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DETROIT, MAY 23, 1921

CURRENT COMMENT

The Background of Success

NEXT month thousands of Michigan boys and girls will finish their primary school work. Other thousands of young men and women will graduate from high schools in this state alone, while hundreds will graduate from advanced college courses.

A very large percentage of these will be country boys and girls who have little in the way of material resources with which to begin their life work and no influential "connections" through whom they can secure a lucrative position, or who would help to finance them in any business undertaking of their own. Too often they are inclined to look upon this situation as a handicap, as compared with the more fortunate acquaintance who may have both of these seemingly important advantages.

But as a matter of fact, the average farm boy or girl has a business asset which is of far greater importance in the race for material success than the seeming advantages of influence or affluence which they too often envy others. The nature of this advantage was happily expressed by the manager of a large business enterprise who gave his reason for favoring farm boys among applicants for jobs in his business as follows: "They go to college with a background of hard work. They expect to work when they get out and they want the college teaching so they can work more effectively."

There is food for profitable thought by young and old in this expression of an experienced and successful business man. The boy or girl who realizes the fact that the more education he gets the more efficiently he can work will not be stopped by any ordinary handicap from getting a good education. Also the young man or woman who realizes that a background of hard work is the best preparation for future success will not be envious of the apparent preferment of the favored sons of those in high places. For after all has been said, true success must be based on real achievement, and this is always the result of hard and intelligent effort.

The truth of this statement is abundantly proven by the large percentage of successful men and women in every walk of life who were farm boys and girls. Their example should be an inspiration to every country boy and girl

to get the best school training possible, whether they expect to enter a profession, become business men or follow in their father's footsteps as farmers. A good education will be their best asset in any calling. With hard work as a background to insure perseverance and a good education as a training to aid in the evaluation and application of ideas the country boy or girl has the best possible equipment for success in life. These are assets out of all proportion in value as compared with unearned preferment or preferential business backing. This has been the history of other generations of boys and girls and history will repeat itself with the present generation.

"Signs" of the Times

IN a recent issue we commented on the fact that the Detroit Board of Commerce had established an agricultural department for the purpose of studying the mutual problems of its city members and the farmers in the Detroit area. In this comment was pointed out the existence of an excellent opportunity for constructive work in bringing about a better mutual understanding between the business men of Detroit and the farmers living in the Detroit area. The discussions at the first conference attended by farmers and their representatives in the area, a report of which appears in another column of this issue, indicate that the farmers of the area will meet the board half way in a constructive work of this kind.

In a recent address, President Russell of the Detroit Board of Commerce, outlined the work which he believed that body should push. In reports of his address he is quoted as emphasizing the need of greater food production in the immediate vicinity of Detroit, as favoring the colonization of the country with men who have left it for the workshops and who have had enough of the city, and as hoping that the blue and white sign seen on so many farms would soon be replaced by one indicating that the farmer is a rural member of the Board of Commerce.

We sincerely hope that President Russell was wrongly quoted or that he did not mean his words to be literally construed. Conspicuous among the "signs" of the times is the blue and white sign denoting membership in the farm bureau, as typical of the present tendency toward rural organization. Any program which contemplates its replacement by the sign of a city business organization is certain to fail of accomplishment. On the other hand any program which will promote the use of the Board of Commerce sign as a fitting companion to the "blue and white sign" as standing for the betterment of agriculture will be worthy of general support, and should be hailed as another helpful "sign" of the times in standing for a "square deal" not only between men but between the industrial classes into which they are divided under modern conditions.

Capital for Farm Success

ONE of the greatest handicaps met by the average farmer is the lack of sufficient capital to properly finance his business. This fact has been revealed by every economic survey made of the industry. It can, then, be taken as an established fact that as a whole the business of farming is under-financed. Yet everywhere there are examples of farmers who began without capital other than their own resources of brain and brawn and have not only succeeded in financing a prosperous farm business, but have accumulated a considerable surplus for investment in other channels. Nor are these cases a rare exception in the general rule of under-

financed farm businesses. They are to be found in every farm community in every section of the state and country. In fact, they are so numerous that enterprises seeking new capital are very generally seeking it among farmers rather than among city business men or capitalists.

These examples are sufficiently numerous to prove that lack of capital is not an insuperable obstacle to the young man with an ambition to become a successful farmer.

This does not mean that better credit facilities for farmers are not desirable, and particularly in sections which are in process of development. But it does mean that the young man with sound economic ideas and the energy to work them out will succeed in capitalizing his farm business, just as the young man with similar characteristics will succeed in capitalizing some other enterprise which he undertakes.

As a matter of fact, the crisis through which we are passing has demonstrated that many other businesses besides farming are under-capitalized. The tremendous bank loans which have strained the credit machinery of the country nearly to the breaking point have not been made to farmers. And in many cases they have proven that too easily available capital for the purpose of expansion may be a handicap, rather than an advantage in the long run. Too often easy credit conditions make for extravagance rather than thrift. And thrift is the basis of ultimate business success. The person or the business firm that has demonstrated the possession of thrift will always be a preferred credit risk, and will least feel the handicap of limited capital, not alone for this reason, but as well because more will be accomplished with the capital already available.

Michigan Leads with Rosen Rye

IN addition to producing a greater variety of cash crops than any other state, Michigan is in the vanguard of high production of many crops. This has been the case with the rye crop for many years, during which our state has held fourth or fifth place in the production of this crop. But in 1919 the farmers of Michigan produced the second greatest state total yield of this grain, and last year stepped into first place with a production totaling fourteen per cent of the country's rye crop.

This new record was made possible by the development of Rosen Rye, a remarkably high-producing variety bred at the Michigan Agricultural College and distributed to the farmers of the state during recent years. That this variety is high in quality as well as production is shown by the fact that Michigan entries, chiefly of the Rosen variety, won twenty-nine of the thirty prizes offered in the rye classes at last year's International Grain and Hay Show.

This is but one of a number of new and important variety developments resulting from the plant breeding and selection work carried on at the college by Mr. F. A. Spragg during recent years. But it is one which has developed an amount of new wealth on the farms of Michigan in excess of the total annual cost of the institution to the state. This fact should furnish profitable food for thought to the farmers of Michigan, when the work of the college is criticized by politicians and their spokesmen, which has been a favorite indoor sport with some of them during recent months.

News of the Week

Wednesday, May 18.

THE United States Railroad Board decides in favor of rail wage cuts. Germany pays allies 150,000,000 marks as part payment of war indemnity. Transportation by seaplane be-

tween Detroit and Cleveland will be opened June 1.—Madam Curie, discoverer of radium, gets honorary degree of Doctor of Laws from University of Pennsylvania.—Senate military committee favors army of 170,000.—Polish executive committee wires allies that insurgents are ready to cease hostilities with Germany.—Cotton growers ask federal aid to supplement state funds for boll weevil control.—The administration abandons its fight against the Borah naval disarmament amendment.—Eighteen congressmen from agricultural states organize a society for promotion of farm legislation; Ketcham, of Michigan, is a member.

Thursday, May 19.

BECAUSE of lack of funds, seven hundred federal prohibition agents are laid off temporarily.—Secretary of State Hughes refuses request of Poland for support in Silesian question.—Ford Motor Company broke single-day production on May 10, by turning out 4,083 cars.—Delaware & Hudson Railroad lays off three thousand men in shops because of business depression.—The house weights and measures committee favors bill to standardize fruit and vegetable marketing containers.—Franklin K. Lane, former secretary of interior, died at Rochester, Minn.—Illinois state senate passes bill to place operation of grain exchanges in Illinois under regulation of state department of agriculture.—American Farm Bureau Federation and national grange representatives condemn sales tax before senate finance committee.

Friday, May 20.

JAPAN decides to negotiate with China for the withdrawal of Japanese troops from Siberia, and the resumption of commercial relations.—Citizens are sworn in as state police to assist in preserving order during the West Virginia coal mine clash.—The city of Omsk has fallen to an army of 40,000 Russian revolutionists.—Former Secretary of Commerce Redfield tells Maryland bankers that America has done nothing to enter fight for foreign trade.—A shortage of beer is reported throughout Great Britain because of lack of coal due to the miners' strike.—Chief Justice of Supreme Court White dies. Ex-President Taft is reported to be his successor.

Saturday, May 21.

MOST of the 228 patents recently sought in the United States by Germans were for important war-making devices.—Over 4,000 cases of whiskey have been withdrawn from three Kentucky warehouses on forged permits.—The grain standardization laboratory of the department of agriculture at Washington was ruined by two chemical explosions.—Department of agriculture reports large sour cherry crop in Pennsylvania, despite Easter frosts.—The United States Shipping Board makes compromise offer to shipworkers of fifteen per cent wage cut.—President Harding and party make week-end trip to New York on presidential yacht Mayflower, to give talk before business men.

Sunday, May 22.

FOREST fires which have done much damage in Minnesota, are under control.—The 1921 national elimination balloon race started from Birmingham, Alabama, Saturday evening.—Recent survey shows that nearly three-fourths of Detroit's population is composed of foreign-born or whose parents were foreign-born.—Thirteen thousand enumerators will be employed to take Canadian census, starting June 1.—France fears United States will favor Germany for trade reasons.—Governor Blaine, of Wisconsin, refuses to name a commission to cooperate with a Michigan commission to settle dispute regarding Wisconsin-Michigan boundary at Montreal river. This means that the matter will have to be fought out in United States courts.

Monday, May 23.

THE Polish insurgents have Kattowitz, the coal capital of Silesia, under siege; Sunday they cut water pipes and electric wires to the city.—United States sends Mexico statement of conditions on which it would recognize the Obregon government.—United States tourists are causing a resumption of business in Rome and other European points.—Hawaii asks President Harding to relieve the labor shortage, farm laborers being very scarce.—Japan is to restore Shantung to China, according to official report.—Sunday shatters season's heat record in Detroit, the official temperature reaching eighty-eight degrees.

Tuesday, May 24.

FIRE almost completely wipes out the town of Wheeler, Michigan. Only three buildings were left.—China and Germany sign trade treaty.—The house of representatives at Washington votes \$200,000 to aid dry forces.

Getting Larger Bean Yields

By J. F. Cox,

Professor Farm Crops, M. A. C.

THERE are two sayings in common use, which do the bean grower, particularly the Michigan bean grower, grave injustice. The first of these refers to any empty-headed chap whom we are inclined to say, "don't know beans," as though not to know about beans were the lowest degree of imbecility. The second saying, "too poor to grow beans," is often applied to that type of land which will produce only one sure crop—mortgages. These sayings are not only unjust but the impression they convey is absolutely fallacious, for bean growers know that it takes both a good head and good soil to grow good beans.

Certainly the many Michigan farmers and stockmen, who know Earl McCarty, of Bad Axe, who knows beans, will agree that he represents a keen-minded, energetic type of Michigan farmer, who knows how to get the most from either beans or Hereford cattle. Mr. McCarty believes in pure-breds. He grows Robust beans secured through the Michigan Crop Improvement Association and reports a yield of twenty-eight bushels per acre.

H. J. Henderson, of Grand Ledge, is another who believes in making a good variety do as much as possible in the work of production. On fourteen acres he secured a yield of thirty bushels to the acre of clean beans with very little pick. Hardly a farmer drove by his field, which was by the road, without stopping to look at it.

The Robust bean is one of Professor Spragg's developments and certified seed is available through the Michigan Crop Improvement Association and seed department of the farm bureau. Most Michigan seed companies carry the Robust beans in their catalogs. It is a heavily podded, high-yielding variety, which is not as easily affected by blight and anthracnose as common varieties and is immune from mosaic, a new disease spreading in the state.

In New York state the Robust bean has been adopted as a standard. The New York Bean Growers' Association having secured two hundred bushels from Olaf Nelson, of Aloha, Cheboygan county, in 1917, now have enough Michigan Robust for their main seed supply. Mr. Nelson's seed came entirely from a few beans secured from the college several years previously.

The Robust needs a somewhat longer season than ordinary varieties and should be planted in early June and not later than mid-June for best results. This strain markedly outyields any other variety of white pea bean.

The Early Wonder is particularly well liked in Tuscola county. It is somewhat earlier than the Robust and would be much safer for planting in late June, or on soils which are late. It does not yield as much as the Ro-

bust but is better than ordinary kinds.

It looks as though Red Kidney beans would again sell at a higher price than white pea beans. They sold briskly up until January last year at a very considerable premium.

"Clean seed will grow clean beans," is an old saying, which sums up in a nut shell the importance of clean seed, free from diseased beans, immature beans, or withered beans. Good Michigan-grown seed from dependable growers, whose fields are clean, is the safest and best for Michigan.

In addition to giving careful attention to securing the best varieties, bean growers, such as the above named, aim to produce a crop at as little cost per bushel and with as little work as possible. Olaf Nelson, for instance, will spend almost twice as much time as the average farmer in fitting the best possible seed-bed, knowing that he will save a lot of labor and expense in later cultivations, and will very likely get along without one or two extra cultivations that would be necessary if the seed-bed were not well worked. The disk and harrow beat the cultivator three to one in cheap and effective weed killing.

Fertilizers will also aid in reducing the cost of beans per bushel provided the right kind is used. Straight six-

teen per cent acid phosphate, at the rate of three hundred pounds per acre, is very effective in hastening the maturity of the crop and in insuring a more uniform maturity. As in the case of small grain crops and other seed crops, acid phosphate increases the yield of beans to a marked extent. It is even more effective if the land has been well-manured before fitting, or during rotation.

On soils which are deficient in organic matter and nitrogen, ammoniated phosphate, such as a 2-10 would be advisable, or an application of complete fertilizer, at the rate of three hundred pounds per acre of such a formula as 2-10-4 or 2-8-3.

Fertilizer should be applied broadcast or through fertilizer drill when fitting the seed-bed. Up to one hundred pounds per acre may be applied in the row with the seed, but it is not advisable to put large amounts directly under the hills, since it means a concentration of the root system, and the plants will not stand droughty weather of summer as well as the widely branched type of root system, which will result from a broadcast application.

Cheap production cost per bushel of beans means more profit from the crop. The best varieties and effective handling give larger yields per acre at comparatively little increase in expense and lessen cost of production per bushel.

Steer Feeding Day at M. A. C.

Tests to Determine Feeding Value of Corn Stover Silage

IS it more profitable to feed normal silage to steers or to husk the corn, put it in the crib, run the stalks into the silo and then feed the corn and the stover silage to the steers separately? The Michigan Experiment Station has undertaken to answer this question and to determine the feeding value of stover silage for steers, for the farmers of the state and the first year of the three-year tests has just been completed. Steer feeding day was held at the college last week to acquaint the farmers and feeders with the results of this year's work.

Here is the plan of the experiment as followed by Professor Brown, of the animal husbandry department of the college, under the general direction of Dean Shaw, director of the Michigan station. Twenty-eight steers were purchased in Chicago last fall, shipped to the college and there divided into three lots, as near alike in weight and quality as it was possible to select them. The initial weight of Lot No. 1 was 8,092, of Lot No. 2, 8,123

and of Lot No. 3, 8,133 pounds. The total cost of the steers laid down at East Lansing was \$9.03 per cwt.

The three lots were fed one hundred

and seventy-five days. Throughout the experiment an equal amount of hay and cottonseed meal was fed to each of the three pens, the daily allowance

of clover hay for each animal being 2.64 pounds and of cottonseed meal 2.72 pounds. Lots No. 1 and 2 received shelled corn for the last sixty-seven days of the test, allowance being made for the corn contained in the normal silage fed to Lot No. 1. Lot No. 3 received an amount of corn equal to that removed from the stover silage they were consuming, for the first one hundred and eight days and then the same as Lots No. 1 and 2 during the last sixty-seven days.

To give the reader a clearer understanding of the quality of the feeds used in this test, Professor Brown informs us that the corn used for the normal silage and that for the stover was taken from the same field where the growth was very uniform. The portion of the corn husked yielded at the rate of 102.7 bushels per acre and was well matured. The normal silage was made from corn with all the ears on while the stover silage was made from the stalks after the corn had

(Continued on page 673).



Lot 2 was Fed Stover Silage. Gains Cost \$10.01 Per Cwt.



Lot 1 Received Normal Silage. Gains Cost \$8.81 Per Cwt.



Lot 3 Fed Stover Silage and Shelled Corn at Same Cost as Lot 2.

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LATE FARM BUREAU NEWS

PREPARE TO DEFEND AGRICULTURE.

THE forces of agriculture are now well organized for legislative action in congress as well as throughout the country. A few days ago a group of fifteen senators from the agricultural states of the west and south met and formed an informal organization for united action on measures affecting the farmers. Senator Kenyon, of Iowa, was selected as chairman and four committees were appointed to consider agricultural measures.

WOOL VOLUME CONTINUES TO INCREASE.

WOOL arrived at grading stations and was accepted at the rate of 20,000 to 30,000 pounds a day until last Saturday, when the volume of business made it necessary to add a third crew, which has raised the amount of incoming wool to between 30,000 and 40,000 pounds a day. Farmers have begun the practice of bringing in their wool to local warehouses ahead of grading dates so that in two cases it has been impossible for the graders to inspect all of the clips the same day.

Last Thursday at Vernon in Shiawassee county, 20,000 pounds of wool were pooled. Advices to the farm bureau on Friday indicated that a similar amount would be pooled then and that farmers in the vicinity of Vernon had altogether 100,000 pounds still to be brought in.

The total number of warehouses

and by July 15, it is believed that all the stations in the lower peninsula will have been visited. Plans have not been completed for handling the wool of the northern peninsula.

Reports continue to arrive at Lansing of cases where amounts offered by local buyers have been scarcely more than the cash advance paid by the State Farm Bureau. In Shiawassee county the other day farmers reported that wool buyers offered only thirteen cents a pound while the State Farm Bureau was paying on the spot from eight to fifteen cents in cash advances according to the grades.

Wool Grading Dates.

Here are the dates for the week of May 30:

Tuesday—Marcellus and Howell.
Wednesday—Constantine, Swartz Creek and Brooklyn.

Thursday—Constantine, Davison and Hanover.

Friday—Dowagiac, Pine Run, (P. O. Clio), and Springport.

Saturday—Dowagiac and Lapeer.

Return dates have been arranged for in several counties as follows: Mulliken, June 15; Eaton Rapids, 16; Charlotte, 17; Bellevue, 18; Nashville, 20; Middleville, 21; Hastings, 22; Delton, 23; Albion, 24; Marshall, 25; Battle Creek, 27.

A FARM BUREAU REFERENDUM.

THE American Farm Bureau Federation is preparing to take a referendum among its 1,500,000 members during the coming three weeks. A

Opposed to High-Priced Packages

FRUIT growers have received the support of the Michigan State Farm Bureau and other growers' organizations for a campaign to reduce the cost of fruit packages of all kinds. The growers say that while they have suffered a general decline of fifty per cent on their products that manufacturers of crates and baskets have, through a mutual understanding, held the price of fruit packages close to war-time figures with the exception of apple barrels, which have dropped from \$1.40 and \$1.50 each to fifty cents.

The growers maintain that they should not buy packages until the prices come down. The State Farm Bureau is sending out a statement to cooperative associations carrying the advice of the Michigan Fruit Growers' Exchange. To show the percentage of price reductions the fruit growers made out the following comparison at a recent meeting:

Actual Prices.

