from a garden of strawberries than from any equal amount of land of your place? My beautiful new Catalogue greets you with a smile, and tells you something about ourselves and our favorable location where soil and climate combine to produce plants of superior quality.

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Mention The Michigan Farmer When Writing Advertisers

HOT-HOUSE BUSINESS GOOD.

HOTHOUSE vegetable growers in the Grand Rapids area have had a very profitable season in the production of leaf lettuce. Since the first of the year the market has been steadily advancing, rising from eleven cents a pound to the peak price of twenty-one cents obtained early this month. Increased supply of western and southwestern Iceberg lettuce has weakened the market and prices have turned downward. Last of the second crop now is being picked and the third planting, smaller than the other two, will come on about the first of May.

The demand has been strong for weeks for hothouse rhubarb and large quantities are being sold in the leading markets of the state. Hothouse cucumbers will begin to move about the middle of May and hothouse tomatoes about June 1. The usual acreage of both of these crops have been planted in the Grand Rapids district.—R.

WHAT EUROPE OWES US.

Obligations of foreign governments to the United States, the refunding of which will be undertaken by the commission just authorized by congress, total, including overdue interest, \$11,333,194,041.17, as follows:

Armenia	\$ 13,137,466.07
Austria	25,499,051.46
Belgium	420,263,997.55
Cuba	8,147,000.00
Czechoslovakia	102,328,599.95
Estonia	15,964,148.42
Finland	9,005,082.19
France	3,716,022,020.29
Great Britain	4,675,492,101.33
Greece	15,000,000.00
Hungary	1,837,560.82
Italy	1,850,313,782.97
Latvia	5,581,296.39
Liberia	28,291.85
Lithuania	5,479,790.83
Nicaragua	170,585.35
Poland	148,313,058.27
Rumania	40,509,241.14
Serbia	57,210,787.01

Total\$11,333,194,041.17

TO KEEP BUGS AWAY.

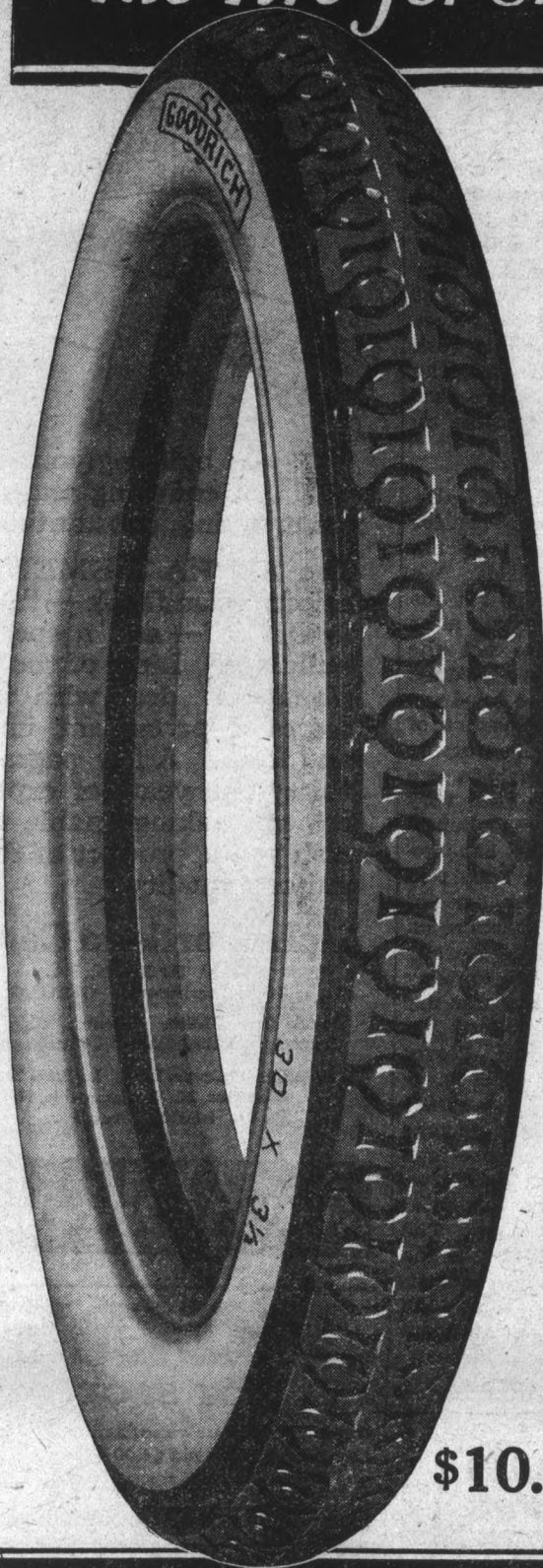
Bend an eighteen-inch square of screen wire in the shape of a square box and invert it over cucumber plants just coming through the ground, covering the edges well with dirt. No bugs can get in to harm the young plants and by the time the cucumbers have outgrown the box they will be strong enough to resist the insects. The frames can then be stored away for another year.

THE STRAWBERRY PATCH.

(Continued from page 493). of this size. For a small family a patch half this size is large enough. With regard to varieties the beginner is likely to try too many. There are many on the market but really only a few that are standard, that is, of commercial importance. It would be to the advantage of the grower of a small patch to have one variety only. In this way plants from the bed can be used year after year without "running out." The Dunlap, Gibson and Pokomoke are really the only commercial berry in southern Michigan. The Dunlap is the universal favorite, a strong grower and big producer of excellent fruit. The ever-bearing varieties are having a great sale but in most cases are a disappointment. Berries can be grown in the fall but weather is likely to influence the crop which is slow in ripening and does not have the flavor of the June berry, and at this time of the year a wealth of other fruits and vegetables are in the garden and on the market. Experiment if you will, with this variety, but don't neglect to put out a few plants of some standard variety and thereby make your garden a real source of profit and enjoyment.

Goodrich "55"

The Tire for Small Cars



The Last Word in Tire Economy

If you drive a Ford, Chevrolet, Willys Overland, or any other car using 30x3½ or 30x3 clincher fabrics, see and feel the Goodrich "55."

New qualities of durability, of strength and of safety added to that half-century old Goodrich quality make the Goodrich "55" a most remarkable value.

Its scientifically designed tread grips like a tractor. It unerringly holds your car to the road. It checks skidding and sliding. It makes driving easier.

And further—

The sidewalls are specially fortified—extra resistant to rut wear. Tread extends around under sidewall to the bead.

The Goodrich "55" is low priced. The quality and construction is on a par with its appearance—you have Goodrich's word for it.

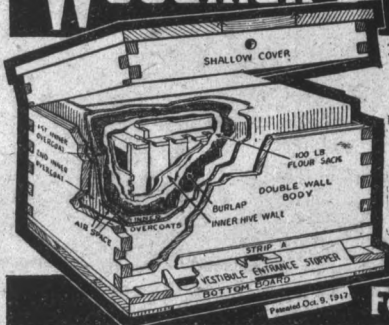
The Goodrich "55" is all on the side of increased tire economy—see and feel it at your nearest Goodrich Dealer's, and you'll quickly understand why.

THE B. F. GOODRICH RUBBER COMPANY
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Woodman's Inner Overcoat Hives



Are the kind you ought to buy. They last a lifetime. Double walls and inner overcoats give close-up protection. Keep bees warm in winter, cool in summer. Practically no winter losses. Larger honey crops assured. Protected bees do not spring dwindle, and are stronger at opening of honey flow. One bee in March is worth one hundred in July. We also sell complete low-priced beginners' outfits, also high grade bee supplies of all kinds. Write for our complete illustrated catalog of the latest bee supplies and equipment. Bees-wax wanted.

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WORLD EVENTS IN PICTURES



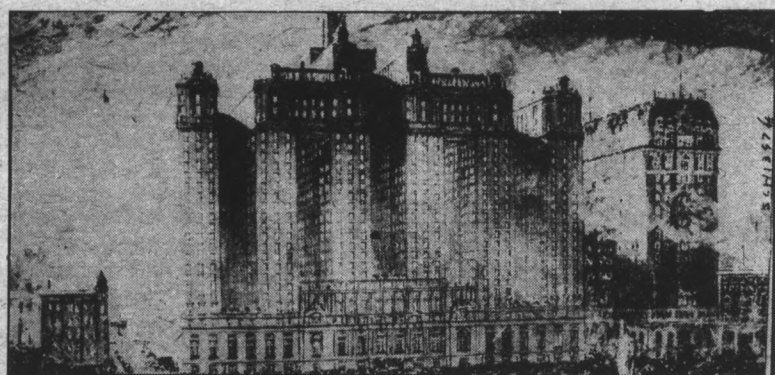
"Miss Liberty's Little Sister;" the gift of the American Chamber of Commerce to Brazil.



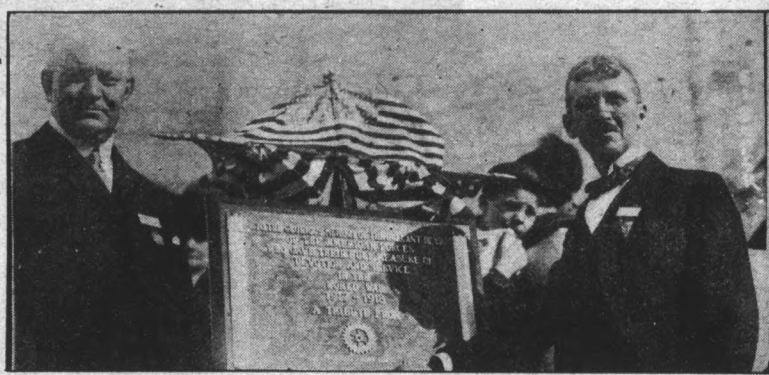
Some of the coal miners at Coal City, Illinois, who have packed up their equipment and started on what may be the greatest labor tie-up in the history of the country.



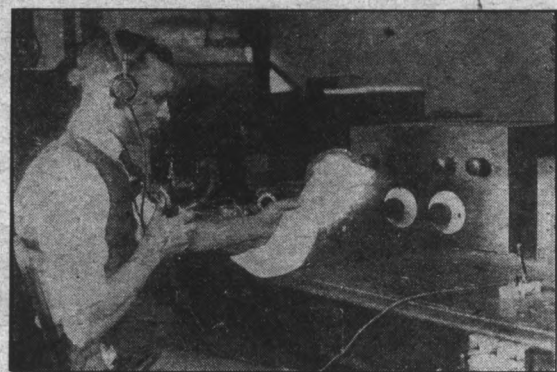
President Harding likes children, as these two little ones can testify.



The proposed Chicago hotel which will be the largest in the world. It will consist of twenty-five stories and will have 3,000 rooms. Its cost will be about \$2,000,000.



Secretary of the Navy Denby and Crawford McCullough, international president of the Rotary Club, unveiled a memorial tablet to the American dead of the World War.



This is Mr. T. C. Gale, who gives to the radio fans all over the country, weather, crop and other government reports from Washington.



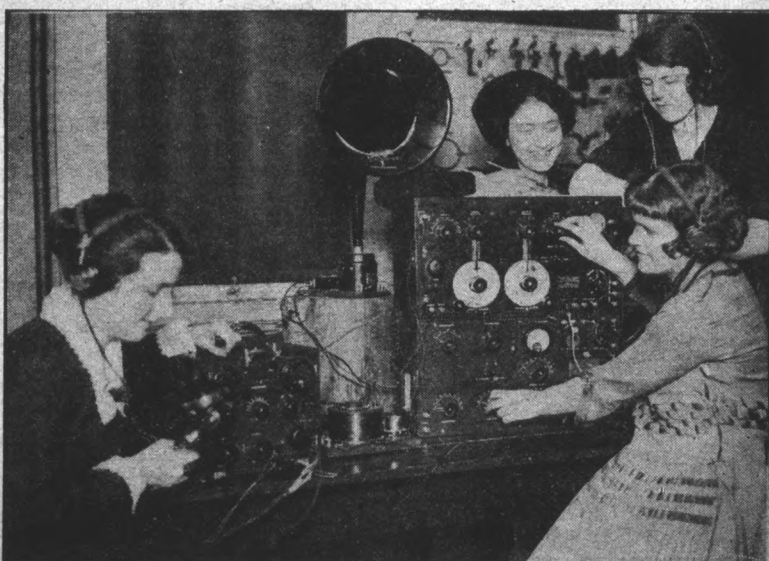
Congresswoman Robertson telephones speech from Washington to Muskogee, Okla., convention.



Josepha and Rosa Blazek, the Siamese twins who recently died in Chicago, and the eleven-year-old son of Rosa.



Dr. Amy Kaukonen, America's only woman mayor, of Fairport, Ohio, showing the results of a successful booze raid, which she directed herself. Dr. Kaukonen is twenty-three years old.



The Radcliffe College girls are very much interested in operating their new radio station. They frequently send messages to their parents in various parts of the country.

THE BLIND MAN'S EYES

By William MacHarg and Edwin Balmer

Copyright by Little Brown & Company

"How is the market?" he inquired. There was something approaching to a panic on the stock-exchange, it appeared. Some movement, arising from causes not yet clear, had dropped the bottom out of a score of important stocks. The broker was only able to relate that about an hour after the opening of the exchange, selling had developed in certain issues and prices were going down in complete lack of support.

"How is Pacific Midlands?"

"It led the decline."

Santoine felt the blood in his temples. "M. and N. Smelters?" he next asked.

"Down seven points."

"S. F. and D.?"

"Eight points off."

Santoine's hand, holding the telephone, shook in its agitation; his head was hot from the blood rushing through it, his body was chilled. An idea so strange, so astounding, so incredible as it first had come to him that his feelings refused it though his reason told him it was the only possible condition which could account for all the facts, now was being made all but certain. He named stock after stock; all were down—seriously depressed or had been supported only by a desperate effort of their chief holders.

"A. L. & M. is down, too," the broker volunteered.

"That is only sympathetic," Santoine replied.

He hung up. His hand, straining to control its agitation, reached for the bell; he rang; a servant came.

"Get me note-paper," he ordered.

The servant went out and returned with paper. The nurse had followed him in; she turned the leaf of the bed-table for Santoine to write. The blind man could write as well as any other by following the position of the lines with the fingers of his left hand. He wrote a short note swiftly now, folded, sealed and addressed it and handed it to the servant.

"Have that delivered by a messenger at once," he directed. "There will be no written answer, I think; only something sent back—a photograph. See that it is brought to me at once."

He heard the servant's footsteps going rapidly away. He was shaking with anger, horror, resentment; he was almost—not quite—sure now of all that had taken place; of why Warden had been murdered, of what vague shape had moved behind and guided all that had happened since. He recalled Eaton's voice as he had heard it first on the train at Seattle; and now he was almost sure—not quite—that he could place that voice, that he knew where he had heard it before.

He lay with clenched hands, shaking with rage; then by effort of his will he put these thoughts away. The nurse reminded him again of his need for food.

"I want nothing now," he said. "Have it ready when I wake up. When the doctor comes, tell him I am going to get up today and dress."

He turned and stretched himself upon his bed; so, finally, he slept.

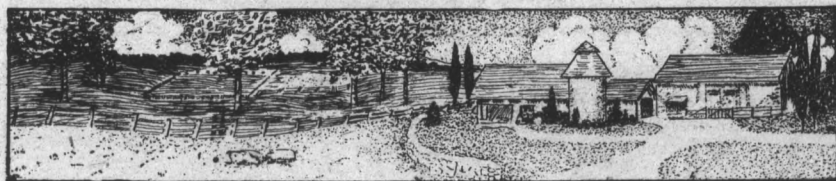
CHAPTER XXII.

The Man Hunt.

THE rolling, ravine-gullied land where Harriet had left Eaton was wooded thickly with oaks, maples and ash; the ground between these trees was clear of undergrowth upon the higher parts of the land, but its lower stretches and the ravines themselves were shrouded with closely

growing bushes rising higher than a man's waist, and, where they grew rankest, higher than a man's head. In summer, when trees and bushes were covered with leaves, this underbrush offered cover where a man could conceal himself perfectly; now, in the early spring before the trees had even budded, that man would be visible for some distance by day and nearly as clearly visible by night if the headlights of the motor-cars chanced to shine into the woods.

Eaton, fully realizing this chance as he left Harriet, had plunged through the bushes to conceal himself in the ravine. The glare from the burning bridge lighted the ravine for only a little way; Eaton had gained the bottom



of the ravine beyond the point where this light would have made him visible and had made the best speed he could along it away from the lights and the voices on the road. This speed was not very great; his stockinged feet sank to their ankles in the soft mud of the ravine; and when, realizing that he was leaving a trace easily followed even by lantern-light, he clambered to the steep side and tried to travel along its slope, he found his progress slower still. In the darkness he crashed sometimes full against the tree-trunks; bushes which he could not see seized and held him, ripping and tearing at his clothes; invisible, fallen saplings tripped him, and he stepped into unseen holes which threw him headlong, so that twice he rolled clear to the bottom of the ravine with fierce, hot pains which nearly deprived him of his senses shooting through his wounded shoulder.

When he had made, as he thought, fully three-quarters of a mile in this way and must be, allowing for his winding of the ravine, at least half a mile from his pursuers, he climbed to the brink of the bank and looked back. He was not, as he had thought, half a mile from the road; he was not a quarter of a mile; he could still see plainly the lights of the three motor-cars upon the road and men hoving in the flare of these lights. He was certain that he had recognized the figure of Avery among these men. Pursuit of him, however, appeared to have been checked for the moment; he heard neither voices nor any movement in the woods. Eaton, panting, threw himself down to recover breath and strength to think.

There was no question in Eaton's mind what his fate would be if he surrendered to, or was captured by, his pursuers. What he had seen in Santoine's study an hour before was so unbelievable, so completely undemonstrable unless he himself could prove his story that he felt that he would receive no credence. Blatchford, who had seen it in the light in the study, was dead; Santoine, who would have seen it if he had had eyes, was blind. Eaton, still almost stunned and yet wildly excited by that sight, felt only, in the mad confusion of his senses, the futility of telling what he had seen unless he were in a position to prove it. Those opposed to him would put

his statement aside with the mere answer that he was lying; the most charitably inclined would think only that what he had been through had driven him insane.

Besides, Eaton was not at all sure that even if he had attempted to tell what he had seen he would be allowed to tell it, or, if he attempted to surrender to the men now pursuing him, he would be allowed to surrender. Donald Avery was clearly in command of those men and was directing the pursuit; in Avery, Eaton had recognized an instinctive enemy from the first; and now, since the polo game, he sensed vaguely in Avery something more than that. What Avery's exact position was in regard to himself Eaton

was not at all sure; but of Avery's active hostility he had received full evidence; and he knew now—though how he knew it was not plain even to himself—that Avery would not allow him to surrender but that, if he tried to give himself up, the men under Avery's orders would shoot him down.

As Eaton watched, the motor, which from its position on the road he knew must be Harriet's, backed out from the others and went away. The other motors immediately afterward were turned and followed it. But Eaton could see that they left behind them a man standing armed near to the bridge, and that other men, also armed, passed through the light as they scrambled across the ravine and gained the road on its opposite side. The motors, too, stopped at intervals and then went on; he understood that they were posting men to watch the road. He traced the motor headlights a long way through the dark; one stopped, the other went on. He remembered vaguely a house near the place where the car he watched had stopped, and understanding that where there was a house there was a telephone, he knew that the alarm must be given still more widely now; men on all sides of him must be turned out to watch the roads. He knew they did turn out like that when the occasion demanded.

These waste places bordering upon the lake to north and south of Chicago, and within easy car-ride of the great city, had been the scene of many such man-hunts. Hobos, gypsies, broken men thrown off by the seething city, wandered through them and camped there; startling crimes took place sometimes in these tiny wildernesses; fugitives from the city police took refuge there and were hunted down by the local police, by armed details of the city police, by soldiers from Fort Sheridan. These fugitives might much better have stayed in the concealment of the human jungle of the city; these rolling, wooded, sandy vacant lands which seemed to offer refuge, in reality betrayed only into certain capture. The local police had learned the method of hunting, they had learned to watch the roads and railways to prevent escape.

Eaton understood, therefore, that his own possibility of escape was very small, even if escape had been his only

object; but Eaton's problem was not one of escape—it was to find those he pursued and make certain that they were captured at the same time he was; and, as he crouched panting on the damp earth, he was thinking only of that.

The man at the bridge—Dibley—had told enough to let Eaton know that those whom Eaton pursued were no longer in the machine he had followed with Harriet. As Eaton had rushed out of Santoine's study after the two that he had fought there, he had seen that one of these men was supporting and helping the other; he had gained on them because of that. Then other men had appeared suddenly, to give their help, and he had no longer been able to gain; but he had been close enough to see that the one they dragged along and helped into the car was that enemy whose presence in the study had so amazed him. Mad exultation had seized Eaton to know that had seriously wounded his adversary. He knew now that the man could not have got out of the car by himself—he was too badly wounded for that; he had been taken out of the car, and the other men who were missing had him in charge. The three men who had gone on in the machine had done so for their own escape, but with the added object of misleading the pursuit; the water they had got at Dibley's had been to wash the blood from the car.

