

MICHIGAN FARMER

AND LIVE STOCK JOURNAL.
PUBLISHED WEEKLY. ESTABLISHED 1843.

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

VOL. CLII. No. 26
Whole Number 4051

DETROIT, MICH., SATURDAY, JUNE 28, 1919

\$1.00 A YEAR
\$3.00 FOR 5 YEARS



The Lights of Americanism

THE roster of living heroes and honored dead calls attention to the fact that young men of an amazing range of nationalities made extraordinary sacrifices on the field of war for their adopted country. The courage and resourcefulness found in these troops abroad did not begin in army camps and navy barracks, but in the public schools of America. The war showed that in a national crisis the public school is the real training-ground for Americanism and service. To produce citizens, and not to polish a pupil and feed his selfish appetite for rising above his fellows, was the idea of the original proponents of free schools. There is no other such widespread unifying influence in America as the public schools.

The Michigan Farmer

Published Weekly Established 1843 Copyright 1919

The Lawrence Publishing Co.

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39 to 45 Congress St. West, Detroit, Michigan

TELEPHONE MAIN 4525.

NEW YORK OFFICE—381 Fourth Ave.

CHICAGO OFFICE—111 W. Washington Street.

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TERMS OF SUBSCRIPTION:

One Year, 52 issues \$1.00

Two Years, 104 issues \$1.50

Three Years, 156 issues \$2.00

Five Years, 260 issues \$3.00

All sent postpaid.

Canadian subscription 50c a year extra for postage.

RATES OF ADVERTISING

50 cents per line agate type measurement, or \$7.00 per inch (14 agate lines per inch) per insertion. No advt. inserted for less than \$1.50 each insertion. No objectionable advertisements inserted at any time

Member Standard Farm Papers Association and Audit Bureau of Circulation.

Entered as Second Class Matter at the Post Office at Detroit, Michigan, Under the Act of March 3, 1879

VOLUME CLII. NUMBER TWENTY SIX

DETROIT, JUNE 28, 1919



CURRENT COMMENT

The Farm and The Boy

THE wise father is thinking about making his farm so attractive to his boys that they will no longer be ambitious to leave the old homestead and cast their fortunes elsewhere. In several of our leading agricultural states figures show that the cityward flow of farm boys has been reduced to a point where farm life is beginning to appeal to the ambitious young men as offering better opportunities than the more strenuously competitive industrial and commercial life of the city and town.

The farm boy, trained to self-reliance, to the performance of regular duties and to hard labor, has a tremendous advantage in the world. He has a sound mind and a strong body. He realizes that the old farm is a pretty good place to live and the chances are ten to one that he would prefer to stay on his father's farm, if the father can make the farm pay well and plan the work so that it is interesting and progressive. It is when the farm becomes unprofitable, unprogressive and the work hard and monotonous that the boys set their faces resolutely away from the farm.

It is a great thing when fathers take their sons into their confidence and when the sons tell their fathers all their hopes and plans, knowing that they are sure of encouragement and sympathy. This confidence between father and son is necessary before the boys can be brought to understand the problems of the farm. The wise father has a set of books, and lets the boy help keep them. In this way the boy understands the father's problems and is not slow to grasp the situation. If they have had a bad season he feels that they have made their sacrifices together and that together they will endeavor to make good the losses the next year. Such cooperation not only makes the boy's life more pleasant, but it maintains a complete confidence and the boy respects the father the more for his toil, his sacrifices and his failures. Tell your boy more about your business and enlist his sympathies and

cooperation in working out the problems of the farm.

The old theory that the old homestead should fall to the boy who had no ambition to make good elsewhere and be exploited and managed in a sort of half-hearted way has been exploded by the son himself, who has in many cases turned out much better than the members of the family who descended like moths upon the white lights of the city. In the wreckage of this old theory can be found thousands of perfectly good farmers dragging themselves through the routine of office and shop work in the city. Of course, the work they are doing is useful and necessary, but to a man who understands their prospects are not glittering. The exiled farm boy who has failed to make good in the city can testify to the truth of the above statement. The wise father is taking his son in hand, and by example is doing more to keep him on the farm than any other agency. This is a sign of wholesome progress and a rebuke to the soft-handed gentry who look upon farmers as sociological specimens.

Fruit Juice and Prohibition

NATIONAL prohibition is sure to prove a boom to the fruit juice business and greatly increase the profits of grape growers and apple orchardists. The immediate effect upon the grape-growing industry in some localities may be somewhat depressing, but as soon as facilities are provided for manufacturing grape juice the rapidly increasing demands will take care of all the grapes American vineyards can produce.

For several years the great fruit juice plants in New York, New Jersey and Pennsylvania have almost been begging growers to increase their tonnage of grape production. Michigan and Ohio grape growers have shared in the general prosperity because it has left them without competition in table grapes in the big markets of the central west. With the coming of prohibition production and consumption are sure to increase by leaps and bounds. There is good reason for this: Grape juice is cheap, healthful and delicious. There are a number of flavors to choose from to suit the taste of all. California's white and honey-sweet juice made from the Mission grape, is on the market along with the dark juice made from the Concord of the east, possessed of a sprightly, foxy taste. And with any well-known manufacturer's name on the label of the bottle the consumer is guaranteed that he is getting a pure juice, naturally colored and flavored. The manufacturers of grape juice have set a high standard for manufacturers of other fruit juices to follow, and it should be the aim of the government and public health authorities to knock unscrupulous fruit juice competition galley-west.

Along with the increasing demand for grape juice there is developing an equally heavy demand for apple juice. In the past, during the greater portion of the year, in many sections it has been impossible to get either apples or apple juice that was satisfactory. Science, however, has come to the rescue and makes at least one of these obtainable the year around in this climate. For years, poor, rotten, immature fruit, unfit for anything else, has been ground up and pressed and the liquid thus obtained incorrectly called cider. With national prohibition a certainty all fruit should be saved, none wasted, for a big profit awaits every gallon of pure apple juice that can be made and put on the market. To apple growers and dealers especially, opportunity is urging that preparation be made in time to process apples by the new profitable way. Apple growers have never dreamed of the

prices, nor have they dreamed of the profits that they are sure to reap in the years to come. For real, unadulterated apple juice there is sure to be a market which will net a price above \$10 per barrel for the fruit.

Every apple tree should be well-cared for and every grower encouraged to increase production to the limit. With properly improved cider making machinery one bushel of apples produces from four to four and one-half gallons of cider. This is worth more than the best No. 1 apples have previously sold for, and can be kept indefinitely in any climate and you don't have to use cold storage or use poisonous preservatives. The process is easy and simple; and you can get away from the troublesome grading law.

Welcome Home from College

IF there is any boy to whom we should extend the right hand of fellowship and wish him "god-speed" it is the fellow who has completed the course at the agricultural college and returned to the old farm to help put it on a money-making basis and make it the best place on earth to live. Agricultural education is worth its cost. The agricultural college catches the boys at an age when ideas of brute strength are predominant and points out to them the utility of brains. Any young man can find employment on a farm by tying his nose down closely to manual labor at \$50 per month, and not taking time to think about the real problems of farming. Agricultural education raises him above the level of the ordinary worker and points out to him the way by which he may by careful and systematic application of safe and sound agricultural principles become a prosperous farmer and lay aside a competence for old age.

The value of an agricultural college education is not always expressed in terms of dollars and cents. Life is primarily for living and much of its success depends upon what we are getting out of it as we go along. An ability to think clearly and to command a reasonable amount of useful knowledge, to appreciate worth and beauty and in some degree to create things worthy and beautiful—such things might be said to express the real value of an education. Then, there is the value of the well-posted, educated farmer to his community. When we have a few agricultural leaders in each of our communities, each striving for community betterment and to translate the lessons learned at college into fruitful fields, more profitable farms and more pleasant homes, then will this land be a really wonderful place in which to live.

The claim that the agricultural college does not educate our boys toward farm life is hardly heard today. It is being noted everywhere that trained agricultural men are taking the front seat in all lines of farm progress. Many of our best agricultural leaders have responded to the call of the land and abandoned paying positions in order to own farms and live a life of independence and satisfaction. These men are already taking a lead in their respective communities and helping to bring about better things for agriculture and rural life.

News of the Week

Wednesday, June 18.

PERSHING halts move of regular army to sail, awaiting action on the peace terms.—Harry Gutchess, formerly an aviator is shot while robbing a store in Rochester.—The House Judiciary Committee votes against the repeal of the war-time prohibition of beer and wine.—The American Federation of Labor vote against the strike to free Mooney planned for July 4.—Wheat and grain fields in Indiana are being burned in an effort to stop the ravages of the army worm.—The

Michigan Senate refuses to alter the Lewis act which makes the possession of rum a felony.

Thursday, June 19.

GERMAN delegates advise cabinet reject peace terms, while Foch makes ready to send troops further should enemy balk.—American Federation of Labor tells radicals to get out of the unions and preach revolution elsewhere. The federation was unanimous for the removal of Postmaster-General Burleson.—Canada checks dry extension by defeating bill to extend war-time prohibition twelve months after the signing of peace terms.—Seven hundred and thirty-five Michigan troops reach New York port, and 1,400 more are due today and Friday.—Villa remains near the United States line. It is reported that the rebel chieftain is maintaining quarters southwest of Juarez.

Friday, June 20.

IT is reported that the Scheidemann government in Germany has fallen. This will undoubtedly assure the signing of the peace treaty by Germany.—President Wilson is given a tremendous ovation as savior of Belgium upon his arrival at Brussels.—Carranza eases border tension by sending troops into the district where the Americans fear Villistas will attack.—Methodist Centenary Exposition opens at Columbus, Ohio, and will continue until July 13. Methodists from all over the world will be in attendance.—Wilson hits opponents of World League in Belgian speech, stating only selfish nation can refuse its adherence.

Saturday, June 21.

LATEST advices from Berlin are that the German cabinet has resigned, but that, temporarily, President Ebert is to retain office. Both Noske and Dr. Mueller are mentioned as successors to Scheidemann.—Trotzky leads Red onslaught and retakes some fronts in an effort to keep his hold on Petrograd. The Reds are using gas and armored cars.—Noted London clergyman says the world will end this year.—Many meet death in a theater fire at San Juan, Porto Rico.—President Wilson has decided to appoint a commission to investigate reported pogroms in Poland.—American Federation of Labor today endorsed the League of Nations covenant and the labor provisions it contains.—President Wilson favors putting off prohibition until next January.

Sunday, June 22.

THE German sailors sink seventy-one of their own vessels interned at Scapa Flow, to prevent them being taken by the allies under terms of the peace treaty. The fleet was under the custody of the British Navy.—Soldiers mutiny in the British camp at Sutton; loyal troops arrest 400, and 1,800 more are sent to other camps.—Toronto cars are tied up by a strike.—Canadians start a Memorial forest at Vimy Ridge by setting out 200 maple trees.—It is reported that the Bavarian Premier, Adolf Hoffman, has resigned.—Martial law has been proclaimed in the entire zone of Hamburg harbor as a consequence of raids on food depots.

Monday, June 23.

GERMANY will sign peace treaty of the allied and associated powers. The national assembly by a vote of 237 to 138, decided to sign agreement, also voted confidence in the new government of Herr Bauer 236 to 89.—Five hundred thousand men in Foch's new army are ready for further invasion of Germany in the event Germany should not accept the terms of peace.—Admiral von Reuter, commander of the German fleet, ordered the sinking of the German navy.—One thousand five hundred and sixty men of the 339th division are due in Hoboken the end of this week.—Approximately 200 persons were killed by a tornado that struck Fergus Falls, Minnesota, yesterday.—Spartacans make an unsuccessful attempt to storm the prison and police station at Cassel, Prussia.—Thomas Edison has declared himself in favor of the League of Nations.

Tuesday, June 24.

GERMAN signs peace treaty unconditionally.—President Wilson will start for home Wednesday or Thursday.—W. Park Warner, a Saginaw leather goods merchant was murdered near Flint.—Big ovation is given Edward De Valera, president of the Sinn Fein Irish Republic, at New York.—Several hundred relatives of the 1,500 soldiers of the 339th infantry are planning a big welcome celebration at New York port.—A bill is introduced by Senator Kenyon of Iowa, to control the meat packing industry by a licensing system.—Wilson names Frank L. Polk, of New York, to be under-secretary of state.



Keep the Fall Pigs Growing

By Earle W. Gage

KEEP the fall shoats growing and putting on fat, even if you have to buy corn at a high price in order to do it," is the advice of several successful hog feeders. This is essentially true on farms where cows are kept, and where it is possible to add skim-milk to the diet.

"Hogs that are put on the market should be grained in addition to their summer pasture," is the advice of one of the most successful breeders. "Fall pigs that are being turned on pasture should be on part feed of corn to keep them putting on flesh to fit them for an early market. Too many hogs are run through the summer on pasture alone, and then fed out for winter market when the price is at the bottom. The time to get the fall pigs to market is in the summer or the early fall when the price is at the top."

I asked a man who aims to have from sixty to one hundred fall pigs ready for market, how he planned his feeding program. "I intend to carry them through the summer on alfalfa and about one-half as much corn as they will eat. To finish them I will plant six acres of ninety-day corn on fall plowing. As soon as this starts to dent I will turn the hogs into the field and let them 'hog down' the corn. They will be in good shape when they go into the field and will be ready to take on fat rapidly, and should be ready for the market by September 15 to October 1.

"I know this is a good way to feed from my experience of last season," explained the farmer. "In April, 1918, I bought eighty head of October pigs. I fed them a half-feed of corn and run them on alfalfa until August 20, when

I turned them into a six-acre field of ninety-day corn. They weighed one hundred and ninety pounds each when they went into the corn, and when I sold them, September 20 they averaged two hundred and fifty pounds. Delivered to market they brought \$19 per hundred pounds. Thus, each acre of corn, which would make about forty bushels per acre, made me eight hundred pounds of pork, which at \$19 per hundred, was worth \$152."

Another practical farmer was asked if he thought it practical or profitable to feed "\$1.50 corn to \$18 hogs," and replied that he thought so. "I think I can put two pounds a day on my hogs until they go to market, and this

amount will mean a good profit to me."

Next door I found a man with two hundred head of pigs he had picked up. These will be fed through the summer in order to have them ready for the mid-November market. "I intend to crowd these pigs from the start to the finish. I shall try to keep them growing during the summer by feeding grain with their pasture. I planted fifteen acres of early corn which I shall 'hog down' as soon as it starts to dent. From the time the pigs go into the corn field until they are ready for the market they will be on full feed, and I believe the younger I can get a hog to market the more profit he will make me, if I can make him weigh

two hundred and twenty-five pounds or more. It takes feed to maintain the hog that isn't growing; it also takes about so much to put on the extra flesh in addition to growing the frame, and the sooner I can get the hog to the proper weight the fewer days' maintenance I will have to pay for."

The three letters in the successful pork-maker's primer, are good blood, summer pasture, "hogging down" early corn. The best way for a farmer to make pork profitably is by starting with good blood, building a good frame on the shoats, mainly with legumes or rape, "hogging down" a field of early corn, and then finally finishing with a self-feeder on shelled corn and tankage. In this way early spring pigs from good blood strains can be made to weigh from two hundred and fifty to three hundred pounds in ten months.

One breeder advises that he made his cheapest gain by letting his shoats run into a field of new corn, in addition to giving them access to a self-feeder with tankage. The next cheapest gains he ever made were made when the hogs ran to a self-feeder containing tankage and corn, and at the same time had all the good pasture they wanted. If pasture is not available, hogs on feed should be given last-cutting alfalfa.

"Pork cannot be grown profitably without pasture," he continued. "If alfalfa is not available, or if the feeder is a tenant who cannot sow alfalfa, it will pay to sow rape. I have made tests to learn the value of rape compared with alfalfa for hogs, and I find there is little difference in the feeding value."



Pigs Make Remarkable Gains when they Have Access to Rape.

Haying and Harvesting Machinery

By Archer P. Whallon

IN haying machinery there has, of course, been but little change in the design of the mower within the past few years, the sole exception to this being in the development of large eight and ten-foot cut machines for use with tractors. On the other hand, the side delivery rake has come in for more attention. The fork type rake does not seem to be holding its own, and the most modern and efficient rake at the present time is the left-hand combined rake and tedder of the cylinder type. Other recent additions to the hay machinery line are: A loader that combines the principles of both the rake-bar and the cylinder types, several self-loading racks and attachments, combined stackers and loaders, hay cock loaders, special alfalfa curing trucks, the pull-off rack, a self-feeder hay press, a twine using baler, and metal stack covers. More particular mention should be made of the one-man unloaders and mow chutes that enable one man on the load to do all the unloading without the help of anyone in the mow, the "chute" serving to distribute the hay, and there is also a loader which not only elevates the hay on to the wagon but distributes it the length of the load, and last, a most ingenious machine called a round baler.

This last may be used as a stationary machine or combined with a hay loader and be drawn (or in the tractor type move under its own power), along the windrow, loading and pressing the hay into cylindrical twine-bound bales as it passes along. It is claimed that as these bales have a soft core and as

there will be a small triangular air space between the bales when stacked, that the hay may be baled direct from the windrow with safety.

The grain binder having reached such a high degree of perfection cannot be subject to much change in design, but its work has been completed by the invention of the mechanical grain shocker. There have been many experimental grain shockers made, but only one make is now actively on the market, this being adapted to use with two of the leading makes of binders. It works best with the six and seven-foot cut machines. It is a separate

device mounted on truck wheels and may be readily attached or detached as desired. It sets a round shock of from eight to eleven bundles, each shock being bound with twine, the whole operation being under the control of the driver of the binder. It might be well in making a selection of a binder to consider the advisability of getting one to which a shocker could be attached, even when the shocker is not purchased at the same time.

Probably the greatest innovation in the grain harvesting field is the small combined harvester-thresher. The large

"combine" as used in California and other western states is a ponderous machine that requires the services of a large tractor or a score or more horses, and four or five men, and is, of course, out of the question for use in the smaller grain fields of the larger portion of the country. But there are now several smaller combined harvester-threshers that need only a light tractor or four horses and two men for their operation. The use of harvester-threshers of all sizes is as yet confined to dry territories where the grain may be left to get thoroughly ripe standing in the field and naturally threshes easily when cut. How these small combined harvesters will work in more humid localities, whether or not it would be necessary to leave the grain standing uncut until serious loss occurred in order to prevent damage from the heating of the grain threshed direct from the standing straw, and the possibility of overcoming this disadvantage by the artificial drying of the grain, are questions as yet unanswered.

Midway between the binder and the harvester-thresher is the stacker-harvester, a new machine coming into use in the Dakotas. This has a cutting table like that of a binder but has a longer elevator which carries the grain up into a stacking cage truck where it is built into a small stack and then discharged on the ground. These small stacks will naturally be placed in a few rows across the field, and the field, excepting, of course, the narrow strips on which the stacks are placed,



Good Machinery Saves Time and Eliminates Risk in the Harvest Field.

(Continued on page 950).

News of the Agricultural World

MOTOR TRUCKS NEEDED.

ARE the present high prices prevailing principally in congested centers due to inadequate freight facilities?

That this is the case is the conclusion reached by the highways transport committee of the National Council of Defense, which is making a study of the matter and which proposes a remedy.

The remedy of the committee, briefly stated, is to supplement by auto truck service the freight facilities of the large cities, whose existing facilities are found to be inadequate and to furnish auto truck transportation to the small cities of states which are without freight facilities.

The plan of the committee also includes the establishment of auto truck facilities between rural communities and railway centers so that the surplus products of all rural communities can be moved quickly and easily to the great centers of population.

The highways transport committee has addressed letters to every member of the senate and house informing them of the deplorable conditions which exist and asking their interest and aid in correcting these conditions.

Investigation has shown the increasing seriousness of the lack of transportation facilities in many areas throughout the country.

The growth of many communities has been retarded, it is contended, because of this condition and many communities which in the past had hoped for railroad transportation now find that the railroads are unable to extend their lines. Thousands of tons of foodstuffs never reach the market, and lands which have been formerly cultivated, have, in many instances, been abandoned because of the difficulty in marketing produce. All this results in the continued high cost of foodstuffs in the various cities.

SHIPPING LIVE STOCK TO THE FAIRS.

