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Men's
and
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Sizes

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VOLUME CLXII

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY
ESTABLISHED 1843.

A Practical Journal for the Rural Family
MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY
RELIABILITY
SERVICE

NUMBER EIGHT

Brood Sows Improve Woodlot

Young Growth Starts Quickly After Hogs Break Up the June Grass Sod

By A. M. Brown

THE village of Schoolcraft was built upon the east side of a grove of three hundred acres of timber, situated in the center of the largest prairie of the state. The beginnings of this settlement date back about ninety-five years, so the reader will realize how long this fine old block of forest has been buffeted by the destructive and short-sighted pioneer and his descendants. The battle has been largely lost, and only scattered remnants of this guardian of the village now remain to tell the story.

Island Farm, named from this grove, as it appeared amidst the waving wild grass of the prairie, inherited about ten acres of this virgin forest. Over this the herds and flocks of the farm had ranged for many years and had destroyed all young growth, so that when the writer first remembers it, the trees were, for the most part, quite mature and becoming thin on the ground, while June grass was taking possession, wherever the sunlight could sufficiently get through.

About this time the writer began to operate the farm, his father advised that the stock should be shut out of the woodlot and it be given a chance to rebuild itself. This advice was taken and for some time this piece of timber was left to its own devices, with the firm expectation that it would at once set about replenishing its scattered ranks and finally stand forth in

all its former glory. Unfortunately for our calculations, nothing of the kind happened. Here and there in the denser parts an ash or an elm sprang up, but, where the grass had come in and formed a sod, no tree seed took root. So, after a term of years the sheep and cows were again given access and the experiment was regarded as a failure.

After a number of years had again seen the woods a pasture lot and after forestry had been developed as a science in the colleges, the writer undertook to rebuild this woodlot, by removing the live stock and planting trees. A good many hundred spruce, pine, cedar, walnut, butternut and locust were set out, with fair success, but it was an expensive and slow process, and the danger of fire in the grassed-over area was always present in dry weather.

While these trees were still small, it became rather necessary to turn the brood sows into the timber, so they could have something of a range. No special thought was given to their relation to the trees, further than the notion that they would probably not injure them, in their then condition. It was not long till nearly every square foot of sod had been tipped over, even once in a while a small tree, and the whole area was like a plowed field.

The following spring all live stock was again kept out and very soon the young seedling forest trees began to appear by the thousand, maple, elm, ash, basswood, hickory, walnut and oak.

Several years have now gone by since this growth started and in mid-summer the woodlot is a thicket of young timber. Many of the elms, wal-

nuts and maples are fifteen to twenty feet high. A low spot, that used to have some water standing upon it, has come up almost exclusively to elms, and these are already from one to three inches in diameter.

For us the question of the preservation of the woodlot is answered and that, without expense or trouble. It is the hope of the writer that some reader of the Michigan Farmer, somewhere, may also try this method of reforestation and have like success.



Dividends from Land Without Labor

Converting Native Grass Into Beef and the Results of the Practice of C. C. Loomis

By P. P. Pope

TO begin with, I must tell you a few things about Mr. Louis himself. If there is such a thing as a born stockman, he should qualify, for he took the advice of the philosopher and selected his grandfather from among the live stock men of a century ago. When his father—who has now about reached the allotted three score and ten—was a baby, this big, brawny grandfather of his used to ride the prairies and visit the settlements of northern Ohio and southern Michigan on horseback, buying and driving home great herds of cattle to feed.

A generation ago it was one of young Charlie's regular chores to sweep the sheep racks and lug shock

corn to his father's cattle. Many of the readers of this paper will remember this man, E. L. Loomis, by name, a somewhat spare man of more than average height. He wore a full beard of dark brown, and a pleasing, friendly smile and over a considerable period of years used to visit scores of farms in Michigan in search of cattle for his feed lots. Hundreds of carloads of them has he shipped from many sections of Michigan to that great cattle-finishing section which centers around Bowling Green, Ohio. In his declining years, while he basks in the milder

climes of sunny southern Florida, the son, Charles, is carrying on.

Charles used to play center on the football team. It was here that he involuntarily acquired the title of "rough and ready." Back of a powerful physique is a surplus of energy that is naturally applied to whatever he undertakes, and whether it has been in the school room, on the playground, on the farm, or with church and community, Charles has always been found in the front lines and doing his part. He and his good wife have a couple of farms in Ohio which they oversee, but they like Michigan best as a place to live. They have a first-class farm home equipped with all modern conveniences, located on a good farm near Perry, in Shiawassee county, where they are enjoying life with a fine family of young folks growing up about them. There are 160 acres in the farm proper, which are devoted to the production of a variety of crops, and this farm is conducted as a typical Michigan diversified farm.

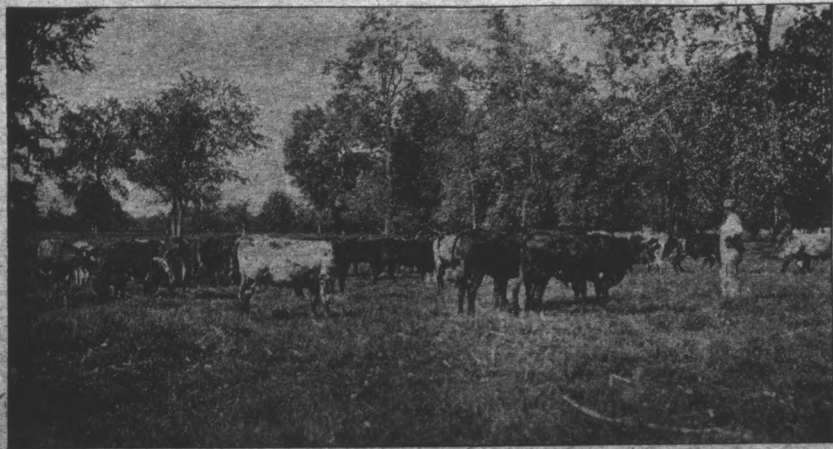
Adjoining this farm back at the far corner is a tract of 120 acres that has never felt the plow. It is this land that our story is mostly about. The soil is good, the land is mostly cleared and much of it could be prepared for crops with very little extra effort, but for the present at least, Mr. Loomis prefers to let it stand in natural grass

and let the cattle do the harvesting. The results of the past year's experience given below, will explain his reasons. This 120-acre tract was purchased a few years ago for \$4,000. It is traversed by a small spring brook that supplies the land with a never failing water supply, and makes of it an ideal pasture.

Pasture land is ordinarily very hard to check up on. We put the poorest land on the farm into the pasture to get out of working it, and to have a convenient place to turn the stock. Then we turn everything out on it and consider the gains as a matter of course. The land gets little or no credit, too often we look upon it as waste, but it is doubtful if any of the of the acres on the average farm give greater net returns, year in and year out, than those that lie in grass and are grazed by good live stock. The figures Mr. Loomis gives us herewith shed considerable light on the subject.

On the fourth day of last May, forty-two yearling steers of fair quality that had cost up to that date, \$2,225 were turned on this pasture. There were also pastured for a neighbor, twenty-three head at \$1.25 per month for which a total of \$161.95 was received, and seven head of horses and colts that were charged \$10 each for the season.

On August 27, twenty more steers were added that made gains up to the close of the season conservatively estimated. (Continued on page 296).



Luxuriant Grasses Aided in Making the Production of Beef Profitable on the Farm of Charles E. Loomis.

MICHIGAN SECTION THE CAPPER FARM PRESS



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DETROIT, FEBRUARY 23, 1924

CURRENT COMMENT

Circumstances alter faces.

A good thing needs no bluffing.

A bird catching bugs is worth two in the hands.

Highway Capital Investment

In addressing the tenth annual conference on highway engineering held at Ann Arbor last week, Dean Cooley, of the University of Michigan, emphasized the need of taking immediate steps to protect the enormous capital investment in our improved state highways. Commenting on transportation developments realized within the comparatively brief span of one man's life, he referred to our wonderful accomplishment in railroad building and our later, but equally wonderful achievement in highway building, and made the following striking comparison:

"It is a noteworthy fact that under changed conditions a greater sum is being required to build the highways than was expended in the construction of railroads. In the old days it was possible to build a mile of railroad, graded and laid with ties and rails and finished complete with fences, for from \$10,000 to \$15,000. I doubt if you are able now to build gravel roads of the type now constructed, so cheaply."

The startling feature of Dean Cooley's address was the assertion that our magnificent state and county roads, for the building of which we are paying interest on millions of dollars of bonded indebtedness, are being literally blown away. "Such grand roads as you are building this year are in the cornfield next year; they blow away," said Dean Cooley. In contrast he referred to some of the European highways built originally by the Romans and which have been in constant use since the beginning of the Christian Era. The difference, he believes, lies in the nature of the material used and the method of maintenance.

Dean Cooley strongly emphasized the necessity of conserving the immense capital investment in our highways and commended the consideration of that subject to the conference. The comparisons which he made are startling and the facts he emphasized are matters of common knowledge. We have built this great system of gravel highways largely with locally available material and under the direction of unskilled county highway commissioners, whose principal qualification for the job has been political acumen to land it. These roads have very generally failed to stand the wear of modern traffic in serviceable condition

and the taxpayers of the state are confronted with the prospect of having to pay for rebuilding them before their first cost has been liquidated.

Dean Cooley's advice is timely and to the point. We must have good roads. Their building and maintenance is an engineering problem. The sooner we can take it out of politics and treat it as such, the more quickly we can hope to accomplish a measure of badly needed conservation of our capital investment in improved highways.

A Farming Opportunity

FROM time to time readers have been urged in these columns to establish themselves in the business of growing superior farm grains, seeds, and potato stock.

From many sources comes information justifying this advice. Experiment stations and county agents of other states, as well as other agricultural agencies, are quite unanimous in voting Michigan seeds, grains, and seed potatoes as equal to or better than seed stock from any other source.

This knowledge is not new. It has long been recognized by seedsmen that seeds of the highest quality can be grown here. As a result of this knowledge the largest seed houses in the world have developed in our midst.

To capitalize our natural resources one thing is most needful. That need is to increase the volume of this good seed stock. Our agricultural leaders understand the conditions. They can impart the knowledge and supervise, to a certain degree, the work. A larger volume can be guaranteed to the buying public only by interesting more good farmers in the business.

One cannot grow superior seeds as easily as he can ordinary farm crops. Special attention is required. That, however, is not a handicap, but a protection. It protects the man of ability against the competition of the average person. The farmer who would be above the average should not fail to investigate closely the opportunity to take advantage of Michigan's favorable climate and soil conditions for seed growing.

Detroit will maintain her lead in the automobile business because she has a larger number of the best automotive workers than any other place in the world. Michigan now has the opportunity to gain a like reputation in the seed growing business.

Michigan's Crop Record

THE annual summary crop report for Michigan for 1923, issued by the United States Department of Agriculture in cooperation with the Michigan Department of Agriculture, shows an encouraging improvement in Michigan crop values as compared with immediately previous years.

This summary shows that the various crops, not including live stock or live stock products, produced in Michigan during 1923 had a total estimated value of \$242,472,000 as compared with \$214,899,000 in 1922, and \$183,695,000 in 1921. This represents a gain of nearly thirteen per cent over 1922 and thirty per cent over 1921. These valuations were computed on the basis of the December 1 prices, except for such fruits as were out of season, in which cases the price basis was that received for the marketing season.

All of the principal crops grown, except wheat, barley, rye and beans, brought better prices than on the same date for 1922. In the main, the larger crop value as of December 1 was due to higher average prices on December 1 rather than to larger yields of crops secured than the previous year. Only winter wheat, barley, beans and apples show a greater per acre production than in the previous year.

The trend of farm prices as com-

pared with general commodity prices, according to this report, presents an interesting comparison. On October 15 the average farm price of farm crops and live stock was twenty-one per cent higher than the pre-war basis of 1913. On the other hand, the wholesale index price of all commodities was fifty-three per cent higher than in 1913. As compared with previous years, this gives an exchange value of farm products, seven per cent higher than at the beginning of 1923, and eleven per cent higher than the lowest point which was touched in August and September, 1922.

On the other hand, wages for farm labor advanced approximately twenty per cent as compared with 1922, as an average for the state. The average monthly farm wages paid during the past season was \$40 with board, as compared with \$33.60 last year. Without board the monthly average was \$55 as compared with \$47.30 in 1922. Ordinary day labor was \$2.58 with board and \$3.23 without board, as compared with \$2.10 with board and \$2.70 without board last year. Harvest labor averaged \$3.10 with board and \$3.88 without board, as compared with \$2.60 with board and \$3.20 without board in 1922.

This general increase in the cost of farm labor is ascribed to the fact that all surplus labor has been utilized in manufacturing plants within the state, which has held wages at a high level. While this is a handicap to farmers so situated that they need to hire considerable labor, yet it is not an unmixed evil, as it has no doubt increased the consumption of farm products in industrial centers, and the readjustment of crop acreages so as to necessitate the employment of a minimum amount of labor on a good many farms.

With the pendulum starting on the backward swing from the low point in the exchange value of farm products, there is encouragement that the farm situation will grow steadily better. The perusal of these figures should lend encouragement to Michigan farmers with obligations which have been difficult to meet under the conditions prevailing in recent years.

Hats Off To Good Breeding

WE have just examined the January reports from sixty-one of Michigan's seventy-five active cow-testing associations. These reports of cow performance are interesting, and they present some convincing arguments.

One of these arguments we wish to give here. In listing the best cow from each of the sixty-one associations, we find that forty-one of these association leaders are pure-bred animals and twenty are grades. The scrubs are all eliminated.

That, however, is only half the story. In the first thirty of the best producers of this list there are twenty-five pure-breds and five grades; whereas, in the last thirty there are fourteen pure-breds and sixteen grades.

Again, we find that the first twelve highest producers are pure-breds, while among the twelve poorest producers there are only two pure-breds.

It would seem, therefore, that the man who is ambitious to improve his dairy cattle should make a firm resolution to work toward the introduction of pure-bred blood in his herd at the earliest opportunity.

Why Build a Silo?

ON another page of this issue five Michigan farmers have given their reasons for using silos. We have just received a bulletin entitled, "Build a Silo," from Wisconsin, where more silos are in use than in any other state. The reasons given in this bulletin corroborate those set down by our own practical farmers: They are:

First. It increases the feeding value

of the corn crop from twenty-five to thirty per cent.

Second. It helps the farmer to make the best use of frosted corn, for even immature corn can be saved by putting it in the silo.

Third. It gives insurance against short drought-stricken pastures.

Fourth. It provides juicy feed in winter which helps to make the cows healthy and productive when green feeds are lacking.

Fifth. It furnishes the cheapest winter feed. Three tons of silage are worth fully as much as a ton of good hay.

Sixth. It enables the farmer to feed his stock from fewer acres.

Every farmer not using a silo should ponder carefully these advantages, if he includes live stock in his farming program; and few farmers there are in this latitude who can economically do without the keeping of animals on their farms.

Good Deeds

SINCE I wrote about my Snoozepaper there ain't nobody wrote about givin' me \$100,000 fer startin' it. This just shows nobody is interested in the good things other folkses do.

Well, seein' that's the case, like the lawyer says, I'm goin' to proceed to make folkses interested in good deeds. Now, I ain't sayin' folkses ain't interested in good deeds, 'cause they all want them to go with the farms they buy. They is also interested in havin' other folkses do good deeds to them, 'cause it feels nicer. There is sometimes folkses what do good deeds to other folkses 'cause it is the right thing to do. I can't say there is nothin' wrong about that.

But when it comes to what you call amuseumt, there ain't nothin' like rascality. Fer inst., they tell about when you're born, 'cause every man is glad your dad is gotta pass around the segars and they is interested in thinkin' about the disturbance you will bring to the peace of the household



fer some time to come.

Then they print about your being married, 'cause that means some more segars and disturbin' of the peace. If you just get married common-like, they give you only about a paragraf, but if you elope and go about fifty miles a hour to get to the preacher and distrustshun, with the girl's father after you, it's worth bein' the biggest articul on the front page.

When you die they also say somethin' about the passin' event, but you can't die peaceful if you wanta be noticed. You gotta have somebody shoot you, or do what some folkses maybe told you to do many times—go and jump in the river, or somethin' like that if you are goin' to get on the front page.

Now, another thing is funny. Fer inst. In Washington, D. C., they wouldn't care nothin' about my dyin', but here in our town they would say, "Poor Hy, I don't see how the Mich. Farmer is goin' to get along without him." And they would bring Sophie a bunch-o' posies so she wouldn't feel my what you call departure, so much. Now, seems to me they would feel just as glad in Washington, D. C. about me dyin' as they would in our own town.

Of course, there's other rascidudulus things you kin do to get in the papers, but fer lazy folks there's lots o' satisfacshun of knowin' that all you gotta do is to give the reporters a chance and they will make you do lots o' things you never thoughta doin'.

I guess I told you enuf fer now about how to get interested in good deeds, so I gotta say "Amen."

HY SYCKLE.

The Story of John Milford's Success

How He Overcame Handicaps of Ill Health and Unproductive Soil

By J. M. Merrill

THE story of how John Milford made good under discouraging conditions is here told for the benefit of your many readers. I think the small successes are as important, perhaps, as those of large proportions. We read about the poor young man growing up from small beginnings into the seat of the millionaire.

This man did not become anything so notorious, yet in a small way, he was the wonder of his time, and a puzzle and source of surprise to his neighbors.

He had been for years a desk man, writing for newspapers, magazines, and had even dabbled in book lore. At the age when most men should be in their prime, he fell ill, seemed in fact, to go all to pieces.

The thousand dollars he had in the bank after paying for his suburban home, went to help fill the coffers of medical men, of whom he employed no less than five before he came to realize, as did his patient wife, that he was gradually going into a decline from which medicine could not rescue him.

Given up by the doctors, John Milford resolved, invalid though he was, to have recourse to the great outdoors.

He had a farmer brother living fifty miles away. A mile from his brother's farm was a cut-over forty which John had purchased, cleared a few acres, and then let go back to nature. He thought of this land and suggested the idea of moving onto it, making outdoor work his vocation.

His wife fell in with the idea, and that is how literary John Milford became a farmer and fruit grower.

He had nice ideas, and thought raising fruit would be what he would prefer. A son just entering his teens went with his parents to the new home. Here they erected a small building, moving in after four days. It was quick work, and although John was physically unable to do heavy work, he yet managed to keep the boy busy, and the house was finally completed.

There were three acres of cleared land, and this became the nucleus of the farm of his dreams. A neighbor plowed the land, and John and son planted it to potatoes, corn and beans.

A small barn was built that year and a horse purchased, the money to pay for the same coming from a mortgage he placed on the land.

Such was the beginning. John studied everything he could lay hands on relating to farming and horticulture. He put out a strawberry patch of half an acre the first spring, and bought a thousand raspberries, a hundred Worden grapes, and with that one horse, with his son's help, cleared off five acres of new land.

In all he cleared twenty acres within three years, put out 600 peach trees on a knoll, hired stumpers and had the twenty clean of obstructions when he

his own hook. He found that while book farming is very much to the good, it was best not to leave out his own ideas, and tried experiments to find out from personal experience the true inwardness of successful farming.

His forty had been deemed one of the poor spots on the landscape. Sand farmers were a joke to the men who lived on and worked the heavy clay lands. John was regarded as a mild sort of lunatic by these men during the first years of his apprenticeship.

Steadily working to an end, John Milford pursued his way in the working out of his dreams. Fruit growing was an unknown art in that neighbor-

at this time, so he tried sand vetch, also rye. The latter, of course, has very little fertilizing value, but serves to prepare the soil for something more beneficial.

Reading about mammoth clover, he resolved to try this. I wish to say right here that even when the common red or alsike fails, the mammoth clover comes to the rescue of the sand farmer, and often proves a success. It certainly did in this instance. Besides raising a crop of hay which his horse ate with relish, he had humus to turn under that gave the soil that which it craved in order to produce other crops to advantage.

"I learned to put my confidence in mammoth clover," said Mr. Milford, in speaking about his experiences of the time. "I did try alfalfa in a small way later, but all in all the mammoth clover proved the boon that brought my soil into splendid productivity, and I am ready to declare right now that there can be nothing better for light soils."

