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## Snapped at the Michigan State Fair



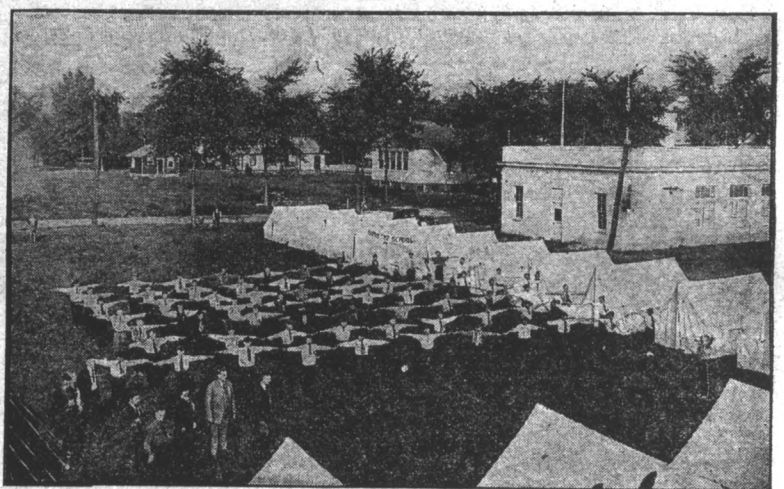
Rex Stowe, Dowagiac; Carl Johnson, Ironwood, and Walter E. Ball, Charlotte, win trip to the International.



Secretary Bingham and Staff at State Farm Bureau Headquarters.



Wayne County Poultry Team with Club Leader G. O. Stewart.



Secretary Dickinson watching State Fair School Boys at their Morning Drill.



Messrs. Ball and Baker, both of Charlotte prove the best Junior Judges of Dairy Cattle.



Farmer Tourists Preparing for a Day's Run.



# The Michigan Farmer

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DETROIT, OCTOBER 2, 1920

## CURRENT COMMENT

### The Farm Bureau Program

IN line with the declared intention of the officers of the Michigan State Farm Bureau to keep that organization strictly out of politics, is their recent announcement that the bureau's legislative program will not be made public until after election. There will, we believe, be no doubt in the mind of any student of business and political economy regarding the wisdom of this course. Nothing could be more fatal to the future success of this promising organization than its entrance into partisan or personal politics. Its program, if sound and backed by a united membership will command the attention of the state's legislative and executive departments regardless of their personnel. Adequate farmer representation in the state government is most desirable, but its accomplishment is more properly the function of interested, individual farmers than of the heads of their organizations and the individual voters have a habit of deciding these matters anyhow.

### Investing Surplus Capital

AS a general proposition the best place for the average farmer to invest any surplus capital which he may accumulate is in his own business. In very many cases a comparatively small additional investment in the farm business will not only pay good interest on that investment, but will as well, add to the earning power of the capital already tied up in the business. This is particularly true where better drainage is needed, where lime is needed as a soil amendment to encourage the growth of clover or other legumes, where the live stock needs improvement, where labor-saving equipment is required for the economic operation of the farm, where buildings need repairing or remodeling to adapt them to present needs or lengthen their period of usefulness, where orchards can be profitably planted as a source of future income, where home comforts or conveniences will make farm life more attractive and better worth the living, and in a thousand other cases which cannot be enumerated here. In a great majority of cases, surplus capital can be more profitably invested in the farm business than elsewhere, and where this is not the case the next best use to make of it is to loan it to some other good farmer in the community, on adequate security, of course, to aid him in properly financing his business.

Farmers everywhere are being solic-

ited for subscriptions to a great variety of stock company enterprises, some of good promise from an investment standpoint, others purely speculative, and some actually fraudulent. This has been true ever since the close of the war, due to the fact that farmers had been liberal purchasers of government bonds as a patriotic duty and a strong appeal could be made to them to exchange these securities at par for industrial stocks which the skilled salesman could show to promise far greater earning power. And with the development of an increasing stringency in the money market the vigor of this class of solicitation has been redoubled because of the increased difficulty in securing new capital for any kind of enterprise.

Regardless of the character of the stock investment offered, the exchange of government bonds for it is generally doubtful economy. The bonds will yield a regular interest income in proportion to their safety as an investment, and will return the principal unimpaired at maturity. At the same time they will remain the most liquid of all investments, most easily converted into cash in cases of emergency and the best of collateral for temporary loans. Government bonds are an exceedingly valuable business asset for any man. Few farmers have too many of them.

On the other hand, while money invested in industrial stocks may pay as well as the stock salesman says they will, the probability is that they will not. Even good industrial propositions are uncertain as to future profits, being dependent for same on the quality of management given them in addition to the uncertain vicissitudes of business conditions with which they will be confronted, while the law of averages is strongly against a profitable return from investments in speculative enterprises.

During this period of inflation and exploitation, the Michigan Farmer has been offered and has refused thousands of dollars' worth of advertising of industrial stocks, ranging all the way from wildcat oil promotion enterprises to legitimate and promising manufacturing and financial businesses, because we have believed the surplus farm capital of Michigan could best be used right in the local farm communities where it was made, as well as because of the impossibility of being certain of the soundness of the investments offered.

### Commodity Price Levels

RECENT trade developments indicate that the peak of inflated commodity prices has been passed, and that a sharp downward readjustment is in progress all along the line, cuts of from fifteen to thirty per cent having been announced by leading firms in many lines of trade. This general reduction in commodity values has been reflected in the grain and foodstuffs market during the past week. The decline in these markets has not, however, been nearly so pronounced, due to the fact that values in these lines had already been discounted as generally as was possible by manufacturers using them as raw material and by speculative buyers. In fact, the farmer's products are about the only ones in which the law of supply and demand has operated to lower prices since the war, and in this case the operation has not reached the consumer to any noticeable extent. There is plenty of slack to be taken up between producer and consumer without radical lowering of general price levels to the producer of foodstuffs. Of course, the lowering of general commodity prices is a factor to be taken into consideration in a study of market conditions as related to farm products, but this downward trend should not cause farmers to be-

come panicky and force their products on a speculative market in greater than normal bulk at this season of the year.

## Farm Bureau News

A DOZEN elevators have signed the contract with the Elevator Exchange Department of the Michigan State Farm Bureau. Favorable reports have come from many more. When twenty have signed, which will probably be within the next two weeks the exchange will begin business.

Thomas B. Buell was elected secretary and business manager at the meeting of the board of control September 21. Mr. Buell is a delegate to the board from the State Farm Bureau. Sales manager is Joseph Wickens, a man who has studied grain marketing all his life and handled grain for four large successful firms.

Important provision was made in regard to small elevators whose annual volume of business is less than ten cars. Such elevators may join the exchange by signing the contract and providing a \$500 collateral note. They will pay the regular handling charge of one per cent and also \$10 on each car they ship. This \$10 will be credited to the elevator until the business has raised this amount to \$200, when the elevator will be given a full membership in the exchange.

The State Farm Bureau is beginning to see the end of the extensive campaign for membership which began last October and has been pushed energetically in one county after another. Secretary Bingham believes that the total membership will be 100,000 by January. There are now five counties in the upper peninsula and eight in the lower peninsula to be canvassed. The present membership as reported to the state office is 84,358, which, however, is considered conservative in the light of the fact that many members brought in by follow-up work have not been reported by the county agents. The agents are being asked this week to send in their total membership figure.

Campaigns for membership are now going on in Alcona, Kalkaska, Muskegon, Houghton and Isabella counties. Ingham county begins a campaign October 11, with Dickinson, immediately after. No arrangements have yet been made with the farmers of Iron, Gogebic and Ontonagon for campaigns. The State Farm Bureau still maintains its policy of not putting on a campaign until there is a definite request on the part of the resident farmers.

The only parts of the state not thoroughly organized are a few counties in the center of the lower peninsula and a few in the west end of the upper peninsula. So thoroughly representative of the farmers of the state is the membership, the State Farm Bureau can be considered from now on as the truly qualified "voice of the farmer."

Twelve counties have signed the contract with the seed department to do all their seed business through that central agency. Half a dozen more have promised and are only waiting for the signature of the president or a favorable occasion for a meeting.

The state's alfalfa order which Mr. Nicolson, director of the seed department, will take out to Idaho with him in a few weeks may total one hundred and fifty thousand pounds. The state seed department has made arrangements with the alfalfa growers of the northwestern states to take a very large part of their best surplus product, providing the buying is done shortly after threshing. Michigan farmers are lucky that the season is late out there this year for, because of this circumstance, they are enabled to assemble orders in time. Michigan is buying this seed in connection with New York, Illinois and some other states.

Some farmers have been complain-

ing because they did not get their warehouse receipts for wool as soon as they expected. To facilitate wool grading, a second grader has been hired. From now on it will be possible for the wool department to issue warehouse receipts for between 30,000 and 40,000 pounds of wool a day. The amount of wool actually graded up to date is past the million mark.

## News of the Week

Wednesday, September 22.

THE troops under General Wrangel in southern Russia capture several railroad points from the bolsheviks. Japanese statesmen believe that nothing can be done with the race question in California until after our elections. The New York assembly ousts three socialist members while two others resign. Ford Motor Company reduces the price of cars from fourteen to thirty-one per cent. The \$700,000,000 of enemy property in this country will not be available for liquidating claims of American citizens against Germany if a separate peace is entered into.

Thursday, September 23.

THE people of the Chinese province of Shantung are starving and a \$100,000,000 fund is necessary to bring relief. At the peace parley between Poland and Russia an agreement is reached that the independence of border states must be recognized. The campaign train of democratic nominee Cox is wrecked near Phoenix, Ariz. The American relief administration has started a movement to care for 2,500,000 destitute children in Europe. A monthly survey of Germany's economic situation shows that industry has taken another slump in that country.

Friday, September 24.

THE massing of Bolshevik armies in the region of Minsk and Lida indicates to military observers that the Reds plan a new offensive on Poland in the immediate future. The federal government will be asked to appoint a commission to effect a solution of the Japanese-American problems. Church workers assembled at Atlantic City declare that prohibition has increased church attendance and lessened materially the work of rescue missions. The leading nations of the world are represented at a conference at Brussels to discuss world financial problems.

Saturday, September 25.

A PROPOSAL for an armistice to be agreed upon in ten days is made at the Russo-Polish peace conference. A commission from Denmark is sailing to this country to arrange for the sale of 260,000,000 pounds of butter. The interstate commerce commission approves a further increase in express rates averaging thirteen and a half per cent. There was a considerable decrease in both exports and imports during the month of August. A new record for a month's traffic through the Panama Canal was established in August.

Sunday, September 26.

RIOTING by Korean students at Gensan, Korea, resulted in twenty-five persons being killed and many Japanese industrial houses stormed. The Mexican government closes all saloons along the Mexican-United States border. Polish armies are closing in on the Reds at Grodno. Italian workers agree to return to owners mills recently taken by force. Two persons are killed and three hurt near St. Clair when an automobile is struck by an interurban car.

Monday, September 27.

OFFICIALS in Washington believe living costs throughout the United States will reach a level twenty per cent below that which prevailed during the war period. Bituminous coal operators plan on mining 12,000,000 tons of coal per week until December 1 to meet the demands this coming winter. The Chilean government appropriates \$15,000,000 to construct a railway across the Andes.

Tuesday, September 28.

NEGOTIATIONS between American business men and the Russian Bolshevik trade mission are being entered into looking toward the opening of commercial relations. The Detroit Milk Commission reduces the price to milk producers to \$3.80, while Detroit retail prices remain unchanged. United States secret service men are in Detroit investigating prices.



# Prepare for Next Year's Corn Crop

*Select Seed Ears This Fall—By A. L. Bibbins, Extension Specialist, M. A. C.*

**T**RADITION has it that "sight unseen!" Nearly all of us can remember when as youths, we were often greeted by such a challenge. Yes, and we bit until stung with a no-bladed affair in exchange for our bright tin-bladed pride and joy.

Would you buy a bull by the "sight unseen" method? Not much, that lesson was well learned back in the youthful jack-knife days. We now demand to be shown. Further, we not only want to know the animal's history but that of his ancestors as well. No more of this "sight unseen" business.

That is good common sense but how inconsistent many of us are. We will not allow the other fellow to trick us in the purchase of an animal; but each year we go on and play the "sight unseen" deal on ourselves with the corn crop, the value of which is greater than any one branch of our farming industry.

## Good Blood Counts.

To be sure, good looking ears are selected by many of us from the crib or perhaps from the shock at husking time; but, what is known of these ears? Nothing much, save that they are about the right size, are well filled out at the butts and tips, and that they came somewhere from the corn field.

If one wishes to build up a high-producing herd he would not be satisfied by merely knowing that the animals selected for the foundation stock were just pleasing to the eye. No, he would carry his investigations much further and in addition to selecting typy, nice-appearing animals he would be certain that they came from high-producing strains. The value of high-yielding foundation stock is not confined alone to animals, for the laws of nature are equally as true with the plants. Good blood counts in both cases.

"By their fruit so shall ye know them."

## Environment vs. Heredity.

In selecting seed ears from the shock or crib we are unable to ascertain whether the fine appearing ears owe their development to heredity or to environment. This is all important as the former may be transmitted while the latter is not.

The great majority of crib-selected

ears are produced by plants that have unusually favorable conditions under which to grow—hence such ears do not owe their fine qualities to good breeding but to the extra plant food, moisture and sunlight afforded them. These do not make the best seed as they do not necessarily carry high-yielding ability in their blood.

In order to know that the selected seed ears are capable of producing high-yielding progeny we must, as in the case of animals, know something of their ancestors. This necessitates the studying in the field of the parent plants which bear the ears.

## Field Selection.

Going into the field shortly before harvest one may select seed that may be counted upon to substantially improve next year's corn crop. One should be equipped with a sack tied across the shoulder which, when filled, may be emptied at the end of the rows where the corn may later be conveniently gathered.

The first thing to attract the attention of the selector is a good ear which is borne about hip, high and hangs at a sloping angle. When such is found the plant should next be considered. If there are missing hills adjacent this ear should not be selected for it probably owes its goodness largely to its favored environment. However, if the plant is growing under uniform condi-

tions we may quite safely attribute its quality to heredity. If the plant is strong, of good average height, free of suckers and multiple ears, we may consider the ear to be valuable for seed, especially if it be well filled out and has matured.

The maturity factor is one of prime importance to Michigan farmers for our growing season is none too long. In going through most fields of corn it may be readily noticed that there is a wide variation in maturity. Those ears, other factors being even, which show that they have matured within the normal growing season, should be chosen. After a year or two of such selection it will be found that the maturity problem is quite well under control. In crib or shock selection the tendency is to select late maturing ears which acquire abnormally long growing seasons to complete their growth and in the average season are often caught by frosts with the result that the following spring finds a shortage of seed and many poor stands of corn.

## Storage.

No good stock man would ever leave his sire exposed to the cold, damp winds of the fall and winter, but often one may observe seed corn hanging on the back porch or in some similar place. Seed corn should be as carefully housed as the breeding animals. This is especially true in the early

fall when the corn contains a high percentage of moisture, after thus making it very susceptible to injury from frosts.

The seed ears should be gathered the same day that they are selected and stored in the attic, furnace room, or some other place where a good free circulation of dry air about each ear is to be had. Under such conditions the moisture will soon be reduced from forty-five or forty per cent, to twelve or fifteen per cent, which is sufficiently low to withstand zero weather without injury. Even after the corn has been dried out it should not be exposed to damp air for it will gather moisture and then be easily injured by freezing.

## Value of Field Selection.

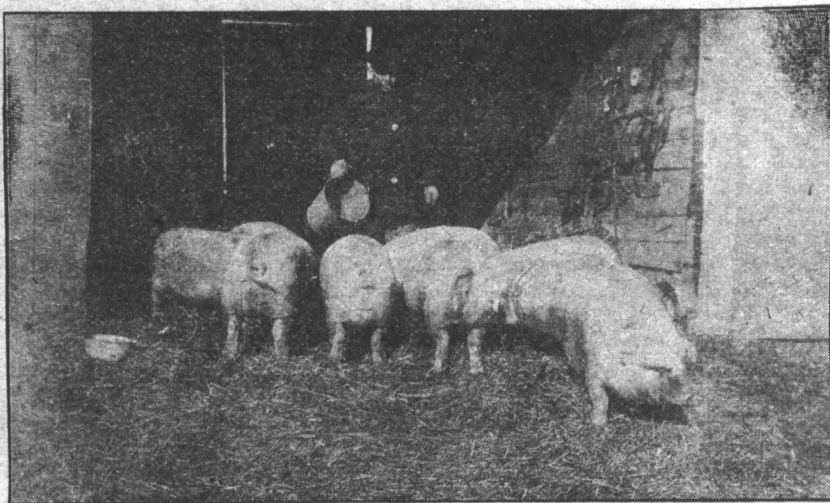
Usually enough seed may be selected in a day to plant the next year's crop. Experiment stations and many corn belt farmers have clearly demonstrated that the crop may be increased to the extent of three to four bushels per acre by good field selection. This means \$75 to \$100 more for the corn crop, hence we may calculate a day spent in the field selection of corn is worth that amount. Not many of us can afford to miss a day's wages of \$75.00.

Two of Michigan's best corn men have practiced field selection for some time. These are Jesse Pickett and Robert Duncan, the originators of the two varieties which bear their names.

C. V. Towne, of Greenville, has made considerable progress with his Golden Glow corn. In 1918 Gilbert Van Wynen, of Holland, obtained Golden Glow seed from Mr. Towne and has field selected his seed for two years. This year Mr. Van Wynen has an estimated ninety-eight per cent stand, his plants are vigorous, even in height and maturity. The writer recently visited this field and was struck with the fact that the plants carried such fine ears, which in nearly every case are borne about three and a half feet from the ground.

The "sight unseen" method of crib selection does not pay. The time to select is when the most evidence is available and the most corn present to select from. That is in the fall and not in the spring after three-fourths of the crop has been fed out.

## Good Corn and Good Hogs go Hand in Hand



# Saving Dollars Through Wise Planning

*J. A. Howenstine Makes Careful Study of Forty Farmsteads*

**I**N a recent survey, forty representative farmers were asked if they were satisfied with the field and building arrangement on their farms. Twelve of these replied they did not think their farms were properly arranged and most of these were in doubt just how their particular arrangement could be bettered. The remainder of the forty seemed to have given no thought to the arrangement of their farms and were content to operate them over a field arrangement laid out many years before. Of the forty, eighteen expressed a desire to rearrange their buildings, while the remainder were satisfied with the present layout. On the majority of these

farms it was evident that little thought had been spent in their arrangement. On several, the farm buildings were located in the corner of the farm and with no thought of their relation to the fields. In other instances good farming land was allowed to remain idle simply because its location was too far distant from the barn to permit economic handling of crops and manure. In all cases no record had been made of the location of the tile drains except in the memory of the person installing them.

Usually the layout of a farm has been fixed by previous owners. The location of the fields, buildings, garden, orchard, and permanent pasture

were established many years previous. In a majority of cases changes for the better can be made without much inconvenience and without a great expenditure of time and money, if the owner has a definite plan in mind and develops a scheme or schedule for making changes from year to year.

A number of factors enter into the arrangement of a farmstead. If the farm is considered as a manufacturing establishment, with the barns and out-buildings as the central plant, the field as producers of raw material, and the house as home, the problem of arrangement is simple. The layout of a farm should not be the result of accident or haphazard planning. The re-

sults brought about by a carefully thought out design and a thorough consideration of natural factors and the type of farming to be followed indicate the presence of a few simple principles.

Buildings should be arranged primarily from a utility standpoint. The number of trips taken from the farm buildings to the fields on the average one hundred and sixty-acre farm in the course of a year number about nine hundred. It is essential that these trips be made as short as possible for the saving in time and distance will amount to a great deal in a year's time. For the highest degree of economy a location near the center of the





farm is undoubtedly the best. All the fields are accessible from the barnyard and very little time is lost in going to and from the fields. Hauling of farm crops and manure is reduced to a minimum and when we consider that it costs the average farmer practically half a dollar to haul a ton a mile this saving in time and distance is considerable. The water supply is concentrated and accessible from all the fields. The area in lanes is reduced to a minimum and the expensive fences to maintain them are practically eliminated.

Except in cases where the public road divides the farm most farm buildings are located close to the highway. This placing is not as efficient as the former, but in the minds of many has advantages which more than offset its disadvantages. It is easily accessible, and affords ready communication with school, town and rural delivery. The position of the house should be given primary consideration. It is best to locate it on a slightly elevated, well drained area, not less than one hundred feet from the road. Distances of one hundred and fifty and possibly two hundred feet are probably more desirable, in that the dust nuisance is reduced and a greater degree of privacy secured. An attractive approach to farm buildings over a winding drive through an open expanse of lawn, properly decorated with shrubs and vines, will do wonders in dispelling the im-

pression that the house is a place "where children are raised," and the barn a place "where stock is kept."

The barn and other buildings form the factory of the farm so that their relation to one another is important. As a rule, the barn should be situated back of the house, never between the house and the road. A placement by the side of the road where it limits the view from the house is not desirable and should be avoided unless some unusual reason makes it advisable. A direction opposite to that of the prevailing wind is desirable. It reduces fire risk and tends to carry the odors of the barn and stable away from the house. Yards and feed lots should be placed where they are protected from prevailing winter winds. A grove of rapidly growing trees is a good feature in connection with farm structures, when placed in such a position as to serve as a windbreak against severe winter storms.

The location of cribs and granaries demand individual attention so that the exact placing of these structures cannot be specifically designated. In planning the arrangement of these buildings it is a good plan to disregard the routing of the man and give full consideration to the most efficient handling of feed, stock and waste, for in most cases a change of owners takes place before the buildings are worn out. Different kinds of farming will require different arrangements,

for it is obvious that the requirements of dairy farming are distinct from those of a grain farm. However, a few simple rules can be applied to the placing of cribs and granaries. First, these structures should be placed where they are accessible from the field. Where grain farming is followed, the placing of the cribs and granaries is fairly simple for it is not necessary to remove large quantities of feed several times a day. Sheep, dairying, and hog raising require the removal of large quantities of feed several times daily, so the shortest distance between feed storage and feed lots is the most efficient. Apply the old saying that a straight line is the shortest distance between two points. Do not carry feed around intervening buildings.

The machinery shed and shop, if combined in one structure, need not be placed close to the other buildings. It is a good plan, however, to have it placed so that the horses may be taken from the barn, to the watering trough, to the machinery and then to the fields with very little interference due to intervening buildings. If this building is used as a location for the power plant or the lighting system of the farm, a central location is desirable.

The water system on the average farm is one of the easiest handled. Water can be piped easily from place to place. Water tanks can be located where needed, doing away with the

impression that the whole scheme must be worked out around the well, or source of water. A windmill, gasoline engine or electric power can be used in supplying running water to all parts of farm buildings. The placing of water tanks and troughs under partition fences, so that they are accessible from either side of the fence is a good feature. The accompanying photograph shows a plan of this kind.

The danger of fire is an objection to the close arrangements of buildings. Many farmers have wisely located their buildings several rods apart to lessen this risk. That this is a wise precaution cannot be denied but it would seem that with a few simple fire preparations, lightning rods, several chemical fire extinguishers, with insurance, would justify a close arrangement when the saving of time and labor over the period of a lifetime is considered.

Convenience and economy of operation are the essential points to consider in planning a field arrangement. Very often, however, it is impossible to secure an ideal arrangement in respect to these two requisites, for the plan of the farm is often influenced by uncontrollable natural factors, such as the contour of the land, differences in soil, streams and other natural obstructions, prevalence of highways and the like. The type of farming and the rotation system should bear a close relationship with the layout of a farm.

## News of the Agricultural World

### ASK FOR NATIONAL SELLING AGENCY FOR WOOL.

FARMERS and shepherds in thirteen middle western states have pooled thirty million pounds of wool and these farmers, through their State Farm Bureau representatives, are asking the American Farm Bureau Federation to create a national wool selling agency in order to dispose of these holdings at the greatest advantage to the producer and at the same time to make it possible for the mills to better serve the consumer of woolen products. This action was taken at a meeting of the presidents and secretaries of the mid-west organizations at Manhattan, Kansas, last week.

Under the present arrangement the various states are competing in the market and buyers are taking advantage of the situation. Cooperating these states should get the full market price based on world supply and demand. The representatives feel that by reason of the large holdings buyers will be more anxious to get on a trading basis than where it is possible to deal with each state separately. It is suggested that the national selling agency be created by adding to the present wool committee of the American Farm Bureau a member from each state where the wool has been pooled.

"No matter what price this wool brings, the principal of wool pooling is economically sound," said J. F. Walker, chairman of the committee. "Farmers have done their own warehousing and grading, and will sell direct to the manufacturers. Last year they have profited from ten to fifteen cents per pound over the old way of selling to the country buyer at the front gate. This has not made the consumer pay more but has encouraged production."

#### To Stabilize Live Stock Markets.

The whole middle west is now working out a system of marketing live stock cooperatively which seems destined to stabilize markets. At this meeting it was decided that the cooperative live stock shipping association is the first logical step. The county type of organization, with one manager and shipping points over the coun-

ty was recommended. A committee of three, consisting of Howard Leonard, of Illinois; H. D. Lute, of Nebraska, and E. G. Ketner, of Ohio, was appointed to draft a uniform plan of organization.

The State Farm Bureaus recommended to their national organization a thorough investigation of the advisability of establishing live stock commission firms at stock yards in the middle west. The primary idea in establishing shipping associations and commission firms is not to save the commission but to be in a position to better regulate supply so that heavy gluts and sharp fluctuations can be avoided. It was stated that the action of this same body six months ago, to make quarterly surveys of live stock on hand and the probable amount to be marketed, fits in well on the stabilized market program.

#### Marketing Holds Farmers' Attention.

The marketing of dairy products was discussed and a recommendation made to the national association to call a conference of all cooperative marketing organizations seems to hold the center of attention of middle western farmers. At the national grain marketing conference called by the American Farm Bureau Federation in July, a similar conference for live stock marketing was asked for. This conference will be called the fore part of October and all farm organizations will be represented. The fruit and vegetable growers have asked for a national conference which will be held soon.

The next meeting of presidents and secretaries of middle west State Farm Bureaus will be held at Columbus, Ohio, November 9-10.

### URGE LARGER CREDIT FACILITIES FOR FARMERS.

ADDITIONAL credit facilities for the agricultural interests of the country were urged before the federal reserve board last week by a delegation representing a number of farm organizations.

Spokesmen for the delegation declared that the present credit policy of the federal reserve system had reacted

against farm interests and urged that greater emphasis be placed upon the need of financing agricultural products more adequately.

W. P. G. Harding, governor of the federal reserve board, reiterated to the delegation what he has told several other groups that every possible consideration is being given agriculture, but that it is not within the province of the federal reserve board to give the banks specific instructions as to just what loans to make. Mr. Harding indicated that there seemed to be no action that the board could take at this time.

### SCANDANAVIA OFFERS MARKET FOR U. S. APPLES.

SCANDANAVIA offers a good though limited market for American apples and prospects for a successful year in this trade are encouraging, according to the Fruit Trade Commissioner of the Canadian Department of Trade and Commerce.

Great Britain, the United States, Holland, Switzerland, and Canada are the chief sources of the apple supply of Scandinavia. Practically all of the imports from Great Britain, however, must be credited to apples from trans-Atlantic sources, re-exported. The apples received from Germany also include large quantities of re-exports from Hamburg. It is evident, therefore, that American apples comprise a large part of the Scandinavian apple imports.

#### Dutch Crop Complete Failure.

Owing to the fact that the prices of trans-Atlantic apples in Sweden are too high for ordinary consumption until the cheaper varieties are exhausted, home-grown and Dutch apples hold the market there until after Christmas. Holland and Switzerland have been the chief sources of Sweden's apple supply since 1917, because war conditions curtailed trans-Atlantic shipping. Since the Dutch apple crop is a complete failure this year, the demand should be satisfactory for American apples, both in boxes and in barrels. As a rule there is only a light demand for imported apples in Denmark

before the middle of December, on account of home and Dutch supplies. Owing to the failure of the Dutch crop, however, American apples in all probability will find an early market there this year.

In Norway, the home-grown and European imports supply the market until November, after which date trans-Atlantic shipments are in demand. The main season for shipping American apples to Norway is from December to March.

Throughout Norway the red varieties command the best prices, Baldwins, Kings, and Ben Davis packed in barrels being special favorites. Practically no demand exists for green or cooking apples. In the box packs, the varieties especially desired are Jonathans, Spitzenbergs, Winesaps, and Arkansas Blacks. Rome Beauties are good sellers but are less popular than more highly colored varieties. The Yellow Newtown is not appreciated except when red varieties are unavailable.