And now, as Eaton recalled and realized all this, he knew where the others had left the machine. Vaguely, during the pursuit, he had sensed that Harriet was swinging their motor-car in a great circle, first to the north, then west, then to the south. Two or three miles back upon the road, before they had made their turn to the south, Eaton had lost for a few moments the track of the car they had been following. He had picked it up again at once and before he could speak of it to Harriet; but now he knew that at that point the car they were following had left the road, turning off onto the turf at the side and coming back onto the road a hundred yards beyond.

This place must be nearly due north of him. The road where he had left Harriet ran north and south; to go north he must parallel this road, but it was dangerous to move too near to it because it was guarded. The sky was covered with clouds hiding the stars; the night in the woods was intensely black except where it was lighted by the fire at the bridge. To the opposite side, a faint gray glow against the clouds, which could not be the dawn but must be the reflection of the electric lights along the public pike which followed the shore of the lake, gave Eaton inspiration. If he kept this grayness of the clouds always upon his right, he would be going north.

The wound in Eaton's shoulder still welled blood each time he moved; he tore strips from the front of his shirt, knotted them together and bound his useless left arm tightly to his side. He felt in the darkness to be sure that there was a fresh clip of cartridges in his automatic pistol; then he started forward.

For the first time now he comprehended the almost impossibility of traveling in the woods on a dark night. To try to walk swiftly was to be checked after only two or three steps by sharp collision with some tree trunk which he could not see before he felt it, or brought to a full stop by clumps of tangled, thorny bushes which en-

meshed him, or to be tripped or thrown by some inequality of the ground. When he went round any of these obstacles he lost his sense of direction and wasted minutes before he could find again the dim light against the eastern sky which gave him the compass-points.

As he struggled forward, impatient at these delays, he came several times upon narrow, unguarded roads and crossed them; at other times the little wilderness which protected him changed suddenly to a well-kept lawn where some great house with its garages and out-buildings loomed ahead, and afraid to cross these open places, he was obliged to retrace his steps and find a way round. The distance from the bridge to the place where the three men he was following had got out of their motor, he had thought to be about two miles; but when he had been traveling more than an hour, he had not yet reached it. Then, suddenly he came upon the road for which he was looking; somewhere to the east along it was the place he sought. He crouched as near to the road as he dared and where he could look up and down it. This being a main road, was guarded. A motor-car with armed men in it passed him, and presently repassed, evidently patrolling the road; its lights showed him a man with a gun standing at the first bend of the road to the east. Eaton drew further back and moved parallel to the road but far enough away from it to be hidden. A quarter of a mile further he found a second man. The motor-car, evidently, was patrolling only to this point; another car was on duty beyond this. As Eaton halted, this second car approached, and was halted, backed and turned.

Its headlights, as it turned, swept through the woods and revealed Eaton. The man standing in the road cried out an alarm and fired at Eaton point blank; he fired a second and third time. Eaton fled madly back into the shadow; as he did so, he heard the men crying to one another and leaping from the car and following him. He found low ground less thickly wooded, and plunged along it. It was not difficult to avoid the men in the blackness of the woods; he made a wide circuit and came back again to the road further on. He could still hear for a time the sounds of the hunt on the turf. Apparently he had not yet reached the right spot; he retreated to the woods, went further along and came back to the road, lying flat upon his face again and waiting till some other car in passing should give him light to see.

Eaton, weak and dizzy from his wounds and confused by darkness and his struggle through the woods, had no exact idea how long it could—no exact idea how long it had taken him to get to this place; but he knew that it could have been hardly less than two hours since he had left Harriet. The men he was following, therefore, had that much start of him, and this made him wild with impatience but did not discourage him. His own wounds, Eaton understood, made his escape practically impossible, because any one who saw him would at once challenge and detain him; and the other man was still more seriously wounded. It was not his escape that Eaton feared; it was concealment of him. The man had been taken from the car because his condition was so serious that there was no hope of hiding it; Eaton thought he must be dead. He expected to find the body concealed under dead leaves, hurriedly hidden.

The night had cleared a little; to the north, Eaton could see stars. Suddenly the road and the leafless bushes at its sides flashed out in the bright light of a motor-car passing. Eaton strained forward. He had found the place; there was no doubt a car had turned off the road some time before

and stopped there. The passing of many cars had so tracked the road that none of the men in the motors seemed to have noticed anything of significance there; but Eaton saw plainly in the soft ground at the edge of the woods the footmarks of two men walking one behind the other. When the car had passed, he crept forward in the dark and fingered the distinct heel and toe marks in the soft soil. For a little distance he could follow them by feeling; then as they led him into the edge of the woods the ground grew harder and he could no longer follow them in that way.

It was plain to him what had occurred; two men had got out of the car here and lifted out and carried away a third. He knelt where he could feel the last footsteps he could detect and looked around. The gray of the electric lights to the east seemed growing, spreading; against this lightness in the sky he could see plainly the branches of the trees; he recognized then that the grayness was the coming of the dawn. It would be only a few minutes before he could see plainly enough to follow the tracks. He drew aside into the deeper cover of some bushes to wait.

The wound in his shoulder no longer bled, but the pain of it twinged him through and through; his head throbbed with the hurt there; his feet were raw and bleeding where sharp roots and branches had cut through his socks and torn the flesh; his skin was hot and dry with fever, and his head

Echoes

By Teresa G. Morris

If with a cheerful word of mine
A life were made the brighter,
Or with some little song of mine
A heart would seem the lighter—

God, help me to speak that little word,
And take my bit of singing,
And drop it in some lonely vale,
With echoes loudly ringing.

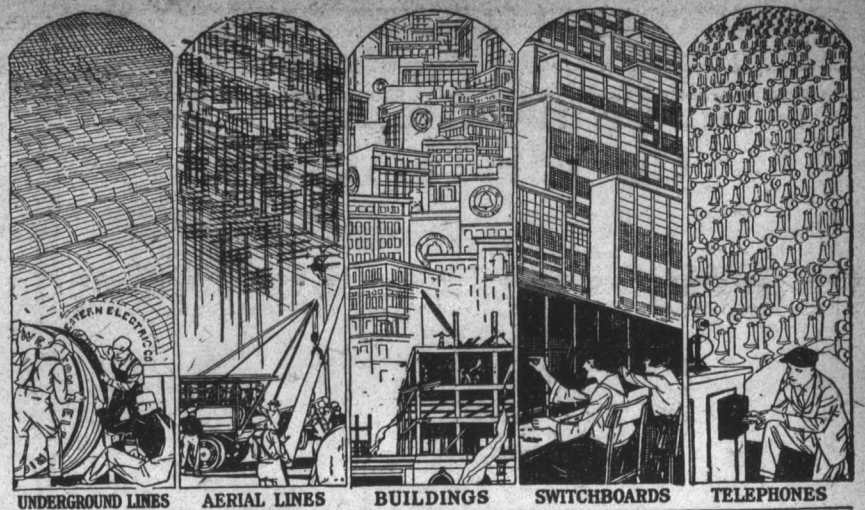
swam. He followed impatiently the slow whitening of the east; as soon as he could make out the ground in front of him, he crept forward again to the tracks.

There was not yet light enough to see any distance, but Eaton, accustomed to the darkness and bending close to the ground, could discern the footmarks even on the harder soil. They led away from the road into the woods. On the rotted leaves and twigs was a dark stain; a few steps beyond there was another. The stains had sunk into the damp ground but were plainer on the leaves; Eaton picking up a leaf and fingering it, knew that they were blood. So the man was not dead when he had been lifted from the car. But he had been hurt desperately, was unable to help himself, was probably dying; if there had been any hope for him, his companions would not be carrying him in this way from any chance of surgical attention.

Eaton followed, as the tracks led through the woods. The men had gone very slowly, carrying this heavy weight; they had been traveling, as he himself had traveled, in the dark, afraid to show a light and avoiding chance of being seen by any one on the roads. They had been as uncertain of their road as he had been of his, but the general trend of their travel was toward the east, and this evidently was the direction in which they wished to go. They had stopped frequently to rest and had laid their burden down. Then suddenly he came to a place where plainly a longer halt had been made.

The ground was trampled around this spot; when the tracks went on they were changed in character. The two men were still carrying the third—a heavy man whose weight strained

(Continued on page 501).



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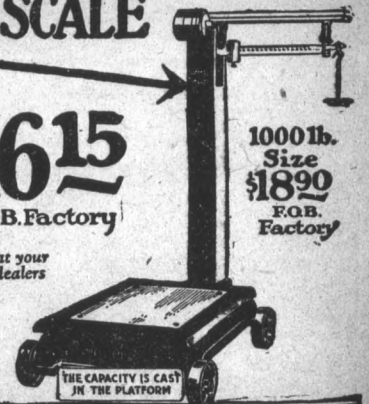
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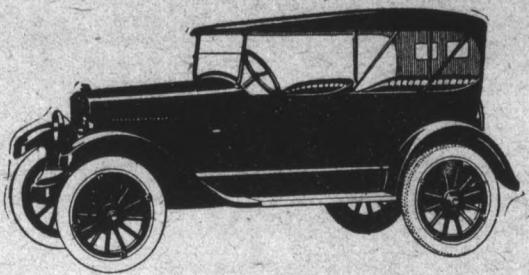
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"Discipline and the Derelict"

Our Weekly Sermon—By N. A. McCune

A FEW weeks ago I heard a speaker from the University of Illinois, Thomas A. Clarke, Dean of men. For twenty odd years Dean Clarge has made it his business to be the counsellor, friend, confidant of the undergraduates of this great university which now numbers something like ten thousand students. It was a deep impression that the dean made. We laughed till we shook and there were a few tears interspersed. He knows the mind and habits of the American college male. Men come to him with every imaginable inquiry, from what kind of a shirt to wear to



a fancy ball, to the best kind of a girl to marry, or to confess to him that they have been on a drunk. He knows them all, firsthand. Last year he wrote a book entitled, "The High School Boy and His Problems." Have you

a boy in high school? It will be worth your while getting and reading this book. Let the boy read it, too.

This year another book has come from his hand, "Discipline and the Derelict," (Macmillan). It ought to be in the hands of every student in every college. It also would have a salutary effect on father and mother, should they read it, for they would learn some of the temptations that befall youth while in college. In the chapter on "Youngest Sons and Only Children," there occur these words: "I was talking to the father of a freshman who had failed in his college course completely. The boy was intellectually bright, but he had not studied, he had not gone to class, and he had fallen into bad ways and wasted his time generally. 'What is the matter with the boy?' the father asked. 'Why has he failed?' I did not answer for a moment, and then I met his inquiry by asking another question. 'How many children have you?' 'He is our only child,' was the reply, 'and we have done everything for him.' 'You have answered your own question,' I said. 'He's your only child, and you've done everything for him.' There was nothing the matter with the boy; it was the father."

ORDINARILY people do not appreciate what temptations to graft there are in college and university life. But students in any large institution handle thousands of dollars annually. Sometimes this is money paid for provisions for some boarding club, or it may be the funds for buying the commencement invitations for a class of five hundred to a thousand. The author says, "A local merchant told me recently that the class officer who was in charge of the business of letting the contract for a class hat or cap came to him to ask for a bid on the proposition. When the boy had received the merchant's bid he said, 'You have offered to furnish these caps for one dollar and twenty cents each. I will give you the contract if you will make it one dollar and thirty cents and turn the extra ten cents over to me for my trouble.' 'I shall be very glad to do that,' said the merchant, 'if your class will so vote, or if you will have it announced to the class beforehand; but otherwise I cannot.' The young fellow went away to consider the proposition, but never came back, and another firm received the order."

There is a chapter in "The Cribber." As some of my readers may not know what "cribbing" is, I will explain that

it is getting some one to help you in your examinations, or carrying cards or notes to class and looking at them when the professor's back is turned. There is a good deal of this in American colleges and in some it is especially bad. Dean Clark says this has given him more anxious thought than all the other derelictions of students put together. He feels that if a student cheats now, he will be more likely to adopt doubtful principles later. "The cribber is not quite so safe a man to trust, his principles of integrity are not so solidly grounded, his standards of honesty are somewhat more flexible; he does not ring quite true. The cribber, if he is successful, is likely to be a grafter." "All this is a sad preparation for good citizenship. If a young man can be depended upon to do the honest thing only when it is easy, only when all other men are known to be honest, only when it is to his personal and financial advantage to do so, he is little fitted for responsibility and service."

TO many people the emphasis put on athletics in college and university life is out of all proportion to its value. But the experienced author of this book does not think so. He says that the value is not alone the hard physical training which a man undergoes, but the effect of this on his will-power. He learns to endure discipline, to play hard, to play with the team, and to accept the decision of the umpire without getting mad. He must refrain from eating certain things during the training season, he must get out and practice whether he wants to or not. He learns to endure hardship. And, if the athletics are played right, he must play absolutely fair. He finds that it is better to play a square game and lose, than to play a crooked game and win. He also is drilled in self-reliance. When it is his turn to bat and there are two men on bases, he will bat his best to knock a fielder, so that those men can come in. When it is his bat or when it falls to him to tackle, he cannot farm it out to some one else. He must act and act instantly and act with all his might. Thus athletics have a direct moral value when they are played in the right way.

All this has a bearing on your boy and mine. We may not have gone to college, but our boys will go, in all likelihood. The leadership of the nation lies to a very great extent in the hands of college men. The leadership in the great question of a better rural life will largely rest in the hands of college men. Some say that it already depends on the college graduate to a very large degree. Whatever creates a higher type of college man and woman will have an almost immediate effect on the nation at large.

IS the college student religious. We will let Dean Clark answer again. A while ago the university student paper printed a pessimistic article on the state of religion among the university students, with the result that Dean Clark made a canvass of all churches near the campus, "and I found," he says, "that on the particular Sunday concerned more than thirty-five hundred undergraduates were in church attendance, which means that probably fifty per cent of all the students in town were that day attending at least one church service. It seemed to me that the showing was not a bad one, especially as this is a state university where there is no effort to compel church attendance."

"I have done only one sensible thing in my life; to cultivate the ground."—Voltaire.

The Blind Man's Eyes

By William MacHarg and Edwin Balmer

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(Continued from page 499).

them and made their feet sink in deeply where the ground was soft. But now they were not careful how they carried him, but went forward merely as though bearing a dead weight. Now, too, no more stains appeared on the brown leaves where they had passed; their burden no longer bled. Eaton, realizing what this meant, felt neither exultation nor surprise. He had known that the man they carried, though evidently alive when taken from the car, was dying. But now he watched the tracks more closely even than before, looking for them to show him where the men had got rid of their burden.

It had grown easier to follow the tracks with the increase of the light, but the danger that he would be seen had also grown greater. He was obliged to keep to the hollows; twice, when he ventured onto the higher ground, he saw motor-cars passing at a distance, but near enough so that those in them could have seen him if they had been looking his way. Once he saw at the edge of the woods a little group of armed men. His dizziness and weakness from the loss of blood was increasing; he became confused at times and lost the tracks. He went forward slowly then, examining each clump of bushes, each heap of dead leaves, to see whether the men had hidden in them that of which he was in search; but always when he found the tracks again their character showed him that the men were still carrying their burden. The tracks seemed fresher now; in spite of his weakness he was advancing much faster than the others had been able to do in the darkness and heavily laden. As near as he could tell, the men had passed just before dawn. Suddenly he came upon the pike which ran parallel to the line of the lake, some hundred yards back from the shore.

He shrank back, throwing himself upon his face in the bushes; the men evidently had crossed this pike. Full day had come, and as Eaton peered out and up and down the road, he saw no one; this road appeared unguarded. Eaton, assured no one was in sight, leaped up and crossed the road. As he reached its further side, a boy carrying a fishpole appeared suddenly from behind some bushes. He stared at Eaton; then, terrified by Eaton's appearance, he dropped the fishpole and fled screaming up the road. Eaton stared dazedly after him for a fraction of an instant, then plunged into the cover. He found the tracks again, and followed them dizzily.

But the boy had given the alarm. Eaton heard the whirring of motors on the road and men shouting to one another; then he heard them beating through the bushes. The noise was at some distance; evidently the boy in his fright and confusion had not directed the men to the exact spot where Eaton had entered the woods or they in their excitement had failed to understand him. But the sounds were drawing nearer. Eaton, exhausted and dizzy, followed feverishly the footmarks on the ground. It could not be far now—the men could not have carried their burden much further than this. They must have hidden it somewhere near here. He would find it near by—must find it before these others found him. But now he could see men moving among the tree-trunks. He threw himself down among some bushes, burrowing into the dead leaves. The men passed him, one so close that Eaton

could have thrown a twig and hit him. Eaton could not understand why the man did not see him, but he did not; the man stopped an instant studying the footmarks imprinted in the earth; evidently they had no significance for him, for he went on.

When the searchers had passed out of sight, Eaton sprang up and followed the tracks again. They were distinct here, plainly printed, and he followed easily. He could hear men all about him, out of sight but calling to one another in the woods. All at once he recoiled, throwing himself down again upon the ground. The clump of bushes hiding him ended abruptly only a few yards away; through their bare twigs, but far below him, the sunlight twinkled, mockingly, at him from the surface of water. It was the lake!

Eaton crept forward to the edge of the steep bluff, following the tracks. He peered over the edge. The tracks did not stop at the edge of the bluff; they went on down it. The steep sandy precipice was scarred where the men, still bearing their burden, had slipped and scrambled down it. The marks crossed the shingle sixty feet below; they were deeply printed in the wet sand down to the water's very edge. There they stopped.

Eaton had not expected this. He stared, worn out and with his senses in confusion, and overcome by his physical weakness. The sunlit water only seemed to mock and laugh at him—blue, rippling under the breeze and bearing no trail. It was quite plain what had occurred; the wet sand below was trampled by the feet of three or four men and cut by a boat's bow. They had taken the body away with them in the boat. To sink it somewhere weighted with heavy stones in the deep water? Or had it been carried away on that small, swift vessel Eaton had seen from Santoine's lawn? In either case, Eaton's search was hopeless now.

But it could not be so; it must not be so. Eaton's eyes searched feverishly the shore and the lake. But there was nothing in sight upon either. He crept back from the edge of the bluff, hiding beside a fallen log banked with dead leaves. What was it he had said to Harriet? "I will come back to you—as you have never known me before!" He rehearsed the words in mockery. How would he return to her now? As he moved, a fierce, hot pain from the clotted wound in his shoulder shot him through and through with agony and the silence and darkness of unconsciousness overwhelmed him.

(Continued next week).

SUNSHINE HOLLOW.

Uncle Philo Fisher says he doesn't sing in the choir because the congregation likes his voice and want him close as possible to help them carry tunes. When the choir leader bawled out the congregation for not singing a piece, Uncle Philo piped out that nobody could ever tell what the choir was singing just from listening to them.

Owen Coyne tried to get out of the draft because he had dandruff. Now he hisses all the pictures of German soldiers on the movie screen to prove that he really wasn't too scared to fight. Owen is thinking of buying a new fall suit but can't borrow any money. He's got to have his pants re-seated as he can't get new ones until he gets some bills receipted.



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Here is one of the biggest values offered to readers of this paper. Will send this splendid pair of serge pants and with it this fine negligee shirt FREE—without asking for one cent with the order. PANTS are made of extra quality blue serge, well tailored in every way. Extra heavy pocketing, all seams serged, no raw edges, bar tacking, strong belt straps. Waist 30 to 44, inside seam length 30 to 36 inches. Be sure to give inseam length. SHIRT we give free is made of striped fine material, cut full and well made. COLORS—Blue, Lavender, Green striped. SIZES—14½ to 17.

GET A SHIRT FREE Just send your name and address, giving sizes wanted. We'll send both pants and shirt by parcel post prepaid. You pay mailman when delivered. Your money back if not pleased. Here is positively a big \$7.00 value for only \$3.98. Send NOW as the number of free shirts is limited. Order by No. 126 C40

HOWARD LUX CO., DEPT. 126 CLEVELAND, O.

FARMS & FARM LANDS

40 A. Wisconsin Farm For Sale

2½ miles county seat. ¼ mi. school, on trunk highway and R. F. D. Over half cleared, all fenced and cross fenced. Good set of buildings; soil, silt loam, \$2800, half cash, buildings worth nearly half. Land new, rich. H. L. BROWNELL, 4751 Trumbull, Detroit, Mich.

Western Michigan Farms Improved and unimproved; ranches, grazing areas, colonization tracts. Noted fruit region, general farming, dairying, etc. Exceptional marketing, social and transportation facilities. Illustrated booklets free. Western Michigan Development Bureau, Dept. 9, Grand Rapids, Mich.

112-Acre Farm; Horses 10 Cattle, Poultry, Tools

Vehicles, vegetables, feed, etc. included; good assured income from 200 bbl. apple orchard and dairy herd; estimated 100,000 ft. timber; handy several towns; 60 acres loam tillage; 12-cow pasture; apples, plums; 8-room house, 50-ft. barn, poultry house. Aged owner closing out, \$2300 gets all, less than half cash, easy terms. Details page 31 New Illus. Catalog 1920 Bargains. FREE. STROUT FARM AGENCY, 814 BC Ford Bldg., Detroit, Mich.