Once you get the clover started, there can be no further failures, since the farmer will surely be wise enough to keep the land in proper tilth when once it has become productive.

Such crops as grew on that land astonished the natives. When Milford drove by with loads of produce as well as large outputs of fruit, from strawberries and grapes to luscious peaches, there was talk, and a lot of it.

"Your land, Mr. Milford, seems adapted to fruit," remarked one of his neighbors. "Now, my soil can't be like yours, for I've tried fruit and it wouldn't grow worth a cent."

The speaker's soil was almost identical, yet it was the manner of working it that made the whole difference. Too many men who start out trying to farm on cut-over lands, haven't the insight into things necessary, and they make light of what they term "book farming."

Well, success from the soil is not wholly a matter of book farming, but one must look out for himself. Study his soil and location. Apply the right crops and he is sure to succeed.

John Milford was forty-seven years along when he started on his small farm. (Continued on page 269).



He Planted Raspberries, Grapes and Strawberries.

had been four years on the new place. He built a small barn, a hennery, and sty for pigs.

While doing all this his health improved, and he began to feel the thrill of new life running through his veins. At this time he was disappointed in his son, who wanted to leave the farm and go into a printing office in town. Realizing that it is never best to urge boys to go against their desires in life work, the boy was permitted to go to the city and find place in the printing business.

Alone he ran the little farm after that.

John consumed a lot of books on agriculture, consulted many of the college bulletins, and experimented on

hood when this broken-down newspaper man came to the place. Sand soils were considered worthless, and it was under most adverse conditions that the middle-aged outsider labored for several toilsome years.

Perseverance, however, won out.

Sandy soils which have clay subsoils make the best farms. John Milford learned this from personal contact with the soils, as this article will show.

Lacking barnyard manure, John turned his attention to legumes, of which little was known in his neck of the woods. He first tried common red clover. His experiments with this proved disappointing. Alfalfa and sweet clover were not very much in evidence

Laughlin Leads In Corn Production

Winners In Five-acre Corn Profit Contest Announced at Crop Improvement Meeting

AT the annual meeting of the Michigan Crop Improvement Association, the results of a five-acre corn profit contest which had been conducted by the Farm Crops Department of the College, in cooperation with the Michigan Crop Improvement Association, were published.

In this contest Charles Laughlin, of Dansville, Michigan, emerged the victor. Mr. Laughlin, who has become widely known for his breeding work in connection with the variety of yellow dent corn which bears his name, secured eighty-three bushels of shelled corn per acre at fourteen per cent moisture.

Each grower kept careful account of the labor, time and expense required in the production of his crop, and definite fixed charges were made for land rental, interest on investment, etc. The results showed Mr. Laughlin to have produced his five acres of corn at a gain above all of these charges, of \$42.50 per acre.

His nearest competitor in this contest was Paul Clement, of Britton, Michigan, who secured slightly over seventy-two bushels per acre, while

Milo Robinson, of Union City, finished third with a yield of seventy bushels per acre.

Mr. Laughlin was awarded the John Deere prize of a wheel spring-toothed harrow for his achievement, while Mr. Clement was awarded the \$25 given by the Michigan Elevator Exchange, and Mr. Robinson was given a half-bushel of certified Grimm alfalfa seed by the seed department of the Michigan State Farm Bureau.

Mr. Laughlin told those who attended the meeting of the Michigan Crop Improvement Association, of his methods of corn growing which involved particularly a deep and thorough preparation of the seed-bed, fall or early spring plowing, the use of plenty of manure and commercial fertilizer, and especially the use of adapted high-yielding seed of known germination.

Mr. Clement, of Britton, Michigan, winner of second place in the corn contest, told of the methods which he used in storing and drying seed corn and preparing it for the market. Mr. Clement is making it a business of furnishing ear-tested seed corn.

Mr. J. W. Nicholson, manager of the Seed Department of the Michigan

State Farm Bureau, enlarged on the drying of seed corn in a commercial way and told of the great opportunities which Michigan corn growers have in furnishing high-quality seed corn for northern growers.

R. S. Shaw, president of the Michigan Agricultural College, also spoke at this meeting. President Shaw has had close personal relations with many men famous in crop improvement work, including Charles Zavitz, the famous Canadian plant breeder, and Michigan's own F. A. Spragg, who at one time was a student under President Shaw in Montana. Mr. Shaw also spoke of the importance of the crop improvement work in Michigan, and its close interrelation with other recent developments in Michigan agriculture which have made for better live stock industry and a more profitable farming system for this state. He stressed particularly the need of work in connection with the leguminous crops which are so important in maintaining soil fertility, the real basic agricultural wealth. "The elements in the successful production and marketing of crops, cooperation, standardization and advertising," said Presi-

dent Shaw, "are exemplified in the work of the Michigan Crop Improvement Association more completely than in the work of any other organization."

Resolutions were passed urging care in the selection and testing of seed corn for next spring's planting, the use of domestic clover seed of known adaptability and the staining of all foreign seed at the port of embarkation so that it might be known for its true worth.

The following officers were elected for the year 1924: President, Garfield Farley, Albion; vice-president, Ralph Arbogast, Union City. Directors, E. C. McCarty, Bad Axe; W. R. Kirk, Fairgrove; C. R. Oviatt, Bay City; A. B. Cook, Owosso, and Charles Laughlin, Dansville.

Professor J. F. Cox, head of the Farm Crops Department at M. A. C., and F. A. Spragg, plant breeder at M. A. C., and J. W. Nicholson, manager of the Seed Department of the Michigan State Farm Bureau, will continue to sit with the board of directors by virtue of the position which they hold, while H. C. Rather, of East Lansing, will continue to act as secretary.

Farm Bureau Meets

Delegates to Annual Meeting Hear Reports, Elect Directors and Adopt Resolutions

HARMONY prevailed through the two days' sessions of the sixth annual meeting of the Michigan State Farm Bureau held at the Agricultural College during Farmers' Week. The reports of the various departments showed practically all of the many lines of bureau activities to be in a most favorable condition.

During the sessions the delegates from some sixty counties of the state listened to the annual address of President W. E. Phillips, the report of Secretary-manager C. L. Brody, and a strong plea for organization service and loyal activity on the part of members by N. P. Hull, president of the Michigan Milk Producers' Association and of the National Dairy Union, and chairman of the executive committee of the Michigan State Grange.

The consolidated balance sheet of the State Farm Bureau, issued as of December 31, 1923, showed total current and fixed assets, including deferred charges, of \$939,449.94 against which there are current and fixed liabilities amounting to \$741,632.89, leaving a net worth of \$197,817.05 which is subject to a contingent liability of discount on notes receivable to the possible extent of \$28,981.31.

"The characteristic feature of the past year's work," stated Mr. Brody, in his annual report, "has been a general improvement in efficiency and economy of operation, with a consequent improvement in service rendered our patrons."

High spots in his report were: An increased volume of wool in the 1923 pool, and prospects of cooperating with other central states in selling 1924 pool; discontinuance of vegetable and fruit exchange at Detroit, while retaining the poultry division; further development of the seed department service; greatly increased business of the purchasing department; a promised change in distribution of overhead cost among the departments and organizations served; the expansion of organization publicity work; successful efforts of traffic departments working in conjunction with other agencies to secure better freight rates for Michigan; the comprehensive and generally successful legislative program, and reaffirmation of the commodity control type of organization of the farm bureau.

The commodity marketing exchanges with the State Farm Bureau, declared Mr. Brody, have become pillars of strength for members, uniting their efforts in working for such matters of common interest as transportation, pure seed, legislation of interest to farmers, organization, education and general marketing policies.

Comprehensive Program Outlined.

The resolutions adopted by the Farm Bureau Board of Delegates constitute a most comprehensive program of co-operative marketing and agricultural and general legislation. Outstanding in popular interest were resolutions advocating a two cent gasoline tax, a state income tax and supporting the State Board of Agriculture in the discharge of its full constitutional duties in the management of the Michigan Agricultural College and its extension activities.

The delegates expressed satisfaction with the present management of the State Farm Bureau and its affiliated commodity exchanges, urged the production of better quality products, favored the teaching of co-operative marketing and farm cost accounting in the public schools and colleges, endorsed county agent and boys' and girls' club work, favored greater participation by women in farm bureau affairs, opposed Pittsburgh plus and commended the management of Michigan fairs for efforts now being made to present clean-

er and more educational exhibitions.

Legislation Opposed and Desired.

With reference to national legislation, the farm bureau delegates adopted resolutions opposing tax-exempt securities, consumption or sales taxes, government price fixing and governmental guarantees, any form of federal ship subsidy, and a lowering of the present tax on oleo. They advocated the construction of the Great Lakes-St. Lawrence Waterway, strict enforcement of the eighteenth amendment and Volstead Act, national truth-in-fabric and truth-in-fruit-juice legislation, a law requiring treating all imported seed with Eosni dye for identification, continued support for T. B. work, a national standard container bill, a quarantine on the oriental peach moth, and a resolution which has as its aim securing a more desirable class of immigrants. The resolution adopted on Muscle Shoals, while not mentioning the Ford tender specifically, still corresponds with it in nearly every requirement which it lays down, and contains a provision in opposition to government operation.

The state legislative program as laid down for the farm bureau by its board of delegates includes in addition to the state gasoline tax and the state income tax, a resolution favoring the pay-as-you-go policy, another urging that the counties' share of the automobile license money should be collected by the counties wherein the autos are owned and that each county's portion be retained by the county treasurer and the balance turned over to the state. The farm bureau program favors legislative reapportionment based on citizenship with a restriction on the maximum delegation from any one county and insists upon full observance of the moiety clause, advocates educational qualifications for citizenship, urges prison manufacture of binder twine and other farm supplies, favors the payment of state bounties on wolves, and opposes the present system of paid state troopers.

The new Farm Bureau Board of Directors, which is composed of one representative of each of the five affiliated commodity exchanges, and six directors chosen at large, was elected as follows: M. L. Noon, of Jackson, Michigan Milk Producers' Association; Herbert Gowdy, Union Pier, Michigan Fruit rowers, Inc.; Fred Smith, Elk Rapids, Michigan Potato Growers' Exchange; John O'Mealey, of Pittsford, Michigan Live Stock Exchange; W. E. Phillips, Michigan Elevator Exchange; L. Whitney Watkins, Manchester; E. C. McCarty, Bad Axe; Mrs. Edith M. Wagar, Carleton; George Wheeler, Mt. Pleasant; M. B. McPherson, Lowell; and Herold Formely, Newberry. The new board organized by electing M. L. Brody as secretary-manager.

LAND BANK SYSTEM PROSPERS.

THE annual meeting of the National Association of Joint Stock Land Bank presidents in Washington February 7-8, was well attended. These banks were reported to be in an excellent condition, and are providing much needful long-time credit to farmers. There was a notable indication of a more perfect correlation between the two branches of the farm loan system.

WILL INVESTIGATE TARIFF ON VEGETABLE OILS.

PRESIDENT COOLIDGE has ordered the tariff commission to investigate the entire vegetable oil schedule. Public hearings will begin on March 7.



What a Horse Told a Farmer

(A True Story)

"**L**AST Spring two of my best mares had shoulder trouble," writes an Iowa farmer, "right at the time I needed them most. I couldn't lay them off, and no amount of doctoring or care could cure them with the work we had ahead. I couldn't playsquare with these best friends any farmer ever had—and it's hurt me ever since. But this year I can! I bought your FitZall adjustable collars the other day, and as I put them on I talked to those horses of mine—told 'em these collars would always fit, no matter how much flesh they'd lose. And when I came to Nell, (she's most human horse of all), she couldn't have told me more by talking regular English than she did with those eyes of hers. As she 'talked' to me she seemed to say, 'I've never been able to do my best for you, Master—but now I will!'"

30 DAYS' TRIAL

—to prove that your horses will do more work

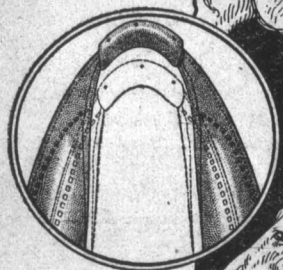
Whether you consider a horse collar from the humane standpoint or purely on the basis of how fit for work it keeps your horses, no collar can compare with the FitZall. Other collars may fit the horse at the beginning of the season, but that's all. From the day hard work makes the horse lose flesh, old style collars become loose—chafe and rub. Sores, galls, boils and sweeney start their ruin.

Because the FitZall can be adjusted to a smaller or larger size, it will always fit snug the year 'round. Keeps horses on the job—not in the stall waiting for collar troubles to heal. Easier to adjust than a belly band. Nothing complicated—the FitZall is just a high-quality standard collar, plus the patented adjustable feature which always insures a perfect fit. After 30 days' trial if you are not satisfied that the FitZall is the most practical and profitable collar for your horses, your money will be refunded. Over 600,000 in use—and all sold under this most liberal guarantee.

If you are interested in collars or harness this Spring, write for our illustrated catalog completely describing the FitZall and our wonderful WEAR-MORE harness.

JOHN C. NICHOLS CO.
SHEBOYGAN Dept. D-2 WISCONSIN

FITZALL
ADJUSTABLE HORSE COLLAR



Every FitZall is quickly adjustable to four perfect-fitting sizes.



GRAPE VINES
15 LARGE BEARING SIZE VINES \$1
Concord, Moore's Early, Worden, The Best Varieties for Fruit. 25 Vines \$1.50
2 Apple Trees Free if you send order at once.
MAPLE CITY NURSERIES, Paw Paw, Michigan

Beans or Peas

Any color—any variety. If you have beans or peas to sell, rush us pound sample.

Co-operat on

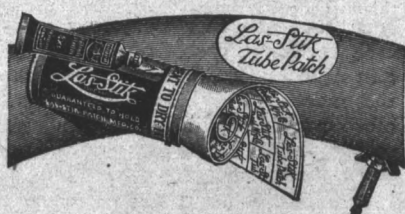
No dues, no assessments, no stock, no salaries, no fees, no graft. Simply you scratch our back and we scratch yours. Get our proposition.

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EVERGREENS Hill's Hardy Tested Varieties
Fine for windbreaks, hedges and lawn planting. All hardy, vigorous and well rooted. We ship everywhere. Write for free Evergreen book. Beautiful Evergreen Trees at moderate prices. B. Hill Nursery Co., Box 230, Dundee, Ill.

APPLE AND PEACH TREES: Improve your property. Increase your income. Plant fruit trees, vines and plants this spring. Our trees grow. Free catalog. MITCHELL'S NURSERY, BEVERLY, O.

CERTIFIED N. DAK. GROWN GRIMM ALFALFA seed, direct from grower, fields registered and state inspected. F. UMBACK, LEMMON, S. D.



Carry this patch always

LAS-STIK adheres without heat or gasoline. It soon becomes self-vulcanized by road heat and can't come off without tearing tube.

Las-Stik won't tear out or creep because it stretches with the tube, no more no less.

BUY IT NOW—save annoyance, time, tubes. Mends blowouts. 50c and \$1.

LAS-STIK PATCH MFG. CO., Hamilton, O.



Steps in Farming

Eugene Davenport Talks from Shoulder to Farmers at M. A. C.

THE average farmer is not going to succeed. This is true because the prices for farm products are based upon the cost of producing those products by the average person and that without any profit, according to Eugene Davenport, of Woodland, Michigan, formerly Dean of Agriculture at the University of Illinois.

This is true, said the Dean, because the more proficient men in that line of production will immediately begin bidding up on land as soon as the average man begins to make the business pay. Our hope, he says, lies in finding some line in which we can be above the average in skill, or efficiency, or both. In this respect, he contends, there are few people who cannot excel in some particular work. Those who cannot must work for others who can.

To excel we should choose our system of farming carefully. The particular group we select to be in, will decide largely what our success may be. In growing wheat we compete with the peasant of Russia who lives on fifty dollars a year. We cannot hope to maintain our American standard of living and succeed with such competition.

Diversification was advised by the speaker. The crops, however, in our list must fit together so as to distribute labor and economize in equipment. Equipment, he contended was difficult to provide in just the right proportion for the maximum of success. Corn growing requires a disc harrow to prepare and compact the soil to the depth of the plow. Without doing this you cannot insure a crop of corn. Hence, he stated, such an implement is of more value to the corn grower than the corn binder.

We should make better use of time. Farmers waste more time than any other class. Much of winter is wasted. No business can support a family on two or three months work. This means that the farmer must add live stock to his business. Many contend that this is confining; but, says Mr. Davenport, the banker, the druggist and the merchant follow a confining business.

We waste much time because we have so many times—standard, sun, base ball, and a general mixture of these. Because of this, farmers fail to get together. They do not know within an hour when a meeting is called for. He advises that the farmers demand standard time as the guide of all.

Debt is hard to meet, and, in this, time is a factor. It moves rapidly and, therefore, piles up interest fast. We should avoid becoming too much entangled in debt. To this end he advised council with the banker. Use him as you would your doctor or attorney. If he is not a good banker, get another.

Cooperation's big achievement is standardization. We must yet learn that two good apples will sell better alone than when accompanied by a third poor apple. People will discriminate. We all do. The person who is

growing or preparing things to sell must therefore, cater to taste.

Then we should look to the home side of farm life. It is not necessary that great expenses be incurred to make the home neat and snug and comfortable. But health is important and one's surroundings, he said, contributes much to health and happiness.

Reading matter should be provided and the farmer who has plenty of time to read should make a special effort to keep himself informed and, through proper reading, train himself to think. Systematic entertainment is increasingly important, and no farmer should think he is doing what he should for his family if he fails to allow for entertainment, says Mr. Davenport.

MARKETING OPPORTUNITIES FOR MICHIGAN FARMERS.

DETROIT now contains 1,200,000 people. The time was when it was considered a poor market. Now, however, shippers and brokers count it as one of the best in the country, according to Verne Branch, director of municipal markets of Detroit, in his talk at Farmers' Week.

It should be distinctly a market for Michigan farmers. But a recent survey showed that during a certain period 520 cars of western apples were sold in the city and only two cars of Michigan apples. Western goods are sought because buyers know exactly what they are getting.

Chicago is another market in reach of Michigan growers, but Chicago is a competitive market. He contended that the producers in this state should think seriously of getting their goods onto the Detroit market in the condition demanded by the trade.

Detroit takes a lot of poor potatoes. Its buyers buy Michigan stock, much of it coming from the producing area about the city. But better potatoes would find ready sale at a premium. A fancy grade of Wisconsin potatoes are now gaining in favor.

It is more and more important that we develop home markets. Distant marketing requires better grading and packing. Our home cities will take care of the great bulk of home-grown products if outside goods were not shipped in. At present Ohio and Canada are shipping a large volume of products to Detroit. This trade logically belongs to Michigan producers and cooperatives, especially, should make a careful study of the Detroit situation, to the end that more Michigan-grown crops are marketed there.

Fruit and vegetable growers who look ahead will, even now, be taking stock of their supply of fertilizers and spray materials and will make up their orders for the amount required to see them through the season.

Sugar beet costs can be reduced materially through thorough soil preparation, which requires fall or early spring plowing, and a generous use of the culti-packer or the roller.



What makes a boot wear?

Here are two simple facts it will pay you to know

It isn't always the largest man who can lift the heaviest load.

Big bones are not enough. It takes muscle!

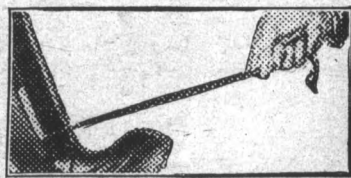
That's the way it is with your boots. Thick, tough rubber, backed with the right fabric, can make them rugged, but unless that rubber stretches easily your boots won't stand up under the strain of constant bending.

"U.S." Boots are both strong and flexible.

We've built from seven to eleven layers of fabric and rubber into them at the four places where we know the heaviest shocks come. Ankle, back of the heel, instep, and sole—there's not one vital spot in the whole boot that isn't completely protected.

But we've done more to insure extra wear for "U.S." Boots than to put in these reinforcements.

Cut a strip of rubber from a "U.S." Boot, and you'd find it would stretch more than five times its length without breaking! Into every "U.S." Boot is put rubber as live as an elastic band. That's why, when the strains come, "U.S." Boots can bend so easily. No cracking—no giving way in a pinch—but plenty of reserve power at all times. These two simple facts about "U.S." Boots explain why they wear so long. It will pay you to keep them in mind.