### INCREASED AREA UNDER SUGAR BEETS IN BELGIUM.

THE culture of sugar beets in Belgium has considerably developed this year, planters having been encouraged by the promise of remunerative prices. It is estimated that there has been an increase of forty per cent in area sown. There were in 1914, 140,000 acres of ground devoted to sugar-beet growing for sixty-eight sugar factories, while last year there were 102,000 acres for eighteen factories, and this year 112,500 acres for fifty-six factories. The sugar production this year is expected to be 160,000 metric tons.

### NUT GROWERS TO MEET.

The tenth annual convention of the Northern Nut Growers' Association will be held at Washington, D. C., on October 7-8. The rapidly growing popularity of the better grades of black walnut kernels and the fancy prices secured for the finest hickory nuts is stimulating interest among the nut growers of the northern states.



# The Cradle of American Cooperation

*The Story of the California Fruit Growers' Exchange—By Herman Steen*

(Copyright 1920, Standard Farm Papers, Inc.)

**B**ACK in the early nineties there was money in the orange and lemon industry of southern California. The foundations for many large fortunes were laid in those days. These fortunes, however, were not made by the growers, but off them. The men best known to the receiving tellers of the banks were those whose business was to handle the fruit on its journey from the producer's to the consumer's table. The growers were apparently known only to the money lenders.

The farmers had trouble enough, goodness knows, in growing the fruit, with frost, bugs, flood, draught, and a few other things to overcome. But growing the fruit was a snap compared with selling it to good advantage. The growers were three thousand miles from the Atlantic seaboard, their principal market, and their product was highly perishable, and the best transportation service was rather indifferent; their fruit was not well-established on the eastern market, and had to compete with the well-known Florida oranges and lemons; the system of distribution was so inefficient that growers often had to pay the freight bills and give away the fruit. Above all, the market was ruled by speculators and commission men. The future for the grower was painted in black and mounted in ebony.

#### Upon Sound Economic Basis.

Today there is no farming industry in America upon a sounder economic basis than the citrus industry of southern California. In the years out of six, prices are secured equal to, or well above, the cost of production. The growers are prosperous and are increasing their holdings. As evidence of that fact, remember that good orange land around Los Angeles sells from \$1,500 to \$5,000 per acre, and a large share of the orchards pay a reasonable return upon these tremendous valuations. The consumer has not suffered, for he is today using two or three times as many oranges and lemons as he did a quarter of a century ago; in fact, the consumption of these fruits is increasing year by year.

This transformation of the citrus industry from the verge of ruin to the acme of success is one of the marvelous stories of American agriculture. It is a story of pioneering along the paths of cooperation, a story of men with courage and a big idea that triumphed over obstacles that towered toward the skies. It is a story of success without the assistance of good luck and Heaven-sent help, except as such help comes to those with stout hearts.

#### Doing the Job Themselves.

The big idea that saved the citrus industry was, "Farmers must do the job themselves." Out of that idea was

born the California Fruit Growers' Exchange, the largest and best-known cooperative marketing organization in America. During the year ending August 15, 1920, it handled for its 10,500 members over \$57,000,000 worth of oranges, lemons and grape-fruit. It is a big cooperative agency owned and controlled by the growers themselves, which handles over seventy per cent of the citrus fruit of California from the growers to the wholesale distributors in the cities.

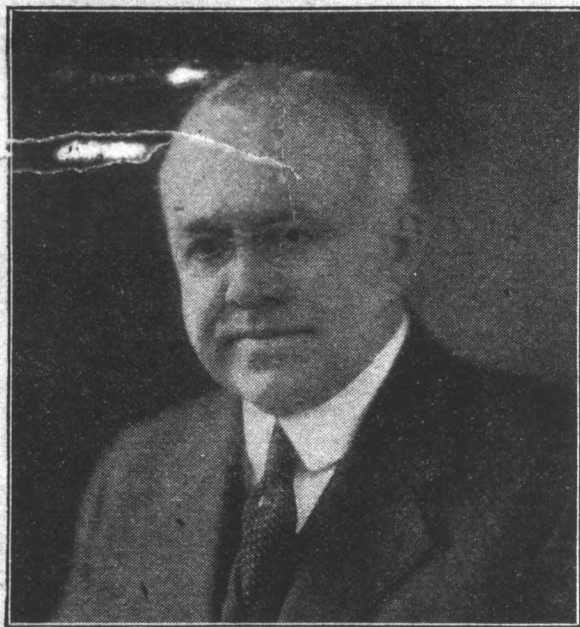
The California Fruit Growers' Exchange is a selling agency only. It does not buy fruit from its members

what the others were doing; the result was that the New York market might be flooded with oranges, while Chicago had none. Then came a tremendous rush of oranges to Chicago, an overloaded market and no oranges at New York. Under these conditions it was not hard for the speculators to break up many of the local associations.

#### Must Cooperate, Not Compete.

The remaining associations, however, finally joined hands in 1895 in forming an overhead clearing house. "We realized that we must not compete against each other and that was what we had been doing," said F. Q.

*As general manager of the California Fruit Growers' Exchange, H. Powell, has without question done more toward the establishment of the true principles of cooperation in America than any other one person. His work has gone far toward bringing the public to a general understanding of the difference between a cooperative organization formed for the benefit of the members and a corporation formed for pecuniary profit.*



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nor from anybody else. It sells the fruit which its members produce, and turns back to them the full price secured, less only the necessary cost of selling. It makes no profit for itself. It will be well to keep these things in mind as its plan of operation is unfolded.

#### Local Associations Ineffective.

When the orange and lemon growers first organized nearly thirty years ago, they formed local associations—one for each community. These local organizations either rented or bought a packing house and prepared the fruit for market. It was thought that these local associations would solve the whole knotty problem of marketing citrus fruit.

It soon developed, however, that the practical effect of these local shipping associations was to largely eliminate the old speculators and make these associations the speculators. Because each local association operated independently, it had no knowledge of

Story, the venerable ex-president of the exchange, who told me the story. "We organized the exchange so that we might work together, and not cut each other's throats."

At the present time there are two hundred and eighteen local associations which are organized into twenty district exchanges. These district exchanges in turn have joined together in the central overhead organization, the California Fruit Growers' Exchange. Its headquarters are in Los Angeles, the heart of the citrus district; its general manager is G. Harold Powell, national and international authority on cooperative marketing.

#### Three Jobs, Three Organizations.

Each of the three organizations—central exchange, district exchange, and local associations—have their separate and distinct work to do. The local associations own or rent a packing plant; their job is almost entirely to take care of the mechanical details necessary to get the fruit to market

properly. For instance, they employ squads of pickers who take the fruit from the trees; they hire trucks to haul it to the packing houses; they grade and pack the fruit and load it upon the cars. Not all of the fruit is picked and hauled cooperatively, but most of it is because a more uniform product is thus insured."

The district exchanges sell the product. The central exchange keeps the district in various cities, and provides the necessary machinery for selling. It maintains a staff of eighty-nine salaried agents in the principal market cities whose business it is to sell the fruit when it arrives on the market. Every district exchange, however, has the final word whether it will accept the price offered, so the agent gets the best bid available and notifies the exchange, which accepts or rejects.

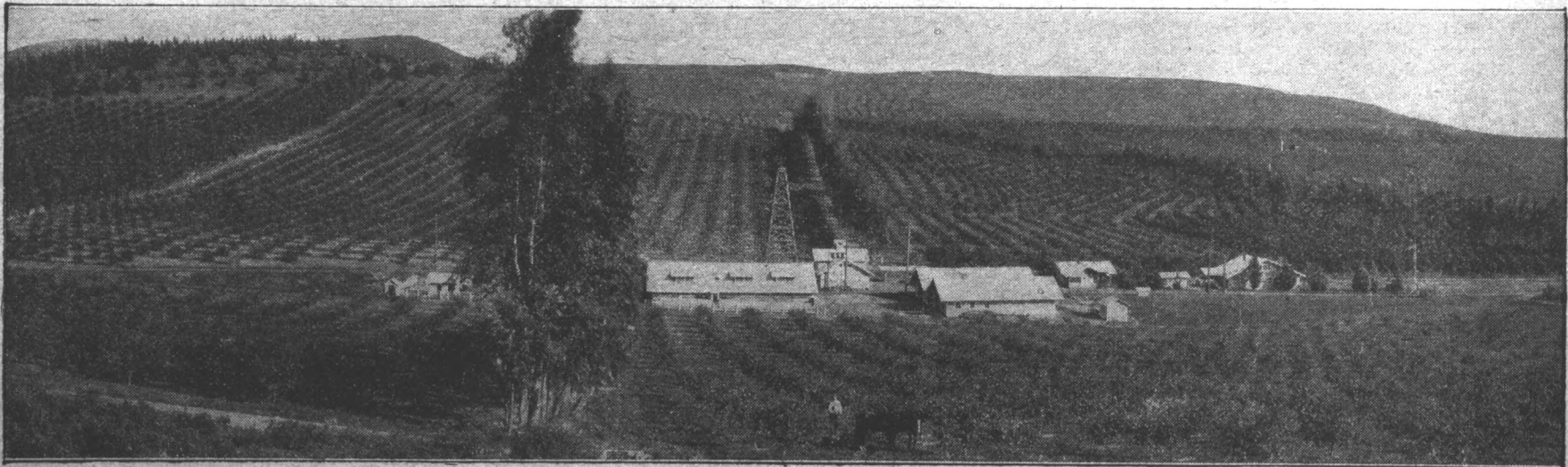
#### Can't Fix Prices.

"We do not fix prices on oranges and lemons, simply because it is impossible to fix prices on a perishable product like ours," said Powell, in reply to a question. "We do attempt to stabilize prices, however, by holding off of glutted markets, and by marketing approximately one-fifty-second of our product each week. Should the whole market be glutted, we would simply ask our members to suspend picking for a short time. Oranges and lemons do not have to be picked any one time, but may stay on the tree for a considerable time. I want to emphasize that we do not attempt in any way to fix prices, but we do succeed measurably in stabilizing the market by using the means at our command."

The chief purposes of the organization, according to Powell, are to eliminate speculation in citrus fruits at the expense of the growers, and to reduce the cost of distribution. Naturally, these two things act to the benefit of the growers. "We have no quarrel with the speculators and middlemen," said Powell. "We have no antagonistic speculators, but they have been eliminated simply because we have found a cheaper and more efficient way of doing business. We did not organize simply to put those fellows out of business, but to do better business ourselves than they were doing. If they have been forced out, it is their fault, not ours."

#### Eliminating Speculators.

The first great step forward by the California Fruit Growers' Exchange was when it worked out the system of delivered selling. It did away with the practice of selling oranges in California, because that was the very thing that induced speculation. This struck one group of speculators a body blow. Next it eliminated brokers in the big market cities and substituted



After they inaugurated a system for marketing their own products, the poor fruit growers of Santa Anna Valley soon became prosperous.



salaries agents. This eliminated another group of orange and lemon speculators. The exchange now and for many years past has sold in carload lots to wholesale fruit dealers, who in turn distribute to the retail trade. Several officers of the exchange who I questioned stated that they did not anticipate going farther into the trade than they already have, unless it should prove necessary for them to do so.

"Owing to the perishable nature of our produce, we cannot exercise arbitrary control over it, even should we desire," said Powell. "There is preserved complete and free competition between individuals and between local associations. Our exchange simply finds the market and gets together all the available data on supply and demand; we furnish this to every separate local association. Every man reserves the right to pick his fruit when he wants to and to sell when he wants to, though we may advise what to do. As a matter of fact, our records show that approximately one-fifty-second of the crop is delivered each week, a factor which is absolutely necessary in stabilizing markets."

#### Pooling the Crop.

The pooling system is employed in dividing the proceeds from oranges sold. Each local association handles this to suit its members. The principle of the pool is that all growers receive the same price for their oranges, regardless of the time sold or the price received, provided they are of equal quality. In other words, all the receipts go into a common treasury; when all the oranges are sold, the money is divided among the members in proportion to the amount of produce.

Some associations have a yearly pool; that is, all the oranges of one crop are pooled together. Growers re-

ceive a payment each month as fast as money comes in for oranges sold. When all the oranges of the year are sold, a final payment is made. Others have a new pool every month, and final division is made every thirty days of the money received for the oranges handled during that time. There are many kinds of pools in the orange and lemon associations; the method of handling these is rather complicated to an outsider. This principle can be made clearer in discussing non-perishable products like raisins, and will be left until next week's article.

#### Contracts with Growers.

The California Fruit Growers' Exchange has a contract with each of its ten thousand five hundred members binding them to deliver their products to it. These contracts cover a twenty-year period, and may be revoked if notice is given during a certain season. "It is highly necessary for a cooperative marketing organization to have its member bound to deliver their products to it for sale," said Powell. "Lack of this feature has killed many cooperative agencies in California. Our contract has been upheld in the courts. On the other hand, a cooperative society must have a deeper loyalty than that—a religion of cooperation among its members, if you please—but the contract is an absolute necessity."

Formerly the California Fruit Growers' Exchange was a capital stock corporation, as also were the district exchanges and the local associations. "It is fundamentally wrong for a cooperative agency of any sort to have capital stock," declares Powell. Several years ago the change began to the non-profit plan of organization without capital stock, and most of the associations and exchanges are now on that plan. A levy on sales is made to furnish the capital needed to operate. This keeps the working capital in proportion to

the business done by the individual. A certain amount is retired each year also—usually that which was paid in the fifth year before. This point will be discussed more fully in a special article on financing cooperative associations which will appear later in the series.

#### Advertising "Sunkist" Fruit.

As soon as the California Fruit Growers' Exchange was strong enough to stabilize prices to a reasonable degree, the citrus industry began to be profitable. Then came a period of increased planting of trees and consequent increased production. It is simply another illustration of the fact that the easiest way to secure large production of any product is to insure fair returns. After a time the shadow of over production hung over the growers. It was warded off for many years by efficient distribution of fruit.

In 1907 the exchange embarked on a brand-new experiment by starting on an advertising campaign in Iowa, where the virtues of "Sunkist" oranges and lemons were extolled. A forty per cent increase in consumption resulted. From that modest start grew the present system of advertising "Sunkist" oranges and lemons all over the United States. Nearly \$500,000 annually is spent on advertising. "This has justified itself in many ways," commented Powell, "it has kept consumption well ahead of production and has been the very backbone of our success."

#### Fundamentals of Cooperation.

Powell is a man of business, whose kindly philosophy on cooperation is known the world over. "The harsh method of big business cannot be applied to a farmers' movement," he told us. "Cooperative marketing has a creed all its own. There are certain fundamentals which must be observed in any producers' cooperative organiza-

tion whether in California or Nebraska. "First of all, it must be founded upon economic necessity. It must begin in a small way and must not proceed faster than its member. Producers must stick together and have a high degree of loyalty to the organization and to each other.

"Next, a cooperative agency of producers must be owned, managed, controlled and financed exclusively by producers. There can be no combination of growers and distributors or of growers and consumers. Their interests are fundamentally divergent. The capital contribution should be kept as nearly in proportion to use made of the organization as possible. It should be literally an industrial democracy working in business, therefore all members should have an equal vote, regardless of the amount of stock held.

#### Producers Only.

"The membership in a cooperative organization must be producers exclusively. Producers are the only ones with an interest in the land. Others sooner or later try to dominate it, and capitalize its success. The one-man-one-vote, rule is of equal importance; it is based upon the equal voting power of men. It gives confidence to small producers.

"A cooperative organization must be held together by the benefits to its members, not by compulsion. We are all human, therefore, it is absolutely necessary to have a membership agreement providing that the individual producers must market their products through the organization.

"It must also be founded upon a special crop. Bean growers and cotton growers cannot cooperate. Each farm industry must be organized by itself. The group within the organization must be actuated by a common interest, a common purpose and a common ideal."

## OUR SERVICE DEPARTMENT

### DOWER RIGHTS.

Can a woman bargain or sell her dower right to her husband in the state of Michigan? Can a woman hold as her dower right a third with the buildings on, or are they just entitled to a third interest in the whole place? Does a woman get a third in case of the death of her husband, or the use of a third?—C. B.

Dower can be released only by the wife or her guardian (if she have one) joining in the deed of the husband conveying away the property, or by a subsequent deed by the wife to the purchaser or his grantee, or by a settlement on the wife before marriage (if of full age) and with her consent in lieu of dower. If she attempts to make a release to the husband by agreement after marriage she may after his death elect whether to take the provision made for her by such agreement or to claim her dower according to law; wherefore such post-nuptial agreement is not effectual.

The dower right is a life estate in all the land owned in inheritance by the husband at any time during the marriage, and not released by the wife.

Unless the parties agree as to assigning the dower out of particular property, the court will set out the dower for the wife, in severalty if capable of equitable division; but if not then dower will be assigned of the income of the property. J. R. R.

### HENS WITH CANCER.

Can you tell me what ails our chickens? The old fowls act like young chickens that have the gapes. They gasp for breath and have what look

like cankers in the mouth and windpipe. They don't look right, then get diarrhea and die. W. W.

Canker is a disease that affects the mouth and throat and the inflammation of the membranes causes the bird pain in swallowing. It usually develops from exposure which has first brought on colds or roup. The tumors which form can be taken out with a sharp knife and the wounds painted with full strength Zenoleum. Washing the wounds with peroxide of hydrogen may also be beneficial. Isolate the sick birds in a brood coop where they can easily be caught for frequent doctoring. It sometimes takes quite a while to bring a bird back to health when suffering from canker. Like all poultry diseases prevention is, of course, the most satisfactory. K.

### BLACK SPOTS ON POTATO LEAVES.

My potato plants which have looked green up to date are now showing tarry black spots on the leaves. The tubers are sound but small. Is this blight and what shall I do? Livingston Co.

The leaf trouble described is early blight, although there may be some tip burn or hopper burn also doing damage to your potatoes. Early blight is a fungous disease of the potato and the condition which you describe of the tubers remaining small is one of the things associated with this type of leaf disease. The growth of the tuber depends on the health and activity of the leaf surface. Where the leaves are weakened the tuber production is weakened. This type of disease does

not cause any rotting of the tubers. It is too late to control this disease now, and you doubtless will harvest a fair crop if the rainfall is sufficient to "make potatoes." It is the extra growth that stimulated, green vines make that you have lost as a result of this disease. Next year if you have good potato soil I would advise consistent spraying of the tops with Bordeaux mixture, making about five applications and putting lots of spray on the leaves. G. H. C.

### SPOTS ON APPLES.

My Jonathan apples last year developed a peculiar skin spot which completely spoiled their appearance and made marketing a problem. They were all right when put into the cellar, but by Thanksgiving you could hardly find a good one. The skin lost its fine flavor and took on a rank taste. What was the matter and what can I do to prevent it this year? A. V.

The disease you describe for Jonathan occurs on some other varieties, such as Grimes, Arkansas Black, Wealthy, and Wolf River. It is so common on Jonathan that it is called Jonathan spot. Its cause is not known, but it is not believed to be due to a parasite. It would seem that the diseased condition is due to some type of surface scalding, due to improper conditions as the fruit is ripening. This disease formerly of great damage to western shippers, has been reduced markedly by proper handling of the fruit after picking. The fruit should be placed in cold storage promptly after picking and held under cool storage—near thirty-two degrees F., with proper ventilation provided. Under such conditions

scalding is reduced to a minimum. Michigan conditions of apple packing favor Jonathan spot. The apples stand about in the orchard, alternately heating and sweating for some days and then they are stored under warm storage conditions. If the over-heating and the sweating in the orchard are avoided and if the apples are placed in proper storage Jonathan spot will not be so serious. G. H. C.

### ANIMALS RUNNING AT LARGE.

Regarding a reply which appeared in your Service Department in regard to stock running on highways, I do not exactly understand the answer, so am writing to ask if it means that persons have a right to run their cattle and horses in the highways during the summer months?—P. P.

By Comp. Laws (1915), Sec. 7447 cited in the reply referred to, anyone may take up stray cattle running at large between November 30 and March 1; but it does not follow that cattle may run at large the rest of the year. Unless there is a vote of the town-meeting for the year that cattle may run at large, it is the duty of the overseer of the highways of the town to take up any cattle found running at large any time of the year, and anyone may take up any cattle found in the road running stray in front of his premises at any time of year by C. L. (1915), Sec. 7287. And even if the town should vote that cattle might run at large, anyone might take up and impound any cattle found on his premises, whether fenced or not, at any time of year, and the reader knows how long it takes cattle running at large to get off of the highway.—J. R.



# Is Cherry Selling a Gamble?

By I. T. Pickford

**A**FTER a game it is always interesting to talk over the plays. A comparison of our foresight without hindsight may or may not be comforting. Practically all the cherries are now out of the hands of the producer, but of course only a limited percentage are in the possession of the consumer. Hence the game is still going on for a large army of us.

Last year the cherry man made some money. He had a good crop in general and the price was good, too. The shock of this actual cash in his pocket was but to stir up dreams for another year. Therefore, early this spring and summer it was thought by many that the price might be even better than last year, inasmuch as production costs had advanced even higher. Most growers were wise enough to know, however, that nothing could be definitely figured out until some estimate of the country's crop of cherries was available.

As time rolled on it became quite evident that the crop would be large although in some sections it was not up to last season. Canning companies were reluctant to make contracts and growers generally stood pat. Now it is clearly understood that the cherry has but a short picking season. After being removed from the tree it can be held but a short time in the fresh state unless actually frozen or at least held at a low temperature.

In Michigan there is about ten days difference in ripening between the southern and northern ends of the cherry districts. In other words, the Early Richmond in Berrien county ripens about July 1 and at Traverse and Bellaire about July 10. Then comes the major producer, Montmorency, running usually a week to ten days after Early Richmond, and finally the English Morello trailing the rest by a week to ten days. This means that taking Michigan as a whole the producer relinquishes his hold on the crop in about twenty-five to thirty days and the average individual grower is harvesting about one-half that time. You can quickly figure out how easy it is for the local markets and the usual heavy receiving centers to become glutted and consequent low prices prevail.

Without going to unusual extremes I know that some growers have received this year per bushel packed in crates so low as \$3.00, and that others have received \$8.00. Why all this difference? Certainly it hasn't been all cupidity on the part of buyers nor simple mushiness in the sellers. It may be natural enough for each to blame the other, but to get anywhere the growers have got to study the question from end to end, beginning right after one harvest to plan the next and act in unison on a program. This spells organization for business and not for

mutual admiration, nor combined baiting of dealers.

To go back and analyze this difference in sales price. We agree that the most vital cause has probably been faulty distribution. Whose fault is it? Here is a whole mountain of problems to dig over. Four dozen doting relatives in their blind devotion may send one baby four dozen teething spoons; four hundred cherry growers in their blind eagerness to dispose of a crop may send a dozen cars of fruit to a one-car market.

Cause number two is perhaps due to the fact that some contracts were made before the harvest was on. These sales were mostly neither the highest nor lowest. It was a game of guessing on the part of each player and conservatism was the dominant feature.

Now the next consideration is one of grade and pack. I want to go over this at some length although it perhaps has not had the influence the past two years that it should. In other words, having no definite standard grade causes a lack of confidence which tends toward a low "no-risk" price rather than a wide range.

It is true nevertheless, that some of our high markets were struck by producers who had established a reputation for quality. Value received is what rules in the final accounting. Buyers and sellers must remember that whether it is by contract or in the open market, quality grade is the most fixed item to govern sales. The Michigan Potato Exchange which has handled a large part of the crop for the local associations has guaranteed a number one grade and makes sales F. O. B. This is not usual for cherries except where the buyer actually sees each lot before shipped.

When the tree has lost its leaves either by the leaf fungus, insects or otherwise, its fruit is not first-class in any sense and when sold mixed with other lots we can depend that the price paid is for a medium or low grade. Even where an association operates its own cannery it will be found just as imperative that the stiffest kind of grading be practiced, for if the success of such an institution is based on anything it is on the individual receiving in proportion to that which he delivers. A premium must be paid for quality.

Slackness of pack was noted in some instances. If the boxes lack noticeably in being full it makes a depressing effect on price. The best growers oval the boxes to the fullest degree possible as an insurance of a level package at its destination. Confusing features that enter in and make difficult a clear basis for marketing the cherry are these facts: Many growers are irresponsible relative to the ripeness of the fruit which they put on the market. The flavor and quality of a cherry



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is dependent on maturity, like most other fruits. They may be picked with stems of varying length. Hence differences in weight and keeping qualities. You may buy in sixteen or twenty-four quart cases, in half bushels, and by the pound. There is room for a little standardizing here.

Unquestionably the bulk of the crop is canned soon after picking. A large percentage in normal years by the housewife. Another method is by freezing up solid the fresh fruit and holding in this manner in cold storage houses. It is then delivered to hotels, restaurants and pie factories as required. The amount dried is not large but this type of preservation seems promising. Juice concerns take a great many and undoubtedly this demand will increase. Just which of these outlets should be most worked by an organization is questionable, but none of them could be neglected.

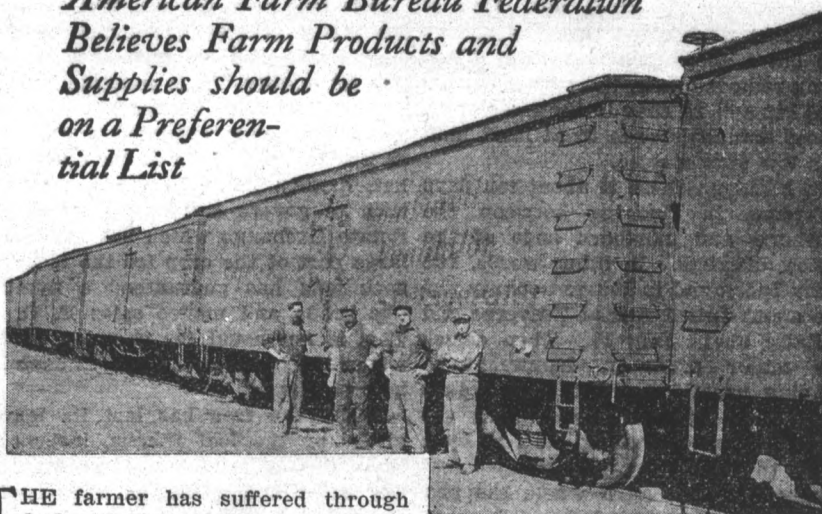
There is now a National Cherry Growers' Association, organized last spring, with Michigan, Wisconsin and New York representatives. A. J. Rogers, of Beulah, Michigan, is an officer.

Such an organization, by sticking to business methods of protecting the local associations in making deals, can be of much service. They could work through some already existing economic organizations like the farm bureau or its affiliated branches. To reiterate start the ball rolling now for next season and get set on a program. It's the business of the producer to better conditions not now to his liking.

A mutual cooperative understanding of the growers representing over one-half of the sour cherries produced in the United States will be able to market the crop at as high a figure as the law of supply and demand will warrant. The price received will be maintained uniformly for the grades established and guaranteed by such an association. And best of all, the grower can stop worrying about the most of his marketing problems. He will know that the business is being done by experts at as low a cost as it can be performed. He knows what this cost is and has a representative control. It will then become his big problem to produce quality stuff at the lowest possible per unit cost.

## Transportation a Problem

*American Farm Bureau Federation Believes Farm Products and Supplies should be on a Preferential List*



**THE** farmer has suffered through lack of transportation facilities. Food products are worth nothing to producer nor consumer unless they can be delivered to the market.

In our highly complex social system it is difficult to draw a clear delineation between essential and non-essential industries, but one thing is very certain, and that is that agriculture is the hub about which all else revolves. The farmer is dependent on many phases of the manufacturing industry to supply his needs, but absolutely everyone is dependent upon the farmer. Since 1915 the volume of freight handled in this country has increased forty-five per cent. During the same period the increase in number of freight cars amounts to only two per cent.

At the time that the government assumed control of the railroads the freight car equipment aggregated approximately 2,400,000 cars. The maximum life of a freight car is twenty years, therefore, in order to maintain this number of cars in proper condition, to say nothing of providing for additional needs, it is necessary to build at least 120,000 cars per year.

During the twenty-six months in which the railroads were operated under government control, only 100,000 freight cars were built which is somewhat less than one-half the number necessary to maintain the customary total of usable cars.

As a result of this, the railroads now find themselves requiring 260,000 new freight cars for immediate use.

An increase in rates has been recently granted, but it will be months and even years before our transportation systems can be restored to their normal efficiency. At best, the rehabilitation of the railroads will be a slow process and will not solve the problem.

of moving this year's crops of food-stuffs that have been stored in local warehouses since last season.

Until such a time as the railroads are in a position to adequately handle the situation, the only solution seems to lie in the direction of granting a preferential treatment to all farm produce held by the farmer for shipment, granting the same consideration to all goods consigned to the farmer that are required by him in the successful conduct of his business.

Through such a procedure, food-stuffs now lying in remote rural warehouses will become available for consumption and it will be possible for the farmer to get delivery on feed, seed, fertilizers, implements and farm machinery and other necessities.

Such a plan would serve to stimulate agriculture and would help to restore normal conditions.