	1920.	1921.	Reduction Per Cent.
Barrels	\$ 1.40	\$.50	64
Jumbo baskets	150.00	90.00	28
Ventilated berry crates	.45	.35	22
Old-style 16-qt. crates	.34	.28	18
Bushel baskets	3.50	2.50	28

They propose the prices in the following scale and advise associations to refrain from buying until manufacturers come in line with them.

Proposed Prices.

	1920.	1921.	Reduction Per Cent.
Barrels	\$ 1.40	\$.50	64
Jumbo baskets	150.00	90.00	40
Ventilated berry crates	.45	.25	44
Old-style 16-qt. crates	.34	.20	41
Bushel baskets	3.50	2.00	43

needed has been raised to one hundred and fifteen, of which ninety-three have already been arranged for. These warehouses are well distributed over the state with the exception of the northern peninsula, being located closer together in counties where more wool is produced.

Several counties have asked for return dates because wool growers in those sections were unable to get to town on the first grading days. Farmers who clipped their sheep after the first grading day also wish to be accommodated. All of the grading stations in the lower half of the southern peninsula will be visited by July 1,

questionnaire is to be submitted to the entire membership with questions based on the national legislative program adopted at a conference last month of the executive committee with representatives from state federations. Community meetings will be held under the auspices of the sixteen hundred organized County Farm Bureaus in the United States. A "yes" or "no" vote will be taken on the following specific questions of national legislative policy:

1. Do you favor financing based on bonded warehouse receipts?
2. Do you favor live stock financing based on adequate pledge?
3. Do you favor the development of

a personal rural credit system with proper safeguards?

4. Do you request that authority be granted the federal reserve board to so classify rediscounts as to give priority to loans for basic production of all kinds?

5. Do you favor increasing the limit on federal land bank mortgage loans from \$10,000 to \$25,000?

6. Do you favor asking congress to submit to the state a constitutional amendment prohibiting the issuance of all tax-free securities?

7. Are you in favor of continuing the excess profits tax?

8. Are you opposed to the enactment of a general sales tax?

9. Will you be able to move a materially larger amount of agricultural products if the American Farm Bureau Federation secures an adequate reduction in freight rates?

10. Do you favor placing the packers under regulation by the government, and the vesting of such authority in the department of agriculture?

11. Do you favor the building of farm-to-market roads prior to or concurrently with the construction of trans-continental highways?

12. Do you favor truth-in-fabric legislation?

13. Do you favor enabling legislation for cooperative marketing?

In order that every question may be made clear before the vote is taken, discussion by the neighborhood groups will be given every encouragement.

FARM BUREAU DEFENDS JOINT STOCK BANKS.

GRAY SILVER, Washington representative of the American Farm Bureau Federation, appeared before the senate committee on banking and currency and repeated the statement which he made earlier in the week at the hearing on the joint stock land banks, that the federation favored the increase in the interest rate on the bonds so long as it would not increase the rate to the borrower. Joseph Allen, of Iowa, speaking authoritatively for the First Joint Stock Land Bank of Chicago, and the Joint Stock Land Bank of Des Moines, said: "I will say that we would be glad to have congress pass an amendment to the act permitting us to issue five and one-half per cent five-year optional twenty-year bonds without increasing the rate of interest to the borrower. In other words, we are willing to waive the matter of profits in this crisis."

Speaking in defense of the joint stock land banks, Mr. Silver said that the claim of exorbitant profits made by these banks is more propaganda put out to discredit the banks. Records show that the net earnings of the national banks of the United States for twelve months ending June 30, 1920, was 23.09 per cent on their entire capital, or 12.78 per cent on both capital and surplus, whereas the average rate of profit per annum of the joint stock land banks to March 31, 1921, amounted to only 2.03 per cent. He pointed out that these banks function in the sparsely settled sections of the country in localities where the farm loan banks do not exist.

GRAIN FUTURES TRADING BILL.

AFTER extensive hearings before the committee on agriculture, the Tinchin grain futures trading bill passed the house by a vote of 269 to sixty-nine. As a result of these hearings several recommendations made by Secretary of Agriculture Wallace and representatives of the grain exchanges were incorporated in the bill. The bill restricts sales in futures, prohibits transactions known as "puts and calls" and provides for the establishment of contract markets under the supervision of the secretary of agriculture.

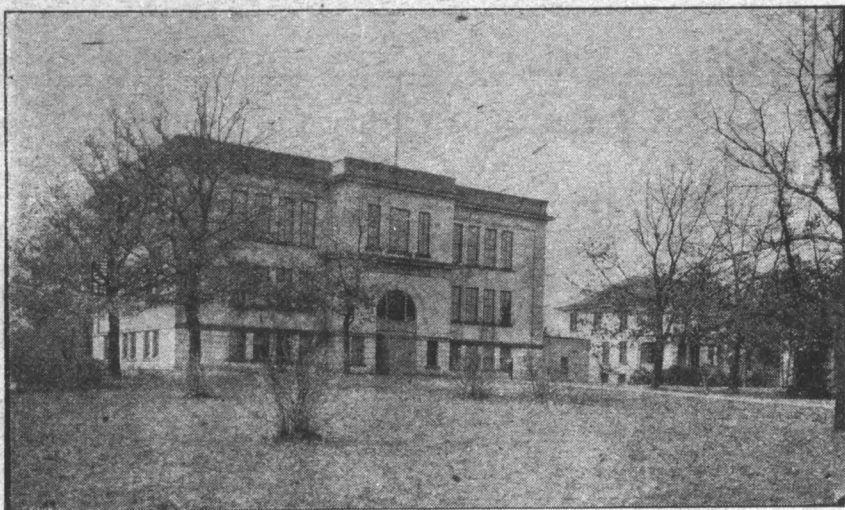
Training Cloverland Farmers

How the Menominee School is Advancing Agriculture in Upper Michigan

THE Menominee County School of Agriculture and Domestic Economy is the only school of its kind in the upper peninsula of Michigan. It was created under the laws of Michigan in 1907. Since that time 982 students have been enrolled in the various courses of the school curriculum and more than 35,000 farmers have attended the annual farmers' and housewives' conventions.

The courses of study offered are: Dairy, animal husbandry, soils, gardening, horticulture, crops, poultry, farm mechanics, and smithing for the young men. Sewing, cooking, household management and decoration for the girls.

brings his family and clears an opening into the incubus of slash large enough to build a house, and then clears enough land to get a start. During the winter months he is compelled to go into a lumber camp near his farm, while mother takes care of the live stock and manages to keep the little family together until spring when he again puts forth an effort to clean his farm of stumps and brush. It is for the children of such families, as these that the Menominee County Agricultural School was first built and is still serving. This school, by giving all students, resident of the state, tuition free and books, board and room



Every teacher employed has a degree from a well-known college or university, together with having lived and made a study of the conditions in this section of the state.

The school is a vest pocket edition of our Michigan Agricultural College and is serving the peculiar agricultural needs of the upper peninsula. While the State College of Agriculture is doing a wonderful work in training for lower peninsula farming, it must be said that the climate, soil, crops and agricultural conditions in general for upper Michigan are much different than those existing in the lower part of the state.

In this comparatively new country the settler comes, without much except a willing heart and a strong back. He

at cost, has taken a unique place in the agriculture and domestic training of the young men and women.

As a result of this, the courses of study today are much more clearly defined and under better instructors than was the case ten years ago. Thus the institution will continue to grow as agriculture develops and with its growth must come the future agricultural development looked for in the upper peninsula of Michigan.

At present the school is running to capacity with regular students and is giving special training to ten disabled soldiers in agriculture and its allied branches. It is prepared to give individual attention to all students wishing to take up special work along this line.—R. N. K.

Getting Stock on Grass

Some Practical Questions Answered

THE time for turning the cattle out each spring is always looked forward to with a great deal of anticipation. Besides the restlessness and itching caused by our winter woollens, there is also an itching and restlessness within us which calls us to get out into the sunshine and air and onto the land. The dairy herd has kept us pretty well confined to the barn all through the winter and early spring, so that by the time nature begins to express herself through living things of spring, we begin longing for the time when our inside labors will be shortened by turning the cattle out.

This "spring fever" along with the desire to give the crops an early start, often results in a serious injury to the dairy side of farming. Generally speaking, there is not much gain by getting the cattle on pasture early. The first tender blades of grass are almost entirely water with but very little food value. This makes it almost impossible for the heavy milking cows to get enough feed to supply the necessary nutrients. Early pasturing is also harmful to the pasture, as it is necessary that grass have its leaves above ground to obtain the benefits of air and sunshine in order to live and grow.

When cattle are turned out early and keep the grass eaten down very short, its growth is necessarily very slow because it has no chance to grow enough leaves to prepare its food. A common mistake made by dairymen is to pasture too close in the fall and then turn out too early in the spring.

It is frequently the case when turning cattle out to pasture, not to give them any other feed. For light-producing cows, this is a good practice, because but very little, if any, gain in milk flow is noticed when grain is fed while on pasture. This, however, does not hold true for heavy producers. It is impossible for a heavy-producing animal to eat and digest enough grass to supply the nutrients necessary to maintain her body and make a large amount of milk. If a cow is expected to continue along her high plane of production when put on grass, some grain must be fed. Not only is there an advantage of feeding grain to maintain production while on pasture, but it is also true that cows which have been grain fed while on pasture give better results when the grazing season is over than those which receive no grain. A good practice to follow for cows on pasture is to feed some two pounds of

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Our Service Department

CORN IS MOLDY.

What is the best way to overcome the mold on shelled corn so as to feed it to hens or pigs? There was snow on the corn at the time of shredding, so it became moldy, but as there are thirty bushels of it we do not like to see it go to waste.

There is no way to change moldy corn back to sound corn. The action of the mold can be stopped by drying. The mold ferments and decomposes the corn. For the most part, this does not affect the food value, aside from lowering it. There are some molds, however, which produce harmful substances. Only by trial can the presence or absence of poison be determined. Conditions which favor molding also favor the growth of the bacillus botulinus, which is particularly deadly in its effects. If this material is to be used it should be tried both raw and cooked, and with greatest caution.

G. H. C.

FERTILIZER FOR CORN.

Would like some information in regard to fertilizers for corn. I have been told that acid phosphate alone was all right. This field has been in corn for the past two years and I am going to plant it to corn again this spring. The land is a mixture of sand, clay and gravel. It is heavy beech and maple land, but badly run down. What is the amount and kind of fertilizer to use?

L. W. S.

I do not approve of the idea of growing corn three years in succession on the same land. This land should have been seeded to clover to fill the soil full of organic matter, then when the clover is plowed down, it makes a splendid preparation for the growing of another corn crop. Of course, there is some land in the west and northwest and in some favorable localities in Michigan, where on new land you can grow corn successfully, year after year. This, however, is alluvial soil or rich prairie soil containing a vast amount of humus to the depth of several feet in some instances, but even on that land, if the cornstalks are not left on the ground to incorporate with the soil, it soon gets so you cannot produce a maximum yield.

If there is any place where you will get good results with fertilizer, it would seem to be on this field you speak about, providing you get good distribution of moisture this coming season. My judgment would be that you should use a complete fertilizer rather than just acid phosphate, as your field will likely be lacking in available nitrogen and it would pay to supply some. However, you may get great benefit from the acid phosphate alone. I would recommend that you use at least three hundred pounds per acre and I would also recommend that you sow only fifty pounds per acre when you plant the corn, and two hun-

economy of production where there is no silo. Since the efficiency of the dairy cow must be considered over a period of at least a year, it is necessary that her production be maintained in order that she may turn in the greatest profit at the close of the year. When a farmer hires a man for a year's work he figures to have him employed throughout the year but this same farmer has a tendency to let his cattle loaf in their work of milk producing during the fall when their pasture is poor.

If it is impractical to use silage or soiling crops, grain can be used rather than sacrifice the milk flow, but this is more expensive than either of the other two systems.—S. J. B.

dred and fifty pounds broadcast while you are preparing the land. Many people use only fifty to one hundred pounds in planting the corn but their land would seemingly be in much better condition for corn. In some instances in growing sweet corn for market, or for canneries, farmers use as much as six hundred to eight hundred pounds of fertilizer per acre, but they only put a small portion in the hill and the balance is distributed broadcast while the land is being prepared.

C. C. L.

SWEET CLOVER FOR SEED.

I have a field of biennial white sweet clover seeded in oats last year. Can I cut it for hay, then let it grow up again and cut it for seed? What time shall I cut it so as to give it time to go to seed?

A. H.

You would probably get a larger yield of seed if you allowed the first growth to stand and mature seed, but you can cut this first growth when it is about eighteen inches high and make it into hay and then get a good fair crop of seed. You must be careful, however, and not cut too close to the ground. Set the mowing machine cutter-bar high. This plant does not propagate by shoots that come out from the crown, but by buds on stalks and the clover must be cut high enough so you leave a few buds on stubble.

Sweet clover makes an early growth like alfalfa and it probably would make a sufficient growth by the middle of June at least, so you can save the first crop for hay and then have time to mature a crop of seed.—C. C. L.

EXEMPTIONS OF PERSONAL PROPERTY FROM EXECUTION.

What is the exemption of a married man relative to household and personal property? In case of bankruptcy what would be the method of settlement if there was a mortgage on the property (real estate), a preferred issue, also a few notes payable, and book accounts?—L. R. E.

The exemptions of personal property from sale on execution are: A sewing machine, spinning wheel, looms, stoves used in the dwelling, pew in church, burial lot, wearing apparel of the family, school books and library not exceeding \$150, family pictures, and to each householder ten sheep (with their fleeces), the yarn and cloth from same, two cows, five hogs, provisions and fuel for the family for six months, household goods not exceeding \$250, a team, tools and implements, vehicle and harness to enable him to carry on his business, not exceeding \$250, and enough hay and grain properly to keep these animals for six months. If a mortgage was given in good faith six months before bankruptcy, the mortgage would have the preference to the extent of the mortgaged property, all other creditors would share equally.

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SUGGESTIONS ON HUCKLEBERRY GROWING.

DURING the last ten years great progress has been made in improving huckleberries. The work was started by Dr. F. A. Coville, botanist of the United States Department of Agriculture, Washington, D. C. After an extended correspondence with parties living in states in which huckleberries grow wild he succeeded in bringing together hundreds of plants which produced berries larger than those on any other plants in the sections in which they were grown. From these a number of plants producing extra large berries were selected and these were propagated and given a thorough test.

In addition to this, thousands of seedlings have been grown, both cross- and self-fertilized, and still further progress in increasing the size of the huckleberry has been made.

Parties interested in securing plants of these improved varieties, should write to either Dr. Coville as above, or to Miss Elizabeth C. White, Lisbon Bay, New Jersey. Miss White and her father were extensive growers of cranberries, and had large tracts of land on which native blackberries seemed to thrive and early became interested in the work of Dr. Coville, and had charge of some of his experimental work. She now has extensive fruiting plantations of the improved varieties. Not only are the berries much larger than ordinary wild huckleberries, but they ship better and bring a much higher price per bushel.

It should be understood that in order to grow huckleberries successfully, an acid soil is required.—L. R. TAFT.

EVERBEARING STRAWBERRIES.

MY everbearing strawberries stand more adversity than anything else in my garden—unless it is the weeds—and they are nearly as persevering as the weeds.

I bought one hundred plants originally, set them out in the midst of a spring blizzard, and afterwards it rained all summer, and the garden was under water, so thirty-five of the plants were drowned out. The following spring I reset four hundred plants from runners made by the plants that survived the flood, but owing to sickness in the family, my strawberry plants were neglected. I couldn't even get out to pick the berries as they ripened, though they bore well.

The following spring not a plant got reset, though I sold several hundred runner plants. Those remaining were choked with weeds and eaten by grasshoppers, but even after the frost came, they were full of fruit and blossoms. I have learned that nothing short of zero weather stops them, and one year when we had a zero period before the snow came, I picked nice berries.

For this year I have a few reset and will keep them well fertilized and cultivated to see what they will do under favorable conditions. Judging from my neglected patch, they should be a sight worth seeing. I must confess that I twice bought so-called "everbearers" that proved to be "neverbearers," until I doubted the existence of the real thing.—MRS. E. M. ANDERSON.

GARDEN NOTES.

Have you bought some flower seed for your garden? They will make it look much better, and also produce cut flowers during the summer.

Some of the earliest garden crops were frozen but there is still plenty of time to replant.

Potatoes may not be as cheap next fall as they are now. Better plant a few.

A little more money spent for reliable seed will mean more vegetables of better quality.

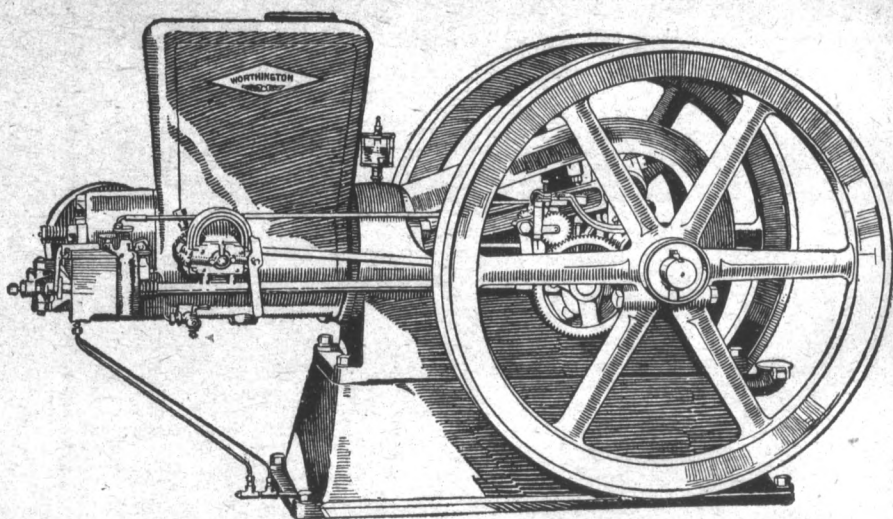
Plant a packet of kohlrabi seed in a row like radishes.

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SENATOR DUNLAP Strawberry Plants at \$3.50 per 1,000; \$2.00 for 500; \$1.00 for 250. Guaranteed first class or money refunded. C. H. STANLEY, Flower View Farm, R. 2, Paw Paw, Mich.

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May 1st, 1921	12,054
Ending, December 31st, 1920	

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\$95,432.83

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News From Cloverland

By L. A. Chase

TEACHING GOODNESS AND PRODUCING SWEETNESS.

THE upper peninsula has a preacher—the Rev. William Poyseor, from near Crystal Falls—who is also one of the largest—perhaps the largest—producers of maple syrup in the state. His tappings run about 2,800 trees and he ships his product to fourteen states, some far from Michigan. He attends to the boiling process himself. His parish is most of the upper peninsula and he does not neglect it. He has a colleague in Chippewa county—the Rev. William Maltas—who is also a farmer, and who conceded that he now has only ten charges, where formerly he had fourteen. They belong to a denomination which is sometimes thought to be "tony" and not concerned with rural life. If the writer is a judge of men, they are "real men." He was glad to have the opportunity of meeting both men in Marquette, and of getting their own view of rural life first-hand. In its way, the record of each man is notable, and shows what the country church can accomplish when real men are pushing it along.

APPLE VARIETIES FOR CLOVERLAND.

MR. J. WADE WESTON, assistant state leader of county agents in the upper peninsula, with the aid of his agents, has prepared for the Upper Peninsula Development Bureau, a list of apples adapted to the upper peninsula, from which he picks the Wealthy and Northwestern Greening as best for us. He points out that practically all sections can grow small fruit, such as currants, gooseberries, red raspberries and, in some sections, blackberries. Huckleberries are one of the main wild fruits, as he states. He pronounces the efforts to cultivate the blueberry as hitherto unsuccessful.