A strip of rubber cut from a "U.S." Boot stretches more than 5 times its length without breaking—and snaps back into shape like an elastic band. This live, elastic rubber is one of the reasons for the unusual flexibility and long wear of "U.S." Boots.



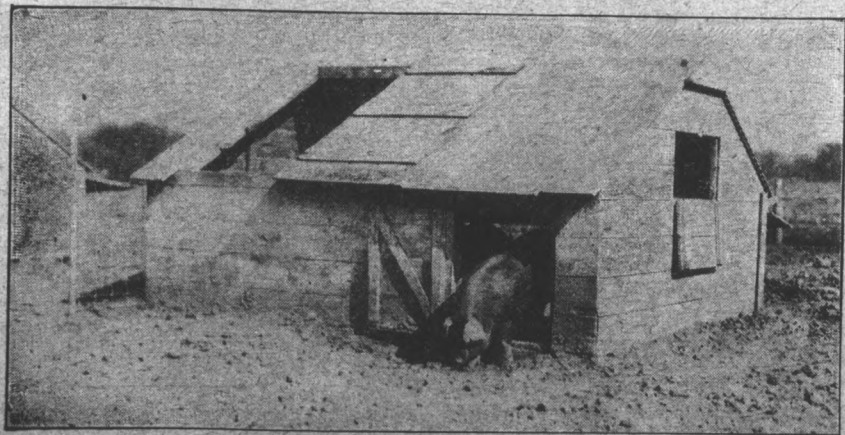
THE INSTEP—A series of graduated reinforcing layers in the instep combines unusual flexibility with surprising strength.

Other "U.S." Rubber Footwear

You'll find every type of rubber footwear in the big "U.S." line. There's the "U.S." Walrus, the famous all-rubber overshoe—the "U.S." lace Bootee, a rubber overshoe for spring and fall—"U.S." Arctics and Rubbers—all styles and sizes for the whole family. Look for the "U.S." trade mark, whenever you buy—the honor mark of the largest rubber organization in the world.

United States Rubber Company

Ask for
"U.S." Boots



This Type of Hog House Could be Built in Winter.



Marshaling the Telephone Forces

In the simple act of lifting the telephone receiver from its hook every subscriber becomes the marshal of an army. At his service, as he needs them, a quarter of a million men and women are organized in the Bell System. One skilled corps of the telephone army moves to place him in talking connection with his neighbor in the next block, in the next state or across the continent. Another highly trained corps is on duty to keep the wires in condition to vibrate with his words. Still others are developing better apparatus and methods, manufacturing and adding new equipment, and installing new telephones to increase the subscriber's realm of command.

The terrain of the telephone army is the whole United States, dotted with 14,000,000 instruments, all within range of the subscriber's telephone voice. Even in the remote places this army provides equipment and supplies. Its methods of operation are constantly being improved, that each user may talk to his friends with increased efficiency. Millions of money are spent in its permanent works. Yet its costs of operation are studiously held to the minimum, that the subscriber may continue to receive the cheapest as well as the best telephone service in the world.

The permanent objective of the Bell System army is to meet the telephone needs of the nation—a hopeless task were not its command unified, its equipment adequately maintained and its personnel trained in the latest developments of telephone art.



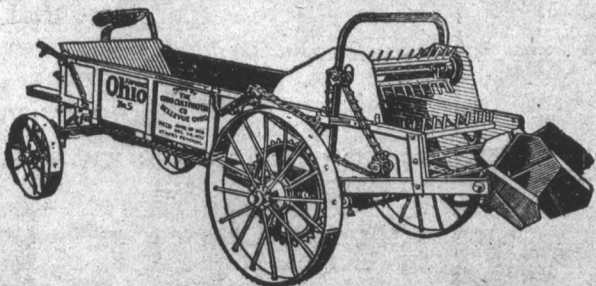
AMERICAN TELEPHONE AND TELEGRAPH COMPANY
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"BELL SYSTEM"

One Policy, One System, Universal Service

If you have a Farm or Farm Land for sale, let the Michigan Farmer find you a buyer through an advertisement in its columns.

FAMOUS Ohio SPREADERS



THE real cost of a spreader is not its first price. It is the cost per load of manure handled throughout the life of the spreader.

On that basis the Famous OHIO will probably cost you less today than the spreader you bought a few years ago.

The wood beaters and distributors of the old style spreader have been replaced in the OHIO by heavy steel parts that will not split or rot.

The body of the Famous OHIO is re-

inforced top and bottom with heavy sills. The back end where the great strain comes is held rigid by steel side frames and steel arch.

You cannot afford to use an old spreader when the Famous OHIO costs so little per load.

Compare it with your old spreader and you can see why it should last twice as long.

Ask for illustrated [a farm] booklet: "Money in Manure"

MANUFACTURED BY
THE OHIO CULTIVATOR CO. BELLEVUE, OHIO

OUR SERVICE DEPARTMENT

Always Give Name and Address When Sending Inquiries as Satisfactory Service Cannot be Given to Unsigned Letters

TAX EXEMPTION FOR WIDOW.

Can a woman sixty-five years old, left without any children, get a pension from the government? Her husband, who was not a soldier, died, leaving no insurance, but a home all paid for except \$100. Can she be exempt from taxes on same? It is city property? She isn't able to care for herself.—Mrs. R. G.

Com. Laws 1915 Sec. 4001 sub. 7, empowers the supervisor and the board of review to exempt the real and personal property of persons who, in their opinion are, by reason of poverty unable to contribute to public charges. We know of no pension allowed in such cases.—Rood.

OBSTRUCTING ROADWAYS.

Road commissioner in plowing snow off the road, blocked up my driveway, obstructing way to mail box. Is there any means by which they could be compelled to remove obstruction?—W.

The commissioner has no right to cut off access to the highway by abutting owners; but we are not aware of any remedy for such temporary obstruction as is made by the snow-plow.—Rood.

ALLOWING BULL TO RUN.

We have a bull almost three years old, and so far he has been quiet and gentle. Is there a state law preventing me allowing him to run with the herd on our farm? One of our neighbors advises such is the case, but it hardly looks reasonable.—G. H.

We are not aware of any statute forbidding the owners of bulls to allow them to run in their own enclosures.—Rood.

MOLASSES FOR COWS.

Is molasses a proper feed for dairy cows? I have been feeding equal parts of corn, oats, rye, three quarts in all, and a pound and a half of molasses at a feed. Also give three quarts of chop twice a day, with corn fodder and clover hay. Do you think this is a good feed for cows? If not please give me your advice.—H. T. S.

The analysis of molasses shows this feed to be similar to corn meal in food constituents. It is all right to feed molasses, but to balance a ration you would not want to feed it with corn, oats and rye, because all of these are deficient in protein and your ration lacks a proper amount of this ingredient. Of course, you could cut down on corn, oats, rye and molasses mixture, but if you will only feed three quarts that probably is none too much, but in addition to this you should feed sufficient foods, like cottonseed meal and oil meal. I would suggest that you feed two pounds of oil meal and a sufficient amount of molasses, corn, oat and rye mixture so that each cow would get about one pound of grain for every four pounds of milk she produces. I am sure you will get much better results.

SUDAN GRASS FOR FEEDING.

Does sudan grass make a good feed for dairy cows? How is this seed sown, with a grain drill or a grass seeder? What time in the spring is it sown, and how much to the acre? I want it for a green feed for cows when the pasture is gone.—H. F. S.

Sudan grass has about the same feeding value as timothy hay, consequently it is not very valuable in increasing the milk flow. Alfalfa, clover and soy-bean hay are excellent for this purpose, since they are high in protein.

Sudan grass should be sown from the middle of May until the tenth of June on a well-prepared corn soil, at the rate of from twenty to twenty-five pounds of seed per acre. An ordinary grain drill set to sow two pecks of wheat will sow approximately twenty-

five pounds of Sudan grass seed per acre. Sudan is one of the most valuable of the annual crops to provide temporary pasture during the summer. If pastured fairly judiciously, it will continue growth until killed by frost during the late fall. For this purpose Sudan is much better than the millets, since they are easily pulled up, due to their shallow root system. It is also better than oats or barley, since the oats and barley mature during the early summer and provide very inferior pasturage after they reach early maturity.—C. R. Megee.

IMPASSABLE ROAD AND TRESPASS.

A. has a large hedge fence along a main highway about a quarter of a mile long. Every winter when it storms and drifts, the snow is from four to eight feet deep in the road. Can he prohibit the people from driving through his field? Or what steps can be taken to make him move the hedge fence? Can the highway commissioner make a person move any kind of a fence that is an obstruction to the highway?—A. B.

When the road becomes impassable by reason of temporary conditions the public is not liable for trespass in going out around the obstruction onto the adjoining fields.—Rood.

A VALID MARRIAGE.

A girl of sixteen marries a man of thirty-six. She was not given an engagement ring, and they were married by a justice who was not in office at the time and had not been in office for three years. Neither was she given a wedding ring, and there were no papers to any effect. Is she a legal wife to that man? He left soon after and has never returned, being gone twenty-two years, and nothing of his whereabouts known. Is she a free woman, or has she got to go to court to get the right to marry again?—L. B.

The marriage was as binding an effectual as if solemnized in the lawful manner. There was a ceremony, the parties accepted each other as husband and wife, and the union was consummated, and that is all that is necessary to a valid marriage. That the supposed justice has made himself liable for acting without authority does not affect the validity of the marriage. Rings and other tokens are conventional matters in no way essential.—Rood.

MOULDY SILAGE.

My silo is 14x30 feet and about half full. There will be streaks of blue mold, while other parts of the silage is good. I am careful and take a thin layer off each day. My cows don't seem to be hearty. I am feeding half a bushel of silage twice a day, over which I put four quarts of ground oats, barley and corn, alfalfa hay once a day, and either bean pods or corn stalks once a day. As above mentioned I am feeding half a bushel of silage, while my neighbor is feeding one bushel to his cows with the same ration of ground feed. I am feeding all the silage my cows will take, while his are cleaning up one bushel twice a day. Please tell me what you can about it.—F. B.

The mould in your silage would seem to indicate that the corn was put in so dry and ripe that it did not settle down compactly and exclude all the air. When the corn is put in the silo at the proper stage of development and has sufficient moisture there will be no mould. Mould cannot grow if there is no air present.

The best you can do is to carefully take out the mouldy silage as well as you can and throw it away and feed the balance. Good-sized cows can readily consume a bushel basket of good silage night and morning.

"Well begun is half done," can be applied to the growing of crops to advantage. A good start is necessary to get a good crop.

Feeding Bees in Winter

Some Practical Suggestions by B. F. Kindig

A CORRESPONDENT writes as follows: "Please tell me what kind of sugar to use to feed the bees this winter. I do not think they have enough to keep them alive."

The correspondent does not state whether the bees are being wintered outdoors or in the cellar. I will attempt to answer for both conditions.

For Bees Outdoors.

Bees could have been easily fed with hot sugar syrup any time during the fall, up to the beginning of real winter about January first. Any time when the temperature is not lower than about thirty degrees, the bees can be fed liquid syrup, either with friction top feeders or pans. A friction top

ing. This method, I am told, has been used successfully in the cellar also.

When the weather is so cold that the bees will not take syrup from a feeder, then the only satisfactory method is that of feeding candy. Candy is made of granulated sugar and water in the proportions of about three pounds of sugar to one pound of water. Be sure to have all sugar dissolved before boiling begins. After the syrup begins to boil, it must not be stirred, for stirring causes granulation in the candy. Boiling must be very slow and it must be watched carefully to prevent burning. Burned candy will surely kill the bees. Boil until the candy thermometer reaches



The Bee is the Orchardist's Most Valuable Assistant.

feeder is made by perforating the lid of the push-in top with a very fine wire nail. Fifty or more holes should be made. Make syrup, using only white granulated sugar in the proportion of two pounds of sugar to one pound of water. The syrup should be boiled, and preferably about a tablespoonful of vinegar should be added to each gallon before boiling. This will help to prevent granulation of the syrup after it is stored in the combs.

To feed, remove the cover of the hive and any quilts or inner covers that may be on. The friction top pail, filled to within half an inch of the top, should be turned upside down on top of the frames directly over the cluster of bees. The syrup should be about as hot as comfortable to the hand of a man not used to having his hands in hot water. Some syrup will run out when the feeder is inverted, but as soon as the pressure is equalized it will stop. If the pail is held so that the syrup will run out on the bees when it is being inverted, it will arouse the bees and they will begin sucking the syrup from the holes at once. After placing the pail on the hive, if the temperature is less than fifty degrees, packing of burlap sacks, planer shavings, clover chaff or other good insulating material must be placed over the colony and around the feeder to the depth of at least four inches. This will hold the heat of the hot syrup and the bees will work on it, storing it in the combs, as long as the heat is maintained. In twenty-four hours the pail should be removed and if any syrup remains it should be heated again and replaced on the hive. Repeat until they have been given a sufficient amount to last them until warm weather will permit feeding in the spring.

One of the nicest ways to feed syrup is by using a bread pan or other pan that will hold twenty pounds or more of syrup and is of such a shape and of such dimensions that it will set inside of a comb or shallow extracting honey super with the inside parts removed. To feed, break the hive body loose from the bottom board and set the hive body to one side. Place the empty super on the bottom board. Put the pan inside the super on the bottom board. Fill with hot syrup and throw some hay or straw on top for the bees to cling to, then set the bees back on top of the super. This places the hot feed directly below the cluster and is the most rapid of all ways to feed. I have known of twenty-five pounds of syrup to be taken up in one night and the bees to be quieted down by morn-

about 275 degrees. Then pour quickly into pans lined with waxed paper. If the candy is properly made it will be a light straw color and very dense and hard. Such cakes of candy are placed on the frames over the cluster and the bees use it as needed. Additional cakes can be given to the colony as needed. Heavy packing must be placed over the colony and candy so that the bees can hold a temperature that will permit them to work on the candy. If the beekeeper hesitates to attempt to make the candy, the best thing is to hire the local candy maker to prepare it.

In the Cellar.

Bees can be easily fed in the cellar by removing an empty comb and filling it with syrup and returning it to the colony. This is done by laying the comb in a horizontal position in a pan. With a teapot or other dish with a spout, pour warm syrup into the cells until one side is filled. Then turn the comb over and fill the other side. The syrup should be made as for feeding described above. The syrup should however, have a temperature of about eighty degrees. As one comb holds only a small amount of syrup, it would be necessary to repeat the feeding frequently until spring, when they can be removed to the outdoors and fed with the friction top feeder.

For cellar feeding the use of cakes of hard candy is the most convenient method of feeding. Instead of having to pack well as mentioned above in relation to outdoor feeding, it is not necessary to have more than a half dozen thicknesses of sacks. They should be separated from the candy by a piece of oilcloth.

More bees die from starvation than from any other causes. If the farmers of Michigan were to lose from five to ten per cent of their live stock annually from starvation, every newspaper in the state would devote pages to a discussion of the catastrophe. Yet a loss from starvation among bees has amounted to as high as fifty per cent in southern Michigan within the last five years. This was aggravated by an unusually cold winter during which the bees used more than a normal amount of food, and by the fact that only a small number of beekeepers give their bees any protection from the cold.

In my next article I will discuss the relation between starvation and lack of protection from the cold.

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Silos In Much Favor

DON'T slur the silo to Michigan farmers. You will get in wrong. It has thousands of supporters from every section of the state. They defend silage because it is making good. Scores of letters in response to our recent request told why the writers had silos. Here are the five chosen to receive the prizes offered:

WHY HE FILLS HIS SILO.

THE advantages I find in having a silo are:

First. The silo furnishes the most economical and convenient means of storing fodder. One acre of field-cured fodder in the most compact form possible, occupies a space about ten times as great as in the form of silage. Silage is much more convenient to feed, than the field-cured fodder.

Second. The silo helps me to utilize cheap roughage and provide a balanced ration. Cheap roughage, such as corn, clover, soy-beans and cow peas

keeping the cows in a healthy condition.

For growing and finishing beef cattle nothing excels a ration of corn silage and alfalfa, with ground corn and oats added.

Second. The silo furnishes an economical method of harvesting all or part of the corn crop. The corn cut up fine finds a minimum of storage space in the silo. The husking, cribbing, and grinding of the ears is eliminated.

It is sometimes necessary to follow corn with wheat or rye. Then the land may be cleaned up and the grain crop sown on time.

If the corn crop is a failure for husking on account of a short or backward growing season, it may be put in the silo and thus the greatest feeding value will be obtained from it.—Fred Ellison.

CAN DO MORE BUSINESS ON HIS FARM.

IN response to your request, "Why I Have a Silo."

First. Because we need it as well as our hay mow to save a portion of our corn crop in such a way that there will be no waste.

Second. Ensilage will keep the stock in good condition during the winter, and in connection with a balanced ration will fill the milk pail better and cheaper than any other feed I know of. In small amounts it is also good for horses, sheep, chickens, and hogs, and does not cost as much to fill the silo as it does to take care of your corn crop in any other way.

Last, but not least: The silo permits us to keep more live stock. More stock—more manure—more crop; more crop—more money. A silo is a necessity on every farm, large or small, and I am no silo agent, either.

I have had my silo for the last twelve years.—George Fenner.

SILO PAYS BIG PROFITS.

THE question is, have I a silo? Yes, and two good ones. My reason is, the silo pays big profits. I have tried farming without, and find I can now take ten acres of good silage corn and get two dollars, where I would get one with field corn and no silo. Silage comes the nearest to grass of anything we can obtain in winter, and, in summer, stock will eat silage with grass, keep in fine shape and at the peak of production. I can pasture twice as many cows with the help of a little silage. My land is clear, I can plow for spring crops, or get ready for fall crops. My last and main reason is, I am getting between thirty and forty per cent on my investment in silos.—J. J. Burns.

OF PARTICULAR VALUE TO MICHIGAN FARMERS.

THE silo is of particular benefit to farmers of Michigan, due to the fact that by their use large areas of corn that would otherwise be wasted because of early frost may thus be saved.

Putting a field of corn in the silo, disposes of the crop early, and in the most economical way, and leaves the field clear for fall seeding.

Again, the silo, by virtue of its shape and construction, is able to shelter larger amounts of feed than can be put up in any other form. This storage advantage is very great when

(Continued on page 297).

Is the Farm Garden Worth While

A FEW days ago a farmer told me that he would no longer grow a garden on his farm. His main reason for doing this was that it was too much bother.

I am inclined to think this farmer is making a mistake, health and everything considered. Is your garden worth while? Give me your reasons in a brief letter, mailing it on or before February 27, and addressing it to the Handy Man, Michigan Farmer, Detroit. To each of the writers of the five best letters a dollar will be sent.

can be stored in a silo. Silage plays an important part in my balanced ration, when fed with clover and grain containing protein.

Third. The silo furnishes a feed of uniform quality readily accessible and available the whole year. I find this especially valuable in the case of milch cows and sheep, which are particularly sensitive to change in their feed.

Fourth. The silo preserves the fodder, preventing loss of soluble sugar and starch so necessary in digestion.

Fifth. The silo clears my field for fall plowing and saves corn that has been frosted before reaching maturity, which otherwise would be almost a total loss. I can also grow twelve tons of good palatable cow feed on one acre, which would be impossible without the silo.

Sixth. The silo enables me to keep more stock in a good condition, have more manure, raise better crops and make bigger profits, both in dairying and feeding for beef.—James P. McGuire.

KEEPS ANIMALS HEALTHY AND GETS WORK OUT.

IT seems to me there are two main reasons for the use of the silo.

First. The silo furnishes a succulent feed for cattle which, in our climate, must be housed and fed about half of the year.

Now that alfalfa is a general crop in the dairy sections it fits in splendidly with the corn silage. Good corn silage and alfalfa hay furnish nearly, or quite, a balanced ration for milch cows, and cuts down expensive feed bills. Silage seems to form an excellent substitute for grass pastures,

TRIES BEEKEEPING.