### ELIMINATE EARLY MOULTERS.

**THE** beginner with poultry soon finds that there is a time in the fall when the egg returns become very low and often it is just the time when feed bills are high and he wishes to buy all feed not raised on the farm and stack it up for winter. This period of slack production usually occurs somewhere between August first and December first, and the length of time it lasts depends on the skill of the poultryman. Why do the egg returns fall at this time? Because there are too many early moulting hens in the flock which have ceased producing eggs. And the pullets are not the early hatched birds that lay in the early fall and keep it up throughout the winter.



# A Practical Hog House

By Harley M. Ward

THE profits from the hog crop illustrates these different materials with form a very important item of proper detail.

the total profits from many farms. These profits depend in large measure upon the care of the hogs, and good care of the hogs calls for an up-to-date and sanitary hog house.

Money put into a good hog house is well invested under any circumstances, but when market hogs are up around fifteen cents, good shelter is all the more important. The floor plans here shown illustrate a popular arrangement which is proving very satisfactory on a great many farms throughout the corn belt.

The outside dimensions of this house are twenty-four feet by thirty-seven feet, six inches. It contains twelve

The hollow building tile is being used by a great many with very good results. On account of the dead air spaces in the tile, such a house will not freeze if there is stock in it, no matter how cold the air is outside. The hogs are more comfortable in cold weather and do not require so much feed to keep them in good condition.

Wood is the most commonly used because of the ease with which it is worked into a finished building. But if a wood building is constructed as warmly as one built of hollow tile or concrete blocks the cost would possibly be the same or higher.

The roof in all cases will be of wood



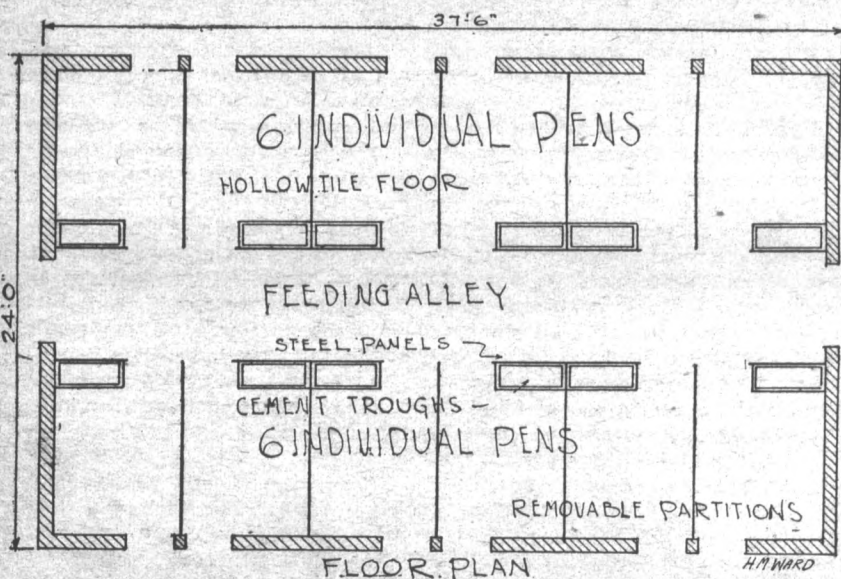
separate pens each six feet by eight in the clear, with an alley four feet, ten inches wide, running the full length of the building between the two rows of pens. Practically all hog raisers have agreed that a pen six by eight feet is large enough for a sow and her litter, indeed a five by eight-foot is used by some with good results.

There is an outside door at each end of the alley. Then a door opens outward into the alley from each pen, so that the hogs may be separated and moved from one pen to another with convenience inside the building.

Each pen is also supplied with an outside door so that separate runs or yards may be built on the outside for

and two-by-four number one yellow pine rafters, twenty-four inches on center, sheathed with one-by-four roof boards, number two lumber spaced two inches apart if wood shingles are used. If prepared roofing is used one-by-six dressed and matched boards should be used. A heavy three-ply prepared roofing covered with crushed slate will give a good roof for twenty to twenty-five years without any attention. This makes a very warm roof for winter use.

The metal roof windows let the sunshine strike every part of the building during the day. There is no better disinfectant for a hog house, no more efficient destroyer of disease germs known, than plenty of bright sunlight.



each. In decent weather this door could be left open so that the pigs could have the use of the outside run and inside shelter at will.

These small doors should be twenty-four inches wide and thirty-six to forty-two inches in the clear. In cold weather a piece of burlap or ducking hung at the top of the door, with a stick a little shorter than the width of the door nailed across the bottom to prevent the wind from blowing it back, will help materially to keep the pigs warm. The pigs will soon learn to lift the curtain when they want to go through. The board doors would not then need to be closed except in very bad weather, or while the pigs are very small.

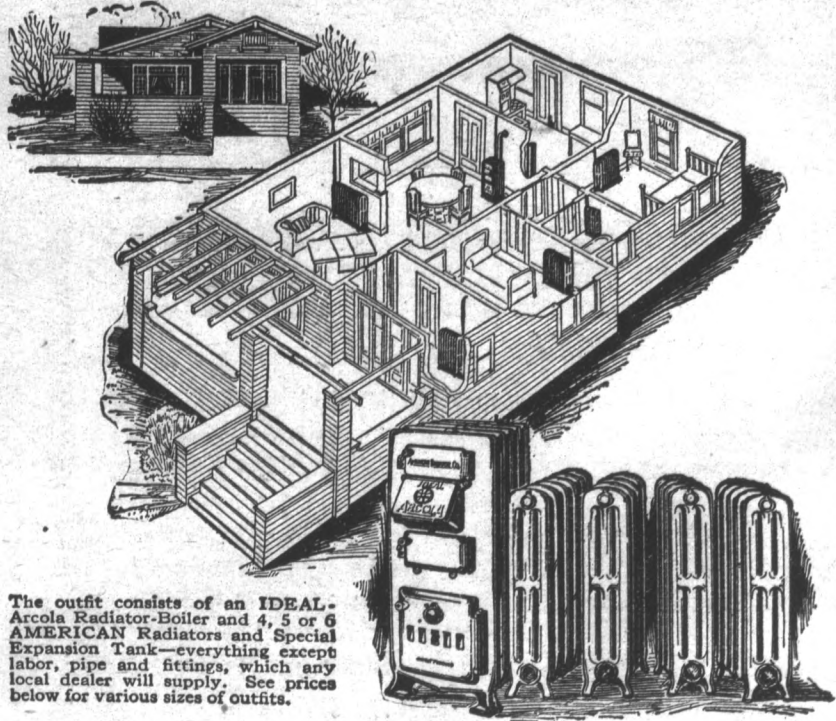
The walls of the building may be of three materials: wood, hollow building tile, or concrete. The cost of these different materials would be about the same, provided, a good warm building is constructed. The cross section il-

Plenty of sunshine is better and cheaper than buying medicine for the hogs.

Fresh air is also an essential feature of any well-constructed hog house. Every farmer knows how soon the air in the ordinary pig shed becomes foul when filled with hogs. Hence to insure healthy hogs some provision for ventilation must be made. This is provided for in the plan shown by two ventilators. These ventilators are especially valuable during the cold weather in the winter when the doors and windows are closed for protection from the cold.

Such a house is especially adapted for brood sows during the farrowing season. Each sow and litter can be provided with a separate pen and outside run, until the pigs are old enough to be together in a large lot. The individual pens are also useful for weaning purposes. The pigs can be shut in

## IDEAL-Arcola Radiator Boiler Farm Home Heating Outfit (no cellar needed)



The outfit consists of an IDEAL-Arcola Radiator-Boiler and 4, 5 or 6 AMERICAN Radiators and Special Expansion Tank—everything except labor, pipe and fittings, which any local dealer will supply. See prices below for various sizes of outfits.

When the cost of your heating is figured on a yearly basis, the IDEAL-Arcola heating will be found to be the *cheapest heat* in the world, for it lasts forever—heats every room—uses no more coal than a stove, never needs repairs, is clean and easy to run. It gives you the same delightful warmth that city residences have.

Any dealer will furnish in sizes to suit rooms and climatic conditions.

For Soft Coal	No. 1-B Size IDEAL-Arcola with 100 sq. ft. of Radiation	\$142
	" 2-B " " " " " " " " " "	176
	" 3-B " " " " " " " " " "	213
	" 4-B " " " " " " " " " "	251
	" 5-B " " " " " " " " " "	290
For Hard Coal	No. 1-A Size IDEAL-Arcola with 135 sq. ft. of Radiation	\$163
	" 2-A " " " " " " " " " "	206
	" 3-A " " " " " " " " " "	265
	" 4-A " " " " " " " " " "	299
	" 5-A " " " " " " " " " "	349

Prices include Expansion Tank and Drain Valve. Prices do not include labor, pipe and fittings used in installation and which are supplied by the local dealer at extra charge. Radiation is of regular 38-in. height 3-column AMERICAN Peerless, in sizes as needed to suit your rooms. Outfits shipped complete f.o.b. our nearest warehouse, at Boston, Providence, Worcester, Springfield (Mass.), Albany, New York, Philadelphia, Harrisburg, Pittsburgh, Baltimore, Washington, Richmond, Buffalo, Cincinnati, Indianapolis, Birmingham, Detroit, Chicago, Milwaukee, Minneapolis, St. Paul, Des Moines, or St. Louis.

### Shipped complete for immediate installation

The beauty of the IDEAL-Arcola method is that no cellar is needed. Everything is on one floor. The Arcola is placed in any room that has a chimney connection. No running to cellar. Same water is used over and over again for years. No fire risk.

### Buy now at present attractive prices for outfits complete!

IDEAL-Arcola outfits consist of the boiler and radiators to heat various size houses. Write us your requirements! Unlike stoves, there are no coal-gas leaks in the living-rooms. The IDEAL-Arcola delivers the soft, radiant warmth of hot water—not the dry burnt-out atmosphere of stove heating. There is no fire risk to building—no danger to children—fire lasts for hours! The Arcola burns hard or soft coal.

Catalog showing open views of houses, with the IDEAL-Arcola Boiler in position will be mailed (free). Write today

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Strength, Durability and Service radiate from every line of these Masterful Grinders. Simple but effective in adjustment.  
**LIGHT RUNNING—LONG LIFE—EXTRA CAPACITY**  
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10 sizes—2 to 25 H.P. or more. Also Sweep Mills. It pays well to investigate. Catalog FREE.  
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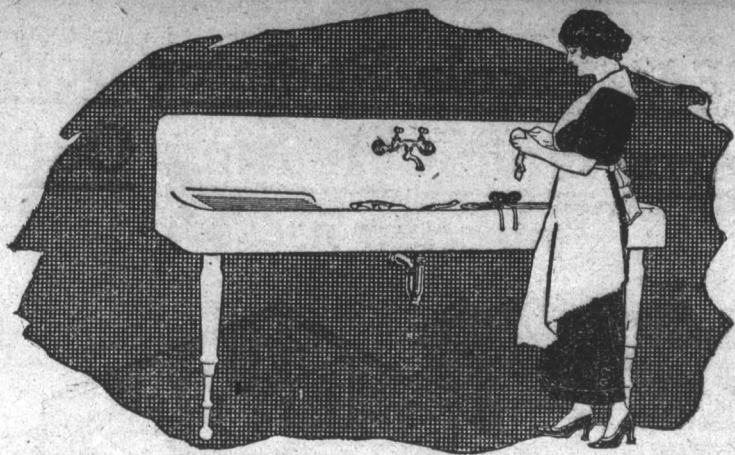
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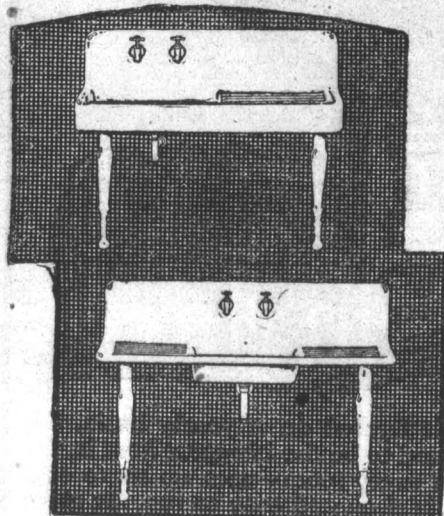
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You can install "Standard" Sinks in any home. Ask a Contracting Plumber or write us for color-printed catalogue of "Standard" Plumbing Fixtures for the Farm.

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Pittsburgh

# "Standard" KITCHEN SINKS



## Why Not Get Full Profits?

Analysis shows that more than one third of the nutriment of a corn crop is in the fodder. Only a small part of the nutriment in the fodder is ever actually used when handled the old way. It blows away, leaches away in the weather, is tramped under foot, and washed away. Fully one third of every corn crop so handled is therefore wasted.

### Use Your Fodder

Put it into a silo or shred it into your loft, and you have it where it will be safe against weather and deterioration. Your stock will get out every ounce of good there is in it.

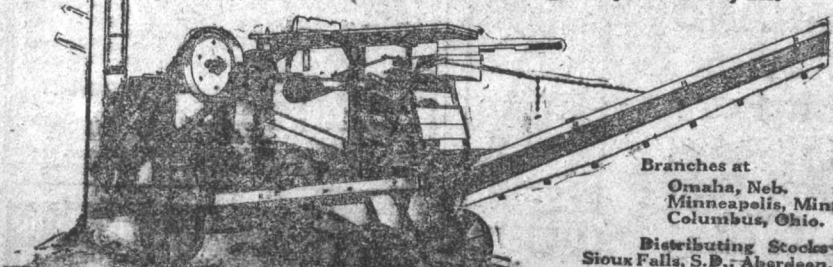
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Huskers and Shredders

this pen and given special care during the weaning period. Altogether, this house has many advantages which recommend it to the average farmer. If the house is too large or too small for the purpose of farrowing they can be removed and any individual reader, he could follow the same plan of construction and fit the size to his individual needs.

## Federal Control of Packers

*Farmer Representatives are Endeavoring to Unite on a Common Plan of Control*

REPRESENTATIVES of the farm organizations maintaining Washington headquarters, are holding conferences for the purpose of formulating a definite agreement and line of action to be followed in regard to packer legislation. They all are agreed that something must be done to regulate the packing industry for the benefit of producers and consumers, but there is a difference of opinion as to methods of solving the problem.

The Farmers' National Council has presented a plan which would place the packers directly under the supervision and orders of a federal food commission, but representatives of the other farm organizations are not inclined to give their endorsement to this proposition. Dr. T. C. Atkeson, Washington representative of the National Grange, favors rigid government inspection of meats and packing plants to protect the public. He believes that the federal government should guarantee to everybody who wishes to engage in the business of meat packing equal opportunities and privileges; that the railroads own the refrigerator cars and stock yards, and be compelled to furnish these facilities on equal terms to large and small plants, removing all discriminating factors between the producers, packers and consumers.

All the farm organization representatives have voiced their opposition to the packers' proposition to transfer the stock yards to a "dummy" holding company, and will send a protest to Attorney-General Palmer against a transfer of the stock yards in any such manner. This is in line with the demand for rejection of the "big five" packers' scheme, made by the federal attorney-general. The packers' plan, which provides for the sale of the stock yards in fifteen cities to F. H. Prince & Company, of Boston, was opposed by the commission on the grounds that it would enable the packers to increase rather than diminish their control of the stock yards. The object of the government litigation would not be accomplished by the packers' plan. According to the commission the fifteen stock yards, included in the scheme, handle seventy-three per cent of all live stock received at all the yards in the country.

Speaking of the Kenyon-Anderson bill which provides for the creation of a commission to regulate the operations of meat packers through a system of licensing, Gray Silver, Washington representative of the American Farm Bureau Federation, says: "Under this arrangement the handling of stock yards, refrigerator cars, market reports, and all other features of the packing business would be under constant supervision and inspection by employees of the commission and all unfair practices readily discovered. The rulings of the commission could be enforced under penalty of loss of license to operate."

The live stock situation is in a bad way. This information was brought out, a few days ago, when a committee of live stock producers, including some of the leading cattle men of the west, appeared before the federal reserve board and asked for relief from what was described as the impending destruction of the live stock industry through curtailment of loans. They petitioned the board to enable and encourage the banks of the federal reserve system to aid them financially in feeding and marketing their products. The committee predicted serious consequences to the country and ruin of the live stock industry throughout the west unless bankers and cattle loan companies discontinue "calling" loans. Millions of dollars in loans are maturing this fall, and it was the belief of the cattle men that a reassurance from the board that it approved credit extension by the banks would somewhat relieve the situation which now confronts the stock raisers. Governor Harding, in reply, said the policy of the board had been to regard

THOUGH the decree provides for a total divestment of stock interest by the defendants," says the commission, "this plan leaves the way open for them and the non-defendant packer interests temporarily and for the non-defendant packer interests permanent to acquire absolute control of a holding company that will own fifteen of the principal stock yards of the country, whereas now they have majority control of but eleven of the fifteen."

"The amalgamation of the yards through the promotion of Mr. Prince not only will be a greater monopolization of the stock yards business than now exists, but it contains elements to strengthen the packing house monopoly until such time as the defendants are divested of their stock in the holding company by order of the court. The offers of the contracting parties embodied in the plan provide for the retention of an interest less than fifty

(Continued on page 408).



# Did You

**Lose 10 Bushels of Corn  
Out of Every 100 You  
Cribbed Last Year?**

WERE you one of those who lost a big share of their corn last year? The U. S. Department of Agriculture says that 20% of the annual corn crop is lost between the time it is harvested and consumed. The farmer bears the biggest share of this loss.

Every farmer knows that it is practically impossible to store corn in wood cribs and old rail pens without a heavy loss—the older the crib the greater the loss. The farmer who uses the old wood crib lost fully 10% of his crop. Rats and mice wasted some of it; rain, snow and dampness spoiled some of it, and fire destroyed the whole crop in many cases. Think of it, at least ten bushels out of every hundred were lost. With corn and grain prices as high as they are, and prospects of going still higher, this old, out-of-date, wasteful method of storing your crops is pretty expensive.

# Then Read

**How These Farmers Stopped  
That Loss and Saved  
Hundreds of Dollars**

Thousands of farmers have found that they can stop this big loss and make more money by storing their crops in Martin Steel "Corn-Saver" Cribs and Bins. These modern steel cribs provide clean, well ventilated storage for corn and grain and protect every bushel from loss. Safe from rats and mice—safe from mould—safe from fire and thieves—safe from loss of any kind. Read what these farmers have to say about them:

"Since 1881 I have built three wooden cribs that were supposed to be rat and mouse proof and each proved a delusion. At last seeing a Martin Crib, I decided to have one. My corn that year was not well matured, but the Martin cured it in good condition. Not a rat or mouse has ever got it, so all the former waste has been money saved. I will never try to farm without a Martin again."

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"I bought my Martin Crib because I thought it would pay me a big interest on my investment, on the extra corn it would save. I figured it made \$25.00 extra for me on every 100 bushels of corn. I think it is the best corn crib on the market, because it saves all the corn and cures it better than any other crib."

John F. Linkmeyer, Benham, Indiana.

"The Martin Crib saves money for its owner. It is positively rat, mouse and weather-proof. I don't have to carry fire insurance on it. My cousin gets big prices for every ear of corn put in his Martin Crib, as the germination has always tested around 94 to 96 per cent."

W. I. La Rue, Prop. Crystal Springs Stock Farm, Henderson, Ky.

"Last fall I bought one of your Martin 'Corn-Saver' Cribs. My niece and I set it up in a very short time. It has saved me many a dollar by protecting every bushel from loss and improving the corn by proper curing. I would not sell it for twice its cost if I could not get another. My only regret is that I did not buy a Martin Crib years before."

R. H. Frite, Mt. Holly, O.

# Now Write

**For This Big FREE Book  
That Tells How You  
Can Do The Same**

If you want to save this 10 per cent of your corn and grain crops that are now being wasted and destroyed, then write for our big, new corn crib book. We will send it to you free and postpaid. It tells how Martin Cribs are built of corrugated galvanized steel and are rat-proof, fire-proof, bird-proof and thief-proof. It explains how their patented ventilating system keeps out all rain and snow, yet cures the contents perfectly—how their patented construction makes it possible for you to use the Martin Crib successfully for storing both corn and small grains such as wheat, oats, rye, etc., thus getting two extra profits from your Martin Crib each year. It shows why Martin Cribs are cheaper than wood cribs, are easier to erect, and last a lifetime without repairs. Better write for your copy of this big, corn crib book today. Remember, it is free. It takes only a postage stamp to get it. Just fill out the coupon and mail it at once.

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A. C. HOYT, Fostoria, Ohio.

## The Only Metal Crib that Will Store Both Corn and Grain Successfully

"I am using two of your Martin Cribs. One of them I had full of wheat and sold it out, and filled it with corn. The other is full of oats now. For storing corn and grain, I do not know of any crib that is better than the Martin. They are fire-proof, rat-proof and all the grain you put in, you surely get out."

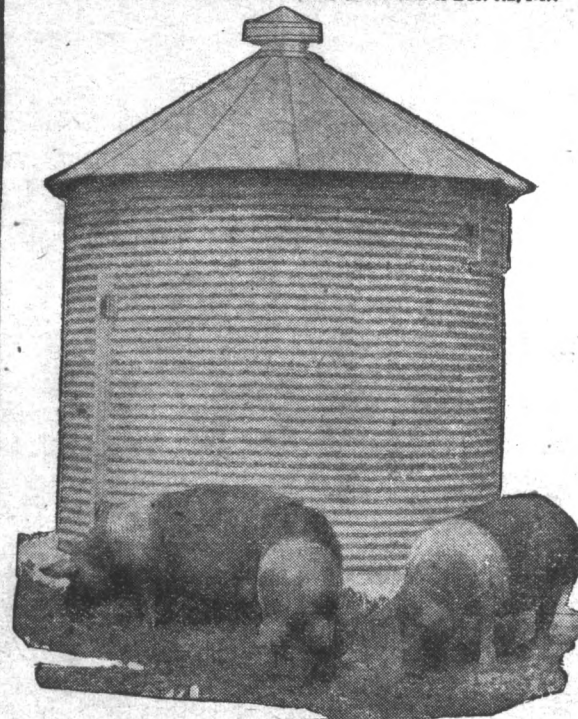
R. R. POTTER, Ord, Nebraska.



**Peter J. Lux, the Seed Corn "King"  
And His Martin Crib**

"I think your Martin 'Corn-Saver' Crib is the best crib built. If I build any more cribs, they surely will be your crib. I think that if corn growers throughout the United States used Martin Cribs for storing their corn, they would save over \$10,000,000 worth of grain that is now being wasted and destroyed by rats, mice, fire and mould." PETER J. LUX, Shelbyville, Ind.

Mr. Lux won the Grand Champion Sweepstakes Prize for seed corn last year at the International Show held in Chicago, Nov. 23rd to Dec. 6th, 1919.



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"Before I pay out good money for farm equipment, I first find out what others think of it. The big 'boost' all users of the Martin 'Corn-Saver' Crib gave it, is responsible for my getting my order."

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R. R. POTTER, Ord, Nebraska.



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Gentlemen: Please send me your big free book on Martin Steel "Corn Saver" Cribs and Bins. This does not obligate me in any way.

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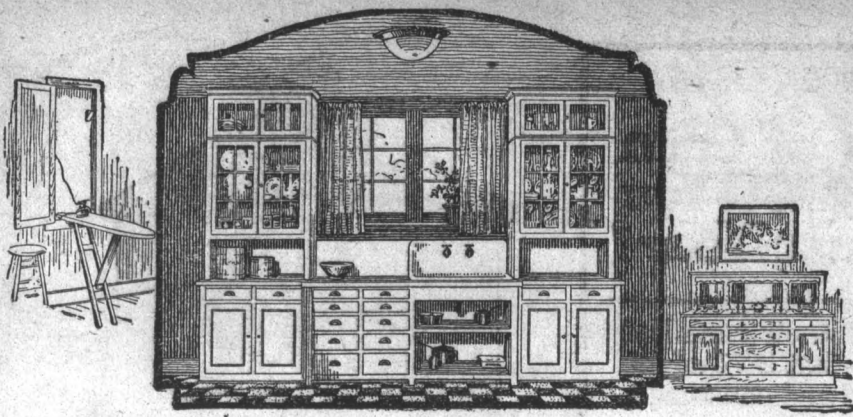
R. F. D.....

I am interested in a corn crib holding about.....bushels

I am interested in a grain bin holding about.....bushels

**Martin STEEL CORN-SEVER Cribs**





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THE attractive kitchen dresser illustrated here suggests the beauty and utility of all Curtis Woodwork. Curtis Woodwork throughout will add much comfort and character to the home you build.

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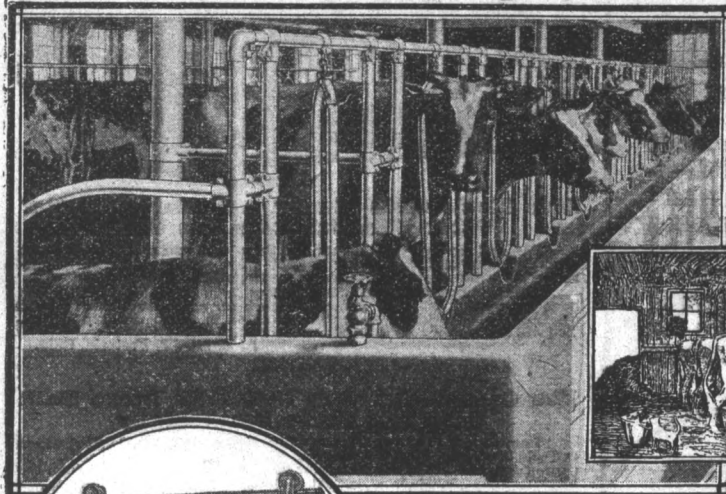
Curtis entrances, porches, windows, stairways, bookcases, sideboards, kitchen dressers, buffets, chests of drawers, clothes closets, and other permanent built-in furniture will give your home that charm you most desire. All Curtis Woodwork is created to be beautiful as well as convenient and economical, and has been designed by Trowbridge & Ackerman, New York architects.

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#### Louden Litter Carrier

does away with back-straining wheelbarrow—carries manure from barn to pit or spreader—saves one handling. Biggest labor saver on any farm. A boy operates it easily and safely.

#### Louden 224-Page Catalog

—sent prepaid—shows Louden Stalls and Stanchions, Litter and Feed Carriers, Water Bowls, Animal Pens, Hay Unloading Tools, Power Hoists, Barn and Garage Door Hangers, Cupolas, Ventilators—"Everything for the Barn."

**Write Us** about your barn building plans. Our experts will help you. Get the Louden Plan Book, a complete 112-page encyclopedia on barn building. Sent on request.

## Federal Control of Packers

(Continued from page 406).

the live stock and other food-producing industries as vitally essential, and he added that while the board could not compel loans by any banks, it had planned with the reserve banks for aid for the farming interests to the extent of almost \$1,000,000,000 this year.

IN reporting the results of its first cost of production investigation in the business of cattle feeding, the United States Department of Agriculture says that "cattle feeding in Nebraska during the past two years was a precarious venture, more likely to be unprofitable than not. The average cost of corn-fed cattle in Nebraska laid down at the market was \$14.91 per hundredweight for 2,293 head fed in the winter of 1918-19; in a survey study during the winter of 1919-20 it was \$13.83 for 3,041 cattle, and an average of \$13.39 for an additional loss per head of \$3.17 for the 1918-19 fed cattle, and of \$10.69 and \$14.57 on the two groups fed last winter. Similar investigations are being made in Illinois, Missouri, Iowa and Indiana, reports of which will be issued soon.

Indicating a tendency toward a slackening in industry, the department of labor's bureau of labor statistics reports in its industrial survey that ten out of a total of fourteen representative industries showed a decrease in the number of employees on the pay roll in August as compared with July. The number of employees in the automobile manufacturing industry decreased ten per cent during this period. The same report also shows that twenty-seven of the forty-three standard articles of food consumed in the American homes decreased in price between July 15 and August 15. The retail price of potatoes fell forty-four per cent and the price of cabbage went down forty-one per cent. The drop in sugar was fourteen per cent and most kinds of meat decreased in price.

Several leading national farm organizations represented in Washington, such as the American Farm Bureau Federation, National Board of Farm Organizations and National Grange, are doing effective work in the interests of farmers, and their representatives are men of high standing in congress and administration circles. They are deserving of the support of every farmer. It is also true and quite generally understood by those who are familiar with the situation, that there are other organizations here claiming to represent the farmers, composed largely of a few self-appointed leaders, who are persistently meddling with almost every proposed measure in which farmers are directly interested that comes before congress, and they manage to get their names prominently mentioned in the daily papers as the representatives of "tens of millions" of farmers. The "All-American Farmer-Labor Cooperative Commission" is one of a large number of so-called farmer organizations making strenuous efforts to force itself into the front line of public attention. I am unable to connect this organization with the Farmer-Labor party, although the name has a familiar sound and its demands are mostly along the same lines. These organizations may be supported by a following of farmers, as they claim. If so, their farmer followers are not only wasting their good money, but actually hindering the enactment of practicable farm legislation by aiding in the promotion of a lot of crazy schemes and visionary propositions which lack the remotest possibility of ever becoming laws.