STOCKMEN throughout the United States who contemplate exhibiting at fall fairs will be surprised and gratified to learn that the United States railroad administration has recently issued rules effective May 15, 1919, governing the handling of exhibits for expositions and fairs whereby live stock chiefly valuable for breeding, racing, show purposes and other special uses will be granted what amounts to a half rate in making the fair circuit. This applies to horses, cattle, sheep and swine.

The rules stipulate that when exhibited at one exposition or fair, and then returned direct to point of origin, said live stock will be carried at full tariff rates going and free returning, if returned within thirty days after the close of the exposition or fair at which they are exhibited and the bill of lading therefor is accompanied by certificate of the secretary of such exposition that such articles were exhibited and have not changed ownership. This will apply where exhibitors make only one fair.

Article Must Be Exhibited.

The rules further provide that when moving over a circuit of expositions or fairs, the articles will be way-billed at the regular tariff rate to each point of exhibition, and at the close of each fair, on presentation of a certificate

from the secretary of the fair that such articles were exhibited thereat and that no change of ownership has occurred, the inbound charges will be reduced to one-half of the tariff rates, and when reshipped from the last point of exhibition to the original point of shipment via direct routes and the bill of lading is accompanied by similar certificate from the secretary of the last fair or exhibition, one-half of the tariff rates will be applied on this final shipment home. This permits all

exhibitors of pure-bred live stock to make a single fair or a circuit of fairs at one-half the cost heretofore encountered, for the majority of shippers, particularly horsemen, have had to pay full fare both going and returning in years gone by.

"Joker" in Rules.

The "joker" in the rules is the stipulation that the animals will be carried at this reduced rate only when carrier's liability is limited to certain specified valuations, to-wit, \$150 on

horses, \$75 on bulls, etc., down the line. This will make it necessary for shippers to either run their own risk of loss or carry insurance on exhibition stock in some of the regular insurance companies, but it will be far cheaper to insure exhibition animals and thereby take advantage of the reduced rates than to pay full freight rates going and returning.

All shippers should proceed at once to see that their men in charge of exhibits have copies of the freight tariff, giving full details, to-wit, Boyd's No. 145, showing rules governing the handling of exhibits for expositions and fairs, page five. Any local railroad agent can obtain this for shippers.

Chief credit for obtaining these concessions must be given to the American Association of Fairs and Expositions, which, with others interested has been at work to obtain this concession for more than three years past. The rulings may apply to all railroads under federal control.

EASTERN MILK SITUATION.

DAIRY farmers, the price for whose milk depends in great part upon the market price of butter, are viewing with some apprehension the steady trend of butter downward. How far will this movement extend? Who is back of it? What is the purpose? These are questions members of the league are asking, and there must be an answer. The people who are interested in forcing the price of butter down would do well to remember that present methods of price-fixing are only temporary, and that the League has the power to terminate them if they do not prove satisfactory.

The dairymen are somewhat against certain lines of railway that accept milk and butter for shipment in hot weather, but do not provide ice in sufficient quantities to keep it cool until it reaches the market. Losses are reported from some sections, it being stated the railways fix the time of beginning to ice cars by the time of the year and not according to the weather. If it is as hot in June as it is in August, why should not plans be made to cool all dairy products in process of transmission just as much in the earlier month as in the later? One man says he saw a tub of butter that had tipped over on the side in one of the cars used for shipment and left to melt so that it ran out on the floor. These are things that help to determine the future action of the Dairymen's League. The day will come when all who have to do with handling dairy products on the way from farm to consumer will see that it is worth while to do their work faithfully and well. Strange to what lengths some men will go with the mistaken notion that their own selfish interests are best conserved by ignoring the best good of those who patronize them, and upon whom they depend for their very existence.

E. L. V.

A staff representative of the Michigan Farmer reports that army worms have seriously damaged farm crops in the territory between Bloomington, Illinois, and Wabash, Indiana. Many fields of wheat, oats and corn have been completely ruined. In the vicinity of Decatur and Wabash patches several rods wide through some of the small grain fields are completely stripped of every trace of vegetation.



Army Worms Mobilizing

THE army worm is out in force again. Considerable damage has been reported from central Illinois, and Missouri and Iowa have also suffered damage this year. Over one hundred acres of rye destroyed in two days in a single field is the report of Mr. Miner, of Henderson county, Ill., and ten acres of young corn were wiped out in a day in Christian county, Ill., recently.

None of the farm crops is immune, for the worms will eat anything and everything that is tender and green. Alfalfa fields have in some cases been ruined in Missouri, almost overnight. Young corn is attacked, and wheat and rye are especial favorites.

What it Looks Like.

Farmers everywhere are being urged to keep on the lookout for the pest, that it may be combated before any too serious damage is done. The army worm is a small greenish to grayish caterpillar, found in great numbers feeding, as a rule, rather near the ground. Before a particular "army" gets well started, the most likely places to find them are in neglected portions of fields where there are rank growths of wild grass, or lodged and fallen unripe grain, says Arthur Lumbrick, Vermillion county, (Ill.), agent.

After the host of worms gets really started, no one will have any difficulty in telling where it has been or what they are. Fields are stripped bare by the millions of worms, after which the whole mass migrates to an adjoining field.

Its habits permit of two ways of getting after it, and county agents are urging that both be used. When the worm is first discovered, and while it is scattered all over a field, not migrating, poison is the best means of attacking it.

Effective Poison Bait.

The same kind of poison bait may be used for it as for grasshoppers, according to the University of Missouri experts. Mix fifty pounds of bran and two pounds of white arsenic (arsenate of lead) dry. Then moisten the mixture with a solution containing four quarts of blackstrap molasses, the juice and chopped up pulp and rinds of a dozen lemons or oranges, and about eight gallons of water.

This mash should be just wet enough so that a few drops will squeeze out from a handful. It should be sown broadcast in fields where the worms are feeding, or planted in strips where the worms are migrating. The

sowing may be done from horseback, or from a wagon, whichever is most convenient.

The best time to put the mash around is in the evening, as the worms do most of their feeding at night, and the mash will not dry out too much before they can eat it. They will "fall for" a mixture such as this no matter what they are feeding on, but there are certain precautions to be observed.

All farm stock must be kept away from areas where the poison has been sowed, according to Sidney B. Smith, county agent of Macon county, Illinois. If the worms are in a pasture the stock must be kept out of it. Even after a heavy rain he thinks a farmer would be taking chances to turn stock into a pasture which had been poisoned, as the rain might not wash all the poison out.

Particular care must be used anywhere near the house or barn lot, he says, as the chickens will find and eat the poison mash if they are not confined.

The main thing, Agent Smith says, is to get quick action. The sooner the poison is spread, the less the worms will damage the crops. And the sooner the worms are killed the fewer there are to be killed, and the less the danger of their starting to migrate.

Furrow Stops Army.

When the "army" starts to move, another method besides poison becomes available to fight them. Bands of the poison spread before them will help, but a furrow may be plowed around the edge of the field they are in, with the straight land edge away from them. If all breaks in the edge of this are trimmed with a sharp spade a temporary obstruction is made which stops the worms from going straight.

Post holes dug every few yards right in the bottom of this furrow, and two to three feet deep, will trap the worms as they try to go sideways finding a way out of the field. They are easily destroyed in the morning after the holes have trapped many of them.

Another method often employed in connection with the furrow is to drag a log back and forth in it, crushing the worms that have crawled into it. Any method that "does the business" is all right to use, if action is prompt and thorough.

Agents all over the corn belt are warning farmers against the worm, and urging that they report any as soon as found. Their united battle cry is, "The army worm can be controlled if measures to fight it are taken.





Cooperation in Threshing

WHEN a farmer plans to thresh from the field, engages a custom threshing crew to do the work on a certain day and the outfit does not appear until three weeks after the specified time, is it any wonder that the countryman makes a few pointed remarks concerning custom threshermen in general and this one in particular?

Unreliability of custom threshers, labor complications which often arise when two outfits reach a neighborhood the same day, the expense of custom threshing, the careless and extravagant work of some hired machines, and similar factors have caused the grain growers in Michigan to organize cooperative threshing rings for the purchase, maintenance, and efficient operation of threshing machinery.

The benefits of the threshing are plain to every grain grower. One large threshing ring which has been particularly successful and which has met all expenses and paid for itself in four years out of the money ordinarily paid by the members for custom threshing is the Up-to-Date Threshing Company, of Livingston county, Illinois, which is composed of ten members who own fifteen farms. The partnership capital originally totaled \$3,275 and the equipment included a twenty-horsepower steam engine, a water tank, a separator with a thirty-four-inch cylinder, a corn sheller, and a second-hand silage cutter, which has been replaced by a new one. The total threshing force usually employed in this ring for field work consists of ten men with teams to haul bundles; five pitchers in the field; three men with teams to haul the threshed grain; two men to help unload the grain at the barn; one man on the stack; one man to operate the stacker; one man to clean up about the machinery; one water-boy; and three men with the threshing outfit. This involves a force of twenty-seven men. A ring of this size demands capable management to insure success.

On Smaller Scale.

A smaller threshing ring, organized last year in Fayette county, Ohio, consists of three landowners, whose partnership capital consists of \$1,000 which represents the cost of a small twenty-two-inch separator, with a clover-seed attachment, the power being furnished by a 12-24 farm tractor. These farms aggregate four hundred acres of small grain, a little outside threshing for hire being done each year. Last year 2,800 bushels of oats, 9,000 bushels of wheat, and one hundred bushels of clover seed were threshed. The ordinary crew was made up of five men, with teams and wagons to haul the bundles; two men, with one hundred and twenty-five-bushel wagon beds to haul grain three miles; one man to manage the outfit, and a boy to help. Bundle wagons were used to replace two or three field pitchers, while the use of a gas engine also dispenses with the water boy. The engineer has time to help considerably about the separator. With this small force, this outfit was able to thresh and deliver to the elevator, three miles distant, an average of approximately 750 bushels of wheat a day.

Smaller Units Favored.

During the last two or three years the number of threshing outfits sold to farm organizations has greatly increased, and the tendency at present

is toward the formation of smaller cooperative units and the purchase of small outfits. This comes from the necessity for more economical use of labor and the advent of the farm tractor, the power of which can be well utilized to run a small thresher, which, complete with wind stacker, self-feeder, and weigher, costs about \$1,200. Most of the farmers' clubs are small, so that all members may get their threshing done in about fifteen days. All threshing is completed in seasonable time, so that the grain may be saved to best advantage.

Advantages of Rings.

There are two general methods of ring cooperation, the most common involving the hiring of a threshing outfit, the other its purchase.

Threshing rings are beneficial inasmuch as the threshing calendar in a neighborhood may be so arranged that the work can be carried out with the least possible loss of time in moving from farm to farm. As a job nears completion, the first men through, knowing their assignments in the next place, may go there immediately and have the grain ready to thresh by the time the outfit arrives and is set up. No time is lost either in contracting for an outfit or in securing a threshing crew. Certain men may be used to best advantage by assigning them to one kind of work for the season. Unless the weather man prevents, threshing continues until all the jobs are completed in the circle, and thus little extra work is required in shifting wagon boxes or hay loaders. Usually the threshing season is greatly shortened and this favors the timely completion of the subsequent fall work, such as plowing, seeding, distributing manure, and so on. The threshing ring reduces the work of the housewife, as there are less men to feed during the harvest season.

Practically all the threshing rings perform some outside work as accommodation at the customary rates, or to enlarge the ring in order to secure all the necessary help.

When a ring buys all the machinery, new, separator, power, clover huller, and possibly a grain sheller or a silage cutter—and builds a shed to house the implements, the total capital under pre-war prices required usually amounts to \$3,000 or \$4,000. When it is possible for the company to hire a good engine or some other part of the equipment, it may not be advisable to buy.

Threshing for the various members of the ring is performed on a business basis, an average day's work being regarded as 2,000 bushels of oats, or about 1,000 bushels of wheat or rye. Record is kept of the time put in by each laborer and the costs of the work are distributed among the members on the basis of the amount of grain that is threshed.

RECENT reports from England and France speak very discouragingly of this season's crop outlook. Lack of rain is damaging the English fruit and vegetable crops and a continuance of the drouth will completely ruin the yield of vegetables and fruit. France has been virtually without rain for more than three weeks, the prolonged drouth causing the drying up of field crops, vegetables and fruits, and causing a sharp advance in prices.

Why Gasoline Prices Are Low

THE fact that gasoline prices are low constitutes the achievement of an ideal on the part of the Standard Oil Company. There are several contributing factors.

The ingenuity of the automobile engineers in producing cars at moderate prices and the efficiency of the Standard Oil Company in producing gasoline in sufficient quantities to supply the demand have placed both in the light of staples.

The demand for gasoline is steady—the supply is steady—thus enabling the Company to utilize its equipment to a maximum capacity which in turn keeps down the costs and therefore selling prices.

The Standard Oil Company through long years of experience is able to rescue and utilize all of those fractions which go to make gasoline, and to utilize all by-products for commodities of universal use.

This plays an important part in keeping down manufacturing costs on the basic product—gasoline.

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Thus at all times is there an ample supply for every five gallon buyer and every five thousand gallon buyer with no embarrassing demands from outside to drain the supply and force an increase in price.

It is by this husbandry that the Company is able to keep down the price of gasoline that you may run your car for the enjoyment of your family or the furtherance of your business without great expense for fuel.

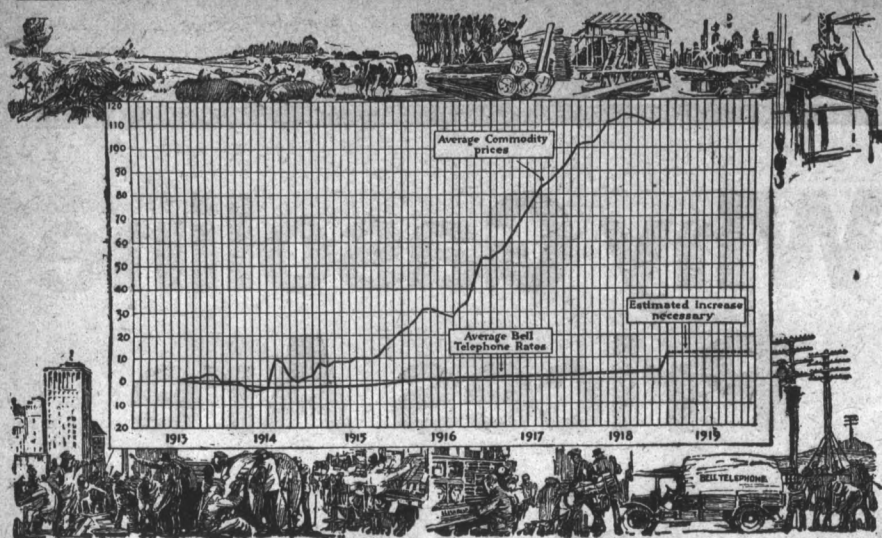
You may not know that gasoline sells in this market for about one-half or one-third the price charged in Europe even under normal pre-war conditions.

Standard Oil Company

(Indiana)

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A Comparison of Costs

A graphic picture of the high cost of doing business is shown by the rise in a long list of commodity prices during the past five strenuous years.

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The fact is, the increase in the cost of commodities has resulted in what is equal to a decrease in telephone rates. In other words: The dollar which was spent for the telephone has bought more than twice as much as the dollar spent for the commodity.

The activities of reconstruction which are now upon the nation have put a great burden upon the telephone. This condition has made necessary an advance in telephone rates.

This advance does not exceed an average of eight percent; almost negligible as compared with the advances in other lines of industry, yet enough to cover the increase in the cost of operation.

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Get the Binder in Shape

By I. W. Dickerson

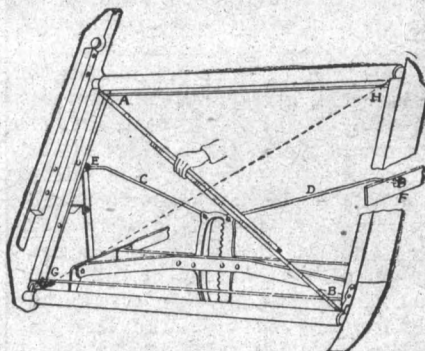
THE grain binder is one of the implements which is used only a few days a year and then put away until another harvest has rolled around, and because of this is very likely not to be in first-class condition unless given a thorough overhauling before being taken out into the field. All repairs should of course, have been ordered last fall and put on before the rush season began; but in this article we wish to point out some of the things which are often overlooked entirely, but which help greatly to make the binder work satisfactorily.

Direction and Trouble Book.

The first thing for you to do is to secure from your dealer or from the firm making the binder, a copy of their booklet on binder operation and troubles. Practically every firm puts out such a book and you can get it if you go after it hard enough. We can help you considerably through these suggestions, but we are limited as to space and must cover the points generally so as to apply to all types of binders, rather than showing a special binder by means of diagrams. Write for your booklet today and study it, both at home and in the field, and it will show you how to prevent many a binder trouble.

Bolts and Nuts.

Go over the binder carefully to see that no bolts or nuts are missing or loose, as there are usually a few places where nuts are likely to work off. This is more likely to happen where two metal parts bolted together are subjected to considerable vibration. The



METHOD OF SQUARING ELEVATOR FRAMES.

most satisfactory way to prevent them from working loose is by spring lock washer. If these are not available, a second or lock-nut may be used if bolt is long enough. Another method is by putting a sheet of brass or heavy tin under the nut and then bending it up so as to prevent the nut from turning. Still another effective way is to take a prick-punch or nail and make a slight nick in one of the bolt threads just above the nut. This will make a little trouble if the nut has to be removed, but will not be serious. Usually, however, if the nut is turned down firmly and then the tip of the bolt painted with heavy lead paint, little or no trouble from nuts coming off will be experienced.

Where a nut is too loose on a bolt, due to the threads being somewhat worn, the threads can often be made to hold by laying a strip of thin tin or brass or even cloth along the bolt and screwing the nut on over this. Sometimes fine wire or cord wrapped into the threads will make them hold. Another way is to set the nut on edge and strike with a hammer until it will grip the thread on the bolt.

Sometimes when it is desired either to tighten or remove a nut, it is found to be "frozen" or stuck so tightly to the bolt that it is impossible to turn it without danger of twisting off the bolt. In such a case, the nut can usually be loosened by holding an ax or heavy piece of iron against one face and striking the opposite face with a hammer. The other sides should be struck

in the same way and then kerosene worked in around the nut. In working such a nut off after it has been loosened, plenty of oil and patience should be used, and the nut worked back and forth until it is finally gotten off.

A round-headed bolt which turns when it is necessary to remove the nut may often be held by catching with a pair of pliers or pipe wrench, the part which projects through the nut. Sometimes the head may be pried up enough so that it may be caught by the pliers or pipe wrench. Sometimes the head may be filed on two opposite sides so that it may be held by a wrench. If another nut is available, it is usually quicker and more satisfactory to split the nut off with a cold chisel and put on another. Before such a bolt is replaced it should be bushed by strips of tin put on two sides.

All broken or lost cotter pins should be replaced. In fact, it will pay any farmer to keep an assortment of bolts, nuts and cotter pins on hand for such emergencies as may arise any day in the operation of the binder or other farm machinery.

Canvas Troubles.

All broken reel arms and slats, and also any canvas sticks should be replaced. It is a good idea to have an extra one of each of these on hand, or at least some material from which they can be made quickly. A strip of thin leather put on the inside of the canvas will make the stick hold much better. The canvas straps should be gone over to see that all are in good shape and fastened firmly. Many operators make the mistake of drawing the straps too tight, as the canvases should be run as loose as possible and not slip. A little powdered resin scattered inside the canvas will do away with the necessity of pulling up the straps so tight, which not only cuts the life of the canvas but requires more power to operate.

The flap to a canvas should be long enough to cover up completely the opening. It is long enough to do this when new, but the majority of operators, instead of tying it down, let it flap around and it soon whips off. If this has happened, a new piece should be sewed inside the old flap, or, better still, be tacked under it at the first stick. Some means should be arranged for tying this flap down at each buckle.

Many operators have trouble with the elevator canvases "creeping" or running too much to one side. This has a tendency to wear out one edge of the canvas too rapidly, pull the sticks loose at that side, break them over the rollers and cause the straw to wrap around the rolls. This is nearly always caused by the elevator rollers not being square with each other.