L EONARD NYLUND, a well-known calf-club boy of the Upper Peninsula, has now tried his hand at beekeeping and with excellent results, for his first year at this new enterprise brought him 375 pounds of honey from one colony this season. The bees were secured through a cooperative arrangement between young Nylund and an experienced beekeeper of Gogebic county on a fifty-fifty basis of sharing the product. Six Gogebic county boys and girls went into beekeeping this year on these terms and the success of one of them as here shown, it is expected, will increase the numbers of those entering the business next spring.—Chase.

WAYSIDE FARM MARKETS NEED PROTECTION.

A WRITER complains because last summer he discovered "a number of proprietors of wayside farm markets, who were not farmers at all, but city hucksters, who had established stands in the country districts, procuring their produce from city commission merchants and selling it under false pretenses, their customers, with few exceptions, believing they were buying fresh goods direct from the farmer-grower."

He then goes on to say that "it has shattered my faith in the front-yard farm market as a strictly farm affair, if my observations hold true everywhere, and I believe they do."

An official of the National Farm Market Bureau, an organization devoted to statistical research in behalf of the roadside mart, in replying to the wayside market critic, says: "As well judge a whole orchard of good apples by a few rotten ones on a single tree as to pass judgment on the entire wayside farm market fraternity, because a few bogus roadside markets were encountered in Pennsylvania."

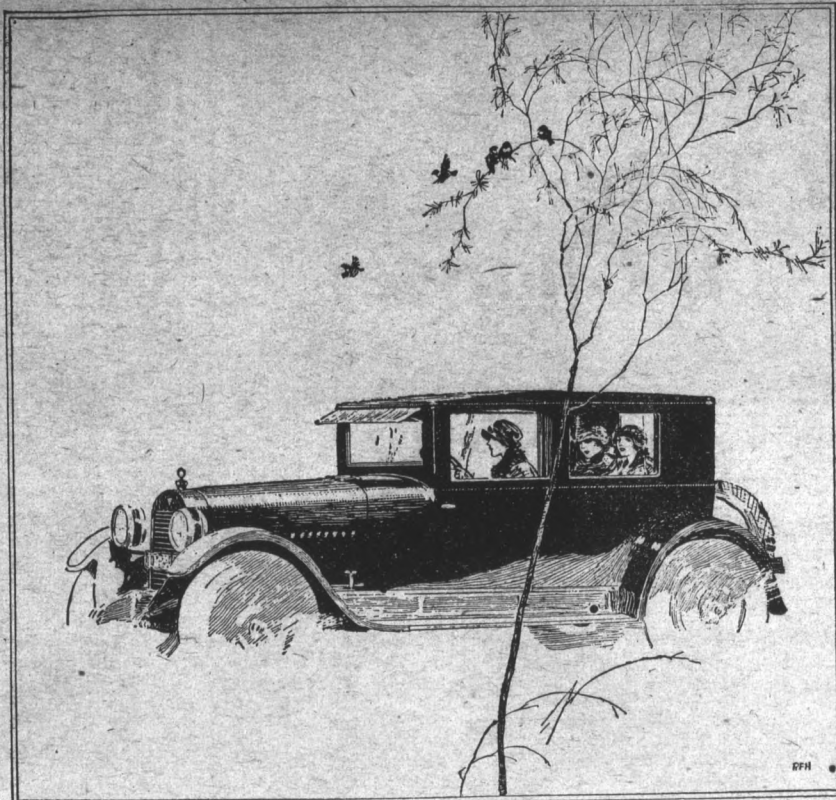
An investigation of wayside farm markets and conditions pertaining thereto, covering many states, proves that there are tens of thousands of genuine rural markets scattered throughout the country (500,000 in 1924, is the estimate), and that at least ninety-five out of every 100 markets are bona fide farm affairs.

The coming season will far eclipse all others in numbers of markets and in point of success, due to the phenomenal growth of automobiling and the spread of good roads, with the eloquent little bulletin board as guide.

VALUE OF SPELTZ.

Kindly advise if speltz is a good crop to raise in this locality. Have read considerable of late about same, and am wondering if it would not be better than buckwheat to raise for poultry. I intend to plant on a very fertile piece of black clay loam. What yield ought I to expect, and could alfalfa be seeded with same, or would it be better to sow oats and seed to alfalfa?—N. G.

Speltz (White Emmer) will give you good yields on a fertile piece of black clay loam. This crop is highly esteemed as a poultry feed. For general live stock feeding, barley and oats will give somewhat larger yields of threshed grain on fertile loams in southern Michigan. The term "speltz" is commonly applied to White Emmer. The crop should be planted in April or early May, using two bushels of seed per acre for best results. It will give a larger yield than buckwheat.—J. F. Cox.



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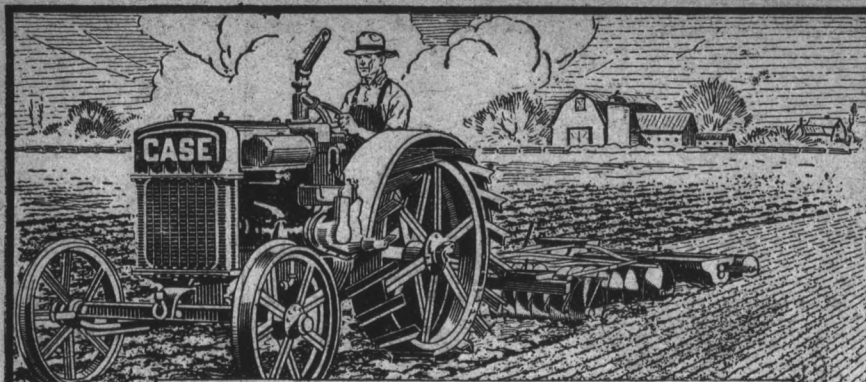
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Michigan's Big Grain Show

Gives Further Proof that Michigan's Future as a Seed State Is Most Promising

By D. F. Rainey

THE grain show held by the Michigan Crop Improvement Association during Farmers' Week at M. A. C., was for the purpose of stimulating the use of better varieties of grains grown in this state.

Approximately 150 farmers who felt they had some good corn, oats, wheat or other crop seed, sent in samples to compete for the prizes offered. And certain it is that these exhibits showed quality. A number of entries shown here won places at the International Hay and Grain Show at Chicago last December, but these entries were beaten in some classes by those from farmers who thought their samples not good enough to go to Chicago. It all goes to show that we have in Michigan a large number of farmers who are growing crops of high quality, and, furthermore, that they know how to dress up these grains for showing.

Appended is a list of winners in all classes, but for the benefit of those not in attendance, let us consider some of the classes.

Lack of maturity in the corn classes showed up in several entries; some showing mould, and sometimes the germ appeared dead. Farmers should be cautioned to test all seed corn before planting as seed is not germinating well, because it was so high in moisture last fall and suffered injury during freezing weather in January.

Class one was won by A. W. Jewett, Jr., of Mason, on his sample of Duncan. It will be recalled that he won first in this class at Chicago, too. Smoothness, or a lack of roughness, in the sample was an important factor in its placing. The kernels had a good depth, were hard, and the sample was well matured.

Andy Weisenberg, of Chesaning, won first on Yellow Dent in Region II on another sample of Duncan, with Douglas Bow's sample of Pickett a close second.

This year, there were only six entries of White Dent corn—mute testimony that this kind of corn is not very popular in Michigan, and a strong hint to the man just starting in the seed corn business not to select a white variety.

There was certainly keen competition in the single ear class, especially in the first three places. So close, in fact, was the competition that it was only after long and careful consideration that the first place was awarded to Charles Laughlin, of Dansville, on his Laughlin Golden Dent. Second place was won by John Wilk, of Alma, with the same variety of corn. Since this is an open class for the entire state, it speaks well for the possibilities of corn growing in Gratiot county.

The new Berkeley Rock wheat was judged in a separate class from other red wheat samples. Art Jewett won first in the red winter wheat class with a very hard and uniform sample of Red Rock, having a large virreous kernel, free from yellow berry. This same sample won sweepstakes over the Berkeley Rock and white wheat entries.

George Hutzler's sample of Rosen rye was unquestionably the outstanding sample of rye shown. It was uniform, good color, weighed fifty-eight and one-half pounds, plump and, in fact, difficult to find flaws with. This is the third time during the past four years that Mr. Hutzler has won the Goemann Trophy cup offered for the best sample of rye.

M. J. Smith, of Springport, sent in a sample of 1200 beans which won first in this class of twenty-one entries.

The Manchu soy-beans won first place for T. J. Wilk, of Alma. It was a fine sample, uniform in size and col-

or. Many of the entries had the seed coat cracked on many beans.

Much interest has been manifested in the Hardigan alfalfa seed class. Lester Allen, of Alma, won the twenty tons of ground limestone offered by the Solvay Process Company. The sample was good color, plump and free from weed and other seeds. Mr. Allen had only a bushel of seed, but run it over the mill several times to get it well cleaned. Most of the eight entries in this class contained red clover and some had a few weed seeds, pigeon grass, dock or parslane. Rossman Brothers, of Lakeview, had the second best sample, but it showed a trace of red clover.

The Upper Peninsula made their showing in the field pea class, taking both first and second places with Scotch Green peas. Mr. Peterson's sample had very large peas with a wonderfully good color.

Sweepstakes in the oat classes went to A. W. Jewett's sample of victory oats, which weighed forty-three and one-half pounds per bushel.

Ingham county carried off the honors in "largest number of entries," by having over eighty entries and by winning the largest number of points based on premiums won. Gratiot county was second in each instance.

Southern Four Tiers of Counties.

Class 1—Ten ears of Yellow Dent: First, A. W. Jewett, Jr., Mason; 2nd, L. H. Laylin, Mason; 3d, A. G. Wilson, Mason; 4th, P. A. Smith, Mulliken; 5th, Charles Laughlin, Dansville.

Class 2—Ten ears of White Dent: First, Farley Bros., Albion; 2nd, A. W. Jewett, Jr., Mason; 3d, L. H. Laylin, Mason; 4th, D. E. Hanson, Berlin.

Class 3—Ten ears of White Cap or any other Dent: First, Paul Clement, Britton; 2nd, F. Lawnsbury, Britton; 3d, Richard Wooden, Hanover; 4th, A. W. Jewett, Jr., Mason; 5th, Lew Wooden, Hanover.

Class 4—Fifty ears of any variety: First, A. W. Jewett, Jr., Mason; 2nd, Charles Laughlin, Dansville; 3d, Paul Clement, Britton; 4th, P. A. Smith, Mulliken; 5th, L. H. Laylin, Mason; 6th, Lewis Eckard, Eaton Rapids.

District II, Remainder of State.

Class 5—Ten ears of Yellow Dent: First, Andy Weisenberg, Chesaning; 2nd, D. V. Bow, Saginaw, W. S.; 3d, J. C. Wilk, Alma; 4th, Peter Ferdin, Chesaning; 5th, J. A. Wilk, Alma.

Class 6—Ten ears of White Dent: First, H. C. Oven, Ovid.

Class 7—Ten ears of White Cap or any other Dent: No entries.

Class 8—Fifty ears of any variety: First, D. V. Bow, Saginaw, W. S.; 2nd, J. C. Wilk, Alma; 3rd, J. A. Wilk, Alma.

Sweepstakes ten ears of Dent: A. W. Jewett, Jr., Mason. Open to all of state.

Class 9—Single Ear Dent: First, Charles Laughlin, Dansville; 2nd, J. C. Wilk, Alma; 3d, A. W. Jewett, Jr., Mason; 4th, Farley Bros., Albion; 5th, Peter Ferdin, Chesaning.

Class 10—Ten Ears Flint: First, A. W. Jewett, Jr., Mason; 2nd, Charles Laughlin, Dansville; 3d, L. H. Laylin, Mason.

Class 11—Ten Ears Pop Corn: First, A. W. Jewett, Jr., Mason; 2nd, L. H. Laylin, Mason.

Class 12—Ten ears any variety of Early Sweet Corn: First, A. W. Jewett, Jr., Mason; 2nd, L. H. Laylin, Mason.

Class 13—Ten ears any variety of Late Sweet Corn: First, A. W. Jewett, Jr., Mason.

Winter Wheat.

Class 14—Four quarts Red Wheat: First, A. W. Jewett, Jr., Mason; 2nd, J. C. Wilk, Alma; 3rd, J. A. Wilk, Alma; 4th, L. H. Laylin, Mason; 5th, T. J. Wilk, Alma; 6th, D. C. Seaman, Jackson; 7th, J. I. Hazolitt, Ionia; 8th, C. D. Finkbeiner, Clinton.

Class 15—Four quarts White Wheat: First, A. W. Jewett, Jr., Mason; 2nd, D. V. Bow, Saginaw, W. S.; 3d, L. H. Laylin, Mason; 4th, H. C. Oven, Ovid; 5th, A. N. Brown, Jonesville; 6th, R. V. Tanner, Jackson.

Berkeley Rock Class: First, J. C. Wilk, Alma; 2nd, D. V. Bow, Saginaw, W. S.; 3d, Fritz Kuefner, Saginaw, E. S.; 4th, Farley Bros., Albion; 5th, John Shoemaker, Hudsonville.

Sweepstakes four quarts of Winter Wheat.

(Continued on page 295).



Early Pigs Pay You Best

You can raise them in the warm, well-ventilated, CLAY "Sunlit" Hog House. These early pigs sold in September.

Double Your Profit

September prices average \$2.00 per 100 lbs. higher than December prices. Hundreds of farmers are making this profit right now. Why not you?

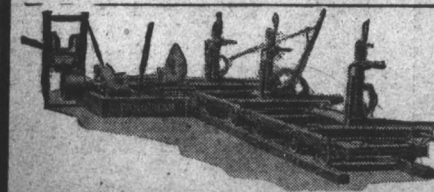
100 Hogs Mean \$400 Extra Profit

This increased gain will quickly pay for the whole cost of a new modern swine barn. A building you can feel proud to own.

Write today for "Bigger Hog Profits", a book chock full of plans and ideas.

Iowa Gate Company
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FARQUHAR SAWMILLS



Convert your timber into marketable lumber. Farquhar Sawmills are simple in design, easy to operate, strong and dependable, efficient and do accurate cutting. They **MAKE MONEY** out of logs.

Ask for information on Sawmill Machinery and Farquhar Dependable Steam Power- Locomotive or "Slab Burner" Rigs. Both Sawmill and Engine built in sizes to meet every requirement. Also Dairy Boilers, Grain and Bean Threshers and Cider Presses.

A. B. FARQUHAR CO., Limited,

Box 612, YORK, PA.



THE STORY OF JOHN MILFORD'S SUCCESS.

(Continued from page 261).

farm in the burnings. For sixteen years he followed the plow, and when he retired a few years ago, he had saved enough to live in idleness, if he so chose, for the rest of his life. He did not choose to do this, however. This retiring for an old age rest is too often fatal. Milford occupies a large suburban lot, raises small fruits, mainly strawberries, and has a considerable garden, which not only supplies the family (himself and wife) but furnishes considerable for the market, which comes very handy as pin money.

One of the most important things Milford learned early in his farm operations was the necessity for thorough cultivation.

In the fruit line, success depends on starting right and keeping right, down through the years. There are plants and seeds galore, but do not be content with mongrel seeds or plants. Buy the best and you will not be disappointed. Among the grapes, the Worden is the best in the purple family. Nothing at the State Fair could compare with the grapes John Milford raised from the best possible plants to be secured, and his name on a basket of whatever kind of fruit sold it outright.

Mr. Milford found it paid to be honest with his customers. Every farmer should know this to be true, yet some of them woefully fail in this very particular.

"It pleased me to have the buyers dump my baskets," said Milford. "I tell you the happiest moments of my life were when I had built up a trade founded on the good will and confidence of those who bought my fruit. It warms and thrills one's heart to feel that their efforts to deal fairly and squarely are appreciated."

Although his farm lay back five miles from the railway town, he built up a large trade among the farmers who did not raise fruit of their own, especially strawberries and grapes. One country storekeeper, with several small children, bought liberally of strawberries, although at the outset he sneered at the idea of making berries a common dinner dish.

His boys learned to like the luscious big red berries, and learned to watch eagerly for the first appearance of the "Strawberry Man."

"The berries are better and more wholesome than meat," said the merchant, "so I let the boys have their fill during the season."

Going onto a modest farm with a determination to win is as sure to bring contentment and success as the sun is to shine. Attempts at farming, with no knowledge of the work, and no ambition to learn, is the most certain road to failure that one can find.

The abundance of testimony now available in favor of the liberal use of clean dairy products is overwhelming. It is so convincing that the parents of pale children and the guardians of those who have lost the bloom of life, should not feel that they have done their full duty toward these charges until this elixir of life has been given a faithful trial.

It would appear that big dealers in farm products have been better sold on the cooperative idea than are many farmers.

LOOK FOR THE RED BALL "BALL-BAND" MARK

You Don't SEE Quality —You LEARN It

Thirty-seven years of unfailing quality in "Ball-Band" (Red Ball) Footwear has made it possible for you to recognize good boots at a glance.

Just look for the Red Ball.

It is not the quality that you see, but it is the promise of More Days Wear that has never been broken.

Over ten million outdoor workers have proved this to be the most satisfactory way to buy any sort of rubber or woolen footwear, from heavy boots and work shoes to lightweight rubbers for the whole family

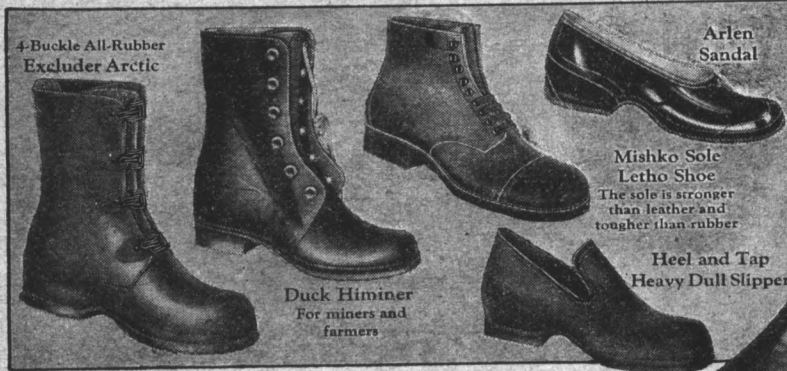
We make nothing but footwear—and we know how

Mishawaka Rubber & Woolen Mfg. Co.

328 Water Street

Mishawaka, Ind.

"The House that Pays Millions for Quality"



ALFALFA

BELL BRAND
Michigan Grown

Whatever kind of soil you have, there's an Isbell strain of alfalfa that will give you wonderful yield. Beware imported seed of unknown purity, germination and hardness. Vitality and adaptation to soil and climate are bred into Isbell seeds. Send today for your copy of Isbell's Seed Annual—the authoritative book on seeds and crops. Samples showing quality sent on request FREE.

S. M. ISBELL & COMPANY 109 Mechanic St. (60) Jackson, Mich.

FARM SEEDS ALL SAMPLES FREE

Clover \$2 Per Bu. lower today than later

Prices sensationally low. Alfalfa, \$9.90 per bu.; Timothy, \$3.20; Sudan, \$4.50 per bu.; Sweet Clover, \$3; Alsike Clover (20 to 25%) and Timothy mixed, \$4.80; Soy Beans, \$2.50; Rape, \$4.25. Write today for our special wholesale prices and buy your seeds now. Seed crops short—Don't delay. Have big bargains in all Field and Grass Seeds. Our seeds tested, guaranteed and sold on 60 days' approval. Buy your seeds direct and pay only one profit. We can save you big money. Write for free samples, special prices and big field and garden seed guide. Eastern orders shipped from eastern warehouse.

Home of Berry Seed Co. **A. A. BERRY SEED CO.** BOX 231 CLARINDA, IOWA

DIRECT TO YOU AT MAIL ORDER RATES

For healthy orchards plant handsome, thrifty, Michigan-grown trees, grape vines, berry bushes, roses and shrubs. Raised in Kalamazoo County—famous for hardy, well rooted stock. Guaranteed healthy and true to name. Buy in your own State and insure prompt arrival in vigorous condition. Special prices on orders sent now. Ask for our handsome catalog of dependable trees—it's free.

Celery City Nurseries, Box 208, Kalamazoo, Michigan.