PLENTY OF TIMBER IN UPPER PENINSULA.

THE tax commission estimates of standing timber in the upper peninsula seem to be regarded quite generally as too low by informed opinion. Indeed, the state tax commission does not claim finality for them, since they are not based upon a detailed study of the resources in the files of the commission but are rather a cruiser's general estimate based upon his observation and experience. The manager of one of the largest sawmills in the peninsula thinks the amount of standing timber here closer to forty or fifty billion feet than the twenty-six billion of Mr. Payne's estimate. He points out that present practice in logging involves cutting tree much closer to the ground, thus adding materially to the lumber secured from the tree. He thinks government figures will run under fifty per cent. It is understood, too, that estimates of owners is quite likely to under-run the true amount.

FARMERS' MEETINGS IN MARQUETTE COUNTY.

MR. L. R. WALKER, agent of Marquette county, has completed a series of fourteen farmers' meetings, at which the average attendance was forty, while at one meeting it was ninety-three. Mr. Walker was assisted by James Waldron, specialist in dairying at the Michigan Agricultural College, and A. G. Kettunen, assistant state leader of boys' and girls' club work for the upper peninsula. G. W. Putnam, crop experimenter from Chatham, and Carl Miller, agent of Dickinson county, assisted at some of the

meetings. At Skandia, Messrs. Large, of the Cadillac Exchange, Brody, of the State Farm Bureau, and Wells, field representative of the Michigan Potato Growers' Exchange, spoke. The attendance is reported in advance of last year.

It is expected that the very important trunk-line joining Marquette county with the copper country will be completed this season. Much of it is already in good condition. The abundance of labor will facilitate operations. This labor is reported to be receiving three and four dollars per diem.

WILD BERRY CANNERY PROPOSED.

THE News, of Calumet, reports that the Calumet Chamber of Commerce recently discussed the establishment of a cannery to use local wild berries growing in the district very abundantly. An investigating committee was named. This would give work to the unemployed and promote the gathering in of the wild crop of berries.

LAND CLEARING DEMONSTRATIONS.

THE Menominee Chamber of Commerce will cooperate with the farm bureau in putting on a farm-clearing demonstration school, says the Herald-Leader. An acre of land will be selected and will be employed for demonstrations conducted by manufacturers of stump-pulling machinery. The demonstration is transferred from farm to farm in various sections of Menominee county. It is recognized that city business will profit by this land-clearing work; hence their cooperation.

SOME GOOD MILK PRODUCERS.

ONE of three registered Holstein cows owned by the Newberry State Hospital, is credited with a record of 448.25 pounds of milk in seven days, at the age of five years and eleven months. The butter produced was twenty-five and three-eighths pounds. Another cow, aged three years and two months, gave 500.25 pounds of milk and 23.75 pounds of butter in seven days. A two-year-old had a record of 366.375 pounds of milk and 18.875 pounds of butter.

HOME DEMONSTRATION ACTIVE IN UPPER PENINSULA.

THE report of the home demonstration agent of Dickinson county recounts how fourteen women met at the Quinnesec school to weigh and measure their children. While this proceeding was going on the agent talked to those gathered in other rooms of the building on the food value of milk. A month later, the children were brought back and again weighed and measured. Six children received gold stars for attaining normal weight. It is said that unusual interest is manifested by the foreign women in Dickinson county in clothing work as carried on by the "H. D. A." In Chippewa county a series of dress-form schools has been held by the demonstration agent. In Gogebic millinery clubs are being featured, and are attracting much interest among the foreign women. "One girl's hat, made by her mother, which cost \$1.05, caused especially favorable comment," reports Miss Richardson. "When the agent asked the mother if she enjoyed doing it, she replied: 'Well, I should say so, and to tank I done it.'"

WORLD EVENTS IN PICTURES



New method of identifying new-born at hospitals—name and number on adhesive tape.



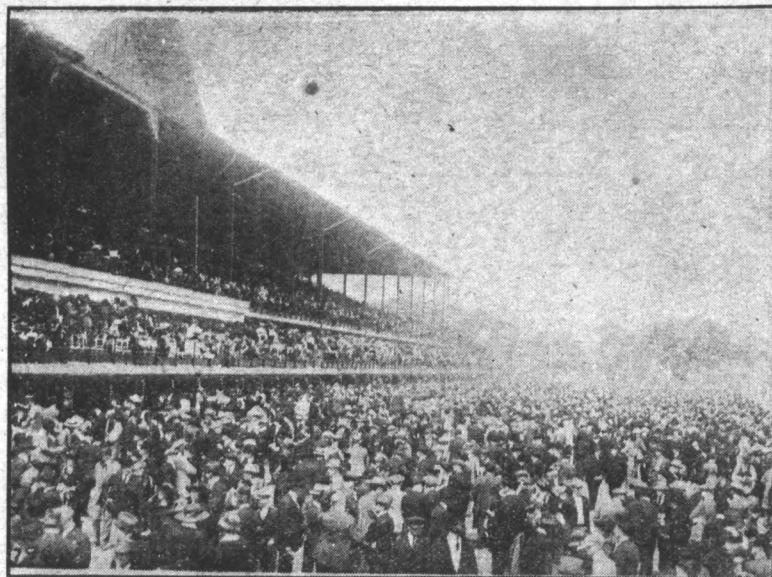
New York "Cops" carry light signals to direct traffic.



A three-weeks-old born with prison stripes in New York Zoo. Baby zebra and mother.



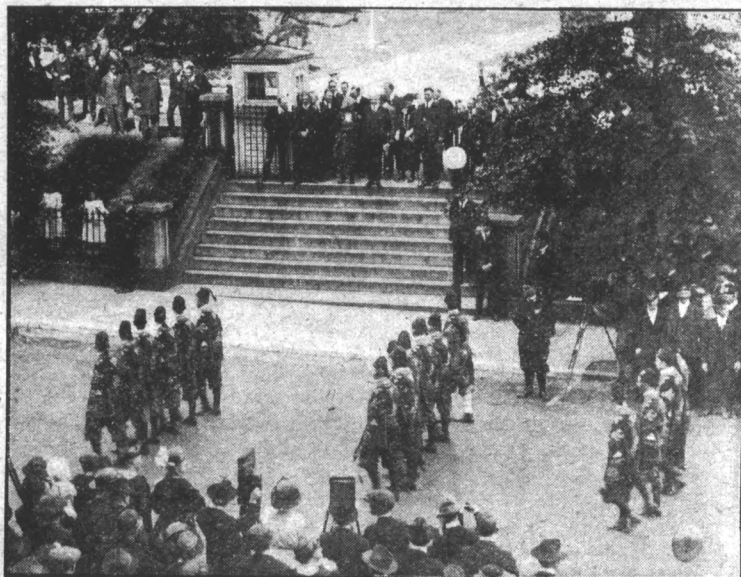
Deaf pupils singing "Star Spangled Banner." Left to right they signal: "Oh, say—can you—see—by the—dawn's—early—light."



The Kentucky Derby brings together speed horses and admirers. It is held in the home of the race horse.



Pearl White, movie star, prefers flying to sailing—London to Paris.



President Harding views Masonic parade at convention of masons in Washington.



Camp Fire girls make beaded moccasins for President Harding.



New German monoplane flying over "graveyard" of German war planes destroyed by allies near Berlin.



Girl scouts honor Mrs. Harding and General Pershing in big rally at Washington.

THE CLAN CALL

By HAPSBURG LIEBE Copyright 1920, Doubleday, Page & Co.

"Bill Dale, I had a big time! Everybody liked me but yore own maw—I mean yore mother. My goodness gracious!—they dress awful fine, don't they? Why, silk ain't nothin'. But whar all o' their money comes from, I shore cain't see. Say, I showed some o' Pat's friends how to dance our old hill dances, and the whole town was crazy about 'em when I left. Jimmy Fayne is awful good-lookin' and rich, ain't he, Bill? He liked me better'n any of 'em, 'less it was Pat herself. You know Jimmy, don't ye, Bill?"

Dale nodded, frowned, and turned his sober gaze toward the toes of his high laced boots. Yes, he knew Jimmy Fayne, and he held him in contempt. The pampered son of a wealthy cotton speculator, weak, devoted to high nights, remarkably handsome to romantic and unsophisticated girls but not to men and women who had cut their wisdom-teeth—that was Jimmy Fayne.

Babe Littleford was speaking again: "I 'cided to come back here, Bill Dale, because I thought they might need me here as well as because I was afeard I would be a burden to Pat—I mean afraid I would be a burden to Pat. Seems like I cain't talk proper at all! I've tried and tried. I've spent half o' my time jest a-tryin' to talk proper. Pat, she's put down words I mustn't say on a sheet o' paper, and I'd study 'em. Afeard, shore, pap, 'cause, ain't, hain't—and all o' them. And she's put 'down the right words with 'em, so's I'd know."

"Yore mother was the last to come to see me, Bill. 'So this,' she says to Pat, 'is the "Barbarian Princess!"' I didn't know what that meant, but I 'spect it's somethin' bad. I went into the house, because I didn't want to say anything, and her yore own mother. But I listened, and I heard her say the rest, and this is it:

"What will you do when the in-innovation wears off, Patricia?" she says. "She'll be a burden to you, Patricia; you'll have a half-savage person tagging after you, like a lady bear!"

"That's what it was she said, Bill Dale. I'm shore they do need me here, and I ax ye this, Bill Dale: are you sorry to see me come back?"

"Perhaps they do need you." Dale slowly stripped the tiny leaves from a fern. "But that is not sufficient reason to warrant your staying here. Of course, I'm not sorry to see you, Babe. But you must go back to Patricia very soon. If you had been a burden to Patricia, she would have told you."

Babe put out a foot and idly rolled an acorn across the path with one bare big toe.

"But I—I don't think I want to go back," she protested. "I'd rather stay here, a heap rather."

"But you must go back," declared Dale. "You really must."

Ben Littleford's daughter was silent. For a moment she absently watched the playful antics of a little boomer squirrel on the side of a nearby hickory. Then she arose.

"Look," she urged—it was one of the charming wiles of her—"Look at my new dress. Me and Pat made it, every stitch of it. Don't you think it's nice?"

"Sure, it's nice," Dale agreed. "But any dress looks nice on you, Babe. If only you'd stick with Mrs. McLaurin

eyes were glad, filled with rejoicing. If he didn't love her now, at least just a weeny-teeny bit, he wouldn't be thinking of marrying her some day, certainly, and this conclusion made her happier than she had even been in all her life before. She wished wildly that she could hug him with all her might—and she had a big notion to do it. But what would he think of her?

Well, there would come a day when she would surely hug him with all her might. She would simply break his blessed bones, almost.

"Will you go to Patricia tomorrow?" he asked.

She really believed that she ought

"I—I've been a-wonderin'," murmured Babe. "Which is proper, Bill, bust or burst?"

Dale spoke quickly. "Burst for you, bust for me. Will you go back to Patricia?"

Beaten, Babe Littleford drew a long breath and smiled.

"Yes, Mister Dale," she answered resignedly. "I will. I'll go whar—where you want me to go, ef—if it's to Torment. Now tell me how it comes that I find my people and their enemies as thick as m'llasses in a jug, while we walk on."

CHAPTER XIII. Under Arrest.

WHEN Dale returned to John Moreland's cabin from having seen Babe Littleford safely to her father's door, he found Major Bradley and By Heck waiting at the gate. Heck had some important, bad news, he said.

"Better not tell me about it until after supper," replied Dale. "I'm as hungry as you ever were, By."

They went in to sit down to one of the best meals Addie Moreland had ever prepared. When they had finished eating, John Moreland led the way into the best room, where they took chairs. The major produced cigars. By Heck, swollen with a feeling of greatness, lighted the wrong end of his weed, faced Dale, and began to unburden his mind of its weight of information.

"Well, Bill, old boy," he began—and then stopped to wonder why his cigar wouldn't smoke as well as the major's.

"Well, Bill, old boy," he went on, finally, "Henderson Goff, he's shore been as busy as a one-armed man in a bumblebee's nest. I can't see, igod, what's wrong with this here seegyar. He's went and brung about twenty-five Torreys from two places 'known as Jerus'lem Cove and Hatton's Hell, to help work his mine when he gits it. They're all a-puttin' up with them Balls. The Torreys is part Injun, Cherokee Injun, and I've heered it said 'at they was as bad or wuss'n rattlesnake broth."

Major Bradley blew a little cloud of smoke upward. "More of the game of bluff, perhaps," he suggested.

"I'm inclined to think so," thoughtfully said Dale. "We've been working like wildfire for two weeks, and we haven't been molested in any way. Well, we'll avoid trouble as long as we decently can; and when we can no longer get around it, we'll call in as much of the law as we can get, and meet it half-way. Eh, Hayes?"

"Sure," nodded the mining expert. (Continued next week.)

DAYS and DAYS

By L. M. Thornton

Dark days, and drear days, to every life they come

The days when hands are listless and lips are strangely dumb.

The days when mirage mocks us with heights we may not reach And covetous we cavil at all the sages teach.

We want a palace stately with pictures on its walls

For famed and costly "Masters," a voice within us calls

For rest from little troubles, the small insistent needs

The fetters of the home-life, the fallacy of creeds.

Long days, and lone days, to every lot they fall,

The days when feet are weary and 'and ghostly voices call;

The days when hot within us, the soul springs up to say,

Why fetter me in prison of rude unlovely clay?

Grow old and gray and wrinkled, such is the common fate,

Grow soured to human kindness and swayed by petty hate;

Dim eyed you dig a tunnel, a worm among the clods,

And lose the bit of essence, that once you knew was God's.

Sad days, and stern days, but oh, they pass away,

And give the blessed new dreams that turn the gold to gray,

The days of high endeavor, of building bricks from straw,

The days of loving bondage and due respect for law;

The days that touch with beauty the empty human heart

And garland every vista with more than work of art.

The glad days, the blest days, the days with pleasure rife.

The good days, the best days, that form the most of life.

and let her educate you! You should not have cared anything about what my mother said; my mother doesn't always see things in the true light. You will go back, won't you?"

She bent toward him and asked: "Bill Dale, what makes yo' so anxious fo' me to go?"

"Because," readily, "I want you to have an education."

"What makes you want me to have an education, Bill Dale?"

"Because you'd be such a splendid woman, if you had an education."

Babe Littleford pursued with child-like eagerness: "And what makes you want me to be such a s-splendid woman?"

Dale lifted his grey eyes and answered her frankly:

"Because I expect to marry you some day."

Babe Littleford blushed deeply. Her

to go. But the thought of leaving him was more hateful than ever, now that she knew he meant to marry her. She strove to change the subject—

"See that little, teeny flower over there—that little, teeny, blue one?" she asked, pointing. "That's a day flower. It's the purest blue of any. They call it a dayflower because it don't last but jest one single day." And again, pointing:

"See that little, teeny, purple flower over there at them twisted laurels? That's called Job's tears, and they don't last but one day, neither. That little red, spidery thing is bee balm. Over yonder at the hick'ry is monkshood. I l'arned the names out o' a book Major Bradley loant me. Hadn't we better be a-goin', toward home? It—it'll be a-comin' dark purty soon, won't it?"

Said Dale, "Will you go back to Patricia tomorrow?"

AL ACRES—Al Gets Into a Cool Situation.

—By Frank R. Leet



Reviving the Blue Laws

Our Weekly Sermon—By N. A. McCune

SHALL the blue laws be revived? The daily press seems to be in a cold sweat lest it be attempted. References to it are seen almost every week. Some papers appear to be conducting a systematic campaign against Sunday laws. They accuse the Lord's Day Alliance of an attempt to bring back the days when a man could not kiss his wife on the front porch on the Sabbath without being fined. But it is very hard to revive anything that never existed. There were, of course, rather strict regulations in regard to Sunday observance in all the New England colonies. But there never were any Connecticut blue laws. These were the invention of one Samuel Peters, who wrote to his English friends how narrow and strict the Puritans were. The best known of Peter's inventions was the supposed law that forbade a mother to kiss her child on Sunday, and the one which made it a misdemeanor to make mince pie on Sunday.

No such laws ever existed. Like some others, Peters liked to hear himself talk. He wanted to write something that would make people gasp. He succeeded. The hobgoblins of the Sunday blue laws have made some people turn gray. Moreover, the Lord's Day Alliance has never contemplated any legislation of this nature. The whole thing is propaganda of certain organizations that make money on Sunday, and are determined to have seven days in the week for money-making rather than six. Some of these interests are various heavily financed sporting clubs, and others who make vast sums on Sunday.

BUT it is well to think this over a bit, before we permit commercialism to steal away the nation's rest day. One day's rest in seven is a necessity. The penalty that is paid for not observing one day in seven may not appear at first, but it appears in time. Experiments at Harvard Medical School with large numbers of students show this. Through a long series of tests it was proved that the point of highest sensitiveness was on Monday morning and the lowest point was on Saturday night. Each night's sleep restored this vitality in part, but not wholly. There was a steady loss all through the week. After a day of relaxation the normal balance of vitality was restored, and Monday morning found the individual at the highest point of efficiency. Employees who toil seven days in the week lose the power of interest in their work in the ceaseless grind. The methods of the United States Steel Corporation have shown that, and it is now announced that the seven-day week of the steel company is to be done away with.

Long before the law of the Sabbath was given through Moses there was a rest day kept by ancient peoples. Shepherds watched the moon and counted the days by that. Rest days and festivals were reckoned by the queen of the night, before calendars had been invented. Then came the Ten Commandments requiring the Hebrew people to observe the Sabbath. By and by Christ came, and after the resurrection very gradually there came a change into the day of rest. Slowly the day of rest was changed from the seventh day to the first day or from Sabbath to Sunday. There was no command to do this, but it was a spontaneous recognition that Sunday was the day that Christ rose from the dead. Christianity rests on the resurrection. No resurrection, no risen Christ. No risen Christ, no divine Christ, no hope, no Christian religion. Hence the tendency of the early Christians to keep that day in commemoration of this event.

AT first many Christians, especially Jewish Christians, observed the old Sabbath, then some observed both the seventh and the first day. After a good many years especially among Gentile Christians, the seventh day was dropped as a day of worship and all was centered on the first day. Paul was very evidently keeping Sunday as the day of worship, as is shown in two or three passages. But there was no compulsion about it. A man was urged to keep the day he preferred. It was an act of affection that constrained the early Christians. They loved their Lord, and they wanted to show that love by observing the day on which He rose from the dead. It was an act of love. It is still an act of love. If a man does not care for Christianity, if he has no regard for the Christ who died for the world, he will probably not be very strong for observing the Lord's Day. He will prefer a Sunday ball game, or a hair-raising Sunday night movie, or he may prefer to work all day, as not a few farmers are doing. Christianity does not appeal to him and he prefers to remain a pagan.

As said above, it was affection for their Lord that prompted the early Christians to keep the first day of the week. There was wonderful liberty in this. They did not have to keep that particular day. Read Romans 14:5: "One man esteemeth one day above another; another esteemeth every day alike. Let each man be fully persuaded in his own mind." It is hardly justifiable to quote the fourth commandment in defense of the Christian Sunday. "Remember the Sabbath day to keep it holy." The Christian day of rest was a new institution and rested on other grounds for its authority.