Reports that are being received in Washington indicate that the farmers all over the country are becoming thoroughly aroused to the need for the early passage of the French truth-in-fab-

ric bill. In New York, Ohio and other eastern states where the sheep raisers are organized in county and state wool growers' associations, the merits of the bill have been conspicuously advertised at the fairs. While there are several other branding bills before the congressional committees, the leading wool growers have decided to make their fight for the French bill and are urging all farm organization representatives to confine their efforts to pushing this bill. If there is a member of congress who has not heard of the French truth-in-fabric bill, it is probable that there are no live, progressive wool growers in his district.

THE American Farm Bureau Federation Washington office is making considerable progress with its arrangements for developing the custom manufacturing of woolen blankets and suitings. The replies from woolen manufacturers are favorable to this proposition, indicating that if they can secure enough raw wool to make it worth while they will be willing to work it up for the farmers into yarns, blankets and fabrics of various kinds, on a custom or toll basis. As the farm folks are consumers of wool to the extent of two-thirds of the total wool production of the country, it will be seen that a general movement of this kind would not only give the farm folks a supply of woolen goods at cost of production, but relieve the market of a vast quantity of wool. It is suggested that county associations and state federations of wool producers that are pooling wool, could make arrangements with a woolen mill to manufacture a part of the wool in the pool for the members to the advantage of both producer and manufacturer.

The digest of the democratic and republican platform in parallel columns with the fourteen planks of the American Farm Bureau Federation, together with a summary of pending agricultural legislation, sent out to the State Farm Bureau by Gray Silver, Washington representative of the federation, is receiving much attention from farm leaders and the farm press. It is explained by Mr. Silver that this is a strictly non-partisan, though political, educational activity undertaken now for the first time by organized agriculture. It is intended to give the platforms as they relate to agriculture side by side, without comment or partisan bias, allowing the reader to make his own interpretations. The outline of pending legislation of special interest to the farmers gives them a comprehensive idea of the bills to be acted upon during the coming session of congress, and will enable them to vote intelligently for congressmen and senators.—E. E. REYNOLDS.

#### FARM BUREAUS PROMOTE BETTER SEEDS.

IN every one of the fifty-seven counties where a Farm Bureau exists, there are plans under way for the forming of a seed department which will work under contract with the seed department of the Michigan State Farm Bureau, according to latest reports from the state bureau.

Twelve county departments have already been organized. They have made the State Farm Bureau their sole agent for purchasing field seed outside of the county.

This state-wide organization is pooling its orders of seed and dealing direct with growers and large concerns of the country, demanding absolute guarantee as to purity and variety. Alfalfa growers of Idaho and South Dakota have contracted to sell direct to the Michigan State Farm Bureau much of their surplus seed this year. Since this seed is northern grown, it is admirably adapted to Michigan soil.



\$100 Worth of Paint Will Add \$1000 to the Value of Any Farm.



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Dependable Paints may cost a little more in the package — but they are cheapest in the end. Delaying to paint adds to ultimate painting and repair cost; neglect means decay from hard weather wear. It's better to save the surface now than to save the pieces later.

**HEATH & MILLIGAN PAINTS** are the best known insurance against decay. They save more than they cost. Repairs are costly and rebuilding is almost prohibitive—briefly, painting will save all and add value.

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There are more than 75 distinct Heath & Milligan Dependable Paint and Varnish Products — one for every purpose around the farm and home — inside or out. Each of high quality.

Look for our Dependable Trade-Mark where you trade and also on every package. If your dealer doesn't carry Dependable paints, write us for the name of a dealer who does. At the same time, fill out the coupon below for a copy of our

### FREE BOOK "How To Paint"

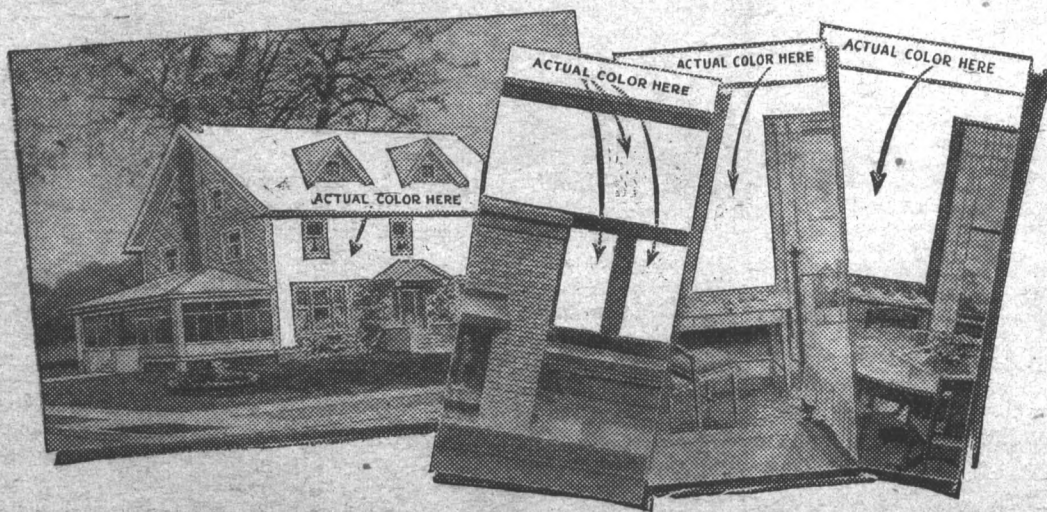
and interesting Color Schemes (a new Patented Plan). Unless you give the information required below, we cannot send you these plans — for they are individually prepared for you — using the information which you alone can supply.

You can now get Dependable Varnishes for every purpose as well as Paints.

Save the surface and  
you save all — Paint & Varnish

Be sure it's  
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Dependable Paint

## FREE A New Patented Plan for Choosing Color Schemes



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Please send me a copy of your free book "How to Paint" and individual color suggestions.

**EXTERIOR.** Note — Send photo of house if possible and answer these questions:

Present color.....  
Color of adjacent houses.....  
Amount of foliage.....  
Direction building faces.....

**INTERIOR.** Note — Send a ground floor sketch of rooms State which rooms you wish to decorate

Present finish of walls.....  
Color of woodwork..... Floors.....  
Color of draperies.....  
What finish of furniture?.....

My name is.....  
Address.....  
R. F. D..... 1847



# Costs Less Than a Good Stove

## Get Our Wholesale

### "Direct-to-You" Price on This Pipeless Furnace Save Money in Buying—Save More in Simple Installation

Put your heater in the basement. Think of heating your whole house with one fire—warm air coming up through one register in the living room floor. Think of getting rid of the muss of carrying fuel and ashes through the house. Think of saving the job of setting up stoves in the fall and taking them down again in the spring. Think of doing all your home heating from the basement with a heating plant that actually *costs less than a good stove!*

That's exactly what you can do with this Kalamazoo Pipeless Furnace. You get a complete warm-air heating plant with a simple, easy plan of installation. And you get it direct from the manufacturers at the wholesale price.

Here is the greatest money saver in a home heater that we believe has ever been offered. It has saved hundreds of thousands of dollars for Kalamazoo customers. It has provided greater comfort throughout the home and it has saved fuel bills too.

"First time we ever had the whole house warm" says one customer. "We no longer roast in one room and freeze in the rest."

Another customer writes: "We have an eight-room house and every room is a warm room. My hat is off to you as manufacturers of a pipeless furnace that really does the business. Also want to say that this is the first winter that we have ever kept the vegetables in the cellar from freezing."

## Write for the Kalamazoo Catalog

How will you heat your home this winter? Let us answer the question for you. Let us send you this big Kalamazoo Catalog and tell you how Kalamazoo Pipeless Furnace owners everywhere are saving money and living in warm homes.

John J. Wagner of Ritsville, Washington, saved \$200.00. He states: "Others asked me almost three times the price of a Kalamazoo." Jos. L. Rudolph of Duffy Mawr, Pa., says: "I figure that I saved exactly \$95.00 and I am entirely satisfied."

## Why You Save Money

Because you deal direct with Manufacturers. You get wholesale "Direct-to-You" prices. You get the results of years of experience in furnace building—you get a simple, easy plan of installation with a wonderfully well-built furnace.

You save at least from 25 to 40 per cent and you get a heating plant that will burn any fuel and last for years of satisfactory service.

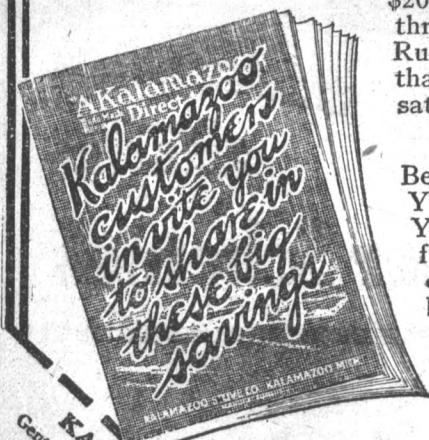
## Mail the Coupon — Get Our Catalog

Let us send you this book free. No obligations. Simply find out what "A Kalamazoo-Direct-to-You" means for you. This is your year to save money. It's our year to help you do it.

Also get our money-saving offer on stoves, ranges, cream separators, phonographs and the other articles listed in the coupon.

Ask for Catalog No. 909

**Kalamazoo Stove Co.**  
Manufacturers  
Kalamazoo, Mich.



**KALAMAZOO STOVE COMPANY, Kalamazoo, Mich.**

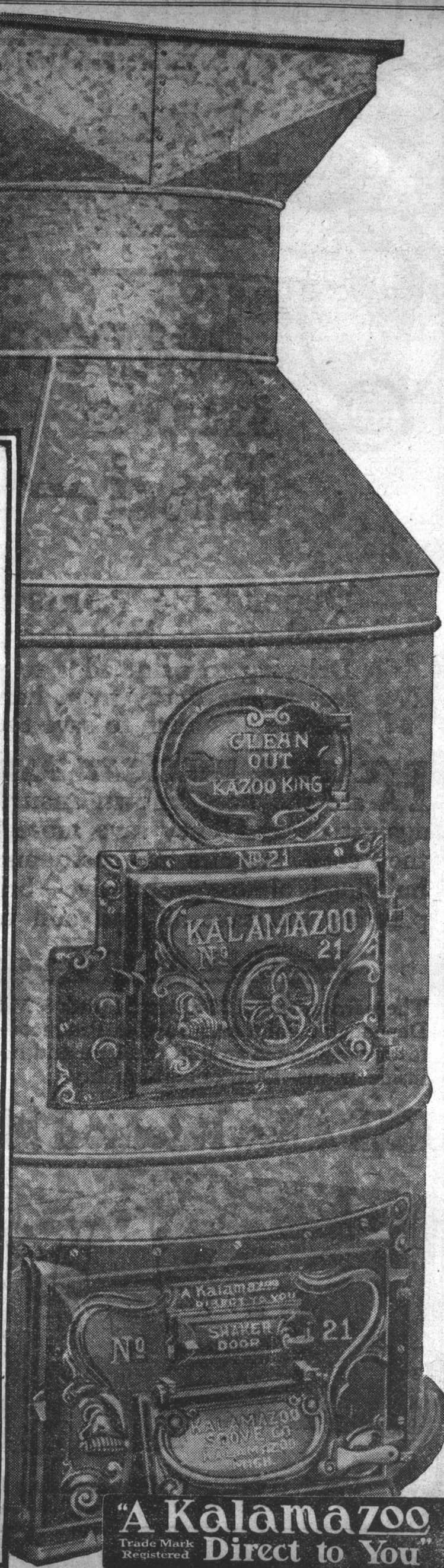
Gentlemen:—Please send me your big new catalog, No. 909. I should also like to have your offer on the following articles:

☐ Stoves and Ranges  
☐ Refrigerators  
☐ Washing Machines  
☐ Feed Grinders  
☐ Consoliums  
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**"A Kalamazoo"**  
Trade Mark  
Registered **Direct to You**



## WORLD EVENTS IN PICTURES



The University of Prague sends these Czecho-Slovak girls to the United States for study.



Miss Violet Oliver will decorate President Wilson as "Knight of the Raisin," in publicity campaign of raisin growers.



Even the women of the Island of Rapa understand that the road to a man's heart is through his stomach.



Friends consulting with sister of the Lord Mayor of Cork, who is hunger striking in Brixton prison.



A bucking machine used at the training camp of Columbia University to put her gridiron warriors in shape for a strenuous season.



Sinn Feiners and Unionists rioting in York St., Belfast, Ireland, with clubs and bricks. The Unionists in the foreground are shown driving back their opponents.





## Growing up with COLGATE'S contest!

At least one of the stores in your neighborhood will have a window display of Colgate's Ribbon Dental Cream. These windows will be ready to photograph beginning October 1st.

Anyone not over seventeen years of age may try for generous money prizes, which will be given for the best photographs of a Colgate display.

### \$1005.00 in Prizes

Look for a store window with the Colgate pictures and packages in it. The dealer will gladly let you take a picture of his window.

Look on the back covers of some of the October magazines where you will find all the rules of the contest. Or write to Colgate & Co., Dept. 44, 199 Fulton Street, New York, for particulars.

Ask an older friend who takes pictures or the man from whom you buy films to advise you how to photograph windows. Taking pictures through plate glass is a tricky operation and one that you may never have tried before.

And let parents remember, too, that by encouraging the boys and girls to enter this unique contest, there is not only added zest to Kodak-ing, but a fresh interest in the importance of brushing the teeth regularly, night and morning. The delicious flavor of Ribbon Dental Cream is an important help in forming that habit for health.

#### 115 CASH PRIZES

Enter your photographs in the contest, for which prizes will be awarded as follows:

For the best photograph . . . \$100

For the 3 next best . . . \$50 each

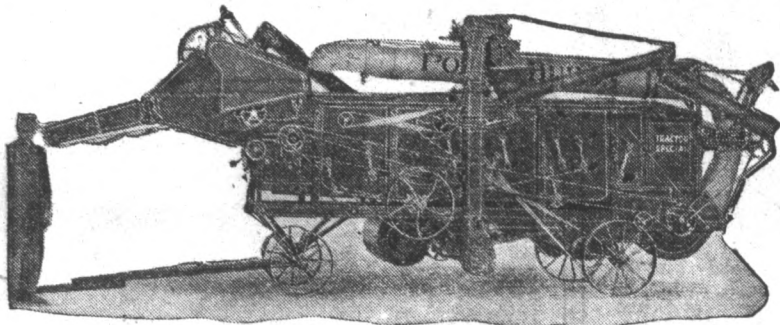
For the 10 next best . . . \$25 each

For the 101 next best . . . \$5 each

Prizes will be awarded before January 1st, and winners will be announced in an early 1921 issue of this magazine. In case of a tie, each will receive the full value of the prize tied for.

Colgate's—the safe dentifrice—is endorsed by more dentists than any other dentifrice.

## Individual or Community Thresher



PORT HURON 20x34 TRACTOR SPECIAL THRESHER

This machine has good capacity and can be operated with any small steam engine, or gas tractor.

Will do excellent work in all kinds of seeds and grain, (including clover, timothy, alfalfa, peas, etc.) and is fully guaranteed the same as our standard size threshers.

Save your own grain; thresh when most convenient and accommodate

your neighbors. It will take only a small portion of your time in custom work to pay for the machine, as well as power to operate it. We can also furnish second-hand steam engines or tractor, to operate same.

18 Horse Power will run it.

We can ship from stock same day order is received. Write us for catalogue, or, if in a hurry, wire us at our expense.

PORT HURON ENGINE & THRESHER CO., Port Huron, Mich.

### New \$15.00 Lamp FREE

Gives a soft, brilliant, glowing light; restful to the eyes; an ideal illumination.

400 CANDLE POWER  
A hundred times brighter than kerosene lamps. Burns 96 per cent. air and 4 per cent. common gasoline. Clean—odorless—economical.

ABSOLUTELY SAFE  
Can be carried anywhere—perfectly safe, even if tipped over.

LIGHTS WITH ONE MATCH  
New patented twin mantle burner lights with one match easily and quickly. Greatest improvement of the age.

Simply write for Catalog. SEND NO MONEY. FREE Lamp Offer, also free trial offer. Don't delay; act now.

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AGENTS WANTED  
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### LET US TAN YOUR HIDE.

Horse or Cow hide. Calf or other skins with hair or fur on, and make them into coats (for men and women), robes, rugs or gloves when so ordered. Your furs goods will cost you less than to buy them and be worth more.

Our illustrated catalog gives a lot of information. It tells how to take off and care for hides; how and when we pay the freight both ways; about our safe dyeing process on cow and horse hide, calf and other skins; about the fur goods and game trophies we sell, taxidermy, etc.

Then we have recently got out another we call our Fashion Book, wholly devoted to fashion plates of muffs, neckwear and other fine fur garments, with prices; also fur garments remodeled and repaired.

You can have either book by sending your correct address naming which, or both books if you need both. Address

The Crosby Fur Company,  
571 Lyell Ave., Rochester, N. Y.



## The God of Battles

Our Weekly Sermon—By N. A. McCune

AFTER the return of the British ships to home waters following the signing of the armistice, Sir David Beatty, from the flagship, sent the following message to all the ships of the Grand Fleet: "It is my intention to hold a service of thanksgiving at 6:00 p. m. tonight, for the victory which Almighty God has vouchsafed our arms, and every ship is recommended to do the same."

During the German push in March, 1918, Field Marshal Haig was at the religious services one Sunday morning. When the chaplain had concluded the service, the commander-in-chief of Great Britain's forces went up to the chaplain, thanked him for his message, and then said, "Remember, chaplain, the battle is not ours, but God's." General E. H. H. Allenby, the deliverer of Jerusalem and the Holy Land after a thousand years of Turkish misrule, is the son of a man who devoted much time to the study of the prophetic portions of the Bible. Just before the Palestine campaign began, General Allenby attended a prayer meeting in Cairo, to ask the divine blessing on the arms under his command. He makes no secret of his joy and satisfaction of being the deliverer of ancient Canaan. He and his attendants entered Jerusalem on foot, the day after it surrendered. General Pershing's attitude on things religious is well known.

Some way, these fighting men turn instinctively to God as the battle draws on. A large proportion of them are religious men as a life habit. The late Lord Roberts said he had conducted family worship every day for fifty years. Lord Fisher, another of Britain's sea fighters, loves sermons. When he was a captain, a visitor called one Sunday morning. "The Captain has gone to Berkeley Chapel," said the servant. "Will he be in this afternoon?" "No, he said he was going to hear Canon Liddon at St. Paul's." "Well, then, this evening?" "In the evening he is going to Spurgeon's Tabernacle."

Someone has said that man is "incurably religious." Whether that be so or no, the religious instinct comes

out of its hiding into the open, when the thunder of guns and the cries of the dying are heard. Moreover, these commanders believe that prayer helps. Prayer makes a difference. Prayer "changes things." They do not give up prayer because the enemy prays to the same God.

"God fights on the side of the biggest battalions," said Napoleon with a sneer. But that was before his Russian campaign. That was before those little white messengers of judgment, the snowflakes, fell and smothered his army, and turned him back a defeated man. God did not fight on the side of the biggest battalions in the Battle of the Marne, when a thin line of Frenchmen held back the Teuton hordes. It has not been explained yet why the Germans did not go on toward Paris, save the explanation of a French officer: "Le bon Dieu, monsieur, le bon Dieu." (The good God, sir, the good God).

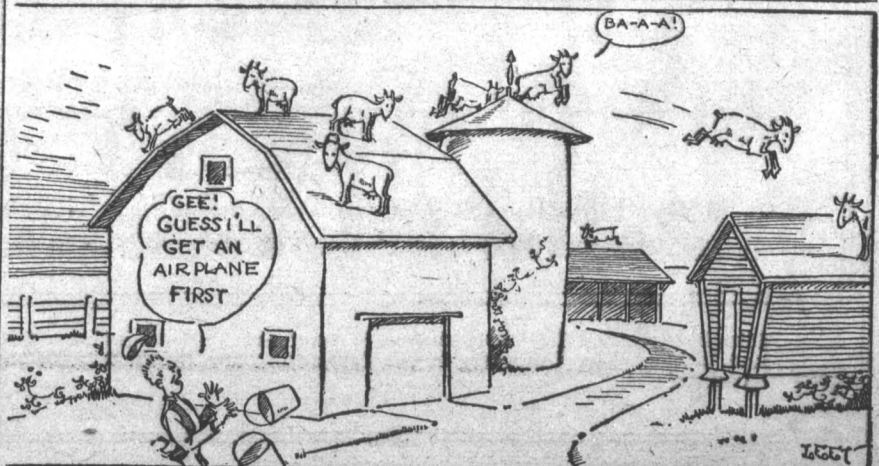
Abraham Lincoln, General "Stonewall" Jackson, Robert E. Lee, General Gordon, the hero of Khartoum, all believed that prayer to the God of the Bible helped in the day's fighting. Lincoln told General Sickles that he considered Gettysburg an answer to prayer.

Marshal Foch is another notable example of the praying fighter. Private Evans, of California, wrote his parents that he saw a man in an old shiny uniform enter a battered church, and kneel in prayer. By the eagles on his collar, Evans knew that this man was a general of the French army. His curiosity was aroused and he sat down in the church and waited for the general to come out. The man remained in the kneeling attitude for three-quarters of an hour. Then he arose, and, accompanied by one orderly, passed down the street. Evans followed. He noticed that soldiers saluted this man in great excitement. Women gazed at him in reverence. Children tagged after him. Evans inquired and learned that it was Foch. He also learned that it had been Foch's habit for years to give some time to prayer every day.

Is this one explanation of Foch's military success?

AL ACRES—Goats Will Be Goats Regardless—

By Frank R. Leet



WANTED Reliable agents, who will work and tell the truth. Write The French Nursery, Clyde, Ohio, Established 1863.





Power and Light  
with the Quiet Knight\*



*The Finest Story Ever  
Written for Farmers—Free*

## Have You Received Your Copy Yet?

**A**RE you interested in better living—more comfort and leisure, less labor?

Then you must have this book. You have never read anything like it. You will never put it down until you have read the last word of it.

More interesting than many a novel, especially to women, it tells how city comforts have come to the farm; how every dark corner has been brightened, how the burden of toil has been lifted from women's shoulders, and sons and daughters made more contented.

Reading this book, a farmer sees *his* home transformed into a city dwelling; his

wife happier with less toil and more comfort; his children with a new satisfaction in the farm.

Inspired by the message of this book, thousands of farmers have brought electricity to their farms, and year 'round contentment and happiness with it.

You can read this same book with its wonderful message. You will enjoy this romantic tale of how greater happiness and comfort have come to the farm. Send for it now, while copies are still available, free.

Aid yourself. Clip the coupon and mail, today.

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Electric Auto-Lite Corporation  
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**Willys Light Systems, 50 So. Division Ave., Grand Rapids, Mich.**  
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\* The Willys-Knight Sleeve-Valve Engine

Clip this Coupon and Mail Today, to Willys Light Division, Electric Auto-Lite Corp., Toledo, Ohio

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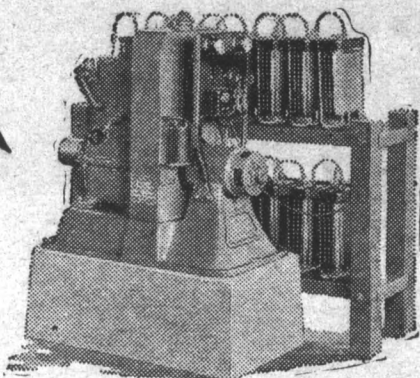
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## Just Press the Button for Light Plus Power

A Litscher Lite plant is a "hired man" that will never leave you, never tire, work carefully—day or night—in the least possible time.



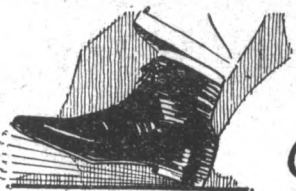
In addition, a Litscher Lite plant will illuminate your farm with brilliant electric light and make possible the most modern electrical conveniences. The Litscher Lite plant offers you stationary engine power and stores electric current at the same time. It consumes the same amount of kerosene fuel to light your house as with the old-fashioned lamps. Operates without attention and gives perfect service and satisfaction.

Litscher Lite plant owners realize they have a reliable light and power service at a low price and low upkeep cost. Owners find this plant indispensable for the operation of cream separators, grindstones, hair-clippers, pumps for modern bathrooms and watering troughs, feed choppers, fanning mills and automatic milkers, etc.

Lighten the work of your wife and give her modern conveniences. Keep your family on the farm—happy.

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An Exceptionally Attractive Proposition Open to Live Salesmen. Write Us.



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—and you can play the Manualo as beautifully as an artist plays a piano. All you do is work the pedals as if beating time. The Manualo responds to the musical feeling you instinctively put into the pedaling as the piano responds to the fingering of a fine pianist.

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The Player-Piano that is all but human

Our A. B. C. Book explains why, through the pedaling, you can control the Manualo and make it play just the way you want. Our book, "How to Know a Good Piano", tells how a piano should be made to give you full value for your money.

Send for these free books and you will know all about pianos and player-pianos before you buy.

### The Baldwin Piano Co.

Makers of the Baldwin, Ellington, Hamilton and Howard Pianos and the Manualo.  
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Please send your free books that will tell me how to judge a piano or player-piano before I buy.

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Mention The Michigan Farmer When Writing to Advertisers

## THE VALLEY OF THE GIANTS

A ROMANCE OF THE REDWOODS

By Peter B. Kyne

"It does. You place the contraption of the shop," Bryce replied resignedly, —hide it, rather—in the room where and hung up. He turned a troubled the conspirators conspire; then you face to Ogilvy. "Checkmated!" he announced. "Whipped to a frazzle. The Colonel is lying, Buck, and I've caught him at it. As a matter of fact, the mogul didn't kick those flats in at all. The switch-engine did—and I know it. Now I'm going to send a man over to snoop around Pennington's round-house and verify his report about the switch-engine being in the shop."

"Could George Sea Otter install it?"

"I think he could. There is a printed card of instructions, and I dare say George would find the job no more baffling than the ignition-system on the Napier."

"Will he tell anybody?"

"Not if you ask him not to."

"Not even you?"

"Not even a whisper to himself, Shirley."

"Very well, then. Please send him over. Thank you so much, Bryce Cardigan. You're an awful good old sort, after all. Really, it hurts me to have to oppose you. It would be so much nicer if we didn't have all those redwood trees to protect, wouldn't it?"

"Let us not argue the question, Shirley. I think I have my redwood trees protected. Good-bye."

He had scarcely finished telephoning his home to instruct George Sea Otter to report with the express package to Shirley when Buck Ogilvy strolled into the office and tossed a document on his desk. "There's your little old temporary franchise, old thing," he announced; and with many a hearty laugh he related to Bryce the ingenious means by which he had obtained it. "And now if you will phone up to your logging-camp and instruct the woods-boss to lay off about fifty men to rest for the day, pending a hard night's work, and arrange to send them down on the last log-train to-day, I'll drop around after dinner and we'll fly to that jump-crossing. Here's a list of the tools we'll need."

"I'll telephone Colonel Pennington's manager and ask him to kick a switch-engine in on the Laurel Creek spur and snake those flat-cars with my rails aboard out to the junction with the main line," Bryce replied. And he called up the Laguna Grande Lumber Company—only to be informed by no less a person than Colonel Pennington himself that it would be impossible to send the switch-engine in until the following afternoon. The Colonel was sorry, but the switch-engine was in the shop having the brick in her fire-box renewed, while the mogul that hauled the log trains would not have time to attend to the matter, since the flats would have to be spotted on the sidetrack at Cardigan's log-landing in the woods, and this could not be done until the last loaded log-train for the day had been hauled out to make room.

"Why not switch back with the mogul after the log-train has been hauled out on the main line?" Bryce demanded pointedly. Pennington, however, was not trapped. "My dear fellow," he replied patronizingly, "quite impossible, I assure you. That old trestle across the creek my boy—it hasn't been looked at for years. While I'd send the light switch-engine over it and have no fears—"

"I happen to know, Colonel, that the big mogul kicked those flats in to load the rails!"

"I know it. And what happened? Why, that old trestle squeaked and a-flying on the velocipede, if it's there, shook and gave every evidence of being about to buckle in the center. My engineer threatened to quit if I sent him in again."

"Very well. I suppose I'll have to wait until the switch-engine comes out"

"That settles it," Buck Ogilvy mourned. "He had gum-shoe men on my trail, after all; they have reported, and the Colonel is as suspicious as a rhino. He doesn't know anything, but he smells danger just the same."

"Exactly, Buck. So he is delaying the game until he can learn something definite." He drummed idly on his desk for several minutes. Then:

"Buck, can you run a locomotive?"