The easiest way to test this is to take two sticks in the hand, as shown in the diagram, and measure the distance A B. Then without letting the sticks slip, measure G H. If these two distances are not almost exactly the same, the lower elevator is not square, and must be trued up by adjusting the nuts at E and F, tightening one and loosening the other as the case may demand. Most binders have an adjustment of this kind, but some models do not. I remember being sent several miles out into the country to remedy such a trouble on an old binder. I found the lower elevator out of true with no method of adjustment.

The only thing I could do was to take out the rod C, slip three or four washers in front of a shoulder on it at E, and then crowd the elevator forward until I could slip the rod into place again. Rather crude, but it cured the trouble. The upper elevator (Continued on page 942).



FAILURE TO SPRAY BEARS RESULTS.

THE peach crop of the western New York fruit belt is threatened with serious damage by two dangerous enemies. Curl leaf is showing up badly in many orchards with little chance now to check it, and the brown rot has been found in some orchards.

It is the practice of growers to spray for curl during the dormant period of the trees. Late fall or early winter spraying has been advocated by the experiment station experts, and many growers, following an outbreak of the disease, sprayed their orchards during the season mentioned, with very satisfactory results. The past season some were careless and left the dormant spraying until spring. The danger of delaying the spraying is that unfavorable weather may prevent an application of the spray altogether, and this spring the weather conditions were unusually bad. Many growers who did not spray last fall were unable to get onto the ground this spring, and the net result is that the dormant spraying could not be done, and curl is very apparent in orchards that ordinarily receive the best of care.

Weather conditions have been favorable to the spread of brown rot. Early plowing of the ground thereby turning under the "mummied" fruit from last year's crop, together with the leaves, is the only known means of controlling the disease. The wet spring has hindered the plowing and cultivating in a large number of peach orchards. The brown rot fungus has developed unchecked. An inspection of several orchards in Niagara county indicated that at least half of the peaches were affected with rot.

Western New York orchardists are making a desperate campaign to control the orchard insect pests, and are determined if possible to bring the fruit crop through to a successful and profitable harvest.

The executive committee of the New York State Horticultural Society has decided to hold the midsummer meeting and tour of inspection on August 6-7. The tour will include an inspection of the orchards in Niagara county, and a trip through the fruit-growing section of Ontario, Canada, as far as Hamilton.—E. E. R.

BUTTERMILK FOR HOGS.

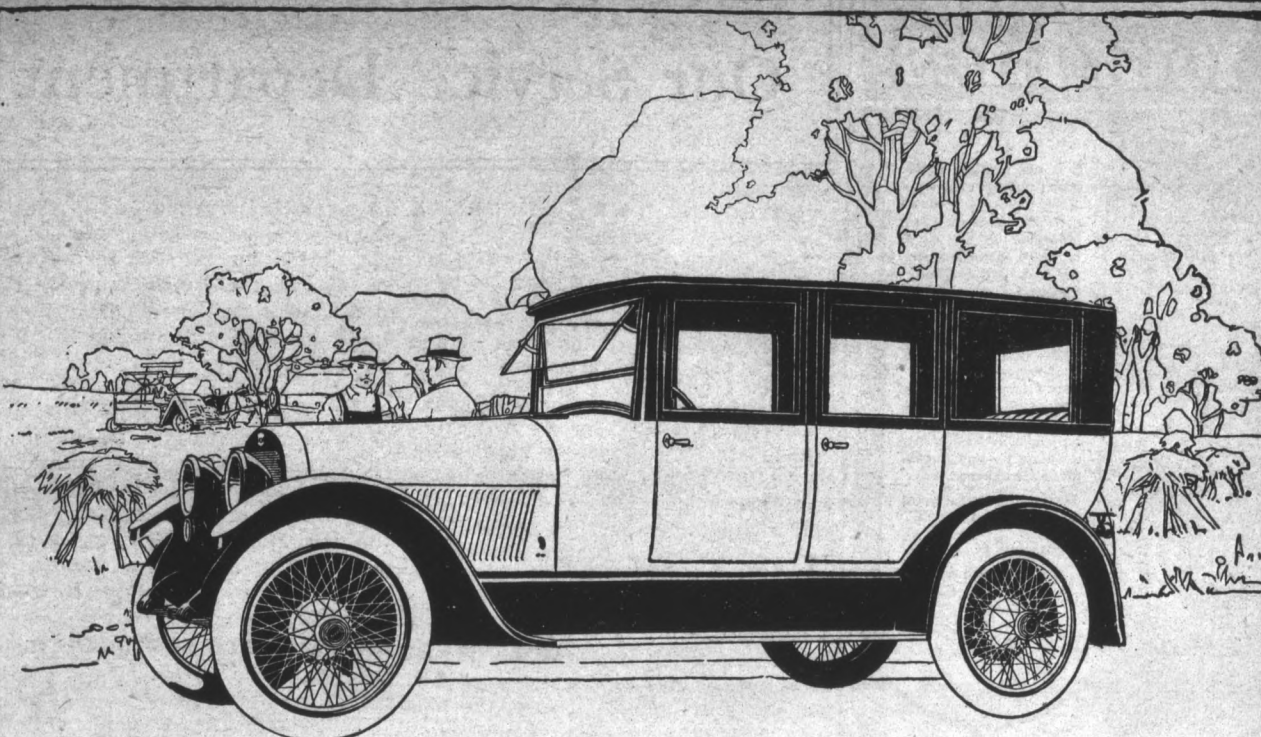
Will you please explain the feeding value of buttermilk for hogs, compared with corn meal, buttermilk at thirty cents per forty-quart can; corn meal at \$3.50 per hundred? Will fifteen cans of buttermilk put as much growth on a hog as one hundred pounds of corn meal?

Van Buren Co. E. D. R.

Buttermilk weighs about 8.6 pounds per gallon. Therefore fifteen cans of forty quarts (ten gallons) each will hold 1,300 pounds of buttermilk. It is estimated that when fed alone six pounds of buttermilk, fed to pigs twelve weeks old, is equal to one pound of corn meal. On this basis the fifteen cans of buttermilk would be equal in feeding value to 116 pounds of corn meal. But neither of these feeds will produce economical returns when fed alone. A good rule to follow is to feed one pound of corn meal to five pounds of buttermilk. Care should be taken to get the hogs accustomed to the buttermilk before the heavy rations are fed.

W. M. K.

The prices paid producers for hogs, cattle, sheep and chickens increased 21 per cent from April 15 to May 15, as compared with an average increase of 0.2 per cent for the past nine years.



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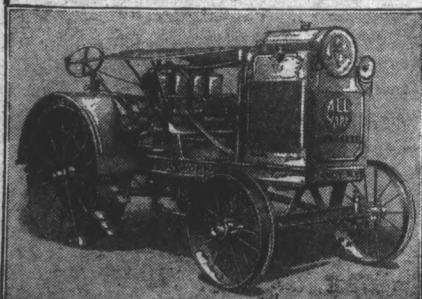
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Our Service Department

SELECTING DAIRY HEIFERS.

I am just beginning in the dairy business and would be pleased to have you advise me how to select young heifers. I want to go out and buy some heifers and young cows to add to my herd. How much should I pay for good grade heifers that give promise of developing into good producers? **Lapeer Co. R. C. S.**

It is almost a hopeless task to describe the points that indicate heavy milk production unless one has the animals before him. In general the heifers must possess the true dairy type, for a heifer that departs widely from such a type seldom develops into a high producing cow. This does not mean that the heifer must be in poor flesh for she may be fat and sleek, and yet easily distinguished from the beef type. This difference may appear more conspicuously in the thighs than elsewhere. They should be thin and more or less incurving—affording ample room for udder development. A more or less high-arched flank also indicates dairy breeding. The shoulders are also a factor closely noted by experienced dairy judges; they should be thin and high. Then look for the milk wells, the openings through the belly, near the front legs. If these openings are rather large and connected to the udder by large tortuous veins it is pretty good evidence of milking capacity.

Probably the best method of studying dairy type and breed peculiarities is by visiting among breeders, attending fairs, public sales, and comparing photographs of the best animals of the leading dairy breeds. Added to all of these points, one must use the scales and Babcock tester before he can determine the real value of a dairy cow. But if one would exercise greater care in selecting young heifers he would have fewer disappointments when they become of milking age.

W. M. K.

SEEDING ALFALFA.

I have five acres of good sod ground that I want to plow and seed to alfalfa late in August. How would you advise me to prepare the ground? **Calhoun Co. R. P. D.**

You will find it very difficult to secure a good stand of alfalfa on sod ground. There is always danger of the young plants being smothered out by the quick-growing grasses that start up on newly fitted sod ground. I would suggest that you plow the ground this fall, give it an application of manure or fertilizer next spring and plant a crop of corn or potatoes. Then lime the ground, plow and prepare for alfalfa and seed the following season, either in the spring or late in the summer. For spring seeding use a light seeding of barley for a nurse crop; for August seeding better results may be obtained without a nurse crop.

W. M. K.

FENCING THE ROAD.

A neighbor of mine has set his fence out into the road and it has been there for some years now, and he claims title to keep the fence there by virtue of this adverse possession. Can he thus get rights in the highway?

It was a maxim of the common law that time never runs against the king; which means that no rights can be acquired against the state by adverse use and possession; and the reason is that what is everybody's business is nobody's business, and by neglect and possibly connivance of officials in favor of friends, valuable rights of the public would be lost. The maxim is

of general application and is received and recognized as sound law all over the United States; but several years ago it was held by the supreme court of this state that the doctrine does not apply in favor of municipalities—cities, villages, townships, etc. That is not the rule in most of the other states, and it has been found to work badly here, so that the legislature has since enacted by express statute that no title by adverse possession shall accrue against any municipality—so that the law here is now practically the same as it is in the other states.

JOHN R. ROOD.

CREAM TESTS FOR BUTTER-MAKING.

Will you please advise me as to what is the best test for cream delivered at the creamery?

Grand Traverse Co. P. A. G.

Most creamery operators prefer about twenty-five per cent cream for butter-making. If richer than this it will require dilution before churning, and if thinner there is considerable loss of fat in the buttermilk and an equal loss of skim-milk to the patron. There is no advantage in sending thin cream to the creamery. The test is no more accurate and considerable valuable skim-milk is lost that has a very high feeding value at the farm.

W. M. K.

LOUSY HENS.

I have a flock of thirty hens which are lousy. I tried creosote, but am afraid I didn't get it strong enough. I used two or three tablespoonfuls of creosote to twelve quarts of water. Is this strong enough? If not, how strong should it be? What is the proper way to dip hens? Does it hurt to dip their heads? Is there any other good dip that you know of? **W. H. P.**

A five per cent solution of creolin, or any good coal tar preparation is recommended for dipping fowls to kill lice. The fowls should only be dipped in the solution on a warm day and then placed to dry where they will be protected from draughts. Hold the bird by the wings and head and immerse it back and forth in the mixture for about a minute. The top of the head can touch the solution but the eyes must be protected from it.

The dipping of fowls will kill the lice but it is a harder, longer and dirtier job than is necessary to keep the lice from the hens. Why not rub a bit of blue ointment beneath the vent and another under each wing and turn the bird loose without scaring it half to death by dipping. The blue ointment will give protection from lice for several months and after some trials of dipping and dusting we much prefer the blue ointment. This can be purchased at the drug store and mixed half-and-half with vaseline or it can be used clear.

We have found dusting even more



Sheep in New York State

SHEEP husbandry is on the upward trend in New York state. The movement is not confined to any particular section. Sheep flocks are coming back, not only to the hill counties of southern and eastern New York but to the richer levels south of Lake Ontario.

But the coming sheep of this state will be a far different animal than the old Spanish Merino of the washboard type, which populated the eastern pastures fifty years ago. It will be fashioned after the Shropshire, developed by using Shropshire rams on the natives and cross-breeds. It will be a dual purpose sheep bred for wool and mutton, and also quick maturity of the lambs.

The sheep industry of 1919 in New York is founded on a more enduring basis than ever before in its history. Years ago, even in its best days, the growers were unorganized, and rushed in and out of the business as the wool market went up or down.

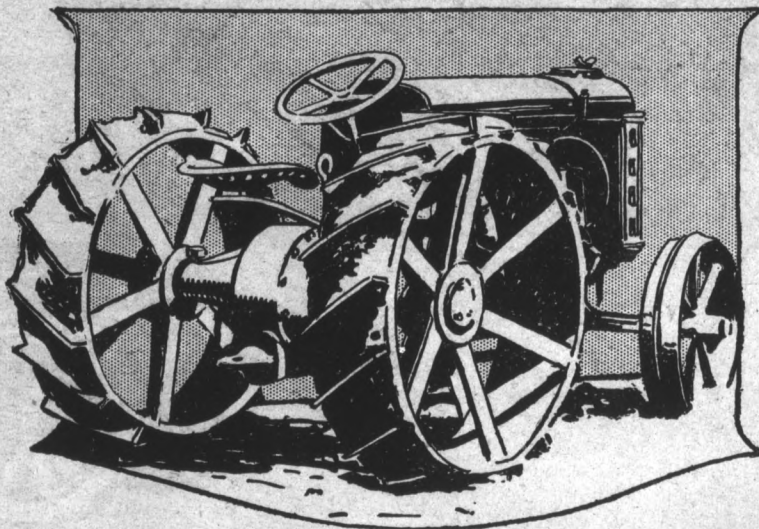
In every county where sheep are kept to any extent there is a live, progressive sheep growers' cooperative association incorporated under the state laws. These county associations are federated in a state association, with Mark Smith, of Ithaca, secretary. Mr. Smith is the son of a prominent Ohio sheep breeder, and was not only brought up in the sheep business but is an enthusiastic promoter of good sheep husbandry in all its phases.

Each county association pools its wool and sells it in bulk, dividing the returns pro rata according to the wool contributed by each member. The state secretary keeps the county associations posted on market quotations and conditions, mailing carefully prepared bulletins containing the most up-to-date market information at frequent intervals to each local organization. He also sends out timely suggestions on the care of the flock.

A farmers' ram sale will be held at the state fair at Syracuse this fall, which it is believed will be very valuable to flock owners wishing to change rams. The state fair sheep show will undoubtedly be the largest held in the east in many years.—E. E. R.

DEAD HOGS TAKEN FROM CARS.

IT is always the rule that the first appearance of hot weather is especially trying on hogs in cars bound for market, and the recent heated spell was no exception, many dead hogs being removed from cars arriving in the Chicago Stock Yards. Losses these times of enormously high prices for hogs count up heavily, and one carload of hogs contained four dead ones, including a stag which tipped the scales at 700 pounds and three good medium barrows, making a total loss of more than \$200. Such losses are usually due to crowding too many hogs into cars, although this is not always the case. Long journeys in hot weather are trying on big hogs, and it is a good plan to sprinkle the hogs at intervals, besides suspending a big cake of ice from the car ceilings. Cars should start from the country shipping point carefully cleansed, and cinders on the floor are usually used. W. W. F.



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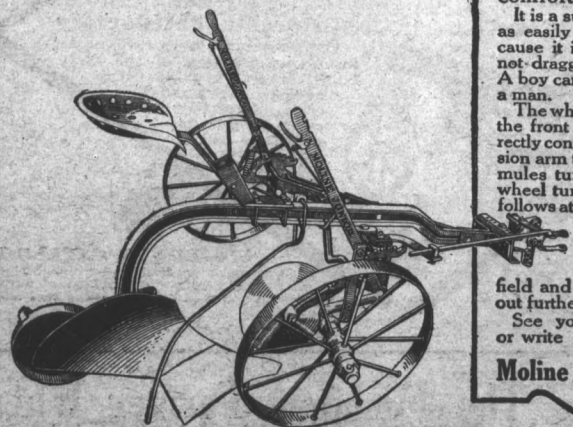
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BUY the Moline Junior Sulky because it is a simple plow and because its cost is small for a riding plow. Buy it to do the best work with the least effort. Buy it in order to do your plowing right and with comfort.

It is a sulky which can be pulled as easily as a walking plow because it is carried on wheels and not dragged through the ground. A boy can manage it as easily as a man.

The wheel control is automatic—the front furrow wheel being directly connected by rod and extension arm to the clevis. When the mules turn the eveners the front wheel turns and the whole plow follows at once. Square turns can be made to right or left without raising bottom. Set this sulky for right depth; then go into the field and do steady plowing without further adjustment.

See your Moline dealer now or write us for full information.

Moline Plow Co., Moline, Ill.

Binder Twine Standard 500 ft. to the lb.
\$20.50 per 100 pounds, Carload lots 1/2 cent less per pound. Order now.
Write for Circular Louis Lesse, Dep. V, Milwaukee, Wis.

"Fodder Sweet Corn" \$3.00 per bu.
of 45 pounds. Bags extra 50c. Germination 90%
YOUNG-RANDOLPH SEED CO., Owosso, Mich.

CARPENTER GRAIN CO.
Buy & Sell CARLOADS CORN-WHEAT-RYE-OATS
BATTLE CREEK, MICHIGAN

MICHIGAN GROWN SEEDS
for Michigan growers. Ask for catalog. Harry E. Sauer, Seedsman, 115-119 E. Ottawa St., Lansing, Michigan.

CULL BEANS FOR FEED
Car lots or less. Ask for prices.
YOUNG-RANDOLPH SEED CO., OWOSSO, MICH.

CORN HARVESTER One man, one horse, one row. Self Gathering. Equal to a Corn Binder. Sold direct to Farmers for \$22.50. Only \$22.50 with fodder binder. Free Catalog showing pictures of Harvester. PROCESS CORN HARVESTER CO., Selma, Kans.

Binder Twine Get our low 1919 prices. Farmer agents wanted. Sample free.
THEO. BURT & SONS, Melrose, Ohio

Mention The Michigan Farmer When Writing Advertisers

GETTING THE BINDER IN SHAPE.

(Continued from page 938).

should also be measured and trued up in the same way if found wrong. Usually the platform rollers give no trouble in this respect.

Straw wrapping round the roller itself is nearly always due to lack of a proper flap to the canvas, but is made worse if the grain is allowed to go up too much endwise, which also makes it difficult to make a neat bundle. Some help towards keeping the heads back can be secured by setting the outside or grain-wheel end of reel ahead of the other end. It is often necessary, however, to have a flat strip of iron which fastens at the grain-wheel end and lies over the platform canvas in such a way as to hold back the heads sufficiently, a few marks made with a prick-punch or nail from the lower side should make it all right.

Straw wrapping around the roller pins or gudgeons may be due to the canvas creeping to one side, to its being badly worn along one edge or to the flap not being sufficient to cover the opening. It is aggravated by grain going up too much endwise and also by too much end-play of the rollers. If this is caused by the supports spreading, the proper adjustment must be made, but care must be taken that the rollers are square after this is done. If the end-play is due to wear, it is advisable to slip heavy leather washers in at the end to fill up the space as much as possible. These can be split and slipped in with the roller in place, but it is better to take the roller out where it can be done without too much trouble.

Chains.