THERE are practical aspects to this question that ought to appeal to every patriotic person. Christianity is at the cross-roads. Christianity is threatened. If Christianity goes, civilization goes. You cannot build on paganism a structure that will endure. The other day the president of an eastern university stopped in the midst of an address and said, "O, God! has the sun begun to set on this white race of ours?" A few weeks ago, Mr. Filene, a Jewish merchant prince of Boston returned from abroad. He invited a number of Christian leaders to lunch and explained that he had brought them together in order that he might say to them, "In the name of God, get the Christian church into action! It is the hope of the world."

All this bears directly on the question of Sunday observance. If no day remains in which people gather together for worship, the church will disappear, the Sunday School rooms will be abandoned, moral and religious teaching will vanish. Believe it or not, investigation will prove that Sunday is the guardian of our most precious liberties. Hallam the historian said, "A holiday Sabbath is the ally of despotism." An eminent Hollander said, "The Sabbath is God's dyke for keeping out an ocean of evils." Riding the other Sunday through the country, the writer was sorry to see many farmers working in their fields. They will gain nothing by it in the end. There may be emergency work that demands attention on Sunday, but regular work is a serious mistake. Sunday ought to be the brightest day of the week. It will repay parents to plan on making it so for their children. There is a deep reason for keeping a day in seven for rest, worship, the higher things of life. Sunday ought to be kept in such a way that one goes to his work more eagerly on Monday morning, more content with life, more kind to his fellows.

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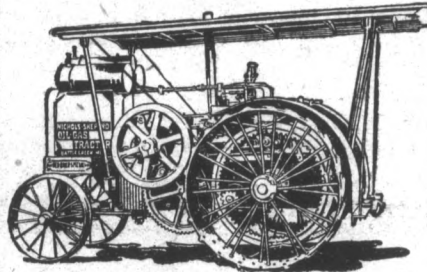
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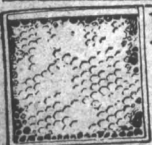
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Resolve to do a little reading each day, if but a single sentence. If you gain but fifteen minutes a day, it will make itself felt at the end of the year.—Horace Mann.

Woman's Interests

Now Comes the Girl Graduate

MANY are the questions puzzling the world today, but of them all the most important to some hundred thousand American girls and mothers is, "What shall daughter wear for graduation?"

If the advance frocks shown in the shops are to be taken as a guide, organdie will again be the material most highly favored. Its fresh crispness is so well adapted to ruffles and stand-out effects that it makes a sure appeal to the heart of young girls. If it is too expensive, swiss and voiles come a bit cheaper, and they, too, are good. Ruffled organdie is sold ready for converting quickly into the much be-ruffled gown, or you can buy the plain fabric, and make your own flounces of a depth to suit your taste.

A skirt of three flounces, with round necked bodice finished with a similar flounce on sleeves and neck is always attractive. The flounces may be plain-edged or scalloped; scallops are easily made by marking with a saucer or small plate, and cutting with good sharp shears. A trimming of narrow val lace finishes the ruffles. To sew on the lace, baste on to the raw edge of the scallops and sew on the machine, then turn lace and cloth up on the right side an eighth of an inch, baste, and stitch again.

For the young girl, avoid a too low neck and sleeves which are mere shoulder straps. The sleeves should come at least to the elbows. A sash of organdie or of ribbon should complete the frock. If of the material, have it at least seven inches wide, finished with a rolled hem, and tie in a big bow with ends the same length, perked up like the small girl's hair bow. If a ribbon sash is your choice it must be long enough to allow for countless streamers. These may be arranged in a simple knot at the back, in groups at each side, or a girdle with single streamers three or four inches apart all the way round may be affected. Choose a colored ribbon rather than a white, and buy the same shade for the hair bow, if the girl still wears her hair down.

If a ruffled frock is not desired, there is a pretty style which combines a scalloped skirt of organdie over a slip of organdie and val insertion. This is more difficult of construction, but may be managed by the home dress-maker. The over-dress must be shorter than the slip, the scallops coming down nearly to the bottom on the sides, but shorter in front and back to show the slip. A binding of organdie, or of narrow ribbon may finish the scallops, or it may be trimmed with a val edging, to match the insertion in the slip. A round necked bodice, with sleeves ending in scallops like those on the skirt, and reaching to the elbow, completes this costume, with which a sash of narrow ribbon should be worn.

Dotted fabrics may appeal more to the young girl than plain white, and if so there are organdies, Swiss, and voile dotted in all the light shades, blue, yellow and pink. These fabrics really take less time in making, as the

color relieves one of the necessity for planning much trimming. A blue dotted Swiss, with a drop skirt of blue the same color, and bands of the same blue finishing neck and sleeves and appearing in bands on the skirt is attractive. The sash should be of the same blue.

White hose and neat pumps must complete the costume. It is better to

sit down and figure up all the costs before buying the dress, for no matter how dainty and summery the dress, the effect will be ruined if it must be worn with high shoes and cheap, colored hose. Plan on neat undergarments, sheer white bloomers, a good petticoat, shoes and hose, then estimate how much you can afford to put into the gown.

Selecting Kitchen Utensils

By Doris McCray

IN buying a utensil the first thing to consider is whether it is really necessary. Fancy gelatine molds, cabbage cutters and egg poachers which are impractical and seldom used are a real extravagance. The kitchen may be cluttered up with utensils which are not used oftener than twice a month. Every utensil must fulfill an actual need.

After deciding that the utensil is needed, next consider the size. A quart capacity double boiler is large enough for a family of two, but a three-quart size is needed if the family numbers six. It often saves time to cook enough rice to serve the first meal with cream and sugar, the next meal Spanish style, and rice pudding the following day. In preparing vegetables time and fuel are saved by cooking enough for more than one meal. This requires larger utensils, with a few smaller ones to be used in preparing desserts and sauces. The appetite and caloric requirements of families differ. The housewife can learn to judge the right size of uten-

sils. Then the family may increase, may be suddenly deluged with company, or may decrease.

Besides size, the suitability of the material is to be considered. Enamelware is inexpensive and light weight. It is especially suitable for preserving kettles because its surface is not affected by acid foods. While it is good-looking when new, the surface is very likely to chip and render it unfit for use in cooking. If you allow an egg to stand in the questionable piece of agateware and the egg becomes discolored, it is best to discard the utensil rather than risk lead poisoning. Dish pans and wash basins may be of enamelware and may be used without danger even after they are chipped.

Tin is light weight and a good conductor of heat. It is very good for pie and cake tins. It must be thoroughly dried and kept in a dry place to prevent rusting.

Iron and steel are strong and durable. They hold heat well and distribute it evenly. Heavy grades of iron are especially good for bread pans, baking sheets, and frying pans.

Aluminum is more expensive but for many purposes it is superior to other materials. It is not affected by acid fruits, does not rust or chip. A good heavy grade should be purchased, since thin light weight utensils are easily dented. Aluminum is especially good for sauce pans, double boilers, kettles, percolators and fireless cooker pans. An aluminum griddle is even more successful than one made of iron. It heats evenly and does not require greasing. Aluminum wears for years and repays for its initial cost.

Earthenware and glass are unequalled for slow baking processes, as in the case of scalloped dishes, meat pie, custards and puddings. They are suitable for table service and thus save dishwashing. Glass has the advantage of enabling one to look through and see when the food is cooked.

The shape of the utensil must be considered. One having a wide base heats more quickly than one with a narrow base of the same capacity. You may prove this by putting a pint of water in the two vessels and notice which boils first. Besides, the broad base covers the gas flame and uses the heat more economically. Pressure cookers save fuel and are satisfactory.

Mix cake batter with ice cold water instead of milk. Your cake will keep fresh and moist much longer than if mixed with milk.—Mrs. H. C.

**Ottawa County Secures Home
Demonstration Agent**



Miss Eva K. Schurr, a member of the June graduating class of the Michigan Agricultural College, has been engaged as home demonstration agent for Ottawa county. Miss Schurr comes from New York to Michigan. She attended high school and teachers' training school in Clarence, New York, and taught rural schools in that state for four years before entering M. A. C. Here she has had the four-year course, and is among the honor students in her class.

Our Boys' and Girls' Page

Poultry Lessons

By R. G. Kirby

Lesson XIII.—Marketing Eggs and Poultry.

THE best prices for eggs cannot be obtained at the grocery store as your eggs will have to come in competition with the production of many farms where no effort is made to sell a first-class product. It pays best for small flock owners to develop a private trade for strictly fresh eggs. They can be packed in neat cardboard cartons. These cartons can be returned and used many times.

If the flock is large it often pays to ship eggs by the crate to reliable city commission men. Most industrial cities furnish a market for strictly high-class stock at a good price. It is surprising how eggs can be shipped a long distance with good results. Many poultry breeders of the west sell their eggs in New York City for more money than they can near home, even after the cost of the crate and the express charges have been deducted.

Never sell eggs that are checked or unclean. The cracked egg may break and spoil the appearance of several dozen. Washing an unclean egg removes the film which nature places on an egg to help keep it fresh. So keep the nests clean and well filled with litter so the eggs will need no washing but can be sold with nature's bloom upon them.

Waterglass egg preserving furnishes a chance to sell fresh infertile eggs to private customers at a premium. Winter eggs are profitable as eggs are scarce at that season except in the houses of poultrymen who make great effort to treat the hens right.

When the local market for poultry is not good it pays to sell the birds dressed, to private customers or ship them to city commission dealers. The local dealers will usually wish the birds to be delivered on Thursday. Then they can be dressed in time for the Saturday trade. It pays to sell the birds in advance and then have a sure market for them when fattened. It is risky to drive down with a load of poultry without first seeing your local dealers. They may be supplied and the chickens will have to be taken home. Phone ahead and make arrangements. Make friends with the local dealer and prove to him that you can deliver fine quality stock. Then he will be apt to give your poultry a preference when buying for his customers.

Fattening poultry is necessary for the best results. Buyers do not like skinny hens nor skinny broilers. The bird with a back like a washboard does not have the flavor of the fattened chicken. Fattening consists in reducing the exercise and increasing the feed consumed. Pen up the fowls and give them a ration of corn meal made into a sloppy mash with sour milk. Give all they will clean up in a short time without any being left. Feed three times a day for ten days and then place the birds on the market before they are thrown off feed.

Some breeders find that it does not pay to fatten the lighter breeds like Leghorns, but they can profitably fatten the heavier breeds. Sometimes hens become overfat and, of course, such birds are all ready for market.

INTERNATIONAL CLUB JUDGING CONTEST.

THE keenest sort of interest is being manifested by club boys and club leaders everywhere in the second international club judging contest, to be held at the Southeastern Fair, Atlanta, Georgia, in late October.

The record attendance of fourteen state teams present last year will very likely be shattered during the present season. More than half the states in the Union are bending every effort to have a team of club boys on the ground when the second big fight comes off; this including states from Florida to Michigan, and from New York to the state of Washington.

Continuing the policy established last year, the Southeastern Fair is offering as prizes in the international club judging contest, seven trips with all expenses paid, to the Royal Live Stock Show in England. Under the rules of the contest: "The states of the American Union, insular possessions, provinces of Canada, South American countries and foreign na-



John Evers, manager of the Chicago Cubs baseball team, and his son Jack are constant companions on the side lines during games. Little Jack is the mascot for the Cubs and is already proving his ability as a ball player. Here is another example that a father-and-son companionship is beneficial and productive of happiness to both.

tions are eligible to enter teams, provided that in such state, possession, or nation boys' club work is organized and conducted under rules and regulations which do not conflict with those applying in the United States of America."

Twelve rings of live stock are to be judged, which includes Guernsey, Jersey, Holstein-Friesian dairy cattle, Aberdeen-Angus, Shorthorn, and Hereford beef cattle, Shropshire and Southdown sheep, and Duroc-Jersey, Poland China, Berkshire and Hampshire hogs.

The club boy receiving the highest score receives a free trip to the Royal. The state team of three club boys attaining the highest total score secures the three trips to the Royal. Accompanying the team, also at the expense of the Southeastern Fair, will be the county agent coaching the high man, the state club leader from the state represented by the winning team, and the official from the department of club work in the Washington office whose territory is represented by the winning team.

In addition, the Southeastern Fair announces that, in the 1921 contest, it will award a prize of \$300 to the state team ranking second and \$200 to the state team ranking third.

Michigan was represented at the 1920 international club judging contest by a team composed of Carl Johnson, Ironwood, Gogebic county; Don Shepard, Charlotte, Eaton county; and Porter Dent, Vicksburg, Kalamazoo county. It is expected that Michigan will be represented at the contest this coming October.

POULTRY

Pullets, Breeding Cock-erels, Yearling Hens

Dispose of your old hens and replace them with our "Bred to Lay" S. C. W. Leghorn pullets and get eggs next winter when eggs are high, our pullets will do it. Save money by buying your next season's breeding cockerels now, 5,000 to choose from. 1000 yearling hens for sale. All this stock is produced on our own farm from choice stock and is fully guaranteed. Prices on application.

Macatawa White Leghorn Co.
R. 1, Holland, Mich.

For your best quality of CHICKS

Send Your Order to the

City Limits Hatchery,

Rt. 5, Box 11, Holland, Mich.

Our chicks are of the highest quality and our prices are within reach of everybody. We have S. C. W. Leghorns, S. C. Anconas, English White Leghorns, S. C. B. Leghorns, and Barred Rocks.

DAY OLD CHICKS

HOMESTEAD FARMS

If you are a farmer poultryman you will be interested in the Michigan bred Pure Breed Practical Poultry. A stock of demonstrated value for practical poultry people; stock bred under the plan of the Michigan Agricultural College and distributed at fair prices. 2,000 Eight Weeks Pullets* Leghorns, Anconas, and 16 other breeds. Shall we send you our 64-page descriptive Catalog? Chicks delivered parcel post prepaid.

STATE FARMS ASSOCIATION,
Desk 1, Kalamazoo, Michigan

BABY CHICKS Hatching eggs, Barred Rocks, Norman strain, trap-nested, bred-to-day, expertly tested for many generations. Large illustrated catalogue 25c. stamps for circular. Norman Poultry Plant, Chatsworth, Ill.

Barred Pocks Hatching eggs from Parks 200-egg strain. Rich in the blood of Parks best pedigreed pens. \$2 per 15. \$5 per 50. \$12 per 100. Prepaid by parcel post in nonbreakable containers. R. G. KIRBY, Route 1, East Lansing, Mich.

Barred Rock Eggs for hatching, selected quality. \$2.00 for 15. \$6.00 for 50; \$12.00 for 100. Prepaid Parcel Post. MR. H. HUNT, R. 1, Dearborn, Mich.

Baby Chicks Good big, healthy chicks of show room quality at utility prices. Catalogue free. Sycamore Hatchery, Sycamore, Ohio

B-A-B-Y-C-H-I-X

CRESCENT Strain S. C. White Leghorns Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, Rhode Island Reds, Barred Plymouth Rocks, (also White), Wyandottes, (Silver laced and White) and Mottled Anconas. WE HATCH eggs from flocks on range on separate farms. Send for booklet, containing much of value to poultry raisers. CRESCENT EGG COMPANY, Allegan, Mich.

B A B Y CHICKS High Quality, Heavy Laying Strains. Vigorous Chicks from Hardy Stock. Prize winners at N. Y. & O. State Fairs. 35 best breeds—low prices. Safe arrival guaranteed. Cfr. free. CRYSTAL POULTRY FARMS, Shepard Strong, 7301 Franklin Ave., Cleveland, Ohio

CHICKS English Strain White Leghorns the heavy laying strain at only \$5 per 100; prepaid by mail safe arrival guaranteed send cash with order special rates on 500 or more. JAMESTOWN HATCHERY, Jamestown, Mich.

Fowler's Buff Rocks: Eggs for hatching. Also a few choice cockerels left. Write for prices. R. B. FOWLER, Hartford, Mich.

Baby Chicks from fine stock, to produce eggs, at utility prices. Catalogue FREE. Lee's Poultry Farm & Hatchery, Edison, O

CHICKS English Strain White Leghorn. Bred to lay Brown Leghorn and Anconas. Bargain prices for our quality stock kept on free range. Order now for early deliveries. Hillside Grove Hatchery Farm, R. 1, Holland, Mich.

Buff, Barred, Columbian Partridge, Silver Pencilled, White Rocks; Anconas, White Wyandottes, Rouen Ducks. \$2 setting. Catalog 2c. SHERIDAN POULTRY YARDS, R. F. D. 5, Sheridan, Mich.

DAY-OLD CHICKS

\$16.00 per 100 and up. Hatching eggs, \$2.00 to \$15.00 per setting and \$9.00 to \$15.00 per 100 from 25 varieties of pure bred, farm raised fowls: Chickens, Geese, Ducks, Turkeys and Guinea. Price list and circular free. Plenty of nice breeding stock. Book now for early spring delivery. WILMINGTON HATCHERY & POULTRY CO. Wilmington, Ohio.

Snowy White Rocks Fishel strain, dandy layers Eggs \$1.50-15; \$4-50; \$8-100 All prepaid. Mrs. Earl Dehnhoff, Vanburen, Ohio

Don't Buy Baby Chicks Until you get our catalog and prices. Pure bred, heavy laying White and Brown Leghorns, Anconas. Write today. Monarch Hatchery, Zeeland, Mich.

LOOK [Best Graded] CHICKS Our H-1-Grade profit paying Bred-to-Lay. M. A. C. tested and exhibition chicks, at reasonable prices. Hatching eggs, 8 varieties, Circular FREE. Lawrence Poultry Farm, R. 7, Grand Rapids, Mich.

June Chicks Buy 'em Home

Hatches each Monday and Tuesday. Brown and White Leghorns, \$14.00 per hundred. Rocks and Reds, \$15.00; White Rocks, White Wyandottes \$17; White and Buff Orpingtons \$18.00. Add 50c for half and quarter hundreds. Please name second choice. Prepaid and guaranteed live delivery. Washenaw Hatchery, Ann Arbor, Mich. We Close July 1.

S. C. WHITE LEGHORN CHICKS Send for Catalog SNOWFLAKE POULTRY FARM, Route 1, Grand Rapids, Michigan

Barred Rocks from Rocky Ridge Hatching eggs lay birds \$2.00 per 15. Prepaid by Parcel Post. W. T. RICHARDSON, Handover, Mich.

Barred Rocks egg contest winners, eggs from strain with records to 290 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich

Eggs from pure Toulouse geese. Ten for five dollars. Parcel post paid. Mrs. Amy Southworth, Allen, Mich

John's Big Beautiful Barred Rocks are here hatched, develop quick, good layers, fine show quality. 30 eggs \$3.50, 50 \$5. Postage paid. Photos, circulars. JOHN NORTHON, Clare, Mich

Chicks Chicks

15,000 every week. Pure bred Barron English and American S. C. W. Leghorns, Anconas and Barred Rocks. Our free range flocks the finest in this section, the result of twelve years constant improvement in high laying records. Birds with 285 egg records. Chicks hatched now still make excellent winter layers. Full count strong lively chicks by mail at \$9.00 and up. Now booking orders for June delivery. Satisfaction guaranteed. Prompt shipment. Write for valuable free catalog at once. Feeding instructions with each chick order.

W. Van Appledorn
R. 7, Holland, Mich.

Barred Rocks 8 to 12 week pullets, cockerels, hens and cock birds. Leading pen at M. A. C. for December averaging 22 eggs each. 1 pullet laid 27 eggs in both Dec. and January. 1 pullet laid 30 eggs in 91 days, winners at largest shows in state. Write for price list. G. Caball, R. 4, Hudsonville, Mich

100,000 CHIX 11c UP.