Purchase Celery City Trees Direct from Grower to Planter

Plan to Plant Another Tree

SWEET CLOVER, ALFALFA, SOYBEANS, ETC. Priced right. Inoculating Bacteria for bushel any legume, 60c postpaid. E. E. BASIL, LATTY, OHIO.

Certified Michigan Grown June & Mammoth Clover, \$13 per bu. Eaton Rapids, Crane & Crane.

BARGAIN CATALOG

of Fruit Trees, plants, Ornamentals, Garden and Flower Seeds, 3 to 4-foot Apple 25c; 3-foot Peach 20c each postpaid. Send for 1924 catalog of Reliable Trees and Seeds. Allen's Nursery & Seed House, Geneva, Ohio.

Progress Nurseries

924 Peters Ave., TROY, OHIO.

Gives you more Trees, Shrubs and Services for your Dollar than you can get elsewhere. Write for Catalog to prove it, it's FREE.

WHY NOT PUT THIS NEW MILL ON YOUR OLD TOWER

Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only man Pitan bearing subject to wear. This is a selfless, and easily replaceable. Covers by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your chore hours now with a good Windmill? This is your chance—F. O. B. Albion. Erect it yourself. Ask your dealer, or write direct to

Union Steel Products Co. Ltd.
Dept. 44, Albion, Michigan, U.S.A.

Niagara

DUSTS and DUSTERS

ONE reason fruit growers have found the Niagara the least expensive method of protecting their crops is because the Niagara Orchard Duster (see pen and ink drawing below) is so sturdy and compact, yet so simple in design and with so few working parts that season after season it keeps on doing its work as efficiently as the first day it was run.

The patented Niagara cylinder of brushes was an important factor in the success of dusting—add to this that the hopper, fan and fan housing are aluminum, light, strong and rust proof, that the fan revolves on Hyatt roller bearings, and you begin to see why the Niagara has made good wherever fruit is grown.

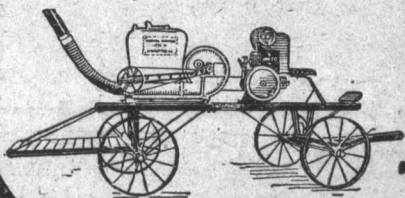
Send today for Free Dusting catalog and learn about all the time, labor and money-saving features of Niagara Dusters. See how they protect 5 acres of mature apple trees or 4 acres of low crops per hour.

It will pay you to call on the Niagara Dealer or write us and find out just what model duster and what dusts are best for your use.

Niagara SPRAYER COMPANY

Middleport, N. Y.

Hand, Traction and Power Dusters



Farms And Farm Lands For Sale

PAY NO ADVANCE FEE; don't give option or tie up real estate for any kind of contract without first knowing those you are dealing with are absolutely honorable, responsible and reliable.

GOOD 80 ACRE FARM

with good buildings. All repaired and repainted last summer. The nine-room house was papered and painted throughout. Good cellar, bank barn, orchard and Detroit prices for all products. Located at Clarkston, Oakland County, which is near Detroit, and has graded school, churches, bank, milk depot, hotels, lumber and coal yard, stores of all kinds. Deer, Park and Mill Lakes joining the village afford good bathing beaches, fishing and boating, good summer resort town. Price \$10,000, reasonable terms. 702 Ford Bldg., Detroit, Phone Cherry 1824.

WANTED DAIRY FARMER

To buy my 240-acre dairy farm near Gladwin, Mich. Good soil, well fenced, spring stream, flowing well, two dwellings, etc. To him who can equip this farm with 10 to 20 cows and farm utensils, can buy and pay for same as he makes. Very low price. Interest 6 per cent. I have other smaller farms for sale. U. G. REYNOLDS, Owner, Gladwin, Mich.

300 ACRES Tuscola County, Michigan, farm for sale or rent. 200 acres under cultivation. 1 mile from 2 railroads, school and churches. Large buildings. State road. Owner, 9366 Wildemere, Detroit.

A Farm Home You Will Like

One hundred and twenty acres near Clare. Fine new house and barn, orchard, trout stream, close school, horses, cattle, hogs, machinery. Will sacrifice, eight thousand will handle. E. AXFORD, Mandan, N. D.

For Sale 40-acre farm, in Otsego County, good soil, water, orchard, and fair buildings. Near railroad. Some timber. Price \$1,200.00. Harry Goslow, 8722 Georgia Street, Detroit.

For Sale By owner, 320-acre farm. An ideal place, fully equipped. Write for description. Elmer Belden, Whitney, Mich.

Would you Buy a Home? With our liberal terms. White people only, good land, healthy progressive country. Write for list. Mills Land Co., Booneville, Ark.

For Sale 121 Acres, one of the Best Farms. Good Buildings. With or without Equipment. Includes 20 Acres Wheat. Must sell because of age and poor health. S. W. Hempy, Lansing, Mich., R. 7.

IF YOU WANT TO LIVE in California write Kings County Chamber of Commerce, Hanford, California, for free booklet.

WANT TO HEAR from party having farm for sale. Give particulars and lowest price. John J. Black, Copper St., Chippewa Falls, Wis.



Have you ordered Binder Twine

From your own factory at Jackson, Michigan? If not mail this coupon in and get a free sample.

Harry L. Hulburt
Director State Industries
Jackson, Mich.

Name
Address

The Railroad Rate Question

Excerpts from a Recent Speech in the U. S. Senate by Senator Arthur Capper of Kansas

I HAVE become an advocate of lower rates through seeing the urgent necessity for them, a necessity now far more urgent than are these rates to the roads. I am in no sense hostile to railroads. I want the railroads to be on a prosperous basis, and will not knowingly encourage a program that will cripple the transportation lines. They must be in position to give us good service. But I do think with the roads doing a larger volume of business at a higher level of rates than ever before in all history that the time has arrived when they should reduce their charges on grain and live stock, now selling at less than cost of production, and, failing that, they should be made to reduce them. I know that all farm and live stock associations and many business organizations throughout the west are demanding immediate relief from excessive transportation costs.

With the price of wheat almost at pre-war level, and sold for the last three and a half years below the cost of production, freight rates on wheat still remain at about fifty per cent above the pre-war basis. Hard coal 200 per cent above the 1913 value pays no higher rates proportionately than wheat, and lumber, which costs nearly twice as much as in 1913, pays relatively less freight than wheat.

Farm products are compelled to bear more than their share of the transportation charge. This comes from the sweeping all-inclusive method of rate making—a departure from the former method of charging what a product could afford to pay and be shipped freely.

I am frank to say I can see no permanent good nor future stability for our system of railway transport under section 15a of the transportation act. Section 15a prescribes an arbitrary rule for the Interstate Commerce Commission to follow, based upon the production of aggregate net railway operating income. This rule was entirely new and untried and has proven unsuccessful either in the production of revenue or the making of reasonable rates that the great agricultural business of this country can afford to pay.

Rates are arbitrarily fixed by the commission to bring a return of five and three-fourths per cent on the reproduction value of every transportation line whether or not the investment was prudently made or the property efficiently managed. That is why

the public often regards section 15a as a guaranty to the railroads, although it does not as a matter of fact directly guarantee anything to the carriers. We are demanding the repeal of this section 15a because rates are determined with regard to the ability of badly organized or located or capitalized or managed roads to earn a profit on an investment the proper calculation of which is in dispute, thereby establishing rates that earn excessive profits on well organized systems.

The recapture provision of section 15a is a farce. It encourages extravagance and padded expense accounts by the prosperous roads. While the big railway systems are enjoying prosperity it is doubtful whether the government will make much headway collecting the excess earnings over six per cent, one-half of which it is stipulated in the transportation act shall go into a fund for lame-duck roads.

The repeal of section 15a as proposed in my bill, S. 91, will leave the Interstate Commerce Commission free to exercise its power according to its judgment, to adjust and prescribe rates as the circumstances may seem to the commission to justify, and at the same time conform to the fundamental principles of the law that rates shall be just and reasonable. That means, of course, just and reasonable rates not merely for the railroads but for the shippers and the public, giving proper weight to every fact and circumstance which according to the judgment of the commission should affect both private and public interests. That always has been the fundamental principle of the regulation of rates provided for by the act to regulate commerce and similar acts passed by the legislatures of the various states and contained in the constitution of many states.

Thomas Hooper says it takes some time to put a tool back after you get through with it. But it takes longer to hunt for it two months later. Thomas keeps a list of all the things the neighbors' borrow of him and don't return promptly. Most everything he owns is now on the list.—Sunshine Hollow.

Grant Manning says when the graduating classes finish High School eighteen years from now, it won't be any easy job to find a roll without at least one boy on it named Calvin.—Sunshine Hollow.

Twenty Years of Orchard Records

An Interesting Account of a New York Orchard

AN account of "Twenty Years' Profits From an Apple Orchard" is given by Professor U. P. Hedrick, of Geneva Experiment Station. The orchard is situated near Rochester and is as typical as could be found in the apple belt of western New York. In it the Geneva Experiment Station has carried on various experiments during the past twenty years. The trees are Baldwins, twenty-seven years old at the beginning of the experiment, forty-seven now. The accounts tell what each of the orchard operations has cost, the number of barrels of fruit produced, and the selling price, in short, what the outgo and the income of a New York apple orchard are, in its fourth and fifth decades, the prime of life of the orchard.

The average yield per acre in the first ten years was 116.8 barrels; in the second ten years, 119.9 barrels; for the twenty years, 118.35 barrels. The average per tree for the first ten years was 4.33 barrels; for the second, 4.44 barrels; for the twenty years, 4.39 barrels.

The entire average cost of a barrel

of apples in this orchard, including interest, taxes, pruning, spraying, cultivating, harvesting, superintendence, bar rel, and every other item of overhead expense from 1904 to 1913 was \$1.29; for the second decade from 1914 to 1923 the cost of production was \$2.12 per barrel, and for twenty years \$1.70.

The average price of apples for the first ten years as grown in this orchard was \$2.60 for all the barreled stock and seventy-two cents per barrel for evaporator and cider stock. The average price in the second period was \$3.83 for barreled stock; culls and drops, eighty cents. The average for twenty years is \$3.22 for barreled apples and seventy-six cents for culls.

The average yearly net profits on a barrel of apples, graded and ungraded, for the first ten years was \$1.31 per barrel; for the second period, \$1.71 per barrel; average for the twenty years, \$1.51. The average per acre for the first period was \$95.60; for the second period \$145.83; for the two decades, \$120.71. Calculating the interest on the investment for the first decade,

land valued at \$500 per acre in the first period, and \$600 in the second, gives a dividend of 26.3 per cent on the average for the twenty years, not a bad showing for an apple orchard.

The accuracy of these figures are vouched for, and Professor Hedrick thinks they can be duplicated by the fruit growers, who have good trees in the prime of life with no young or decrepit orchard mates to bring down the average. Many orchardists in the state could select a ten-acre block that has done as well or better.

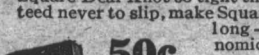
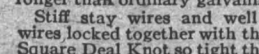
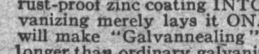
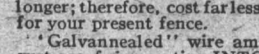
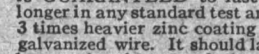
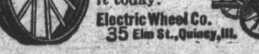
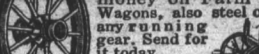
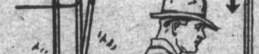
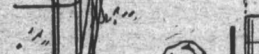
"On the other hand," says Professor Hedrick, "the profits on this orchard are much greater than from the average apple orchard in New York. Too many apple growers are trying to grub profits out of reluctant soils; have started with too big a mortgage; practice not spending rather than right spending, and too many lack enterprise. Some, mostly city converts to fruit growing, are extravagant, lack industry, lean too heavily on station or college for a smattering of knowledge, take their farming as a mild amusement, or undertake more than they can manage. The same men, however, would have made a failure in any other business."

SCAB CONTROL.

THE trouble with most growers whose orchards have been badly damaged by the scab is that they sprayed or dusted after a rain instead of before the rain," said Professor H. H. Whetzel, of Cornell University. "The general occurrence of severe apple scab infection on foliage in western New York during the season of 1923 was accompanied in most cases by severe injury following the application of spray and dust mixtures. The explanation is simple. The scab fungus growing upon the surface of a leaf destroys the protecting cuticle, thus giving free access for the toxic spray substances to the inner tissues on the leaf. The tissues are usually killed in a more or less circular area somewhat larger than the scab spot. These dead brown lesions are frequently numerous enough to cause considerable injury to the foliage. Injury from lime-sulphur applied to scabby foliage is more or less common every year, but is especially prevalent in seasons when the scab is severe. Many growers still fail to appreciate the necessity of delayed dormant and pre-pink applications with the result that the foliage of their apple trees become badly scabbed. They then attempt to control the disease by heavy applications, at the pink and calyx application. The result is that they not only do not control the scab in such cases but seriously injure the foliage, the result of spraying after the leaves are scabbed."

LIME-SULPHUR AND LEAD REACTION.

EXPERIMENTS at Geneva have shown that the undesirable reaction between lead arsenate and lime-sulphur when these are used as a combination spray, can be effectively prevented by the addition of casein-containing preparations used in proper proportions, said Dr. R. W. Thatcher, director of the New York State Experiment Station. "The question as to whether the presence of the protective colloidal casein material in the mixture will in any degree lessen the insecticidal or fungicidal efficiency of the other ingredients can only be determined by actual spraying experiments. It would seem, however, that the quite general use of casein preparations as a spreader without apparent diminution of the killing effects of the various materials to which it has been added would indicate that there is little likelihood of reduction of the killing efficiency of the combined lead-arsenate lime-sulphur spray by the addition of casein preparations to the mixture to overcome its chemical incompatibility."



The Steel Post Job Is Done Before the Wood Post Job Is Barely Started

RED TOP Steel Fence Posts Make Fence Building a Quick One-Man Job

IN THIS DAY and age there isn't time to waste putting in wood fence posts. And where is the man who likes to dig post holes? Fence building with wood posts is the most dreaded and tiresome job on the farm—and the most wasteful.

What a different story when RED TOP Steel Posts are used. One man without a helper can drive 200 to 300 RED TOPS in a day. It's such a speedy job that you can't believe it until you try it. Likewise it is a very quick job for one man unassisted to attach fencing to RED TOPS with Handy Fence Fasteners.

When the RED TOP job is done it figures out far cheaper than the wood post job. Once a RED TOP fence is up it's there for keeps. Frequent restapling and restretching of wire are not necessary. Replacements are cut down. One RED TOP will outlast two ordinary wood posts. RED TOPS make finer looking fences—straight and trim, adding to the value of your property.

Go to your dealer and ask to see the improved Double Strength Studded Tee RED TOP—the post that far out-sold any other make in 1923. This new post holds its leadership because it is a stronger post, of longer life, and it is easier set and easier to fasten fencing to—facts which your RED TOP dealer will be glad to demonstrate.

Before you buy another post see the RED TOP, the One-man Post Driver and the Handy Fastener—the greatest labor savers ever invented for the fence builder. *It is worth your while to get the Original and Genuine RED TOP Studded Tee, patented and trade-marked for your protection.*

The RED TOP One-man Post Driver makes post setting easy.



With the patented RED TOP Handy Fastener one man can attach fencing to posts. The long leg of this fastener goes all the way around the stem of the post. The fencing cannot work loose.



Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.

Electric Wheel Co., 35 Elm St., Quincy, Ill.

Galvanized the Triple-Life Wire

Cuts Fence Costs in Half—

is GUARANTEED to last 2 to 3 times longer in any standard test and to have 2 to 3 times heavier zinc coating than ordinary galvanized wire. It should last many years longer; therefore, cost far less than you paid for your present fence.

"Galvanized" wire amalgamates the rust-proof zinc coating INTO the steel; galvanizing merely lays it ON. That's what will make "Galvanizing" last so much longer than ordinary galvanized wire.

Stiff stay wires and well crimped line wires locked together with the famous little Square Deal Knot so tight they are guaranteed never to slip, make Square Deal a firm, long-lasting, economical fence. 50c copy of Ropp's New Calculator sent free to landowners who write for catalog that tells all about the new high test, Triple-Life "Galvanized" wire.

50c Book Free

Keystone Steel & Wire Co., 4928 Industrial St., Peoria, Ill.



Red Top Steel Post Co.
38-L SOUTH DEARBORN STREET
CHICAGO, ILLINOIS

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Write today for free instruction book and Record of Invention blank. Send sketch or model for personal opinion. CLARENCE A. O'BRIEN, Registered Patent Lawyer, 65-C Security Savings & Com'l Bank Bldg., directly across St. from Patent Office, Wash., D. C.

Corrugated Metal ROOFING

Think of it. We can now sell Excell Metal Roofing, 28 gauge corrugated at only \$3.45 per 100 sq. ft. painted. Galvanized, only \$4.80. If you have been waiting for metal roofing prices to come down, here they are—direct from factory prices—lower than you can get anywhere else. Send for our New Catalog covering all styles Metal Roofing, Siding, Shingles, Ridging, Ceiling, etc., will save you money.

PREPARED ROOFING ONLY \$1.05

Don't buy Roofing, Paints, Fencing, Gas Engines, Tires—anything you need until you get our latest catalog. You can see and try our roofing before you pay. All sold on money back guarantee. Write for Money Saving Catalog today.

The United Factories Co., 305 Marion Bldg., Cleveland, Ohio

104 Page Bargain Book Free

19¢ A Rod and Up

Peerless Fence NOW

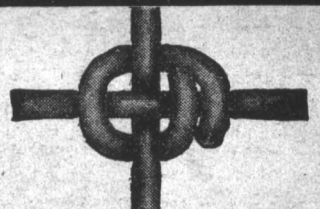
Sold Direct from Factory Wonderful money saving opportunity for fence buyers. Far—lowest prices ever quoted on Peerless fence.

FREE Write today for 104-page catalog giving low direct from factory prices on Fence, Gates, Barb Wire, Steel Posts, Roofing and Paints. Since Peerless' big factories opened their doors direct to farmers it means a clear saving of 40%.

We ship quick from factories in Cleveland, Adrian, Mich.; and Memphis, Tenn. Write for catalog today.

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GUARANTEE
We guarantee RED TOP Steel Posts to outlast the heaviest fencing manufactured, and to be free from defects in material and workmanship; also not to break, burn, rot or frost-heave in the fence line. Your dealer will replace any RED TOP Post which does not fulfill this guarantee.
RED TOP STEEL POST CO.
Brooke Anderson, Pres.



WE CAN SHOW

A 40 rod lane where 40 odd cows have wandered back and forth, often yearning for big red apples on one side and green corn on the other and after ten years not even a head has got through.

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GET IT FROM THE FACTORY DIRECT "Saved \$22.50 on 150 Rods."

says William J. Heft, R. 2, Wyandotte, Mich.

"Saved \$25 on 125 rods" declares Charles Reunville, Pence, Indiana.

You, too, can save money on Fence, Gates, Posts and Barbed Wire by buying direct from our great mills. Lowest Factory Prices. Prompt shipments. Every article guaranteed satisfactory.

Better Fence—Greater Savings

New Fences have been added to our big line; many present styles have been made heavier. More than 100 styles and heights from which to choose. Every rod made to give you longest service at lowest cost.

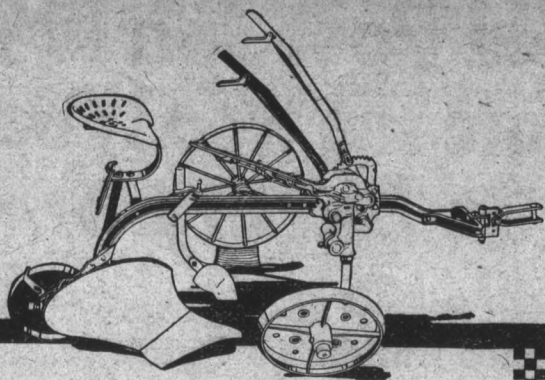
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We Pay the Freight

Write now—today—for our Free 100-page catalog filled with real money-saving values in Farm, Poultry and Lawn Fence, Gates, Steel Posts and Barbed Wire.