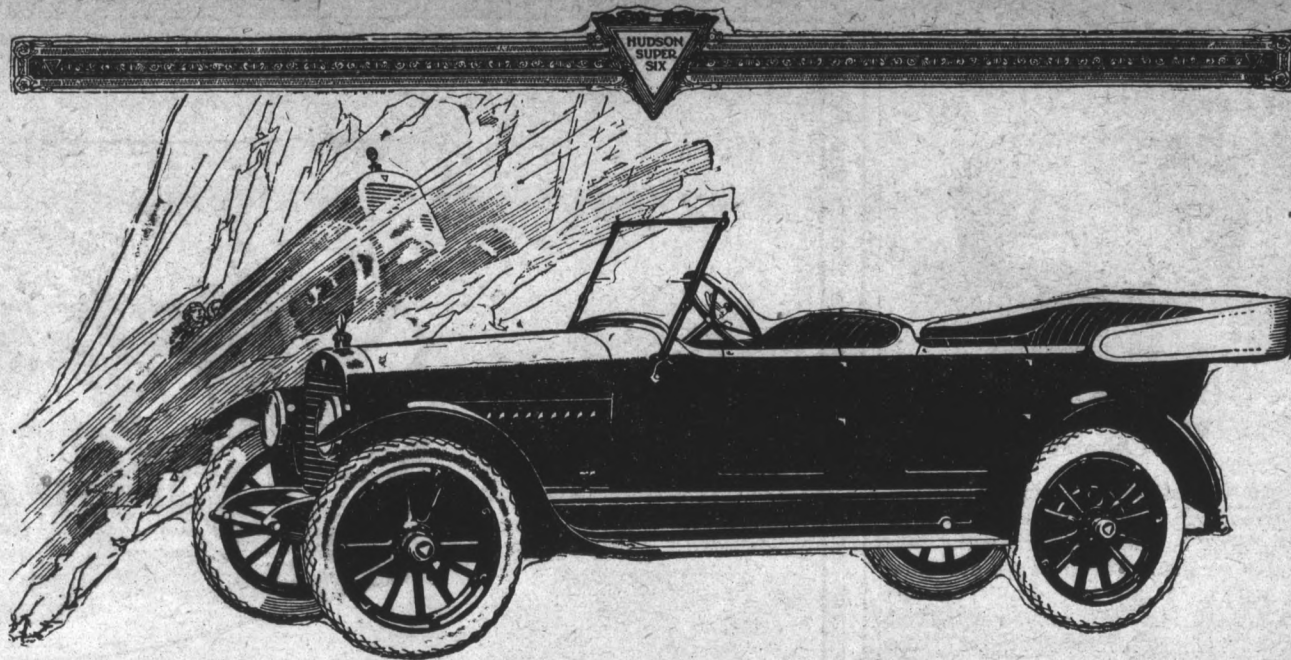
Many operators make the mistake of running their sprocket chains too tight, which not only wears the chain too rapidly, but requires too much power to operate. They should be run as loosely as possible and still not jump off. If a chain rides up on a sprocket and produces a jerking action, it is because the wear has allowed the chain to stretch, so that the pitch is not correct. This can often be remedied by setting each link on end and striking it lightly with a hammer so as to shorten it enough to make up for the wear. Closing down the hooks will do practically no good.

Chains should be put on so that each link has its hook end pointing in the direction of motion and with the open side of the hook out. Running in the other way will increase the trouble from wear very much.

Lubrication.

Probably no ordinary farm implement suffers more from poor oiling than the binder. Part of this fault is due to the construction and location of oil holes. They have no provision for holding oil or keeping out dust, and many of them are put in such inaccessible places that the farmer is more to be pitied than censured for not crawling in to get at them as often as they need attention. The greater part of the fault is due to the fact that many operators have not grasped the fundamental principles of machinery lubrication, that the ideal method is to keep a film of oil in the bearings at all times. The nearest approach to this is to put on a small amount of oil at frequent intervals, rather than a spoonful twice a day. The oil which goes on the outside of the bearing does no good and only helps in catching the dirt. There are many places on the binder, fast-moving places with little provision for holding oil, which should be oiled every half-mile round.

All oil holes should be carefully cleaned of dirt so that the oil has free access to the bearing.



\$1975 Buys the New Hudson Super-Six

It Is Just Such a Quality Car As You Might Expect—Dealers Are Now Showing It

How often you must have heard users say the Super-Six is potentially the finest automobile that is built.

Four years with 60,000 cars in use have shown how to free it from many of the annoyances regarded as inevitable to all cars.

It expresses the attainment of an ideal long cherished but never before possible.

Experience Showed the Way

Hudsons have been leaders for ten years. The Super-Six was the result of six years' experience. It marked a new advance in motor cars, for it minimized vibration and added to endurance without sacrificing simplicity or increasing weight.

It gave 72% more power than other motors of equal size.

A new motoring pleasure resulted. There was power for any emergency. There were speed possibilities beyond the needs of any driver.

That was shown in its establishing speedway records that are known to everyone.

As a result the Super-Six became the largest selling fine car in the world.

Each year saw an advancement over previous models.

What was learned from cars delivered served to make subsequent cars finer and more durable.

The development in beauty kept pace with the improvement in mechanical detail.

Hudsons became pattern cars that the whole industry recognizes.

On That Experience A New Hudson Was Built

Such a car would be impossible of any other organization. The men responsible for the Super-Six are likewise responsible for its development. They have retained all its earlier advantages. It is the same fine car you know, but it is enhanced in ways that meet the standard of our ideal.

Prompt Deliveries Now Price \$1975 (f. o. b. Detroit)

Every season has seen a Hudson shortage. Buyers have waited months to get the car of their choice.

Prompt deliveries are possible only to early buyers.

When the new Super-Six gets into its natural swing, buyers will have to wait their turn. There has been a marked Hudson shortage for more than a year. Many dealers have already sold their first months' allotments.

This new price would in itself create a big demand. But that \$1975 buys a finer Super-Six must mean more people will want it. Its over sale will be tremendous.

For that reason you will want to see the new Hudson Super-Six as soon as possible.

(1071) Hudson Motor Car Company Detroit, Michigan

Kalamazoo

Ensilage Cutters "The World's Standard"

NEVER have the farmers of America so quickly recognized superior cutter merit as in the Kalamazoo. They are built to give satisfaction—and they do, absolutely.

The center-shear cut means better ensilage, smoother running, less power, no clogging of blower. Big capacity; perfectly balanced. Malleable, unbreakable cutter-wheel and blower makes fast cutting practical. Kalamazoo Ensilage Cutters are

Simple in Construction, Durable, Satisfactory

One lever starts, stops, reverses and insures easy control of the machine. Frame is constructed of channel steel and the entire cutter is built of best material throughout. Sizes for every farmer's need. Investigate now.

191-C

KALAMAZOO TANK & SILO CO.
Dept 123
Kalamazoo, Mich.

WRITE FOR CATALOG
It illustrates and describes our complete line of cutters and contains just the kind of advance information you need before investing your money in any cutter.

SALESMEN WANTED

Men capable of making \$5000 a year to sell

NELSON SPEED INDICATORS

for separators, clarifiers and Babcock Testers. Your prospects are creameries, Farm Implement Dealers, Cream Stations, Dairymen, and in fact anyone using or selling Cream Separators. Write us at once for full particulars on this high-grade position.

THE DAIRY EQUIPMENT CO.,
418 Mitchell Bldg., Springfield, Ohio.

LEARN AUCTIONEERING

at World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught. Write today for free catalog, JONES NAT'L SCHOOL OF AUCTIONEERING, 28 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pre.

FOR SALE: Three months old light gray pedigree Flemish Giant bucks \$5.00 apiece. They will increase the size of your stock. WILL M. FOGG, JONESVILLE, MICHIGAN.

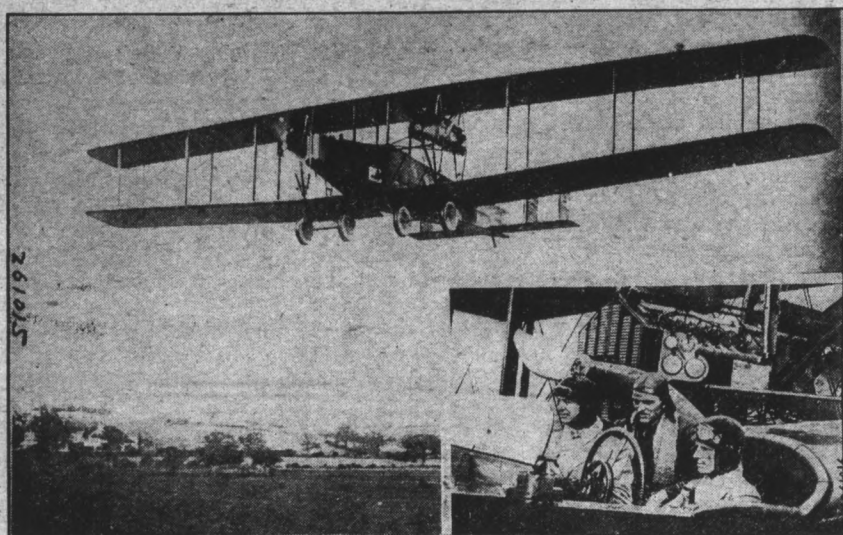
For Sale Stock General Merchandise in country village. Great chance to step into established paying business. Write Box G-625, Michigan Farmer, Detroit, Michigan.

Please Mention The Michigan Farmer When Writing to Advertisers

WORLD EVENTS IN PICTURES



Super-dreadnaughts Pennsylvania and Mississippi, two of the greatest ships in the United States Navy, making their way to anchorage in the North River. Read Admiral Henry T. Mayo took the city by surprise by bringing the great Atlantic Fleet in just twenty-four hours ahead of time.



The picture shows the giant English twin-motored machine in which Vice-Admiral Frank Kerr, Col. Tuggare and Major Herbert Brackley will attempt a non-stop flight over the Atlantic.



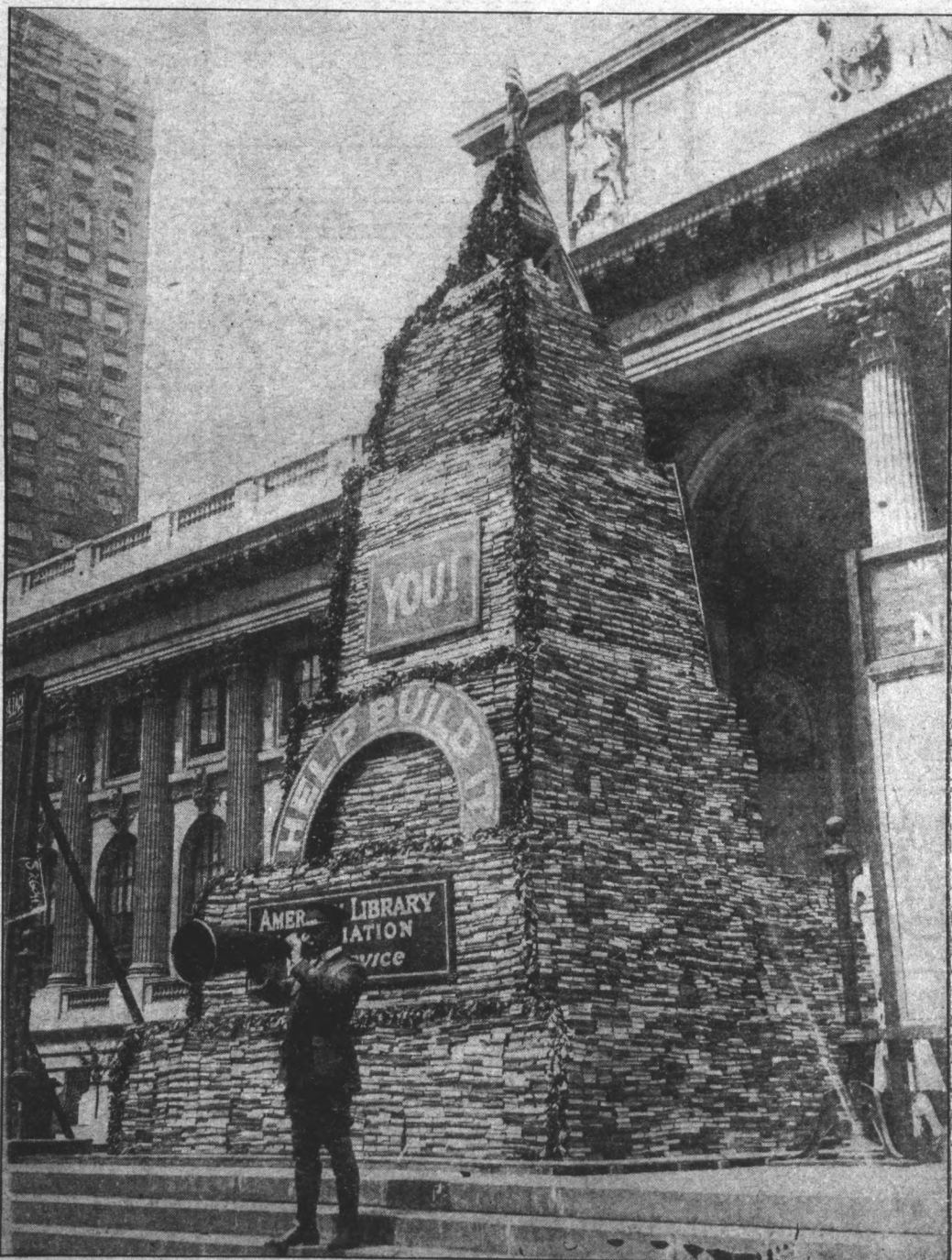
Rheims, France, Destroyed, yet Immaculate. This picture of the Rue Chanzy, Rheims, illustrates the remarkable ability of the French in Renovating Ruined Cities.



President and Mrs. Wilson enjoy a period of relaxation from the League of Nations Problems by attending the horse races.



The above picture shows the throngs in the Hog Island shipyards to see the five 7-800-ton cargo ships launched on Decoration Day, and the five women who christened the ships. From left to right they are: Miss Erma Reiser of Reading, Pa.; Mrs. Mary Fox, Camden, N. J.; Mrs. Wm. Thomas, Allentown, Pa.; Miss Lois Gaither, of Pipestone, Minn., and Mrs. J. D. Andrew, Philadelphia, Pa.



New York's Book Pyramid in front of the Public Library drew thousands of books from Fifth Avenue crowds for wounded soldiers and sailors.

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**KEEP COOL
AND
COMFORTABLE
IN
HOT WEATHER**



Wear a

Finck's Union Combination Suit

You'll be delighted at their coolness, ease, freedom and real solid comfort these hot days around the farm. Over 2,000,000 satisfied wearers.

When you wear a **Finck's Union Combination Suit**, you are guaranteed best quality, material, workmanship and fit—and the coolest work-garment made.

If your dealer cannot supply you, fill out the attached coupon, giving your chest and leg inseam measurement, together with your dealer's name, and a suit will be sent there for your examination and approval. We will also send you complete catalog FREE.

W. M. FINCK & COMPANY
DETROIT, MICHIGAN

Branches: St. Louis, Mo., Dallas, Tex., Livingston, Mont.,
Chattanooga, Tenn.

Makers of the Famous Finck's "Detroit Special" Overalls
and Combination Suits that Wear Like a Pig's Nose

Send to my Dealer

OUR TICKET



Street Address

City

Chest Measurement

Leg Inseam

Signed

Address

Some Special Clubbing Offers

No. 5.

Michigan Farmer\$1.00
McCall's Magazine 1.00

Regular price, one year.....\$2.00

OUR PRICE ONLY \$1.55

No. 6.

Michigan Farmer\$1.00
Gentlewoman20
Home Life35
People's Popular Monthly..... .25

Regular Price, one year.....\$1.80

OUR PRICE ONLY \$1.55

No. 7.

Michigan Farmer, 1 yr., wk.....\$1.00
Woman's World, mo..... .50
Boys' World or Girls' Comp., mo.. .50

Regular price, one year.....\$2.00

OUR PRICE ONLY \$1.60

No. 8.

Michigan Farmer, 1 yr., wk.....\$1.00
Breeder's Gazette, wk..... 1.50
Woman's World, mo..... .50
American Boy, mo..... 2.00

Regular price\$5.00

OUR PRICE ONLY \$3.90

No. 9.

Michigan Farmer, 1 yr., wk.....\$1.00
Green's Fruit Grower, mo..... .50
American Bee Journal, mo..... 1.00

Regular price, one year.....\$3.50

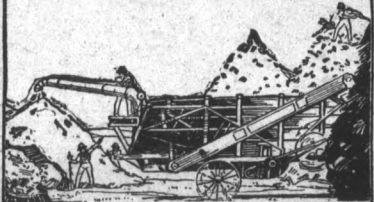
OUR PRICE ONLY \$2.50

No. 10.

Michigan Farmer, 1 yr., wk.....\$1.00
Youth's Companion, wk..... 2.00
McCall's Magazine, mo..... 1.00
Poultry Success, mo..... .50

Regular price, one year.....\$1.80

OUR PRICE ONLY \$3.70



Look for the Man with the RED RIVER SPECIAL

He has the thresher that will thresh your grain clean. It will save enough of your grain and time to pay your thresh bill.

There's no guess work about this. The Red River Special is the thresher with the famous "Man Behind the Gun."

It Beats Out the Grain
instead of waiting for it to fall out. It alone does more clean separation than some other threshers get from end to end.

Ask your thresherman the name of his outfit. Tell him you want your grain threshed with the Red River Special. Don't let him experiment with some unknown machine when it costs no more to be sure of saving all your grain.

If you want a thresher for your own use, learn about our "Junior" Red River Special.

Write for Circulars

Nichols & Shepard Co.
In Continuous Business Since 1848
Builders exclusively of Red River Special
Threshers, Wind Stackers, Feeders,
Steam and Oil-Gas Tractor Engines
Battle Creek Michigan

When Writing to Advertisers, Please
say "I Saw Your Ad. in The Michigan
Farmer".

The Fire Warden

By Robert W. Chambers

(Continued from last week.)

She rested her weight on one arm and leaned towards him a trifle.

"In Fox Cross-roads there is much that is hopeless, much that is sorrowful, Mr. Burleson; there is hunger, bodily hunger; there is sickness unsolaced by spiritual or bodily comfort—not even the comfort of death! Ah, you should see them—once! Once would be enough. And no physician, nobody that knows, I tell you—nobody through the long, dusty, stifling summers—nobody through the lengthening bitterness of the black winters—nobody except myself. Mr. Burleson, old man Storm died craving a taste of broth; and Abe Storm trapped a partridge for him, and Rolfe caught him and Grier jailed him—and confiscated the miserable, half-plucked bird!"

The hand which supported her weight was clinched; she was not looking at the man beside her, but his eyes never left hers.

"You talk angrily of market hunting, and the law forbids it. You say you can respect a poacher who shoots for the love of it, but you have only contempt for the market hunter. And you are right sometimes—" She looked him in the eyes. "Old Santry's little girl is bedridden. Santry shot and sold a deer—and bought his child a patent bed. She sleeps almost a whole hour now without much pain."

"Before Grier came," she said, "there was misery enough here—cold, hunger, disease—oh, plenty of disease always. Their starved lands of sand and rock gave them a little return for heart-breaking labor, but not enough. Their rifles helped them to keep alive, timber was free; they existed. Then suddenly forest, game, vale, and lake were taken from them—fenced off, closed to these people whose fathers' fathers had established free thoroughfare where posted warnings and shotgun patrols now block every trodden trail. What is the sure result—and Grier was brutal! What could be expected? Why, Mr. Burleson, these people are Americans!—dwarfed mentally, stunted morally, year by year reverting to primal type—yet the fire in their blood set their grandfathers marching on Saratoga!—marching to accomplish the destruction of all kings! And Grier drove down here with a coachman and footman in livery and furs, and summoned the constable from Brier Bridge, and arrested old man Santry at his child's bedside—the new bed paid for with Grier's buck . . ."

She paused; with a long breath she straightened up and leaned back once more against the tree.

"They are not born criminals," she said. "See what you can do with them—see what you can do for them, Mr. Burleson. The relative values of a deer and a man have changed since they hanged poachers in England."

They sat silent for a while, watching the men below.

"Miss Elliott," he said impulsively, "may I not know your father?"

She flushed and turned towards him as thought unpleasantly startled. That was only instinct, for almost at the same moment she leaned back quietly against the tree.

"I think my father would like to know you," she said. "He seldom sees men—men like himself."

"Perhaps you would let me smoke a cigarette, Miss Elliott?" he ventured.

"You were very silly not to ask me before," she said, unconsciously falling into his commonplace vein of easy deference.

"I wonder," he went on lazily, "what that debris is on the land which runs back from the store at Fox Cross-roads. It can't be that anybody was simple enough to go boring for oil."

She winced; but the smile remained on her face, and she met his eyes quite calmly.

"That pile of debris," she said, "is, I fancy, the wreck of the house of Elliott. My father did bore for oil and found it—about a pint, I believe."

"Oh, I beg your pardon," cried Burleson, red as a pippin.

"I am not a bit sensitive," she said. Her mouth, the white, heavy lids of her eyes, contradicted her.