"Exchange for Smaller Farm"

260 acres, good land, within one mile of Evart, ¼ mile to High School and County Normal. 140 acres cleared, part not cleared is excellent pasture, well watered, with trout stream, barn 40x76, cattle shed 18x21, 75,000 feet saw timber, plenty of fuel. Price of farm \$13,000, incumbrance \$5500. Will exchange equity for smaller farm. Everything ready to go to work. Fenced with new woven wire. Write W. F. UMPHREY, Evart, Michigan

\$1300 Gets Farm; 1000 Fruit Trees

32 Acres overlooking popular resort lake; loamy tillage, wire-fenced pasture; 1000 apple, cherry, plum, pear and peach trees; 5-room house, barn, poultry house. To settle affairs \$2300, only \$1300 cash. Catalog free. M. J. Persing, Frankfort, Mich.

80 Acre Farm, all improved, with house,

posts, tool sheds, garage, grainary and all other buildings. Level black loam land with clay bottom. 30 rods to store, school, gravel road. 8 miles to city of Ten Thousand people. \$5500. Will take \$500 down, balance 10 years. STAFFELD BROTHERS, 15 Merrill Bldg., Saginaw, Michigan.

60 Acre Farm on the beautiful Chippewa

River, clearest water in Michigan, house and big barn 35 x 60, grainary and other buildings. Dark clay loam soil, fruit trees. Well drained. Your's for \$4000, with \$500 or more down, balance your own terms. STAFFELD BROTHERS, 15 Merrill Building, Saginaw, Michigan.

WANTED To hear from owner of land for sale.

O. K. HAWLEY, Baldwin, Wisconsin.

Fruit Farm For sale cheap 12½ acres within

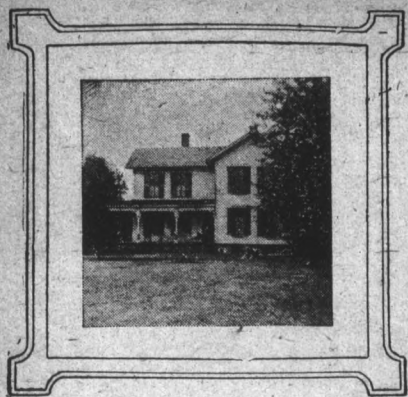
the city limits. 1500 Fruit Trees, 900 hills Black Caps, 640 hills Currants, 120 hills G. Berries. H. J. Heard, Crosswell, Mich.

FARM FOR SALE. 80 Acres of best, clay loam,

1½ miles from Emmett, Mich., on Victory Highway. An ideal truck farm with concrete road to Flint. Port Huron, Marysville and Detroit. Will sell cheap. ROBT. HYDE, Emmett, Mich.

Free Booklet "Florida Homes" describing farms, groves, hotels, stores of all kinds for sale in Florida. Florida Investment Co., Tampa, Florida.

Mention The Michigan Farmer When Writing Advertisers



DON'T PUNISH BY SENDING TO BED.

SOME parents have the habit of punishing their children for wrong doing by requiring them to go to bed during the daytime. There is danger in such punishment. Children who lie in bed unoccupied are likely to develop bad habits. A child should not lie in bed at any time while he is awake unless he is kept busy in some wholesome way. When he is sent to bed for punishment the chances are that he will not be occupied and the consequences are apt to be harmful.

Some parents encourage their children to remain in bed and rest after they awaken in the morning. It would be better for them to arise at once. If they really need more rest than they can get from a night's sleep, they should form the habit of taking a nap at a regular time when they are tired and sleepy.

Parents who discover that their children have already acquired bed habits from lying in bed unoccupied, should explain in a frank but kind way the dangers arising therefrom; such parents should follow this explanation with redoubled efforts to keep the attention of their little ones filled constantly with wholesome thoughts and occupations.

Evil habits, are probably acquired more largely through the practice of lying in bed awake or being sent to bed for punishment than from any other one cause.—N. K. A.

HOME REMEDIES.

A TEASPOONFUL or less of paregoric in hot water will nearly always ease an acute attack of neuralgia, especially when it is due to a nervous shock of some sort. The remedy is one that should not be often repeated, but kept on the emergency shelf for use when hot applications, ginger or other remedies are not available.—Mrs. L. T.

Always have a glass medicine dropper and a bottle of rose water in the medicine chest and in your traveling bag, then when you get a foreign substance in the eye, you will be spared much pain and discomfort by using the following simple and harmless method. Put into the dropper six drops of rosewater. Pull down the lower lid, float the liquid on the surface of the injured eye. After the rosewater has been in the eye a few seconds, use the empty medicine dropper to suck out the liquid, and the foreign substance will come with it.—Mrs. J. J. O'C.

CLEANING TIPS.

Zinc should be cleaned with soap-suds and salt, then polished with kerosene.

The most effective method of cleaning an iron sink is to rub it well with a cloth wet with kerosene oil.

Rub the nickel trimmings on stoves with kerosene oil and whiting and then polish with a dry cloth.

When furniture does not actually need polishing it is a good idea to wipe off thoroughly with a cloth dipped in linseed oil.

Nutmegs should be grated blossom end first.



The greatest truths are the simplest; and so are the greatest men—Hare.

Woman's Interests

The Breakfast Room

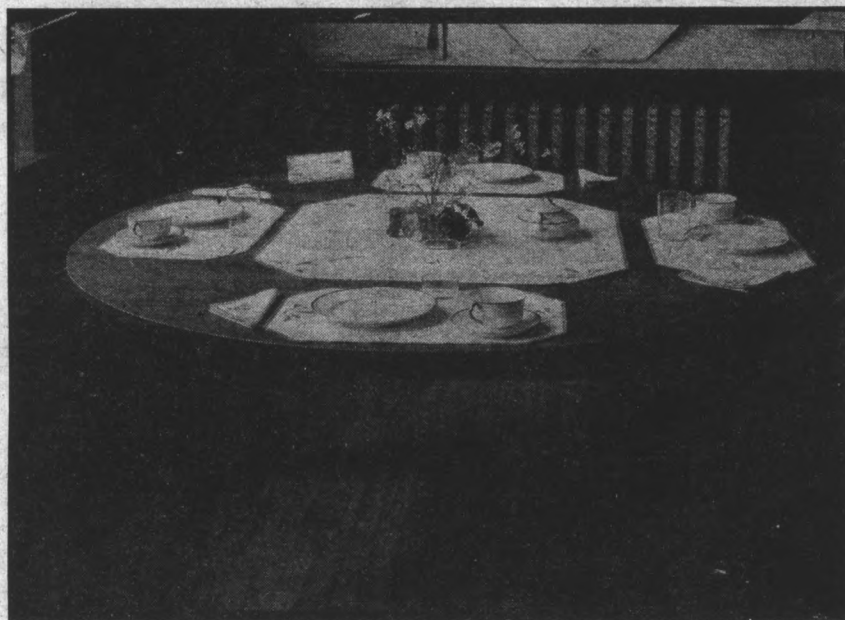
By Irene Gleason

THE breakfast room is fast coming into popularity. The atmosphere of such a room is very informal, and when located in some sunny corner of the house it makes a splendid place for the morning meal and family "tete-a-tetes."

No doubt many of our housewives have discarded tables, chairs and baby buggies, that, with the help of a little sandpaper and a few coats of paint, set off by a dainty Decalcomania trans-

fer would make a breakfast suite pleasing from both the artistic and economical standpoint. These transfers are similar to the ones you used to put on your hands and in your school books, but of much better material, and can be washed and varnished without affecting the color or finish.

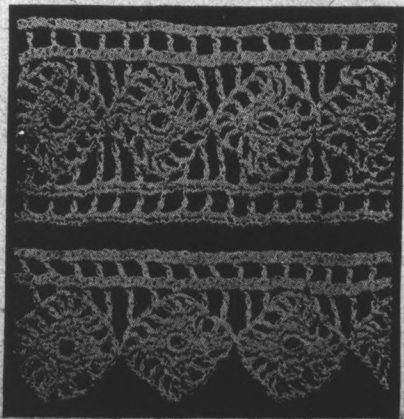
Any small table set upon the wheels of an old dilapidated baby buggy would make an excellent serving cart, and mostly any medium-sized table may be



Square Point Edge and Insertions

Explanations.—Ch. means chain stitch (pull loop through the one on hook); sc, single crochet (with one loop on hook, pull loop through both the designated stitch of preceding row and the loop on hook); dc, double crochet (pull loop through stitch, then thread over hook and pull through both loops on hook); tr, treble crochet (thread over hook, put hook through stitch below and pull loop through the stitch, thread over hook and through two loops on hook, thread over hook and through the remaining two loops); dtr, long or double treble crochet (thread twice over hook, put hook through designated stitch and pull loop through, which gives four loops on hook, thread over hook and through two loops, thread over the hook and through remaining two loops).

This edging and insertion are worked with No. 60 crochet cotton and a No. 6 steel crochet hook.



The Edging.

Commence with 6 ch, join. Work 12 dc in the ring.

First Round.—Dc 2 in 2 dc, 3 tr in the third dc; * 2 dc in the next 2 dc, 3 tr in the next dc, repeat from * twice, join.

Second Round.—Ch 5, 1 tr in the next stitch but one; * 1 ch, miss 1; 1 tr in the next, 1 ch, 1 tr in the next ch, 1 ch; 1 tr, 1 ch; 1 tr in the middle one of the 3 tr of center, 1 ch and 1 tr in the next ch. Repeat from * three times, join and finish off. Join each square by the corners. In working the last corner the thread should be pulled through the corner of previous square.

The Heading.

From the last corner work 7 ch, miss 1 space, 1 tr in the next; * 2 ch, 1 dc in the top corner; 2 ch, miss 1 space; 1 tr in the next 2 ch, miss 1 space; 1 long tr in the next 2 ch, 1 long tr in the first space of the next square; 2 ch, miss 1 space, 1 tr in the next. Repeat from * to end of squares.

Second Row.—Dc 3 in each space.

Third Row.—Tr 1, * 2 ch; miss 2 ch, 1 tr in the next. Repeat from *.

Fourth Row.—Work 3 dc in each space between the trebles.

For the insertion work in exactly the same way, but add heading on both sides of the squares.

This pattern was taken from our Needlecraft Journal No. 84, which can be had for 15 cents from the Michigan Farmer, Detroit, Mich.



used for the breakfast table, although the drop-leaf ones seem to be preferable. Real old-fashioned chairs that belonged to grandmother when mother was small can be made attractive if sandpapered well before painting. The increasingly popular rag rug will be just the thing for the floor.

Now what could be prettier than a blue and white breakfast room—the walls blue, the woodwork and furniture ivory? Blue forget-me-nots transferred on the ivory furniture and a blue rug softened with a little cream color would harmonize beautifully. Inexpensive curtains may be made from unbleached muslin by hemstitching or hemming the muslin with a fancy stitch in blue, and would match the room perfectly.

BOOKS FOR SEVENTH GRADERS.

THE following books for seventh graders are on the list approved by the Detroit Public Library and the English department of Detroit schools: Adams, Carpentry for Beginners; Altscheler, Young Trailers.

Barbour, For the Honor of the School.

Cervantes, Don Quixote; Cooper, Last of the Mohicans; Crump, Boys' Book of Firemen.

Dickens, Oliver Twist; Dubois, Ellen Arden, Royalist.

French, Story of Bolf and The Viking's Bow.

Garland, Long Trail; Grenfell, Adrift on an Icepack.

Hill, On the Trail of Washington.

Irving, Tales from the Alhambra.

Kipling, Captains Courageous.

Lamb, Tales from Shakespeare; Lodge and Roosevelt, Hero Tales from American History.

Marryatt, Children of the New Forest; Marshall, This Country of Ours; Masfield, Jim Davis; Meadowcroft, Boy's Life of Edison; Meigs, Master Simon's Garden; Morgan, Boy Electrician; Moses, Louisa May Alcott.

Nash, Polly's Secret.

Parkman, Heroes of Today, Heroines of Service; Pier, Boys of St. Timothy, or, for the Honor of the School; Pyle, Otto of the Silver Hand.

Rice, Boys' Book of Sports; Roberts, Watches of the Camp Fire.

Sabin, Pluck on the Long Trail; Schultz, Lone Bull's Mistake; Seaman, Jaqueline of the Carrier Pigeons; Shaw, Castle Blair; Stevenson, Treasure Island; Sweetzer, Ten American Girls from History.

Verne, Twenty Thousand Leagues Under the Sea.

HOME-MADE DYES.

I would like to have directions for coloring cotton so that it will launder well and keep its color. The dyes you buy will not stand the wash. I would like recipes for coloring dark brown, dark red, and dark blue. I have made some dresses of cotton sacks for my little girls and wish to color them, a good dark color for every day wear, something that will stand the washings.—Mrs. W. H. E.

I have never had any experience dying with anything except "store" dyes. I have found these as satisfactory as any color, if a high-grade dye is used. Perhaps some reader has had experience with other dyes.—Editor.

Rural Health and Sanitation

Conducted by Dr. C. H. Lerrigo

THE thing that makes life worth while is the ability to do work that improves the world and makes happier the people who live in it. I will not go so far as to say that this is impossible with poor health, but I am very confident in the assertion that it is a very much easier task when health abounds and the wine of life courses through one's veins unimpeded by the drag of disease.

Health is seldom appreciated by the person who has it. It is accepted as a matter of course. But let him realize that it is slipping away from him, and how quickly does his indifference change to the deepest concern! He would sacrifice all of his fortune and would even abandon his precious business if only he might regain that possession of which he was once so profligate.

Fortunately for us, the body has wonderful powers of repair, and grand recoveries are often possible, even to those who have gone far on the way to physical wreckage. But the maintenance of health, and the restoration of health are seldom matters that depend greatly on medicines, nor can they be attained by some magic treatment that makes itself felt overnight. Health depends upon the observance of nature's laws, and a restoration to health depends usually upon a slow and persistent winning back to natural functions. Even when natural functions can no longer be restored there are often methods of compensation or palliation that will add much to the ease and facility of living, but they always require time and attention.

The great way to do is to keep health while it remains in our possession; it is not hard to do for those who do not lust after wealth and power but are willing to live the same lives of good citizens and rejoice in their strength and health. But it demands a little thought, a little care and a little knowledge, for of all the ways that lead to the destruction of health the way of ignorance is the most common, the most deplorable, and, in this enlightened day, the most inexcusable.

Let us take a little time to think and read about health. Let us learn how to keep it. If it needs repair let us be very rational in our methods and let us not begrudge some time and trouble for such a wonderful possession. We may not live to be centenarians but so long as the years that we do live are useful, what matter?

Questions Answered

BROKEN LEG MENDS SLOWLY.

My father had his leg broken last December; both bones just at the shoe top. His foot was turned clear around with the heel in front. There has always been quite a lump there, and his leg seems to tire and get sore when he does much walking. How long should it take it to get strong and will there always be danger of rheumatism? It seems to bother in damp weather.—G. G. S.

Such a break as you describe was indeed a serious fracture and your father is fortunate to get even a fairly good result. Since the injury is less than a year ago there is a good probability that he will make much more gain yet. The pain is not rheumatism but comes because the circulation is not yet adjusted.

If he desires to make sure whether he has the best possible results he can go to a specialist and have an X-Ray

picture taken to show what condition of bony union has taken place.

CAN FRECKLES BE PREVENTED?

What can I do to prevent freckles? I freckle badly enough at any time, but in summer it is simply fierce. What are freckles anyway. I think my blood is always good and don't see why I have them.—Amy.

Freckles are collections of pigment usually appearing on exposed surfaces of the skin. They may be the size of a pinhead up to bean size. The medical name is lentigo. Since they are the result of exposure to the light and heat of the sun, you won't have them if you stay indoors, but the remedy is rather radical. You can get some help by applying cold cream to the face before going out, but there is no satisfactory treatment for freckles. Certain quack preparations cause the epidermis to blister and peel off, but the new skin is soon as badly pigmented as the old. It doesn't pay.

AT WHAT TIME IN LIFE SHOULD THE FIRST BABY COME.

I have heard that a woman could give birth to a child after the age of thirty years. From your professional point of view, would it be advisable for a woman of thirty-six years to marry, and if such should be her fortune, try to raise a family—safety first consideration?—Inquirer.

I suppose you mean that women past thirty cannot be bearing children in safety to herself. This idea used to prevail widely. Nowadays, since the old maid age has been pushed back out of sight and women marry whenever they please, we doctors have a great many opportunities to prove the idea fallacious. It is true that younger women may have a little the advantage in the matter, but the difference is not great. I attended a woman of forty-four with her first baby. She got along splendidly. You will readily see the moral. Get a competent physician.

FOR "GENTLE READER."

THERE may be some readers—and editors—who think the so-called "Woman's Page" is a recent development of newspaper policy. Not so. Our "greats" in the early days of America had their "Ladies' Department," they were "ladies" then, if you please. Equal suffrage hadn't been heard of then.

And they were supposed then, just as now, to be mostly concerned with the one thought, matrimony. Queer, that in all the women's departments whose policy is dictated by men, it is assumed that women are only interested in love and marriage. But that's another story.

Here's what the Connecticut Herald of Tuesday morning, July 28, 1818, handed out to its "lady" readers.

"The longer a woman stays single, the more apprehensive will she be of entering into the state of wedlock. At seventeen or eighteen a girl will plunge into it without fear or wit; at twenty, she will begin to think; at twenty-four, she will weigh and consider; at twenty-eight, she will be afraid; at thirty, she will turn about and go down the hill she has ascended, and sometimes rejoice and sometimes repent, that she has not gained the summit."

By which we see that the flapper of 1818 was just as irresponsible and foolhardy as her descendant of 1922, while age, a few added years, brought wisdom.



Keeps Your Buildings From Slipping Away

What your barn cost to build is one cost. What it keeps right on costing to keep it built, is quite another cost.

The first cost can't be prevented.

The second cost can be kept so low it's practically no cost at all.

PAINT will do it. Do it by keeping it from repairs. Most folks think paint is "just for looks," but you know they are wrong. You know that the biggest thing paint is for is to keep buildings from the need of being rebuilt. It's like a big rope around them, keeping them from slipping away. It anchors them. Poor Paint is better than no paint. Good paint costs more, but costs less. Costs less, because it does so much more than it costs. Our High Standard Paint is that kind. If you don't believe it send for color card and circular about our Standard Barn Paint.

The Lowe Brothers Co.
499 East Third St., Dayton, Ohio
Factories: Dayton, Toronto

Boston New York Jersey City Chicago Atlanta
Memphis Minneapolis Kansas City Toronto

Lowe Brothers

Paints - Varnishes



Old Reliable Coffee

Always the Same
Always Good

Get this Fine Range NOW

Take Till Oct. 1st to Pay



Stove Prices Hit Bottom
Buy direct from manufacturers. Get our split price offer—small first payment—balance Oct. 1st. No interest. Most beautiful ranges ever made. Porcelain blue enamel—designs that make your heart swell with pride.

Write Today—Don't Wait
Satisfied customers everywhere. Money back guarantee. Special Sale. Write today. See savings you can make on Kalamazoo Furnaces, Paint, Fencing, Shoes and other farm and home needs. Money-saving event of years. Don't miss it. Get our catalog. Your credit is good.

Ask for Catalog No. 113

Kalamazoo Stove Co., Mfrs., Kalamazoo, Mich.

A Kalamazoo
Trade Mark Registered **Direct to You**

Tobacco—Natural Leaf
three years old. Extra fine smoking. 5 lbs. \$1. High grade chewing 6 lbs. \$1.50. Pay for tobacco and postage when received. Farmers' Exchange, 116A Hawesville, Ky.

Fruit Packages and Quart Berry Baskets
Highest quality. Attractive prices. Made up of white wood. This is our specialty. Write for our prices. THE H. J. ALEXANDER CO., Minerva, Ohio

Mention The Michigan Farmer When Writing Advertisers

Michigan Farmer Pattern Service



No. 3344—Dress for work or porch wear. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size will require six yards of 36-inch material. The skirt with plaits extended measures about 1 1/4 yards. Price 12c.

3510—A Comfortable Apron. Cut in four sizes: Small 32-34; medium 36-38; large 40-42; extra large 44-46 inches bust measure. A medium size will require 6 3/4 yards of 27-inch material. Price 12c.

Please Mention The Michigan Farmer when writing to advertisers

POULTRY

Chicks That Satisfy



Our 11th year.
S. C. Brown Leghorns, English type White Leghorns.
GREAT LAYERS.
Large White Eggs.

100% safe arrival guaranteed.
Get our prices at once.
We can save you money.
Large instructive catalogue free.

WOLVERINE HATCHERY,
R. 2, Zeeland, Mich.

Get the BIG PROFITS, with
BABYCHICKS
that are PURE BRED

Place with us AT ONCE, your order for Baby Chicks. Our supply is limited and we refuse to sell anything but our OWN STOCK, so we advise to not delay. Buy from Michigan's largest practical Single Comb White Leghorn Egg, Pullet and Broiler Farm. We supply every egg that goes into our incubators from our own strain of BRED TO LAY UTILITY S. C. White Leghorns and have a few thousand surplus chicks to spare at certain periods of the season. We GUARANTEE each customer ABSOLUTE SATISFACTION. Write NOW for interesting PRICES, before placing your order elsewhere. Drop us a Post Card TODAY. Chicks delivered at your door by Parcel Post Free. 100% ALIVE

SIMON HARKEMA & SON,
Holland, Michigan

CHICKS

Twelve most popular varieties. Hatched from flocks which have been bred for quality and culled for heavy egg production. 100 percent live delivery guaranteed by parcel post prepaid.