KITSELMAN BROS., Dept. 273 MUNCIE, INDIANA
America's Oldest Fence Manufacturers

Its Rolling Landside Insures Better Plowing



The rolling landside supports the rear of the John Deere-Syracuse No. 210 Sulky Plow—all weight of plow and driver is carried on oiled bearings—bottom runs true and level at all depths—no "nosing in" or "sledding"—no dragging friction on furrow wall or furrow bottom.

JOHN DEERE Syracuse No. 210 Sulky Plow

Plows deep when turning square corners. When you reach the end of the field, release the lever latch. The front furrow wheel casters on the turn—guides the plow perfectly. Then, as the plow settles on the straight-away, the lever seeks the proper position and locks automatically. It can also be operated independent of the lock and

used as a landing lever to obtain full furrow width, as in plowing around curves or on sloping land.

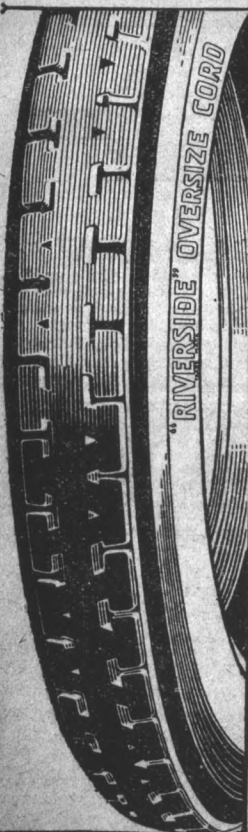
Close-fitting, quick-detachable shares; two-axle, front furrow wheel support which prevents binding or cramping; sand-proof bearings; simple, strong, frameless construction; slat or solid mold-board.

Be sure to see this plow the next time you are in town. Your John Deere dealer can tell you more good things about it. Write us today. Address John Deere, Moline, Ill., for free booklet describing this better seed-bed-making, easier-operating wheel plow. Ask for Booklet. DN 522

JOHN DEERE
THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

10,000 miles guaranteed
and yet you save 1/3

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Riverside Oversize Cord Tires are guaranteed for 10,000 miles and in actual performance give up to 18,000 miles. Can any other tire do more?

So why not save one-third and use Riverside Cords? What more will any other tire do? Then why pay more?

And this 10,000 miles service is backed by a guarantee that has stood for fifty-one years. Does any other tire carry a better guarantee?

Quality is built into Riverside Cords

This guaranteed mileage is built into Ward's Riverside Cords. High treads, thicker and stronger, of tough, live rubber.

This exceptional quality of Ward's tires alone has made us the largest retailers of tires in the country. The tires themselves have convinced thousands that Riverside Cords are best.

You Don't Risk One Cent

Before you buy any tires send for Riverside. Inspect them. Compare them with tires selling for \$5.00 or \$15.00 more.

Send them back if you do not find them the equal of any first-quality oversize cord made. We will refund your money. These prices buy 10,000 miles of service—and more.

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"I have used two Riverside Cords on the rear wheels of my car for two years. They have gone over 1,000 miles now and have never been off the wheels—and they still look fine."
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Chicago Kansas City St. Paul Portland, Ore. Oakland, Cal. St. Worth New York Atlanta, Ga.

Sugar Beet Insects

Sugar Beet Growers of Michigan Have Comparatively Little Trouble from Insects

By R. H. Pettit, M. A. C.

WE really do not have the serious pests that are found in the sugar beet fields of the west and some other parts of the world. We do not have the sugar beet Nematode, nor the leafhopper, the carrier of curly-leaf. True, we have occasional attacks from common insects, like grasshoppers and white-grubs and occasionally a field is infested with wire-worms, but all in all, Michigan sugar beets get by without very much damage from serious insect attacks.

The white-grub is the larva of the June bug or June-beetle, which beetle lays her eggs in grass-sod. The large, fleshy white grubs that come from these eggs require three years for their development under ground, after which they change to June beetles and another crop of eggs is laid. Thus in a white grub infested region, we have a crop of the beetles every third year and a crop of the grubs on the year following the flight of the beetles.

The damage is done while the grub is getting its growth, that is, on the year following the flight of the beetles and for this reason it is well to avoid putting in beets in land that was in grass-sod on the year that the beetles were numerous.

Wire-worms.

These hard-shelled, yellowish larvae sometimes bore into beets and other root crops and make some trouble. They work altogether under ground and like low, and especially mucky, soil. They remain for from three to seven years in the ground. These little yellowish "worms" are about three-fourths of an inch long and feel hard like a piece of wire. The wire-worm naturally turns into a snapping beetle in due time and the snapping beetle, or click-beetle, also lays her eggs in grass-sod as first choice, although she will utilize quite a variety of crops if the land is low and wet, especially if the soil is a little bit sour.

There are two crops which the beetle does not like to utilize for egg-laying purposes, and these crops are clover and buckwheat. If you have a field infested with wire-worms, get it into clover part of the time and buckwheat the rest of the time. This will be distasteful to wire-worms and gradually they will be starved out.

Of course, I understand buckwheat is not a favorite crop in Michigan, but I am not recommending it so much for the value of the crop as for its effect in starving out wire-worms.

The particular wire-worm which we find in Michigan is *Agriotes mancus* and it is quite a different thing from the sugar-beet wire-worm of California. The advice I am giving you would not apply at all to the real sugar-beet wire-worm.

The Flea-beetle.

The pale striped flea-beetle is a little fellow about one-twentieth of an inch long. It gets into beets when they are very young. Usually they do the worst

damage when the beets have only two or three leaves. They work only in hot, dry weather. During some seasons they may make it necessary to re-seed. If rain falls plentifully that will always end the attacks of these beetles, but if rain does not come we can do quite a bit by rolling. Put on a land roller, or better still, put on a culti-packer during the heat of the day when the plants are somewhat wilted. They will be less apt to break off in the middle of the day than in the morning or evening.

Dust is effective as well, but nicotine dusts are expensive and one hesitates about going to such an expense so early in the season.

Hydrated lime also acts as a repellent and in severe cases, one may have to both roll and dust with hydrated lime.

Grasshoppers.

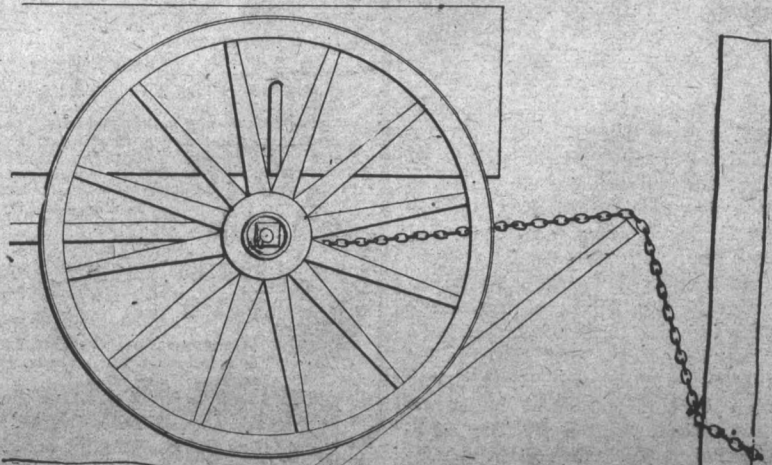
We have found that the sawdust bait is the best for grasshoppers, not because it is better than bran, but because you can get more action for a given sum. Sawdust, arsenic and salt is cheaper than bran, molasses and Paris green, and a little banana oil added to the sawdust makes it even more attractive. This should be broadcast around the edges of the fields and perhaps also through the center.

Blister-beetles are found once in a while. There are striped blister-beetles, black ones and gray ones. Each year many of these are sent in for identification. However, the coming of the blister-beetle is always looked on with pleasure rather than with apprehension because the blister-beetle develops in grasshopper eggs. Each beetle destroys a pod of fifteen to thirty grasshopper eggs in getting its growth, and no single blister-beetle could eat as many beets as fifteen healthy grasshoppers. Consider the blister-beetle your friend unless he gets too voracious. Of course, blister-beetles can be destroyed with an arsenical dust when it becomes necessary. We are not bothered with many Nematodes in Michigan. I have found one or two species here and there, in isolated farms, but have never found the true sugar beet Nematode. Our common species disappear in a year or two if one rotates.

GETTING OUT THE POSTS.

IT is, perhaps, a little more difficult to get posts in the ground than it ordinarily is to pull them out. The latter task is, however, sufficiently tiresome to warrant the adoption of the easiest way for its accomplishment.

The method suggested by the accompanying drawing requires little extra equipment and demands the very minimum of human exertion—the horses doing the heavy task of lifting the post from its place in the earth.



How to Remove Posts with Team, Wagon, Chain and Piece of Scantling.

Another Fall Proves the Outstanding Superiority of Rosenthal Huskers and Shredders

—fastest, lightest running and clean husking—in any kind of weather

THIS message is old news to you thousands of men who have already worked with a Rosenthal. Undoubtedly, though, on your first "set up" with this machine, you marveled at its work—its wonderfully clean husking. Everyone does. As A. V. Martin, Broadway, Ohio, puts it:

"Because your Special 4 is recommended for individual use only, naturally such a small machine got a laugh out of my neighbors when I pulled into their yards as a 'custom-shredder' last Fall. But it only took about four hours of Rosenthal performance to open their eyes and make them say that it beat all other makes they'd ever seen for clean husking, speed and so little help to get out so much corn."

The Farmer Boy's Dream has More than Come True

It was on his father's farm, at Reedsburg, Wis., that August Rosenthal founded the corn husker industry forty-two years ago. Seven long years of development could not shake the faith of the young inventor, and in 1889 the world's first successful corn husker and shredder, illustrated above, was completed. Today's outstanding preference for Rosenthal Huskers and Shredders is, we believe, a tribute to quality and performance unsurpassed by any other labor saving machinery in the farm.

Write at once for completely illustrated 48 page catalog in colors describing our four sizes of Huskers and Shredders; also three sizes of Ensilage Cutters. Useful souvenir FREE.

ROSENTHAL CORN HUSKER CO.
BOX 2 MILWAUKEE, WIS.



Our popular Special 4 requires only 10 to 12 H. P. Capacity, 30 to 50 bushels per hour.



1889



1890



1894

All drawings from original photographs.

Look Ahead!

Right now—when you are deciding your corn acreage—is the time to look ahead to the way you will handle your crop. Authorities state that 63% of corn's nutriment is in the ears and the remaining 37% in the stalk. The Rosenthal supplying roughage so essential to a balanced dairy ration. Does it economically and profitably. Make money doing custom work, too. Shredding comes at a time when your tractor might otherwise be idle. Many Rosenthal owners have paid for their machines in a single season.

MY EXPERIENCES WITH SEEDS.

THE testing of seeds on the farm is very essential if one expects to have uniform success in growing good crops. We cannot always judge the vitality of the seed by looks or color.

Each year before ordering new garden seeds we get out all the old seeds that were left over from the previous year, as well as all seeds that had been saved from the garden, put ten to twenty or more seeds on a rag doll tester and let them germinate in our corn-testing outfit for six to ten days, and then read the results of the test.

Some surprising things are often shown. Samples of two different lots of the same kind of seed will show marked differences in vitality, one will germinate quicker than another, or the roots of one may be considerably longer and healthier than another. Some may show up completely dead. It is a good idea when buying package seeds to put the date of purchase on the package. I have found seeds two and three years old that gave fine germination; others were almost dead. After the test place the date and per cent of germination on the package at once so that there will be no mistake.

Temperature, moisture and maturity all influence the vigor of seeds. Seeds should not be dried out too quickly by high temperatures, nor is it well to



keep them in a room where there is an excess of either heat or moisture. To show how these conditions influence seeds, we had occasion one year to purchase some new seed oats and I went to three neighbors who said they had some excellent seed, but before buying from any of them I took half-pint samples from each of their bins and tested each one separately. I found two lots that it would not pay to sow, one of which tested sixty per cent and the other about seventy per cent, and yet each of these farmers sowed the grain from those bins, putting it on a little heavier than usual in order to insure a good stand. However, those tests also showed that the germination of many seeds was slower than others, somewhat dark in color on the roots, and generally showing evidence of immaturity. We bought the seed that gave a high germination test, and threshing machine measures showed a difference of about five bushels per acre in favor of the good seed which was sown at a lower rate per acre. The price of the different seeds was the same, making the cost of heavier seeding of the poor seed larger.

In testing various kinds of seed we use our rag doll testers that we test seed corn for root rot, finding them convenient for testing any kind of seed. This is made by laying out on a table a length of pearl water finish paper, such as is used in butcher shops for tying up meat. This is twelve inches wide. On this is laid a length of muslin the same width and about fifty inches long. The different samples of seeds are counted out and spread in groups on the muslin, being carefully labeled. The muslin is dampened, rolled up and kept in the germinator and examined from time to time for about six or ten days. The temperature ought to be kept above sixty degrees and the muslin moistened freely if one has no germinating outfit. This is splendid work for bad days and pays dividends to those who follow it.

—J. L. Justice.

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Small fruit plants, Grape vines, Ornamental trees, and shrubs of all kinds. Established a third of a century. Send for Catalog.

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Sent Free Here is the most wonderful book on Strawberries ever published. Written by the world's greatest strawberry expert. Gives his secrets for growing the big crops of fancy strawberries that won him fame and fortune. It pictures and describes 18 of the best standard varieties and three of the world's greatest Ever-bearing which produce big crops of delicious berries from early summer until snow flies. Read how Geo. E. Kellogg of Michigan made \$1800.00 from one acre of Kellogg Strawberries and how a school girl in New York state made \$140.00 cash profit from her Kellogg Garden. Send for this book right now and learn how to grow Kellogg Strawberries "The Kellogg Way" and turn your garden or backyard into a "Strawberry Gold Mine." Just send your name and address on a postcard or in a letter—that's all. The book is free.

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Strawberries 25% Off

Prices slashed on Raspberry, Blackberry, and Grape plants. Stock guaranteed. 30th year. Catalog free. J. N. ROKELY & SON, Route 6, Bridgman, Mich.

Stevensville Strawberry Plants *Produce Bigger Profits*

Grow berries that bring top prices. Our select varieties are large in size, firm, wonderfully luscious, big yielders. Healthy, vigorous, deep rooted. Ideal for all soils. Cash in on our 50 years experience in developing big pay strains. **Cooper**, World's biggest berry. **Champion**, the ever-bearing sensation. **Premier**, earliest of all. Splendid line of Red and Black Raspberries, Blackberries, Currants, Dewberries, Gooseberries, Ornamental Shrubs, Gladioli, Tulip Bulbs, Roses.

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Box 13 Stevensville, Michigan

This Year Try Stahelin's Big Yield Strawberry Plants

Gladioli, Roses Ornamental Shrubbery

Splendid variety, adaptable to any soil. Grow Stahelin's Strawberries this year—they will make Big Money—up to \$1200 per acre! The new varieties: **The EATON, DELICIOUS, PREMIER, MARVEL, COOPER** and the **CHAMPION**—world's greatest ever-bearing strawberry; are all robust, healthy, well-rooted plants, readily adaptable to your soil. Thousands of our customers are coming big money in strawberries. **So can YOU. START THIS YEAR!** of the big fruiting variety at special price, per thousand **\$30 up**

GRAPE Plants

Send for our BIG FREE full colored catalog of Strawberries, Raspberries, Blackberries, Asparagus, etc.

F. C. Stahelin & Son, Props. of BRIDGMAN NURSERY CO., Box 46 Bridgman, Mich.

Special Price \$2.50 *Per Thousand and up*

Our prices are very low for high quality stock. Every plant guaranteed absolutely healthy and as described or your money refunded. Write today for our **Full-Color FREE Catalog**

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FREE BOOK

WORLD EVENTS IN PICTURES



Senator T. J. Walsh "in his fighting face," is pushing oil scandal inquiry.



"Gold Diggers" in the best sense of the word. This international committee has been appointed to ferret out German gold which may be unearthed in other lands, and the United States.



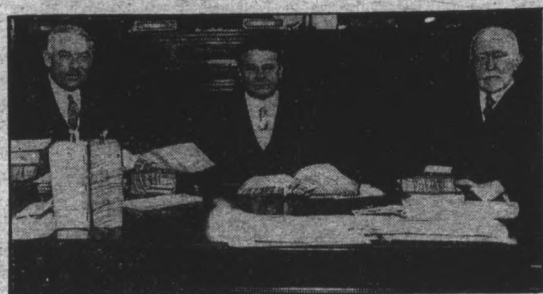
The smallest bellhop "rooms" the biggest man in the world, who is a trifle over eight feet tall.



The little farming hamlet of Sulgrave is still just the same as it was when George Washington's grandparents were born. His great grandparents are buried in this little village churchyard.



"Get your man" was the final law for the constables of the Royal Northwestern Mounted Police, who hunted two years and four months in the arctic regions for two men shown in foreground.



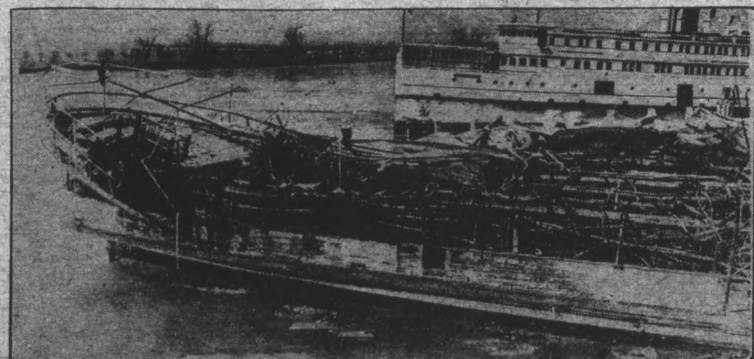
These navy officers explained to the House Naval Affairs Committee the effect of leasing of naval oils on the fuel supply.



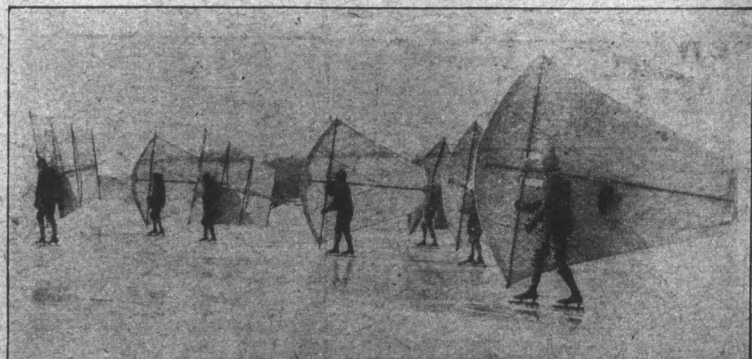
The country mourns the loss of a diplomatic leader, Ex-President Wilson, who died last week.



A. E. Watts, Col. Zeverly and G. L. Stanford, of the Sin Clair Oil Company, have been quizzed in regard to naval oil leases.



A \$600,000 fire destroyed the steamer Midland and the wharf of the Washington & Norfolk Steamboat Company at Washington, D. C., after the entire fire department had fought for hours.



A remarkably close finish in the three-mile race in the annual meet of the skate sailing association of America, which was held on Lake Hopatchong, New Jersey.

"H!" The old French-Canadian's jaw dropped. "Ba'teese, he is like the child. He have not think of that. He have figure he can borrow ten thousand dollar in his own name. But he have not think about the machinery."

"But we must think about it, Ba'tiste. We've got to get it. With the equipment that's here, we never could hope to keep up with the contract. And if we can't do that, we lose everything. Understand me, I'm not thinking of quitting; I merely want to look over the battlefield first. Shall we take the chance?"

Big Ba'tiste shrugged his shoulders. "Ba'teese, he always try to break the way," came at last. "Ba'teese, he have trouble—but he have nev' been beat. You ask Ba'teese—Ba'teese say go ahead. Somehow we make it."

"Then tomorrow morning we take the train to Denver, and from there I'll go on to Boston. I'll raise the money some way. I don't know how. If I don't, we're only beaten in the beginning instead of the end. We'll simply have to trust to the future—on everything, Ba'tiste. There are so many things that can whip us, that—" Houston laughed shortly—"we might as well be gamblers all the way through. We'll never fulfill the contract, even with the machinery, unless we can get the use of the lake and a flume to the mill. We may be able to keep it up for a month or two, but that will be all. The expense will eat us up. But one chance is no greater than the other, and personally, I'm at the point where I don't care."