"There was a very dreadful smash-up of the house of Elliott, Mr. Burleson. If you feel a bit friendly towards that house, you will advise me how I may sell 'the Witch.' I don't mind telling you why. My father has simply got to go to some place where rheumatism can be helped—be made bearable. I know that I could easily dispose of the mare if I were in a civilized region; even Grier offered half her value. If you know of any people who care for that sort of horse, I'll be delighted to enter into brisk correspondence with them."

"I know a man," observed Burleson, deliberately, "who would buy that mare in about nine-tenths of a second."

"Oh, I'll concede him the other tenth!" cried the girl, laughing. It was the first clear, care-free laugh he had heard from her—and so fascinating, so delicious, that he sat there silent in entranced surprise.

"About the value of the mare," she suggested, diffidently, "you may tell your friend that she is only worth what father paid for her—"

"Good Lord!" he said. "that's not the way to sell a horse!"

"Why not? Isn't she worth that much?"

"What did your father pay for her?"

The girl named the sum a trifle anxiously. "It's a great deal, I know—"

"It's about one-third of what she is worth," announced Burleson. "If I were you, I'd add seventy-five per cent, and hold out like—like a demon for it."

"But I cannot ask more than we paid—"

"Why not?"

"I—don't know. Is it honorable?"

They looked at each other for a moment, then he began to laugh. To her surprise, she felt neither resentment nor chagrin, although he was plainly laughing at her. So presently she laughed, too, a trifle uncertainly, shy eyes avoiding his, yet always returning curiously. She did not know just why; she was scarcely aware that she took pleasure in this lean-faced young horseman's company.

"I have always believed," she began, "that to sell anything for more than its value was something as horrid as—as usury."

"Such a transaction resembles usury as closely as it does the theory of Pythagoras," he explained; and presently their laughter aroused the workmen, who looked up, leaning on spade and pick.

"I cannot understand," she said, "why you make such silly remarks or why I laugh at them. A boy once affected me in the same way—years ago."

She sat up straight, a faint smile touching her mouth and eyes. "I think that my work is about ended here, Mr. Burleson. Do you know that my pupils are enjoying a holiday—because you choose to indulge in a forest-fire?"

He strove to look remorseful, but he only grinned.

"I did not suppose you cared," she said severely, but made no motion to rise.

Presently he mentioned the mare again, asking if she really desired to sell her; and she said that she did.

"Then I'll wire tonight," he rejoined.

"There should be a check for you day after tomorrow."

"But suppose the man did not wish to buy her?"

"No chance of that. If you say so, the mare is sold from this moment."

"I do say so," she answered, in a low voice, "and thank you, Mr. Burleson. You do not realize how astonished I am—how fortunate—how deeply happy—"

"I can only realize it by comparison," he said.

What, exactly, did he mean by that? She looked around at him; he was absorbed in scooping a hole in the pine-needles with his riding-crop.

She made up her mind that his speech did not always express his thoughts; that it was very pleasant to listen to, but rather vague than precise.

"It is quite necessary," he mused aloud, "that I meet your father—"

She looked up quickly. "Oh! have you business with him?"

"Not at all," said Burleson.

This time the silence was strained; Miss Elliott remained very still and thoughtful.

"I think," he said, "that this country is only matched in paradise. It is the most beautiful place on earth."

To this astonishing statement she prepared no answer. The forest was attractive, the sun perhaps brighter than usual—or was it only her imagination due to her own happiness in selling The Witch?

"When may I call upon Mr. Elliott?" he asked suddenly. "Tonight?"

No; really he was too abrupt, his conversation flickering from one subject to another without relevance, without logic. She had no time to reflect, to decide what he meant, before, crack—he was off on another trail—and his English no vehicle for the conveyance of his ideas.

"There is something," he continued, "that I wish to ask you. May I?"

She bit her lip, then laughed, her gray eyes searching his. "Ask it, Mr. Burleson, for if I lived a million years I'm perfectly certain that I could never guess what you are going to say next."

"It's only this," he said, with a worried look, "I don't know your first name."

"Why should you?" she demanded, amused, yet instinctively resentful. "I don't know yours, either, Mr. Burleson—and I don't even ask you."

"Oh, I'll tell you," he said, "my name is only John William. Now will you tell me yours?"

She remained silent, coping with a candor that she had not met with since she went to parties in a muslin frock. She remembered one boy who had proposed elopement on ten minutes' acquaintance. Burleson, somehow or other, reminded her of that boy.

"My name," she said carelessly, "is Constance."

"I like that name," said Burleson.

It was pretty nearly the last straw. Never had she been conscious of being so spontaneously, so unreasonably approved of since that wretched boy had suggested flight at her first party. She could not separate the memory of the innocent youth from Burleson; he was intensely like that boy; and she had liked the boy, too—liked him so much that in those ten heavenly minutes' acquaintance she was half persuaded to consent—only there was nowhere to fly to, and before they could decide her nurse arrived.

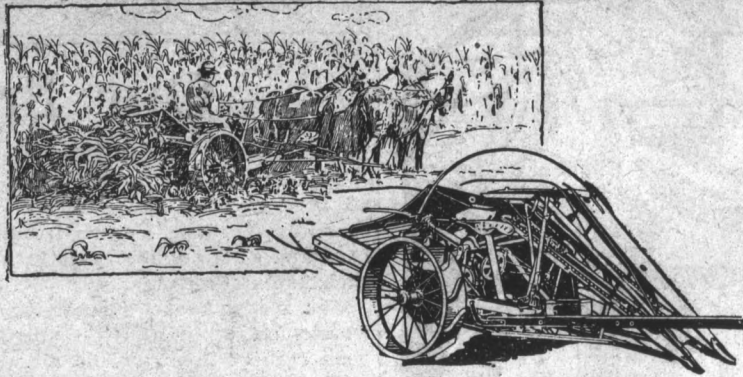
"If you had not told me your first name," said Burleson, "how could anybody make out a check to your order?"

"Is that why—" she began, and without the slightest reason her heart gave a curious little tremor of disappointment.

"You see," he said, cheerfully, "it was not impertinence—it was only formality."

"I see," she said approvingly, and began to find him a trifle tiresome.

(Continued on page 947).



Corn Harvest Satisfaction

TO harvest corn with a corn knife means many men and much hard work and expense. Farmers of experience know the satisfaction of using a good corn binder. McCormick and Deering corn binders are built for such farmers.

Simple in construction, light in weight and compact, two horses will easily handle one of these binders in most conditions of corn, while a tractor or three horses give power enough to harvest 5 to 7 acres of corn a day, bind the corn into neat, easily handled bundles, and load them on a wagon to be taken to the ensilage cutter or husker and shredder.

McCormick or Deering Corn Binders

fortify farmers against danger of the loss of a part of the corn crop. A farmer need not worry about securing extra help, or paying high wages. He can be sure of having his corn safely harvested within the limited time in which the work must be done to get the full feeding value from the fodder or stover.

A nearby International dealer will point out to you the money and time saving features of these machines, or full information will be furnished by writing the address below.

International Harvester Company

of America, Inc.

Chicago

U S A

The Full Line of International Harvester Quality Machines

Grain Harvesting Machines

Binders Push Binders
Headers Rice Binders
Harvester-Threshers Reapers
Shockers Threshers

Tillage Implements

Disk Harrows
Tractor Harrows
Spring-Tooth Harrows
Peg-Tooth Harrows
Orchard Harrows Cultivators

Planting and Seeding Machines

Corn Planters Corn Drills
Grain Drills Broadcast Seeders
Alfalfa and Grass Seed Drills
Fertilizer and Lime Sowers

Haying Machines

Mowers Side Delivery Rakes
Comb. Side Rakes & Tedders
Tedders Loaders (All types)
Baling Presses Rakes
Sweep Rakes Stackers
Comb. Sweep Rakes & Stackers
Bunchers

Belt Machines

Ensilage Cutters Corn Shellers
Huskers and Shredders
Hay Presses Stone Burr Mills
Threshers Feed Grinders
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Power Machines

Kerosene Engines
Gasoline Engines
Kerosene Tractors
Motor Trucks
Motor Cultivators

Corn Machines

Planters Motor Cultivators
Drills Ensilage Cutters
Cultivators Binders Pickers
Shellers Husker-Shredders

Dairy Equipment

Cream Separators (Hand)
Cream Separators (Belted)
Kerosene Engines
Motor Trucks Gasoline Engines

Other Farm Equipment

Manure Spreaders
Straw Spreading Attachment
Farm Wagons Stalk Cutters
Farm Trucks Knife Grinders
Tractor Hitches Binder Twine

Western Canada's "Horn of Plenty" Offers You Health & Wealth

Western Canada for years has helped to feed the world—the same responsibility of production still rests upon her. While high prices for Grain, Cattle and Sheep are sure to remain, price of land is much below its value.

Land capable of yielding 20 to 45 bushels of wheat to the acre can be had on easy terms at from \$15 to \$30 per acre—good grazing land at much less.

Many farms paid for from a single year's crop. Raising cattle, sheep and hogs brings equal success. The Government encourages farming and stock raising. Railway and Land Co's. offer unusual inducements to Home Seekers. Farms may be stocked by loans at moderate interest. Western Canada offers low taxation, good markets and shipping; free schools, churches and healthful climate. For particulars as to reduced railway rates, location of land, illustrated literature, etc., apply to Supt. of Immig., Ottawa, Can., or

M. V. McInnes, 178 Jefferson Ave., Detroit, Mich.
Canadian Government Agent.

WESTERN CANADA
Farm Lands at Low Prices
The Wheat Belt of America

R. K. TIRES ARE RETREADED

They wear like iron because Quality as well as Quantity is part of them. More fabric and as much rubber as a new tire because they are double treaded—double chain stitched—cheaper by half—and not one dissatisfied customer in our long business career.

The following are the little prices of our guaranteed tires.

Size	Price	Size	Price
30x3	\$ 7.00	34x4	\$12.00
30x3 1-2	8.50	34x4 1-2	13.50
32x3 1-2	9.00	35x4 1-2	14.00
33x4	11.50	36x4 1-2	14.50

Add \$1.00 to the above for Non-Skid Tire
2 percent off for cash with order.
10 percent deposit required with all C.O.D. orders

R. K. Tire Company

837 No. Broad St. Philadelphia, Pa.

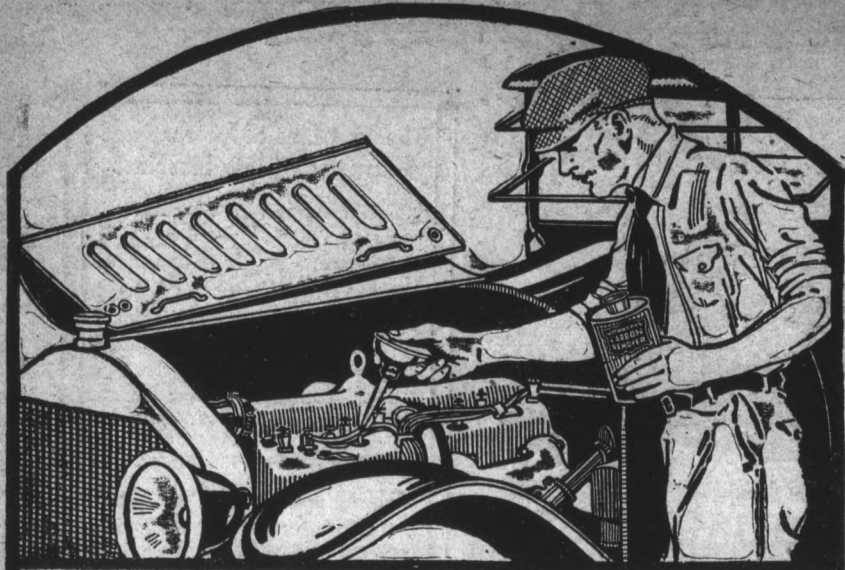
Send for descriptive booklet and price list.
Good Territory Open for Live Agents

Unusual Opportunities for Veterinary Surgeons

MICHIGAN AGRICULTURAL COLLEGE
offers complete veterinary course, open to high school graduates in preparation for this work.

For particulars write
R. P. LYMAN, Dean, East Lansing, Michigan.

Please Mention The Michigan Farmer When You Write to Advertisers



Put New Life In Your Engine

A dose of Johnson's Carbon Remover, the engine laxative, will cure 80% of engine troubles. It will increase the power of your car—improve acceleration—stop that knock—quiet your motor—save your batteries—cut down repair bills—and reduce your gas and oil consumption.

Use It Every 500 Miles

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Our Boys' and Girls' Page

Our Prize Contest

DEAR BOYS AND GIRLS:

The contest letters this week were all good and we had a difficult time selecting the three below. I think our boys and girls are fortunate in having such fine mothers.

Our mothers are surely the best women on earth and we must take good care of them and do all we can to make them happy and proud of us. Vacation time is here and we can do much to help mother in the little tasks about the house, and especially by being good boys and girls, and not getting into any more mischief than we can help.

Sincerely yours,
Editor Boys' and Girls' Dept.

FIRST PRIZE.

Why I Think Mother the Best Woman on Earth.

I think mother the best woman on earth because when I spilt almost a

gave me something to help, and the same when I had the toothache she always had something for it. I was often sick and needed her help and she always helped me.

And when it comes to animals, she is awful good to them. She takes care of the chickens and they ain't a bit afraid of her. She milks some of the cows, and if anyone else milks them they don't like it a bit and sometimes kick the one who is milking them, and the little calves like her very much and are glad when she pets them. All the cats like her for she is very good to them. We had a gray cat we called "Spoon," but she liked her so well she followed her all over, even to a place two miles away. She likes to take care of the little chickens and feed them. Sometimes she feeds the little pigs because she likes them, and in the house she keeps everything spick and span as she is careful with everything she has, especially the stove and



Gertrude Ewalt and Seven Pure-bred Scotch Collie Puppies.

full bottle of ink on her nice white tablecloth she never scolded a bit, but put it to soaking in some nice warm milk.

She can think of the nicest games to play, and all sorts of good books to read.

My mother puts up the dinners for school when there is school, and she buys the prettiest clothes for me to wear.

Of course, my mother cannot play running games for she is not strong enough.

I think she is the best mother on earth because she loves me better than any other person on earth and she pays for my music lessons.

She always wants me to go to Sunday school.

But even if she cannot play running games she can play table games. She lets me have parties for my friends. My mother can tell the best stories you ever could read. She always wants me to be a good girl. And every night when I am asleep she comes and covers me up and kisses me.—Rosina J. Colby, Denton, Mich. Age eleven ears.

HONORABLE MENTION.

Why I Think my Mother is the Best Woman on Earth.

I think mother is the best woman on earth because when I was a baby she tended me and when I was sick she always took care of me, and when my throat got sore she always gave me something to gargle my throat with, and when my ear ached she always

separator, and the things she bakes are the best you can imagine.—Bonnie Gillness, Suttons Bay, Mich. Age eleven years.

HONORABLE MENTION.

Why I Think my Mother is the Best Woman on Earth.

I have a number of reasons for thinking that mother is the best woman on earth.

She always takes very good care of me; she keeps my clothes clean and pressed. If I am ill mother gives me medicine to make me well again.

Mother likes to give me nice surprises, such as baking fancy cakes for me, or planning a trip with her to grandmas.

Sometimes she goes fishing or rowing with me and sometimes we go to the woods after wild flowers.

Every Christmas I get a nice book from her and she seems to know what kind of books I like best.

She never goes to town without bringing me some candy. Sometimes she brings me a box of chocolates for she knows that is my favorite candy.—William Morgan, Milford, Mich. Age twelve years.

CLUB NOTES.

The monthly training school for club leaders, which was held in Grand Rapids on June 6-7, was a most successful one. Follow-up work and club activities were the themes of the conference. Fifty-seven club leaders, repre-



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sending sixteen counties, enrolled. One of the most pleasant features of the program was a garden play presented by the members of the Walker School Garden Club and a flower dance, presented by the girl members of the Blodgett Home Garden Club. All of the club leaders present attended the Round-up and Achievement Day of the Kent County Clubs, as the closing feature of the training school.

The fourth annual training school will be held at the Agricultural College, East Lansing, July 7-12. At this time, club leaders and others interested in boys' and girls' club work, from over the entire state, will come to the college for a week's conference on boys' and girls' club work.

Mr. W. A. Anderson has recently joined the state staff. Mr. Anderson is a graduate of the Ludington High School and M. A. C. with the Class of '17. Since graduating he has been engaged in boys' and girls' club work until entering military service, from which he has but recently been discharged. Mr. Anderson will have particular charge of crop projects.

Mr. Glen S. Kies, Ingham County club leader, has an all-star club whose membership is made up only of those club members who won championships in their respective clubs last year.

THE FIRE WARDEN.

(Continued from page 945).

Meanwhile he had confidently skipped to another subject. "Phosphates and nitrogen are what those people need for their farms. Now if you prepare your soil—do your own mixing, of course—then begin with red clover, and plow—"

Her gray eyes were so wide open that he stopped short to observe them; they were so beautiful that his observation continued until she colored furiously. It was the last straw.

"The fire is out, I think," she said, calmly, rising to her feet; "my duty here is ended, Mr. Burleson."

"Oh—are you going?" he asked, with undisguised disappointment. She regarded him in silence for a moment. How astonishingly like that boy he was—this six-foot—

"Of course I am going," she said, and wondered why she had said "of course" with emphasis. Then she whistled to her mare.

"May I ride with you to the house?" he asked, humbly.

She was going to say several things, all politely refusing. What she did say was, "Not this time."

Then she was furious with herself, and began to hate him fiercely, until she saw something in his face that startled her. The mare came up; she flung the bridle over hastily, set foot to metal, and seated herself in a flash. Then she looked down at the man beside her, prepared for his next remark.

It came at once. "When may we ride together, Miss Elliott?"

She became strangely indulgent. "You know," she said, as though instructing youth, "that the first proper thing to do is to call upon my father, because he is older than you, and he is physically unfit to make the first call."

"Then by Wednesday we may ride?" he inquired, so guilelessly that she broke into a peal of delicious laughter.

"How old are you, Mr. Burleson? Ten?"

"I feel younger," he said.

"So do I," she said. "I feel like a little girl in a muslin gown." Two spots of color tinted her cheeks. He had never seen such beauty in human guise, and he came very near saying so. Something in the aromatic mountain air was tempting her to recklessness. Amazed, exhilarated by the temptation, she sat there looking down at him; and her smile was perilously innocent and sweet.

(Continued next week).

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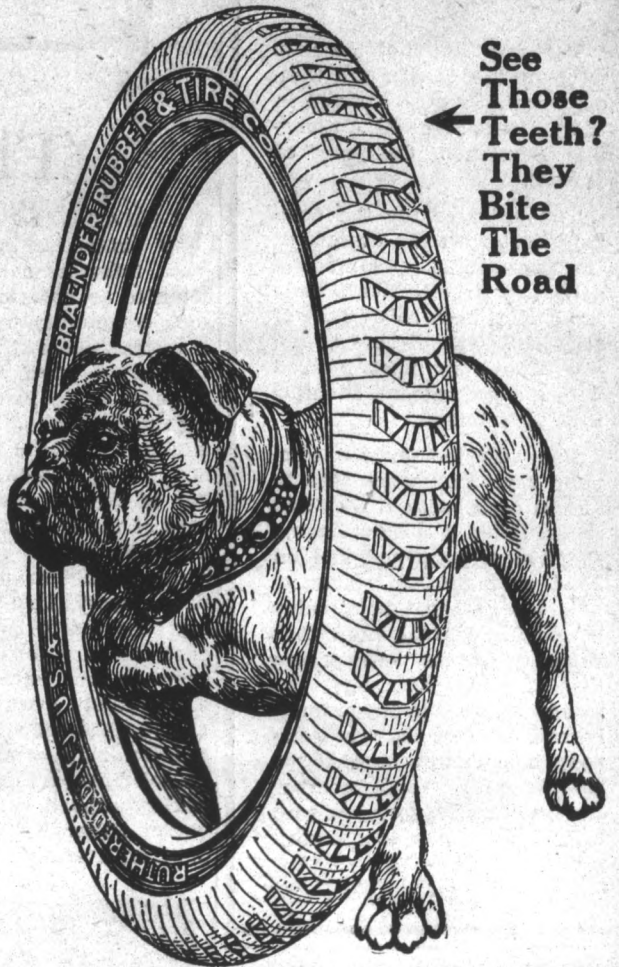
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ECONOMY FEEDER

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GARAGE FIRE

Flint, Mich., June 17.