Best selected utility trapnested exhibition stock ever produced. Always 2,000 chix on hand 5 to 15 days old. 18 varieties. Hatching eggs, Hens, ducks, Early bookings, avoids disappointment. Catalog. Beckman Hatchery, 26 E. Lyon, Grand Rapids, Mich.

LOOK: BABY CHICKS

at 8 cents each and up for the last two weeks in May, June, July and August. W. Leg. 10c each. Buff Leg. 11c each. Br. Leg. 11c each. Ancona 12c each. Br. Rock 13 1/2c each. Buff Rock 13 1/2c each. R. 1 Red 13 1/2c. W. W. 15c each. Broilers 8c each. 5% discount for order of 500 or more. 10% discount for orders of 1000 or more. All chicks sent by parcel post, prepaid by us, and safe arrival guaranteed. Order direct from this ad, or send for our free illustrated catalogue. OHLS POULTRY YARDS & HATCHERY, Marion, Ohio.

BABY CHICKS of Superior Quality

Not from the Hatchery, right to your door safely, by prepaid parcel post. BIG Strong, fluffy fellows hatched from eggs of selected flocks, and under our own supervision. ROCKS, LEGHORNS, ANCONAS, REDS and MINORCAS. Chicks that live and grow into money. Bred for EGG PRODUCTION and the SHOW ROOM. Save money by sending for our catalogue NOW. THE SUPERIOR CHICK HATCHERY, Lock Box 197, Prairie Depot, Ohio.

S. C. B. Minorcas. Pen No. 1 headed by a son of our \$50. 12 lb. cock, mated with 9 of our best hens. \$3.00 per 15. No. 2 pen headed by a cockerel of Pape strain. Eggs \$2.50 per 15. Incubator eggs \$3.00 per 100. R. W. MILLS, Saline, Mich.

R. C. Br. Leghorn Eggs \$1.50 for 15. Pekin duck, \$1.50 for 8. W. Chinese Goose eggs, 40c each. MRS. CLAUDIA BETTS, Hillsdale, Mich

Barred Rock Chicks 100% safe delivery. Reduced Prices. Write for circular. H. H. PIERCE, Jerome, Mich.

BEST Breeds. Chickens, Ducks, Geese, Turkeys, Guinea, Hares, Dogs. Stock and eggs. Write your wants. Catalog free. H. A. Souder, Box 94, Sellersville, Pa.

Chicks, for May and later delivery. Leghorns 13 1/2c S. C. Reds 15 dollars hun. Circular FREEPORT HATCHERY, Box 12, Freeport, Mich

CHICKS FULL O'PEP

Prices Reduced. Here is your chance to get chicks that live, grow and pay. Trapnested, bred-to-day and exhibition chicks. Broilers 10c, Leghorns 12c, Rocks, Reds 15c, Anconas, Black Minorcas, and White Wyandottes 16c Silver Wyandottes and Orpingtons 18c. Safe arrival and full count. Prepaid. Free catalogue. HOLGATE CHICK HATCHERY, Holgate, Ohio.

Officially Certified Pedigreed S. C. Buff Leghorns chix and eggs from 219 to 281 record stock. Money makers priced right. HENRY DEPRE, R. 8, Box 137, Holland, Mich.

Day Old Chicks from healthy selected flocks. Reduced prices. Reds, Rocks, W. Wyandottes, W. Leghorns, Br. Leghorns and B. K. Minorcas. Special reduced prices for June & July delivery. Derr & Adams, Litchfield, Mich

Pose Comb R. 1 Red eggs for hatching. Orders booked now for Cockerels and pullets for fall delivery. MRS. ALBERT HARWOOD, R. 4, Charlevoix, Mich.

5 lb. English White Leghorns

Barron strain. My free catalog describes them, gives feeding methods, a new way to cul hens and much valuable information. A. Wauchek, Gobleville, Mich.

Baby Chicks \$11 a 100 and up. Postage PAID. 95% live arrival guaranteed. FREE feed with each order. 40 breeds chicks, 4 breeds ducklings. Select and Exhibition grades. A hatch every week all year. Catalogue free. Stamps appreciated. NABOB HATCHERIES, Gambier, Ohio.

USEFUL ANCONAS June and July chicks lay before cold weather. Eggs half price \$5.50 per 100, \$3.50 per fifty. Hogan tested, beauty and utility combined. Specialty breeder S. C. Mottled Anconas. Send for booklet. (Useful facts about Useful Anconas). It is free. College View Farm, R. 3, Hillsdale, Mich.

Additional Poultry Ads. on Page 673

Royal Baby Chicks



S. C. White and Brown Leghorns

\$10 Per 100 for Early June Delivery

Place your order now for some of these high-grade chicks from pure-bred stock that has been bred to lay for the past 10 years. Just the kind of stock you need on your farm to bring you a good profit. Our many years of hatching experience enable us to give you chicks that are started right and will grow right. Any size orders accepted. Safe arrival guaranteed. Order direct to save time, or send for catalog.

Royal Hatchery, R. 2, Zeeland, Mich.

Day Old Chicks 12 Cents

FROM

Standard Bred Brown Leghorns and Standard Bred White Leghorns

The stock has been bred to lay for the past twelve years, and are now good laying strains. We also have English type White Leghorns which are a little heavier, and have very large combs and lay a large white egg. Those looking for the English type and a heavy laying strain, make no mistake when ordering from us. 100% safe arrival guaranteed by parcel post. Write for our catalog.

Order Direct from Ad. and Save Time.

Wolverine Hatchery, R. 2, Zeeland, Mich.

H. P. Wiersma, Owner and Manager

CHICKS At Reduced Prices CHICKS

20,000 large, strong, well hatched chicks every Tuesday hatched from eggs laid by selected hens on free range insuring healthy, vigorous chicks that will live and grow into money for you.



Barron S. C. White Leghorn heavy weight and heavy layers American S. C. White Leghorns heavy laying strains S. C. Brown Leghorn the most beautiful Leghorn and a good layer.

S. C. Anconas great layers.

PRICES FOR JUNE AND JULY	Per 25	Per 50	Per 100	Per 500	Per 1000
S. C. White Leghorns	\$2.50	\$4.50	\$9.50	\$45.00	\$85.00
English W. Leghorns	2.75	5.00	10.00	47.00	90.00
S. C. Brown Leghorns	2.75	5.00	10.00	47.00	90.00
S. C. Anconas	3.00	5.75	11.00	52.00	100.00
Broiler Chicks	2.00	4.00	7.50	35.00	

We Ship By Parcels Post and Pay the Postage to Your Door.

We guarantee the chicks to reach you in good condition. Catalogue free.

WYNGARDEN HATCHERY, Box M, Zeeland, Mich.

Baby Chicks Pure Bred 800,000 in 1921

To your door Prepaid by us. Guaranteed live delivery. All our stock is of the Standard and free range and of heavy egg production at the price to meet times. And they are all No. 1 only



S. C. White Leg. } 10c each
S. C. Brown Leg. }
S. C. Buff Leg. }
Broilers }
Barred Rocks }
White Rocks }
S. C. & R. C. Reds } 13c each
White Wyandottes }
Anconas }
B. Orpingtons } 18c each

Give us a trial order and you will always come back for more of our chicks get our big offer on chicks and brooders. Order direct from this ad and save delay. Circular Free.

WOLF HATCHING & BREEDING CO., Dept. M, Gibsonburg, Ohio.

HUBER'S RELIABLE CHICKS---Special Summer Prices After June 1st

By Parcel Post Prepaid. Guarantee Live Delivery. Exhibition Quality at Utility Prices.



Don't fail to take advantage of these prices for they will include our (Number One Grade Chicks). Our stock is bred for quality and extra heavy egg production. Our twelve years experience, our large plant, besides thousands of Satisfied Customers is a guarantee of prompt delivery of chicks that are properly hatched and will make you money. Will ship any number from 25 on up.

S. C. White and Brown Leghorns and Odds and Ends at..... 10 cts.
S. C. Anconas; R. C. and S. C. Reds and Barred Rocks at..... 13 cts.
S. C. Buff Orpingtons; S. C. Blk. Minorcas and W. Wyandottes at 16 cts.
A hatch every Tuesday of 30,000 chicks. Order direct from this ad.

Attractive Catalog Free.

Huber's Reliable Hatchery, East High St., Fostoria, Ohio

SUPERIOR BABY CHICKS

At reduced prices, from our Farm raised, free range, heavy laying, purebred stock. Order direct from this ad and save time. Hatch every week. Prices are prepaid to your door and we guarantee 100% live arrival

Pure bred S. C. Amer. White Leghorns
Purebred S. C. English White Leghorns
Purebred S. C. Brown Leghorns
Purebred S. C. Mottled Anconas
Broiler chicks 10 cents each.

11c Each Any Amount 25 to 1000

Superior Poultry Farms and Hatchery, Box 203, Zeeland, Mich.

Keep the Chicks Growing

By C. M. Baker

WE have often noticed a serious setback in growing chicks if the proper ration is not provided at the time the chicks are able to range about and begin to hunt for themselves—too often at this time the feed necessary for their quick development is withheld.

This is when we bring our chick self-feeders into their greatest use and provide a good mash that will assist the fowls in growing a good frame, plenty of plumage and keep them in active working order. When the chicks weigh about a pound apiece and just at the time they are passing through the broiler stage, they require a good deal of feed, yet nothing extraordinary in comparison to the amount that would be required to bring them to maturity, and the feed should be of such a nature that will keep them growing rapidly.

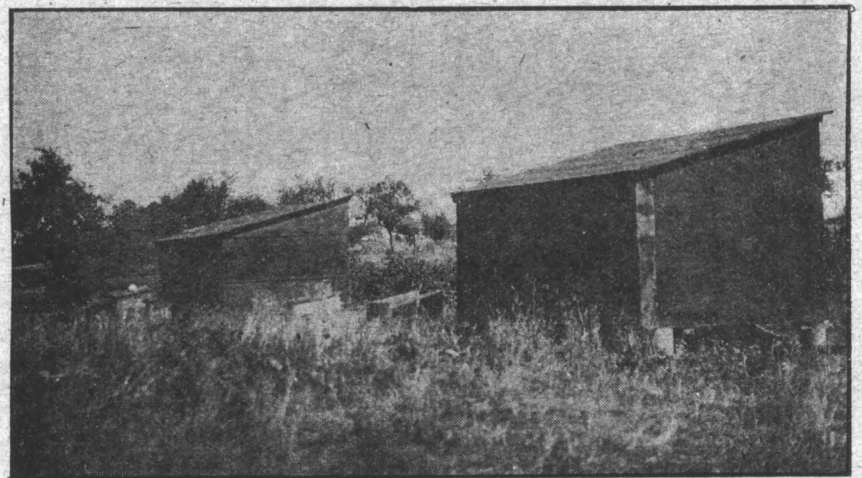
Meat scrap in the ration is one of the essential feeds that will keep the

accustomed to a good house will not stand around under bushes on rainy days and lower their vitality, which really impairs them as winter layers.

THE COMING GAME BIRD.

YOUNG guinea fowl, weighing about two pounds each, are rapidly taking the place of wild game on the tables of the exclusive. These birds are easy to raise, requiring but little care and feed after reaching the age of one month. They are marketed at the age of three months or earlier. The writer has received as high as \$2.50 per pair and as low as \$1.75, when the birds arrived at a weight of two pounds. Poultry and commission houses in the large cities buy them alive. If marketed dead, the head and feathers are not removed.

Usually it is better to hatch the youngsters with common hens, confining the little birds closely for the first



The Colony House and Free Range Are Factors in Keeping Chicks Growing.

chicks in good order and since this feed is generally high in price, just enough should be fed to provide the chicks with the necessary amount. As near as we can tell, we believe that a ration of two parts corn, three parts bran, one part meat scrap by weight, supplies this requirement. The chicks ought to have cracked corn in addition as scratch feed, as the use of the scratch feed will require less of the mash, which is really the expensive part of the ration.

By the time the cockerels are two pounds they should be marketed for broilers and attention given to the development of the pullets. The same ration should continue throughout the growing season we believe, but, of course, should be changed some near the time the pullets begin to lay.

A good deal of labor and trouble may be saved by providing a large self-feeder with the mash, where the growing fowls may get it whenever they wish. We use a feeder that will hold about ten bushels and have the ration mixed by the feed dealer. In this way we can handle several thousand chicks easily in the growing season.

To supply water, one of the easiest means is to secure a pan about three feet in diameter and install one of the old-fashioned floats that were so common in our barnyard watering troughs. This may be attached to a pressure system or gravity system and will, of course, allow water to come in as fast as removed. In this manner if the pan is in a protected place, the water will not become hot, and fresh water is supplied at all times without any necessary attention. A device like this works well on an electric pump, such as is being installed with the farm lighting system.

A good building is as essential during the summer time as during the fall as the pullets need protection from the cold rains and a clean, well-ventilated place to roost. Young pullets that are

few weeks. Once the feathers get a start, the birds may go anywhere without danger. Wet grass is fatal at the start, but later they seem immune to illness and hardship. As to feeding, any program which brings success with common chicks will find success with guineas. During late summer and early fall the youngsters will pick up most of their feed from the fields. Usually the old guineas will adopt the young birds when they are about half grown and will lead them over a wide range. We have never lost a young bird through hawks and foxes, as has often been the case with the chickens.

The best time to market guinea broilers is from the middle of November to the first of January. Birds hatched in July are ready for market in October but usually this is a little early for highest prices. Last summer we hatched in August and marketed in November. September hatchings would prove profitable but grasshoppers are not as plentiful as the season advances, hence the cost of growing is a little more. The guinea requires care similar to that given the turkey but is not subject to the ills that have made the raising of our national bird something of a gamble, over a large part of the country.—C. H. CHESLEY.

POULTRY CULLING MAKES HENS PROFITABLE.

POULTRY culling has saved Calhoun county probably more than \$10,000 a year during the past three years. The county agent has held two hundred and fifty poultry culling demonstrations before about 2,600 people. Hundreds of farmers have learned to do the job and they are culling their flocks regularly. During June, July and August this year a campaign will be put on to clean up the culls over the whole county. A big effort will be made to give every farmer a chance to learn to cull hens.

Steer Feeding Day at M. A. C.

(Continued from page 661).

been removed. It was found that each fifty pounds of the normal silage contained six and two-thirds pounds of shelled corn.

Here are the amounts of the different feeds consumed by the different lots: No. 1 ate 63,112 pounds of normal silage, 3,804 pounds of cottonseed meal, 5,312 pounds of shelled corn and 3,700 pounds of clover hay. Lot 2 consumed 70,936 pounds of stover silage, 3,804 pounds of cottonseed meal, 7,244 pounds of shelled corn, and 3,700 pounds of clover hay. To Lot 3 was fed 68,092 pounds of stover silage, 3,804 pounds of cottonseed meal, 10,880 pounds of shelled corn, and 3,700 pounds of clover hay.

During the entire period from November 20 to May 12 Lot 1 gained a total of 2,719 pounds, making the final weight of this group 10,811 pounds. The average gain per steer was 339.8 pounds and the average daily gain was 1.94 pounds. Lot 2 increased during the feed 1,992 pounds, giving the lot a final weight of 10,115 pounds, or a gain per steer of 249 pounds and an average daily gain of 1.42 pounds. This was 0.52 pounds less gain per day than was made by the first lot. In the case of Lot 3 there was added during the experiment a total of 2,213 pounds, increasing the weight of the lot to 10,346 pounds and giving an average gain per steer of 276.6 pounds and an average daily gain of 1.58 pounds. This gain from the animals fed stover silage and an amount of shelled corn equal to that husked from the stover they ate, was 0.36 pounds less per day than was secured from the steers in Lot 1, but 0.16 pounds more than the daily average for Lot 2.

Now, what did it cost to feed each of these lots during the test and what was the total expense of preparing animals for market. If costs are computed on the basis of normal silage at \$4.00 per ton, stover silage at \$1.60 per ton, shelled corn at fifty cents per bushel, cottonseed meal at \$40 per ton and clover hay at \$10 per ton the following figures show the costs of the different lots and the total expense of fitting each lot for the block:

	Lot 1.	Lot 2.	Lot 3.
Feed	\$268.63	\$215.99	\$246.19
Steers	730.71	733.51	734.41

Total \$999.34 \$949.50 \$980.60

From these figures and the weights given above it is ascertained that the cost of producing a hundredweight of gain in Lot 1 was \$9.88, in Lot 2, \$10.84, and in Lot 3, \$11.12. But since hogs followed each group the pork made should be credited. After deducting the value of the pork produced from the corn passing through the animals of each lot, the net cost per hundredweight in each group is as follows:

Lot 1	\$ 8.81
Lot 2	10.01
Lot 3	10.01

From these figures it will be observed that the larger amount of corn fed to Lot 3 produced enough additional pork to reduce the cost per hundredweight to a level of the cost for Lot 2. But in both instances the costs range more than a dollar above what it cost to put a hundred pounds of gain on Lot 1.

Figured in units of feed here is what it required for producing a pound of gain: In Lot 1, 23.28 pounds of normal silage, 1.4 pounds of cottonseed meal, 1.95 pounds of shelled corn and 1.36 pounds of clover hay were needed to produce a pound of gain. For Lot 2, 35.61 pounds of stover silage, 1.91 pounds of cottonseed meal, 3.64 pounds of shelled corn, and 1.86 pounds of clover hay were necessary. And in Lot 3, 30.77 pounds of stover silage, 1.72 pounds of cottonseed meal, 4.92 pounds

of shelled corn, and 1.67 pounds of clover hay were fed to every pound of gain made.

These steers were sold last Thursday morning at the Detroit stock yards. Each lot was bid on separately. Lot 1 brought \$8.50 per hundred pounds. Lot 2, \$8.00, and Lot 3, \$8.25. Butchering data could not be secured for this issue, but will be published as soon as received, probably in next week's issue.

EASTERN MICHIGAN AUTO TOUR.

A SECOND Michigan Farmers' Auto Tour will cover northeastern Michigan, starting at Bay City, August 8.

The tour is planned for a time when there is a lull in farm work, to give farmers and their families an opportunity to enjoy a period of relaxation and sightseeing before starting the fall work. It will cover some very interesting territory along the shores of Lake Huron and through the central part of the state, and will do much to acquaint Michigan farmers with the beauties of their own state.

The dates of the tour are arranged so that moonlight nights will be taken advantage of. This will add greatly to the pleasure of the trip. The schedule is to have the autoists gather at Bay City on August 8, and to leave early on the ninth. The first stop will be at East Tawas State Park on Tuesday evening. Alpena will be visited Wednesday; Onaway Park on Thursday, and the rest of the week will be spent at Mackinac. Monday the travelers will start again, with Otsego Lake as the likely stopping place Monday night. Grayling will be visited on Tuesday, West Branch and Prudenville on Wednesday. Thursday, Gladwin State Park will be inspected, a stop will be made at Beaveron for dinner, and Midland for supper. Bay City will be reached Thursday night, August 18.

The tourists will be required to furnish their own tents, cots, cooking utensils, fishing tackle, etc. Tents and cots may be rented for a nominal sum from the offices of the Northeastern Michigan Development Bureau at Bay City. A truck will be provided to carry surplus baggage and equipment.

Those desiring further information or wishing to make application for space in this tour should write to Mr. Henry Kreulen, Recreational Director, Bay City, Michigan.

As other items of interest and further details regarding this tour develop they will appear in these columns.