"Oui!" Ba'teese, he have nothing. Ba'teese he only fight for the excitement. So, tomorrow we go!"

And on the next day they went, again to go over all the details of their mad, foundationless escapade with Chance, to talk it all over in the old smoking car, to weigh the balance against them from every angle, and to see failure on every side. But they had become gamblers with Fate; for one, it was his final opportunity, to take or disregard, with a faint glimmer of success at one end of the vista, with the wiping out of every hope at the other. They tried not to look at the gloomy side, but that was impossible. As the train ground its way up the circuitous grades, Houston felt that he was headed finally for the dissolution. But there was at least the consolation about it that within a short time the uncertainty of his life would be ended; the hopes either crushed forever, or realized, that—

"Ba'tiste!" They were in the snowsheds at Crestline, and Houston had pointed excitedly toward a window of the west-bound train, just pulling past them on the way down the slope. A woman was there, a woman who had turned her head sharply, but with not enough speed to prevent a sight of her by the French-Canadian who glanced quickly and gasped:

"The Judas!"

Houston leaped from his seat and ran to the vestibule of the car but in vain. It was closed; already the other last coach of the other train was pull-

ing past and gaining headway with the easier grade. Wondering, he returned to his seat beside his partner.

"It was she, Ba'tiste," came with conviction. "I got a good look at her before she noticed me. Then, when I pointed—she turned her head away."

"But Ba'teese, he see her."

"She's going back. What do you suppose it can mean? Can she be—"

"Ba'teese catch the nex' train to Tabernacle so soon as we have finish our business. Eet is for no good."

the other the necessary bond to cover the contract—a contract which Barry Houston knew only too well might never be fulfilled. But against this fear was the booming enthusiasm of Ba'tiste Renaud:

"Nev' min'. Somehow we do eet. Ah, oui! Somehow. If we make the failure, then it shall be Ba'teese who will fin' the way to pay the bond. Now, Ba'teese, he go back."

"Yes, and keep watach on that woman. She's out here for something—I

One man, at least, believed in him fully.

Came Chicago and the technicalities of ironing out the final details of the contract. Then, dealer in millions and the possessor of nothing, Houston went on toward Boston.

And Ba'tiste was not there to boom enthusiastically regarding the chances of the future, to enlarge upon the opportunities which might arise for the fulfillment of a thing which seemed impossible.

Coldly, dispassionately, now that it was done, the word of the Empire Lake Mill and Lumber Company had been given to deliver the materials for the making of a great railroad, had guaranteed its resources and furnished the necessary bond for the fulfillment of a promise, Barry Houston could not help but feel that it all had been rash, to say the least. Where was the machinery to be obtained? Where the money to keep things going? True, there would be spot cash awaiting the delivery of every installment of the huge order, enough, in fact, to furnish the necessary running expenses of a mill under ordinary circumstances. But the circumstances which surrounded the workings of the Empire Lake project were far from ordinary. No easy skidways to a lake, no flume, no aerials; there was nothing to cut expenses. Unless a miracle should happen, and Houston reflected that miracles were few and far between, that timber must be brought to the mill by a system that would be disastrous as far as costs were concerned. Yet, the contract had been made!

He wandered the aisle of the sleeper, fidgeting from one end to the other, as neither magazines, nor the spinning scenery without held a counter-attraction for his gloomy thoughts. When night at last came, he entered the smoking compartment and slumped into a seat in a far corner, smoking in a detached manner, often pulling on his cigar long after lengthy minutes of reflection had allowed its ashes to cool.

About him the usual conversation raged, the settling of a nation's problems, the discussion of crime waves, Bolshevism and the whatnot that goes with an hour of smoking on a tiresome journey. From Washington and governmental affairs, it veered to the west and dry farming, thence to the cattle business; to anecdotes, and finally to ghost stories. And then, with a sudden interest, Houston forgot his own problems to listen attentively, tensely, almost fearfully. A man whom he never before had seen, and whom he probably never would see again, was talking—about something which might be as remote to Houston as the poles. Yet it held him, it fascinated, it gripped him!

"Speaking of gruesome things," the talker had said, "reminds me. I'm a doctor—not quite full fledged, I'll admit, but with the right to put M. D. after my name. Spent a couple of years as an interne in Bellstrand Hospital in New York. Big place. Any of you ever been there?"

(Continued on page 281).

The White Desert

By Courtney Ryley Cooper

THE SCHOOL OF LIFE

By Al. Rice

I'm going to the School of Life;
Attending ev'ry day;
I'm joining in the cares and strife—
The pain, and pleasures gay.
One day I learn that I'm a fool—
Conceit is put to rout—
The next;—the wisest in the school;
Because, I found it out.

I pay tuition, more or less,
(And, often, more than less)
And bills for fool-tax, I confess,
Are left at my address.
And, often, the experience
Cuts deeper than a knife,
But ev'ry day I'm learning sense
Within the School of Life.

Sometimes I peg along for weeks,
Just picking flow'rets gay—
The breath of summer fans my cheeks
Like smell of new-mown hay—
Then—Presto! Like a lightning flash,
From out a sky of blue,
The School of Life applies the lash;
My dream is cut in two.

I'm going to the School of Life,
My teacher—common sense.
And those who join its cares and strife
Learn by experience.
I pay tuition? Yes, o, yes—
Hard knocks at ev'ry turn;
But I am paying less and less
The more, through knocks, I learn.

"I wonder—" it was a hope, but a faint one—"if she could be coming back to make amends, Ba'tiste? That—that other thing seemed so unlike the person who had been so good to me, so apart from the side of her nature that I knew—"

"She have a bad mouth," Ba'tiste repeated grimly. "She have a bad eye, she have a bad tongue. A woman with a bad tongue, she is a devil.—You—you no see it, because she come to you with a smile, when every one else, he frown. You think she is the angel, yes, oui! But she come to Ba'teese different. She talk to you sof' and she try to turn you against your frien'. Yes, Oui? Ne c'est pas? Ba'teese see her with the selfish mouth! Peuff! He see her when she look to heem out from the corner of her eye—so. Ba'teese know. Ba'teese come back quick, to keep watch!"

"I guess you're right, Ba'tiste. It won't do any harm. If she's returned for a good purpose, very well. If not, we're at least prepared for her."

With that resolution they went on to Denver, there to seek out the few friends Ba'tiste possessed, to argue one of them into a loan of ten thousand dollars on the land and trustworthy qualities which formed the total of Ba'tiste's resources, to gain from

feel sure of it—something that has to do with Thayer. Before you go, however, make the rounds of the employment agencies and tell them to send you every man they can spare, up to a hundred. We'll give them work to the extent of five thousand dollars. They ought to be able to get enough timber down to keep us going for a while anyway—especially with the roads iced."

"Ah. Oui. It is the three o'clock. Bonvoyage, mon Baree!"

It was the first time Ba'tiste Renaud ever had dropped the conventional "M'sieu" in addressing Houston, and Barry knew, without the telling, without the glowing light in the old man's eyes, that at least a part of the great loneliness in the trapper's heart had departed, that he had found a place there in a portion of the aching spot left void by a shrapnel-shattered son to whom a father had called that night in the ruined cathedral—and called in vain. It caused a queer pang of exquisite pain in Houston's heart, a joy too great to be expressed by the reflexes of mere pleasure. Long after the train had left Denver, he still thought of it, he still heard the old man's words, he still sat quiet and peaceful in a new enthusiasm of hope. The world was not so blank, after all.

AL ACRES—Never Mind Slim, You're All Tuned Up for the Concert Tomorrow Night.

By Frank R. Leet





*The Health Basket—
every home should have
one always filled.*

A Healthful Habit —luscious, too—"the bedtime orange"

Best for Peeling



Slicing



ONE or two delicious oranges eaten each night, just before retiring, will bring you important benefits. Oranges provide valuable aids to health which you will appreciate once you know them.

Oranges bring salts and acids, natural digestants in themselves, which aid in the digestion of other foods. So oranges are ideal to eat with or after meals.

They are mildly laxative. Most people need no other help than the delightful, natural, regular stimulation of fruit juice.

Orange juice is a liver regulator of real efficiency. An active liver is a prized possession.

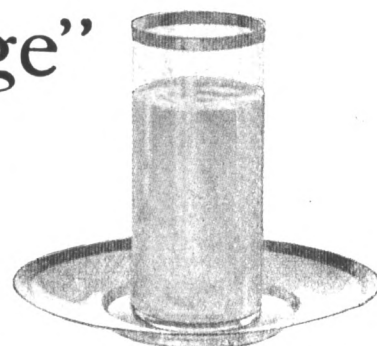
"C" vitamins are abundant in the orange. And medical authorities agree that vitamins are essential to the well balanced diet. So an orange daily is insurance of important vitamins.

And oranges at night—particularly for men who smoke—are a boon in sweetening the mouth. Try for a few evenings to note results.

These facts in addition to the delicious flavor and refreshment that this luscious fruit provides are ample reasons for making "the bedtime orange" a valued habit in your home.

Keep a bowl of fine, juicy oranges at hand for the enjoyment and benefit of the entire family. Buy oranges by the box so you'll always have them for eating out of hand as well as for the delicious, healthful, convenient dishes they help you prepare.

See our fine offer of a handy recipe card file, including recipes by Alice Bradley, principal of Miss Farmer's School of Cookery, Boston. Send for this card file to keep your favorite recipes in.



ORANGE juice for breakfast is another way of getting the benefits of oranges. Although known as "acid fruits," oranges and lemons have an *alkaline* reaction in the blood, a healthful offset to the excess acidity caused by the unbalanced eating of such good and necessary foods as meat, fish and eggs.

California Sunkist Oranges

Uniformly Good

California Fruit Growers Exchange
A Non-Profit, Co-operative Organization
of 11,000 Growers
Dept. 1302, Los Angeles, California

Separating



Mail This

Send 10c with this coupon and we will send you a set of 24 beautifully illustrated Sunkist recipe cards. Each dish pictured in colors. Shows how to serve oranges and lemons in the most attractive ways. Just right size for recipe-card box.
For 75c we will send the set of Sunkist recipe cards, neat oak box without any advertising on it, 100 blank cards and 23 index cards, all prepaid.
This set would cost \$1.25 in retail stores.
Check the offer you wish to accept and forward with stamps or coins. Offer is good at these prices in both United States and Canada.

☐ 24 Sunkist Recipe Cards—10c

☐ Complete Box and File—75c (Including above 24 cards)

Address: California Fruit Growers Exchange
Dept. 1302, Los Angeles, California

Name _____
Street _____
City _____ State _____

Put this husky VULCANITE roofing *right over your old roof*

When you fix up that old barn roof, do it right. Put on a roof that will "stay young" for years—a roof that will protect your barn from fire—a roof that no storm can penetrate—a roof that the hottest sun cannot affect.

Use *genuine* Beaver Vulcanite roll roofing for the job. Vulcanite has been the quality standard for nearly twenty-five years. It's thick. It's tough. It's stiff. Its pure rag felt base is saturated under pressure *three times* with genuine Mexican asphalt. Flint-like crushed slate in natural, non-fading colors, is imbedded in the surface.

Best of all, you can put Vulcanite right over your old roof—no muss; no loss of time in tearing off the old roof. You don't need experts to apply it; simple, complete instructions are contained in each roll.

Test Vulcanite Yourself—Free

Before you roof, test Vulcanite yourself. Ask your dealer, or mail coupon to us for free sample of Vulcanite slate-surfaced roofing. Then put it to the six tests listed on this page. They are simple and easy to make—but they will tell just what you want to know. They will prove to you that genuine Vulcanite will withstand more abuse, give you longer service *for less cost*, than ordinary roofing.

Mail the coupon today.

THE BEAVER PRODUCTS COMPANY, Inc.

Dept. G, Buffalo, N. Y.

Thorold, Canada

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Manufacturers of
Beaver Wall Board, Beaver Vulcanite Roofing,
Beaver Plaster Wall Board and Plaster Products

For Sale by Lumber and Building
Material Dealers Everywhere



BEAVER VULCANITE R O O F I N G

6 daring tests you should make before you buy any roofing

1. *Heat test:* Lay sample of Vulcanite on hot radiator for 12 hours. See if it will melt or dry out.

2. *Ice test:* Lay sample on ice for 12 hours. Then pour boiling water on it. See if extremes of temperature affect it.

3. *Water test:* Soak sample in water for 12 hours. See if, by weight, it absorbs any water.

4. *Acid test:* Immerse sample in hydrochloric acid. See if it is affected in any way.

5. *Fire test:* Lay white-hot coal of fire on sample. See if it sets the roofing on fire.

6. *Scuff test:* Lay sample on floor; scuff it hard with your shoe. See if any of the slate-surfacing will come off.

THE BEAVER PRODUCTS CO., Inc., Dept. G
Buffalo, New York
Gentlemen: Please send me your two free books, "Beaver Vulcanite Roofing," and "How to Re-roof," and also a sample of genuine Beaver Vulcanite Roofing.

Name _____

Address _____

I am also interested in
☐ Beaver Wall Board ☐ Beaver Plaster Wall Board
☐ Beaver Tile Board ☐ Plaster and Plaster Products



Expect more than long wear *in a* **HOOD** *boot or shoe*

Help your feet—they are moving something like 85 tons a day for you

IN ordinary walking a man will do better than 60 steps a minute. Say you average for the day only 2 steps a minute, and that you are on your feet 8 out of the 24 hours. This is 960 steps, and if you weigh 180 pounds, your feet will have moved more than 85 tons for you by the time evening comes.

It may be interesting for you to take your own weight and estimate about how much hauling you require your feet to do each day. Perhaps some nights your feet will tell you this without any figuring on your part.

Whatever the task, do you know that it all comes upon the big muscles of the feet, and that these muscles are kept fresh by a supply of blood through the main arteries of the feet?

Cramp the muscles, restrain the flow of blood, and early fatigue results. This "done up" feeling is not confined to the feet—muscle, nerve and artery of the foot have their bearing upon the entire system.

This is why we have so often said that the appearance of a boot or a shoe, or the first try-on can give you no indication of its comfort day in and day out—of how much it can save your strength.

Hood footwear, in design and in the placing of all its reinforcements, protects the muscles and the arteries of the feet. It is scientifically constructed for comfort as well as long wear.

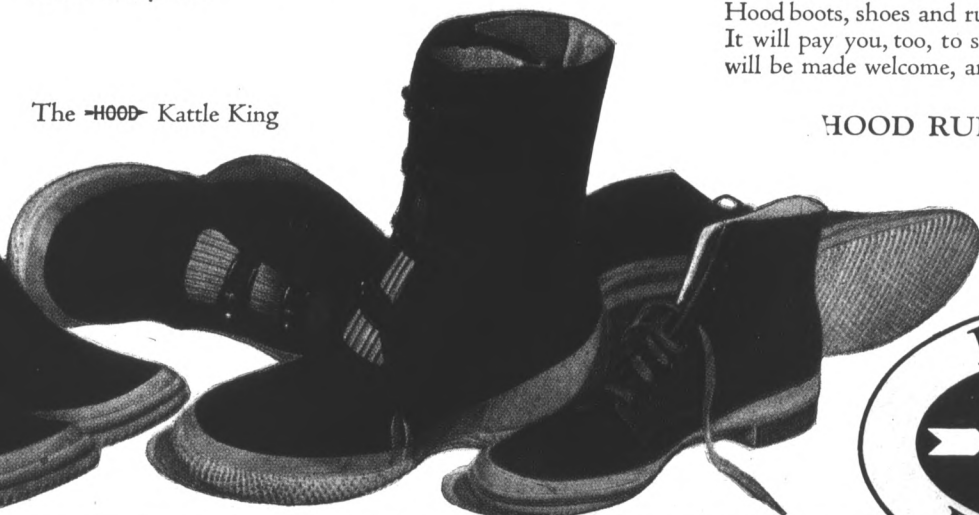
A particularly good combination is the Hood Werkshu, protected in cold weather by the Hood Kattle King. The Werkshu is made of durable brown duck, with tough tire-tread soles. While it wears long, it is flexible and gives freely with every movement of the foot. The Kattle King is Hood's special all-rubber overshoe. Good for months of service, warm, comfortable and easily cleaned. When you take off the Kattle Kings, you have a shoe for indoors as comfortable as a slipper.

Hood means comfort as well as economy, and there are Hood boots, shoes and rubbers for every member of the family. It will pay you, too, to stop where Hood shoes are sold. You will be made welcome, and the line gladly shown.

The **HOOD** Red Boot



The **HOOD** Kattle King



The **HOOD** Werkshu



HOOD



*for every member
of the family*

Put this husky VULCANITE roofing *right over your old roof*

When you fix up that old barn roof, do it right. Put on a roof that will "stay young" for years—a roof that will protect your barn from fire—a roof that no storm can penetrate—a roof that the hottest sun cannot affect.

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Help your feet—they are moving something like 85 tons a day for you

IN ordinary walking a man will do better than 60 steps a minute. Say you average for the day only 2 steps a minute, and that you are on your feet 8 out of the 24 hours. This is 960 steps, and if you weigh 180 pounds, your feet will have moved more than 85 tons for you by the time evening comes.

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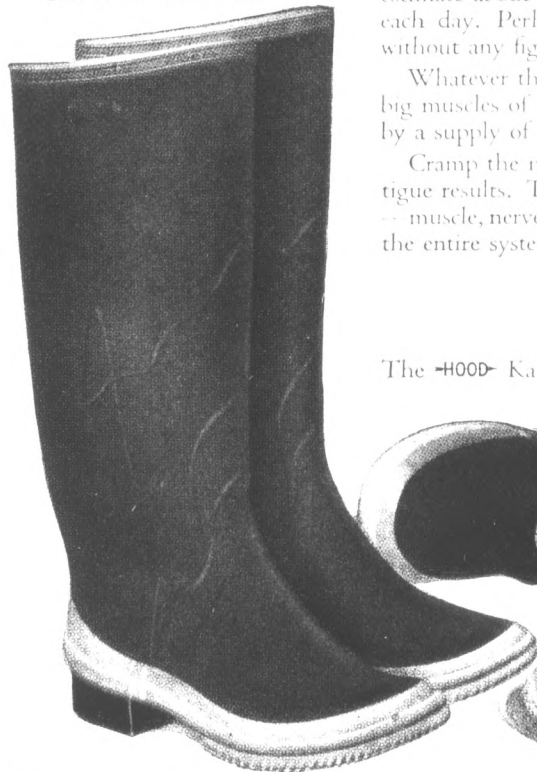
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The -HOOD- Red Boot



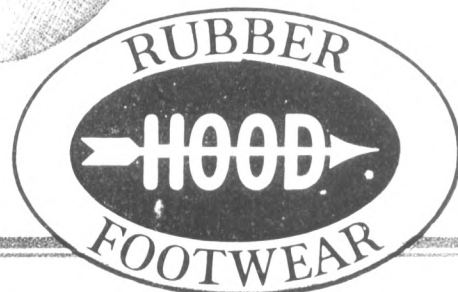
The -HOOD- Kattle King



-HOOD- RUBBER PRODUCTS CO., Inc.
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Write for the Hood Buying Guide

The -HOOD- Werkshu



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Both seats adjustable forward and back for tall and short people.

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The new Overland Champion was announced in October. Farmers everywhere immediately pronounced it by far and away the most useful car they had ever seen!

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Bigger engine. Bigger power. Extraordinary gasoline, oil and upkeep economy. Triplex springs. And the famous Overland reliability and staunchness. See the Champion!

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Willys-Overland, Inc., Toledo, Ohio
Willys-Overland Ltd., Toronto, Ont.

THE MOST AUTOMOBILE IN THE WORLD FOR THE MONEY

THE WHITE DESERT.

(Continued from page 276).

No one had. The young doctor went on.

"Quite a place for experiments. They've got a big room on the fifth floor where somebody is always dissecting, or carrying out some kind of investigations into this bodily thing we call a home. My work led me, past there a good deal, and I'd gotten so I hardly noticed it. But one Sunday night, I guess it was along toward midnight, I saw something that brought me up short. I happened to look in and saw a man in there, murdering another with a wooden mallet."

"Murdering him?" The statement had caused a rise from the rest of the auditors. The doctor laughed.