Mankel Ideal Hatchery,
Box B. Upper Sandusky, Ohio

Baby Chicks EGGS FOR HATCHING

Thoroughbred varieties of Tom Barron English White Leghorns, S. C. R. I. Reds, Barred Rocks, Big, Strong and Healthy Chicks from tested heavy producing stock, correct in plumage and color as well as being EXCELLENT LAYERS. Our prices will interest you. Write for them. We GUARANTEE safe arrival of our Strong and Vigorous Baby Chicks. FIRST COME FIRST SERVED, so we advise to place with us your order as soon as possible. Write AT ONCE for our interesting catalog. It is FREE.
BRUMMERS' POULTRY FARM,
Box 28, Holland, Mich.

**CHICKS**

Anconas and White Leghorns. High grade stock only. Bargain prices. Send for free circular and price list
Vriesland Poultry Farm,
Vriesland, Mich.

200,000 Baby Chicks

FOR 1922
Shepard's Anconas, English Type White Leghorns and Brown Leghorns and Barred Rocks. Why pay two prices when you can buy direct? Our chicks are from strong, vigorous flocks of fine quality and excellent layers. Chicks are shipped prepaid with 100% live arrival guaranteed. Order now, catalogue free.
KNOLL HATCHERY,
R. 12, Holland, Mich.

**JUST-RITE LOOK!**

Baby Chicks 1-2 MILLION chicks for 1922. POSTAGE PAID. 95% live arrival guaranteed. MONTH'S FEED FREE with each order. A hatch EVERY week all year. 40 breeds chicks, 4 breeds ducklings, Select and Exhibition grades. Catalogue free, stamps appreciated.
Nabob Hatcheries, Dept. 15, Gambier, Ohio

CHICKS and EGGS

of S. C. White Leghorn Barron Strain and Shepard's Anconas. Pure bred stock, the kind that grows fast and makes the best layers. Safe delivery guaranteed. Parcel Post Prepaid. Catalogue free. Custom hatching in season \$3 per 100 eggs, chicks 14 cents. Byron Center Poultry Farm, G.O. Keizer, Byron Center, Mich.

**BARGAINS Baby Chicks Hatching Eggs!**

From "Pedigree" sired "culled" flocks of English and American SCW Leghorns. Flocks rated best in Mich. Bar'd Rocks. Free catalogue
OTTAWA FARMS, Grand Rapids, Michigan
Special Prices 21 Rose St.

CHICKS

We have bred our flocks for heavy egg production for many years. We now have the finest flocks in this vicinity. Buy chicks from the largest chick producing center in the world. Leading varieties—Leghorns and Anconas. Send for catalogue.
JAMESTOWN HATCHERY, Jamestown, Mich.

CHICKS, Have shipped thousands each season since 1904. Let us send our prepaid prices. Freeport Hatchery, Box 12, Freeport, Mich.

Barred Rocks, winners laying contests M. A. O. Mountain Grove, Mo. 4 pullets averaged 245. Chicks, eggs, okls. Write for catalogue. G. CABALL, Hudsonville, Mich.

Barred Plymouth Rock eggs for hatching \$2.00 per 13. Full blood stock. J. A. BARNUM, Union City, Mich.

Our Boys' and Girls' Department**State Canning Champion**
Is Leader of Live Eaton County Canning Club.

By R. W. Tenny

A FEW years ago, through the efforts of Mrs. Fred Curtis, so well known in grange circles, a girls' canning club was organized. One of the girls in this club two years later became the leader of the West Carmel Good Luck Canning Club. The club performed some very creditable work, even though some of the girls had a rather difficult time persuading their mothers to let them join. "It will

be too much bother and I am afraid you will be breaking too many cans," was one mother's answer.

One afternoon an opportunity presented itself, however, for as this mother was leaving for an afternoon visit at the neighbors, she told her daughter she might be the mistress of the house for the afternoon. And indeed she was, for in a very few minutes the water was heating, the cans and covers were being tested, as well as the rubbers, and the berries cleaned. The work was all carried out according to instructions and in the same manner as the leader had done in her demonstration at the first meeting.

When mother returned the kitchen was all slicked up with everything in place and supper was well under way. In addition, six beautiful cans of berries were lined up across the kitchen table. The mother was so delighted that she at once solicited her daughter's help in doing the summer canning, and, of course, she could join the club.

Soon the girls' canning club was the center of much discussion, and in a few weeks they were asked to give a demonstration at the church. This offered an opportunity to our experienced club member and leader, for she divided her club into two sides, each side to have a demonstration class. A prize was arranged for the winning team. Miss Robb, assistant state club leader, was asked to judge the demonstration and give the girls some help for their work in future contests.

That fall the girls made an exhibit which was a very creditable one, but there was not a great deal of competition as the number of canning clubs was small. The leader, who was doing her third year's work as a club member, received third state honors, and thus the year ended.

The work was not dropped for very long by the leader, however, for this was to be her fourth year as club member and second as club leader. She was determined to make her last year as a club member the most suc-

cessful yet, and to have an even better club. The club had left such a good impression the year before that five canning clubs were organized in the county.

Now that we may no longer hold our readers in suspense, we will tell you that the leader of this club was Miss Agnes Martin, of Charlotte. Four years previous Agnes began her work as a club member, and now, during her last



The Eaton County Canners and the Results of their Work.

two years of club work, in addition to the regular club project, she acted as leader of this very successful club.

The next important event to be undertaken by the girls was the exhibit at the county fair. This the girls did in a very creditable manner, arranging one of the most beautiful and attractive exhibits at the fair. This year, with some real competition, the girls perhaps had more of an inspiration, and it carried them through to county honors in the club exhibit.

The exhibits were scored by the state leaders, and after the reports and stories were carefully graded the time soon arrived for the county achievement day program. As Agnes was the only fourth-year club member in the county, the honor of Mistress of Ceremonies was placed upon her shoulders and at the same time the gold achievement pin was fastened to her waist. You can imagine the pride and applause that was in store for our honored member which burst forth with a merry ring. The end of honors for our fourth-year member was not yet, however, for soon it was Miss Van Heulen's turn on the program. Perhaps the most welcome words to those Eaton county club enthusiasts was that Agnes had been chosen as state champion in the fourth-year canning club project and would receive as partial award a free trip, at the expense of the Wilson Packing Company, to the International Live Stock Exposition at Chicago.

Our Letter Box

THIS letter box will be where the boys and girls can express their views, tell of themselves and things about the farm, or ask advice. The most interesting letters each week will appear here. Address your letters to me.—Uncle Frank.

Dear Uncle Frank:

I have been interested for some time in the contests given in the Farmer. Think the contests are a good thing for the boys and girls. I never have been much interested in reading the Michigan Farmer, but realize I must if I am going to be a Farmerette.

I am twelve years old and am in the seventh grade at school.—Lucy Blum, Onsted, Michigan.

Am glad to know you believe the Michigan Farmer will help you to become a Farmerette. I hope you will write more next time.

Dear Uncle Frank:

When I read the letters from other boys and girls, I thought I would write one, too, and send in all the words I found misspelled. I think that Al Acres and Hy are very interesting and there is lots for big folks to learn in the Michigan Farmer as well as boys and girls. I am fourteen years old and in the eighth grade and am preparing for the spring exams.—Stuart McKee, Marlette, Michigan.

I am glad you wrote and I hope you will again. This department is for the use of all boys and girls.

Dear Uncle Frank:

I am sending the list, which I found, of incorrectly spelled words found on the first ten pages of the Michigan Farmer for April 1. I have never tried in any of the contests that you have given, but "there has to be a first time," so this is mine.

I thought I would write you a little letter, too, Uncle Frank. I am fifteen years old, and go to the Owosso High School, where I am in the tenth grade. We live on a farm, north of Henderson. I like the farm very well. There is always something to interest one. I study agriculture at high school and for my summer project I am going to raise tomatoes. I have the seed planted now in the house, and some of the plants are up.

Now I will close, sending my list of words. I did not find very many (those

people are pretty good spellers, all but Hy Syckle), and am wondering if I will win the prize. Well, if I don't, I wish to congratulate all who do.—Ferne Bishop, Henderson, Michigan.

You nearly won a prize but you lost out in not reading the advertisements also. Your list was very neat and carefully made. I hope you will be a frequent contributor to the Letter Box as well as a contestant for prizes.

Dear Uncle Frank:

I just found your announcement in the Michigan Farmer last week for the first time. I wrote the essay but could not get it in in time. I should like to win one of the prizes, but do not think that I will.

I am only twelve years old and probably the older ones will win. I am in the seventh grade. My cousin won one of the prizes two weeks ago. Her name is Ruth Ackerson.—Margery Husted, Holly, Michigan.

I try to make allowance for age when picking the winners in these contests. So just keep trying.

Dear Uncle Frank:

I have just got up from reading the Michigan Farmer. I try to find time enough to read the boys' and girls' page anyway. When I start to read it I don't like to stop till I get done. I like it because I can get a lot of good out of it. I think the Michigan Farmer can not be beat, the way it is now, and if we children keep on, with the help of you, Uncle Frank, it will be at its best. I like the contests on our page in the Michigan Farmer the best of any I have ever seen. I wrote a letter on how I like the farm and I didn't succeed, but I am one of those that don't quit so easily, so I thought I'd write a letter and try my luck.—Mary Chew, East Jordan, Michigan.

I want to commend you on your spirit of cooperation. You are right, it is you girls and boys who are going to make this department a live wire.

The Money Making Stunts

HERE are the five best letters in "My Most Profitable Money-making Stunt" contest. These letters won the dollar prizes which were offered in our issue of April 8. I received many other interesting letters in this contest which I plan to use in some of our future issues. I hope that our other boy and girl friends will get suggestions from these "money-making" letters, which will prove profitable to them.—Uncle Frank.

By Donna Myers, Haslett, Michigan,
Age 12 Years.

One of our neighbors had a litter of pigs that had one very small and unthrifty pig in it. Its head was the biggest part of the pig. The owner of it saw that it was going to die if he kept it that way any longer, so he wanted to know if I wanted it. I brought it home and fed it for several days out of a fruit can cover, it was so little. We had just finished reading "Black Beauty" so we named her Ginger after one of Black Beauty's mates, for she was so spunky and determined to do just as she wanted to.

After a while Ginger had ten little pigs. She was large type Poland-China and Hampshire and was bred to O. I. C. so her litter grew so fast that when they were ten weeks old we sold them for \$100 and when Ginger was bred again we sold her for \$65.

And the same summer I raised four lambs by hand when their mother's would not own them. The first we called Dick, then came Mary Legs, then Tom and Jack, that were twins. Then when fall came we sold them for \$53.

By Helen C. Coffman, Coldwater,
Michigan, Age 14 Years.

I think that the most profitable money-making stunt is joining the Pig Club. Last June I joined the Pig Club and chose a pig. She cost me \$13, which I thought was a great deal to pay for such a small pig. During the summer I paid about \$15 for her feed.

My father raises registered Spotted Poland-China pigs, and because of the Pig Club I became interested in them. One day I picked up a Spotted Poland-China journal and looking through the Pig Club department I noticed a place where they would give a prize of \$3.00 for the best article written on Pig Clubs, so I sat down and wrote the story of our Pig Club. A few days after that I looked through the journal again and found a place where S. R. Youkey & Son would give \$1.00 for the answer to a puzzle. I answered the puzzle and in about two weeks I received a dollar. The next I received \$3.00 from the Spotted Poland-China journal for the article I had written. Then I sent the article to the Michigan Farmer and received \$2.62 for it.

I sold my pig at my father's hog sale for \$50.50. Altogether I made a profit of \$22.50 on my pig, besides the \$6.62 I received for my article and answer to the puzzle, which I would not have written had it not been for my belonging to the Pig Club. I am sure I do not know of another way I could have made so much money.

By Raymond W. Reid, Mt. Pleasant,
Michigan.

When I was nine years old my father gave me a piece of land, about two-thirds of an acre in size. I was very proud of it and as it was to be planted to either beans or beets, I chose beets because I thought I could do most of the work myself. As I was going to school I had to have my father fit the ground and plant my beets.

By time school was out my little patch of beets were ready to thin, this was about the middle of May. It didn't take long to thin them and after that they grew so fast that I really believe if you watched close enough you could have seen them grow.

I hoed them twice that summer and about the first of October I thought it would be time to pull them, and so as

I was going to school and did not want to stay out I had to hire it done.

After paying for my fertilizer, hired help and all other expenses, I received \$125 and felt quite satisfied. The next year I had the same amount of land into beets and received just \$5.00 less than the preceding year, so I think beet growing is quite a profitable business.

By Gustav Redmann, White Cloud,
Michigan, Age 10 Years.

My most profitable money-making stunt is trapping muskrats. There is a pond a little ways from our house.

Read Again and Win

JUDGING from the letters I am getting, the Read and Win contest are the ones which are proving most popular with you boys and girls. So, here is another one for this week. The five boys or girls who find the correct answers to the questions below and get up their papers the neatest, will get one dollar each. Please make your answers concise and give the number of the page on which you found them. It is not necessary to repeat the question, but number your answer to correspond with it. This contest closes April 27. Address your letters to Uncle Frank, Michigan Farmer, Detroit, Michigan.

1. What is the first feed recommended for baby chicks?
2. What fertilizer ingredient is necessary to produce succulency and tenderness?
3. What needs two hosts to complete its life cycle?
4. What is an effective way to clean an iron sink?
5. What is the Supreme Court in live stock matters?
6. What is a substitute for rain to settle the ground?
7. What is proof that Europe can pay her debts?
8. How many plants are there per acre when they are 2x4 feet apart?
9. How much has Michigan spent in barberry eradication?
10. What is a good cure for a balky horse?

In the winter I set my traps in the pond. I look at my traps every morning. I take the muskrats out of the traps, take them home, skin them and stretch them till they get dried out.

Sometimes men come around and buy up furs. I sell my furs to them and to firms. Most firms pay around \$1.50 for muskrats in the fall, and around \$2.50 in the spring. They are better in the spring than they are in the fall. Some firms list them at \$5.00 in the fall and \$6.00 in the spring.

The money I get from my furs in the fall I buy Christmas things with. I buy me more traps, too. I am going to put some money in the bank and draw interest on it.

I make money by fishing, trapping and hunting. I like the farm because there is so many ways to make money.

By Oliver Angell, Lansing, Michigan,
Age 13 Years.

I will now tell you of the best and surest way to make money that I have found.

Three years ago I decided that I

(Continued on page 601).

Pure Bred Tom Barron English White Leghorn

Start RIGHT with
Pure Bred Stock

All Flocks Tested and
Culled by Experts

The Best that
Money Can Buy

BABY CHICKS

The Greatest Layers Known
Imported Direct by us
Free Range Birds that
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The S. C. Anconas have proved to be the most valuable fowl for the farmer today. We have the Bred-To-Lay Sheppard Strain, and are offering these chicks at extremely low prices, let us have your order and prove to you the wonderful laying ability of our birds.



For those who prefer S. C. White Leghorns we have some of the very best stock obtainable. Get some of our chicks and you will be on the road to success. We pay all Parcel Post charges and guarantee chicks to reach you in first-class condition.

Send for free catalog and prices today, as our supply of these high-grade chicks is limited.

M. D. Wyngarden, R. 4, Zeeland, Michigan

Barred Rocks-Proven Layers And Winners

Official Records 212 to 257 eggs. In Dec. Nat'l. Laying Contest 4 pullets averaged 24.5. I have won 4 special prizes so far at this contest. Some record. Here's your chance to get the best money can buy. Chicks and Eggs. I also manage The Forest-Grove Hatchery, this is where the best English White Leghorns in America are bred. We hatch from only the best flocks which are severely culled and use only pedigreed males. So why take chances when you can buy stock of this kind in Rocks and Leghorns. Special Bargain prices in May and June. Write at once for catalogues.

G. CABALL, Box M, Hudsonville, Mich.

PULLETS

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10,000 pullets for 1922

Prices for May delivery

Selected stock \$1.00 each and 75c each from our other yards.

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English and American Strains

Barred Rocks Anconas

S. C. Brown Leghorns

HERE we are, just a few hours from your door, with baby chicks from the best breeds. Our growth from one small incubator to 22,000 egg capacity has been steady and denotes honest dealing. Get our prices on chicks from our healthy, free range, heavy laying stock. Send today for handsome catalog in colors.

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Ship to Boston, which demands best quality and pays highest prices in the world. Express costs little more than local points. Ask your agent. Prompt returns. Write for weekly quotations. References Nat. Shawmut Bank, Dun or Bradstreet McArdle Live Poultry & Egg Co., Boston, 16, Mass.

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Tom Barron English White Leghorns and Anconas Extra selected stock. Summer prices. Catalog free. Rural Poultry Farm & Hatchery, R.1, Zeeland, Mich.

Extra good chicks. Plan now on more eggs next winter. Order chicks from pure bred record layers. Tom Barron White Leghorns \$12.00; Brown Leghorns \$12.00; Anconas \$13.00. Postpaid anywhere. Catalog free. Queen Hatchery, Zeeland, Mich.

Top Quality Chicks Spanish, Minorcas, Rocks, W. Leghorns mated with M. A. C. cockerels. TYRONE POULTRY FARM, Fenton, Mich.

Snowy White Rocks Fisher Strain, dandy layers. Eggs \$1.50; \$3.75-50; \$7.00-100. All prepaid. Mrs. Earl Dehnhoff, Vanburen, Ohio.

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SINGLE COMB WHITE LEGHORNS

baby chicks. All eggs used by us for hatching produced on our own farm. Write for circular. RALPH S. TOTTEN, Pittsford, Mich.

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baby chicks. Willard Webster, R. 2, Bath, Mich.

POULTRY

DAY OLD CHICKS
HOMESTEAD FARMS



Michigan people: Here is something in your own state to interest you. Let us send you a description of our Pure Bred Practical Poultry.

Here is an egg producing poultry stock such as the farmer poultry-woman wants. It is proving out in actual eggs in the hands of the farmer poultry people who buy it.

White, Brown, and Buff Leghorns; Anconas; Black Minoras; Barred Buff and White Rocks; Rhode Island Reds; Wyandottes; Orpingtons.

This stock is culled and bred on the plan of the state Agricultural College, and all the Hens in the Breeding Colonies are practical egg-producing Hens.

If you will send for a description and egg record of this Pure Bred Practical Poultry, you will find stock that it will pay you to buy. Buy Day Old Chicks this year and see the results you will get.

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Postage Paid. Live arrival guaranteed. Write TODAY for valuable FREE Booklet. "How to Raise 90% of Your Chicks" also interesting Catalogue, describing convincing. WHY you should purchase our "Better Hatched" Chicks. Co-Operative Breeding and Hatching Co., Box H, TIO, OHIO.

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For years we have been building up utility heavy laying strains of exhibition quality so our customers will be assured of success. 12 leading breeds. 12c each and up. Safe arrival guaranteed by P. P. Prepaid. Catalogue free. Ovie's Poultry Farm & Hatchery, 32 State St., Marion, Indiana

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Add 50c for 1/2 and 1/4 hundreds. 100% live delivery guaranteed. Mailed post paid. All Buckeye hatched in forced draft ventilation. Strong, fluffy, lively chicks, WASHTENAW HATCHERY, Ann Arbor, Mich.

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R. I. Reds	15.00	8.00	4.25
Barred Rocks	15.00	8.00	4.25
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Barren White Leghorns—heavy laying strain—Barred Rocks, R. I. Reds. Highest quality, pure bred, free range stock at prices usually asked for ordinary chicks. Catalogue.

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White Leghorns and Anconas exclusively. From the best flocks in Michigan. Flocks culled by M. A. C. experts and headed by pedigreed males from the best laying strain in the country. Prices reasonable. Catalogue free.

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Low prices for pure-bred stock. Single Comb English Whites, Brown Leghorns and Anconas and Barred Rocks. Catalogue free. Free Delivery. Fairview Hatchery, Zeeland, Mich. R. 2, John Bos & Son.

Original Dr. Heasley S. C. Buff Leghorn Egg Basket Strain. Officially Certified Egg bred, Winners at Chicago, Cincinnati, etc. Cockerels breeding hens and chicks, at bargain prices. Also bred to lay English Strain S. C. White Leghorn chicks for 1922. Discount on Early Orders. Hillside Hatchery Farm, R. 3, Holland, Mich. Successor to Henry DePre

Eight Weeks S. C. W. Leghorn Pullets for delivery May 15, \$1.15 each. Sol-Hot Brooder Stoves \$14.00 delivered. Rufus Morse, Belding, Mich.

RHODE ISLAND WHITES
win over all breeds at the egg laying contest. 30 eggs \$5; 60 \$8; 100 \$15 order from this ad. Some chicks. H. H. JUMP, R. 5, Jackson, Mich.

ROSE COMB Rhode Island Reds. Hatching eggs a specialty. Mrs. Albert Harwood, R. 4, Charlevoix, Mich.

BABY CHICKS BARGAIN
I will sell a limited number June delivery pure bred Eng. W. Leg. and Sheppard Strain Ancona chicks at only 9c each early and 9c later June. 100% live arrival guaranteed, post paid. Order from ad. Pullets for sale in season. Thomas Beyer, R. 4, Zeeland, Michigan.

BABY CHICKS 1922 delivery now ready. White Leghorns, White Rocks, Buff Orpington, Buff Rocks, Barred Rocks, R. I. Reds, Black Minoras, S. C. Anconas. Guaranteed pure bred and live arrival. Postage paid. DURAND HATCHERY, Fenton, Mich.