The four automobiles that were in the garage fire Sunday morning were insured in the Citizens' Mutual Automobile Insurance Company at Howell.

The adjuster for the company met with the owners of the automobiles and made a satisfactory settlement, making a total cash settlement of \$3,249.00. The owners of the cars were very much pleased with the prompt and satisfactory adjustment.

The adjuster for the company said they were able to pay in cash because they had accumulated a surplus during the five seasons and had on hand over \$80,000. Automobile owners who take a policy in the Big Mutual know that when a serious loss occurs that the company has the money on hand to pay promptly, and the fact that the company has written over 46,000 policies gives each member the benefit of a very low rate of insurance due to quantity production.

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HOFSTRA

Kills Garden Pests

Hofstra is the greatest insect destroyer known. An entirely different and better powder. Spray it with a Hofstra bellows gun. Slay bugs and worms by the hundreds.

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Harmless to Humans

Safe to use anywhere. Harmless to vegetables from garden to table. Kills bugs and worms by sealing skin pores through which they breathe. Get you a gun and knock 'em dead.

If Your Dealer Hasn't It Send 15c for Trial Gun

Sold at grocers and druggists: 15c metal gun; 25c, 50c, \$1.00 packages. Gun post paid 15c loaded ready to use if dealer hasn't it.

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If you could buy barn paint for 50 cents per gallon, it would still cost nearly twice as much to paint your barn with it, as it would cost to paint the same barn with WEATHERWAX Liquid Paint. Write for free color card and prices. Sold by good dealers everywhere, or direct, freight paid, where we have no dealer. Address, **THE REILLY COMPANY, Indianapolis, Indiana.**

A Special Clubbing Bargain

No. 2.

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"To Love and to Labor is the Sum of Living"—Moore

WOMEN'S SECTION



The Busiest Woman in the County

WHAT is the work of a home demonstration agent? A great many folks are asking the question in counties so unfortunate as to have no such community worker. And even in counties where the agent has been working for two years there is some haziness as to just what the agent is expected to do. I thought I was quite familiar with the work of these earnest young women until I read a number of reports gleaned from all corners of the state and donated by Miss Edna V. Smith, state leader of the home demonstration agents. From these reports I find that instead of being expected to conduct canning demonstrations, give talks and demonstrations on food values, organize poultry clubs, and work up home hot-lunch clubs in the schools, the home demonstration is a combination of visiting housekeeper, dressmaker, public nurse, poultry expert, social welfare worker, visiting library, school lunch propagandist, milk station manager, and new

other day, visiting a school situated next door to an old logging camp now occupied by a whole slew of Indians. About eight small savages came rushing out and swarmed along beside the car. When we reached the school-house the driver turned into the yard right at the youngsters. Like the Irishman on the railroad track one little squaw ran straight ahead of us, we following at a much lower rate of speed, and she had such a do-or-die expression on her face that we hurt ourselves laughing."

Pioneers, a few of the home demonstration agents are, it would seem from this girl's letter. There are twenty-one agents detailed for county work, nine in the upper peninsula. Five agents work only in cities, two in Detroit and one each in Saginaw, Flint and Grand Rapids. These agents, of course, do a much different line of work. In the cities, schools, women's clubs and municipal organizations cover the field so thoroughly that the

So far the work of the home demonstration agents has been done mostly in large groups, public canning and cooking demonstrations, lessons on sewing, textiles, etc. In some places the agents work through organizations already existing, the grange, farm bureau, Red Cross, etc. In others organizations have been formed. During the coming summer an effort is to be made to get into more personal touch with the women by work in small groups who meet in someone's home.

The underlying idea is to give each community just what it wants most. In some places the women are anxious to learn new ways of cooking and canning and to study food values. Again they want to learn how to judge clothes, to know whether they are getting linen or mercerized cotton. Along with this they want to know about cutting from patterns, remodeling old garments, how to buy to the best advantage, the use of the attachments on their sewing machine, in short, everything that pertains to sewing. Or it may be health is their theme. They want to know more about nursing. A class is organized and a nurse secured, in some localities through the Red Cross and in others through the extension department. In every case it is the aim of the agent to give her people what they want.

For the counties who have no agent there is another helper, the extension specialist. These workers go to any community where they are needed, without expense to the community. In some sections of the state the idea seems to prevail that these specialists will not be sent unless the county has an agent, agricultural or home demonstration. This is not true, any community, no matter how isolated, may secure an extension specialist by writing to the Home Economics Extension office at East Lansing, Michigan.

The work of these specialists, whose state leader is Miss May Pierson, is somewhat similar to that of the home demonstration agents. They are ready to teach and to talk on any subject, food, clothing, child welfare, nursing—whatever the community requests. Recently there has been added a new line, a milk specialist. Miss Coral R. Havens, who has for two years demonstrated food and sewing, is now to hold demonstrations on milk, its proper care and use.

The individual reports of the agents are so interesting that extracts from some of them will be given in a later issue.

DEBORAH.



Home Demonstration Agents Are Prepared to Discuss any Farm Home Problem; these Women Asked Help in Poultry Culling.

voters' guide to the people of her community. In short, in the words of St. Paul, she must "become all things to all men, that by all means she might save some."

One agent writes: "A home demonstration agent needs sixteen years of college and another sixteen years of practical experience. Do you blame me for wanting to join the army? Health and a good digestion are necessities, too. I believe that inoculations given me several weeks ago are all that have saved me from dying of the cold. I have been riding in the cold from noon until six o'clock and from eight until midnight or two-thirty, with a meeting in between, nearly every day for two weeks and haven't a cold. The remark about good digestion was caused by a queer experience on Thanksgiving Day. I was here and there all day and had three good meals all three being eaten between 11:00 a. m. and 2:00 p. m.

"Many schools are interested in clubs and are anxious for suggestions. Others asked about community churches, Y. M. C. A. work, food and almost anything you could think of. Some are anxious that table setting and etiquette be a part of the hot-lunch club work. Others want bulletins on etiquette. I always try to give what they want, even though it is a surprise to me.

"We were up in the wild woods the

work of the home demonstration agents is not so diversified. Demonstrations of substitutes and canning took up a great deal of time during the war, and the canning demonstrations will be continued in some places during this summer. In Detroit, Flint, and Saginaw, milk stations have been established where skim-milk is sold to the poor and its proper use taught them. In Detroit the milk is bought for three cents per quart and sold for five. In Saginaw it is bought for ten cents and sold for six. The deficit is made up from funds raised by the federation of clubs.

Cold Pack Your Vegetables

Household Editor:—Please tell me how to can garden peas, and also strawberries.—Mrs. L. B. Manton.

METHODS of canning strawberries were given last week.

There is but one sure way to can peas, or in fact, any vegetable, and that is the cold-pack method. This method has been described over and over again, but for the benefit of those who have not kept the articles it will be given once more. Cut out the time-table and paste it where you can always have it.

The vegetable, whether peas, asparagus, string beans, corn or greens,

should be canned immediately after picking before it has a chance to wilt. Clean thoroughly. The next step is blanching. This means cooking for a limited time, one to fifteen minutes, in a boiling water or live steam. This is best done by tying the vegetable in a square cheesecloth of a size convenient to fit easily into your kettle. After blanching the exact time mentioned in the table remove the cheesecloth containing the vegetable from the boiling water or steam and dip immediately into cold water. The cans, tops and rubbers should be ready ster-

ilized, that is, put over in cold water, brought to a boil and boiled not less than five minutes. Pack your cans with the vegetable; it should not be allowed to remain in the cold water, merely dipped in and at once removed and allowed to drip, fill with boiling water to overflowing, put on the rubbers and tops, turning the tops down until they just touch the rubbers but not tight. Then place immediately in your canner, cover the top, and process-cook the time given in the table. If you use a hot water bath the water must come up two inches above the tops of the cans. It must be boiling when the cans are entered and kept boiling the entire time. Enter each can as fast as filled. If you leave them standing on the table until all are filled, they become chilled and crack when put into the hot water.

A time table for fruits and vegetables most usually put up follows, the time being expressed in minutes:

	Processing.	Hot Water Bath.	Water Seal.	Steam Pressure.
*Blanching.				5 to 10 lbs.
St'wberries ... none	16	12	10	
Raspberries ... none	16	12	10	
Huckleberries ... none	16	12	10	
Plums ... none	16	12	10	
Grapes ... none	16	12	10	
Currants ... none	16	12	10	
Cherries ... none	16	12	10	
Blackberries ... none	16	12	10	
Peaches ... 1/2	16	12	10	
Quinces ... 1 1/2	20	2	8	
Greens ... 15	120	90	60	
Peas ... 5 to 10	180	120	90	
Lima beans ... 5 to 10	180	120	60	
Beans ... 5 to 10	120	90	60	
Corn (sweet) ... 5	180	120	90	
Corn (field) ... 10	180	120	60	
Tomatoes ... 1 1/2	22	18	15	
Poultry and game ... none	180	180	120	
Beef ... none	180	180	120	

*Where blanching is necessary the hot water method is used with all the above products except with "greens," in which case steam is required.

When the time is up remove, tighten the tops and turn upside down to see if they leak. If they do, remove top, put on new sterilized rubber and boil ten minutes longer.

If you can not buy a commercial canner you can use your boiler, a lard can, large kettle or pail. Put a small board with holes bored in it in the bottom to rest the cans on, otherwise they are likely to break. Do not use paper or straw packed down. The department of agriculture finds this method unsatisfactory. A slat bottom like a basket cover will do. Good commercial canners may be bought for \$4.50 or \$5.00. If you have a great deal of canning to do it would pay you to buy one.

In canning peas handle carefully so as not to break the skin. If the skin is broken the liquid becomes "cloudy." This does not spoil the vegetables, but gives them a bad appearance. In canning corn it is better to cut just enough off the cob for one can at a time. Corn that is packed slowly becomes soaked or "water-logged." When the directions say to blanch in steam, lay your cheesecloth in a steamer over boiling water instead of dipping directly into the kettle.

FROM ONE HOUSEKEEPER TO ANOTHER.

All porch boxes should have castors on them. It saves calling a man when they are to be moved, and they cost but a small amount. Put them on everything that is too heavy to be lifted.—Mrs. J. J. O'C.

A spoonful or more of lemon juice or good cider vinegar added to apples that do not cook readily will hasten the process and improve the flavor.—M. A. P.

Keep a black board eraser near the kitchen range and use it to brush off dust or ashes when you have not time to polish the stove.—Mrs. L. M. T.

Do Not Waste Time and Money

They are precious and it is a crime to waste either.

If you have the money to spare and time to give, employ both in recreation or benevolent enterprises.

Then you or somebody else is deriving benefit from the expenditure.

Don't waste them by purchasing inferior quality goods because they may be bought for a few cents less for, in the long run, the best is none too good and plenty expensive enough.

When you buy flour insist on having

Lily White

"The flour the best cooks use"

The first cost is generally a little higher but when the totals are all figured up you will find it less expensive than the lower priced flours.

There is no waste to LILY WHITE FLOUR. It is all flour, every bit of it.

All undesirable material is eliminated during the process of making. Of course if the cheaper material were to be left in the flour instead of being separated the flour would sell for less money, but it would not all be flour.

When you buy flour you want flour, all flour, and that is just what you get when you buy LILY WHITE, "The flour the best cooks use."

Furthermore, spoiled bakings and disappointments because of unsatisfactory results will be a thing of the past.

Be contented, be happy, be richer by using LILY WHITE FLOUR, "The flour the best cooks use."

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POULTRY

Summer Prices on Chicks

350,000 FOR 1919

By Parcel Post Prepaid. Delivered to You. Guarantee Live Delivery.

Our chicks are from pure bred farm stock that are hatched right, have utility and exhibition quality. S. C. White and Brown Leghorns at 12 cts; B. C. and S. C. Reds and S. C. Anconas 15 cts; Barred Rocks, 15 cts; White Wyandottes and S. C. Black Minorcas 18 cts. Odds and Ends 12 cts. The above prices include our very best grade of chicks. Give us your order and we will do all we can to make you a satisfied customer the same as hundreds of others. Order direct from this ad or send for free catalog.

HUBER'S RELIABLE HATCHERY
EAST HIGH ST., FOSTORIA, OHIO.

Buff Leghorns, and White Leghorns, great laying strains, satisfaction guaranteed. Dr. WILLIAM SMITH, Petersburg, Mich.

400 WHITE LEGHORN Yearling Pullets

These fine S. C. Leghorns with a colony laying record during their first laying season, will make valuable stock for the farmer poultryman on the coming year. They will be sold in lots of 6, 12, 25, 50, and 100—August delivery. Write for description, laying record & price.

Fall Chicks for Spring Layers—White and Brown Leghorns; Anconas; Black Minorcas; Barred Rocks; Hatching eggs, all breeds.

Cockerals, Guineas, Ducks, Geese, Turkeys, for fall delivery.

Rabbits—Belgians; New Zealands; Flemish Giants. Send for explanation of fall chicks and illustrated catalog.

BLOOMINGDALE FARMS ASSOCIATION,
Bloomington, Michigan

Barred Rocks Exclusively. Baby chicks all sold. Thanks to all our customers. Order early for next season. H. H. Pierce, Jerome, Mich.

Barred Rock Eggs 15 for \$1.50, postpaid. 62 hens laid 8867 eggs last year; average 140 eggs. Lewis B. Avery, Saline, Mich.

LOOK BABY CHICKS \$12 A 100 UP

By Special Delivery Parcel Post, postage paid 20 different thoroughbred breeds. Utility & Exhibition grades. Live delivery guaranteed. Capacity 100,000 weekly. Catalog free. Nabob Hatcheries, Gambier, Ohio.

OUR JULY CHICKS

Rose and Single Comb B. I. Reds and Barred Plymouth Rocks, should begin to lay in January or February. Vigorous, farm raised stock, bred for color and egg production. 25 chicks, \$4.25; 50, \$8.00; 100, \$16.00, prepaid by parcel post and safe delivery guaranteed. Interlakes Farm, Box 39, Lawrence, Michigan.

Blue CUSTOM HATCHING Hens

Fifteen dozen eggs incubated and chicks boxed and shipped prepaid \$8.75. Send eggs fresh well packed prepaid. Order July & August chicks now. Many varieties send for circulars. Crescent Egg Company, Allegan, Mich.

CHICKS AND PULLETS

Barron strain. From high producing hens that are bred right and handled right. All eggs from my own hens. Let us have at least three weeks to fill your order. Prices reasonable. Write for circular. FOLLY COVE FARMS, R. R. 1, Holland, Mich.

30,000 Fine, Husky Baby Chicks For July delivery, sent safely everywhere by mail. White Leghorns, \$12.00 a 100; \$6.25 for 50; Anconas, \$14.00 a 100; \$6.25 for 50. Order direct. Prompt Shipment. Strong, vigorous stock of grand laying strains. Full satisfaction guaranteed. Free catalogue. W. Van Appledorn, R. 7, Holland, Mich.

Barred Rock Chicks and eggs from healthy heavy layers. Price reduced. Catalog free. T. C. SMITH, Route G, Charabuseo, Indiana

CUT PRICES—Baby Chix, Low Prices on Eggs—Varieties, Bar. Rocks, S. C. Wh. Leghorns, Reds, W. Wyandottes, Buff & Wh. Orpingtons. Special Sale Circular. Goshen Poultry Farms, R. 19, Goshen, Ind.

BABY CHICKS—11 Varieties, \$10 per 100 up, 2 weeks old 25c up, 4 weeks 45c up. Hatching eggs \$1.50 per 15 and \$3 per 100. Brd. White and Buff Rks. Buff and White Orp., S. & R. C. R. I. Reds, White Wyand., S. C. W. Leg., S. & R. O. Br. Leg., Alredale Pups, Cir. free. Sunny Side Poultry Farms & Hatchery, Blanchester, O.

Barred Rocks egg contest winners, eggs from strain with records to 220 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich.

Baby Chicks: S. C. White and Brown Leghorns. Good laying strains of large white eggs. Guaranteed to reach you in first class condition by parcel. Catalogue with price list free. WOLVERINE HATCHERY, R. 2, Zeeland, Mich.

Laybilt S. C. W. Leghorns

Large, great layers, pure white. "Our hobby." Strong Day-Old Chicks. Hatch every week, but please order in advance. 15c each in lots of 25 or over. Guaranteed delivery full count alive and lively—parcel post paid. Choice cocks, cockerals, hens & pullets after July 1st. V. A. MORSE, Ionia, Mich.

Fowler's Buff Rocks Cockerels \$4 up. Utility eggs for hatching \$2.00 for 15. R. B. FOWLER, Hartford, Mich.

Chix 15c up 75,000 selected utility, exhibition, trap-nested chicks, always 3000 on hand. Some 10 days old, several varieties. Hatching eggs. Catalogue Beckman Hatchery, 26 E. Lyon, Grand Rapids, Mich.

Baby Chicks S. C. White & S. C. Brown Leghorns. July chicks from bred-to-lay farm range stock. Price was \$15, now \$12 per 100 by parcel post prepaid. Order direct from this ad. Sunnybrook Poultry Farm, Hillsdale, Mich.

For sale "Buy the Best" eggs for hatching from 200 egg strain Barred Plymouth Rock. \$2.00 per 15, \$5.00 for 45 eggs. H. B. PROCTOR, Grand Haven, Mich.

Rhode Is'and Whites for eggs and meat; 15 eggs \$2.50, 30 eggs \$4.00. Chicks for sale. H. H. JUMP, Jackson, Mich.

R. C. Brown LEGHORNS, M. Pekin Ducks, W. Chikese Geese. Place orders early for young stock. Mrs. Claudia Betts, Hillsdale, Mich.

S. C. Brown Leghorns. Heavy laying strain. Farm range. Eggs 15 \$1.25; 30 \$2.25; 45 \$3; 100 \$6. Postpaid. Floyd Robertson, R. 1, Lexington, Ind.

Snowy White Rocks Fishel Strain, dandy layers. Eggs \$1.50-15; \$4-50; \$7-100. All prepaid. Mrs. Earl Dehnhoff, Vanburen, Ohio

S. C. B. Minorcas. Eggs from pen 1, \$3.00 per 15. Setstock. Eggs by P. post prepaid \$3.00 per 15, \$5.00 per hundred. R. W. MILLS, Saline, Mich.

Silver, Golden & White Wyandottes from fine quality Setstock. Eggs by P. post prepaid \$3.00 per 15, \$5.00 per 50. O. W. Browning, R. 2, Portland, Mich.



**Increase all Your Crops with
Our High Grade
BUFFALO BRANDS
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AGENTS wanted in un-occupied territory. Write us for prices and terms.

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**A bull calf, sired by our imported
"EDGAR of DALMENY"**

recently sold in Scotland at the Perth Bull Sale for the record price of 2,100 guineas, or \$10,584.00 in our money. This goes to show the quality of the

ABERDEEN ANGUS

that Mr. Scripps is breeding. He enjoys seeing good stock on "Wildwood" and believes that **THE BEST IS NONE TOO GOOD.**

"Edgar of Dalmeny" won the Michigan Grand Championship last September at the Michigan State Fair and was a winner in his class at the Chicago International last December.

"We have a few females with calves at foot and re-bred to 'Edgar of Dalmeny' that Mr. Scripps has consented to sell to reduce the fast growing herd. Write To

**WILDWOOD FARMS
ORION, MICHIGAN**

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

WOODCOTE ANGUS

Established in 1900.

TRAJAN-ERICAS and BLACKBIRDS (Blackcaps).
Breeders and feeders of many International winners.

Write For 1919 Bull Sale Catalogue

WOODCOTE STOCK FARM, Ionia, Mich.

LONGWOOD ANGUS: A choice lot for sale, also a few cows and heifers. **MARSHALL KELLY, R. R. 10, Charlotte, Michigan.**

Cloverly Angus Bred cows, heifers and bull calves of good breeding. **GEO. HATHAWAY & SON, Ovid, Mich.**

FOR SALE: Six registered Aberdeen Angus Bulls, one year old. Prices reasonable. **LANG BROS., Davison, Michigan.**

**REGISTERED
GUERNSEYS**

Just two young yearling bulls left, ready for service. Come and look them over quick, or write. They are the good ones. Priced to sell.