"With one hand, old man."

"Fine business! Well, I guess we'll put in that crossing tomorrow night. The switch-engine will be in the round-house at Pennington's mill tomorrow night so we can't steal that; but we can steal the mogul. I'll just send word up to my woods-boss not to have his train loaded when the mogul comes up late tomorrow afternoon to haul it down to our log-landing. He will explain to the engineer and fireman that our big bull donkey went out and we couldn't get our logs down to the landing in time to get them loaded that day. Of course, the engine-crew won't bother to run down to Sequoia for the night—that is, they won't run the mogul down. They'll just leave her at our log-landing all night and put up for the night at our camp. However, if they should be forced, because of their private affairs, to return to Sequoia, they'll borrow my track-walker's velocipede. The fireman would prefer that to firing the big mogul all the way back to Sequoia."

"Yes," Buck agreed, "I think he would."

"There is a slight grade at our log-landing. I know that, because the air leaked out of the brakes on a log-train I was on a short time ago, and the train ran away with me. Now, the engine-crew will set the airbrakes on the mogul and leave her with steam up to throb all night; they'll not blow her down, for that would mean work firing her in the morning. Our task, Buck, will be to throw off the airbrakes and let her glide silently out of our log-landing. About a mile down the road we'll stop, get up steam, run down to the junction with the main line, back in on the Laurel Creek spur, couple on to those flat-cars and breeze merrily down to Sequoia with them. They will be loaded waiting for us; our men will be congregated in our dry-yard just off Water Street near B, waiting for us to arrive with the rails—and bingo—we'll run the engine back to the woods and leave it where we found it, return a-flying on the velocipede, if it's there, or in my automobile, if it isn't there. You can get back in ample time to superintend the cutting of the cross-ing!"

"Spoken like a man!" quoth Buck Ogilvy. "You're the one man in this



world for whom I'd steal a locomotive. 'At-a boy!'

Had either of the conspirators known of Pennington's plans to entertain Mayor Poundstone at dinner on Thursday night, it is probable they would not have cheered until those flat-cars were out of the woods.

## CHAPTER XXIX.

MAYOR POUNDSTONE and his wife arrived at the Pennington home in Redwood Boulevard at six-forty-five Thursday evening. It was with a profound feeling of relief that His Honor lifted the lady from the modest little "flivver," for once inside the Pennington house, he felt, he would be free from a peculiarly devilish brand of persecution inaugurated by his wife about three months previously. Mrs. Poundstone wanted a new automobile. And she had entered upon a campaign of nagging and complaint, hoping to wear Poundstone's resistance down to the point where he would be willing to barter his hope of salvation in return for a guarantee of peace on earth.

"I feel like a perfect fool, calling upon these people in this filthy little rattletrap," Mrs. Poundstone protested as they passed up the cement walk toward the Pennington portal.

Mayor Poundstone paused. Had he been Medusa, the glance he bent upon his spouse would have transformed her instantly into a not particularly symmetrical statue of concrete. He had reached the breaking-point.

"In pity's name, woman," he growled, "talk about something else. Give me one night of peace. Let me enjoy my dinner and this visit."

"I can't help it," Mrs. P. retorted with asperity. She pointed to Shirley Sumner's car parked under the porte cochere. "If I had a sedan like that, I could die happy. And it only cost thirty-two hundred and fifty dollars."

"I paid six hundred and fifty for the rattletrap, and I couldn't afford that," he almost whimpered. "You were happy with it until I was elected mayor."

"You forget our social position, my dear," she purred sweetly.

He could have struck her. "Hang your social position," he gritted savagely. "Shut up, will you Social position in a sawmill town! Rats!"

"Sh—sh! Control yourself, Henry!" She plucked gently at his arm; with her other hand she lifted the huge knocker on the front door.

"Dammit, you'll drive me crazy yet," Poundstone gurgled, and subsided.

The Pennington butler, a very superior person, opened the door and swept them with a faintly disapproving glance. It is possible that he found Mayor Poundstone, who was adorned with a white string tie, a soft slouch hat, a Prince Albert coat, and horse-shoe cut vest, mildly amusing.

The Poundstones entered. At the entrance to the living-room the butler announced sonorously: "Mayor Poundstone and Mrs. Poundstone."

"Glad to see you aboard the ship," Colonel Pennington boomed with his best air of hearty expansiveness. "Well, well," he continued, leading Mrs. Poundstone to a divan in front of the fire, "this is certainly delightful. My niece will be down in two shakes of a lamb's tail. Have a cigarette, Mr. Poundstone."

In the midst of the commonplace chatter incident to such occasions, Shirley entered the room; and the Colonel, leaving her to entertain the guests, went to a sideboard in one corner and brought forth the "materials," as he jocularly termed them. James appeared like magic with a tray, glasses, and tiny serviettes, and the Colonel's elixir was passed to the company.

"To your beautiful eyes, Mrs. Poundstone," was Pennington's debonair toast as he fixed Mrs. P.'s green orbs with his own. "Poundstone, your very good health, sir."

"Dee-licious," murmured Mrs. Pound-

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stone. "Perfectly de-licious. And not a bit strong!"

"Have another," her hospitable host suggested, and he poured it, quite oblivious of the frightened wink which the mayor telegraphed his wife.

"I will, if Miss Sumner will join me," Mrs. P. acquiesced.

"Thanks. I seldom drink a cocktail, and one is always my limit," Shirley replied smilingly.

"Oh, well," the Colonel retorted agreeably, "we'll make it a three-cornered festival. Poundstone, smoke up."

They "smoked up," and Poundstone prayed to his rather nebulous gods that Mrs. P. would not discuss automobiles during the dinner.

Alas! The Colonel's cocktails were not unduly fortified, but for all that, the two which Mrs. Poundstone had assimilated contained just sufficient "kick" to loosen the lady's tongue without thickening it. Consequently, about the time the piece de resistance made its appearance, she threw caution to the winds and adverted to the subject closest to her heart.

"I was telling Henry as we came up the walk how greatly I envied you that beautiful sedan, Miss Sumner," she gushed. "Isn't it a perfectly stunning car?"

Poundstone made one futile attempt to head her off. "And I was telling Mrs. Poundstone," he struck in with a pathetic attempt to appear humorous and condescending, "that a little jitney was our gait, and that she might as well abandon her passionate yearning for a closed car. Angelina, my dear, something tells me I'm going to enjoy this dinner a whole lot more if you'll just make up your mind to be real nice and resign yourself to the inevitable."

"Never, my dear, never." She shook a coy finger at him. "You dear old tightie," she cooed, "you don't realize what a closed car means to a woman." She turned to Shirley. "How an open car does blow one around, my dear."

"Yes, indeed," said Shirley innocently.

"Heard the McKinnon people had a man killed up in their woods yesterday, Colonel," Poundstone remarked, hoping against hope to divert the conversation.

"Yes. The fellow's own fault," Pennington replied. "He was one of those employees who held to the opinion that every man is the captain of his own soul and the sole proprietor of his own body—hence that it behooved him to look after both, in view of the high cost of safety-appliances. He was warned that the logging-cable was weak at that old splice and liable to pull out of the becket—and sure enough it did. The free end of the cable snapped back like a whip, and—"

"I hold to the opinion," Mrs. Poundstone interrupted, "that if one wishes for a thing hard enough and just keeps on wishing, one is bound to get it."

"My dear," said Mr. Poundstone impressively, "if you would only confine yourself to wishing, I assure you your chances for success would be infinitely brighter."

There was no mistaking this rebuke; even two cocktails were powerless to render Mrs. Poundstone oblivious to it. Shirley and her uncle saw the mayor's lady flush slightly; they caught the glint of murder in his honor's eye; and the keen intelligence of each warned them that closed cars should be a closed topic of conversation with the Poundstones. With the nicest tact in the world, Shirley adroitly changed the subject to some tailored shirt-waists she had observed in the window of a local dry-goods emporium that day, and Mrs. Poundstone subsided.

About nine o'clock, Shirley, in response to a meaning glance from her relative tactfully convoyed Mrs. Poundstone upstairs, leaving her uncle alone with his prey. Instantly Pennington got down to business.

"Well," he queried, apropos of noth-

ing, "what do you hear with reference to the Northern-California-Oregon Railroad?"

"Oh, the usual amount of wind, Colonel. Nobody knows what to make of that outfit."

Pennington studied the end of his cigar a moment. "Well, I don't know what to think of that project either," he admitted presently. "But while it looks like a fake, I have a suspicion that where there's so much smoke, one is likely to discover a little fire. I've been waiting to see whether or not they will apply for a franchise to enter the city, but they seem to be taking their time about it."

"They certainly are a deliberate crowd," the mayor murmured.

"Have they made any move to get a franchise?" Pennington asked bluntly. "If they have, I suppose you would be the first man to hear about it. I don't mean to be impertinent," he added with a gracious smile, "but the fact is I noticed that windbag Ogilvy entering your office in the city hall the other afternoon, and I couldn't help wondering whether his visit was social or official."

"Social—so far as I could observe," Poundstone replied truthfully, wondering just how much Pennington knew, and rather apprehensive that he might get caught in a lie before the evening was over.

"Preliminary to the official visit, I dare say."

The Colonel puffed thoughtfully for a while—for which the mayor was grateful, since it provided time in which to organize himself. Suddenly, however, Pennington turned toward his guest and fixed the latter with a serious glance.

"I hadn't anticipated discussing this matter with you, Poundstone, and you must forgive me for it; but the fact is—I might as well be frank with you—I am very greatly interested in the operation of this proposed railroad."

"Indeed! Financially?"

"Yes, but not in the financial way you think. If the railroad is built, it will have a very distinct effect on my finances."

"In just what way?"

"Disastrous."

"I am amazed, Colonel."

"You wouldn't be if you had given the subject very close consideration. The logical route for this railroad is from Willits north to Sequoia, not from Sequoia north to Grant's Pass, Oregon. Such a road as the N. C. O. contemplates will tap about one-third of the redwood-belt only, while a line built in from the south will tap two-thirds of it. The remaining third can be tapped by an extension of my own logging-road; when my own timber is logged out, I will want other business for my road, and if the N. C. O. parallels it, I will be left with two streaks of rust on my hands."

"Ah, I perceive. So it will, so it will!"

"You agree with me, then, Poundstone, that the N. C. O. is not designed to foster the best interests of the community. Of course you do."

"Well, I hadn't given the subject very mature thought, Colonel, but in the light of your observations it would appear that you are quite right."

"Of course I am right. I take it, therefore, that when the N. C. O. applies for its franchise to run through Sequoia, neither you nor your city council will consider the proposition at all."

"I cannot, of course, speak for the city council—" Poundstone began, but Pennington's cold, amused smile froze further utterance.

"Be frank with me, Poundstone. I am not a child. What I would like to know is this: will you exert every effort to block that franchise in the firm conviction that by so doing you will accomplish a laudable public service?"

Poundstone squirmed. "I should not



care, at this time, to go on record," he replied evasively. "When I have had time to look into the matter more thoroughly—"

"Tut-tut, my dear man! Let us not straddle the fence. Business is a game, and so is politics. Neither knows any sentiment. Suppose you should favor this N. C. O. crowd in a mistaken idea that you were doing the right thing, and that subsequently numberless fellow-citizens developed the idea that you had not done your public duty? Would some of them not be likely to invoke a recall election and retire you and your city council—in disgrace?"

"I doubt if they could defeat me, Colonel."

"I have no such doubt," Pennington replied pointedly.

Poundstone looked up at him from under lowered lids. "Is that a threat?" he demanded tremulously.

"My dear fellow! Threaten my guest!" Pennington laughed patronizingly. "I am giving you advice, Poundstone—and rather good advice, it strikes me. However, while we're on the subject, I have no hesitancy in telling you that in the event of a disastrous decision on your part, I should not feel justified in supporting you."

He might, with equal frankness, have said: "I would smash you." To his guest his meaning was not obscure. Poundstone studied the pattern of the rug, and Pennington, watching him sharply, saw that the man was distressed. Then suddenly one of those brilliant inspirations, or flashes of rare intuition, which had helped so materially to fashion Pennington into a captain of industry, came to him. He resolved on a bold stroke.

"Let's not beat about the bush, Poundstone," he said with the air of a father patiently striving to induce his child to recant a lie, tell the truth, and save himself from the parental wrath. "You've been doing business with Ogilvy; I know it for a fact, and you might as well admit it."

Poundstone looked up, red and embarrassed. "If I had known—" he began.

"Certainly, certainly! I realize you acted in perfect good faith. You're like the majority of people in Sequoia. You're all so crazy for rail-connection with the outside world that you jump at the first plan that seems to promise you one. Now, I'm as eager as the others, but if we are going to have a railroad, I, for one, desire the right kind of railroad; and the N. C. O. isn't the right kind—that is, not for the interests I represent. Have you promised Ogilvy a franchise?"

(Continued next week.)

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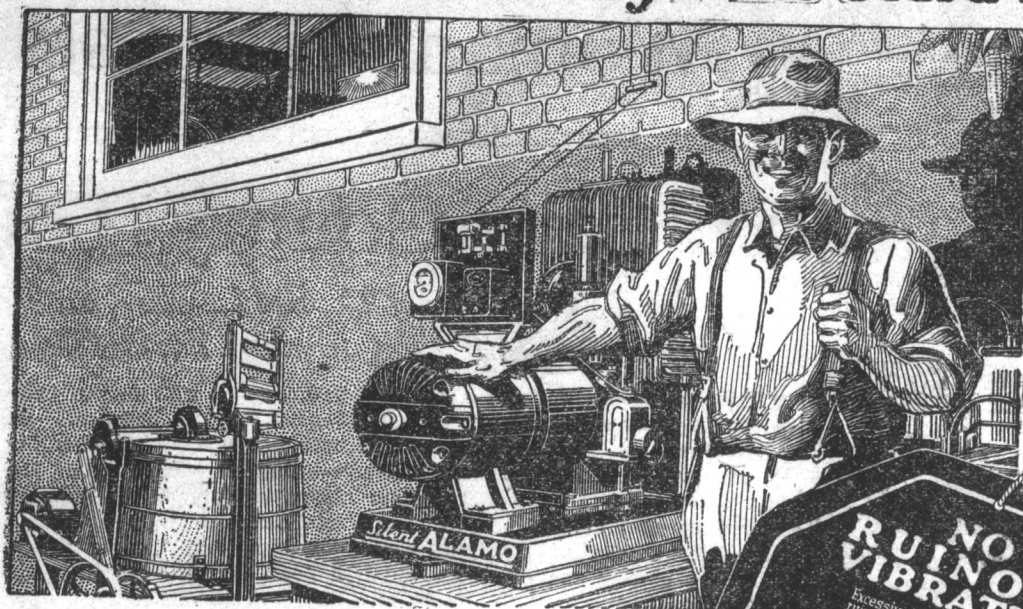
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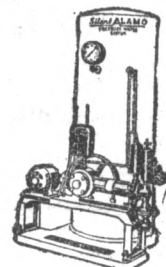
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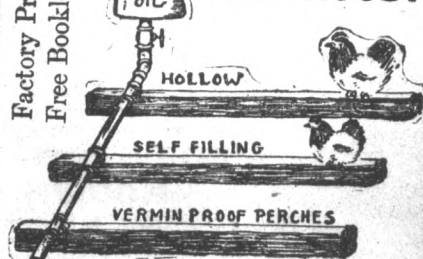
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Pullets and cockerels. From thorough-bred Baron White Leghorns the type that are bound to make good producers. Raised on free range. Every bird guaranteed and shipped on approval. Send for prices and catalog. A few Barred Rock Pullets. Brummers Poultry Farm, Holland, Mich.

Additional Poultry Ads. on Page 419





## Out With the Old In With the New

Business men consider it profitable to scrap a piece of antiquated machinery and sell it for old metal. That's a good rule to follow in the home, when the work of many stoves can be done with greater efficiency, economy, cleanliness, saving of labor, lessened consumption of fuel and smaller initial cost by a

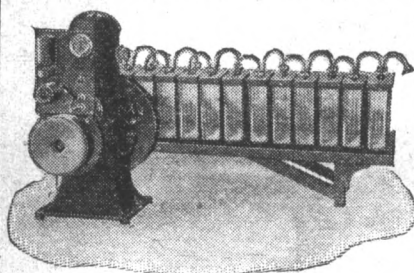
## COZY The Perfect PIPELESS FURNACE

In addition to its unmatched feature of economy, it gives a peculiarly grateful automatic circulation of moistened, fresh warmth through each room in the house. Scientific construction and simplicity of parts make this furnace positively automatic in operation—needs little care and runs long on one feeding. It's money profitably spent to install one. Read the whole convincing story in our book, "The Last Word in Economical Heating"—it's cheerfully mailed if you say so.



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Crestline, Ohio  
Morley Bros.,  
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## Farm Lighting Plant

A 1/2 k.w. generator directly connected with a 2 H.P. air cooled motor. Capacity 45 20-watt lamps. Willard storage battery. Dealers wanted. Write for particulars.

REGAL GASOLINE ENGINE CO.  
Division Street, Coldwater, Mich.

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"Reo" Cluster Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofings, Siding, Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Positively greatest offer ever made.

Edwards "Reo" Metal Shingles  
cost less; outlast three ordinary roofs. No painting or repairs. Guaranteed rot, fire, rust, lightning proof.

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Get our wonderfully low prices and free samples. We sell direct to you and save you money. Ask for Book No. 107.

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1017-1067 Pike St., Cincinnati, O.

FREE  
Samples &  
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Mention The Michigan Farmer When Writing Advertisers

## Woman's Interests

## St. Clair County Tour

*Under the Guidance of County Leaders, we Find  
Inspiration in Visiting Modern Farm Homes*



IF the extension workers of St. Clair county carry on their work with the same energy and utter unconcern to personal consequences with which they drive through the county, unparalleled success cannot fail to crown their labors. Certainly nothing could equal the perfect abandon with which County Agriculturist C. L. Brody and Miss Clara Waldron, the home agent, took the road on the morning of the day when the Farm Bureau of St. Clair county made its second annual farm home convenience tour. Not that they demolished speed laws, of course. But there were certain miles to be traveled that day and neither driver let such trifles as freshly worked roads, or occasional bad spots caused by recent rains, alter the time schedule. They were in the game to put it through, and they did it, just as they are putting through their work in the county, with energy and good nature, and a whole-souled determination to make the grade, whatever the obstacles.

The drive started in Port Huron, picking up autoists as they swung down the road by the river until when St. Clair was reached fourteen autoists carrying eighty tourists were ready for the visit of inspection. From St. Clair the drive was inland, past fields of corn and grain, old orchards and flourishing gardens, to the home of Mr. and Mrs. Carl Eisen, of St. Clair township. Mr. Eisen is secretary of the farm bureau for his township and a leader in farm bureau work. The farm home has been completely made over during the past year as a result of the inspiration they received during the tour of 1919.

To the women in the party the dining-room and kitchen were the points of greatest interest. Last year the house consisted of living-room and bedroom across the front, a room which served as kitchen and dining-room back of the living-room, and to the right of this a small pantry, stairway, and a little room used as storeroom, or upstairs cellar. This part of the house had a shed roof. The roof has been raised and a second story put over it, the pantry, storeroom and stairway torn out and this space made into a kitchen, and the room which did duty as dining-room and kitchen as well now serves as dining-room alone. Between the kitchen and dining-room are well constructed cupboards, with a sliding wall panel which permits passage of supplies from room to room. A thoroughly modern sink is on the end wall by the cupboard, so dishes may be washed and stored without extra steps. The house is not entirely finished as labor conditions reach building as well as farming. Water is installed and the upstairs is to have a

bathroom as well as four bedrooms. A feature of the bedrooms worthy of note was that all the rooms has cross-ventilation except one. Here Mrs. Eisen explained, the carpenter absolutely refused to put in another window in spite of her pleas for more air. A deck, or upstairs porch, is to be added, for airing bedding and shaking rugs. Below this will be a shed with a sink, where the men may wash. The living-room and bedroom have been thrown together into one large living-room, with an open stairway at the end. The house has been remodeled with the one end in view, to make it convenient and easy to work in.

A drive of a few miles brought the party to Belle River, just out of Marine City, where a picnic dinner was served. Following the dinner Mr. Brody and Miss Edna Smith, home



Power washing machines have robbed washday of its terrors for many women, but electricity and gas engines are not within the reach of every farm woman's pocketbook. Most of them, however, can afford a hand-power machine, and there are two good ones which have been tried and recommended by the housekeeping experts of the Michigan Agricultural College. Detailed information regarding these machines can be secured by writing Miss Ruth Kellogg, East Lansing, Michigan.

agent leader, made short talks. Mr. Brody pointed out how the farm bureau, first organized to help the farmer solve his problems, has developed into a business organization, and warned his hearers that it must not be allowed to grow selfish or failure will follow, as it has followed every organization which worked only for self. The bureau must make as its chief object the development of the individual into a well-rounded character and a superior citizen if it is to fulfill its highest purpose, according to Mr. Brody. A plea for boys' and girls' work as the best foundation for the future of agriculture and as the greatest assurance that future problems of state will be in responsible hands.

Miss Smith exhibited an interesting chart on which she had outlined an estimate of the probable time spent in the different forms of housework. She allowed two and a half hours to three hours for meals, two hours for dishwashing, an hour for care of bedrooms, a half-hour for "straightening up," and one to two hours for care of the children, as work which must be done daily. In addition there is the laundry work with three to five hours for washing and two to four hours for ironing, one to three hours for mending, five or six hours for special cleaning, and four hours for special baking. The farm

woman's day, according to this estimate, which took no note of outside work, is therefore thirteen hours. Miss Smith advised a careful study of individual needs with a view to cutting out all unessentials and saving time, and suggested as helps, sinks, kitchen cabinets, dish drainers, washing machines, and all real labor-saving devices which the pocketbook can afford.

The next farm visited, that of North Westbrook, exemplified the value of household machinery. Mr. and Mrs. Westbrook have recently moved into a handsome brick residence, thoroughly modern, and with the exception of electricity, with all the conveniences of the city. Electricity is to come as soon as the power company are ready, but already Mrs. Westbrook has her power washing machine, which she runs by means of the gas engine. Of course, there is running water, a pressure tank in the basement sends the

water to all parts of the house. There is a bathroom on the second floor and a toilet on the first. A vacuum cleaner cleans the rugs, hardwood floors make cleaning easy. Hot water heat, and loads of windows which insure the sun and air which the eight Westbrook children need to keep them rosy, are other desirable things. A feature of the house is the cabinets for china, built beneath the pillars between the dining-room and living-room, and similar cases for books in the living-room pillars. The house is large, but

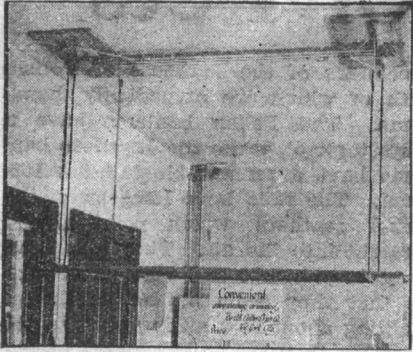
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laid the tile three and a half feet deep and five rods apart. The work cost \$75 an acre, but the result has been so satisfactory that the owners are planning to drain eighty acres more this fall. The corn on this field was in excellent condition, while in an undrained field adjoining, it turned yellow after a late rain. Five hundred



A good clothes rack which can be pulled up to the ceiling out of the way when not in use; it may be used to dry wet clothes in winter or to hold the ironing. The rack is strong and well built, and is also recommended by the college.

and forty-eight barrels of water run out of the drain every twenty-four hours, according to an estimate made by Mr. Vogt.

The last stop was to have been at the home of Mrs. Ida Quick, but owing to a confusion in dates the family were not at home. Here a dumb waiter and other kitchen conveniences have been installed.

#### BE SURE TO REGISTER

If you have not registered, do it now. You must be registered by October 16th, if you want to vote for President in November.

#### WHY DOES MARY LIE?

A certain mother who was much surprised that her small daughter lied very frequently and seemingly without cause, would have been filled with shame had she recalled how often she had said to her maid in the child's hearing, "Tell Mrs. Blank that I am not at home."

The right home training is the greatest force for morality. The character of the individual is determined by the way in which it is begun.

Were the right influence, example and environment given to all children there would be no need for reformatories; a verbal pledge would be as binding as a written one and the name of the profiteer would not be upon every tongue.

#### FOR CLEANING DAY.

Every housewife knows how the oven of an oil stove rusts and that if it is not properly oiled or greased every week or so it will soon wear out. If a little lime is sprinkled on a board and placed in the oven after baking it will absorb all the steam and prevent the rust from forming.—Mrs. J. J. O'C.

To make a good home-made duster, soak pieces of soft flannel in paraffin oil over night, wring out well and wash in lukewarm rain water. This will gather up all the dust and leave a good polish on floor and furniture.—M. A. P.

Dampen the dusting cloth with equal parts of turpentine and kerosene to brighten up the dulled furniture.—Mrs. J. J. O'C.

I use plaster of Paris to set nails in walls when the nails seem loose, and for a variety of other uses, but used to be troubled by the mixture becoming stiff and unworkable before I was through with it. A builder once told me to mix a little vinegar with it to keep it in a plastic condition.—E. C.

## The Best Food Known is Baked from Flour

No other food compares with the breadstuffs baked from flour. As far back as we know some kind of flour has been the staple food of the nations. Next to it is rice. But flour always has been and always will be the food reliance of most of the people of the world.

## Lily White

"The Flour the Best Cooks Use"

is an example of the possibilities of modern milling to convert raw wheat into a perfect flour. The ancients never knew flour as we know it. Science has shown how to get the most nutriment out of the wheat grain. The milling processes employed in making LILY WHITE are the most advanced known in the world today.

In the first place it is cleaned four times, scoured three times and washed once before going on the rolls for the first break. Second, only the best part, the heart of the wheat grain, is used in LILY WHITE. Next the raw material is made flour by the "six-break system"—scientific, thorough, LILY WHITE is never touched by a human hand—is even sacked automatically. No flour surpasses it in uniformity, texture, color. Everything baked from it is flavorful, appetizing, tender, white and delicious. Makes equally good bread, rolls, biscuits and pastry.

Try LILY WHITE. It is guaranteed. Your dealer has it.

VALLEY CITY MILLING CO.

GRAND RAPIDS, MICHIGAN

"Millers for Sixty Years"

Look for the ROWENA trade-mark on the sack

### Don't Send 1 Penny



Don't pay one penny until the fur is delivered at your door by the postman. This is a wonderful opportunity to get a \$12.00 scarf for \$6.98. Our price is amazingly low. Compare it with others and see for yourself.

#### A Fashion Necessity

Every stylish woman is wearing a fur scarf with her coat, suit, dress or waist. It is appropriate for every occasion. This scarf is made of a genuine Manchurian Fox, which has long, soft, silky hair. It is a large animal shape scarf with head at one end and tail at the other. Lined throughout with an all-silk lining; also has silk ribbon around the neck. Very large and graceful. A fur of this kind will wear for years. Colors: Black, Lucile Brown or Tanpe Gray.

Send Now Just your name and address—no money. When the fur scarf arrives, pay the postman \$6.98. We have paid the transportation charges. Wear the scarf—if you don't send it all you expect, return it and we will cheerfully refund your money at once. This is our risk, not yours. Be sure and give color. Order by No. 19.

Walter Field Co. 3100 N. Dearborn Ave., Chicago  
The Bargain Mail Order House

#### White Chinese Geese,

White Pekin Ducks, R. C. Br. Leghorns. Order early. Mrs. CLAUDIA BETTS, Hillsdale, Mich.

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Write me immediately! I am ready to make you the lowest price offer ever made on a satisfactory, scientifically designed, handsomely constructed indoor chemical closet. Write right now and learn WHY I can beat all price competition and get a

#### Detroit Indoor CLOSET

ON 30 DAYS' FREE Trial  
Greatest farm and town-home convenience ever devised. Insures complete privacy. Comfort winter and summer—positively guaranteed. If not completely satisfied return it and I will pay charges both ways.

Albert Coleman, Pres.  
DETROIT INCUBATOR CO.  
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To try in your home 30 days free no matter where you live. Show your friends, send it back at our expense if you do not want to keep it. Million members of families enjoying the comforts and pleasures of

"Hoosier" Stoves & Ranges, perfect bakers and heaters, beautifully finished, smooth latest design, guaranteed for years. Write for our big free book showing photographs, describing large assortment of sizes and designs of Steel and Cast Ranges, Cooks, Sift and Hard Coal Heaters, to select from, explaining our free trial. Send postal today.

HOOSIER STOVE CO.  
131 State St., Marion, Ind.

#### POULTRY

BARRED ROCKS. Park's 280-egg strain cockerels which will produce fine layers next year, \$8 each. R. G. KIRBY, R. 1, East Lansing, Mich.