M. A. C. ESTABLISHES LIBRARY EXTENSION SERVICE.

PACKAGES of printed matter bearing on agricultural subjects have been made available for farmers of Michigan through a circulation library extension service established at M. A. C. Under the direction of Mrs. Linda Landon, college librarian, such information has been collected and will be mailed out on request to responsible groups of rural workers, such as teachers of agriculture and home economics, county agricultural agents, club leaders, farm bureaus and other organizations. Later on the service may be expanded to serve individuals.

Bulletins, pamphlets and clippings comprise the packets. They cover such subjects as canning, textile testing, farm kitchen arrangements, technical crops information and matters of general farm practice.

Illinois leads in the gift corn project to the starving peoples of the near east with 147 cars to her credit. The total number donated was 431 carloads.

FertilEarth

Agricultural Gypsum
(LAND PLASTER)

"Makes Crops Grow"

TRADE MARK

Increases Available Supply of Nitrogen

Nitrogen plant food, in a form available for crops, is present in liquid and solid manure and in the air. FertilEarth preserves this food in manure in stable and manure pile; and hastens decomposition to release this food when manure is spread on the fields. Moreover, FertilEarth supplies plants directly with sulphur and calcium, causing them to grow to an enormous size and, in turn, store more nitrogen, through the roots, in the soil.

FertilEarth is the fertilizer supplying these three vital foods. And yet it costs least. It is neutral—will improve either acid or alkaline soils.

Write for booklet. "FertilEarth" is sold Everywhere.

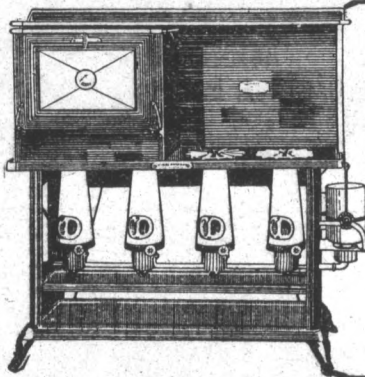
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Established in 1856 Manufacturers of

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"Makes Crops Grow"

Climax
"For Plastering
Fine Homes"

Hercules Wall Plaster
"For Plastering Larger
Buildings"



SAVE 1/4 the Price

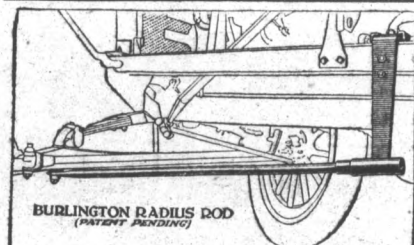
Cook in Cool Comfort

Here is where you can save on a work-saving oil range—one that will do all your cooking and baking—a beauty in design and appearance. Prices have hit the bottom.

\$37.95 for this KALAMAZOO Wick Oil Range

Write today—Get our special summer offer. Cash or easy payments—quick shipments—unconditional guarantee. Ask for catalogue No. 1113.

Kalamazoo Stove Co., Mfrs.
Kalamazoo, Mich.



BURLINGTON RADIUS ROD
(PATENT PENDING)

NO MORE Broken Crank Cases or Engine Arms

Cannot Tip Over. Drives Like a \$5,000 Car. Saves One-half of Repair Cost.

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Homespun smoking and chewing tobacco shipped collect on delivery 10 lbs. \$3.20 lbs. \$5. Farmer's Union, Mayfield, Kentucky.

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Summer Prices on Nye Bros. Superior Quality Day Old Chicks

From purebred free range stock of excellent laying qualities. Good Leghorns a specialty. Give them a trial. S. C. White and Brown Leghorns in June, 10c; July, 9c each. S. C. Buff Leghorns, Anconas, S. C. and R. C. Reds, Barred Rocks, June 12c; July, 11c each. White Wyandottes June 13c; July, 16c each. Odds and ends, 9c each. Order at once from this ad. as they are going fast at the prices. June prices to go into effect May 23d. We pay parcel post and guarantee live delivery. These chicks are full of life and hatched right.

Nye Brothers Hatchery, Kansas, Ohio.

Baby Chicks and eggs for hatching. Reduced prices after May 25th. Leghorns 11 cents. Rocks and Reds 15 cents for May and 13 cents for June and July. Get your order in early at these prices. Hatch every Tuesday. Interesting catalogue free. Brummer's Poultry Farm, R. 8, Holland, Mich.

Reduced prices on Barrons S. C. W. Leghorns and Sheppards Ancona chicks for May and June. Send your order now for 8 week old pullets and cockerels. Byron Center Poultry Farm, Byron Center, Mich.

Chicks At Reduced Prices

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Chicks S. C. W. English Leghorns \$11 per 100, by parcel post. Order from this ad. HENRY WATERWAY, R. 4, Holland, Mich.

For Sale Eight-week-old S. C. White Leghorns and S. C. Ancona Pullets now ready for shipment. Write for prices. Selected pure bred stock. A. VanKoeveering, Zeeland, Michigan

CHICKS Single Comb White Leghorns \$12.00 prepaid. Order today. ROY L. DRUCKER, R. 6, Grand Rapids, Michigan

CHICKS Barron strain W. Leghorns 10c; Parks strain B. Rocks 15c; prepaid. The best strains in the world for eggs. Robt. Christopher, R. 4, Holland, Mich.

RHODE ISLAND WHITES

win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this ad. Some chicks. H. H. JUMP, R. 5, Jackson, Mich.

S. C. Brown Leghorns Barron S. C. White Leghorns, 252-278 strain. Eggs 15-14.20; 30. \$2.20; 50-\$3.25; 100-\$6, prepaid. V. Fulton, Gallipolis, O.

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Quality Chicks Black Minorca, Light Brahma, 25c each, Barred Rock, R. I. Red, 18c each. Tyrone Poultry Farm, Fenton, Mich.

White Wyandottes: 207 egg average. Hatching eggs, \$2.00 per 15. Baby chicks 25 cents each. Cockerels, hens and pullets. FRANK DeLONG, R. 3, Three Rivers, Mich.

Whittaker's R. I. Reds. Both Combs. Michigan's Greatest Color and Egg Strain. CHICKS, Grade "A", \$25 per 100. Grade "B", \$16 per 100. Broilers, \$10 per 100. EGGS, \$12.50 and \$8 per 100. \$4.50 and \$3.25 per 30. Interlakes Farm, Box 39, Lawrence, Mich.

White Wyandotte and Barred Rock eggs, half price balance of season. HOWARD GRANT, Marshall, Mich.

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Imp. Edgar of Dalmeny

Probably
The World's Greatest
Breeding Bull

Blue Bell, Supreme Champion at the Smith-
field Show 1919, and the Birmingham Show
1920, is a daughter of Edgar of Dalmeny.

The Junior Champion Bull, Junior Cham-
pion Female, Champion Calf Herd and First
Prize Junior Heifer Calf, Michigan State Fair,
1920, were also the get of Edgar of Dalmeny.

A very choice lot of young bulls—sired by
Edgar of Dalmeny are, at this time, offered
for sale.

Send for Illustrated Catalogue.

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ORION, MICHIGAN

W. E. SCRIPPS, Prop. Sidney Smith, Supt.

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Trojan-Erica and Blackbirds (Blackcaps)
Herd Bulls
Imp. Elcho of Harviestoun.
Imp. Edgardo of Dalmeny
Write for 1921 Sale List.
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Cows and Heifers Bred to
Blackcap Brand of Woodcote 2nd
For Sale
GEO. HATHAWAY & SON, Ovid, Mich.

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

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bulls and heifers of the very best of breeding, from
12 to 15 months of age. For next 30 days will price
bulls at \$100.00. Real bargains. Inspection invited.
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Registered Guernseys a three yr. old
heifer, her calf born Feb. 1, for \$350. An 8 mo. old bull calf
no relation to above for \$100. The three for \$400.
J. M. WILLIAMS, North Adams, Mich.

GUERNSEYS—REGISTERED BULL CALVES
Containing blood of world champions.
HICKS' GUERNSEY FARM, Saginaw, W.S. Mich.

Guernsey Bulls of May Rose Breeding
Their dams have records
420 to 650 lbs. fat also a few cows and heifers are
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For Sale 5 young imported Reg. Guernsey cows
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For Sale Cheap. 2 registered Guernsey
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Reg. Guernsey bulls for sale cheap. State T.B. test
Red and from good producing and A. Records. Age 1
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Holstein Friesian heifer and bull calves, purebred
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Splendid individuals and breeding. Write us your re-
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If you want to get a pure bred Holstein Herd Sire
from a Dam who produced 725 pounds of milk and
nearly 34 pounds of butter in seven days, write to
JOSEPH H. BREWER, Grand Rapids, Mich.

Holstein or Guernsey calves, practically pure,
7 weeks old, \$25.00 each, crated for ship-
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Accepted. Edgewood Farms, Whitewater, Wis.

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Registered Holstein-Friesian Cattle

We breed them to sell. If you
are looking for seed stock, we
have it.

John H. Winn, [Inc.]
Rochester, Mich.

Our Consignment

of the Lansing Sale

May 23rd

consists of a 4 months old son of the State
Champion Jr. 2 yr. old of Michigan for 1920.
A 19 lb. 3 yr. old daughter of a 31 lb. cow.
Two daughters of "Alcatraz Pontiac Butter
Boy" whose daughters are making such splen-
did records. A heifer calf sired by Judge
Joh. Lyons.

SINDLINGER BROTHERS
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R. M. Smith, Supt. Marinette County Asylum
Peshtigo, Wisconsin, writes:

"I am thoroughly convinced that the Holstein
cow to the greatest Institution where the Holstein cow
is superior. She saved this Institution, saved my
reputation as to judgement." Send for Free Booklets.

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164 American Bldg., Brattleboro, Vermont

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all ages sired by Callaway Edd 1918 world's grand champ. 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.
CRANDELL'S PRIZE HOGS, Cass City, Mich.

USE PURE-BRED SIRES!

Estimates furnished by the Dairy Division of the
United States Department of Agriculture show
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4,500 lbs. of milk per year.

A good Holstein bull will increase the production
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Let us help you find a good one to use on your
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H. W. NORTON, Jr., Field Secretary,
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A Good Note accepted in payment of finely bred reg-
istered Holstein bull calves. Quality
of the best, and at prices within reach of all. Write,
GEO. D. CLARKE, Vassar, Mich.

Registered Holsteins—bulls, heifers or cows always
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teed. Write or come. B. B. Reavey, Akron, Mich.

3 gddughters (2 yr. olds) of Maplecrest Korn. Heng
bred to 32 lb. son of King Korn. Saddle
Vale. T.B. tested, good size, good individual. Terms
\$150 a year. M. L. McLaughlin, Redford, Mich.

A Proven Blood Line

KING SEGIS transmitted to his sons the power to
transmit to their daughters the greatest of produc-
tion over long periods. It is his offspring that has
recently made the greatest yearly production ever
dreamed of 37,381.4 pounds of milk in a year.
We have for sale at moderate prices.
Beautiful individuals of show type KING SEGIS
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315 N. East Ave., Jackson, Mich. C. J. Spencer, Owner,
Under State and Federal Supervision

"Top Notch" Holsteins

Buy a "milk" Bull of Quality from the Breeders
of the world's only cow to produce 800 lbs. milk in 7
days, having an 80 lb. daughter.
Our herd is rich in the blood of Colantha 4th Jo-
hanna, the only cow that ever held all world's records
in every division from one day to one year at the same
time. She produced 651.70 lbs. milk in 7 days. We are
offering for sale a bull, whose dam exceeds this record
by over 74 lbs. in 7 days.

His dam's records are—
Milk 1 Day 100.1 lbs.
Butter 7 Days 659.3 lbs.
Butter 7 Days 26.31 lbs.

His name is
KING VALE CORNUCOPIA WAYNE, No. 312599
Born February 6, 1920

His dam and sire's two nearest dams average
Butter 7 Days 33.02 lbs.
Milk 7 Days 607.3 lbs.
Handsomely marked about one third white.
\$250.00 f. o. b. Howell.

McPHERSON FARMS CO., Howell, Mich.
All herds under U. S. Supervision.

The Traverse Herd

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.

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

Cluny Stock Farm

Offers

Cluny Konigen Colantha Silver 326205
Born May 29, 1920

A white bull with a few black spots,
His sire a 30 lb. son of King Segis Pontiac Konigen.
Sire's 7 nearest dams average 32.301 lbs. butter 624.1
lbs. milk in 7 days.

His dam has a Jr. 3 year old record of 17.683 lbs.
butter from 418.7 lb. milk and is a granddaughter of Colan-
tha Johanna Lad.

2nd dam—a 21 lb. cow that our barn records show milk-
over 145,000 lbs. in 14 milking periods producing 15
calves.

Pedigree on application.
Price \$250.00. Federal Accredited Herd.

R. Bruce McPherson, Howell, Mich.

Here Is a Good One

Born June 2nd, by Maplecrest De Kol Hengerveld,
a sire having three sisters each having records of over
1200 pounds of butter in a year. Two of them former
world champions, calf's dam by an own brother to
Highland Hartog De Kol yearly record of 1247.95
pounds. This combination of breeding will give re-
sults. HILLCREST FARM, Kalamazoo, Mich.

Reg. Holsteins for sale at all times either
sex. Bulls or heifers, prices
reasonable. Write or come and see them.
HENRY S. ROHLFS, R. 1, Akron, Mich.

Thumb Hereford Breeders Association
now offering some excellent young males and fe-
males of choice breeding. Can furnish one or a
carload. Priced right. Your inspection solicited.
Jas. R. Campbell, Secretary, Bad Axe, Mich.



Wool and Woolens

By James N. McBride

THE tariff of fifteen cents per
pound on wool in the grease,
thirty cents for washed, and
forty-five cents for scoured wool estab-
lishes a base below which foreign com-
petition cannot beat down the price.
This will be the emergency tariff and
in effect immediately.

The importation of approximately
one-half billion pounds of wool for the
present makes the tariff a base only.
This stock of imported wool represents
the normal supply used annually in
the United States. This with seventy-
five per cent of last year's wool on
hand and the new clip being shown
makes the tariff a promise of better
prices rather than of immediate ful-
fillment. All discussions regarding a
tariff takes one into political realm and
with apparent loss of perspective of
occupational sense to political faith.
The opposition to the tariff will say,
when prices do not advance, "There, I
told you so," regardless of the volume
of wool which must be disposed of,
bought under impetus of a bounty oc-
casioned by the difference of exchange
and no tariff.

The fine wools which a year ago
were worth ninety cents per pound, are
slipping, and it looks as if the middle
grades of wool and these would meet
at the same level. Australia is the
home of the fine wools and it is from
this source that the great volume of
imported wool has come. The delaine
and Merino flock owners actually feel
the depression of imported stocks the
most. The fine wool has also more to
contend with by way of shoddy. "Its
enemies encompass it about," in the
language of the psalmist.

Michigan is the natural home of
Merinos and delaines and the average
farm flock bred along these lines is of
itself most dependable, and apparently
more immune from disease and para-
sites than some of the other breeds.
Tariff legislation and wearing no gar-
ment without the virgin wool label on
it will go a long way to reinstate fine
wool flocks on Michigan farms. If the
wool grower was insistent toward his
own organization, as is labor on the
union brand, and compel the virgin
wool brand, the day of the Merino and
delaine would have a new dawn.

B. A. W. R. A., when translated into
its full meaning, is the British-Austral-
ian Wool Realization Association, and
controls wool which is measured by
the six-hundred pound bale and runs
into the billions of pounds. The Eng-
lish wool people on gloomy days re-
gret this great volume of wool in hold-
ing and say it tends to depress prices.
When the sun shines and their diges-
tion is good this volume of wool under
control is the one thing that presents
the most disastrous slump the world
has ever known.

The best opinion is that for the long
pull this with the American tariff will
work to the benefit of the sheep in-
dustry. There is a foresightedness
and tenacity about the British people
that compels respect and admiration.
If their wools fall below the pre-war
prices then the English government
must make up the difference.

The British and Australian people
have shown no sign of weakening and
are in the game until the finish. Owing
to the depreciation of the currency
measured in our money, prices have

HEREFORDS

Cows with calves at side, open or bred
heifers of popular breeding for sale. Also
bulls not related.

Allen Bros. Paw Paw, Mich.

616 So. Westnadge Ave.,

Kalamazoo, Michigan

HEREFORDS

Two high class, registered bulls, nearly a
year old, for sale. One double standard,
and one with horns, good size, color, and
markings. Both the making of show bulls.

COLE & GARDNER,
HUDSON, MICH.

BUTTER BRED JERSEY BULLS

CRYSTAL SPRING STOCK FARM,
Silver Creek, Allegan County, Michigan.

The Wildwood Farm

Jersey Cattle, Majesty strain. Herd on State accred-
ited list, R. of M. testing constantly done. Bulls for
sale. ALVIN BALDEN, Phone 143-5, Capac, Mich.

Thorobred Jersey Bull Calves Hood Farm
and Federal accredited list, \$25.00 each. Also one
yearling bull ready for service. Pedigrees on request.
L. W. JAYNE & BEN BRAWT, Fenton, Mich.

JERSEY BULLS Ready for Service,
Raleigh-Oxford
and—Majesty breeding. Meadowland Farm, Water-
man & Waterman, Packard Rd., Ann Arbor, Mich.

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

Meridale Interested Owl No. 111311 heads my herd
M bull calves from this great sire and out of R. of M.
dams for sale. Leon E. Laws, R. 6, Allegan, Mich.

Registered Jersey Bulls ready for service from
R. of M. dams. T. B. tested. Will give time.
SMITH & PARKER, R. 4, Howell, Mich.

Jersey Bulls For Sale ready for service from R. of
M. dams. T. B. tested. Will give time.
SMITH & PARKER, R. 4, Howell, Mich.

Milking Shorthorns Young bulls with excellent
pedigrees from best milk-
ers. O. M. YORK, Millington, Mich.

Milking Shorthorns, bulls and heifers 5 mo. to 1
year old for sale at reduced prices to make room
for younger stock. E. H. KURTZ, Mason, Mich.

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BUY A BULL

that will put weight on your dairy calves—the dif-
ference will soon pay for the bull. Now selling good
Scottish 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

Shorthorns. Bull calves for sale from the
best milking blood obtainable.
ROSEMARY FARMS, Williamston, Mich.

Richland Shorthorns

We offer a few choice Scotch heifers with calves
at foot. This is good foundation stock and the
calves are all from top sires. Prices reasonable.
Write your wants and see the cattle.

C. H. PRESCOTT & SONS,

Office at Tawas City, Mich., Herd at Prescott, Mich.

The Maple's Shorthorns

Kirklevington Lad, by Imp. Hartford
Welfare, in service. Stock for sale.

J. V. WISE, Gobleville, Mich.

Huron County Shorthorn Breeders Ass'n.
offer for sale Scotch and Scotch topped males and
females of all ages. 300 head to select from. For
information address Jas. R. Campbell, Secretary,
Bad Axe, Michigan.

BUY SHORTHORNS of Central Michi-
gan Shorthorn
Breeders' Association at farmers' prices. Write for
sale list to M. E. Miller, Sec'y, Greenville, Mich.

Shorthorn Bull For sale. Fames Pride
724792. Two yrs. old nice
roan with star in forehead. Very gentle and a fine
specimen of the breed. Price \$25.00.
W. E. BARTLEY, Alma, Mich.