STRICTS POULTRY FARM
Hudsonville, Mich., R. 4, Box M. S. C. English White Leghorns. Official records from 9 hens of 208 to 244. Chicks and Eggs. Write for catalogue.

FEEDING THE YOUNG CHICKS.

WHEN the chicks are taken from the incubator, they are put around the hard coal brooder stove. The floor is covered with sand and fine gravel; also some crushed burned bone. They begin almost at once to eat of both. Then when they are forty-eight hours old, they may have sour milk, in partly covered dishes so they cannot drown in it.

If sour milk is available, I do not give water until the chicks are three weeks old. My experience is that chicks around artificial heat will drink so much water they become sick. If water is given it should not be cold and should be removed after a few moments of drinking. After three weeks they may have it all the time.

Chicks should not be fed until past forty-eight hours old. Then the first feed is hard-boiled eggs with powdered charcoal and pulverized burned bone well mixed with it, one egg to about one hundred chicks. I only feed two or three times the first day of feeding as there is so much danger of over-feeding when so young.

The second day use egg, charcoal, burned bone and rolled oats may be added or a small amount of chick feed. Feed four or five times. The third day I still use egg, charcoal, burned bone with other feed mixed in. We have used cracked corn and rolled oats or steel cut oats mainly for two years though I really think a good commercial chick feed rushes them along better.

When corn is the main feed I bake corn bread until the chicks are three or four weeks old, giving only one feed a day of raw corn. Never feed corn bread hot or soured. Never feed the chicks any kind of musty feed. When the little fellows are a week old they may have a little wheat bran every day for a week. Then larger feeds of it until three weeks old. Now it is well to give them a hopper with equal parts of bran and middlings. And if any toe pecking takes place, give meat scraps in a feeder. If green sods are available, dig and feed a little every day. The chicks like them and working in the soil prevents leg weakness. I also give them green onions, cabbage, and often a large raw potato. I like to keep granulated charcoal in a feeder from the start. They eat much of it and it is a guard against disease. Their sand floor must be cleaned and new sand and gravel added to keep them supplied with grit. I throw their feed to them until they are six weeks old.

After that both mash and grains are put into a self-feeder from which they may help themselves. A barrel of water with a spigot placed under a tree makes an ideal waterer that does not need to be filled often. With a shallow trough under the spigot, a slight turn keeps the water dripping just enough to keep a good supply before the chicks at all times. After the chicks get old enough to take all their feed from the self-feeders they are but little additional work.

Indiana. MRS. V. GRAFFIS.

WISCONSIN WILL CONTROL HATCHERIES.

THE poultry department of the University of Wisconsin and the state department of marketing have established regulations and requirements for hatching flocks and for hatcheries and the concerns that meet the requirements and live up to all regulations will be placed on the accredited list. Chicks purchased from hatcheries on the list bear the mark of the department of markets, which gives assurance that they are standard bred and from reasonably good egg-producing strains.

White Diarrhea

Remarkable Experience of Mrs. C.M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 507, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine, and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember, there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

WALKER REMEDY CO., Dept. 507, Waterloo, Iowa.

Send me the [] 50c regular size (or [] \$1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfied in every way. I am enclosing 50c (or \$1.00). (P. O. money order, check or currency acceptable.)

Name

Town

State R. F. D.

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

COCKEREL AUCTION SALE.

THE value of auction sales of pedigreed cockerels in developing poultry breeding for egg production through the introduction of improved stock on a county-wide basis was indicated by a successful sale held at Petaluma, California, under the auspices of the Sonoma County Farm Bureau cooperating through the county agricultural agent with the State College of Agriculture and the United States Department of Agriculture. Forty-two choice single-comb White Leghorn cockerels were sold, largely to local buyers, by breeders of the coast states. The average price was \$46.66 and the top price was \$162.50, demonstrating that scientific breeding and the keeping of records to determine reliable stock are a paying proposition.

When the county agent suggested the idea of holding the sale, it was adopted, but it did not meet with approval from all sources. However, he felt confident that the poultrymen of the county would be sufficiently interested in better breeding stock to warrant holding such a sale. He also received encouragement from a number of poultry breeders in the Pacific Coast states. Preliminary arrangements for the sale were accompanied by an intensive publicity campaign.

The plans for the conduct of this pioneer sale were very simple. The rules and regulations, which may be of interest to others contemplating such sales, provided that no birds be admitted except single-comb White Leghorn cockerels of the 1921 spring hatch and from parents (dam and sire's dam) with trap-nest records of 250 eggs or more per year; that consignments from a single breeder be limited to five birds and the total to sixty; that the breeder's personal statement, sworn to before a notary, regarding the breeding of the birds accompany each consignment; that each cockerel be sold to the highest bidder for cash; that not more than twenty-five per cent of the sale price be deducted for sale expenses. A catalogue, supplying sale information and a list of the birds consigned by each breeder with the egg record of the dam and the sire's dam of each bird, was supplied as a convenient help in examination of the birds, which were exhibited before the sale.

Over two hundred interested poultrymen attended the sale and about half of them were active bidders. Although the consignments came from various parts of California and the Pacific Coast, only five cockerels went to buyers outside of Sonoma county, a result very pleasing to the promoters. This sale demonstrated convincingly that in order for poultry breeders to be successful they must not only trap-nest but must enter their pullets in egg-laying contests. The breeders who had been most successful in this work received the higher prices for their consignments at the sale. In consequence, trap-nesting and record-keeping will undoubtedly be more generally followed by purchasers of these cockerels.

HATCHING DUCKLINGS.

I have some ducks and I would like to know if the eggs would hatch in an incubator as successfully as under hens? We have White Leghorn hens and they don't set.—J. W. S.

Duck eggs can be hatched very successfully with incubators. The temperature should be 102 degrees. Follow the instructions for duck eggs given by the manufacturer of your make of incubator.

The price of feed does not always disclose its real value in making eggs. A mixture of blue ointment and half lard or tallow makes a good louse killer.



BABY CHICKS

Best Laying Breeds on Earth

Barron English White Leghorns, also American White Leghorns, S. C. Brown Leghorns and Anconas, 25,000 large strong super-hatched chicks every week from Hogan tested flocks culled out Semi-annually by our Poultry Experts.

17 Years of Careful Breeding for Egg Production

You get the advantage of 17 years of careful breeding which brought our flocks up to their present High Standard. Our wonderful winter layers are headed by large, vigorous and Pedigree sired males of exceptional quality.

Thousands of Satisfied Customers Make Big Money

Mr. F. L. Hess, Chicago, Ill., writes: "I averaged 112 eggs a day from 140 of your pullets and sold \$133.60 worth of eggs in February."

Mrs. Wittenbach, Amherst, Ohio, writes: "I sold \$357.30 of eggs in two months from 200 pullets of your stock."

Raise Good Stock and Reap a Golden Harvest

Intelligent chick buyers of today do not take chances with ordinary stock. Our enormous output enables us to sell these money makers at a price that positively cannot be equaled.

We Ship Thousands of Chicks Each Year

Every shipment is sent by PARCELS POST PREPAID, and we guarantee 100% live delivery. Send for our illustrated catalogue and prices today, it's Free.

Wygarden Hatchery, Box M, Zeeland, Mich.

Royal
Chix



Guaranteed to Satisfy

\$12.00 per 100, Postpaid

For shipment May 15th, 22nd, 29th

English Type White Leghorns

Brown Leghorns

Get your order in at once for these dates as they will soon be sold at this price. Our chicks are from heavy laying selected breeders, with large combs and deep bodies. Our chicks are hatched right and will live. Safe arrival guaranteed. Order direct or send for our illustrated catalog.

ROYAL HATCHERY, R 2, ZEELAND, MICHIGAN

BUY HUBER'S



RELIABLE CHICKS

Our 13th Year

700,000 for 1922

By Parcel Post Prepaid—100% Live Delivery. Our Request is: Give us your order for some of our (Reliable Chicks) and we will prove that we will give you better chicks for the money than you can get elsewhere. Combination offers. Order Early. Write for Prices and Free Illustrated Catalog.

HUBER'S RELIABLE HATCHERY,
EAST HIGH STREET, FOSTORIA, OHIO

BABY CHICKS Pure Bred for 1922



Bred-To-Lay from flocks selected for standard quality and production. We offer Exceptional values in following varieties: Leghorns, Rocks, Reds, W. Wyandottes, Orpingtons, Minorcas and Anconas. Our prices are right when quality is in consideration as this should be the main point in view. Get our big catalogue of Baby Chicks, Brooders & How to Care for Your Chicks after you have them, it is FREE, for the asking. Write today.

Wolf Hatching & Breeding Co., Dept. 10, Gibsonburg, Ohio

POULTRY PAYS

Bigger profits than any other farm product. Learn how through the Modern Poultry Breeder, the leading journal for those interested in making poultry pay. Expert poultry writers. Don't miss great articles by Prof. Foreman of M. A. C. appearing exclusively in the BREEDER.

Every issue a complete book on poultry problems of the month. Tells how to cull, feed, hatch and raise your baby chicks and how to feed your broilers for early market and big profits. Subscription \$1.00 for 3 years. Big money maker for agents. Sells on sight. Write for terms.

Modern Poultry Breeder, 210 Phoenix Bldg., Battle Creek, Mich.

FREE to subscribers. Baby Chick Feeding Chart and Schedule by Prof. Burgess, formerly of M. A. C. Tells just what and when to do for your chicks from hatching time to broiler market. Invaluable to beginners. Don't wait until supply is exhausted.

CHICKS

Seven varieties, from excellent pure-bred stock. 100% live delivery guaranteed. Parcel Post Prepaid. None better. Catalogue Free.

Lee's Poultry Farm & Hatchery, Edison, O.



All standard varieties. Our free catalog tells all about them.

STILLWATER HATCHERY
Box G, Covington, Ohio

Additional Poultry Ads. on Page 481

HINMAN MILKER

\$45⁰⁰ Per Unit
F. O. B. Oneida, N. Y.

The first successful milker made by the oldest milker manufacturer is now available at lower than 1916 prices.

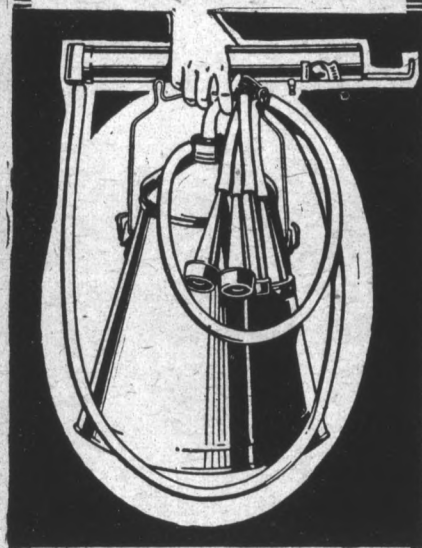
The Hinman leads because it is built by men who were dairymen first. They know the necessity for simplicity and durability. They built a machine that is easy to use, easy to care for and easy on the pocket book.

The Standard Hinman at \$45.00 per unit, or the Electric outfit (no installing) can more than pay for itself every year it is used.

Send for 1922 Catalog

AGENTS WANTED
We have some open territory and a real money-making offer. Write today.

HINMAN MILKING MACHINE CO.
Sixth Street
Oneida, N. Y.



Get Our Silo Prices

Before you buy a Silo get our low prices. Milk more cows. Feed them good ensilage made in a Saginaw Silo—the result of 20 years experience in Silo construction.

Write today for our low prices and full information on the most complete line of silos in America. A Saginaw Silo will double your farm capacity and will soon pay for itself.

Address Dept. 19A

The Mc Clure Company
Saginaw, Mich. Cairo, Ill.

FROM COW TO CAN

The **SANITARY MILKMAID** milker is ready for business the day you get it. Requires no installation, no expert to set it up or run it! Adjustable teat cups fit any cow. Many users are milking twenty-five cows per hour! Milk flows directly into your ten gallon can. Saves time, saves money. Equipped with electric motor, for any voltage. Also furnished with gas engine power. Thirty days free trial. Sold direct to you. Write today for full particulars.

Andersen Milking Machine Co.
106 E. 16 St., Cedar Rapids, Ia.

"The Practical Way to Milk"
Have you electric current?



Dairy Farming

WANTS JERSEY MEN OF STATE TO COME TO OCEANA.

THE Oceana County Jersey Cattle Club is making a strong bid this year for the summer meeting of the State Breeders' Association. There are a number of fine Jersey herds in the west side county and the enthusiasm of their owners is furnishing some inducement to the others in the state to meet with them next summer.

Officers of this club are: President, R. H. Taylor, New Era; vice-president, Charles Kraus, Hart; secretary-treasurer, J. M. Davis, Myers; executive committee, C. B. Scott and A. I. Coon, Pentwater; Robert Deyman, New Era, and Lawrence Hewson, Mears; approval committee on sales plan, Alfred Henrikson and E. O. Anderson, of Shelby, and Charles Krause, of Hart, alternate.—R.

ANOTHER TESTER GOES TO WORK.

THE Oceana Cow-Testing Association has been added to the list of active dairy organizations in the state striving to make herds more efficient and profitable for their owners. County Agent I. T. Pickford lines up twenty farmers in the association and it now has about 200 cows under test. L. D. Leifering, of M. A. C., is the tester. Mr. Pickford hoped to bring at least six more farmers and their herds into the organization before the end of April.—R.

WORLD'S RECORD SHATTERED.

NORMAN'S Red Rose, No. 89724, a beautiful pure-bred Guernsey cow owned by A. M. Smith, of Lake City, a Presbyterian minister who settled in Missaukee county in 1912 because of broken health, is believed to have shattered the world's record for Class C animals. She has just completed a year's test showing 15,132.30 pounds of milk and 760.72 pounds of butter-fat.

Not only has Mr. Smith regained his health in clearing his farm, milking and tending his cows, and doing general farm work, but his cows have amassed him a small fortune. Recently a large Illinois breeder purchased ten of his best cows.—R.

SHALL WE CONTINUE THE GRAIN WHEN HERD IS ON PASTURE?

IN changing the herd from dry feed to pasture it is advisable to make the change rather slow, especially with heavy-milking cows. Early pasture always contains a high per cent of water and a low amount of dry matter. It is next to impossible for heavy-milking cows to consume enough of such feed to supply the necessary amount of nutrients to maintain maximum milk production.

I find it a splendid practice when turning to pasture in the spring to continue feeding the winter ration in such amounts as the cows will readily consume. If the herd is allowed to pasture only a half-day at a time for the first week or two, most of the cows will continue to eat a good ration of both roughage and grain at night and in the morning. For the first day or two after being turned to pasture the cows may not take well to the roughage feed, but in a very short time they will gradually come back to their regular ration. Another reason why the change from dry feed to pasture should be done gradually, is that the sudden change produced a marked taste in the

milk which, if supplied to retail trade is very likely to cause some dissatisfaction.—Reynolds.

TURNING THE HERD TO PASTURE. WHEN SHALL IT BE DONE?

NO matter how much we enjoy feeding and taking care of the cows at Forest Grove Farm the work after several months grows rather wearisome and we invitingly look forth to the day when the yard gate swings open and the herd goes out to pasture.

Some dairymen do not believe it a good practice to turn the herd to pasture before the tenth of May, while others turn out as early as the fifteenth of April. I think this depends largely upon the season and pasture. Upland pasture comes on much slower in the spring than lowland pasture.

On my farm I have about forty-five acres of lowland pasture and I find this pasture comes on very early in the spring. I have found that if I do not turn onto this lowland pasture at least by the twentieth of April the early quick-growing family of grasses become coarse and the herd having plenty of other feed do not graze these grasses which become woody and not easy to masticate. If I turn out along about the middle of April for a half-day at a time the herd will graze the early varieties of grasses and keep them down and make good feed the entire season, while otherwise I would lose this amount of pasture.

I consider it most practical to maintain a permanent pasture for my dairy herd. I have not in years pastured my cultivated land. My lowland-pasture supplies abundance of pasture for my herd from the time I turn out until late in the fall. I grow, however, some supplemental feed to furnish the cows a change of feed and also to help out the pasture so that it will not become over-grazed. If I were compelled to pasture my cultivated land I would not want to turn to pasture until the land was well settled and the pasture obtained a good start. This would be along about the tenth to the fifteen of May. Turning out on cultivated land early in the spring is injurious to the soil and pasture production.—L. C. R.

BUT IT IS A CHANGE FOR THE BETTER.

TO arrange the work of the farm so that each department can be made to turn a profit is one of the important problems of the average farm. Where silos are added to the farm buildings a change of farm management must follow. Less hay is needed, less land is required for pasture, more stock can be kept on the land, more land must be used for corn, or at least sufficient corn must be planted to fill the silo. Less labor is required to feed the stock but more must be provided during the short season of silo filling.

GERMANY'S CEREAL PRODUCTION LOW.

ACCORDING to counselor reports, it may safely be stated that for a considerable period Germany will continue to be a large importer of food-stuffs, especially cereals. Although German farmers increased their crops of wheat and rye in 1921 the harvests were far below those of 1913 while barley and oats show a decrease from the 1920 figures. Acreage of all crops except wheat declined in 1921. The keen demand for that cereal influencing farmers to give preference to its cultivation.

The Seventh Gift of GRIMM Certified-Genuine.

PROSPERITY

Sow 2 1/2 as much GRIMM per acre as you would common



The seed you sow for profit must economically produce for you a ready marketable product. This standard requires seven qualities. PURITY, that you may not sow for a field of alfalfa and suffer a loss from an inferior crop. HIGH GERMINATION, to insure you a proper catch. HARDINESS, to enable your crop to live through severe climatic conditions. LONG LIFE, that you may receive maximum yield from one seeding over a long period of years. AN ABUNDANT CROP, that you may harvest the maximum yield each year. HIGH IN FOOD VALUE, a forage and pasture, producing fatter and choicer live stock and poultry, abundant milk, a greater number of eggs. A SOIL IMPROVER, to leave your land more fertile, greatly increasing the yields of your following crops.

If the seed you sow fails in any one of these points your labor and money is wasted, your profits are gone. On the other hand genuine certified GRIMM alfalfa from reliable sources will insure you all these points. It will help you become more prosperous as it has over 100,000 other farmers. It will help bring to you those things you are working hard for every day. Fertile fields, fatter live stock and poultry, abundant dairy products, more eggs, larger savings, better bank credit, finer stock barns and equipment, a more comfortable home and living for you, your wife and family.

Remember the seeding cost of certified, genuine GRIMM alfalfa is practically the same as that of common and your sure returns are much greater. This is your last chance to get our name and address for our stock of Certified Genuine GRIMM alfalfa seed is nearly sold out. To save time clip this advertisement, write on it your name and address and send for your information and quotations at once.

Idaho Grimm Alfalfa Seed Growers Association.
Grimm Alfalfa Seed Producers Assn. of N. Dakota



Write At Once
for particulars & quotations to

SEED DEPARTMENT
BOX 48

MICHIGAN STATE FARM BUREAU
Lansing, Michigan

SHIPPED IN SEALED AND LABELED BAGS

Lightning, The Man Killer!

Lightning kills more people than the railroads! It is endangering your family—and your property. "R. H. Co." Lightning Rods, correctly applied by our competent dealers, will protect your home. This protection has proved its worth since 1849. It is of inestimable value—yet the actual cost is small. National Fire Ins. Co. of Hartford, allows ten per cent reduction if you use "R. H. Co." Lightning Rods. Ask us for free booklet, "Do Lightning Rods Protect?"

The Reyburn-Hunter-Foy Co.

821 Broadway Cincinnati, Ohio

"Lightning Rods of a Better Kind"

Dealers and Agents:
Write us for open territory.



MICHIGAN CONCRETE STAVE SILOS

Send for free descriptive Catalog and learn about our special inducements to the early buyer.

Agents Wanted in Unoccupied Territory.

Manufactured and Erected by the
Michigan Silo Co.
Kalamazoo, Mich. - Peoria, Ill.

H. A. Smith Patents

\$24.95 American CREAM SEPARATOR

On trial. Easy running, easily cleaned. Skims warm or cold milk. Different from picture which shows larger capacity machines. Get our plan of easy MONTHLY PAYMENTS and handsome free catalog. Whether dairy is large or small, write today.

AMERICAN SEPARATOR CO.
Box 7061
Bainbridge, N. Y.



BINDER TWINE

Get our low 1922 price. Club orders and car lots our specialty. Farmer Agents Wanted. Samples and circular free. THEO. BURT & SONS, Melrose, Ohio.

Grimm Alfalfa Seed, Genuine,
from old Montana fields. Hardy, scarified, tested seed. \$4.75 per 100 lbs. delivered your station. Direct from growers. Valter Christensen, Box 6, Minot, N. Dak.

A CASE WHERE ORGANIZATION HELPED.

THE dairy organizations are making an aggressive eleventh-hour fight to have their industry protected by the permanent tariff from oriental oils. The information leaked out that that the senate finance committee had decided to put copra, soy-bean and cocoanut oil on the free list, only one cent a gallon on soy-bean oil and six cents a gallon on peanut oil. As a salve they put three and a half cents on refined cocoanut oil, which is not imported.