#### Whittaker's Red Cockerels

Both combs. Special discount on early orders. Write for Price List. WHITTAKER'S FARM, Box 29, Lawrence, Mich.

Cockerels and Hens: Leghorns, Minorcas, Game, pines, Reds, Rocks, Orpingtons, Brahmas, Wyandottes, Tysons, Pouter, Faverolles, etc.

Fowler's Buff Rocks. We are now hatching cockerels left. R. B. FOWLER, Hartford, Mich.

Culler, Land Golden and White Wyandottes from R. B. Culler, only \$8.15 per 15, \$15.00 per 25, shipped prepaid. O. W. BROWN, R. 2, Farmington, Mich.

For Sale High quality S. C. Anconas, 29-yearling hens, 10-day pullets, 1 winning cock, 1 cockerel. \$75.00 takes them all and many of the females are winners. O. C. STERLING, R. 3, Hillsdale, Mich.

## GENUINE ASPIRIN



Name "Bayer" identifies genuine Aspirin introduced to physicians in 1900. Insist on unbroken packages of

## BAYER-TABLETS of ASPIRIN

Aspirin is the trade mark of Bayer Manufacture of Mononaceticacidester of Salicylicacid

#### Single Comb White Leghorns

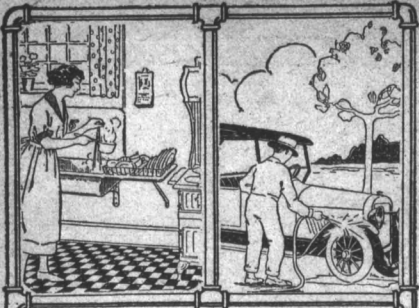
Cockerels from our exhibition settings April hatch, \$5.50 each. Hens from exhibition settings, \$5.00 each. SUNNYBROOK POULTRY FARM, Hillsdale, Mich.

#### Rhode Island Whites

Are the best all-purpose birds being rear round layers, egg and meat and a few good males. H. H. JUMP, Jackson, Michigan.

Please Mention The Michigan Farmer When Writing Advertisers





## Running Water Under Pressure

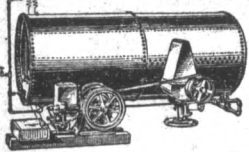
is the first requisite that you may have a truly modern home. It will save needless pumping and carrying of water by hand.

### HOOSIER Water Service

enables you to have running water wherever you have need for it. Any power may be used.

Bulletin F, showing Hoosier Systems and water supply accessories, will be sent you on request. Should you contemplate improving your home don't fail to get a copy.

FLINT & WALLING MFG. CO.  
Dept. C KENDALLVILLE, IND.



## Silberman's Wonder Animal Bait FREE

Send postal for FREE sample of this wonderful bait. Successfully holds its scent under water and snow, when others fail. Thousands will testify to its miraculous power. Sample with compliments of S. Silberman & Sons, FREE!

No other fur house does as much for the trapper. 64 Years Satisfying Shippers is our record. Nationally known as the House with a Million Friends. Honest, Liberal Grading—prompt and larger returns have won for us the Trappers Seal of Approval. Ship to Silberman—and get "The Check That Satisfies."

FREE! Wonder Bait, Secret of the Woods, Bargain Book, Latest Prices on Fur Market FREE. Just send a postal.



S. Silberman & Sons  
THE LEADING HOUSE IN THE BEST MARKET  
204 Silberman Bldg., Chicago, Ill.

## Let the hair go with the hide.



Specialists in tanning Horse, Cow, Calf or any kind of hide with hair or fur on it. We make robes, coats, caps, gloves, muffs, rugs, etc., to your order. You save money and we save your furs. Free catalog of stylish fur garments: Free instructions for handling furs. Fur garments and goods of all kinds repaired and made like new. We mount large and small game, birds and fish. Write today.

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**CARBO STEEL POSTS**  
Self aligning  
**TENSION FENCING SYSTEM**  
10 Times Strongest, No Breaking, Buckling Etc.,  
Half the Cost — No Concrete  
CARBO STEEL PRODUCTS CO., 2615 W. 11th St., Chicago

# Our Boys' and Girls' Department

## Raising Bantams for Pets

By E. I. Farrington

I THINK my bantams have given me more fun than any other pets I ever kept, and I have had a considerable experience with creatures of different kinds in fur or feathers. It isn't worth while to bother with mongrel bantams, but if you can find well-bred birds, they will prove a constant delight. There are many different kinds, and the smaller you can get them, the better. Some kinds, like the Plymouth Rocks and the Brahmas, are simple pocket editions of the larger breeds of the same name. Other kinds, like the Seabrights, the Japanese, and the Booted Bantams, are wholly different from fowls of any other kind.

The Seabright bantams are among the kinds in which boys delight. They are exceedingly diminutive, weighing only about 25 ounces. The Seabright cock is a perfect little dandy. His mate has very pert, independent ways, but the rooster, with his smart, high-spirited air, is about the most amusing bird in all the poultry kingdom. He struts about as though he were lord of all he surveyed, instead of being such a tiny bit of flesh and feathers that you could almost crush him in your hand, or hide him in your pocket.

It's a curious fact that both the hens and the roosters have feathers that are laced exactly alike. Moreover, the shape of the two sexes is, almost identical, both having wide spreading tails and wings which point to the ground just back of the legs. There are both golden and silver Seabrights, one having plumage of golden yellow while the other has silvery white feathers. With both, each feather is evenly and distinctly laced all around with a narrow edging of lustrous black.

I am telling all these things about the Seabrights because they are among the most interesting of all fowls, and every boy ought to know about them. They are really a made breed. That is, they were deliberately worked out by an Englishman, Sir John Seabright, for whom they were named. For 30 years this man devoted much of his time to mating and breeding bantams in order to produce a certain fixed type. The Seabrights are good pets for boys, and so are the Cochins and the Brahma bantams. In fact, these two just named are probably the best breeds for boys to start with, because they are very hardy, do not mind cold weather, and are very easy to handle.

Perhaps more Cochins bantams are kept than any other kind, and any boy may well be glad to own a little flock of well bred birds. They weigh only about 30 ounces, and with their deep, plump, well-rounded bodies, short legs, and abbreviated necks, they look like little feather balls. Their legs are covered with feathers, which extend so low that they completely hide the feet. Altogether they should be miniature duplicates of larger Cochins.

If you prefer Brahma bantams, you will find them almost as handsome and just as small. There are both the light and dark Brahmas, and while they are not as pert as the Seabrights, they have a very engaging and friendly manner. In fact, few bantams will allow as much handling as the Brahmas.

There is one distinct advantage in keeping the larger bantams like Cochins, Brahmas and Plymouth Rocks because they lay eggs which, while small, are still large enough to use for

cooking. They are usually very good layers, too, so that if you raise bantams of these breeds, you can make them pay in eggs for all the feed they consume. Of course, you would be glad to contribute your time for the enjoyment you get working among them.

Sometimes men who raise pheasants are glad to buy bantam Cochins hens



A Seabright Bantam Cockerel.

to use as mothers. In fact, the bantam Cochins are famous as 'sitters', and oftentimes several hundred are to be found in little coops scattered over game farms, sitting on the eggs of the different wild birds.

Probably the breeds which I have named include most of those which boys should choose for pets, at least when they first start out as fanciers. Later, if they want to raise some of the rarer bantams, they can get a few

specimens of the Japanese or Polish, both of which are exceedingly handsome. The Polish bantams have a large topknot, while the Japanese bantams have a remarkable tail development. The tails have long, swordlike sickle feathers which point almost straight into the air. They also have very large combs and very short legs, so that they seem almost as though walking about in a sitting posture. Altogether they are to be classed as one of the curiosities of the bantam family.

Being so diminutive, bantams require only a small house. In fact, a few bantams can be kept readily enough in a dry goods box or a piano box. It is important, though, that the house be dry and free from draughts. It need not be especially warm, if sheltered from the winds. It is much more important to have plenty of fresh air.

Feed your bantams just as you would older hens, except that you should give them only cracked grains, and should avoid over feeding. It doesn't take very much grain and mash to keep bantams in good condition. Don't forget to give them some green stuff in addition to the grain, and keep fine oyster shells and grit where they can get at them at all times.

While bantams will scratch like larger fowls, they are so small that they do very little damage, and oftentimes they can be given the run of the garden or the lawn, in which event they will pick up a large part of their own rations during the summer. I know of few pets which require so little care, and which give as many returns as do bantams for the attention bestowed upon them.

## Boys and Girls There First

Watch Them, See if This is Not True—By Uncle Ed

THE farmers of a certain county in the front ranks. No slackers, no held a picnic not long ago. One thing those who had their eyes open noticed, and that was that the boys and girls were first on the ground. When things began to be done they were there, ready to see and to take part in the exercises.

If you will give this matter some attention, you will find that it is almost universally true. Boys and girls are

in the front ranks. No slackers, no laggards among them. They are wide awake and ready to take advantage of every situation. There is this good thing about the matter. When these young folks come to take their places on the farm as owners and managers and begin really to do business, things are bound to hum. Another thing is true. There is room for every single one of these live boys and girls right

There is no Better  
Schooling than Stock  
Judging, for the Junior  
Breeder.





on the farm. They are needed here, too, far more than they are anywhere else in the world.

#### Her Seven Toes.

A LITTLE chap tells me that he has a kitten which has seven toes on each of her front feet. By the way, did you ever think how many your kittens have? And did you ever see a cat that had seven toes on her hind feet? We would really like to know about that. But what I am interested in now is whether that seven-toed-er, as the boy calls his kitten, catches more mice than do the kittens with only five claws. And the boy tells me she does. That she is the greatest kitten to catch mice they ever had on the farm.

If that is so, then we can see that the seven toes amount to something. No use having an extra allowance of resources of any kind unless you make good use of them. A boy might have a dozen knives in his pocket, but if he kept them there, they would not do him much good. It is the use we make of our time, our talents and our strength that counts for most. What do you do with yours?

#### THE BEAR THIEF.

AS the bear descended the mountain the warm September sun began to melt the snow and it slipped from the overhanging branches to splash upon the leaves and rocks below; this she did not like, for, by the force of its fall, it drove its chill moisture into her coat, so she sought a small meadow on a flat surrounded by trees, where the sun shone warm," writes Charles L. ("Grizzly") Smith in an article on "The Grizzly Bear at Home," in Boys' Life. "Her unerring nose led her to a small mound of fresh earth beneath the snow, with one sweep of her paw she brushed the snow aside and disclosed a small hole in the ground. This was the home of a Columbia ground squirrel and from early in July, he had been industriously collecting and storing roots for winter use. He had dug a hole deep into the rocky soil going down at a steep angle for a distance of about three feet, then to one side for a few inches then on an incline up for about eighteen inches, then off again on a level where he had evacuated a large area capable of holding a peck or more of edible roots. He had then dug a small tunnel to one side of this granary and evacuated another round compartment the size of a man's hat which he filled with dry shredded grass, to form a warm dry wall; this he used as a bedroom.

"The bear by long experience knew the internal arrangements of the little squirrel's domicile and of the plentiful store of roots to be had at a minimum of labor, so she set to work at once to despoil the little fellow of his hard earned stores. She tore at the tough sod and roots and broken stones, making a large hole and finally reaching the treasure. The little store was incomplete, yet she found it ample to repay her for the labor expended, for it would have taken hours to have located and dug each of these roots for herself. After she had cleaned out the little storehouse and caught and eaten her benefactor, she went on down the mountain."

Edgar Holly only had forty acres of land and when he told folks about it, they said, "What a dinky little place, how do you make a living?" So he bought 200 acres of swamp land nearby and it didn't cost much and it's not any good now. It increases his taxes but not his income. Now he says he has 240 acres of land and city folks say, "What a fine big place, you must do pretty well in these days when food is so profitable." Edgar says that folks often go daffy on acreage but don't care a whoop about how much a fellow makes on each acre.

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& Co., Inc.



Trade Mark Reg.



## Styleplus Clothes

## Medium prices

It is easier to find good clothes at high prices than to find good clothes at medium prices. Styleplus, however, stand out the nation over as suits and overcoats of really distinctive quality at prices never extreme. Their fabrics are all-wool; their styling excellent; their tailoring exceptional. Their guarantee is full and absolute; satisfaction is certain; assured.

Buy at a clothing store where you have the chance to see and try on the clothes before you pay for them.

Sold by one leading clothing-merchant in most cities and towns. Write us (Dept. H) for name of local dealer.

Henry Sonneborn & Co., Inc., Baltimore, Md.

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Ten Days before date of publication

### Wildwood Farms Angus

Effies Lass 238203 sold on May 6th for \$7100. She was sired by Black Monarch 3rd. We are offering for sale Editor of Wildwood 295059 a full brother in blood lines to Effies Lass also four more choice bulls which are old enough for service and sired also by the champion show and breeding bull Black Monarch 3rd.

Our herd is under State and Federal Supervision.

#### WILDWOOD FARMS ORION, MICHIGAN

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

#### WOODCOTE ANGUS

Imported Herd Bulls  
ELCHO OF HARVESTOUN (45547)  
by Jason of Ballindalloch (39048)  
EDGARDO OF DALMENY (45501)  
by Escort of Harvestoun (38006)  
Woodcote Stock Farm, Ionia, Mich.

For Sale Registered Guernsey bulls. May Rose breeding cheap if taken soon. Come or write. John Ebels B. 2 Holland, Michigan.

#### SPRING DELL FARM GUERNSEYS

For sale: Choice of two bulls two and three years old; also bull calves three to twelve months. Registered. Splendid individuals and breeding. Prices right. WHITE BROTHERS, R. 2, Box 20, La Porte, Indiana.

Guernsey Bull Busto of Smallidge Farm, born Feb. 2nd, 1920. Sire Bennie of the Ridge, who's dam Trixie of the Ridge holds first place in class BB. in Michigan. Granddam Abbie of Riverside is champion of Mich. Dam May Kings Edalia of Eau Claire an A. R. cow. E. J. SMALLIDGE, Eau Claire, Mich.

Pure bred Guernsey bulls from one to four weeks old. Registered \$30, not registered \$25. Orders shipped in rotation received. No excuse for scrub bulls. WALTER PHIPPS FARM, 80 Alfred St. Detroit, Geo. E. Currie, Mgr.

For Sale: Guernsey bulls from 3 months to 6 months old. Their sire is DOTTIE'S PRINCE No. 44896; his dam has an official yearly record of 647 lbs. butter fat. L. J. BYERS, Coldwater, Mich.

GUERNSEYS - Federal Inspected. Headed by only son of Carrie of Hillhurst, exchampion of A. A. class. 5 bulls under 10 mos., 1 a dandy whose dam in class D has given over 50 lbs. milk. No females to spare. G. W. & H. G. RAY, 4 mi. east of Albion, Mich.

GUERNSEY BULL CALVES whose sire's dam made 19,460.20 milk, 909.05 fat. Their mother's sire's dam made 15,109.10 milk, 778.80 fat. T. V. HICKS, Battle Creek, Mich.

#### Registered Guernseys

a 6 months old bull (100%) satisfaction for \$100. A nice heifer calf \$150. J. M. WILLIAMS, North Adams, Mich.

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

FOR SALE Registered Guernsey heifers, yearlings and calves. E. A. BLACK, Route 3, Howard City, Mich.

GUERNSEYS Registered Guernsey Bulls for sale. GEO. N. CRAWFORD, R. 2, Holton, Mich.

### Facts in BLACK & WHITE

#### Paid in milk for Purebred Holsteins

The Reveille, Bellingham, Wash., reports that the Pacific Condensary Co., sells high-grade Holsteins to the ranchers at cost, taking payment in milk.

The company needs more milk and by introducing Holsteins expects to make dairying a profitable industry, thus increasing the acreage in dairy farms as well as the milk output per average cow. Just another instance of the standing of Holsteins among business men.

Send for free Illustrated Booklets. They contain valuable information for any Dairyman.

THE HOLSTEIN-FRIESIAN ASSOCIATION  
164 Hudson Street  
Brattleboro Vermont.

31.06 lb. butter 57.46 lb. milk in 7 days, in average of 9 nearest tested dams of 2 mo. old bull. Price \$150. Terms. M. L. McLAULIN, Redford, Mich.

### -Winn Wood Herd- Flint Maplecrest Boy No. 166974 Has Made Good

one of his SONS will raise your herd to a higher standard and better production we have them for sale at moderate prices.

#### A Few Females For Sale

##### —OUR JUNIOR HERD SIRE—

Sir Ormsby Skylark Burke No. 264966

A brother to the world champion cow over all breeds.

##### DUCHESS SKYLARK ORMSBY

Michigan's best bred Ormsby bull. Better get on the list for one of his sons out of a daughter of Flint Maplecrest Boy.

#### JOHN H. WINN, (Inc.)

Roscommon, Michigan

Long Distance HOLSTEINS. HERD-SIRE PRINCE ONA Five dams av. 1186 lbs. butter and 24771 lbs. milk in 1 yr. Bulls all sold. State and Federal Supr. A. FLEMING, Lake, Mich.

#### OUR HERD SIRE

##### Model King Segis Glista

By a 30 lb. son of Lakeside King Segis Alban De Kol. His dam Glista Fenelle 32.37 lbs. Her dam Glista Ernestine 35.96 lbs. His three nearest dams average over 38 lbs and his forty-six nearest tested relatives average over 30 lbs. of butter in seven days. Write for prices on his sons.

Grand River Stock Farms  
Cory J. Spencer, Owner Eaton Rapids, Mich.

### "TOP NOTCH"

#### HOLSTEINS

##### McPHERSON FARMS COMPANY

has raised many great milk cows:  
1 Officially Produced 842 lbs. milk in 7 days  
3394 lbs. milk in 30 days  
120 lbs. milk in 1 day  
811 lbs. milk in 7 days  
over 10000 lbs. milk in 100 days  
105 lbs. milk in 1 day  
696 lbs. milk in 7 days  
2669 lbs. milk in 30 days  
100 lbs. milk in 1 day  
20854 lbs. milk in 1 year  
100 lbs. milk in 1 day  
659 lbs. milk in 7 days  
18675 lbs. milk in 1 year

Others under test are making large milk records. A fine lot of young bulls from 3 months to 2 years old for sale. Get a "milk" bull, and increase milk production in your herd.

Our herds are under U. S. supervision. McPHERSON FARMS CO., Howell, Mich.

### 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.



## An Introduction

Mr. Dairy Farmer, Mr. Holstein Breeder Meet  
KING FLINT

ALL THREE are working to a common purpose—to increase the production of Michigan Dairy herds. We believe all three should work together. We feel sure that no Michigan bull has ever been better equipped for the work.

We have it on high authority that there are none better individually.

His three nearest dams each averaged to produce 100 lbs. butter and 2100 lbs. milk per month for a full lactation period with an average of 3.8% fat.

His dam is one of Michigan's greatest families—three full sisters that have produced over 30 lbs. butter in seven days, two of them producing over 700 lbs. milk, and two of them producing more than 1000 lbs. butter and 2100 lbs. milk in ten months.

His sire is the direct descendant of three generations of 30 lb. cows and two generations of 1200 lb. yearly record cows.

His first three sisters to enter yearly test will each produce more than 800 lbs. butter and 1700 lbs. milk as heifers.

Let King Flint Help You Improve Your Herd Through One Of His Sons

A son of this great young sire suited to head any herd in Michigan, grade or purebred, can be secured in Genesee County and we want them all to stay in Michigan.

Write us about your herd, tell us what you need and what you feel you can afford to pay and let us help you find just what you want in Genesee County, the center of Michigan's long distance dairy cattle.

Genrida Farm  
Walter T. Hill  
Davison, Mich.

Elmcrest Stock Farm  
G. L. Spillane & Son Co.  
Clio, Mich.

## HOLSTEIN BULL CALVES FOR SALE

From dams with good records.

BULL CALVES Sired BY 45 lb. BULL.

BULL CALVES Sired BY 34 lb. BULL.

BULL CALVES Sired BY 33 lb. BULL.

PRICES VERY REASONABLE.

Privilege of return if not satisfied.

A. W. COPLAND,  
Birmingham, Michigan.  
Herd under State and Federal Supervision.

## Cluny Stock Farm

Offers the best selection of young bulls from 8 to 12 months we ever raised; out of dams up to 29.76 for aged cows and over 26 lbs. for 2 yr. olds. Yearly records up to 24000 lbs. milk and 1000 lbs. butter. Sired by our Senior Herd Sire, Maplecrest Application Pontiac, whose dam made 35 lbs. butter in 7 days and 1344 lbs. butter and 23421 lbs. milk in a year, or by Dutchland Konigen Sir Rag Apple, our Junior Herd sire, whose dam is a 30 lb. 10 yr. old maternal sister of Dutchland Colantha Denver who made 36 lbs. in 7 days and 1315 lbs. butter and 25431 lbs. milk in 1 year. Several carry the blood of both these sires.

They are extra well grown, straight and right. One of these at the head of your herd is bound to increase production.

Send for pedigrees and prices.

R. Bruce McPherson, Howell, Mich.

**Sell or Lease** I have five registered Holstein-Friesian bull calves from A. R. O. dams from 8 to 4 months old, "King Ona" strain. Will sell or let out for two years without charge, you to use for breeding and then return to me.  
J. C. MORRIS, "Morris Hills Farms"  
Mt. Morris, Michigan

**We Have,** on our Ranch at Clare, several fine Holstein Bulls, at prices ranging from \$50.00 up. Will furnish pedigrees. The records back of each individual are good. Address:  
WILLIAM C. CORNWELL, Saginaw Mich.

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

**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. CLARKE, Vassar, Mich.

## Holsteins of Quality

for sale. Heifers from 8 to 24 months old. All registered and sold subject to tuberculin test.  
E. A. HARDY, Rochester, Mich.

**BARGAIN PRICES** on pure bred Holstein heifers and young bulls ready for service.  
JOSEPH H. BREWER, Grand Rapids, Michigan

**For Sale** 4 Holstein heifers, 3 2 yrs. old, 13 yrs. old, 1 with calf by side others to freshen later from heavy producers \$450 takes them all.  
E. S. NASH, R. 3, Howell, Mich.

**\$1200** Buys five good young reg. Holstein cows. Some fresh others freshen soon. Very prominent breeding. All guar. OK. B. B. Reavey, Akron, Mich.

## HEREFORDS

20 Cows and Heifers of popular breeding for sale also bulls not related.

ALLEN BROS.

PAW PAW, MICHIGAN

**Herefords.** Just purchased 3 new herds, now have 150 head; we offer you anything desired either sex, horned or polled, any age. Priced reasonable.  
THE McCARTHYs, Bad Axe, Mich.

**Herefords:** 4 Reg. bulls 5 to 8 mo. old. Prices reasonable for quick sale visitors welcome. Reed Schultz, R. 3, Homer, Mich.

## HEREFORDS

D. S. Polled Herefords

Herd headed by Renner Bullion, \$15000, (18242) son of grand champion Bullion 4th.

For Sale—A few good polled and horned cows bred to this great bull. Also three fine bull calves not related to him. Correspondence solicited.

Cole & Gardner, Hudson, Mich.

# SHORTHORN SALE

## 40 - - HEAD - - 40

Good, High Class Registered  
Cows, Heifers and Bulls

INCLUDING A FEW COWS OF THE DUAL  
PURPOSE OR MILKING STRAIN

This sale will be held under the auspices of the  
Southern Michigan Shorthorn  
Breeders' Association

All stock is sold on consignment from members of this Association and is of a quality which commands attention

## Hillsdale, Mich.

FAIR GROUNDS

## Tuesday, Oct. 5, 1920

For Particulars and Catalog Address

John Southworth, Sec., Allen, Mich.  
ANDY ADAMS, Sales Manager and Auctioneer

# Holstein Dispersion Sale Chaslen Farms

24 registered and 48 grade Holstein cattle will be sold at eleven o'clock, Thursday October 7 at Chaslen Farms three miles from Northville, Mich.

Pure bred Holsteins consist of 12 cows that will be fresh at date of sale or heavy with calf, 9 heifers under one year of age and 3 young bulls fit for service.

Grade Holsteins consist of 42 cows under six years of age, a majority of which will be fresh or heavy with calf at date of sale, balance heifers under one year of age.

One 2800 lbs. pair of mules, full brothers 4 and 5 years of age and 4 horses will be sold.

Farmers desiring a herd boar will find 200 Duroc Jersey swine on the farm to make selections from. 10 head of pure bred Shorthorn bulls will be priced right at private sale.

## Thursday, October 7

C. H. & L. A. YOUNG, Props. Northville, Mich.

### The Wildwood Farm

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

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

**For Sale** Jersey bull calves of Majesty breeding from good producing stock. Herd on Government "Accredited List." Write for price and pedigree to C. A. TAGGETT, R. 2, Fairgrove, Mich.

**Registered Jersey** bull calves of pleasing type, backed by high production. Priced very low, quality considered.  
C. S. BASSETT, Kalamazoo, Mich.

**Jerseys For Sale,** Register of Merit  
Smith and Parker, Howell, Michigan.

**Lillie Farmstead Jerseys** 2 R. of M. bull calves, one year old this fall.  
O. C. LILLIE, Coopersville, Mich.

**Jersey Bulls** from R. of M. dams \$75 \*to \$150 each.  
NOTTEN FARM, Grass Lake, Mich.

**Shorthorns** Scotch and Scotch Topped bulls and heifers priced right. Sultan Champion heads herd, one scotch two yr. old herd bull by Red Cumberland priced right.  
H. J. FLOWER & SON, Milo, Mich.

### BIDWELL SHORTHORNS

You Can Buy

a bull that will put weights on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. A roan, senior yearling, a Missie of Villager breeding, a herd bull prospect, Federal Test.

**BIDWELL STOCK FARM,**  
Box D, Tecumseh, Michigan

### We Now Have

a number of choice bred scotch females of any age for sale also three bulls from 6 to 18 months old. Visit our herd before buying. Sold 5 calves for \$5400.  
CARR BROS., & CO., Bad Axe, Mich.

### Richland Shorthorns

Imp. Lorne, Imp. Newton champion and Sterling Supreme in Service. We offer for quick sale: Five Scotch Bulls, best of breeding. Three whites at \$1000 each. One roan at \$500, one red at \$400. No females for sale. Public sale Chicago Oct. 28th.  
C. H. PRESCOTT & SONS,  
Tawas, City, Mich.

**Milking SHORTHORNS** Clay bred bull calves Herds under Federal Supervision.  
Davidson & Hall, Beland & Beland, Tecumseh, Mich.

## Hogging Down Corn

By A. L. Bibbins

**S**HORT of help? "Well, hardly," says one of our southern Michigan farmers. "I have fifty good hired men who will profitably handle a fair portion of my corn crop. Not only will they husk the corn, but also haul and crib it, and at the same time put some good manure back on the land for me. Best part of the deal is that they are not charging me a cent for their labor either. While they are working with the corn I will be getting a lot of next spring's work out of the way."

A lucky man, you may think. Perhaps so, but there are thousands more just like him, for with ten or more hogs on the farm, one may harvest considerable of the corn crop at a comparatively low expense, which if judiciously managed will at the same time produce a good amount of pork.

With the present day market situation confronting us it is important that we place our hogs on the market at the lowest cost possible. Husking corn and hauling it to the feed lot will produce pork, however, this requires considerable labor which is rather scarce and too high-priced for the returns received on the present market. Such a practice cannot be termed as the cheapest and most efficient.

Experience a Good Demonstration.

In the past the practice of hogging down the corn has often been scorned by many Michigan farmers and termed "a lazy man's trick." Corn belt farmers and several agricultural experiment stations have utilized this system of producing pork and report very favorably concerning it. Substantial daily gains with little man and horse labor involved have convinced many growers of the soundness of taking advantage of the willingness of hogs to husk their own corn.

It is not so much the question of producing more pork to the acre but rather one of producing the most at the lowest cost. Hogging down the corn appears to be the answer to the problem, especially if we consider the value to the other crops of the labor saved in handling the corn harvest.

Advantages.

The advantages to be gained from hogging down corn may be briefly summed up under three heads. First of all, and one that is of utmost importance at the present time, is that the practice is ideal from a labor-saving standpoint. Every farmer is aware of the amount of man and horse labor that is required to cut, husk, haul and crib corn, and then feed it out to the hogs in the pen. The expense of these operations may be largely saved and at the time of the year when there is usually a great rush of out-of-door work.

Then there is the fertility problem that must be considered. In feeding corn in the pen there is almost always a waste of valuable fertility. If any of the manure made is returned to the soil it is accomplished at quite an expense and only after many hours of laborious and not altogether pleasant work. When harvesting their own corn the hogs are making manure and depositing it directly upon the land. They are also leaving cornstalks where they may be turned under without first being hauled out to the field.

The general health of any farm animal is always to be considered. In hogging down corn the animals receive a great deal of exercise which keeps them contented and vigorous. Instead of rooting around in sloppy pig yards as is often the case, they are working in clean fields which, as one may observe, is of no small benefit to them.