**AVONDALE STOCK FARM,
WAYNE, MICH.**

Registered Guernseys

Choice May Rose Bull Calves—at prices you can afford to pay. **J. M. WILLIAMS, North Adams, Mich.**



Haying and Harvesting Machinery

(Continued from page 935).

may then be plowed immediately after the grain is cut. These small stacks are carried to the thrasher in their entirety by means of a "buck" or sweep rake. Both the combined harvester-thresher and the stacker-harvester cut out the twine, shocking and stacking expense altogether and it is possible that these machines may work a revolution in harvest methods within the next decade.

Other new candidates as mechanical harvest hands are the sheaf gatherers and shock loaders. These machines differ greatly in design. Some of them are very bulky affairs, having a loading mechanism that picks up the bundles, either as they are scattered about the field or by taking whole shocks, and carries them in a large truck to the thrasher where they are dumped; the whole load at a time. Another type is a large fork-like device which is fastened to the side of any cage or basket rack and is driven by a chain from a rear wagon wheel. This fork serves to pitch whole grain shocks or hay cocks onto the load as the wagon is driven along, it not being necessary to stop the team.

In corn harvesting machinery the more recent improvements are an elevator attachment for use with corn binders for loading the bundles on a wagon which is driven along with the machine, a corn shock mover, and one other machine of considerably more interest, the silage harvester. This machine cuts the corn into silage direct from the standing stalks as it

is driven along the row and delivers cut silage to an accompanying wagon. This method is claimed to result in a great saving of man and horse labor over the use of the corn binder and stationary silo filler as now commonly in use.

Heavy agricultural machinery has also not been neglected. The thrasher has been equipped with the wing feeder which extending out over the grain stack greatly lessens the labor of pitching to the machine, and there are also special stacker hoods, and steering tongues that add to the economy, safety and convenience of these machines.

Heavy specialized crops have also received attention, there being sugar cane and hemp harvesters, and in California a combined bean harvester that picks up and threshes the beans direct from the windrow, and even onion growers have been provided with modern machinery, mechanical topper and a row weeder that eliminates eighty per cent of the hand weeding.

Of course, much of this machinery is of a specialized nature, both as to crop and the conditions to which it is adapted, and some of it is not sufficiently out of the experimental stage to have reached any standardization or permanency of design, but it will pay any farmer well who contemplates increasing his mechanical layout, to inform himself of all the market affords and not to part with his money until he knows that he is getting the machine best adapted to his needs. We are at the beginning of the mechanical age on the farm.

The Livestock Markets

THE cattle feeding proposition has been completely reversed since the great decline in prices for finished beef cattle has taken place, and not only are hundreds of farmers hesitating whether to take up cattle grazing and later corn finishing, but the banks and live stock commission men who are in the habit of extending financial aid to stockmen are much more conservative in making fresh loans on cattle paper and in renewing former loans. The Chicago market for beef steers is now down to a \$9.50 to \$15.50 basis, with an occasional sale of something extra prime at a higher figure, and the other day there was a sale of two loads of extra prime steers averaging 1,593 pounds at \$16.35. The bulk of the steers have been selling for \$12 to \$14.50, while stockers and feeders have brought \$8 to \$12.25, with few selling above \$12, even at the Missouri river. Michigan farmers have been buying cattle in the Chicago market to go on grass at \$10 to \$11. Grass is plentiful nearly everywhere in the feeding districts, but bankers and other money lenders are averse to loaning money at the present cost of cattle, insisting that borrowers with limited credit advance nearly half the cost. Larger margins are required than formerly as a matter of protection, although, after such a great fall as has taken place in prices, it hardly seems probable that the market will go off very much more. Comparisons with other years are interesting to those concerned in beef making, and it appears that a year ago steers sold at \$11.75 to \$18, two years ago at \$9 to \$13.75, three years ago at \$8.25 to \$11.40 and four years ago at \$6.65 to \$9.45. Rapidly declining prices have

caused heavy marketing of cattle, but quite recently the receipts have been on a smaller scale, prices continuing to go lower, however. During the war the federal government took about \$9,000,000 of cattle paper because it had become necessary to take steps to encourage the production of beef at a time when the country was preparing for a war lasting for several years. Now, it is understood that the government is going to call in these loans by November, so that after that the banks and others may be expected to largely increase loans to cattlemen.—W. F.

RECORD PRICES FOR HOGS.

RATHER general surprise was caused by the recent Chicago boom in hogs which landed prime lots of light weight at \$21.60 per 100 pounds, exceeding by five cents the previous high record, which was made several weeks ago. The sentiment of the trade is one of great confidence in the market, and stockmen are not disposed to let up in making their holdings good and fat. Light weight butcher hogs continue to be market toppers, with the heavy butchers and light bacon hogs also selling extremely well. Hogs coming to market average extremely well in quality, their average weight being 231 pounds, which is five pounds less than a year ago. Yard speculators have taken a hand in the game, buying large numbers of hogs, with the purpose of reselling to the packers at a profit. Naturally, the rise in prices was followed by heavy marketing of hogs, some 55,000 hogs arriving in the Chicago stock yards on Wednesday last week, and a large break in prices took

(Continued on page

**District Managers
Wanted---**

**One of Our Men
Earns \$192 a
Week Representing
Cane Mola**

We need several more men as district managers. Cane Mola is a pure sugar cane molasses sold for stock feeding. A ton of Cane Mola equals a ton of corn meal in nutriment and when mixed with coarse feeds or roughage it makes them palatable and digestible. Not a "remedy" but a straight feed; the most economical feed livestock owners can buy.

We want energetic men of clean records who know something of livestock and who can sell. They will sell to livestock owners and also appoint agents. Will have several counties as exclusive territory. Backed by advertising. Should own auto. This is a life job for men who make good. Salary and commission.

Write for full details. Give references and past record. Enclose photo which will be returned. Write today.

Pure Cane Molasses Corp.
16 Exchange Place
New York City
Dept. E.

SOMETHING EXTRA IN GUERNSEYS—May Rose Bull Calf, Sired by St. Austell Dreadnought 34671, by Don Diavolo of Linda Vista, 23565, and from Miss Bess of Yellowdale, A. R. 583 lbs. B. F., and average record for three years of 510 lb. B. F. and a calf. Price \$200. Also several fine A. R. bulls of serviceable age. **BALLARD BROS., R. 4, Niles, Mich.**

Guernsey Pure Bred Bull Calves from one to two months old \$50 each "registered." **WALTER PHIPPS FARM, 80 Alfred St. Detroit, Mich.**

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

GUERNSEYS must reduce herd, so offer Glenwood breeding also bulls, all stock of A. R. breeding, herd tuberculin tested. **T. V. HICKS, Battle Creek, Mich.**



**HOLSTEINS
PROFITABLE**

Dr. O. H. Eckles of the University of Missouri found Holsteins highly profitable, as do all who own them. He says: "Thirteen years ago I bought four Holstein cows. One was sold, so that all the cows we now have came from the other three. We have sold \$5600 worth of blooded stock from the herd. In addition to that we have 38 head of females on hand, worth at an estimated value of \$200 per head—\$7600." Similar stories of success with Holsteins are really commonplace, so uniformly profitable is the purebred registered Holstein-Friesian breed. If interested in

HOLSTEIN CATTLE

Send for our booklets—they contain much valuable information.
HOLSTEIN FRIESIAN ASSOCIATION OF AMERICA, Box 164, Brattleboro, Vt.

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.**

**"Top-Notch"
HOLSTEINS**

The young bulls we have for sale are backed up by many generations of large producers. Buy one of these bulls, and give your herd a "push". Full descriptions, prices, etc. on request.

McPherson Farms Co., Howell, Mich.

\$75 gets 1 mo. old gdson Maplecrest Korn. Heng. is 27 lb. dam of Johan Heng. Lad. is 18.48 lb. dam of Cal. Jane Paul A. Dam my best milker. **M. L. McLAULIN, Redford, Michigan.**



CARPENTER'S SPECIFIC

World's Best Horse Tonic and Blood Purifier

Cures scratches, water farcy, stocked legs, inflamed and swollen patches on the skin, rough coats, etc. For Gargety and Bloody Milk in the cow. At your dealer or mailed post paid to any address 75c per package.

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

Reduces Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from Bruises or Strains; stops Spavin Lameness, allays pain. Does not blister, remove the hair or lay up the horse. \$2.50 a bottle at druggists or delivered. Book 1 R free.

ABSORBINE, JR., for mankind—an antiseptic liniment for bruises, cuts, wounds, strains, painful, swollen veins or glands. It heals and soothes. \$1.25 a bottle at druggists or postpaid. Will tell you more if you write. Made in the U. S. A. by W. F. YOUNG, INC., 288 Temple St., Springfield, Mass.



For keeping flies and many other insects off animals. Used and endorsed since 1885 by leading dairymen. Cows give 25% to 35% more milk during fly season if sprayed with Shoo-Fly.
\$1.25 worth \$20
in milk and flesh on each cow in a single season. Excellent for galls. Alays itching. Aids in healing cuts and sores. Excellent for lice and mites in poultry houses.
Send \$1.25 for enough Shoo-Fly to protect 10 cows 2 weeks, also our 3-tube gravity sprayer. Money back if not satisfactory. Name Express Office. Booklet FREE.
SHOO-FLY MFG. CO., 1334 N. 10th St., Phila.

CATTLE.

THE HOLSTEINS

At Maple Avenue Stock Farm are under Government supervision. The entire herd have just been tuberculin tested and not one reactor. A good place to buy that bull you are looking for, and I have two very fine, richly bred, and splendid individuals ready for any amount of service. I want to answer any question you may ask about them.

L. E. CONNELL, Fayette, Ohio

CLUNY STOCK FARM

100--REGISTERED HOLSTEINS--100
When you need a herd sire remember that we have one of the best herds in Michigan, kept under strict sanitary conditions. Every individual over 6 mos. old regularly tuberculin tested. We have size, quality, and production records backed by the best strains of breeding.

Write us your wants.
R. BRUCE McPHERSON, Howell, Mich.

The REEKDALE HERD

have sold the cow ady. and have for sale a 2-yr. old daughter of a 25 lb. cow, dark in color and due to freshen Oct. 15, 1919 to 27 lb. grandson of Maplecrest Korndyke Hengerveld. Also a yearling daughter of a 28 lb. son of Maplecrest Korndyke Hengerveld.

Arthur C. Reek, Imlay City, Mich.

NO more bull calves to offer until next fall. Place your order for one from next fall's crop. My herd is on the state and federal accredited herd list.
A. F. LOOMIS, Owosso, Mich.

Holstein Bull dropped May 25-19, a beauty, 4 white, dam 21.44. Price \$100 del. & reg. Write for photo and breeding. **J. Robt. Hicks,** St. Johns, Mich.

Registered Holstein Bull, ready for service, sire a 32 lb. son of the \$50,000 bull. Also bull calves from high record heifers. Write for Pedigree. **Sindlinger Bros.,** Lake Odessa, Michigan.

Registered Holstein Friesian Bull calves from 5 to 1 mo. old at \$75 each. 30 lb. Pontiac breeding. About evenly marked. **B. B. Reavey,** Akron, Mich.

For Sale: Bull calf born March 1st; well marked, sire Kingmaster Colantha Lad. Quality of the best, and at prices within reach of all. Write. **GEO. D. OLARKE,** Vassar, Mich.

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

"Winwood Herd"

REGISTERED
Holstein - Friesian Cattle

Sire in Service
FLINT MAPLECREST BOY

His sire is Maplecrest Korndyke Hengerveld. His three nearest dams each over 30 lbs. of butter in 7 days. His dam and granddam both made over 1232 lbs. of butter in one year. It is the yearly cow we are looking for to deliver the goods. Flint Maplecrest Boy's Dam is Gluck Vassar Bell, 30.57 lbs. of butter in 7 days and 121 lbs. in 30 days. Her butter fat test is 5.27. This looks about right to the man who goes to the creamery. We have bull calves from 2 weeks to 12 months old. From A. R. O. dams and sired by Flint Maplecrest Boy, which we will sell at a dairy farmers price breeding considered. Just think 40 more cows to freshen which means more bull calves. Let us know your wants. We will make terms on approved notes.

JOHN H. WINN, Inc.

Lock Box 249, Roscommon Mich.
Reference Roscommon State Bank.

REGISTERED heifer and bull calves, of the best breeding in Holsteins for sale. Special price on 2 heifers and bull. **O. H. GIDDINGS,** Gobleville, Mich.

JERSEY BULLS

Ready for service FOR SALE
WATERMAN & WATERMAN, Ann Arbor, Mich.

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

Maple Lane R. of M. Jersey herd. Bull and heifer calves sired by a nephew the new World's Champion, Sophie's Agnes. Also R. O. Red eggs and chicks. **IRVIN FOX,** Allegan, Mich.

LILLIE Farmstead Jerseys. Young bulls ready for service from R. of M. cows. A few bred heifers and cows. **COLON C. LILLIE,** Coopersville, Mich.

For Sale Jersey Bull, Goldie Foxhall Lad No. 170446, Sire Poggis Foxhall No. 123549 Dam Goldie Sophia No. 352783, this bull is solid color, black tongue and switch, dropped Mar. 10th, 1918, an extra fine individual, good enough that I will ship him C. O. V. Also a few bull calves.
NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.

The Wildwood Jersey Farm.

Bulls for sale by Majesty's Oxford Fox 13214 and Eminent Lady's Majesty 150934, and out of R. of M. Majesty dams. **ALVIN BALDEN,** Capac, Mich.

For Sale Registered Jersey bulls ready for service and bull calves.
SMITH & PARKER, R. 4, Howell, Mich.

HEREFORDS

8 bulls from 7 to 10 months old, Prince Donald and Farmer breeding for sale.

ALLEN BROS., Paw Paw, Mich.

Harwood's White Faces

KEEP ON 698019
A Ton Bull Heads the Herd

The beef cattle of the day. Only 2 yearling bulls left. My 1918 crop of bulls ready for sale. Will spare a few females. You can not make a better investment. I wish to thank my customers for past favors.

JAY HARWOOD, Ionia, Mich.

Herefords Polled and Horned blood lines embrace Fairfax. Polled Perfection and Prime Lad 9th breeding. Prices reasonable.
COLE & GARDNER, Hudson, Mich.

Herefords Bob Fairfax 494027 at head of herd. Stock for sale, either sex, polled or horned, any age. Priced right. **EARL C. McCARTY,** Sec'y. H. B. Ass'n, Bad Axe, Mich.

BIDWELL SHORTHORNS

For Beef and Milk

Registered bulls, cows and heifers. Good Scotch and Scotch-Topped for sale. In prime condition. Modern sanitary equipment. Herd under state and federal supervision. Farm 10 minutes from N. Y. C. depot. 1 hour from Toledo, Ohio. Automobile meets all trains. Write

BIDWELL STOCK FARM
Box B, Tecumseh, Mich.

Shorthorn Cattle of both Sex for Sale
W. W. KNAPP, Howell, Michigan.

Richland Stock Farm

SHORTHORNS

HOME OF THE MICH. CHAMPIONS.

We offer for sale a few good dual purpose cows with calves at foot. Also two three year old bulls suitable for range purposes. We invite inspection.

C. H. PRESCOTT & SONS,

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

FOR SALE—A dandy Shorthorn bull calf, 5 wks. old, eligible to register, Bates strain, red-white marks, herd header prospect, \$100, or Liberty Bonds if taken now. I will crate and ship, satisfaction guaranteed or money refunded.
Wm. D. McMullen, R. 1, ADRIAN, MICHIGAN.

Shorthorns Scotch and Scotch Topped cows and heifers, priced right. Come and see them or write **W. B. McQUILLAN, R. 7, Howell, Mich.**

Milking Shorthorns Clay bred young bulls 3 to 10 months old.
DAVIDSON & HALL, Tecumseh, Mich.

Rosemary Farms, Williamston, Mich. young bulls ready for service. Shorthorns bred for milk & beef. Herd estab. by Prof. C. H. Burgess, Mich. Agri. College.

For Sale Shorthorns of Quality Scotch and Scotch Topped descendants of Archers Hope, Ayondale, Maxwellton Sulton and White Hall Bull by the Oscola Co. Shorthorn Breeders Ass. **JOHN SCHMIDT,** Sec. Reed City, Mich.

Shorthorns New list, 27 bulls; 23 females, Feb. list all sold. Central Mich Shorthorn Breeders' Assn., Oscar Skinner, Secy., Gowen, Mich.

The Kent Co. Shorthorn Breeders have both males & females for sale. Ask about them.
L. H. LEONARD Sec., Caledonia, Mich.

Milking Shorthorns of best Bates breeding and O. I. C. swine. Bulls for sale 1 mo. to 1 year old.
E. H. KURTZ, Mason, Mich.

For Sale Two Shorthorn Bulls, one red and one roan. Ready for service.
LUD. HASTINGS, Napoleon, Michigan.

Bates Shorthorns Three extra fine cows for sale.
J. B. Hummel, Mason, Mich.

HOGS

Registered Berkshire Boars; ready for service. A few gilts and sows bred for May and June farrow. Also spring pigs. **CHASE STOCK FARM, Marlette, Mich.**

FOR SALE Fine Purebred Berkshire Pigs, both sex. Only a few left.
Fairman Farms, Plymouth, Michigan

Attention Breeders and Farmers Now is the time to buy that Duroc Boar for fall service. We have some Corkers. March pigs will weigh 100 lbs. July 1st. Inspection Solicited. Prices very reasonable.
RUSH BROS., Oakwood Farm, Romeo, Michigan.

Duroc Opportunity

What would be the earning capacity of a Brookwater Boar in your herd? A mid-west breeder states that the Brookwater boar he used added from \$75 to \$100 to every gilt bred to him. It paid this man to use one of our boars it will pay you.

We have several that we are offering at prices which appeal to the small breeder who must of necessity be a conservative buyer. We have a few that are good enough to be used in high class herds at prices in keeping with their individuality and breeding. Money invested in a good herd boar very speedily increases the value not only of what you sell but what you keep. Send for price list or better, visit the farm.

BROOKWATER FARM, Ann Arbor, Mich.
HERBERT W. MUMFORD, owner,
J. BRUCE HENDERSON, Manager.

DENBROOK FARM

Duroc-Jersey Pigs For Sale

SIRE—Brookwater Satisfaction 5th 143729

Price \$20.00 to \$25.00 at Six Weeks

MRS. GARVIN DENBY,
Farmington, Michigan

REGISTERED DUROC BOARS—We have a choice lot of spring boars, sired by Michigan Cherry Col. No. 118479, Top Cherry King J. No. 102629, and Col. Defender 26th, No. 125705. Make your selection at weaning time and raise according to your own ideas. Write for pedigrees. The Jennings Farms, R. 1, Bailey, Mich.

SEVERAL GOOD

Duroc sows bred to Orion's Fancy King. Boar pigs ready for service.
NEWTON BARNHART, St. Johns, Mich.

DUROC JERSEYS

Fall pigs either sex also spring pigs pairs not akin. Sired by the Grand Champion and Junior Champion boars.
F. J. DRODT, R. 1, Monroe, Mich.

DUROC-JERSEYS

E. D. HEYDENBERG, Wayland, Mich.

DUROC JERSEYS

Nothing but spring boar pigs for sale.
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For the Boys \$10 for a Duroc Sow Pig. M. A. C. Brookwater breeding. Registration papers free. **D. W. Sutherland, Gd. Ledge, Mich.**

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Bred Gilts 200 to 300 lbs. from prize winning stock. A few fall yearlings and 2 yr. old sows, big type, growthy boars of all ages, guaranteed as breeders. Everything shipped C. O. D. Express paid and registered in buyer's name. **J. CARL JEWETT, Mason, Mich.**

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G. P. Andrews, Dansville, Mich.

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H. W. MANN, DAVENPORT, MICHIGAN.

O. I. C. gilts bred for summer farrow and spring pigs. Any of them good enough to ship. C. O. D.
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O. I. C.'s One very good yearling boar, and this spring pigs to offer, registered free. 4 mile west of Depot. Citizens Phone 124.
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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.
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For 25 Years We have been breeding Big Type Poland China hogs of the most approved blood lines. Our new herd boar "Michigan Buster" is a mighty good son of the great "Giant Buster" dam "Moww's Miss Queen 2." Some breeding! Litter of 14. We are offering some sows bred for fall farrow.
J. C. BUTLER, Portland, Mich.