Just as soon as the dairy people learned of this they began to get busy, enlisting the aid of the hog producers, peanut oil and cottonseed oil producers. A call was sent out for a meeting in Washington, which was attended by representatives of the dairy, peanut, hog and cottonseed oil interests from nearly every state east of the Rocky Mountains. The call was signed by representatives of the National Milk Producers' Association, National Dairy Union, National Grange and the American Farm Bureau Federation. A delegation from this conference were promised a hearing before the committee, and indications are favorable that the committee will consider the needs of the great agricultural interests as more worthy of consideration than the requests of the few soapmakers and oleo interests.

INTERNATIONAL GRAND CHAMPION COMES TO MICHIGAN.

(Continued from first page).

Experts say that very few Belgians have the distinguished make-up such as is possessed by "George Henry." His beautiful bronze chestnut color, smart intelligent head, well set, hard legs, good feet, well balanced body and bold flashy action, wins instant admiration, and from results so far obtained, his show record will be equaled by his ability as a breeder.

Choice Mares Accompany "George Henry."

To obtain a more select herd of mares than the twelve animals which accompanied "George Henry" to Wildwood Farms would indeed be a most difficult task. These mares range from three to seven years and were obtained for Mr. Scripps by Mr. S. H. Bell, of the Bell Brothers, Wooster, Ohio. They have been chosen from the most prominent Belgian herds in Ohio, Indiana and Michigan and it can be truly said that they are representative of the very best results obtained by American breeders of Belgian draft horses. Some of them are already established as producers of outstanding colts, others have been winners at several of the prominent shows and the younger mares have every appearance of a brilliant career. With the material procured, Mr. Scripps should build a breeding establishment of nationwide importance.

In commenting on the mares, special mention should be made of a few. In the matter of breeding, it is doubted if there is another young mare in the United States as close to the champion horse at the "World-Paris, 1900," "Reve d' Or," as the sorrel mare "Mabe." Her sire, "Bonaparte de Boulant," and son of "Reve d' Or," was Grand Champion at the International in Chicago a number of years ago. Then there is the roan mare "Marjorie," winner in 1919 of first prize at the Illinois, Indiana and New York State Fairs in the two-year-old class. A great-grand-daughter of the famous Belgian sire, "La Fleur." The splendid roan mare, "Mary Margaret," is an excellent colt out of the mare "Lina de St. Marc."

Perhaps the most interesting of all the mares is the chestnut "Queen." This mare combines a unique produc-

ing record with an excellent pedigree. She is the great-grand-daughter of the world-famed stallion, "Indigene de Fosteau," having Fosteau breeding on both sides of her pedigree. There is no finer mare in the country than "Doll of Greentown," a beautiful sorrel. "Nanny" is another young mare with "Brin d' Or" breeding. "Lenette" is one of the few living daughters of "Carnaval," made famous by the Crouchs. "Hazel Bell" represents the "Marquis de Klegem" breeding so well known in Ohio. "Dorothy M" is another of "Fosteau" breeding. "Lady Mar-in," also "Fosteau" bred is the youngest in the lot.

The connoisseur would say of this herd of Belgians, that it is second to none in the country, and with it Mr. Scripps should make Michigan famous for her Belgian horses, just as he has been a leading factor in the breeding of Angus cattle. With "Edgar of Dalmeny" at the head of his "Doddies," and "George Henry" the leader of his Belgians, Mr. Scripps may boast of two of the greatest sires of the time. Wildwood Farms is truly the home of live stock aristocracy and the acquisition of "George Henry" adds even greater significance to their famous slogan, "Bred in the Purple."

AGAIN WE DECLARE WAR.

(Continued from page 485).

roduced years ago and birds have carried the seeds far and wide. In all some fifty cases are known of wild areas.

The seriousness of wild bushes is seen in the experience of Wisconsin, where in Trempealeau county along the Mississippi, 5,000,000 bushes were taken out last summer.

The barberry work done in Michigan is of a survey nature, so far as carried on by the United States Department of Agriculture. The State Department of Agriculture has the police power to order eradication by the owners of bushes, and under definite state law enforces removal. Since the beginning of the campaign the United States Department of Agriculture has spent approximately \$30,000 in survey and educational work in the state of Michigan. The state has spent approximately \$5,000 in its work.

In the barberry work there have come to the writer's attention countless cases of farmers who independently had worked out the relation of barberry to rust, quite as the farmers of early days worked it out. They didn't know why, but they knew that the wheat and other grains in the fields near the barberry failed and failed, year after year. The barberry war has been enacted in many neighborhoods. Farmers in Barry county tried for years to buy a neighboring farm simply to be able to destroy a hedge. Finally they got the hedge out. Others were not so peaceable and if certain dead barberries in Wayne county could speak they would tell of the effectiveness of about twenty-five pounds of salt.

The effect of barberries in causing local rust epidemics is indisputable. About Saugatuck, one finds numerous wild barberries on the sandy bluffs. In spite of almost unbroken drought, and any farmer will tell you that it is wet weather which makes rust, grains in the vicinity of the barberry for at least a radius of a quarter of a mile were simply red with rust. Away from this area the grain is free from rust. Probably no more perfect example of local effect of barberry could be found than this, and yet if we go over to the area about Belleville in Wayne county we will find exactly the same story on the fields of Mr. Thropp. Last year in Hillsdale county, wheat on the farm of Mr. Nicolson was injured twenty-five per cent by wild barberries scattered on the adjacent woodlots.

ON JANUARY 1st, 1922

40,268

AUTOMOBILES IN MICHIGAN, OUTSIDE OF DETROIT, WERE INSURED IN

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Insurance against Fire and Theft, not exceeding \$1,000, and Property Damage and Personal Injury, not exceeding \$5,000, in the smaller cities and in the country districts, would cost you on the cars listed below as follows:—

Ford, touring.....	\$ 9.60	Columbia.....	\$10.50
Ford, Sedan, Coupe or Truck.....	10.50	Packard, 6.....	11.10
Dodge.....	10.50	Packard, Twin-6.....	15.90
Buick, 4.....	10.50	Dort.....	10.50
Buick, 6.....	11.10	Durant.....	10.50
Reo, 6.....	10.50	Chevrolet.....	10.50
Olds, 6.....	10.50	Studebaker, Spe. 6.....	11.73
Olds, 8.....	10.80	Studebaker, Big 6.....	13.80
Oakland, 6.....	10.50	Willys-Knight.....	10.50
Overland.....	10.50	Hupp.....	10.50
Nash.....	10.50	Franklin.....	10.50
Hudson.....	11.70	Paige, 6-39.....	10.50
Essex.....	10.50	Paige, 6-55.....	11.70
Cadillac, 8.....	12.30	Maxwell.....	10.50
Cleveland.....	10.50	Chandler.....	11.70
Lincoln.....	13.80	Chalmers.....	10.50
Winton, 6.....	12.90	Willys-St. Clair.....	12.90

Other cars of similar horse power, same rates.

Additional Fire and Theft above the \$1,000 also written.

Collision insurance protects your own car against damages arising from a collision with moving traffic objects such as automobiles, railroad trains, street cars, etc. The rate is \$2.00 per \$100.00 protection. The minimum amount of collision insurance that can be written is shown in the following schedule:—

Cars costing not over (present list price)	Minimum Coverage	Cost
—\$ 700	\$400	\$ 8.00
\$ 701—1100	500	10.00
1101—1600	600	12.00
1601—2200	700	14.00
2201—2800	800	16.00
2801—3400	1000	20.00
3401—4500	1200	24.00
4501—up	1500	30.00

Additional coverage above the minimum at the same rate.

We also write collision insurance against damages arising from collision with stationary as well as moving objects. The rate \$5. per \$100. protection with the same minimum schedule as above. 15,000 people killed; 150,000 liability claims. Why take chances? We have over 400 agents in the state. If you cannot find one in your locality, write or phone

WM. E. ROBB, Secretary, Howell, Michigan



DR. HESS DIP and DISINFECTANT

Use the sprinkling can about your premises—the dipping tank where the occasion demands. For your hogs, a wallow is the most convenient, and quite effective. To every 70 to 100 gallons of water add one gallon of Dr. Hess Dip and Disinfectant. Then your premises—the cow barn, the stables, the pig pen, the poultry house, the sink, drains, closets, cesspools—everything, everywhere, will be pure and healthful.

You can dip, or you can spray or sprinkle, or apply with a sponge or brush, Dr. Hess Dip and Disinfectant to the animal body. There's scarcely an animal parasite, skin disease, or infection that Dr. Hess D. and D. will not remedy. *Guaranteed.*

DR. HESS & CLARK Ashland, Ohio

HUBAM Scarified seed, 50c per lb. postpaid. Alfalfa and sweet clover inoculator, 1 lb. size, \$1. postpaid. E. E. BASIL, Latty, O.

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At the International Live Stock Exposition, where gathers each year the elite of North American Cattle to compete for the coveted awards, five more honors have been bestowed upon the "get" of Edgar of Dalmeny. You too may share these honors. A bull by this world famous sire will prove a most valuable asset to your herd. Write us today.

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REGISTERED Aberdeen-Angus. Ten heifers, six bulls from eight to fourteen months. Best of breeding, the growthy kind that make good. Reasonable. Inquire F. J. WILBER, Clio, Mich.

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A fine bull ready for heavy service \$125.00
J. M. WILLIAMS, North Adams, Mich.

Guernseys At farmer's prices, four splendid to 6 mo. old from good producing dams, and sired by a grandson of Imp. King of the May, his dams averaging 650 lbs. fat. Write MEADOW-GOLD GUERNSEY FARM, R. 8, St. Johns, Mich.

For Sale Guernsey Herd Bull

3 yr. old. Sire, Anton's May King sold for \$7,000.00. Dam, Bonnie's Bloom 530 lbs. B.F. Price \$175. Fall bull calves by above sire. Accredited Herd. GILMORE BROTHERS, Camden, Mich.

GUERNSEYS—REGISTERED BULL CALVES
Containing blood of world champions.
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Guernsey Calves, bull and heifer not related, also yearling heifer. Ancestors include most noted animals of the breed. G.A. Wigent, Watervliet, Mich.

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Registered Holsteins

It was through the daughters of **Flint Maplecrest Boy** that **Sir Ormsby Skylark Burke** Our Junior Herd Sire produced the Junior Champion and Reserve Grand Champion Heifer, at the Michigan State Fair this year, in a class of 35. His get won first in Calf Herd, also first in get of sire, in a class of 13. A son of either of these great bulls will help the individuality and production of your herd. We have bulls at dairymen's prices, and we also have bulls at the breeder's price, from dams with records up to 38 lbs. of butter in seven days, and 1168 lbs. of butter in one year. Ask us about a real bull, a Maplecrest or an Ormsby. **JOHN H. WINN, Inc., Rochester, Mich.**

Model King Segi: Glista's First Daughters Just Off Test
ANNIE SEGIS CORNUCOPIA GLISTA, senior two year old. Butter 7 days, 19.814
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BEAUTY PISTERTJE SEGIS GLISTA, at Twenty-eight months. Butter seven days, 14.03
Half brothers to these for sale.
GRAND RIVER STOCK FARMS, Corey J. Spencer, Owner
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Wiscogin Farm offers Holstein-Friesian bulls ready for light service. From sire whose 6 nearest dams average 33.34 lbs. butter for 7 days. A.R. O. Dams from 18.33 to 21.51 lbs. Herd under state and Federal Supervision. Oscar Wallin, Unionville, Mich.

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We have what you want in **BULL CALVES**, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

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32 Lb. Bull, \$150

Pure bred, registered, federally tested. Six nearest dams average 30 lbs. Good individual, mostly white, 2 yrs. old. Guaranteed healthy and breeder. Priced to sell quickly. Pedigree on request. **ALBERT G. WADE**, White Pigeon, Michigan.

Holstein Friesian heifer and bull calves, purebred registered and high-grade. Price \$20 up. Splendid individuals and breeding. Write us your requirements. Browncroft Farms, McGraw, N. Y.

Cluny Stock Farm

Offers Cluny Konigen Pontiac Hengerveld No. 254554.
Born September 20, 1920

A son of our Junior Herd Sire Dutchland Konigen Sir Rag Apple whose two nearest dams average over 35 lbs. butter and 720 lbs. milk in 7 days. The 7 nearest dams of the bull we offer average over 600 lbs. milk and 28 lbs. butter in 7 days. His dam is an extra good individual with a wonderful type udder. Her record is 19.774 lbs. butter from 420.8 lbs. milk at 3 yrs. 7 months. Combining the blood of King Segis Pontiac, Pontiac Korndyke, King of the Pontiacs, Colantha Johanna Lad and other great sires he spells Production, Breeding and Type. He has an extra straight top line and is good in every way. A little more black than white. Price \$150.00.

R. B. McPherson, Howell, Mich.

A Good Note accepted in payment of finely bred registered Holstein bull calves. Quality of the best, and at prices within reach of all. Write **GEO. D. OLARKE**, Vassar, Mich.

"Top Notch" Holsteins

Bull advertised last week bought by a good breeder in Ohio.

We have a few more desirable bulls ready for service, sired by a 32 lb. grandson of the 40 lb. 4 year old former world's champion, Mabel Segis Korndyke, out of high milk and butter producing cows. Priced to sell.

McPherson Farms Co., Howell, Mich.
(Breeders of the only 800 lb. 7 day cow to produce an 800 lb. daughter).
Herd under U. S. Supervision.

HERE IS A GOOD ONE

Born June 24 1920 by Maplecrest DeKol Hengerveld whose three sisters have each produced over 1200 lbs. of butter in a year. Two of them former World's Champions. Bulls dam has just been tested and made nearly 27 lbs. We believe she will make 30 lbs. at her next freshening. Write for pedigree.
F. B. LAY, Kalamazoo, Mich.

HOLSTEIN and Guernsey calves, 7 weeks old, 31-32nds pure, \$25 each crated for shipment. Satisfaction guaranteed. **EDGEWOOD FARMS**, Whitewater, Wis.

Holstein-Friesian purebred bull calves, tuberculin tested. Prices are right. Larro Research Farm, Box A, North End, Detroit, Mich.

5 yr. old son of Smithdale Alcatraz Pontiac from daughter of Pontiac Korndyke. Priced low. **FERNWOOD FARM**, Ewart, Mich.



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The World's Best Beef
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Raise far better feeding cattle than you can buy. Grow Baby Beef when gains cost least in feed and labor. Avoid costly rail hauls with their shrink, bruises and loss.

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Herefords

Repeaters, Beau Donalds, Fairfaxes, and Farmers represented in our herd. Repeater 173rd, a son of old Repeater, at head of herd. Both sexes and all ages for sale.

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Registered Herefords for sale. Cows and 2 herd bulls. **RALPH CALHOON**, Bronson, Mich.

Jersey Thoroughbreds

Few cows and bull calves. Best breeding line. Guaranteed. Tuberculin tested twice a year. If you have no money will take bankable note. E. W. Vasey, 509 Free Press Building, Detroit, Mich., Main 1267.

For Sale Ten registered Jersey heifers from three months to one and one-half years old. Sophia's Tormentor breeding. Herd under Federal and State Supervision. **A. H. DONALDSON**, Fenton, Mich.

Lillie Farmstead Jerseys Bull calves from R. of M. cows. **COLON C. LILLIE**, Coopersville, Mich.

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

For Sale Jersey Bulls ready for service; Lad, Majesty breeding. **WATERMAN & WATERMAN**, Packard Rd., Ann Arbor, Mich.

Jersey Bull or Sale Springfield Owl breeding. Herd tuberculin tested. Satisfaction guaranteed. Age six months. **Fred L. Bodimer, Reese, Mich.**

FOR SALE

Polled Shorthorn Cows & Heifers in calf and calf by side. Also a few young bulls. Herd headed by Victor Sultan and Royal Nonpareil. We can please you in richly bred cattle with quality at reasonable prices. **GEO. E. BURDICK, Mgr.**
Branch County Farm, Coldwater, Mich.

Francisco Farm Shorthorns

and BIG TYPE POLAND CHINAS
Now offering:—Three bulls ready for service. Mastodon, Clansman, Emancipator blood in gilts bred for spring farrow. See them.
POPE BROS. CO., Mt. Pleasant, Mich.

The Maple's Shorthorns

Kirk Livingston Lad, by imported Hartforth Welfare, in service. Bulls and heifers for sale.

J. V. Wise, Gobleville, Mich.

Stock Farming

PASTURE FOR THE HOGS.

IN dividing a hoglot sow rye in one section during the latter part of the summer, which is ready for pasture about the middle of November and continues in use until the last of May or June.

Early in the spring sow rape in the second section, which is ready for pasture about the time the first section has been finished and continues until fall. Sometimes you can sow oats instead of rape in the second section, and sometimes both. During the remaining part of the year, which includes the latter part of September, all of October and part of November, allow them to "hog down" parts of other fields of grain.

This method of pasturing provides plenty of succulent feed, and it does not require much land to take care of thirty or forty head of hogs.—V. A. G.

THE BALKY HORSE.

A SUBSCRIBER writes that he has started balky horses successfully by putting a rubber band around the tongue of the offending animal and then handle him carefully. If no band is available use a cotton string. The band or string attracts the mind of the horse from his stubbornness when he will usually obey his master.

THE VALUE OF THE PURE-BRED

THE advantage of using pure-bred bulls is well illustrated in the herd of Dan Casement, who has used registered Hereford bulls for many years. In 1920 his grade cow herd consisted of one hundred head of this same year's calf crop, forty-four were bulls which were steered, and two carloads of them selected and fed as yearlings for exhibit at the 1921 International Live Stock Show.

One load was fed for the short-fed specials, in which class quality and condition count fifty per cent, gains twenty-five per cent and economy of gains twenty-five per cent. Mr. Casement's load gained 3.27 pounds daily at the cost of \$10.79 per cwt., which were the cheapest gains of the show, and when the premiums were awarded they won the championship over all breeds.

NORTHERN AREAS GOOD SHEEP LAND.

THOUSANDS of acres of northern Michigan land between Saginaw and Mackinaw that now are idle could be made to yield good dividends through sheep raising, according to scores of farmers and ranchmen now engaged in this industry. These experienced men make it clear that sheep raising should not be undertaken in this part of the state by anyone but those who understand the business thoroughly. They point to a number of failures that have arisen because the farmers, through lack of knowledge, have pastured too many animals on a given acreage. Employment of too expensive help on the sheep ranges also has placed large figures on the wrong side of the ledger.

"If the sheep business is handled in an intelligent and business-like way, there seems to be no reason why good profits should not be made on northern Michigan lands," said a successful ranchman.

"Many of the sheep here are of the 'feeder type,' animals brought here during the spring months, fed during the summer and sold in the fall at a profit depending largely upon original

cost of the animals and the freight rates in either direction."

Railroads serving this part of the state recently announced reduction of rates on feeder stock and this should increase the practice of live stock raising in general throughout the entire region.—M.

THE GROWING DEMAND FOR LIGHT CATTLE.

FOR the past several years there has been a decided change in the market demands for cattle. This change has developed from the point where heavy steers were selling at a premium on our main markets to a decided preference today for light cattle. During the past year yearling steers have as a rule out-sold older and heavier cattle with the latter often being a "drug on the market." The following headings of the daily market reports in recent issues of the live stock papers are a good index to the comparative demands for the different classes of cattle: "Light Cattle Enjoy Better Call; Heavy Stuff Dull;" "Yearlings in Good Demand;" "Light Steers Holding Up; Heavies Dull."

A write-up in a late issue of one of the market papers is also significant in this connection. The article was featuring the sale of some choice heavy steers which sold for \$9.25 per cwt. In commenting on this sale the writer said: "Had they weighed 300 pounds less they probably would have realized \$10 per cwt. Some of the buyers would not look at them on account of their great weight."

A lesson can well be learned from these market reports as they in turn reflect the increasing demand of the consumer for small cuts of beef. For this reason and the fact that land values are gradually increasing, the tendency will be more and more toward the production of high quality cattle that will finish out easily and economically at an age that will show a profit to the breeder and feeder.

DUROCS SELL WELL.

THE second annual sale of the St. Joseph County Duroc Association, held at Centreville, the forty-two head sold at an average of \$46.50, the top gilt of the sale going to the local breeder for \$70.