Management of the Corn Field.

Before turning the hogs into the corn field they should be fed some corn in the dry lot. At first only a



small amount, gradually increasing the supply until they are accustomed to the feed.

Hogs should not be permitted to cover too large an area at one time or they will not do a clean job of pasturing and hence a waste of good feed results.

The number of hogs that an acre will carry depends largely upon the yield of the corn and the size and vigor of the hogs. A fifty-bushel crop of corn will carry ten one-hundred-pound pigs from eighteen to twenty days. Three fall shoters and six spring pigs may be counted upon to clean up an acre of fifty-bushel corn in fifteen to twenty days.

One should approximate the amount of corn that will be hogged off and lay plans to keep them on that area until they have cleared it up.

A method commonly used in the corn belt is to roll down a portion of the field. The hogs seldom bother the standing corn as they find the knocked down corn so much easier to procure. After the portion of the field that was rolled down has been cleared up an additional amount should be rolled and the hogs will find this new ready feed in a short time.

Some practice the system of stretching a temporary fence through the corn by weaving hog wire in between the stalks. It is not necessary to make this fence very substantial as the hogs seldom attempt to go beyond it as long as there is good corn left within the enclosure. Some believe it advisable to knock down some corn when using the fence system, especially at first when the idea is rather new to the hogs. When that part of the field that has been fenced off is cleaned up the fence is moved over and the animals allowed to enter the new clean pasture. The fence system necessitates a little more work but is thought by many to be the best.

#### Balance the Ration.

Although the hogs are apparently glad of the opportunity to obtain their own food in their own particular manner it has been the experience of feeders that they should be provided with other things besides corn, which is high in carbohydrates, but does not meet the protein requirements of the hog.

This protein element may easily be supplied and the hog allowed to obtain it as his appetite and body needs require. We are likely to consider the hog as an animal devoid of all sense, however, he has often shown better judgment concerning the choice of his food than some of the so-called higher animals.

Many Michigan farmers planted soy beans in their corn last spring and thus have provided a very good protein supplement for the corn feed which may be of considerable value this fall in hogging off the corn. Alfalfa fields adjoining the corn may be utilized to supply the protein. Probably one of the best systems is to place self-feeders in the corn fields and use tankage, shorts, or oilmeal.

Plenty of good fresh water should always be available. Troughs may be placed at convenient places in the field and daily attended to.

Provided with the corn, water, and a protein feed, the hogs may be depended upon to balance their own ration. They will work in the corn, pay a frequent visit to the watering trough and occasionally drop over to the self-feeder for their protein hand-out. The remainder of the time they may be found in groups contentedly discussing the topics of the day and at the same time laying on pork in a most satisfactory manner with very little attention from their boss.



## In 4 Trips Across America Essex 4 Times Breaks Record

San Francisco to New York—3347 Miles  
In 4 Days, 14 Hours, 43 Minutes

#### First Essex

San Francisco to New York  
—4 days, 14 hours, 43 min.  
Lowest Record 12 hours, 48 min.

#### Second Essex

New York to San Francisco  
—4 days, 19 hours, 17 min.  
Lowest Record 22 hours, 13 min.

#### Third Essex

San Francisco to New York—4  
days, 21 hours, 56 min.  
Lowest Record by 5 hours, 35 minutes.

#### Fourth Essex

New York to San Francisco—5  
days, 6 hours, 13 min.  
This car took a longer route and also ran  
into storms. Yet it broke the former  
record by 11 hours, 19 minutes.

### A Proof of Reliability Never Equalled

The first test of an automobile carrying U. S. Mail across the American continent was made with the light weight, moderate priced Essex. And it resulted in establishing the Essex as holder of the trans-continental record both ways.

The performance while of momentous importance in the world of speed and automobile sportsmanship—is of greater value to the motorist. For it removes all doubt about the reliability of light weight in the most difficult and hardest road service.

### Also Holds These Noted Records

Many other unmatched Essex records forecast its ability to break the transcontinental records at will. For instance it holds the official 50-hour endurance record of 3037 miles in 50 hours. It holds the 24-hour dirt track mark of 1261 miles, made by an owner-car, which had previously seen over 12,000 miles service. And it holds the world's 24-hour road mark of 1061 miles, made over Iowa country highways.

Yet these records are significant only because they show the endurance and reliability of every Essex car. They speak for the ability of any Essex to duplicate these feats.

Essex Motors, Detroit, Michigan



WATCH the ESSEX



## Leonard's Champion Poland China Herd

Showed ten head at the Michigan State Fair and won second on under a year boar, second and fourth on under 6 months pig. First aged sow, second senior yearling. First and fourth under a year. First, second, third on sow pigs. First on breeders herd, first on exhibitors herd, first on get of sire, first produce of dam. Grand Champion sow, senior champion sow and junior champion sow. All of these winners, except three, were sired by Leonard's Big Bob and his blood will be represented strongly in the sale. Sale date October 28. Write for catalog and information. All hogs on the farm cholera immune.

E. R. LEONARD,

ST. LOUIS, MICH.

## O. I. C. SOWS FOR SALE

One of the Best Herds in Michigan

Young sows due to farrow in September. Spring bears ready for shipment. Choice individuals of BIG TYPE breeding. I ship C. O. D. pay express and register in buyer's name.

J. CARL JEWETT,

R. 5, Mason, Michigan.

#### CATTLE

##### Shorthorns

Good Scotch bred bulls, cows and heifers priced right.

W. B. McQUILLAN, R. 7, Howell, Mich.

##### Meadow Hills

Shorthorns. Herd headed by Sir Ver King, full brother of Lavender Sultan Purdue University's great sire. For sale females of all ages, a few young bulls. Geo. D. Doster, Doster, Mich.

##### Milking

Shorthorns of best Bates breeding. Bulls 6 to 8 mo. old for sale.

E. H. KURTZ, Mason, Mich.

##### Shorthorns of Merit

Both males and females for sale. ARTHUR DODDS, Lapeer, Michigan

##### Shorthorn Bulls

Eight to ten months old of Scotch and Scotch Topped breeding. Lawrence P. Otto, Charlotte, Mich.

SHORTHORNS—Imp. Mysie Prince in service bred by J. Durno, sire bred by Wm. Duthie. Stock for sale. J. A. BARNUM, Union City, Mich.

For Sale 19 Shorthorn registered good breeding will sell cheap to close out. Apply The JENNINGS FARMS, Bailey, Mich.

Milking Shorthorn 3 mos. heifer calf \$125 bred heifers and serviceable bulls at farmers' prices. Central Mich. Shorthorn Assn. Oscar Skinner Sec. Gowen, Mich.

Red Polled cattle for sale bulls from 4 to 18 mos. also cows with calves by side and heifer's. G. A. CALHOON, Bronson, Mich.

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

Reg. Red Polled Bull calves for sale, from 3 mos. to 1 year old, sired by Famous Charmer grand son of Charmer 1919 International Grand Champion. WESTBROOK BROS., Ionia, Mich.

#### HOGS

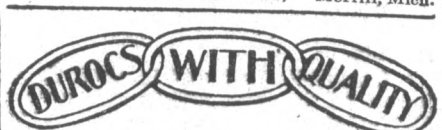
##### Berkshires

size with quality is our specialty. Write your wants to M. G. MOSHER & SONS, Osseo, Mich.

Registered Berkshires, Glts. and Sow bred for April May and June farrow. A yearling Boar and a few younger Spring pigs. Chase Stock Farm, Marlette, Mich.

Large Berkshires. Rapid gainers. 550 to 600 lbs. 17 mos. First prize Jr. yearling gilt, State Fair, bred and sold by us. W. H. Every, Manchester, Mich.

Fine Registered Berkshire pigs for sale, prolific, large litters. C. H. WHITNEY, Merrill, Mich.



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

#### DUROC JERSEY SWINE

for sale 2 yr. old herd boars, yearling boars and bear pigs, also bred sows and glts. Write for pedigrees and prices. Come and see them. THOS. UNDERHILL & SON, Salem, Mich.

DUROCS spring boars. A few glts bred for Sept. farrow at bargain prices. W. O. TAYLOR, Milan, Mich.



## THREE GREAT HOLSTEIN DAYS OCTOBER 19-20-21

Second Michigan State Holstein Sale

**Jackson, Tuesday, Oct. 19th**

**70 Michigan's Best Holstein 70**

Selected from herds that have passed at least one clean test under state and federal supervision.

All high-class individuals.

All high-record animals.

**East Lansing, Wednesday, October 20th**

75 head carefully selected individuals, including two complete dispersals.

**Owosso, Thursday, October 21st**

80 head, high-class cattle, including complete dispersal of the Hillis herd, headed by the best son of Hengerveld DeKol.

**225 Choice Reg. Holsteins 225**

**Sold With 60-90 Day Retest Privilege**

Sales Managed By

**The Michigan Holstein-Friesian Association**

**H. W. Norton, Jr., Field Secretary**  
**Old State Block, Lansing, Michigan**

## West Michigan's Great Sale of REGISTERED HOLSTEIN CATTLE

114 head of High Class Cattle at the West Michigan State Fair Grounds

**Grand Rapids, Michigan, on  
MONDAY, OCT. 18, 1920**

A splendid lot of carefully selected cattle to choose from, where the buyer can select anything he wants from a choice heifer calf to an unusually good 32-lb. YOUNG HERD SIRE.

Among our offerings will be about a car load of very desirable yearlings and two-year-old heifers from the noted Traverse City State Hospital Herd. Most of these Traverse City heifers are safe in calf to an \$8,000 Grandson of MAY ECHO SYLVIA.

H. A. Washburn will disperse his entire Government and State Accredited Herd of 25 head of choice cattle, including a 29-lb. cow and her six-months-old bull calf.

Monroe & Lewis will also disperse their entire Government and State Accredited herd of 15 good females including two splendid daughters of a 28-lb. cow.

Clarence Bisbee will disperse his little herd of five females, including a 29-lb. daughter of a 34-lb. sire, and a 24-lb. daughter of a 30-lb. cow safe in calf to a 33-lb. bull.

We will also have a car load or two of good fresh milch cows of good type, and a car load of springers due to freshen in November and December.

We will offer a car load or more of good cows due to freshen during the winter or early spring; also about a car load of good yearling heifers, and a car load of choice heifer calves. These yearling heifers and heifer calves are good individuals; most of them are out of high record sires and a number of them are from good A. R. O. dams.

There will be two 29-lb. cows in the sale, a 25-lb. cow, a 24-lb. daughter of a 30-lb. cow, and other good A. R. O. cows that space does not permit us to mention.

The 32-lb. bull calf is sired by a 30-lb. son of King of the Pontiacs and is one of the best young bulls ever offered in a Michigan sale ring. We also have a 31-lb. 2-year-old bull in the sale, two desirable 29-lb. bull calves, a splendid yearling bull out of a 26.88-lb. cow and a 31-lb. sire and several other good bull calves out of high-class sires and good A. R. O. dams.

Nearly all the cattle in the West Michigan Sale at Grand Rapids come from herds that are tuberculin tested regularly under the Government and State Accredited Herd plan, and a number of these herds are "Fully Accredited."

If interested in the cattle offered at the West Michigan Sale, WRITE FOR A SALE CATALOG.

Sale Catalogs will be out October 1st.

**W. R. HARPER, Sales Manager, Middleville, Mich.**  
**R. AUSTIN BACKUS, Pedigree Expert** **COL. D. L. PERRY, Auctioneer**

## Poland China Sale Circuit

<b>Wesley Hile</b>	<b>Oct. 26</b>	<b>Ionia</b>
<b>Boone-Hill Co.</b>	<b>Oct. 27</b>	<b>Blanchard</b>
<b>Leonard &amp; Fisher</b>	<b>Oct. 28</b>	<b>St. Louis</b>
<b>Chas. Wetzel &amp; Sons</b>	<b>Oct. 29</b>	<b>Ithaca</b>
<b>W. Brewbaker &amp; Sons</b>	<b>Oct. 30</b>	<b>Elsie</b>

These firms, members of Central Michigan Poland China Breeders' Assn., will present to the public an offering of Poland China swine, such as has never before been offered in the state. The sales will be held at above named places and will give the farmer an opportunity to fit his exact needs with breeding swine that will produce more pork for the same amount of feed consumed. This is an opportunity of a lifetime, for these firms will sell to the highest bidders sows and boars of the highest individual merit from the best blood lines of the breed. Col. Harry A. Eckhart of Illinois and Col. Ed. Bowers of Indiana will do the selling. These men are artists as livestock salesmen, and it will do the breeders and farmers of our good old state an untold amount of good to be at the sales. It will help to get them acquainted with the breed from an educational standpoint. Michigan is recognized today, as never before, as a state that produces as good hogs as any state in the Union. It is now up to the breeders and farmers to produce hogs of more and better quality. Quality always brings the top price on the open market as well as in the sales ring.

Write for catalogs to the above firms or the secretary of the association. Poland China breeders are urged to join the association. Write to secretary.

## CENTRAL MICHIGAN POLAND CHINA BREEDERS' ASSOCIATION

**E. R. LEONARD, St. Louis, Pres.** **C. A. BOONE, Blanchard, Sec'y.**  
**W. M. KELLY, For The Michigan Farmer**

## Macomb County's First Consignment Sale of Pure Bred Duroc Jerseys

To Be Held At

**Armada Fair Grounds**

the last day of the Fair

**OCT. 8, 1920**

To consist of 30 head of open gilts, spring boars and a few sows with suckling pigs.

**Macomb County Duroc Jersey Breeders Ass'n.**

**Col. J. E. Ruppert, Auctioneer**

For Catalog Address

**Robt. J. Chase, Armada, Mich.**

### HOGS

**Duroc** sows and gilts bred to Walts King 2940, who has sired more 1st and 2nd prize pigs at the State Fair in last 2 years than any other Duroc boar. Everyone will be a money maker for the buyer. Cat. and price list.

NEWTON BARNHART,

St. Johns, Mich.

### OAKWOOD FARM DUROCS

We can furnish you with anything from a weanling pig to a boar of herd heading caliber at reasonable prices. Your inspection and correspondence is solicited.

RUSH BROS., Romeo, Mich.

**12 Choice** Duroc gilts bred to farrow July and August. Daughters of Michigan Cherry Col. bred to Jacks Cherry Orib King Number 169259. Son of the \$10,000.00 champion Jacks Orion King 2nd. All large type, heavy bone gilts, 250 to 300 lbs.

THE JENNINGS FARM, R. 1, Bailey, Mich.

### Duroc Boars and Gilts

for sale at \$25 to \$50 each, crated and registered in buyer's name. Satisfaction guaranteed. These are some of the best pigs in the state. Visitors welcome.

MICHIGANA FARM LTD., Pavilion, Mich.

**Duroc** Jersey hogs, Cholera Immune, Orion Cherry King and Col. breeding. O. O. K. Boar 1 yr. old O. O. K. Boar 3 yrs. old wt. 300 lbs. Fifty September pigs, sired by Michigan Panama Special 2nd. Also some fall gilts.

HARRY MARTIN AND SON, Spring-Brook Stock Farm, Paw Paw, Mich.

**Write Me** at once I have just what you want heavy bone registered Duroc Jersey boars ready for service.

W. H. MAYES, L. B. 505, Durand, Mich.

**Duroc Jerseys** of the right type, good blood lines and in good condition at a price you can afford to pay. Guaranteed to suit you. W. E. Bartley, Alma, Mich.

**Duroc** Jersey's. Herd headers in boars. Why? Because they are bred right, fed right, grown right and from Grand Champion stock. Write or better come and see. F. J. Drott, E. I. Monroe, Mich.

**DUROC JERSEYS.** Spring pigs ready for delivery, \$10.00 each. LAKE SIDE STOCK FARM, Pinckney, Michigan.

**Duroc Jerseys** Do you want a young boar sired by Mich. Pathfinder? I have them. E. D. HEYDENBERG, Wayland, Mich.

**Duroc Jersey** Feb'y Boars and Gilts, long, big bone extra, \$35 to \$40. June, July and Sept. pigs \$12 to \$20. Satisfaction guaranteed. B. E. Kies, Hillsdale, Mich.

### DUROC JERSEYS

Carey U. Edmonds, Hastings, Mich.


**Big Type** Chester Whites. Choice, stretchy spring boars, also tried sows and fall gilts bred for Sept. litters. These hogs are big and will fatten at any age. Grand champion blood lines of the breed, Wildwood Prince Jr., Rajah, and Champion X. Cholera immune. Satisfaction guaranteed.

N. L. HILL JR., Ackinaw, Tazewell Co. Ill.

**Raise Chester Whites**

**Like This**

the original big producers



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

**G. S. BENJAMIN, R. F. D. 10, Portland, Michigan**

## The World's Champion

big type O. I. C's. Stock of all ages for sale. Herd headed by Calloway Edd, the World's Champion O. I. C. boar assisted by C. C. Schoolmaster. Grand Champion boar of Michigan, New York and Tennessee state fairs. Also, C. C. Giant Buster, undefeated Senior boar pig wherever shown and Grand Champion of Oklahoma state fair. Get our catalogue of Crandell's prize hogs, Cass City, Mich.

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

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

**DR. H. W. NOBLES,**  
**Sales Mgr. Coral, Mich.**



# GUERNSEY HERD BULL

Walker Gordan Buttercup 54674



Dropped Nov. 15, 1916, Sired by Honoria's Star, by Imp. Bijou's Star and out of Imp. Bijou's II. Sire's dam, Imp. Honoria III, of the quarters. This bull's dam is Dairy's Buttercup, by Halcyon Star, by Imp. Bijou's Star, and of Imp. Village Bijou II; his granddam is Imp. Daisy III des Pajisan's.

We offer this grand individual, rich in Island breeding at \$500.

## Detroit Creamery Co.

Certified Milk Farm,

Gratiot Road, near Mt. Clemens, Mich.

### HOGS

**CHESTERS** two good fall gilts bred to a boar of Wildwood Prince Jr. breeding for Sept. farrow; spring pigs. F. W. ALEXANDER, Vassar, Mich.

**O. I. C.'s** A few choice late fall and winter boars, also a fine two year old boar. WEBER BROS., R. No. 2, Royal Oak, Mich.

**O. I. C.'s** Eight young boars and spring pigs for June shipment. CLOVER LEAF STOCK FARM, Monroe, Mich.

**O. I. C.'s** Booking orders for spring pigs, we register free and ship C. O. D. A. J. BARKER & SON, Belmont, Mich.

Look for Miller Meadows L. T. P. C.'s at Marshall Calhoun Co. Fair, Sept. 21-25. CLYDE WEAVER, Ceresco, Mich.

**FOR SALE** Registered Big type Poland China gilts bred for Sept. farrow, weighing 25 lbs. for \$30; spring pigs all sold, guarantee satisfaction. DORUS ROVER, Akron, Mich.

**O. I. C.** Gilts bred for July and Aug. farrow. Also spring farrowed pigs. G. P. ANDREWS, Dansville, Mich.

**O. I. C.** Gilts bred for Sept. farrow and spring pigs. F. C. BURGESS, R. 3, Mason, Mich.

**O. I. C.'s** Some fine spring pigs and yearling gilts. Will ship C. O. D. register and guarantee right in every way. JOHN C. WILK, Alma, Mich.

**O. I. C.'s** One last fall boar wgt. 45, two last fall gilts, bred lots of spring pigs and this fall pig either sex, good growth stock 1/2 mile west of Depot City's. Phone 124. Otto B. Schulze, Nashville, Mich.

## Poland China Special

Boar pigs sired by Monster Big Bob and from our best sows, priced right for immediate shipment. Big-boned, strong-backed, smooth fellows from popular blood lines. Write for information or visit the farm. BOONE-HILL CO., Blanchard, Mich.

## L. S. P. C.

Everything sold previously ad. 25 spring pigs placed on the bargain counter for mo. of Sept. pairs or trios not akin. H. O. SWARTZ, Shoolcraft, Mich.

## Big Type Poland Chinas

Our herd is representative of the best in Big Types. Choice boars for sale now. Wesley Hile, R. 6, Ionia, Mich.

**L. T. P. C.** We have a large number of spring and summer pigs ready to ship sired by such boars as "Hart's Black Prince," "Leonard's Big Bob," the "Model Clansman" and "Prospect Yank" a great son of the \$40,000 Yankee. Write for prices or come and look them over if you are in the market. HART, FLOHER & OLIVE, address F. T. Hart, St. Louis, Mich.

### FOR SALE

Big Type Poland Chinas. We have 45 head of boars and gilts to pick from at farmers prices come at once and pick yours or write for further particulars, they are sired by Long Bob 2nd. and from high bred dams, we also have some choice months old sows to farrow in October. Frank J. Noble & Son, R. 3, DeWitt, Mich.

Closing out sale of big type Poland China hogs, which represents the work of 25 years of constructive breeding. Everything goes, including our three great head boars, "Mich. Buster," by "Giant Buster," "A Giant," "Butler's Big Bob," Two of the best yearling prospects in Michigan great length, big bone, come get your pick. Jno. C. Butler, Portland, Mich.

**Big Type Poland Chinas.** We want to sell you a write us and we will tell you all about him. We guarantee satisfaction. HILLCREST FARM, Kalamazoo, Mich.

**Big Type** Poland Chinas special bargains on sows for October farrow, and boars all ages, some ready for service. G. A. BAUMGARDNER, R. 2, Middleville, Mich.

### ANOTHER NEW MARKET EDITOR.

MEET our new markets man, Gilbert Gusler. He came to us from the University of Illinois where he was a member of the faculty of the Department of Animal Husbandry for five years. Before that Professor Gusler taught animal husbandry for three years in the Ohio State University, from whose College of Agriculture he graduated eight years ago. He also holds the degree of Master Science in Animal Husbandry from the University of Illinois. He was born and reared on a farm in northwestern Ohio.

During his educational career Mr. Gusler devoted special attention to live stock marketing. He spent several summers in the study of methods of doing business in the stock yards. The newly established Bureau of Markets commissioned him to investigate a number of big markets and collect information upon the factors influencing prices of various kinds of live stock, meats, and animal by-products, and the methods of reporting these various markets, and later on to investigate the market classes and grades of live stock as a means of devising a uniform classification which it could use in its market reporting work at Chicago, Omaha, Kansas City and East St. Louis. He spent some time on each of these markets and on all the principal other centers, studying the special conditions at each one. As a re-



Professor Gilbert Gusler.

sult of his findings the hog classification which the bureau now uses, was put into effect and modifications were made of the cattle and sheep classifications.

We are enabled to give the readers of The Michigan Farmer the benefit of Mr. Gusler's knowledge of the markets and his ability as a farm market analyst through an arrangement with the Agricultural News Association with headquarters in the Northwestern University Building, 31 West Lake Street, Chicago. Being a farmer by birth and education, he is deeply interested in the problem of justice to the producer, in the markets of the world. He sees the markets from the viewpoint of the producer, not from the standpoint of the manufacturer, speculator or consumer. His is a tremendous job to interpret the trend of the markets for you each week. He will welcome suggestions. But we warn you: Do not call him "Professor." He never liked that title. He says he is not in college any more, and dignity does not go in the stock yards, the grain market, the warehouse or the green grocery. At any rate, we are sure you'll be glad to meet Gilbert Gusler, our new markets man.

A leading packer states that export demand continues healthy along with strong buying of pork products by domestic consumers, especially hams, bacon and shoulders. Heavy inroads have been made into stocks. The lard market has been uneven, influenced by the slump in grains but is still above the price of a month ago. Germany is said to have placed a big lard order during the week.

# Feed Every 3rd Hog FREE

Save feed and get your hogs ready for market in less time. Prove at our risk that you can save fully one third your feed, making it possible to feed every third hog free by feeding

## Milkoline At 2c a Gallon

Milkoline has a base of pasteurized and sterilized, modified Buttermilk. It is guaranteed not to contain any sulphuric acid or anything of an injurious nature to hogs or poultry.

**Aids Digestion:** Thousands of the most successful hog raisers from New York to California during the past seven years have proved that Milkoline helps and assists digestion, tending to insure perfect assimilation of feed. It helps tone up the system so that hogs are less subject to disease, and practically insures gains of 2 1/2 pounds per head per day.

**University Tested** Professor W. B. Combs while Ass't. Prof. of Dairy Husbandry at Missouri University conducted a scientific test on Milkoline and found that Milkoline fed hogs put on more weight and showed 82.57% more profit than hogs not fed Milkoline. W. H. Graham a successful feeder of Middletown, Mo., said \$30 worth of Milkoline made him an extra profit of \$420. Lee Jackson of Wappingers Falls, N. Y., says Milkoline fixed up a bunch of shoats in fine style and is great for brood sows.

**Can't Spoil:** Milkoline is guaranteed not to rot, sour or mould. It will keep indefinitely in any climate. Flies do not come near it. It is always uniform, and is guaranteed to make you money or it doesn't cost you anything.

—Distributed by—

SCHWARTZ BROS.,



**2c a Gallon Milkoline** comes in condensed form, and you do the diluting on your own farm. When fed as directed Milkoline mixture (one part Milkoline to 50 parts water or swill) costs only 2c a gallon. Full feeding directions free. It is shipped in convenient kegs and barrels which we supply free. The prices are as follows: 5 gal. \$7.50; 10 gal. \$12.50; 15 gal. \$16.50; 32 gal. \$32.00; 65 gal. \$49.50. It pays to buy in barrel lots because you save 60c a gal. over the 5 gal. quantities.

## 30-Day Guaranteed Trial

You are safe in ordering any quantity of Milkoline today. Feed one half the shipment to your hogs and poultry in a thirty day test, then if you aren't entirely satisfied return the unused part to us at our expense and we'll immediately refund every cent you paid us. We are so confident that you will find Milkoline the best money maker on the farm that the S. W. Boulevard Bank of Kansas City substantiates this offer. You are the sole judge. Send money order, or check, to us or our nearest dealer, and we will ship immediately. Our booklet, "How to Hustle Heavy Hogs to Market" will be sent free on request—your name on a card will do.

Saginaw, Mich.



## ABSORBINE

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

will reduce inflamed, swollen Joints, Sprains, Bruises, Soft Bunches; Heals Boils, Poll Evil, Quittor, Fistula and infected sores quickly as it is a positive antiseptic and germicide. Pleasant to use; does not blister or remove the hair, and you can work the horse. \$2.50 per bottle, delivered. Book 7 R free.

**ABSORBINE, JR.** the antiseptic liniment for mankind, reduces Painful, Swollen Veins, Wens, Strains, Bruises; stops pain and inflammation. Price \$1.25 per bottle at dealers or delivered. Will tell you more if you write. Liberal Trial Bottle for 10c in stamps. W. F. YOUNG, INC., 268 Temple St., Springfield, Mass.

**Big Type P. C.** Bred gilts, Fall yearlings, prize winners, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. A. thewsen, Burr Oak, Mich.

**Big Bob Mastodon** pigs takes the cake, book your order now. Fall boars and gilts sired by a grandson of Dishar Giant, open or bred to Big Bob for Sept. 23 yearling sons. C. E. GARNANT, Eaton Rapids, Mich.

**Big T. P. Chinas** for sale. A few tried sows, spring boars. Aug. pigs both sex. Recorded free in buyer's name. L. L. Chamberlain, Marcellus, Mich.

I am offering Large Type Poland China Sows, bred to F's Orange, at reasonable prices; also fall pigs. Write or call Clyde Fisher, St. Louis, Mich. R. R. 3.

### Large Type Poland China

pigs, both sexes now ready, write for description and prices. RALPH SHERK, Caledonia, Mich.

### Lindhurst Poland Chinas

Stock for sale at all times. Public Sale Oct. 23. WM. H. LIND, Alto, Mich.

### POLAND CHINAS

W. J. HAGELSHAW, Augusta, Mich.

**LARGE TYPE** P. C. SWINE. One yearling boar, one fall yearling boar, fall pigs, a few more bred sows. R. W. Mills, Saline, Mich.

**Leonards B. T. P. C.** See exhibit at Mich. State Fair, get your name on mailing list for public sale Oct. 28. Double immune. E. R. Leonard, St. Louis, Mich. R. 3.

**Large Type Poland China's.** Everything immunized by double treatment. Meet me at Detroit, or Jackson Fairs. A. A. Feldkamp, R. 2, Manchester, Mich.

**BARGAINS** on Big type spring and summer Poland China Pigs also yearling Shorthorn bulls, bull and heifer calves. Robert Neve, Pierson, Mich.

**Big Type Poland China** boars best choice. Frank Oliver, R. 2, Saline, Mich.

## HAMPSHIRE

1914 . . . . . 1920

Choice Spring boars, popular breeding. Booking orders for fall pigs. All stock Cholera Immunized and guaranteed Breeders. Satisfaction guaranteed.

**STEUBEN'S HAMPSHIRE FARM** R. 3, Angola, Ind.

**Edgewood Hampshires** All bred gilts sold. Now booking orders for gilts bred for fall farrow, and pigs for pig club work only. Depew Head, Edgewood Farm, Marion, Ohio.