We now have
FIVE BRED HEIFERS
that we will sell cheap if taken at once. Inquire
about them or better come and see them.
CARR BROS. & CO., Bad Axe, Mich.

not fallen to the extent it has in the United States. The half billion pounds of Australian wool in the United States was bought at twenty-five per cent above American prices, measured by the low value of the pound sterling in exchange. The American Farm Bureau wool division hopes through a national sales agency to coordinate the selling of various wool pools and in that way realize the cost of production and eventually a fair profit.

The success of B. A. W. R. A. and of every man who pools his wool in the United States are closely connected. The old system of subsidizing some local wool buyer for a levy to him of a cent or two a pound on every man's wool is unsound and has depressed the market at time of buying. The propaganda against wool pooling has come largely from those who derived this tribute and who did nothing to advance the wool grower's interests. The eastern buyer this year sees his elimination by direct selling to the mills by the wool pools on grades and is not financing local buyers as before. Those who are buying are paying from five to ten cents under the probable market and asking the wool grower to take all the chances.

The farm bureau is advancing without interest one-half the daily price of wool, and is paying in this way on a basis of a thirty and twenty-six cent market, or fifteen and thirteen cents for the great bulk of the wool. The sixteen and eighteen cents paid for wool by dealers now is like a big man taking the baby's candy. The grading of wool at local pools shows the grower the proper type of wool to grow. Many a short scanty woolled old sheep has outlived its usefulness and is a loser of one in dollar wool alone as compared to a good sheep in the same flock.

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.

Cutaneous Irritation.—We have a farm horse that has been working every day continually, acts as if his neck were sore, yet there is no sore there. When putting on the collar he steps around and jerks his head and switches his tail as if he were afraid. He does the same in the stable when you put your hand near the top of his neck. E. E. V., Detroit, Mich.—In this case you will obtain good results by freezing with an ethyl chloride spray, this should pretty much end local cutaneous irritability, if it is due to a low grade infection or to a form of parasitism. You may find it necessary to treat this case a few times; however, one application is sometimes all that is necessary.

Failure to Breed.—Have a heifer that fails to get with calf. What do you recommend? J. P., Caseville, Mich.—You should have given me a fuller history of the case. If she has been served by same bull, change. If she comes in heat irregularly perhaps a systic condition of one or both ovaries is the cause, and if so your veterinarian can crush these cysts through the rectum, then she might get with calf. It is good practice to find the cause of a cow not breeding, then remove the cause and she will very often get with calf.

Unthrifty Cow.—Have a cow that came fresh three months ago which is inclined to eat rubbish and leave good food in manger. She is very thin. Our veterinarian is now treating her. Mrs. F. H., Chesaning, Mich.—Feed her plenty of grass, this is the best remedy. Also give her a tablespoonful of powdered gentian, a dessertspoonful of bone flour and three tablespoonfuls of powdered wood charcoal in ground grain twice a day.

Barrenness.—Have a three-year-old cow which fails to come in heat. She is very thin, coughs whenever exerted. A. H., Fowlerville, Mich.—Give her thirty grains of ground nuxvomica and sixty grains of ground capsicum in feed two or three times a day.



low temperature under a vacuum. Every pound of it is solid food. It contains no indigestible matter. This is the best feed known for hogs or poultry. Send for our descriptive booklet and price list for any quantity desired. Manufactured and sold direct by
J. A. LONG COMPANY, 304 E. Elm Street, Union City, Ind.

\$54.50 PUTS THIS NEW MILL ON YOUR OLD TOWER

ALBION

Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main Pulley bearing subject to wear. This is oilless, and easily replaceable. Governed by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your churning now with a good Windmill? This is your chance—An Albion direct from the manufacturer, fully guaranteed. Write today for catalog.

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No. 528 N. Division Street
ALBION, MICHIGAN, U. S. A.

DON'T CUT OUT A Shoe Boil, Capped Hock or Bursitis FOR ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.

will reduce them and leave no blemishes. Stops lameness promptly. Does not blister or remove the hair, and horse can be worked. \$2.50 a bottle delivered. Book 6 R free.

ABSORBINE, JR., for mankind, the antiseptic liniment for Boils, Bruises, Sores, Swellings, Varicose Veins, Allays Pain and Inflammation. Price \$1.25 a bottle at drug-gists or delivered. Will tell you more if you write.

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Lightning Line A Press for Every Purpose

MEN WANTED! If you can invest a little money in a hay baler we will show you how to make more money than running a farm. Send your name today.

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1 1/2 H-P Pumps 2 1/2 H-P, NOW ONLY \$38.50

10 Years Guarantee, 90 days trial. FREE—Complete Engine Book. Wonderful bargains. Get my prices before you choose any engine. Write today. **OTTAWA MFG. CO.**
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On Trial. Easy running, easily cleaned. Skims warm or cold milk. Whether dairy is large or small, get handsome catalogue and easy monthly payment offer. Address
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HOLDEN Spreader

SPREADS 162 FT.

handles wet or dry, lime, phosphate and fertilizer. Haul direct from car to field. Saves time and labor. FREE folder. Low price—write!

The Holden Co., Inc. Peoria, Ill. Dept. 42

WITTE

Log Saw \$125 F.O.B. K.C.

Engine, Saw, Etc., all complete. From Pittsburgh add \$8.50. Ask for terms. Folder FREE.

WITTE ENGINE WORKS
2191 Oakland Avenue Kansas City, Mo. 2191 Empire Building Pittsburgh, Pa.

CATTLE

Francisco Farm Shorthorns

and BIG TYPE POLAND CHINAS. Now offering 3 heifers, 2 bulls, all Scotch. Sows to farrow in Aug. and Sept. Spring pigs, 80 head to choose from.

POPE BROS. CO., Mt. Pleasant, Mich.

Start the Young Pigs Right

By Giving Them

Semi-Solid Condensed Buttermilk

This buttermilk is pure and fresh, taken direct from our churns. It is pasteurized and concentrated to about one-seventh of its original volume by boiling it down at its original temperature under a vacuum. Every pound of it is solid food. It contains no indigestible matter. This is the best feed known for hogs or poultry. Send for our descriptive booklet and price list for any quantity desired. Manufactured and sold direct by
J. A. LONG COMPANY, 304 E. Elm Street, Union City, Ind.

Reg. Red Polled cattle choice young bulls from 6 to 18 mo. old for sale.
FRANK KEBLER, R. 1, Grand Ledge, Mich.

Shorthorns Imp. Royal Pioneer in service. Bred by J. Durno.
J. A. BARNUM, Union City, Mich.

Reg. Red Polled cattle, herd headed by Famous R. Charmer 75% same blood as Charmer 1919 Int. Gd. Champion. Herd State and Fed. tested. No cattle for sale at present. Westbrook Bros., Ionia, Mich.

For Sale Brown Swiss Calves
E. H. KISELE, Manchester, Mich.

HOGS

Place Orders NOW

for **BERKSHIRE** boars or sows 6 to 8 weeks old Reg. and Trans. and delivered anywhere in Mich. for \$15, or a fine large bred sow at \$40.00. I also have an exceptionally fine 400 lb. boar for sale at \$10.00. He is a dandy and anybody in the market for him should never pass this up. He is a good one.
C. H. WHITNEY, Merrill, Mich.

Berkshire Bred Sows and Gilts \$50 and up, for April, May and June farrow. Have a few good fall pigs at reasonable prices for sale.
M. G. MOSHER & SONS, Osseo, Mich.

Berkshires spring pigs. A few bred gilts and sows. BA few young boars. After May 1st duck eggs \$1.50 setting postpaid. Chase Stock Farm, Marlette, Mich.

Brookwater Duroc Jerseys

FALL BOARS OPEN GILTS

All of the right type and the best of breeding. Prices reasonable. Mail orders a Specialty. Satisfaction guaranteed.

BROOKWATER FARM, Ann Arbor, Mich.
H. W. Mumford, Owner J. B. Andrews, Mgr.

DUROC JERSEYS

Bred gilts, service boars and fall boar pigs at bargain prices. Your correspondence or personal inspection is cordially invited.
RUSH BROS., Oakwood Farm, Romeo, Mich.

Duroc Boars at bargain prices large growthy hogs 15 months old at \$80. Will send C. O. D. and register in the buyers name. Orders booked for Apr. pigs to deliver June 1st. **W. E. Bartley, Alma, Mich.**

Write Me at once I have just what you want heavy bone registered Duroc Jersey boars ready for service.
W. H. MAYES, L. B. 505, Durand, Mich.

Duroc Jerseys. Boars for spring service, heavy boned type, from the most popular blood lines at reasonable prices. Partridge Rock eggs from best laying strain \$2 per lb. Drott & Berns, Monroe, Mich.

DUROCS WITH QUALITY

Spring pigs by Walt's Orion, First Sr. Yearling
Detroit, Jackson, Cd. Rapids and Saginaw 1919

Phillips Bros, Riga, Mich.

Reg. Duroc Boars wt. 125 lbs. \$30.00. Fine stock exp. paid.
J. R. HICKS, St. Johns, Mich.

DUROC SOWS and gilts bred to Orion King No. 189259 Son of the \$10,000 boar owned by Longview Farm, Le Summit, Mo. also young boars ready for service out of good sows. Apply
THE JENNINGS FARM, Bailey, Mich.

Duroc Jersey Sows and Gilts bred for March, April, May farrow. Also a few spring boars. Best of blood lines and splendid individuals. Satisfaction guaranteed. Write for pedigree and prices, or better come and see, visitors welcome. Thos. Underhill & Son, Salem, Mich.

Buy good hogs now. from one of the largest herds of B registered Durocs in the state. Open fall gilts at \$25. Sows and gilts bred for summer and fall farrow. Booking orders for spring pigs. Will accept a few sows to be bred to good sons of Great Orion Sensation and Duration. **Michigana Farm, Pavilion, Mich.**

Chester Whites Spring pigs from a combination of breeding. George D. Springer, R. 8, Grand Rapids, Mich.

A FEW CHOICE Bred gilts for sale.
Carey U. Edmonds, Hastings, Mich.

DUROCS Bred sows all sold. A few choice fall boars for sale.
W. C. TAYLOR, Milan, Mich.

Duroc Jerseys Am booking orders for spring pigs. Few fall gilts.
E. D. HEYDENBERG, Wayland, Mich.

DUROCS A few choice, ready for service, boars for sale.
HARRY FOWLER, Sturgis, Mich.

O.I.C's Choice gilts for April and May farrow, also fall pigs. Booking orders for spring pigs.
A. J. BARKER & SON, Belmont, Mich.

O. I. C. Swine Strictly Big Type with quality. A few gilts bred for last of April, and May farrow. A few Sept. and Oct. fall pigs either sex. Extra good ones. Of our State Fair prize winning blood lines. Will ship C. O. D. and record them free. **NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.**

Write for Prices on O. I. C. pigs of March and April farrow. Both sexes, sire O. C. Callway Boy. Good long ones the kind that fills the Pork bins. Some good Jersey bull calves of the Albertas Jubilee kind. All stock reg. in buyer's name. **VILLAGE STOCK FARM, Jeddo, Mich.**

O. I. C's. last fall service boars. 12 last fall gilts bred for next fall farrow also this spring pigs not akin. 1/2 mile west of Depot. Citizens phone.
OTTO B. SCHULZE, Nashville, Mich.

O. I. C's. 2 sows for May farrow. Orders booked for March pigs.
J. C. THOMPSON, Rockford, Mich.

Central Mich. O. I. C. Swine Breeders Ass'n.

Hogs of all ages of popular blood lines. Every sale guaranteed by association.

DR. H. W. NOBLES,

Sales Mgr. Coral, Mich.

O. I. C. Big type serviceable boars, weigh from 150 to 250 lbs. Gilts bred for May and June farrow. Write for prices. **G. P. Andrews, Mason, Mich.**

Saginaw Valley Herd. Prize winning O. I. C's. Jan. and Feb. pigs, priced reasonable. **J. Gibson, Posters, Mich.**

O. I. C's choice boars and spring pigs at farmers prices.
CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C. GILTS Bred for June and July farrow.
H. W. MANN, Dansville, Mich.

Raise Chester Whites

Like This
the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at six months old. Write for my plan—More Money from Hogs.
G. S. BENJAMIN, R. F. D. 10, Portland, Michigan.

SPOTTED POLAND CHINAS

Our herd boars Rio Grand Giant, a litter mate to the \$1000 Marshall Giant boar, his dam Arb Osa, the largest sow of the Spotted breed. King Onward known as one of the greatest back and color breeders. English Back Builder, a wonderful breeder. 50 Last spring gilts bred for July and August farrow. \$50 per head while they last. Fall pigs either sex, \$35. Will take orders for spring pigs for June shipment, either sex, \$25. Cholera immunized. Satisfaction guaranteed.
SAMUEL GERBER, R. 4, Bluffton, Ind.

Big Type Polands Some very choice fall boars, ready for spring service for sale. They are sired by The Clansman; dam, the \$1025 Miss Columbia, a littermate to the \$40,000 The Yankee. Also a few choice boars by The Clansman, son of The Clansman.
WESLEY HILE, Ionia, Mich.

L. T. P. C.

Spring boar pigs \$15 to \$25. Fall gilts sired by Harts Black Price. \$30 to \$50. Also have two gilts which are granddaughters of the Yankee and were bred to Harts Black Price March 24th. They will go quick at \$30. **HART, FULCHER & OLIN, address F. T. HART, St. Louis, Mich.**

P. C. Bred sows. Fall pigs singly or in pairs. Also S. C. Minorca cockerels all big type of the best of breeding. Satisfaction guaranteed. **R. W. Mills, Saline, Mich.**

Big Type Poland Chinas. Choice spring boar pigs \$15 each when 8 weeks old. Also have a prize winning dam, the \$1025 Miss Columbia, a littermate to the \$40,000 The Yankee. Also a few choice boars by The Clansman, son of The Clansman.
DORUS HOVER, Akron, Mich.

L. S. P. C. a few choice boars bred gilts all sold. Also a grandson of The Clansman and Harrison Big Bob.
H. O. SWARTZ, Schoolcraft, Mich.

Leonard Farm BIG TYPE P. C. boar pigs at weaning time, \$25 from Mich. Champion herd. Satisfaction guaranteed. Call or write. **E. R. LEONARD, R. 3, St. Louis, Mich.**

Big Type P. C. some very choice boars double immune, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. **E. J. Mathewson, Burr Oak, Mich.**

Bg Type Poland Chinas at lowest prices. Both sex, all ages, and bred
G. A. BAUMGARDNER, R. 2, Middleville, Mich.

L. T. P. C. If you are looking for something good, in bred gilts at a right price. Write
W. J. HAGELSHAW, Augusta, Mich.

Sows bred for spring litters all sold. Have some choice gilts bred for Aug. litters, also some Sept. boars for sale. **Clyde Fisher, R. 3, St. Louis, Mich.**

T. P. C. few choice bred gilts sired by T's Clansman L. Mich's 1920 Gd. Cham. bred to Smooth Buster 1st Jr. yearling 1920 A. A. Feldkamp, Manchester, Mich.

Hampshires

1914 A few choice boars of this spring farrow that sure will improve your herd if used for herd boars. They are bred right and are right, and will produce right. Write for description and prices. We are glad to answer inquiries.

Steuben's Hampshire Farm,

Angola, R. 3, Ind.

PINE GROVE HAMPSHIRE

We are offering a few tried sows bred for March and April farrow. These sows are all closely related to our winning show herd and of popular blood lines, and the price! Way Down!
Geo. Coupar & Sons, Marlette, Mich.

"BLUE HOG"

Large, growthy and prolific. Actually "BLUE" in color. Greatest Show HOG in America. Write for booklet. Mention this paper. **THE BLUE HOG BREEDING CO., Wilmington, Mass.**

Hampshires Bred gilts all sold. Spring and fall boar pigs at a bargain. **JOHN W. SNYDER, R. 4, St. Johns, Mich.**

SHEEP.

Wool-Mutton Shropshire Rams. Good strong individuals, royally bred, priced right. **A. H. FOSTER, Allegan, Mich.**

HORSES

For Sale Belgian Stallion imported August 1913, wt. 1300. Sound and gentle.
B. B. SMITH, Howell, Mich.

LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, May 24.

Wheat.

Detroit.—Cash No. 2 red \$1.67; May \$1.67; July \$1.37; No. 2 white and No. 2 mixed \$1.62.
Chicago.—No. 2 red \$1.67; No. 2 hard \$1.64½@1.67.

Corn.

Detroit.—Cash No. 2 yellow 66c; No. 3 yellow 65c.
Chicago.—No. 2 mixed 60¾c; No. 2 yellow 60½@63½c.

Oats.

Detroit.—Cash No. 2 white 45c; No. 3 white 43½c; No. 4 white 40½c.
Chicago.—No. 2 white 40c.

Beans.

Detroit.—Immediate and prompt are higher at \$4.00 per cwt.

Chicago.—Market is weak and demand poor. Hand-picked Michigan beans choice to fancy at \$3.50@4.25; red kidney beans \$8.75@9.50 per cwt.

New York.—The market is steady. Choice pea \$4.50; do medium \$4.75; red kidney \$10.

Rye.

Detroit.—Cash No. 2 rye advanced to \$1.55.

Seeds.

Detroit.—Prime red clover, cash at \$13.50; alsike \$14; timothy \$3.15.

Hay.

No. 1 timothy \$20@21; standard and light mixed \$19@20; No. 2 timothy \$18@19; No. 1 clover mixed \$15@16; No. 1 clover \$14@15; rye straw \$13.50@14; wheat and oat straw \$12.50@13 per ton in carlots at Detroit.

WHEAT

Marked deterioration in the winter wheat crop in the central west, combined with the scarcity of old crop wheat caused a sharp advance in the price of wheat during the past week, to the highest point in more than two months. The changed prospect in the southwest which a few weeks ago gave promise of harvesting a big crop early in the season has changed the outlook decidedly. The scarcity of cash wheat in terminal markets will not be relieved as soon as expected and marketing the new crop may start out upon a much higher price level than appeared possible a month ago. The main causes of damage are said to be the killing of stools by April freezes so that the stands are thin, and dry weather recently has caused a large territory to head out on short straw. Rust is present in some sections. Lack of rain has also reduced the prospects for a good crop in some sections. In view of the fairly high condition in the eastern half of the United States, it is questionable whether the damage in Kansas and Oklahoma has yet been serious enough to reduce the estimated total output a great deal.

OATS

The oat crop has undoubtedly been injured by frosts and by dry weather in the southern section but rains during the past week in the largest producing states have reduced the number of unfavorable reports. The carry-over is large so that there is little anxiety over supplies. Cash demand remains moderate but light receipts are making it necessary to draw upon the visible supply and prices have shown more strength than corn.

CORN

Although receipts of corn during the past week were of moderate volume, prices are lower and the undertone is not strong. Sales by producers have increased and receipts have already begun to enlarge as a result of the usual after-planting run. Export demand has fallen off but purchases by consuming sections have been large and actual clearances for export remain considerably above the average. Most of the effect of the after-planting run upon prices may have spent itself already. Reports upon the condition of the crop are of little value thus far but indicate that it is later than normal and drought conditions in the southwest have also done damage.

BEANS

Demand for beans is light, especially since hot weather has started, but receipts at elevators also are light and an advance of 50c has occurred in the last week with moderate additional advance during the present week expected before the movement runs its course.

SEEDS

There is little doing in seed markets at the present time as demand is dull and offerings light. The course of prices will be influenced chiefly by the prospects of the new crop.