1. C. F. Bolender, Centreville... \$51.00
2. Barney Everett, Mendon... 47.00
3. Herman Awe, Mendon... 46.50
4. Victor Good, Mendon... 41.50
5. Carl Froh, Constantine... 43.50
6. Calvin Garber, Constantine... 42.00
7. Virgil Lidgard, Hesperia... 41.00
8. Lester Shrader, Centreville... 41.00
9. M. T. Everett, Centreville... 45.00
10. L. D. Flaudt, Constantine... 60.50
11. L. D. Flaudt, Constantine... 59.00
12. E. E. Phillips... 45.00
13. H. S. Lembach, Centreville... 51.00
14. Peter Burgener... 50.00
15. Floyd Keasey, Centreville... 44.00
16. Walter Hall, Centreville... 49.50
17. Arthur Sell, Constantine... 42.00
18. Floyd Keasey, Centreville... 41.00
19. Fred Boney, Constantine... 40.00
20. L. S. Flaudt, Constantine... 39.50
21. C. D. Wilcox, Three Rivers... 39.50
22. Elmer Kline, Constantine... 44.00
23. Fred Boney, Constantine... 34.50
24. C. D. Wilcox, Three Rivers... 38.00
25. Floyd Keasey, Centreville... 37.50
26. Victor Osgood, Mendon... 30.50
27. L. S. Flaudt, Constantine... 31.50
28. George Bradford... 47.50
29. H. C. Bucknell, Constantine... 53.00
30. E. L. Phillips, Sturgis... 50.50
31. C. O. Jones, Constantine... 57.00
32. J. W. Fletcher, Centreville... 57.50
33. L. Whited, Jones... 52.50
34. L. Hepler, Constantine... 54.00
35. L. D. Flaudt, Constantine... 59.00
36. Lawrence Bros., Constantine... 60.50
37. C. Bucknell, Centreville... 51.00
38. J. F. Fletcher, Centreville... 70.00
40. John Bohm, Centreville... 48.50
39. Clyde Bolender, Centreville... 60.00
41. Arthur Sell, Constantine... 37.00
42. R. E. Cotton, White Pigeon... 46.50

SURE QUICK DEATH FOR RATS AND MICE

**Remarkable Triple Strength
Virus Kills Every One
Not a Poison**

Marvelous French Discovery

Rats are your enemies. They destroy your buildings, eat your grain, kill your poultry, start fires and spread disease in every community. You need no longer suffer these losses—You can now, in a week's time easily kill every rat, mouse or gopher with Rat Virus, the great French discovery. Our triple strength virus is the most powerful concentrated deadly virus known, the only sure, safe rodent destroyer.

Triple Strength Virus is absolutely safe to use anywhere—positively not a poison. No danger to chickens, horses, cattle, hogs or dogs. Harmless to children or grown persons. Affects only rodents.



Triple Strength Virus is prepared in a scientific laboratory and contains only Virus germs deadly to rodents. The bottle and corks are sterilized and sealed air-tight, so that all other germs are excluded. This is why Triple Strength is so deadly. It is tested on rats, mice and gophers before shipment—it cannot fail.

Rats Die Outside

Triple Strength Rat Virus is easy to use. Simple directions show how. A single rat eating the virus gets sick with a contagious plague disease that affects and kills all rats and mice in the immediate vicinity. Rats flee because they become infected with a plague that affects the heart, blood vessels, and lungs, destroying the blood corpuscles and causing suffocation. The rats rush outside where they get fresh air and water. When the diseased rats get outside, they never get back for the disease is then so far gone it kills them. No odor, no dead rats to handle, no live rats to kill.

Special Introductory Offer

We want to prove to you our claim that Triple Strength Rat Virus is the most potent, most powerful—yet non-poisonous and absolutely safe—rat virus on the market. It is a TRIPLE STRENGTH VIRUS. Contains more living rat virus germs than any other rat killer made and will go one-third to one-half farther. To introduce this powerful Triple Strength Rat Virus, we will make every reader of this paper—for short time only—a special offer of a regular \$2.50 bottle for only \$1.00 postpaid. This \$2.50 bottle Triple Strength Rat Virus is enough to clear a poultry house, home or yard of rats and mice. Should you have several buildings infested with rats, it will pay you to send \$2.00 for our big \$5.00 Jumbo-Size bottle. This Jumbo-size bottle contains three times the quantity of Triple Strength Virus as our regular \$2.50 bottle sold for \$1.00. Send order today sure.

Money Back Guarantee

Your money back if it fails. Take no chances this year with traps or rat poisons. Triple Strength Rat Virus will positively kill rats, mice and gophers and be absolutely safe and sure. Give it according to directions—if after 30 days' trial you find any rats or mice—we will refund your money without question.

If not convenient to send money today—just send your name and address, a postal will do—pay postman on arrival. Remember it costs you nothing if it does not do all we claim.

Agents Wanted in every community

GOLD SEAL LABORATORIES

3942 W. Lake, Dept. 261, Chicago, Ill.

CATTLE

BIDWELL SHORTHORNS BUY A BULL

that will put weight on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. We guarantee every animal to be a breeder. Federal Test. One hour from Toledo, Ohio, N. Y. C. R. R.

BIDWELL STOCK FARM,
Box D, Tecumseh, Michigan

Richland Shorthorns

Now offering a choice lot of bull calves. Best of breeding. \$150 to \$250 will buy a real bull at present time. Write for particulars.

C. W. Prescott & Sons,
Tawas City, Mich.

Claradale Milking Shorthorns

We invite the discriminating breeder and farmer, who is in need of a real bull, that will transmit the combine qualities, beef, milk, high in butter fat, type, character, beauty. We do state official milk testing. Come and see us or write for circulars and reasonable prices. F. W. Johnson, Custer, Mich., Mason Co. Box 26

Central Mich. Shorthorn Breeders' Assn.
offer for sale both milk and beef breeding, all ages. Write M. E. MILLER, Sec'y, Greenville, Mich.

Milking Shorthorns of best Bates breeding, bulls, cows and heifers for sale.
E. H. KURTZ, Mason, Mich.

MONEY-MAKING STUNTS.

(Continued from page 505).

would like to have some chickens of my own. I sent to Fenton for one hundred baby Rhode Island Red chicks. I feed them bread crumbs for a few days. Then I feed them a mixture of twenty pounds each of corn meal, middlings, bran, ground oats and barley, and all the sour milk they would drink. I raised eighty of them. There were forty roosters which I sold when three months old, weighing between three and four pounds each. I got a little over sixty dollars. Then I had forty pullets left which my father kept for the feed that he gave him for the growing chicks. We sell the hens when they are two years old, which gives me money to buy chicks the next spring. I expect to do as good this year. I find it a very satisfactory way of earning money. Also, it is a help to my folks as they always have a nice flock of young hens. We hatch our chickens early. They begin to lay early in the fall and lay throughout the winter. I will say that I think this is a good way for farm boys to earn their own money.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscribers. Letters should state fully the history and symptoms of each case and give name and address of the writer. Initials only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

Congestion.—I have a cow and calf, seemed sound and well until a week ago the cow's eyelids swelled. In two days swelling was gone and cow was seemingly well, until last night she seemed very stiff, could hardly walk into stable. She is dull and very stiff, bowels open, appetite good, but when hand is placed on back, she flinches. W. J. A., Whittemore, Mich.—Give her one dram sodium salicylate four times daily. Keep her warm.

H. A. Smith, Wixom, Mich.—Your cow is barren; had better be fattened for beef.

Stiffness in Hind Quarters.—Last fall hog cholera was prevalent around here and I lost a lot of hogs. Since then I have had my hogs vaccinated. I have two three-month-old pigs that are stiff in hind quarters and are seemingly growing worse. A. B. M., Hartford, Mich.—Feed less corn, more oats, oil meal, tankage, clover, alfalfa and roots. Mix equal parts of air-slaked lime, salt, and wood charcoal together and give some with their ground feed, or let them have access to it.

Lousy Cattle.—I have some cows that are lousy (chicken lice) and would like to know if spraying them with kerosene emulsion will remove the hair. J. B., Dexter, Mich.—Kerosene emulsion is made by dissolving one quart of soft soap in one quart of water, add one pint of kerosene; churn or stir violently, then add three more quarts of water and apply. Pure kerosene is too strong and causes loss of hair. Kerosene is not a good fly repellent.

Roarer.—A short time ago I purchased a mare, and I notice she has a rattling sound in head or nostrils when she breathes. She seems to be sound-minded. Would you state the cause and remedy for her ailment? J. C. P., Concord, Mich.—The air passage in head or throat is slightly blocked, giving or applying drugs will not benefit this kind of a case very much. Equip your bridle with over-draw check rein and independent bit, this will prevent her from choking and make it possible for her to breathe more freely.

Winter Itch.—During the winter one of my horses began stamping his hind feet, apparently to relieve itching. About two weeks ago a sort of scaly scab formed on the sides of the leg and just above the hoof at the heel. I applied spavin cure, and it made him worse. A neighbor told me to apply molasses, but this did him no good, only making him worse. A. V. H., Hamilton, Mich.—Dissolve quarter of a pound of acetate of lead, three ounces of sulphate of zinc, two ounces of carbolic acid in one gallon of water, shake and apply to heels two or three times a day. Give him a tablespoonful of sulphate of soda in feed twice a day.

\$1000 Guaranteed Rat-Killer

NOT A POISON!

Newly discovered virus guaranteed to wipe out every rat and mouse, but absolutely harmless to poultry, live stock, cats, dogs or humans. Destroys them by infecting them with rat-cholera, a spreading plague that gets them ALL.

THEY DIE OUTSIDE!

No odors from dead rats. No traps or fuss. And the cost is a trifle with results guaranteed with \$1,000 bond.



GET YOURS FREE!

To introduce \$1,000 RAT KILLER in your locality we'll pay you 100% profit and give you yours FREE. Send only \$1 for 3 Dollar-size triple strength bottles. Use one free, sell the other 2 to your neighbors for \$2. We pay postage. **SEND NO MONEY!** If you prefer we'll ship all three Dollar-bottles C. O. D. by mail for only \$1 and postage. Each dollar bottle guaranteed to clear your house or barn. Don't wait, write today! **GARFIELD LABORATORIES**
Dept. 110, 3935 W. Washington Blvd., CHICAGO, ILLINOIS

CATTLE

Polled Shorthorn Bull and H. calves. Heifers safe in calf. \$25 and up. Wolverine oats 60c bu. sacks free. **FRANK BARTLETT,** Dryden, Mich.

Clayton Unit Shorthorn Breeders' Assn. Scotch Scotch Top and Milking Shorthorn for sale all ages. W. J. Hinkley, Sec'y, Flushing, Mich.

Milking Shorthorns Bull calves for sale. Also 2 cows. **ROSEMARY FARMS,** Williamston, Mich.

BARGAIN PRICE

for Pure Bred Holstein year old bull whose four year old dam has just completed semi-official year test producing 1023 pounds of butter from 20,931 pounds of milk. Pedigree on application. **JOSEPH H. BREWER,** Grand Rapids, Michigan

"FLINT" As A Prefix

in Holstein-Friesian breeding is becoming well known throughout the country, particularly in perfection of type and in yearly as well as short time production. This has been made possible by years of studious work and breeding and selection of type as well as those blood lines of proved ability to produce. I do not aim to keep a large herd, I want just a few of the best of the breed. I have a few more now than I can accommodate without crowding because of heifers coming in milk.

If any one wanting a few choice animals would call, I would be glad to show them the herd and let them see for themselves real Holstein type and go over their records of production. I also have a few bull calves from two to six months old, royally bred, from high record cows, that would interest any one looking for a herd sire. **D. D. AITKEN,** Flint, Mich.

Registered yearling Holstein-Friesian bulls priced to sell, 42 lb. breeding, guaranteed O. K. shipped on approval. **B. B. Reavey,** Akron, Mich.

\$250 Buys three high grade Holstein heifers, two yrs. old, all milking and one registered Holstein bull, old enough for service. Herd under federal and state supervision. **HENRY S. ROHLFS,** R. 1, Akron, Mich.

HOGS

BERKSHIRES

Special prices for registered Berkshire breeding stock: 2 Mature Bred Sows \$75.00 1 Pure Year Old Show Bearer \$100.00 Guaranteed Breeder \$100.00 shipped anywhere in Michigan on approval. Best type with size and quality. Satisfaction absolutely guaranteed. Write for information. **C. C. COREY,** 2425-30 First National Bank Building, Detroit, Michigan

Brookwater Duroc Jerseys

Gilts bred for summer farrow. Only a few left. Fall gilts—open. Very good. Fall boars. Large enough for light service. Prices reasonable. Mail orders a specialty.

BROOKWATER FARM,
H. W. Mumford, Owner J. B. Andrews, Manager.
ANN ARBOR, MICHIGAN

Duroc Jersey Swine

Breeding stock for sale at all times at reasonable prices. If in need of a high class boar, or sow any age write, or better, come to farm. Best of Blood line and we guarantee you satisfaction. Herd boars, Panama Special 11th and Home Farm Wonder. Booking order for fall pigs at \$15 each. **Thos. Underhill & Son,** Salem, Mich.

Duroc Herd Boar Bred by McKee Bros. A real bargain for sale by **J. W. FLETCHER,** Centerville, Mich.

Boars Here is your opportunity to get a real herd boar. We have three boars sired by Faust Top Col. at \$50.00 each. Others at \$25.00 and \$35.00. **F. J. DRODT,** R. 1, Monroe, Mich.

Woodlawn Farm Duroc Hogs

A well kept herd, best of blood lines, with size and breeding qualities, stock of all ages for sale at reasonable prices. **W. E. BARTLEY,** Alma, Mich.

Special Sale Durocs. Fall pigs either sex sired by Michigan's Orion Sensation and Michigan's Demonstar. Can furnish pairs and trios not related. Price \$20 & \$25 registered in your name. Also few sows and gilts bred for April, May and June farrow. **Michigana Farm, Pavilion, Mich.**

Pure-Bred Duroc Jersey Hogs: we usually have good boars and sows of all ages for sale. Reasonable prices. **Larso Research Farm, Box A, North End, Detroit, Mich.**

DUROC JERSEYS: A few choice bred gilts for sale. **CAREY U. EDMONDS,** Hastings, Mich.



Spring pigs by Walt's Orion, First Sr. Yearling Detroit, Jackson, Gd. Rapids and Saginaw 1919 **Phillips Bros, Riga, Mich.**

Durocs Herd headed by Great King Orion Col. assisted by a good son of King Orion Fancy Jr. **HARRY FOWLER,** Sturgis, Mich.

AM SELLING

a great offering of bred Duroc sows and gilts March 4th. They are mostly bred to Orion Giant Col., son of Ohio Grand Champion. Get on mailing list for catalog. **W. C. TAYLOR,** Milan, Mich.

Westview Duroc Bred Sows

all sold. Have two spring boars left at a reasonable price. Will book orders for April & May Pigs. **ALBERT EBERSOLE,** Plymouth, Mich.

DUROC—JERSEYS

Sows all sold. **E. D. Heydenberk,** Wayland, Mich.

Duroc Jerseys heavy boned, low down type breeding stock for sale. **CHAS. BRAY,** Okemos, Mich.

Duroc Jerseys Bred Gilts all sold. Now offering some choice fall boar pigs large enough for spring service. **RUSH BROS.,** Romeo, Mich.

BIG TYPE CHESTER WHITES

The prize winner kind from the best prize winner bloodlines. Early developers, ready for market at six months old. I have started more breeders on the road to success than any man living. I want to place one hog in each community to advertise my herd. Write for agency and my plan. **G. S. BENJAMIN,** R. F. D. 10, Portland, Mich.

CHESTERS We are all sold out of Boar, Bred Sows and Gilts. For spring pigs write **WEBER BROS.,** Royal Oak, Mich., 10 Mile and Ridge Rd., Phone 408.

Chester Whites Spring pigs by Monster, Raleigh B. Choice Prince and others. Money back guarantee. **Fred L. Bodimer,** Reese, Mich.

Chester Whites, best gilts and fall pigs of excellent quality and breeding. Satisfaction guaranteed. **F. W. Alexander,** Vassar, Mich.

Chester Whites All sold. Spring boars at weaning time, \$15. **ALBERT DORR,** Clinton, Mich.

O. I. C. HOGS

all ages sired by Callaway Edd. 1918 world's grand champion, boar and C. C. Schoolmaster 1919 world's grand champion, also Wonder Big Type and Giant Buster. Write your wants, all stock shipped on approval. **GRANDELL'S PRIZE HOGS,** Cass City, Mich.

O. I. C. & Chester White Swine. Strictly Big Type with QUALITY. We are sold out of everything but a few choice fall gilts. Will book orders for Spring pigs. Of the best Prize winning blood lines. Will ship C. O. D. And record them free in purchaser's name. **NEWMAN'S STOCK FARM,** R. 4, Martletts, Mich.

O. I. C. BRED GILTS

shipped C. O. D. **Mason, Mich.**

J. CARL JEWETT, O. I. C. fall gilts ready to breed. Orders booked for spring pigs. Write or call and see our herd. We ship C. O. D. and Register free. **GEO. M. WELTON & SON,** Middleville, Mich.

O. I. C. Bred sows all sold. Booking orders for spring pigs. **H. W. MANN,** Dansville, Mich.

O. I. C. and Chester White Spring Pigs from prize-winning stock of the most popular blood lines. We ship C. O. D., register in buyer's name and guarantee satisfaction. **John C. Wilk,** Alma, Mich.

O. I. C's all sold except two fallboars. Orders booked for spring pigs. **C. J. THOMPSON,** Rockford, Mich.

O. I. C's Choice Aug. and Sept. open gilts also booking orders for spring pigs. **CLOVER LEAF FARM,** Monroe, Mich.

O. I. C. Bred gilts all sold. Orders booked for spring pigs. **A. J. BARKER & SON,** Belmont, Mich.

L. T. P. C. Fall Boars

at bargain prices. Fall gilts open or with breeding privilege. Write or see them. **A. A. FELDKAMP,** R. 2, Manchester, Mich.

L. T. P. C. Gilts bred for Spring litters all sold. Am offering very choice Summer Gilts bred for June and July litters also Fall Boars and Spring Pigs. **Olyde Fisher,** R. 3, St. Louis, Mich.

L.T.P.C. \$15, \$20 & \$25

Spring pigs [with real breeding at the above prices. We are also offering a few choice fall gilts bred for summer farrow. **Hart & Cline,** Address F. T. HART, St. Louis, Mich.

BIG TYPE POLAND CHINAS

Boars ready for service at \$25 each, also spring boar pigs at reasonable price, sired by Clansman Buster and Hovers Liberator. They will make real herd boars. **DORIS HOVER,** Akron, Mich.

Big Type P. C. some very choice boars double im. Dmune, out 100 lb. sire and mammoth sows from Iowa's greatest herds. **E. J. Mathewson,** Burr Oak, Mich.

Large Type P. C.

Largest herd of individuals in state. Everything sold. Nothing to offer until spring pigs are ready to ship. I thank you. **W. E. LIVINGSTON,** Parma, Mich.

BIG TYPE POLAND CHINAS

Bred gilts for sale. Choice individuals of rich breeding at prices within your reach. Come see them or write. **WESLEY HILL,** R. 6, Ionia, Mich.

Poland Chinas Sixteen years breeding and showing. I can please you in a bred gilt. **ROBERT MARTIN,** R. 3, Woodland, Mich.

Additional Stock Ads. on Page 481

LATEST MARKET REPORTS

Tuesday, April 18.

Wheat.

Detroit.—Cash No. 2 red \$1.42; No. 2 mixed and No. 2 white \$1.39; May \$1.42.

Chicago.—No. 2 hard at \$1.41½; May \$1.39½.

Toledo.—Cash \$1.42@1.45; May at \$1.44.

Corn.

Detroit.—Cash No. 2, 65c; No. 3 yellow 63½c.

Chicago.—No. 2 mixed 60¼@60½c; No. 2 yellow 60¼@61½c.

Oats.

Detroit.—Cash No. 2 white 42½c; No. 3, 40½c.

Chicago.—No. 2 white 39¾c; No. 3 white 37¼@40¼c.

Beans.

Detroit.—Immediate and prompt shipment \$6.90.

New York.—Choice pea beans \$7.25; red kidneys \$8.50@8.50.

Rye.

Detroit.—Cash No. 3, \$1.05.

Chicago.—\$1.03½.

Toledo.—\$1.03.

Seeds.

Detroit.—Prime red clover, cash at \$15; alsike \$12; timothy \$3.35.

Toledo.—Prime red clover \$14.60; alsike \$11.50; timothy \$2.95.

Feeds.

Detroit.—Bran \$31; standard middlings \$33; fine middlings \$33; cracked corn \$29@29.50; coarse cornmeal at \$26.50@27; crop \$23.50@24 per ton in 100-lb sacks.

Hay.

Detroit.—No. 1 timothy at \$21@22; standard and light mixed at \$20@21; No. 2 timothy \$19@20; No. 1 clover mixed \$17@17.50; rye straw \$13.50@14; wheat and oat straw \$12.50@13 per ton in carlots.

WHEAT

The long contest between the "bulls" and "bears" in May wheat, with its attendant effects upon the cash market, seems to be turning in favor of the bulls, as the statistical position of wheat has indicated that it would. For a time the quantity of May wheat being held by exporters and millers who wished to take delivery, was in doubt, but at present the belief prevails that these exceed the ability of shorts to make delivery so that the latter are due to be "pinched." Renewal of export buying has made the most impressive showing. Both old and new crop wheat have been bought from North America, and France and Italy have bought some southern hemisphere wheat on passage. The poor outlook for the coming crop in France is a source of alarm. Greece is expected to buy 1,500,000 bushels in another week or two. Furthermore, Argentine prices have advanced recently until North American wheat was relatively cheaper delivered in Europe and Liverpool advanced until it was practically on a full shipping difference over Chicago. Since large shipments from the southern hemisphere have not depressed the European market further, the prospect that all the available wheat would be wanted had a profound change on sentiment, especially since the revival came when a period of inactivity due to holidays abroad was expected. Receipts have dwindled rather steadily for weeks but are about equal to the ten-year average for this season of the year, although much lighter than last year.

CORN

Although the demand for corn has fallen off sharply, the receipts have dwindled to such small volume that the market has strength. The muddy roads and the busy season on farms are restricting sales by producers and a light movement to market is expected throughout May. Export clearances are nearly equal to arrivals at primaries although this movement is apt to shrink before long. Delay in seeding oats promises to throw more acreage into corn, although the supply of old corn does not indicate that such an increase is desirable.