**Hampshires** got your boar pigs, now a few bred gilts left new blood lines of quality. JOHN W. SYNDER, R. 4, St. Johns, Mich.

**YORKSHIRES BRED GILTS** WATERMAN & WATERMAN Packard Rd. Ann Arbor, Mich.

### SHEEP.

**Delaine** Rams R. & C. type, having size, quality, best of breeding, priced to sell, write. S. H. SANDERS, R. 2, Ashtabula, O.

### WHITTUM FARM SHROPSHIRE

A fine lot of imported and house bred yearling ewes and rams for sale. A fine chance to start a new flock or improve the old one call at the farm or write for just what you want. C. H. WHITTUM, Eaton Rapids, Mich.

### Hillcrest Shropshires

A nice lot of Ewes and Rams of all ages our flock is headed by McKerron 3164 a son of Senator Bibby write or call on R. J. & C. A. WILLIAMS, Middleville, Mich.

**FOR SALE** 35 Registered Shropshire yearling rams and ram lambs. Also some choice Duroc Jersey boars and gilts. CLIFFORD MIDDLETON, Clayton, Mich.

**SHROPSHIRE** Yearling and Lamb rams sired by Imp. Berry No. 163 for sale. Also a few ewes. ARTHUR DODDS, Lapeer, Michigan

**Shropshires** Am offering one choice two year ram and a few good yearlings. C. J. THOMPSON, Rockford, Mich.

**Shropshires** sire imported Minton Ram Lambs \$20, some ewes, 2 yearling rams. DAN BOOHER, R. 4, Ewart, Mich.

**Shropshires** yearling Rams that have size and type for sale. ARMSTRONG BROS., R. 3, Fowlerville, Mich.

**Shropshire Rams** lambs, yearlings and one 2 yrs. old, priced right. CARL TOPLIFF, Eaton Rapids, Mich.

**Shropshires** Yearling and rams, with quality, from imported stock. W. B. McQUILLAN, R. 7, Howell, Mich.

**Registered Hampshire** Sheep both sexes prices reasonable. Lone Cedar Farm, Pontiac, Mich.

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

### HAMPSHIRE

Registered Rams all ages. Bred for size, type, quality. Sire at head of flock, I. S. C. No. 25463. Half brother to the Grand Champion ewe at International 1918 Bred by Iowa State College. Also a few good ewes. W. W. CASLER, Ovid, Mich.

**Reg. Oxfords.** Yearling rams and ram lambs. Breeding ewes and ewe lambs. Good individuals, prices right. HUGH HODGINS, Yale, Mich.

**Want a Sheep?** Let American Hampshire Sheep Association send you dandy booklet with list of breeders. Write COMFORT A. TYLER, 22 Woodland Ave., Detroit, Mich.

**Cotswolds** yearling rams, ram lambs, Cotswolds ewes all ages sired by Canada. A. M. BORTEL, Britton, Mich.

**Reg. Oxford Rams** ready to ship at \$30, \$35 and \$40, reg. and delivered. J. Robert Hicks, St. Johns, Mich.

**For Sale** Oxford rams and ewes sired by McKerrons 3800, Assn. No. 88347. Write your wants. Geo. T. Abbott, Palms, Mich. Phone 78-3 Deckerville

**To** close an estate I offer for sale twenty Lincoln Rams. Lambs yearlings and two year old at reasonable prices they are a fine bunch. ROBT. J. KNIGHT, Cass City, Mich.

**For Sale** 4 Full Blooded Ramboulett rams 20 dollars each. Address ALLEN ANGELL, Hubbard Lake Michigan

**For Sale** Several fine yearling rams. Extra good fleeces, good bone and bred by a Broughton Ram. C. R. LELAND, Ann Arbor, Mich. Phone 7152 F. R. R. 5.

### HORSES

### BAY MARE

For Sale, sound and right in every way, weight about 950 lbs. Must be sold at once come and see her or write L. J. Hamlin, 496 Hurbut Ave., Detroit, Mich.

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



# LATEST MARKET REPORTS

## GRAIN QUOTATIONS

September 29, 1920.

### Wheat.

Detroit.—Cash No. 1 red \$2.39; December \$2.23; March \$2.20; No. 1 white and No. 1 mixed \$2.37.  
Chicago.—No. 2 red \$2.34@2.35; December \$2.33; March \$2.17.

### Corn.

Detroit.—Cash No. 2 mixed \$1.20; No. 2 yellow \$1.25.  
Chicago.—No. 2 white \$1.25@1.27½; No. 2 yellow \$1.24½@1.27½.

### Oats.

Detroit.—Cash No. 2 white 60c; No. 3 white 58½c; No. 4 white 55½c.  
Chicago.—No. 2 white 56½@57½; No. 3 white 53@58½c.

### Beans.

Detroit.—Immediate and prompt are lower at \$5@5.25 per cwt.  
Chicago.—Steady. Hand-picked beans choice to fancy at \$6.50@7.  
New York.—Dull. Choice pea \$6.50@6.75; do medium \$7.50.

### Rye.

Detroit.—Cash No. 2 \$1.78.

### Seeds.

Detroit.—Prime red clover spot at \$14.25; October \$14.25; December at \$14.75; alsike \$16; timothy \$3.75.  
Toledo.—Prime cash \$14.50; December \$14.80; alsike \$16.15; timothy at \$3.50.

## WHEAT

Immense export sales of American and Canadian wheat estimated at as high as 15,000,000 bushels in three days were made during the past week. Nevertheless, prices declined sharply due to a revision of sentiment. Canadian farmers are selling freely and some American holders have had their confidence shaken by the big decline in corn and oats and deflation in other commodities. The movement in the southwest especially is heavy. Export buying was largely for the Continent as Britain is said to be supplied until the southern hemisphere crop is harvested. Flour buyers in this country continue to hold off and the market declined the past week. Many calculations of the surplus available for export from the United States during the present crop year have failed to include a big carry-over of flour which is sufficient to add the equivalent of 50,000,000 bushels of wheat to our surplus. The Canadian crop estimates vary a great deal, but Winnipeg issued an estimate of 300,000,000 bushels which, if correct, should make available about 50,000,000 bushels more not included in previous summaries of the world's supply. The International Institute of Agriculture at Rome estimates the crop of Australia, South Africa and Argentina as 28 per cent larger than last year.

## CORN

A remarkable September warm spell running nearly two weeks has done much to remove the danger of frost damage to the corn crop which seemed probable a short time ago. Estimates upon the proportion of the crop that is now safe vary from 35 to 90 per cent in different sections of the corn belt, but that there will be nearly a record yield of merchantable corn seems altogether likely and the total crop certainly has not decreased since the government's estimate on September 1.

Corn prices are down to around the lowest figures on the crop, while the new crop prices are at the lowest level since early in 1917. Corn has sold at around 80c for December shipment in the central west and under \$1 for old corn. Just where the post-war level will be is unknown but there is nothing in sight at present to lift prices much above the level to which they have fallen. Farmers are cleaning out their old corn before time to gather the new crop arrives. Chicago receipts during September were the heaviest since 1914. The east, southwest and south are well supplied with new corn and Argentina is able to take care of half of the eastern coast demand.

## OATS

Oats prices have declined with corn although the price will undoubtedly stimulate consumption and there is a rising belief that they are near rock bottom as the producer in the north-

west is not getting much above forty cents and in some instances less. This is materially less than cost of production.

## SEEDS

Prices of clover and timothy seed declined last week, influenced by the break in other farm products and absence of demand. Dealers who wish to accumulate do not believe that prices have reached bottom and purchases for immediate consumption are not sufficient to match the selling.

## FEEDS

Luxuriant fall pastures and forage crops, prospect of an enormous corn and oats crop with record yields of kafir and milo tend to keep buyers out of the feedstuffs market. Mixed feed makers are unable to buy because of small demand for their product. Canada and Argentina are offering mill feeds to eastern points. Latest Chicago quotations per ton (100-lb. bags) in carlots are as follows: Bran \$45; standard middlings \$53; flour middlings \$62; cottonseed middlings, 41 per cent, \$63; cottonseed meal, 36 per cent \$59; gluten feed \$62; hominy feed \$62; old process oil meal \$66; tankage \$115.

## HAY

The premium on good grades of hay continued to widen last week so that the latter probably furnish the better feeding value for the money. Declines in corn and oats prices make the hay prices seem high although the latter also declined the last week and increased freight costs is a factor. Detroit.—No. 1 timothy \$31@33; standard \$30@31; light mixed \$30@31; No. 2 timothy \$29@30; No. 1 mixed \$29@30; No. 1 clover \$28@29; rye straw \$13.50@14; wheat and oat straw \$12.50@13.

Buffalo.—Timothy No. 1, at \$35@36; No. 2, \$32@33; No. 3, \$28@30.

## POTATOES

A new low point for the season was reached this week. Trading became slow, due partially to the unsettled condition of the market and the hot weather was also a retarding factor. Shipments are rolling at the rate of approximately 600 cars per day and will probably become heavier. Quotations at the close of the week were as follows: Chicago—Northern whites \$1.50@1.75 per cwt; Northern Early Ohio \$1.65@1.95; eastern cobbles \$2; Giants \$1.75. Detroit.—Michigan \$3.25@3.50 per 150-lb. sack.

## EGGS AND POULTRY

High prices for fresh eggs has deflected part of the demand to the use of refrigerator eggs. Prices advanced during the week and the outlook is for a considerably higher level this winter as stocks are small and demand, including export, is broad. Latest prices upon poultry and eggs were as follows: Chicago—Eggs—Fresh firsts at 54@54½c; ordinary firsts 48@50. Poultry—Spring chickens 29c; hens, general run 30c; roosters 22c; ducks, old and young 30c; Indian Runners 26@28c; geese, old and young 23c; turkeys fancy 45c. Detroit.—Eggs—Fresh candled 53@57c. Live poultry—Broilers 35@36; Leghorn broilers 30@32c; hens 34@35c small hens 32@33c; specially fat hens 37@38c; roosters 20@22c geese 18@20c; ducks 36@38c; turkeys 40@45c.

## BUTTER

Demand for and comparative shortage of the finer grades of butter caused greater firmness than has been seen on the markets for some time, during the past week, and prices on all mar-

kets advanced from two to three cents. Under-grades advanced but little until the advance on top grades turned attention to them because of relative cheapness, a change which has increased the belief that the advance will hold for some time. Both domestic and Danish butter in storage are being moved into consumption at prices close to those prevailing on fresh product. A cargo of 1,800 casks of Danish and one of 15,997 boxes of Argentine arrived during the week. The hot weather the past week has tended to cut down the yield of butter and has caused some deterioration in quality. Closing prices on 92 score butter for the week ending September 25 were as follows: Chicago 59c; New York 62c; Boston 61c; Philadelphia 61½c.

## WOOL

Purchases of wool are still few and of small size. The marking down of textile prices during the week has not encouraged buying of raw materials, but should increase consumption of finished goods. Boston states that wool prices are a little easier and five to fifteen per cent declines occurred at the London government auction compared with previous sales. The inception of plans for the formation of a national wool pool should remove any remaining lack of harmony in the selling policy of the various state pools. Quotations from various markets are somewhat at variance but all such quotations are largely nominal.

## PEACHES.

Peaches, along with nearly all fruits have been on the toboggan the past week. Michigan growers suffered severe losses because of refrigerator car shortage and much stock is said to have been lost on the trees or at the packing sheds. A large amount of inferior stock has been arriving on the Chicago market and selling down as low as 25c per bushel, while fancy Elbertas ranged from \$2@2.50. The fruit ripened within a short space of time due to the recent warm weather.

# Live Stock Market Service

## DETROIT

### Cattle.

Cattle market steady but slow.  
Best heavy steers ..... \$11.50@12.00  
Best handy wt bu steers ..... 9.50@10.00  
Mixed steers and heifers ..... 7.75@ 8.25  
Handy light butchers ..... 7.00@ 7.25  
Light butchers ..... 4.00@ 5.15  
Best cows ..... 8.50  
Butcher cows ..... 6.00@ 7.00  
Common cows ..... 4.75  
Canners ..... 4.50  
Choice bulls ..... 7.25  
Bologna bulls ..... 6.00@ 6.75  
Stock bulls ..... 5.00@ 5.25  
Feeders ..... 8.00@ 8.75  
Stockers ..... 6.00@ 7.00  
Milkers and springers.....\$ 65@ 100

### Veal Calves.

Market steady.  
Best ..... \$18.00@19.00  
Others ..... 10.00@14.00

### Hogs.

Market slow and lower.  
Pigs ..... \$15.00@15.50  
Mixed hogs ..... 16.50@16.75  
Roughs ..... 13.75  
Stags ..... 10.00  
Boars ..... 8.00

### Sheep and Lambs.

Market steady.  
Best lambs ..... \$13.25@13.50  
Fair lambs ..... 11.00@12.00  
Light to common ..... 6.00@ 8.00  
Fair to good sheep..... 5.50@ 6.00  
Culls and common ..... 2.50@ 3.50

## CHICAGO

### Hogs.

Estimated receipts today are 12,000; holdover 12,340. Market slow 50@75c lower. Bulk of sales at \$14.75@16.50; tops \$16.80 early; heavy 250 lbs up, medium, good and choice \$15@16.35; medium 200 to 250 lbs medium, good and choice \$15.75@16.50; light 150 to 200 lbs common, medium, good and choice \$15.75@16.50; light lights 130 to 150 lbs common, medium, good and choice \$15@16.25; heavy packing sows 250 lbs up smooth \$14.65@15; packing sows 200 lbs up rough \$14.25@14.65; pigs 130 lbs down, medium, good and choice \$13.50@15.50.

### Cattle.

Estimated receipts today are 11,000. Choice steers and yearlings are strong

to higher, grassers and butcher cattle slow. Beef steers medium and heavy weight 1100 lbs up, choice and prime \$16.75@18.75; do medium and good at \$12@16.50; do common \$9@12; light weight 1100 lbs down, good and choice \$14.50@18; do common and medium at \$8.50@14; butcher cattle, heifers common, medium, good and choice at \$6@13.75; cows, common, medium, good and choice \$5.50@11.50; bulls, bologna and beef \$5.25@11.25; canners and cutters, cows and heifers \$4@5.50; do canner steers \$4.50@10; veal calves, light and handyweight, medium, good and choice \$14.50@17.75; feeder steers common, medium, good and choice at \$7.50@12; stocker steers, common, medium, good and choice \$5@9.75; stocker cows and heifers, common, medium, good and choice \$5@8; western range cattle, beef steers, medium, good and choice \$9@14.25; do cows and heifers medium, good and choice \$7.50@10.

### Sheep and Lambs.

Estimated receipts today are 23,000. Sheep steady to higher; lambs steady to lower. Lambs 84 lbs down, medium, good, choice and prime at \$11.50@14; do culls and common \$8@11.25; spring lambs medium, good, choice and prime \$8.75@10.75; ewes, medium, good and choice \$5@6.25; ewes, cull and common \$2.50@4.75; breeding ewes, full mouths to yearlings \$5.75@9.75; yearling wethers medium, good and choice \$12@13.50.

## BUFFALO

### Cattle.

Market is 50@75c lower than last week's close. Dry-fed prime shipping steers \$15.50@16.50; best do \$13@14; medium do \$12@13; native yearlings \$11.50@16; fat cows \$9.50@10; butchering cows \$7.50@8; fancy bulls \$8@8.50; other bulls \$5.50@7; stockers and feeders \$6@8; milkers and springers \$50@125. Calves \$20.50.

### Hogs.

Market lower. Heavies and mediums \$17.50; yorkers \$17.50; pigs \$16.

### Sheep and Lambs.

Lower with top lambs at \$14.50; yearlings \$8.50@9.50; wethers at \$7@7.50; ewes \$6.50@6.75.

## DETROIT CITY MARKET

Markets were light and buying generally slow. Potatoes moved generally between \$1.30@1.40 per bu; tomatoes 60c@\$1; grapes moved slowly at \$2.50@3; peaches \$2@4; apples 75c@\$1.75; cabbage 40@50c; crab apples at \$2@3.75; onions \$1@1.50; pears \$2@3 for good quality.

## ONIONS

All varieties of onions have now sunk to the same level and are moving slowly. There is a heavy crop and operators are feeling their way carefully before buying for storage.

## DETROIT MILK PRICES.

Producers of milk in the Detroit area will be paid on a basis of \$3.80 for all milk during the month of October, while Detroit city prices will remain unchanged, according to the decision reached by the Milk Commission on Monday.

## COMING LIVE STOCK SALES.

Horses—October 4, W. B. Otto, Charlotte, Michigan.  
Shorthorns—Oct. 5, Southern Michigan Shorthorn Breeders' Association, Hillsdale, Michigan.  
Red Polled Cattle—October 5, William Cottle, West Branch, Michigan.  
Holsteins—October 6, C. A. Wilson, one and one-half miles south of M. A. C., Lansing, Michigan.  
Holsteins—October 7, Chaslen Farms, Northville, Michigan.  
Duroc Jerseys—October 8, Macomb County Duroc Jersey Breeders' Association, Armada Fair Grounds, Armada, Michigan.  
Holsteins—October 16, John B. Martin, Holsteins—October 18, West Michigan Sale, State Fair Grounds, Grand Rapids, Michigan.  
Holsteins—October 22, Howell Sales Company, Fair Grounds, Howell, Michigan.  
Poland China—October 26-30, Central Michigan Poland China Breeders' Association. See advertisement for dates and locations.  
Holsteins—Michigan Holstein-Friesian Association. See advertisement for dates and locations.



## THE CONDENSED MILK MARKET.

MANUFACTURERS of condensed milk are in a predicament. While the price of sugar was at an extremely high level it was easy for them to continue to demand high prices for their products, especially for sweetened products, on the grounds that the prevailing prices for sugar were so high that they could not afford to manufacture condensed milk at lower prices. They have been successful in keeping prices high on that plea, even though it was contrary to the age-old law of supply and demand. However, the bullish movement on the part of sugar prices rather upset their calculations, and they now see that they must cease manufacturing condensed milk in order to clear the supplies which they have on hand. They are at present more than loaded with stocks. It is reported that one large manufacturing concern has fully \$75,000,000 tied up in finished condensed milk.

There is an authentic report that all the condensaries throughout the country will refuse to accept milk at their plants during the months of October, November and December. It needs no elaboration to prove that farmers who have been patronizing condensaries will be confronted with a serious problem during the three coming months. It is feared that many of them will be forced to dispose of their herds as they are absolutely unprepared to care for their milk. With the market for condensed milk limited, and with a tightened condition prevailing in the money market, it is difficult to be optimistic regarding the immediate future of the condensed milk industry.

There has been a sharp decline in prices of sweetened condensed milk during the past month. While the quotations on advertised brands have been maintained, they are entirely artificial. Were it not for the fact that manufacturers of the well-known brands are backed by huge finances, there would be a sharp break in prices. The manufacturers of unadvertised brands, who are, in most cases, less able to withhold their stocks from the market, are offering their goods at greatly reduced prices. Demand is not strong for any class of goods. Local consumption is no more than normal and there is practically no inquiry from abroad. It appears that conditions cannot improve for some time to come.

## SEASON'S HEAVIEST CATTLE RUN.

THE season's heaviest run of cattle, attracted by the recent advance—especially on in-between grades of steers—coincided with a dressed beef market which was \$1@2 lower due to the September hot spell and a series of Jewish holidays. For the first time this season the ten market run exceeded that of last year during the corresponding period, although the increase was slight. The range movement was heavy, both from the northwest and the southwest.

Strictly corn-fed cattle are in a class by themselves and have held steady. Some of the lower grades are as much as \$2 cheaper although a \$1@1.50 decline catches most of them. An excess of grass steers has clipped 50c@\$.150 from butcher cow and heifer values. Bulls held steady except the trashy kind which are about 50c lower. Canner values have not been damaged, although hides are worth only about one-third to one-half as much as last year and are hard to sell at that. Heavy grassy calves continued their downward course, but other kinds are steady at most markets.

A heavy movement of grass cattle is in sight for the next few weeks. The range run is undoubtedly short, but probably its deficit will be made up to a considerable degree by an increase in the supply of cattle from the corn belt and the southwest, as cattle shortage over the country as a whole is probably less than advertised. Until this seasonal run is over, pronounced strength in cattle prices is improbable. Local slaughter at 69 markets for the first eight months of this year is only 6.6 per cent less than that of last year which was a record. The August decrease was 5.2 per cent.

## SHORT FEEDERS ARE BUYING.

FEEDER demand is fitful, many of the regulars in the industry saying that all incentives are absent. Comments upon the money situation are mixed, but there is little evidence of real improvement. The shortage in the western run makes desirable feeders scarce, but the majority of buyers are content to take out the low-priced stuff. Short feeders are buying, tempted by cheap corn and the high cattle top. Values have declined slightly

during the week. No apparent reason exists for values going much below the present level during this fall. The stocker and feeder movement from 69 markets since January 1 is 17.9 per cent under that of last year. The August decrease was 28.8 per cent.

## SEPTEMBER HOG BULGE SUBSIDES.

AFTER an uninterrupted rise of about \$2.75 within a few weeks the market reached its pinnacle on Monday when \$18.25 was paid at Chicago. The reaction on the following three days was about due to decreased buying by eastern shippers and to the opposition of packers to a further advance. Fresh pork prices advanced during the week, but the slump in corn and lack of steadiness in the provision market impaired the confidence of sellers of hogs. The run may continue light for several weeks but during October usually the movement expands and packers make preparations to buy on a low cost basis.

The long deferred period of a profitable feeding ratio seems to have arrived as the average price of hogs at Chicago was about \$16.40 and No. 2 mixed corn sold at \$1.25, a ratio of 13.1.

The change in the corn price level will be a factor this winter but the outlook for a relationship favorable to hog feeders is good. Hog slaughter at 69 markets during the first eight months of the year is 10.9 per cent less than that of last year.

## LIVE MUTTONS ARE CHEAP.

PRICES of live muttons slid downward again last week, although the run continued to be about three-fifths of that of last year. Foreign frozen lamb and Canadian dressed product keep consumptive channels clogged; the market for wool is still sluggish, and hide prices are back almost to the pre-war level. Western lambs are about 75c lower than a week ago but natives lost twice as much ground. Mutton should be cheap when choice native ewes sell at \$5@5.50. Not only is the range run smaller than last year but the proportion of feeders is unusually large.

Lamb feeders are buying freely at prices \$1 above those of last year, although fat grades are cheaper. Prices upon feeders show only minor changes for the week. Breeding ewes are going cheap.

## VETERINARY.

Bursal Swelling.—I have a mare 4 years old that has small puffy bunch on lower outside of hock. She is not lame, is worked on farm. Can this bunch be removed? J. V. K., Coldwater, Mich.—Painting bunch daily with tincture of iodine will have a tendency to reduce it, but will not entirely remove it. It will not cause lameness.

Chronic Cough.—For the past several years my 14-year-old horse has been troubled with cough, this spring he seems to be worse and is now showing symptoms of heaves. Have been giving him 1 part oil of tar, 4 parts raw linseed oil. G. L. T., Camden, Mich.—Give him ounce doses of Glyco Herion (Smith) in feed 3 times a day. Feed no clover or dusty, musty, badly cured fodder. Notice that his stable is well supplied with fresh air.

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A sensational statement! Yet it is but simple fact proven by cow testing and other milk records in many herds.

Water—the simplest means of increasing milk yield, that element which is almost as free as air, yet as important as high priced feed—is usually disregarded by dairymen.

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2.45 lbs. per day is about 490 lbs. for the season, which at \$3.50 per cwt. totals more than \$17.00.

\$17.00 clear profit additional, per cow, secured merely by giving the cow all the water she wants when she wants it.

In this investigation, one herd reported an increase of 5 to 10 lbs. per cow; three reported 4 lbs. average increase; three say 3 lbs., six 2 lbs.; three 1½ lbs.; one ¾ lbs.; one \$8.56 during the winter; one \$5; one \$10; one reports 3% increase; one 8%; two 10%; one 12½%; one 20%; and

one says 33½% increase.

These reports from 28 herds are confirmed by many other reports and investigations, the details of which are set forth in the James Educational Department Bulletin No. 4.

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## FREE BARN BOOK

This 320 page book tells all about James Drinking Cups and about other James inventions that increase milk yield, save labor, and save feed.

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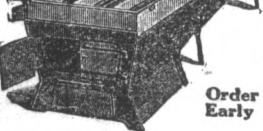
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P. W. STAFFEL, Box 104, Saginaw, W. S., Mich.

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Pair horses, 3 cows, young stock, pigs, poultry, machinery, wagons, tools, hay, oats, potatoes, near town, market, school; has produced 300 bushels potatoes acre; creek-watered pasture, large herd, estimated 7,000 cords wood, 700 cords bolt timber, 5,000 posts, market close by; variety fruit; new 6-room house, barn, garage, poultry house, etc.; owner called away, makes low price \$4,000, only \$1,000 cash, easy terms. Details page 80 Strout's Big New Illustrated Catalog Farm Bargains 33 States. Just out. Copy free. STROUT FARM AGENCY, 814 B. C. Ford Bldg., Detroit.

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Size No.	Cap's lbs. per hr.	Sale Price
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Lots of 100 each **33c**

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### Government Barbed Wire

**Greatest Offers Ever Made**

A large quantity bought by us at less than the actual cost of manufacture. Fine barbed wire, made under rigid government supervision. 12 gauge open hearth steel wire with four point barbs 3/8 in. long, spaced 3 in. apart. Order quickly from special lots below.

**4 point Painted Stock**

**No. LC6**—This lot is coated with a special weather resisting paint. 68 lb. reels containing 750 ft. 625 reels or more per reel **\$1.65**

100 reels or more per reel **1.70**

50 reels or more per reel **1.75**

25 reels or more per reel **1.80**

Less than 25 reels per reel **1.85**

**4 Point Galvanized Stock**

**No. LC7**—This special lot contains quadruple galvanized coated barbed wire; galvanized after being made which means much to the life of the wire. 60 lb. reel contains 750 ft. 625 reels or more per reel **\$3.55**

100 reels or more per reel **3.60**

50 reels or more per reel **3.65**

25 reels or more per reel **3.70**

Less than 25 reels per reel **3.75**

### Barbed Bottom Hog Fence

**26 in. High Per Rod 32c**

**No. LC8**—Special barbed bottom galvanized hog fencing made of No. 11 top wire and No. 14 intermediate line and stay wires. Stays spaced 6 in. apart. Space between line wires from bottom upwards are: 2, 3, 4, 4 1/2, 5 1/2 and 6 in. 100 rods weigh 425 lbs. 26 in. high per rod, **32c**. 32 in. high per rod, **39c**

By using two strands of barbed wire above this fence you can make a general purpose farm fence at very low cost.

### Famous Watts Corn Shellers

**\$99.50**

The world's best corn sheller now offered at big reduced prices. Most liberal terms and a 30-day free trial with a guarantee of positive satisfaction. Order now from this ad or get full particulars without delay.

**Watts No. 1**—**\$34.50**

**No. LC14**—For the man who shells corn for his own use. Capacity 50 to 75 bushels per hour with a 3 h.p. engine.

**Watts No. 4**—**\$79.50**

**No. LC15**—With cleaning system, cob stacker and grain elevator. Shell for yourself and a few neighbors.

**Watts No. 7**—**\$257.00**

**No. LC16**—With standard equipment including wagon box, grain elevator, cob stacker, type "K" feeder on steel trucks; 200 bushels per hour.

**Watts No. 8**—**\$390.00**

**No. LC17**—Double cylinder corn sheller for custom work, with standard equipment, wagon box elevator, swivel cob stacker and feeder, on steel horse hitch trucks; capacity 600 bu. per hour.

**No. LC18**—Watts No. 4 Corn Sheller with cleaning system, cob stacker, grain elevator and automatic feeder as shown. **\$99.50** Sale price now

### Iron Pipe Per Ft. 8c

**No. LC21**—Our big complete stock of pipe offers wonderful values. Pipe in random lengths complete with couplings; all sizes now offered at unusual money saving. Suitable for the conveyance of water and all liquids. Order **8c** now. 1 in. pipe per ft. **8c**

All other sizes priced proportionally low

### New Mixed Nails

**Per \$4.95 100 lbs.**

**No. LC22**—New wire nails including all sizes from 3 to 40d. Put up in 100 lb. kegs. A handy assortment for general use—indispensable on the farm. Plenty of all sizes. Sale price per 100 lbs. **\$4.95**

### Radiators for Ford Cars

**Brass Core \$21.00** **War Tax Paid**

Latest pattern honeycomb radiator for Ford automobiles. Large water capacity and cooling surface, flexible core allows for expansion—prevents bursting. All parts coming in contact with water made of brass. Wrought steel casing, black japanned finish. Weight 40 lbs.

**No. LC25**—Radiators for 1909 and 1916 models, or 1917 and 1918 models, each **\$21.00**

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