Big Type Poland Chinas. A litter by Gerstdale Jones B. (Garter); one by Gerstdale King (Gerst). A Big Boar sows booked for service to The Gleaner. Pigs by Mammoth Ben, herd boar, unexcelled. Mammoth Ben at 12 mos. weighed 450 lbs. Nothing for sale. Visitors welcome.
WESLEY HILLE, R. 6, Ionia, Mich.

LARGEST Type P. C. in Mich. Nothing at present. Spring pigs too young to ship. Have 60 the best I ever raised which I will offer later. Come and see two greatest boars in state; L's Big Orange 291847 and Lord Gleaner 330297. **W. E. Livingston, Parma, Mich.**

THE OLD FASHIONED SPOTTED CHINA HOGS. Gilts due to farrow JUNE OR JULY—\$100 up. Spring pigs \$25 weaning time.
J. W. WILLIAMS, North Adams, Mich.

L. S. P. C. Boars all sold. A few nice gilts bred for fall farrow.
H. O. SWARTZ, Schoolcraft, Michigan.

Big Type Poland Chinas with quality. Bred sows sold. Get in line for pigs. Ask any questions about my breeders. **G. A. BAUMGARDNER, R. 2, Middleville, Michigan.**

Big Type Poland-Chinas pigs, sired by C. A. King Joe B. 29081, by King Joe 251257; Monster Big Bob 37623, by Luken's Big Bob 23777; Buster Half Ton 28225, by Great Big Half Ton 261243. Out of sows, whose pedigree, individuality and quality are of equal merit as my herd boars. Can furnish pairs and trios, not akin.
C. A. BOONE, Blanchard, Mich.

MICH. Champion herd of Big Type P. C. Nothing for sale but fall pigs; orders booked for spring pigs.
E. R. LEONARD, St. Louis, Mich.

Big Type P. C. boars all sold. Nothing now until fall. I thank my customers for their patronage. Spring pigs coming fine. **C. E. Garnant,** Eaton Rapids, Mich.

Large Type P. C. Nothing for sale now. Will be in market with better than ever this fall. If herd stuff counts.
W. J. HAGELSHAW, Augusta, Mich.

Big Type P. C. gilts, bred for August and September farrow.
A. A. WOOD & SON, Saline, Mich.

Big Type P. C. Choice bred sows from Iowa's greatest herds, the big bone prolific kind with size and quality.
E. J. MATHEWSON, Burr Oak, Mich.

Big Type Poland's all sold out, nothing for sale at present. Booking orders for spring pigs. Thanking my customers. **L. L. Chamberlain,** Marcellus, Mich.

Mammoth Poland Chinas all sold. General Jones No. 317249, son of Gerstdale Jones heads our herd. **Clyde Weaver,** Ceresco, Mich.

Big Type P. C. Will have better miles than ever for fall trade, gilts in season.
JOHN D. WILEY, Schoolcraft, Mich.

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We have some extra good Belgian Stallions for sale, coming three and four years old. They are heavy, of good conformation and sound. You can see their sires and dams. They are raised in Michigan and acclimated. We have no agents on the road for which you or we would have to pay. You cannot buy them any better nor cheaper in the world. Our studs and mares carry the best blood Belgium has produced. We prove this by their pedigrees. We invite you to see our stock before buying. You can see them any day of the week Except Sunday. Write for particulars and catalog to the **OWOSSO SUGAR COMPANY,** Prairie Farm, Alicia, Mich.

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DORR D. BUELL, Elmira, Michigan.

Percheron Stallions and mares at reasonable prices. Inspection invited.
F. L. KING & SON, Charlotte, Mich.

SHEEP

TO THE KIDS

Over 300 have written me about the sheep I am giving away. I would like to send one to each of you but two is my limit. Three disinterested judges are picking the winners. If you are not one of the lucky kids, why not save your money and buy one next December. I will contract to buy the produce back at a splendid price.
KOPE-KON FARMS, S. L. Wing, Proprietor
Coldwater, Michigan

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Wait a minute, buy Hampshires. The American Hampshire Sheep Association wants to send you a dandy little booklet with list of breeders. Some near you. Write **COMFORT A. TYLER,** Secretary, 22 Woodland Ave., Detroit, Mich.

For Shropshire Yearling Rams write or call on **ARMSTRONG BROS., R. 3, Fowlerville, Mich.**

Shropshires Am offering 16 yearling rams and 8 yearling ewes of Senator Bibby breeding.
C. J. THOMPSON, Rockford, Mich.

FOR SALE—34 Ewes and 38 Lambs. Inquire of **H. E. PETERS,** South Lyon, Michigan

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Thursday afternoon, June 26.

WHEAT.

The wheat market has declined five cents since last week. Stocks are 34,000 bushels against 24,000 bushels a year ago. In Duluth receipts early this week were 15 cars against one a year ago. Minneapolis 176 cars against 391, and Chicago one car. The American visible supply shows a decrease of 2,052,000 bushels. One year ago No. 2 red wheat sold in Detroit for \$2.17 per bushel. Present values are:

No. 2 red	\$2.40
No. 2 mixed	2.38
No. 2 white	2.38

CORN.

Peace news has made the corn market ascend to the highest prices yet this season. Although business in the corn pit was at an end before the fact was published that the Germans had signed, word was received that such action on the part of the German government was assured. While prices at Chicago have declined during the last two days, Detroit quotations are unchanged. One year ago No. 3 corn sold for \$1.50 on the local market. Present prices here are:

No. 3 corn	\$1.84
No. 3 yellow	1.86
No. 4 yellow	1.84
No. 5 yellow	1.81
No. 3 white	1.87

At Chicago No. 3 yellow closed on Wednesday at \$1.77½@1.80½; September \$1.76½.

OATS.

The oat market is relatively weak owing to an increase in the visible supply, together with a light seaboard demand. The visible supply of oats increased 642,000 bushels the past week. It is said that Texas oats will be keen competitors in the market within a few days. Texas has raised a big crop and the oats are being offered freely. The price for standard oats on the local market was 80c per bushel. Today's quotations are:

Standard oats	73
No. 3 white	72½
No. 4 white	71½

RYE.

Rye is inactive and was not affected by the changes in the other grains, cash No. 2 now being quoted at \$1.45.

BARLEY.

Barley prices throughout the country remain unchanged from last week. Reports coming from Iowa, South Dakota and Kansas state that the crop is in excellent condition. Detroit prices are \$2.30@2.40 per cwt. for cash No. 3.

BEANS.

The bean market has been very quiet throughout the week with trade dull and tone showing weakness along certain lines, though prices remain fairly steady as the supply is moderate in volume. At New York Michigan pea beans are quoted at \$7.75; red kidneys at \$12.75, while limas continue about steady at \$9.50. The Chicago market is inactive with choice to fancy hand-picked quoted at \$7.75@8 and red kidneys \$11@11.50. In Detroit the price for pea beans has dropped off slightly from last week with present quotation at \$7.15 per cwt.

HAY.

Hay is in better supply and prices are quoted \$2 lower all along the line. The demand for timothy is well sustained. Local quotations are: No. 1 timothy \$36.50@37; standard timothy \$35.50@36; No. 2 timothy \$34.50@35; No. 1 mixed \$33@34; No. 1 clover at \$30@31.

Pittsburgh.—The receipts of hay of all kinds are moderate. The demand continues fairly active for the better grades at full quotations. The market is quiet and steady, with No. 1 timothy quoted at \$41@41.50; No. 1 light mixed \$38.50@39.50; No. 1 clover at \$32@33.

FEEDS.

The feed market shows a slight decline over last week, with bran at \$40;

standard middlings \$49.50; fine middlings \$53; coarse corn meal \$69@71; cracked corn \$73@75; corn and oat chop \$56.50@58 per ton.

SEEDS.

The seed market remains firm and quiet with prime red clover at \$27; October \$24; timothy \$5.60.

POTATOES.

The market for old potatoes is decidedly weak with the supply exceeding the demand, the increased supply of new potatoes having a decided influence on this market. At Detroit No. 1 whites in 150-lb. sacks are selling at \$2; at Cleveland the same grade is selling at \$2.50@3, while poorer grades are selling as low as \$1; at Buffalo Michigan sacked round whites are selling at 75c@1.50 per cwt; in Indianapolis the market shows a wide range of quality and conditions, with sacked round whites averaging \$1.50 per cwt.

CHEESE.

No special improvement is being reported in the demand from any particular source, and the market displays a continuation of weakness. Production is heavy and supplies are running considerably in excess of those of last week. Michigan flats are bringing 30c at Detroit, single daisies 30½c. In New York young Americas are quoted at 33@33½c. In Philadelphia the New York and Wisconsin full milk cheese

is quoted at 31@32½c, while in Chicago young Americas are quoted at 31c.

BUTTER.

Butter opened the week with a drop of one cent on a very slow market, but later recovered the loss. At Detroit fresh creameries quoted at 48½@50½c per pound. The Chicago market is unsettled, though prices have advanced a half to one cent, with the creamery stock jobbing at 46@51c. In New York the indications are for larger production, though in some sections the hot weather has told unfavorably on the quality. The market has settled about one and a half cents during the past week. Prices range from 49@53c for creamery grades, western creamery extras bringing from 50@52½c.

EGGS.

The egg market is very dull, with little change in prices over last week. On the Detroit market extra firsts in new cases are jobbing at 42c; candled storage packed firsts in new cases at 43½c per dozen. In Chicago firsts are quoted at 39½@40½c; extras 42½@43c. In New York the receipts have shown considerable reduction, and the market has worked a little higher on the better grade eggs, nearby western stock selling at 47@64c. In Philadelphia eggs are firm with nearby firsts

selling at \$14.10 per case; western extra firsts at \$14.10; fancy selected packed at 54@56c per dozen.

WOOL.

With only one more government sale scheduled for this market on Monday, the market shows added interest, and an exceptionally good demand prevails for new domestic fleece wools. Some of the farmers are asking 72@73c, but few want to pay as high a price as that. There is an unverified report that 73c has been paid for delaines. Prices in general are holding about steady with new domestic fleece wools in good demand. Medium grades in Ohio and Michigan are selling at 60@65c.

GRAND RAPIDS.

The first new hay was marketed last week, selling at \$24 per ton. A year ago it brought \$13. A trip through Kent and Ottawa counties Saturday showed many pieces of wheat on the turn, especially the bald variety, and several fields of corn knee high. Jobbers in beans state only 60 per cent of bean acreage planted and their opinion is the acreage will fall below that of last year. Old potatoes dropped to 55c per bushel on the city market last week. At several outside points the price was cut to 50c per cwt. During the past week 12,300 crates of strawberries were brought to the city market, 70 per cent being taken by the canning factory under contract at \$3.25 per crate. The balance brought \$2.75 to 3.50 according to quality.

MAKING HAY—THEN AND NOW.

THE modern method of making hay is far different from that of the old days when grass was cut with scythes, turned with pitchforks if there was time, raked by hand into "cocks," loaded by hand with pitchforks, and unloaded by hand again into dark mows or stacked in most any kind of shape out of doors.

Artists complain that the modern way of hay making has taken all the romance and poetry out of this old art. It sounds well to read Maud Muller's accomplishments as a haymaker, and yet I think that most of the poetry sounds the most poetical to those who are the farthest away from the real thing. Certain it is that I could see but little poetry in it when I was compelled as a boy to follow the scythes in the hot sun with a long-handled wooden rake, or to help load with a pitchfork the big wagons which had to be reached to what seemed to me a mountainous height. How I longed to rest my weary arms and back, and how I prayed that the supper bell would send its tidings over the field. I am afraid that I was even disloyal to my father, for I often wished it would rain in order to give me a rest, although I knew it would spoil the down hay.

So, although the poetry and romance has disappeared, the farm boys of today are thankful that the introduction of modern hay making methods has taken the backache and the armache out of the job. And, besides making the work much easier, it has improved the quality of the hay and has enabled the farmer to increase his acreage many fold.

The problem of securing extra help during the haying season has undoubtedly helped to introduce labor-saving machinery, and has proved a blessing in disguise as it has made the work much easier for the farmer himself. Hay making has so changed in the past few years that it is now hard to find a farmer who does not utilize the mower, side-delivery rake, tedder, hay-loader, and one form or another of unloading machinery.

H. L. SPOONER.

Live Stock Market Service

Reports for Thursday, June 26th

BUFFALO.

Hog prices are generally lower today, with pigs bringing \$20.25@20.50; others \$22.10. Top lambs are steady at \$19; yearlings \$14@15, while the best calves sell for \$19.50.

DETROIT Cattle.

Receipts 2,450. Market dull and 50 @75c lower than last week's close. Best heavy steers \$ 13.00 Best handy wt bu steers.. 11.50@12.00 Mixed steers and heifers.. 10.00@10.50 Handy light butchers.... 9.00@ 9.50 Light butchers 8.00@ 8.50 Best cows 9.00@ 9.50 Butcher cows 8.50 Cutters 7.00 Canners 6.25@ 6.50 Best heavy bulls 9.00@ 9.50 Bologna bulls 8.00@ 8.25 Stock bulls 7.00@ 7.75 Feeders 9.50@10.00 Stockers 8.00@ 9.00 Milkers and springers.... \$ 75@ 125

Veal Calves. Receipts 2,007. Heavy grades dull; others steady. Best \$18.00@18.50 Others 7.00@16.00

Sheep and Lambs.

Receipts 716. Market steady. Best dry-fed lambs \$17.50@18.00 Fair lambs 16.00@16.50 Light to common 14.00@15.00 Yearlings 13.00@14.00 Fair to good sheep..... 7.50@ 8.00 Culls 4.00@ 6.00

Hogs. Receipts 5,518. Market steady to 10c lower. Pigs \$ 19.50 Mixed 21.15@21.25

CHICAGO.

Hogs. Estimated receipts today are 35,000; holdover 5,563. Market very uneven but mostly steady with yesterday's average. Bulk of sales \$20@21; heavy 250 lbs up, medium, good and choice \$21.40@21.90; medium 200 to 250 lbs, medium, good and choice \$20@21; light 150 to 200 lbs, common, medium, good and choice \$20.25@21.10; light lights 130 to 150 lbs, common, medium, good and choice \$18.50@20.65; heavy packing sows 250 lbs up, smooth at \$19.65@20.15; packing sows 200 lbs up, rough \$18.75@19.50; pigs 130 lbs down medium, good and choice \$15@18.50.

Cattle.

Estimated receipts today are 12,000; beef steers steady to strong; butcher stock and feeders steady; calves are

steady to 25c higher. Beef steers, medium and heavy weight 1100 lbs up, choice and prime \$14.40@15.50; do medium and good, \$14.40@14.50; do common \$10.75@12.50; light weight 1100 lbs down, good and choice \$13.25@15.25; do common and medium \$10@13.35; butcher cattle, heifers, common, medium, good and choice \$7.75@13.25; cows, common, medium, good and choice \$7.50@12.25; bulls, bologna and beef \$7.50@11; canners and cutters, cows and heifers \$6.25@7.50; do canner steers \$7.75@10; veal calves, light and handyweight, medium, good and choice \$17@18.50; feeder steers, common, medium, good and choice at \$9.25@12.75; stocker steers, common, medium, good and choice \$8@12; stocker cows and heifers, common medium, good and choice \$7.75@9; stocker calves, common, medium, good and choice \$8.25@11.75.

Sheep and Lambs.

Estimated receipts today are 10,000; fat sheep and lambs strong; others steady. Lambs 84 lbs down, medium, good, choice and prime \$15@17.50; do culls and common \$8@14.50; spring lambs, medium, good, choice and prime \$10.25@13.50; yearling wethers, medium, good and choice \$6.25@8.25; ewes, medium, good and choice \$2.50@5.75; ewes, cull and common at \$7@13.50.

BUFFALO.

Wednesday, June 25, 1919.

Cattle.

Receipts ten cars. The market is slow. Prime heavy steers at \$14.50@15.25; best shipping steers \$13@14; medium shipping steers \$12.50@13; best native yearlings 950 to 1000 lbs, \$13@13.75; light native yearlings, good quality \$13@13.50; best handy steers \$12@13; fair to good kind, \$11.50@12; handy steers and heifers, mixed \$11@12; western heifers \$11.50@12.50; best fat cows \$11@11.50; butchering cows \$8.50@9.50; cutters \$7@8.50; canners \$5@6; fancy bulls \$10.50@11; butchering bulls \$9@10; common bulls \$7@8; best feeders 900 to 1000 lbs \$11.50@11.50; medium feeders \$9.50@10; stockers \$9@10; light common \$7.50@8; best milkers and springers \$10@150; mediums \$75@90.

Hogs.

Receipts five cars; market strong; heavy and yorkers \$22.40@22.50; pigs and lights \$20.25@20.50.

Sheep and Lambs.

Receipts five cars. Market steady. Top lambs \$17@17.50; yearlings \$10@15; wethers \$9.50@10; ewes \$8.50@9. Calves \$7@19.50.

RECORD PRICES FOR HOGS.

(Continued from page 950).

place. The total offerings on that day aggregated 63,500 hogs, including left-over hogs from Tuesday, and prices broke twenty-five to sixty cents in a day. Looking into the future, it may be said that the outlook could hardly appear brighter, for an enormous foreign demand for American hog products looms up, and it seems hardly possible that there will be any surplus supply of hogs in the corn belt. Provisions are having an enormous consumption at home and abroad, and during the second week of June the exports from Atlantic ports included 19,942,000 pounds of lard and 40,143,000 pounds of hog meats, comparing with 15,858,000 pounds of lard and 60,983,000 pounds of hog meats a week earlier, and with 8,042,000 pounds of lard and 32,219,000 pounds of hog meats for the corresponding week last year. Lard has been selling at higher prices than were ever paid in the past history of the trade, and during May the stocks of lard in the country suffered a decrease of nearly 25,000,000 pounds. Very few pigs are going to market, and there is a general disposition upon the part of farmers to hold back their sows for fall litters, owners fully realizing the importance of doing so, particularly as losses of spring pigs have been heavy in many parts of the country. Feeder pigs are much sought for, but they are offered very sparingly for sale. A year ago hogs were selling on the Chicago market at \$15.50 to \$16.80 per hundred; two years ago at \$14.50 @16.05, and three years ago at \$9.35 to \$9.95.—W. W. F.

Williamson county, Texas, boasted of 1,390 pig club members in 1918 and confidently expects to have 3,000 members by the end of 1919.

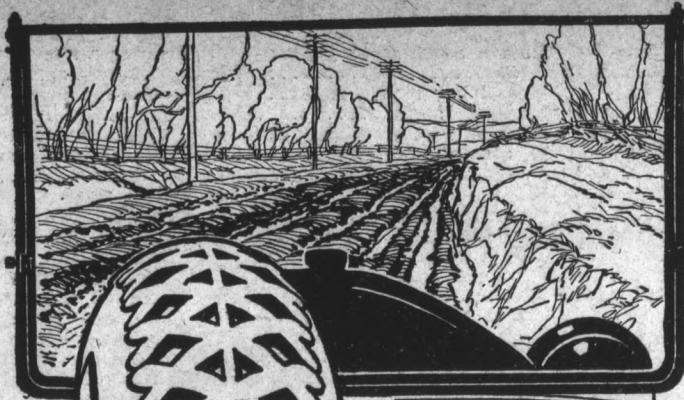
Our Shorthorn breeders have been busy this past year. At public auctions approximately 10,000 animals of that breed have been disposed of with the average prices at these auctions ranging from \$200 to \$2,307. One animal out of every nine brought \$1,000 or more. Six sold above \$10,000 and one above \$20,000.

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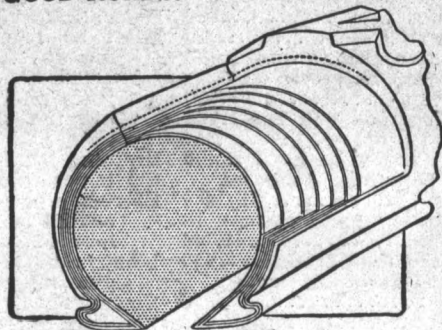
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