OATS

Oats prices closely follow fluctuations in other grains. The delay in seeding will cut down both acreage and yield of the new crop but the supply at terminals is too large to be

overcome as long as the demand is apathetic. Receipts are shrinking and time of year. Receipts of kaffir and are now below the average for this milo have declined along with other grains and the prices have held fairly steady for several weeks at the decline which occurred in the first part of March.

SEEDS

The spring demand for clover and grass seed is nearly over although the wet weather has delayed oats seeding. Prices are about 10 per cent lower than the high point of the season and have changed but little in the last two weeks. Shipments from the leading markets are on the decline.

FEEDS

Demand for millfeeds is indifferent while holders are not crowding so that the market is quiet. Production is fairly large and stocks are not small with the exception of linseed meal.

HAY

Heavier receipts of hay are expected as soon as country roads improve. Demand has not broadened at distributing markets but is limited to local needs. The total quantity of hay needed will decline as the pasture season arrives. Thus far prices have held well.

BUTTER

Butter buyers who have been following a hand-to-mouth policy for several weeks in the expectation that the prices would decline rather steadily were confronted last week with a small decrease in receipts of fresh butter and by light cold storage holdings. As a result the market turned suddenly and staged a three-day advance. Such behavior is not uncommon at this season of the year when readjustment is being made to the spring increase in production. The upturn undoubtedly will prove short-lived as the maximum receipts have not yet been seen and prices are not down to a

storing basis. All interests are avoiding holding heavy stocks.

Prices for 92-score fresh butter were as follows:

Chicago 37½c; New York 38c. In Detroit fresh creamery in tubs sells for 36c per pound.

POULTRY AND EGGS

Receipts of eggs at the four leading cities are practically at a record level but it is probable that they are now at or very near the maximum. Prices are low enough to induce cold storage operators to take about 60 per cent of the supply. A further decline in values is improbable unless the extremely heavy receipts hold up longer than they usually do.

Chicago.—Eggs miscellaneous 22½@23c; dirties 20½@21c; checks 20@20½c; fresh firsts 23¼@23½c; ordinary firsts 22½@23c. Live poultry, hens 26c; broilers 40@50c; roosters 18c; ducks 30c; geese 16@18c; turkeys 30c.

Detroit.—Eggs fresh candled and graded at 24½@24¾c. Live poultry heavy springers 29c; light springers 24c; heavy hens 29c; light hens 27c; roosters 18c; geese 18c; ducks 33c; turkeys 30c.

BEANS

Arrival of spring weather has reduced the demand for beans and the prices are a shade lower at \$7.10@7.15 per 100 pounds for white hand-picked stock, f. o. b. Michigan shipping points. The supply of beans is so small, however, that no big decline appears possible. The demand usually slackens about this time and continues dull until late August. Some beans are being offered for import but none have arrived so far as reported.

POTATOES

Shipments of potatoes from producing states since April 1 have set a new record. The movement is about one-third larger than the average at this season of the year and the season's total is about 30,000 cars larger than

at this date last year. Demand has been limited and prices weak. Northern sacked round whites are quoted at \$1.60@1.65 in the Chicago carlot market, \$1.75@1.85 in eastern cities, and \$1.25@1.42 at shipping points.

WOOL

Buying of wool increased slightly during both of the last two weeks, with woolen mills more active than worsted concerns. Another purchase of Arizona wool at around 35c a pound at Boston has been reported. The amount of the new clip offered thus far has been small or trading probably would be still more general. Foreign wool markets still show strength much to the surprise of the trade in this country. In spite of the advance of nearly 40 per cent in the price of wool, cloth prices have remained unchanged until last week, when the American Woolen Company announced an advance of 10 to 35 cents per yard for woolen cloth. Worsteds have not yet been changed. This advance is rather surprising in view of the dullness of the goods trade during the last five or six months, but it will serve to prevent cancellation of orders. With the mills consuming more than twice as much wool each month, as is grown in this country, with business conditions generally on the upgrade, and foreign wool markets strong, conditions are shaping up to favor a recovery of the loss in wool values which occurred during March.

GRAND RAPIDS

The potato market displaced traces of more activity in Grand Rapids this week. Movement slowed up as a result of the land becoming tillable and every hour was needed to prepare for this season's plantings. Prices ranged from 80@90c a bushel. Home-grown stuff was more plentiful on the city wholesale market. Among the new offerings, besides green onions, were small lots of spinach and rhubarb. Hothouse leaf lettuce eased as the supply increased and sales were being made as low as 16c per pound. Egg bids were mainly steady at 21@22c. Poultry was quiet but live stock was beginning to look up as a result of the passing of Easter. Lambs are scarce and firm at \$11@13c a pound live weight. Hogs were steady at 8@10c.

DETROIT CITY MARKET

On this market greenhouse stuff predominated. It was in plentiful supply and the demand was good. Root crops, especially carrots, were in active demand. Horseradish also moved good and poultry was sought for. Prices are as follows: Cabbage \$1@1.50; carrots \$1.75@2.75; horseradish \$3@5; potatoes \$1@1.25; poultry 30@35c a lb; eggs 25@35c; veal 12c. No hogs were offered.

FARMING CONDITIONS IN MICHIGAN.

Plowing and the preparation of the ground for spring seeding has been interrupted during the past week by heavy rains. Weather conditions have also kept country roads in a poor condition.

Winter Wheat.

The outlook has improved during the last few days. The recent rains and warmer weather have started growth, and many localities show uniformly good stands. The damaged areas are mostly in the localities where the land is either rolling or where low spots have been covered with water long enough to kill the plant.

Rye.

The condition is generally good, although hlate sown fields have made only a small top growth to date.

Fruits.

Cool weather has checked the advancement of fruit buds, and prospects are favorable except in the southwestern counties where tender fruits in orchards away from the lake shore were injured by the cold weather during the winter.

LIVE STOCK SALES.

Shorthorns.—May 10, Greenville Fair Grounds, Central Michigan Shorthorn Breeders' Association.

Live Stock Market Service

Wednesday, April 19.

DETROIT

Cattle.

Receipts 462. Market is strong at 25@35c higher than last week's close. Best heavy steers \$ 7.00@ 8.00 Handyweight butchers.... 7.00@ 7.50 Mixed steers and heifers 6.50@ 6.75 Handy light butchers.... 6.00@ 6.50 Light butchers 5.00@ 5.75 Best cows 5.00@ 5.50 Butcher cows 4.00@ 4.75 Common cows 3.00@ 3.50 Canners 2.00@ 3.00 Best light weight bulls... 4.75@ 5.75 Bologna bulls 4.00@ 4.50 Feeders 5.50@ 6.50 Stockers 5.00@ 6.00 Milkers and springers....\$ 40@ 70

Veal Calves.

Receipts 966. The market is 75c@ \$1 higher. Best \$ 9.75@10.00 Others 5.50@ 9.00

Hogs.

Receipts 2289. Market steady. Pigs' \$ 10.75 Mixed hogs 10.50 Roughs 8.40 Stags 5.00@ 5.50

Sheep and Lambs.

Receipts 251. Market slow. Best lambs \$ 13.50 Fair lambs 11.00@12.00 Light to common 7.00@ 9.50 Fair to good sheep 6.50@ 7.00 Culls and common 2.00@ 3.00

CHICAGO

Cattle.

Estimated receipts today are 10,000. Market steady to weak. Beef steers medium and heavy weight 1100 lbs up \$8.75@9.40; do medium and good \$7.50@8.75; do common \$6.75@7.50; light weight 1100 lbs down \$8.25@9; do common and medium at \$6.60@8.25; butcher cattle heifers at \$5.50@8.40; cows \$4.50@7.15; bulls bologna and beef \$4.10@6.50; canners and cutters cows and heifers \$3.25@4.50; do canner steers at \$4.25@5.25; veal calves light and handy weight \$5.75@7.75;

feeder steers at \$5.85@7.50; stocker steers \$5.75@10.40; stocker cows and heifers \$4@5.25.

Hogs.

Estimated receipts today are 11,000; holdover 7,204. Market strong to 10c higher, mostly on light and medium weights. Bulk of sales \$9.90@10.55; tops \$10.70 for one sorted load; heavy 250 lbs up \$10@10.30; medium 200 to 250 lbs \$10.20@10.55; light 150 to 200 lbs \$10.40@10.65; light lights 130 to 150 lbs \$9.90@10.50; heavy packing sows 250 lbs up \$9.10@9.65; packing sows 200 lbs up \$8.85@9.20; pigs 130 lbs down \$9@10.25.

Sheep and Lambs.

Estimated receipts today are 9,000. Market steady. Lambs 84 lbs down \$11.50@13.75; do 85 lbs up \$11@12.50; do culls and common \$9@11.25; spring lambs \$9.75@12.25; ewes \$6.50@8.75; ewes cull and common \$3@6.50.

BUFFALO

Cattle.

Receipts two cars. The market is steady. Choice to prime shipping steers 1400 lbs and up at \$8.25@8.60; good to choice yearling steers \$7.75@8; light native yearlings good quality \$8@8.50; best handy steers at \$7.25@7.50; handy steers and heifers \$6.75@7.25; western heifers \$6.50@7; light Michigan butchering heifers at \$6.25@6.50; best cows \$5.50@6; cutters \$2.50@3; canners \$1.50@2.25; best heavy bulls \$4.50@5; heavy bologna bulls at \$4.25@4.50; common bulls at \$3.50@4; best feeders 700 to 800 lbs \$6@6.25; medium feeders at \$5.50@6; stockers good \$4.50@5; light common \$4@4.50; best milkers and springers at \$60@80; mediums at \$35@50. Calves steady; tops at \$9.

Hogs.

Receipts five cars. Market strong. Medium and heavy \$10.50@11; mixed and yorkers \$11.25@11.35; pigs and lights \$10.75@11.

Sheep and Lambs.

Receipts five cars. Market is steady. Top lambs at \$16; clipped \$13.50@14; yearlings \$10@11; ewes \$6@7.

The Agricultural Bloc

Accomplishments and Aims of this Group as Outlined on the Floor of the United States Senate Last Week by its Chairman, Senator Arthur Capper

AGRICULTURE is the greatest industry in the United States. It is an eighty billion dollar affair. Once it gave the nation twenty-two billion dollars in new wealth every year and supplied fifty per cent of its bank deposits. It will do the same and more if it is given a square deal today. But if it is to flourish it must be encouraged and safeguarded.

The time is past when the nation should tolerate those whose greed insists on making the farmers the goats, men who would bleed farmers white in order to amass fortunes to hide away in tax-exempt securities. The wolves already have been permitted to run free too long. Market gamblers have had their day and have robbed right and left with impunity. I hope that particular book of wrong has finally been closed.

Mr. President, it is up to congress and the government to assist in working out a national program which will give the farmer a larger share of the fruits of his labor and a chance to have something to say about the price he receives for his products. Cooperative marketing should be encouraged. Better credit facilities must be established to enable the farmer successfully to operate with his slow turnover. He must have, and rightfully can demand, as good financing as other industries and businesses receive. That is only fair. Today the farmer, very largely, gets credit in a haphazard, unsystematic way—after other industry has been served. He gets the crumbs, if there are any, from the financial table. In the last few years even the crumbs had been cleaned up before the farmer has a chance at them.

Certain things of an emergency nature have been attempted and accomplished and they are helping relieve the agricultural situation. Immediate relief of intolerable conditions were sought. The worst injuries were treated. Much still remains to be done.

Mr. President, I wish to call attention to the fact that this corrective legislation has been sponsored and promoted by the agricultural bloc. Congress has realized the grave importance of doing something constructive to aid agriculture and has passed several valuable acts. The billion dollar War Finance Corporation to handle agricultural credit more effectively is one. The Capper-Tincher future trading bill to regulate the grain exchange is another. Then there is the packer control bill, the agricultural emergency tariff bill—the Kenyon bill increasing interest rates on bonds of the farm loan banks from five to five and one-half per cent and the Curtis bill authorizing the appropriation of twenty-five million dollars as a revolving fund for the Federal Farm Loan Banks. One of the most important enactments was the passage of the measure permitting farmers to market their products cooperatively. That measure gives the farmer the opportunity to help himself in overcoming and removing many of the evils that have grown up in the marketing of agricultural products. It will tend to reduce the great spread between the prices the producer receives and the price the consumer pays for the products.

The farm bloc favors a liberal but sane appropriation for the department of agriculture so that it may function efficiently and conduct its activities on a scale in conformity with the size and importance of the industry it serves.

The farm bloc believes railway freight rates are too high and must come down.

The farm bloc would restore to state railway commissions much of the power taken away from them by an unwarrantable interpretation of the transportation act by the Interstate Commerce Commission.

Another measure favored by the farm bloc which will contribute to a permanent and prosperous system of agriculture is the development of the Muscle Shoals project. We should resume work immediately on the government's great fertilizer and power plants on the Tennessee River. The nation's fertilizer bill is now about two hundred and fifty million dollars annually. I believe it is possible to reduce this one-half if we carry out the Muscle Shoals project.

The farm bloc is supporting the Capper-French truth-in-fabric bill to compel makers of clothing to brand their goods so that the buyer will know the amount of pure wool and the amount of shoddy in it.

And first in its program the farm bloc holds credit reform. It realizes that agriculture is at the mercy of those who control credit and that many who exert that control are not particularly in sympathy with agriculture. The farm bloc knows that farmers have suffered and many have been ruined financially, by lack of credit.

The farm bloc is seeking to evolve a credit plan which will give relief to agriculture, which will make more money for financing the slow turnover of the farms, which will give the farmer another opportunity to go ahead with his work with a decent chance to make good. If that is accomplished it will mean cheaper food, more work, reopened factories and mills, and a return of good times.

An obvious need in the way of further legislation for the encouragement of agriculture, is a law that will make the Federal Reserve Board more responsive to the farmer's credit needs. This is best met, in the judgment of many, by the bill, which already has passed this body and is pending in the house, providing for the recognition of agriculture in the appointment of members of the board. This bill makes but a single change in existing law, inserting the word "agriculture" so that when appointing members of the Federal Reserve Board the President "shall have due regard to a fair representation of the different agricultural, commercial, industrial and geographic divisions of the country." A studied effort has been made to have this legislation appear to be class legislation, but such a conclusion can be reached only as a result of a complete failure to comprehend its import. Agriculture is our greatest industry. Surely an effort to have it given only the same consideration that is given to commercial and industrial divisions in our nation cannot truthfully be defined as an attempt to obtain class legislation. When the dependence of other industries on agriculture is more clearly understood, I look for the prompt enactment of the bill by the house. Only fear that the President might appoint a man ill-fitted for the place to this position can justify further opposition to this measure, and surely that is a far-fetched assumption, as has been so well said by Secretary of Agriculture Wallace.

There are certain interests, which I regret to say, have powerful spokesmen among the eastern press, who are wont to cry "wolf, wolf" at the farm bloc. Those interests simply seek to escape too close a scrutiny of their

own motives by creating a furore in the public mind.

Mr. President, the charge has been made that the farm bloc seeks class legislation and that its aim is to profit agriculture no matter at what cost to other industry. The men who make that charge lose sight of the fundamental fact that agriculture is basic, that what contributes to its prosperity and well-being, unquestionably benefits all industry. When agriculture is profitable, the nation is prosperous.

It is not class-legislation to demand that agriculture have as good credit facilities as any other business; that farmers be encouraged to work together to improve their marketing condition; that the market gamblers and speculators and the selfish class which has grafted off of the farmers for many years, be unmasked and controlled.

The farm bloc does not recognize the right of any class to have an advantage at the expense of another group or of the population as a whole. The interests which oppose it, fight the farm bloc because it does not tolerate their pet piracies. Vested interests have been blood-sucking the farmer long enough.

Purposes of the farm bloc are economic, not political. It is striving for a more sensible program of national development in which agriculture will occupy its rightful position and be accorded the interest it deserves. Its aim is to bring about a better understanding and a greater cooperation among all worthy elements of the population to the end that all may be aided. And it will fight and fight hard to accomplish that aim.

Mr. President, I know that congress and the administration is in sympathy with the needs of agriculture, that it is anxious to promote the welfare of the farmers of the country and that it has its feet solidly on the ground. That is why so much already has been accomplished and why so much more will be done. We have an able and efficient secretary of agriculture. His department is doing great work for the upbuilding of the agricultural interests of this country. A liberal policy toward this department will serve to make more valuable and serviceable the legislation already enacted and to safeguard the improvement in agricultural conditions that has been accomplished.

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HAY SHIPPERS for highest prices bill all cars to The E. L. RICHMOND CO., Detroit.

FARMERS AND FARMING, BRIEFLY TOLD.

James J. Jones, of Clio, acting for the small fruit growers in that community, has purchased a car of berry boxes for this season's use. There were 150,000 boxes in the car, or enough containers for 4,500 bushels of fruit.

* * *

A hen on Frank Casher's farm near Eaton Rapids believes in saving time. She laid an egg the other day which would grade "three-in-one." It measured seven and one-half inches by nine and three-quarters inches in circumference.

* * *

F. T. Riddell and D. T. Musselman, of the Michigan Agricultural College, are cooperating with County Agent I. T. Pickford in assisting farmers in Oceana county to improve their farm management methods and instruct them in farm accounting.

* * *

W. H. Berger, president of the Ottawa County Farm Bureau since it was organized, and one of the leaders in forming the State Farm Bureau, has resigned to become a candidate for the legislature from Ottawa county. Henry Harrington will serve the unexpired term.

* * *

Fruitport Farm Bureau Cooperative Association has just closed another very successful year. Directors elected are: George Bussing, Auer Berson, Anthony Krehn, Nuse Meyers, E. K. Weaver, John Anderson and Charles Larsen.

* * *

The canning factories of William M. Traver, of Hartford, bankrupt, and six farms were sold at auction this month to satisfy his one hundred and twenty creditors, mostly farmers who sold their fruits and vegetables to him.

* * *

Value of the honey bee to fruit growers and farmers in general was stressed at the bee-keepers' schools which were held throughout the state last winter and this spring under the direction of B. F. Kindig, state inspector of apiaries. Many new "Honey-Money Clubs" will be formed in new communities this season as a result of these schools.

* * *

Interest in growing of small fruits in the Grand Traverse region is steadily increasing and in all probability a large acreage will be set to these crops this spring. Owing to the light soils in some parts of the area, it is believed overhead irrigation may be necessary for successful and profitable culture.

* * *

Sheep records were made in Kalamo township, Eaton county, this spring. A Shropshire ewe owned by Howard Williams gave birth to quadruplets and a ewe owned by Vic Gregg dropped a seventeen-pound lamb.

* * *

The American Express Company, it is charged, has been enforcing higher rate schedules in Michigan on cream shipments than in other states. The Association of Creamery Owners and Managers has made complaint to the State Public Utilities Commission and a hearing will be held May 3.

RECIPE FOR QUACK.

A SUBSCRIBER has this to say about eradicating quack-grass: When the soil becomes dry enough, plow the ground about two inches deep and pulverize thoroughly. Then run the drag over the patch frequently. You cannot drag it too much. Then when it is time to sow buckwheat sow three pecks per acre after you have plowed the ground six inches deep and prepared the surface for the seed.

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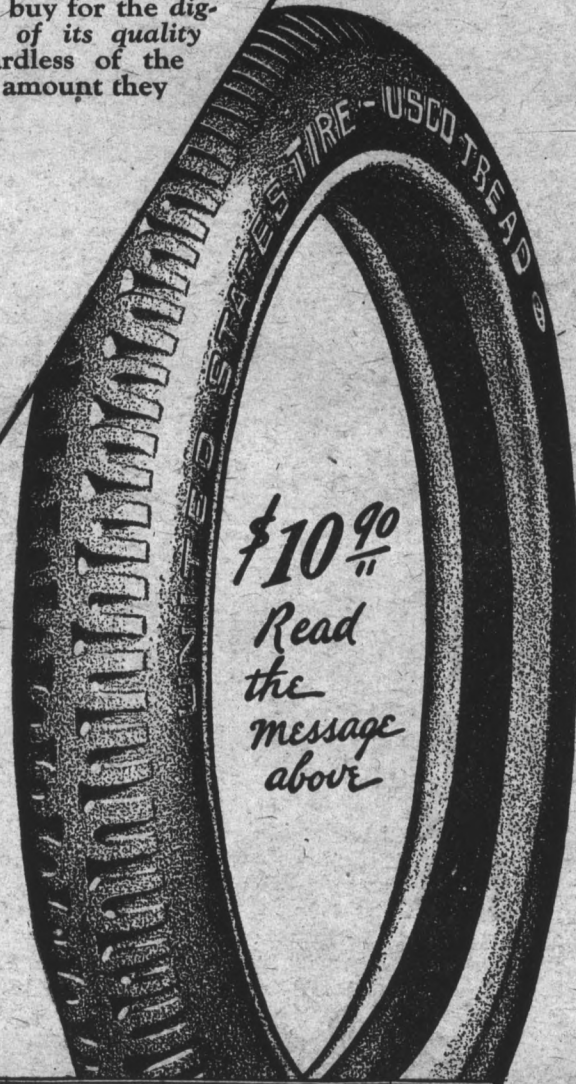
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