FEEDS

Millfeed prices still hang around the same level as a week ago. New alfalfa and pastures are reducing the demand for bran but hog feeders are buying middlings. Oilmeal is quoted lower at northwestern points and the recent advance in cottonseed meal has about spent itself.

HAY

Although frost damage to the new crop of alfalfa in the southwest, and drought in the same section will reduce the production of hay, especially that marketed early in the season, the outlook does not point to higher prices in the immediate future. Demand is light and contracting rather than expanding.

WOOL

Although mills continue to buy wool at only a moderate rate, prices have been maintained. Manufacturers are not attempting to accumulate big stocks in view of prospective tariff legislation, but the passage, or the measure will check any tendency to cancel orders on the books of manufacturers although it may not bring any immediate advance in the value of wool. Some American buying has been in evidence at recent Australian auctions as prices in that country have fallen low enough to offset prospective tariff rates in some instances. Consumption of wool by mills during

April was twice as great as during December when curtailment was at the maximum. Buying of western wools is becoming more general and Texas wools have been purchased at a range of 16@20c, or 50@60c clean basis at Boston. Michigan fleeces at Boston are: Delaine unwashed 36@38c; fine unwashed 30@31c; one-half blood unwashed 30@31c; three-eighths blood unwashed 27@28c; one-quarter blood unwashed 27@28c.

BUTTER

Butter markets continued extremely weak until the last day or two, when the average quality of receipts became more satisfactory and at low prices storage buying was attracted. This increased demand checked the decline. Prices are now down to cost of production and some producers refused to sell their shipments at prices offered. They began to store their butter and assisted in checking the decline. Consumption of fine quality butter also has been stimulated. Prices are believed to have reached the low point for the present and are expected to hold within a moderate range around the present figures. Eastern markets were only about one-half cent above Chicago most of the time, but this spread widened later. Prices for 92 score fresh butter as quoted by the bureau of markets on May 23 were: Chicago 27½c; New York 28c. Fresh creamery at Detroit is quoted in tubs at 26c.

EGGS AND POULTRY

Egg markets broke sharply during the past week as a result of further piling up of cold storage reserves. Total stocks are now 4,918,000 cases compared with 2,135,000 a year ago. The

receipts at the four leading cities during the past week declined about 15 per cent and for the first time in a long while fell below the corresponding week last year. This may be the beginning of a period of smaller receipts which will turn the market upward. Poultry prices remain extremely high compared with other foods and are likely to be revised downward sharply within the next sixty days.

Detroit.—Eggs, fresh current receipts 22½c. Poultry, broilers 50@55c; heavy hens 32c; roosters at 16@20c; geese 15c; ducks 25c; turkeys 35c.

POTATOES

Old potatoes ruled rather firm during the past week but new stock is gradually working it way downward.

CONSIDER MARKETING PROBLEMS.

FARMERS from Oakland, Washtenaw, Monroe, Wayne and Macomb counties at a meeting of the agricultural division of the Detroit Board of Commerce last Friday considered the development of the marketing facilities within the city.

E. J. VerDuyn, president of the Oakland County Horticultural Society, said that the eastern and western markets have become more of a dealer and hucksters' exchange than a clearing-house for producers.

Harry Rackham, a fruit grower of Wayne county, pointed out the great loss of time and energy which is forced upon the farmer by present marketing conditions in the city. He told how on a bad day, due to rain or other conditions, when demand slackens in the city, many farmers are forced to sacrifice their loads at virtually any price that may be offered, inasmuch as they can't afford to haul back to the farms the loads brought to the city.

Milton Carmichael, secretary of the Wayne County Farm Bureau, and of the market gardeners' association, declared that a clearing-house for growers, municipally or cooperatively owned, by supplying storage space would do much to solve the problems described by Mr. Rackham. He said such a clearing house was in operation in operation in Cleveland.

George Raviler, manager of the Lapeer County Farm Bureau, formerly a producer at Plymouth in Wayne county, declared that the grocery men of Detroit who once were the largest buyers on the Detroit market have gradually forsaken it because of the congestion and the loss of much time from their stores in getting to the market and back to their places of business.

MICHIGAN-BRED CATTLE TOP MARKET.

W. R. Jones, of Holly, Michigan, had a load of well-finished Hereford steers on the Detroit market Tuesday which topped the market for the day by seventy-five cents per cwt. These cattle were bred by A. Fruitchev, of Cass City, on his ranch in northern Michigan, who sold them to Mr. Jones, through the firm of Johnson, Prince, Hammond & Hall last December, when they averaged 702 lbs. in weight. They were again sold on Tuesday by the same firm to the Michigan Beef Company at \$9.00 per cwt., at an average weight of 1,110 pounds.

Live Stock Market Service

Wednesday, May 25.

BUFFALO

On this market today heavy hogs brought \$8.75@9; pigs at \$9.50@9.75; others \$9@9.25. The lamb market rules steady.

DETROIT

Cattle.

Market slow at Tuesday's prices.

Best heavy steers	7.50@ 8.00
Best handy wt bu steers	7.50@ 8.25
Mixed steers and heifers	7.00@ 7.50
Handy light butchers	6.50@ 7.00
Light butchers	5.50@ 6.50
Best cows	6.00
Butcher cows	4.50@ 5.50
Common cows	3.00@ 4.00
Canners	2.50@ 3.00
Best light weight bulls	6.00
Bologna bulls	5.00@ 5.75
Stock bulls	4.50@ 5.00
Feeders	6.50@ 7.50
Stockers	6.00@ 7.00
Milkers and springers	45@ 80

Veal Calves.

Market closing \$1 lower.
Best \$ 10.00
Others 6.00@ 8.00

Hogs.

Market 15@25c lower.
Mixed hogs \$ 8.35@ 8.50
Pigs 8.00
Heavy 8.75

Sheep and Lambs.

Market steady.
Best lambs \$10.00@10.50
Fair lambs 8.00@ 9.00
Light to common 5.00@ 7.00
Spring lambs 12.00@13.00
Fair to good sheep 5.00@ 5.50
Culls and common 1.50@ 3.00

CHICAGO

Cattle.

Estimated receipts today are 10,000. Market slow, steady to 25c lower. Beef steers medium and heavy weight 1100 lbs up choice and prime \$8.50@9.25; do medium and good \$7.50@8.50; do common and medium at \$6.75@8.15; butcher cattle heifers common, medium, good and choice at \$5.50@8.75; cows, common, medium, good and choice at \$5@7.25; bulls bologna and beef \$4.25@6.50; canners and cutters cows and heifers \$2.50@5; do canner steers \$3@4.50; veal calves light and handyweight medium, good and choice at \$7.75@9.75; feeder steers, common,

OHIO RAKE

FARM IMPLEMENTS

Transplanters	Corn Planters
Potato Planters	Corn Shellers
Potato Harvesters	Harrow Carts
Spike Tooth Harrows	Hay Rakes
Spring Tooth Harrows	Hay Tedders
Disc Harrows	Hay Loaders

There's a dealer near you. Write for his name and circular on any of above.

THE OHIO RAKE CO., Dayton, Ohio
ESTABLISHED 1884

CLOSES BIG WOOL DEAL.

THE biggest single sale since the inception of the wool pool was closed by the cooperative wool marketing department of the American Farm Bureau Federation last week when a large eastern mill bought 1,100,000 pounds in one deal. The price ranged from twenty to twenty-seven cents. One million five hundred thousands pounds were sold during the first week in May. "This marked high tide for a single week's business," says Mr. Fawcett, director of the farm bureau wool pool, "and augurs well for the success of the wool pool during the on-coming season. A return to normal business conditions will leave no doubt in the minds of farmers that their wool clip is specially adapted to cooperative selling under the pooling plan."

WANT FARM-TO-MARKET ROADS.

FARMERS own and operate fully fifty per cent of the automobiles and trucks in this country, according to the Illinois Agricultural Association. They wore out fully half of the twenty-four million tires used last year and will buy their share of the 27,000,000 tires required this year to keep the cars running. Yet these same farmers know that they travel mostly between their farms and the nearby cities—just as most city people rarely take long distance tours. The farmers are interested in a road program that takes into consideration the development of a road system of their state and at the same time makes provision for inter-county and interstate highways. The Dowell road bill is a farm-to-market road building plan. The American Farm Bureau Federation passed the following resolution: "We earnestly approve the local building of farm-to-market highways by the use of federal and state local funds. Until such roads are built we emphatically oppose the construction by the federal government of a few hard surface trans-continental roads. Regardless of the character of the roads which are built, an adequate amount of such funds should be provided for their maintenance and repair."

SAGINAW HOLSTEINS MAKE A GOOD RECORD.

THE Holstein cows, Artense Virgin in Ravenwood and Keka Fayne Butter Girl, owned by Thomas Phoenix of Saginaw, recently made good records in tests for milk and butter-fat production. The former animal, seven years and eleven months old, made a record of 658 pounds of milk and twenty-one and a half pounds of butter-fat in seven days, while the latter has a record for the same period of 583 pounds of milk and twenty pounds of butter-fat.—J. M.

COMING LIVE STOCK SALES.

- Holsteins.**—Holstein-Friesian Association of America, May 31 to June 4, Syracuse, N. Y.
- Holsteins.**—May 28, G. E. Bench, Plymouth, Mich.
- Guernseys.**—October 19, Michigan State Sale, Lansing, Mich. F. E. Fox, Waukesha, Wis., Sales Manager.
- Aberdeen-Angus.**—June 9, Michigan Aberdeen-Angus Breeders' Association Sale, East Lansing, Michigan. Ward Hathaway, Ovid, Mich, Secretary.
- Holsteins and Shorthorns.**—June 14, Genesee County Breeders' Association, Davison Fair Grounds, W. T. Hill, Manager, Davison, Mich.

\$5 to \$10 a Day easily made taking orders for our High Grade Laundry and Toilet Soaps, Face Creams, Perfumes, Flavoring Extracts, Spices, Foods, 3 and 7 bar Assorted Toilet Soap in Fancy Boxes, sell like Hot Cakes. Goods well known, nationally advertised. **BIG PROFITS.** Women and Men everywhere make big money. Write quick for free catalog. Crofts & Reed Co., Dept. 36, Chicago, Ill.

"RED CROSS" Prize Range

with Reservoir and High Warming Closet

THE "Red Cross" PRIZE—handsomely enameled in gray—is a moderate priced, thoroughly reliable range that will give many years of satisfaction and more than full value for every dollar of its cost. It is made of a very high grade of material and embodies all the advantages of "Red Cross" Stoves.



Bakes unusually well. Burns hard or soft coal or wood.

The "Red Cross" PRIZE can be furnished in any desired style—with or without gas attachment, gas oven broiler, high warming closet or high steel shelf.

Our 60 years experience in the manufacture of cooking and heating appliances is your guarantee of "Red Cross" Ranges.

WRITE for further information and the name of the "Red Cross" dealer nearest to you.

CO-OPERATIVE FOUNDRY COMPANY

Manufacturers of "RED CROSS" Stoves, Ranges and Furnaces

ROCHESTER, N. Y.

CHICAGO, ILL.

"RED CROSS" PRIZE RANGE

Record Holders

Wood Silos—Tile Silos—Silo Fillers

The Kalamazoo is the only wood silo made that holds record of 30 years service without a flaw. We make both wood and tile. Special construction keeps silage in most nutritious condition; no waste. Kalamazoo Cutters are the world's standard. None better in any way.

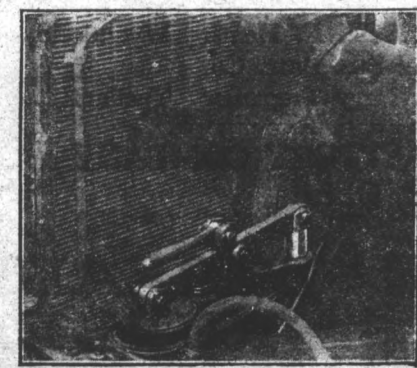
Kalamazoo

Facts FREE. Write TODAY

Send for these silo and cutter books. They are an education in such matters. Don't buy a silo or cutter until you have read them. Read about the matchless Center Sucker cut on Kalamazoo Ensilage Cutters. It's all in the free books. Write today.

KALAMAZOO TANK & SILO CO.,
Dept. 323 Kalamazoo, Mich.

Send Name For These Silo and Ensilage Cutter Guides



For Ford Owners The Wonderful GNT

The Only Gearless Motor Driven Tire Pump For Fords

No more backaches when pumping tires. Just lift the handle and this little pump will pump your tire in one minute. Easily installed under hood. No holes to drill.

Price \$10.00

Fred E. Drew,
313 Buhl Block, Detroit, Mich.

BUY YOUR COAL DIRECT FROM MINE BIG SAVING

YOU can buy NOW the highest quality BERNICE Sootless Hand Picked Coal direct from our mines and save from \$1.50 to \$2.00 per ton. We absolutely guarantee Full Weight and Highest Quality. You don't pay a cent until your coal arrives and you find it entirely satisfactory. Write today for our low prices on coal delivered to your station, and save many dollars.

BERNICE COAL CO. CHICAGO, ILL.
302 Como Bldg.,

HAY Ship to The Old Reliable House

Daniel McCaffrey's Sons,

627-625 Wabash Bldg., Pittsburg, Pa.

HAY Apples, Potatoes Wanted Highest prices paid.

The E. L. RICHMOND CO., Detroit, Mich

Saw Mill Machinery Portable Mills for Farm or use. Make your own lumber. Send for new Catalog. HILL-CURTIS CO., 1506 No. Fitcher St., Kalamazoo, Mich.

FOR SALE Improved Red Kidney Seed beans. Hand picked and graded yielded 24 bu. per acre 1920. ROBT. P. REAVEY & SON, R. I., Caro, Mich

\$3.75
C.O.D.

Black Heavy Calf Skin Farm Work Shoe

Solid leather, all through. Nailed and sewed sole. Dirt proof tongue. Send your name and pay the mail man. Your money back if not satisfied. We pay postage. Sizes 6 to 11.

The Double Wear Shoe Co.,
Grand Rapids, Mich.

A STACK COVER

Send 25 cents cash for our sample wire loop and instructions for making a board stack cover that will fit any stack. Cost very little. Last for years. Save your hay.

NELSON CO.,

Dept. H, 354 No. Lake Ave., Pasadena, Calif.

Fertilizer Salesmen Wanted

Established company wants to increase Ohio, Michigan, Indiana sales force. Prefer men with knowledge farming, acquainted with fertilizer dealers, buyers and users. Permanent position if qualified. Give full details first letter—age, experience, present employment, etc. Address confidentially. Box 1528, care Michigan Farmer, Detroit, Mich.

Death to Heaves or refund

Newton's for Heaves, Coughs, Distemper, Indigestion, Convulsions, Worm Expeller.

Three large cans guaranteed for Heaves. 65c and \$1.50 per can, at dealers or by mail.

Newton Remedy Co., Toledo, O.

Attention Farmers!

Big bargain in new Fordson tractor, equipped with governor; big discount from list price. Tel. Edgewood 1984 or call at 3455 E. Jefferson Ave., Detroit, Mich., ask for W. H. Jeffers.

MAILORDER CO.

Kentucky Tobacco

Direct from growers. Save 75% on your tobacco bill. Rich, mellow leaf, aged in bulk. Chewing and smoking. 3 lbs. \$1.00 postpaid. KENTUCKY TOBACCO ASSN., D333, Hawesville, Ky.

For Sale Case farm tractor 9 x 18 used one season, good working order, farm too rolling for practical tractor work. Excellent belt power. **B. B. SMITH, Howell, Mich.**

Natural Leaf Tobacco—Kentucky's finest. 3 lbs. sample, 1919 crop, chewing, smoking. \$1.00, 12 lbs. mild smoking \$2.00, 20 lbs. \$3.50. Hancock Leaf Tobacco Assn., Dept. 20, Hawesville, Kentucky.

Salesman Wanted to sell Suro Stop cattle feed direct to farmers, for particulars address Frank J. Grady, 2119 Corry St., Madison, Wisconsin.

Farms and Farm Lands

\$2000 Secures 169-Acre Farm With 19 Cows, Horses, Crops

5 heifers, 5 calves, bull, 3 gas engines, milking machine, cream separator, dairy utensils, circular saw, modern equipment included; high class operation, close thriving town, rich farming section; cuts 75 tons hay; 35-cow spring-watered, wire-fenced pasture; 100,000 ft. timber, 1000 cords wood selling near by \$12 cord; fine 2 story, 8-room house, bath, furnace heat, hardwood floors, grand old shade, delightful view overlooking village and broad landscape; 30-cow barn with spring water, 100-ton silo, house for 100 hens, garage, etc. Retiring owner's low price \$11,000, only \$2000 down, easy terms. Details page 15 illus. Catalog 1100 Bargains. STOUT FARM AGENCY, 814 BC Ford Bldg., Detroit, Mich.

\$600 Cash Secures

Lakeview Farm Equipped with

2 horses, colt, 8 cattle, 3 pigs, 50 chickens, wagons, harness, machinery, tools; pleasant money-making home all ready for business now, 30 acres tillage, 10 acres wire-fenced pasture, quantity wood; 30 apple trees, also plums, pears, cherries; 5-room house, shaded by maples, overlooking lake, barn, granary, poultry house, ice house, other business forces sale. Come at once and everything is yours for only \$1300, less than half cash, balance easy terms. GOULD & CUMMINGS, Harbor Springs, Mich.

Camp Site Wanted

40 acres or more; sandy beach on lake or river, woods—virgin timber preferred; a few acres cleared, flat ground for building site desirable. Partially improved farm in rather wild surroundings might be satisfactory. Location desired in great lakes region. Write A. A. Hauck, Box 782, Dayton, Ohio.

FOR SALE—Opening a new tract of fertile farm land located in the great potato and dairy district of Wisconsin and Michigan. Secure first choice now. Liberal terms. Write for free booklets, etc. Sanborn Company, No. 29, Sanborn Bldg., Eagle River, Wis-consin.

Homeseekers Chance 40 acres rich farm land, Central Michigan, \$800 with \$100 or more down. Balance 10 years. Roads, railroads and cities established. See us before buying. Staffeld Brothers, 15 Merrill Bldg, W.S. Saginaw, Mich.

FARMS Poultry, truck, stock, and grain farms cheap. **FTGGS & NOCK, Salisbury, Md.**

WANTED To hear from owner of land for sale. **O. K. HAWLEY, Baldwin, Wis.**

New York State greatest farm bargains. Great land wonderful markets. Send for free list. **FRANK J. BASLOE, Herkimer, N. Y.**

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Registered Jersey bulls, some ready for service, sired by Ford's Champion Fox 163681, out of Oxford Daisy's Princess. Register of Merit record 831 lbs. milk; 468 lbs. butter with first calf, milked 50 lbs. per day with second calf. Sister to Sadie Crown Princess 16773 lbs. milk, 1081 lbs. butter in one year. The dams of these bulls are high producers, many of them are prize winners. Prices very low, quality considered. **O. S. BASSETT, Kalamazoo, Mich.**

DOGS

For Sale Write Dr. W. Austin Ewalt, Mt. Clemens, Mich., for those beautifully marked Sable and White Scotch Collie Puppies; 10 natural breeders from trained stock; pedigrees furnished. Will also buy thoroughbred Collie and Airedale puppies for training.

For Sale Scotch Collie puppies fine ones and from pedigreed stock, male \$3 females \$5. **THOMAS STANFIELD, R. 1, Hillsdale, Mich.**

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