"Well, perhaps I used too sentimental a phrase. I should have said, acting out a murder. You can't very well murder a dead man. The fellow he was killing already was a corpse."

"You mean—"

"Just what I'm saying. There were two or three assistants. Pretty big doctors, I learned later, all of them from Boston. They had taken a cadaver from the refrigerator and stood it in a certain position. Then the one man who had struck it on the head with the mallet with all the force he could summon. Of course it knocked the corpse down—I'm telling you, it was gruesome, even to an interne! The last I saw of them, the doctors were working with the microscopes—evidently to see what effect the blow had produced."

"What was the idea?"

"Never found out. They're pretty close-mouthed about that sort of thing. You see, opposite sides in a trial are always carrying out experiments and trying their level best to keep the other fellow from knowing what's going on. I found out later that the door was supposed to have been locked. I passed through about ten minutes later and saw them working on another human body—evidently one of a number that they had been trying the tests on. About that time some one heard me and came out like a bullet. The next thing I knew, everything was closed. How long the experiments had been going on, I couldn't say. I do know, however, that they didn't leave there until about three o'clock in the morning."

"You—you don't know who the men were?" Houston, forcing himself to be casual, had asked the question. The young doctor shook his head.

"No—except that they were from Boston. At least, the doctors were. One of the nurses knew them. I suppose the other man was a district attorney—they usually are around somewhere during an experiment."

"You never learned with what murder case it was connected?"

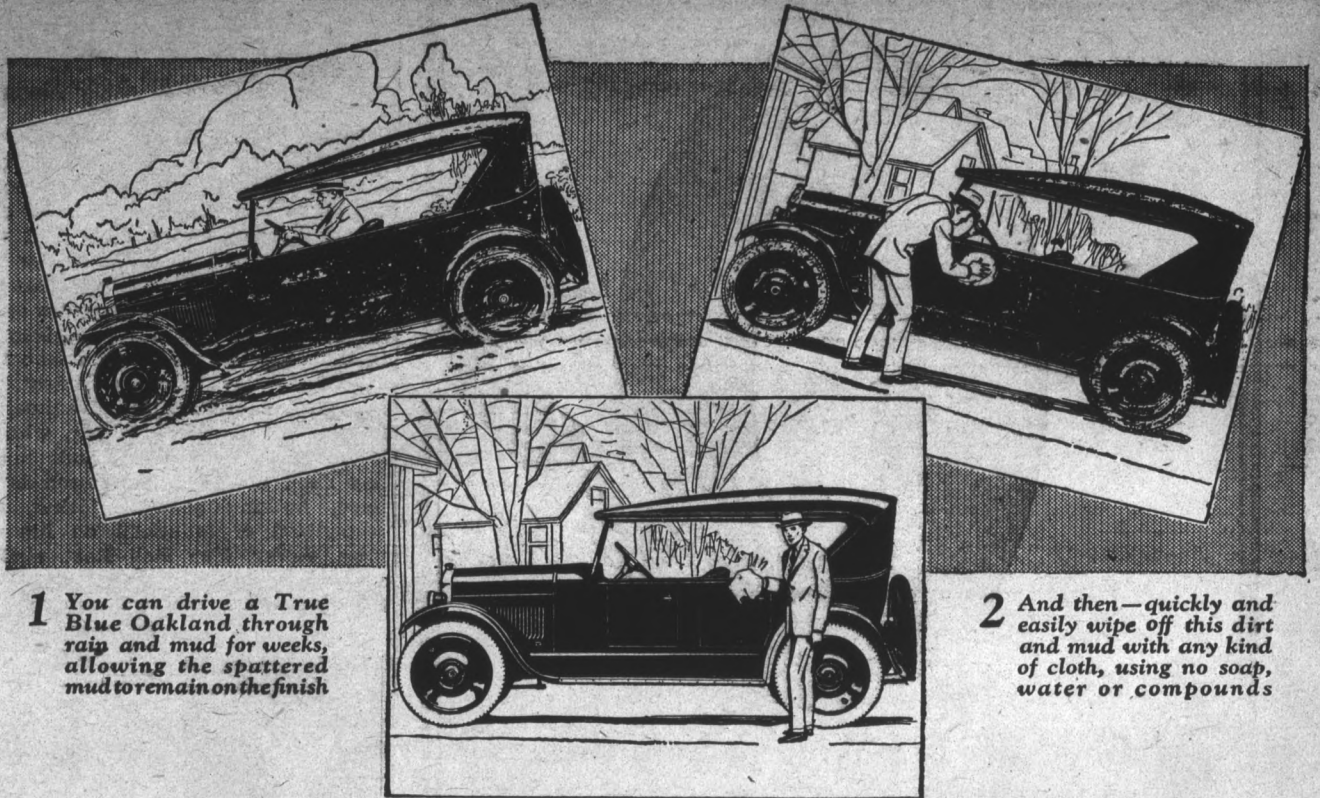
"No—the fact is, it passed pretty much out of my mind, as far as the details were concerned. Although I'll never forget the picture."

"Pardon me for asking questions. I—I just happen to come from Boston and was trying to recall such a case. You don't remember what time of the year it was, or how long ago?"

"Yes, I do. It was in the summer, along about two or two and a half years ago."

Houston slumped back into his corner. Ten minutes later, he found an opportunity to exchange cards with the young physician and sought his berth. To himself, he could give no reason for establishing the identity of the smoking-compartment informant. He had acted from some sort of subconscious compulsion, without reasoning, without knowing why he had catalogued the information or of what possible use it could be to him. But once in his berth, the picture continued to rise before him: of a big room in a hospital, of doctors gathered about, and of a man "killing" another with a mallet. Had it been Worthington?

(Continued on page 283).



1 You can drive a True Blue Oakland through rain and mud for weeks, allowing the spattered mud to remain on the finish

2 And then—quickly and easily wipe off this dirt and mud with any kind of cloth, using no soap, water or compounds

3 So that—the original lustrous body finish of the car is restored in all its beauty without a damaging scratch or mar!

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Goodyear is making balloon tires in the smaller diameter 20- and 21-inch rim sizes, of course. But what interests motorists today is, Goodyear is also making balloon tires to fit present rims on most cars in use. That means a big saving. And the name Goodyear, on balloon tires or on any other type, means supreme quality and dependability.

GOODYEAR

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The Book of Judges

Our Weekly Sermon—By N. A. McCune

ONE cannot help thinking of Ivanhoe and Rob Roy, as he reads the Book of Judges. Ivanhoe is the brave knight who defeats all comers, and never stains his shield with dishonor. Rob Roy is the outlaw who is never captured. "Every man did that which was right in his own eyes," in the days of the Judges, as they did in the days of Ivanhoe and Rob Roy. Gideon is the peerless knight, not smooth and dashing like Ivanhoe, but rough, rustic and shrinking, who delivers his people, and stoops not to any deed of infamy. Samson is the huge, hulking practical joker, who committed depredations on his enemies, never, like Rob Roy, striking where he was expected, but, unlike the Scottish outlaw, who was captured and degraded at last.



Shamgar and Ehud executed a rough and bloody justice with their own hands, and feared not the face of any man.

Jephtha, the mighty man of valor, the son of a harlot, was hardened and embittered by the relentless experience of life, and yet he too was the delivered of his people. We think of him as some such man as John Brown of Pottawatomie, who was the stern opponent of slavery, and yet whose hands were not stainless of his brother's blood. Vain and light fellows were gathered to Jephtha, and no wonder, for he was a natural leader of men. If good men would not follow him, he would take such men as he could get. But there is a noble streak in him, for in the hour of distress, after his people had driven him out of the land, they go to him as men hasten to the protection of a great tree in a storm, and he responds. Only he insists that it shall be an honorable leadership, and that he shall be received among his people as an honorable man, when the fighting is over. His rash vow from which he will not turn back, which ends in the death of his lonely daughter, classifies him as one of those strangely "Damaged souls," which might have accomplished greater deeds, if they had only been possessed of more balance.

JUDGES is surely one of the most interesting books of the Old Testament. One is simply passing from one adventure to another. Dean Stanley said: "Other portions of Scripture have been more profitable for doctrine, for reproof, for instruction in righteousness: but for merely human interest—for the lively touches of ancient manners, for the succession of romantic incidents, for the consciousness that we are living with the persons described, for the tragical pathos of events and characters—there is nothing like the history of the judges from Othniel to Eli."

There is humor here. Samson loves his practical jokes, though they are like the jokes of a sperm whale or a dinotherium. Abimelech is a self-important gentleman who claims the throne, and, we may well suspect, affects purple and a chariot with outriders. But one day in besieging a walled city, a woman fighter drops a stone on Abimelech's head, thereby bringing him near to an unexpected death. Abimelech abhors the thought of its being said that a woman slew him, and cries to a nearby soldier to run him through, that he may die like a man, and thereby win the reader's admiration. Probably if that had not happened, Abimelech would not have been honored with a place in this gallery of heroes.

TO say that there is adventure here is unnecessary, for Judges is a book of adventures. Gideon's strategy

in attacking the Midianites is a beautifully told tale. We can imagine that the military critics condemned it from the start. It was visionary, it was ill-timed, it was reckless, and above all, Gideon was a fool for not drilling and making use of all the men available. But Gideon was employing one of the big psychological principles, from which we are never free, and do not want to be free—the principle of enthusiastic devotion to a cause. Better a little army that is determined to win or die, said Gideon, than many regiments of hirelings. When the county draft board passed on recruits for Gideon's army, they were instructed to select "able men, such as fear God, men of truth, hating covetousness." Such an army is unbeatable. The Midianites used good judgment when they took to flight.

Patriotism and the love of home speak out on every page. The battle of Lexington and Concord speaks not more loudly of the patriotic impulse than the battle which Deborah and Barak led against Sisera. Several tribes "jeopardied their lives unto the death," but Reuben and Dan posted "business as usual," and remains at home. They deeply rued their decision. Their criminal indifference was never forgotten. "Why sittest thou among the sheepfolds to hear the pipings of the flocks?" Why, indeed? On festival days when groups of singers went from place to place singing of the bravery of Zebulun and Naphtali, and the inexcusable lukewarmness of Reuben and Dan, the men of Reuben and Dan must have been looking for places to hide. They probably remained at home for a long time. But the story would not die. It was told and sung and retold, as the generations came and went—the valor of some parts of the nation, the coldness, the treason of others. And we are reading about it now. "Once to every man and nation comes the moment to decide," said Lowell, and Reuben and Dan made a selfish choice. There is a time when we make our choices, but later our choices make us.

IT is almost staggering to think that a choice once made is made. The power of choice is a sharp edged weapon which God has placed in our hands. It often proves to be a weapon with which men destroy themselves. Oh, men of Reuben and Dan, why did you not get into the fight that day? We men of the twentieth century are looking at you and judging you—and yet we shouldn't. There are questions which confront us as big as the one which faced you that day, and we decide as you did: we taken the easy course. We prefer business as usual, society as usual, profits as usual, our own beggarly selves as usual.

Did you note the tragedy of Sisera's death? His mother sits at the window waiting for his return. High-born, light-hearted women sit about her, telling her he is delayed, he will soon return. She scolds his chariot wheels for being so slow, and adds that he is probably dividing the spoil, giving to each warrior one or two beautiful maidens. With the face at the window watching for the form that never will return, the matchless war song ends.

SUNDAY SCHOOL LESSON FOR FEBRUARY 24.

SUBJECT:—The period of the Judges. Judges, Chaps. 2 to 16.

GOLDEN TEXT:—I will heal their backsliding, I will love them freely. Hos. 14:14.

Dr. Melvin Swartz fell in a well out to the Simpkins place and sprained his ankle. Aunt Catherine Selby says the doctor should take care of the sick and let the well alone.—Sunshine Hollow.

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THE BROWN FENCE & WIRE CO. Dept. 2809 Cleveland, Ohio



Doings In Woodland

Two Little Somethings

WHEN little Jackie Rabbit and Billie Woodchuck, Junior, returned from school one afternoon, they found their mothers were not at home. This was very unusual, and they were quite pleased. You see, they lived right next door to each other, so it meant they could have a nice long play together and their mothers would not be there to call them to do some little task.

"Come over and play in my yard, Billie," said Jackie, as he saw his little friend coming out of the house munching a big sugar cookie. (Jackie was enjoying a big ginger one with a raisin in the middle).

Billie didn't need a second invitation, because Jackie had a big swing in the maple-tree in the back yard. Of all the things he liked to do, Billie thought he liked swinging the best. To go as fast as the wind to and fro up among the leaves was heaps of fun. And this is what Mother Rabbit and Mother Woodchuck found their children doing when they returned home.

"Come here, Jackie," called his mother from the back door. And off



"This One is Sue and That One is Sally."

Jackie went running, with Billie following as fast as his chubby legs could carry him.

"I want you to go on an errand, Jackie. Take this package down to Sammie Squirrel's house. Mrs. Squirrel has a big surprise for you, two little somethings. Billie's mother says he may go with you."

"What do you mean by two little somethings, Mother?" asked Jackie.

"Run along, children, and you will see," she answered, "but be sure and hurry back."

"Two little somethings," questioned Billie and Jackie, "What do you think they can be?"

"I bet they are two little cars," said Jackie, "and maybe we can ride in them."

"I'll bet they are two swings, and I can have a swing in each one," said Billie.

"Rap, tap, tap," on Sammie Squirrel's door.

A pretty lady squirrel all in white opened the door for them.

"Come in, boys," she said.

"Please ma'm, mother sent this package to you," said Jackie. "And she said you had two little somethings to show us."

"That's right, I have, boys. Just wait a minute." And she went tip-toeing off into the bedroom.

In a minute she was back. "Come right in this way, boys," she said. "Here are the two little somethings that your mother told you about."

And weren't they surprised when they peeked into the bedroom, for there in a snow white cradle were two little baby squirrels.

The boys wanted them to come out and play, but the nurse said they must wait until they had grown to be a little stronger.

"What's their names?" asked Billie. "This one is Sue, and this one is Sally," said the nurse as she tucked them in more closely.

The boys wanted to stay longer, but it was time for the baby squirrels to have their nap, so the nurse had to send them home.

"We'll be back to see Sue and Sally tomorrow," said Jackie.

"You bet we will," said Billie, "and maybe they won't be so sleepy then."

THE WHITE DESERT.

(Continued from page 281.)

Worthington, the tired-eyed, determined, over-zealous district attorney, who, day after day, had struggled and fought to send him to the penitentiary for life? Had it been Worthington, striving to reproduce the murder of Tom Langdon as he evidently had reconstructed it, experimenting with his experts in the safety of a different city, for points of evidence that would clinch the case against the accused man beyond all shadow of a doubt? Instinctively Houston felt that he just had heard an unwritten, unmentioned phase of his own murder case. Yet—if that had been Worthington, if those experts had found evidence against him, if the theories of the district attorney had been verified on that gruesome night in the "dead ward" of Bellstrand Hospital—

Why had this damning evidence been allowed to sink into oblivion? Why had it not been used against him.

CHAPTER XVI.

IT was a problem which Barry Houston, in spite of wakefulness, failed to solve. Next morning, eager for a repetition of the recital, in the hope of some forgotten detail, some clue which might lead him to an absolute decision, he sought the young doctor, only to find that he had left the train at dawn. A doorway of the past had been opened to Houston, only to be closed again before he could clearly discern beyond. He went on to Boston, still struggling to reconstruct it all, striving to figure what connection it might have had, but in vain. And with his departure from the train, new thoughts, new problems, arose to take the place of memories. His purposes now were of the future, not of the past.

And naturally, he turned first to the office of his father's attorney—the bleak place where he had conferred so many times in the black days. Old Judge Mason, accustomed to seeing Barry in times of stress, tried his best to be jovial.

"Well, boy, what is it this time?" "Money." Houston came directly to the point. "I've come back to Boston to find out if any one will trust me."

"With or without security?"

"With it—the best in the world." Then he brought forward a copy of the contract. Mason studied it at length, then, with a slow gesture, raised his glasses to a resting place on his forehead.

"I—I don't know, boy," he said at last. "It's a rather hard problem to crack. I wish there was some one in the family we could go to for the money."

"But there isn't."

"No. Your Uncle Walt might have it. But I'm afraid that he wouldn't feel like lending it to you. He still believes—well, you know how fathers are about their boys."

(Continued next week.)

Be an Auto and Electrical Expert

McSweeney Trained Men in Demand at \$40 to \$150 a Week



eager to learn. In eight weeks my methods made a big-money man out of him. And there's no reason why any boy can't do just as well.

Here's one instance of the success McSweeney Training has brought thousands of men:

George W. Smith, West Alexandria, O., has earned over \$800 a month ever since he finished his training. He now owns his own garage and auto agency. When Smith came to me he knew nothing about autos. He was a farmer boy, but my methods made a big-money man out of him. And there's no reason why any boy can't do just as well.

I'll Pay Your Railroad Fare to Cincinnati and Board You for My Full 8-Week Term



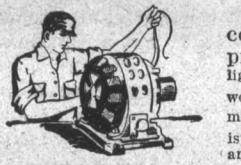
I get calls every day from garages, battery stations, auto factories and so on, for McSweeney-trained men. The big fellows know where to come for men who will make good. Albert Boyer, of Alexandria, Ky., is only 19 years old, but he has been making a big success in his own business for two years. He says my training made him able to win out. To all the calls on me for trained experts, I'm making this wonderful offer, which can be held open for only a short time. I'll pay your railroad fare to Cincinnati, and board you for the full eight weeks.

In 50 Days You're Ready to Command a Big Pay Job



13,000,000 Autos and 1,000,000 Tractors must be kept running. Spend 50 days in my great shops and no job will be too hard for you. Big wages and steady work are certain. "McSweeney Training made me Chief Mechanic of a big plant in three months," wrote Fred Pendley, Blowing Rock, N. C., to me recently.

Electrical Course Included



Every one of my students receives a complete course in practical electricity (a money-making profession in itself). He learns ignition, starting, lighting, power plant and motor and generator wiring—all by the same work-shop job-methods which teach him all about carburetors, transmissions, vulcanizing, battery construction and repair—everything there is to know about any auto or tractor. He learns in 50 days to tackle any machine, in any condition, and "put it on its feet."

"Mac" Trains Men With Tools—Not Text Books You Learn Under Experts in a Wonderful Shop



The Great McSweeney School

I have successfully managed more auto and tractor schools than any man in the world. Now I have been placed in complete control of the former Rahe Auto and Tractor School, of Cincinnati, Ohio. I now can apply still more of the ideas for training auto experts, that made the former Rahe School such a wonderful institution when I was only in partial control. I can say without hesitation that the former Rahe School, now the McSweeney School, is by far the greatest Auto, Tractor and Electrical training institution in the world. Write me and I'll tell you what this splendid school can mean to YOU—to your pay envelope and your future.

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Coleman Mantles are made especially for Coleman Quick-Lite Lamps and Lanterns. Just right in size and shape, in texture and chemical treatment to work perfectly with the Coleman gas-tip and air-intake in producing the wonderful brilliance that has put the Quick-Lite in nearly two million homes. Best for use on any or all gasoline lighting devices.

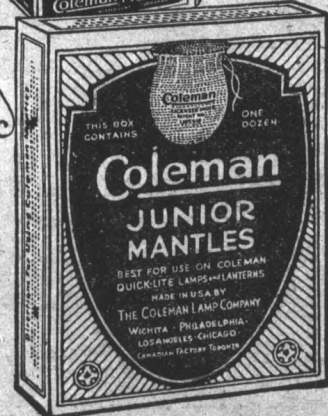
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Buy Them by the Package. Coleman Mantles are displayed on thousands of dealers' counters in the container illustrated here. 12 in a box. Price 10c each, \$1.00 per dozen, postpaid.



100 lbs. Net, Fancy New Winter Caught Pickerels, just in off the Lake, for \$8.50, package 30c extra. Remit with order.

CONSUMERS FISH CO. Green Bay, Wis.

Please Mention The Michigan Farmer When Writing to Advertiser



Woman's Interests



Conveniences Radiate Happiness

Handy Things in the Home Help to Keep Mother on the Farm

WE hear and read so much these days about the discontentment of farm women. Some magazines seem to delight in presenting before their readers the dull, drab, burdensome life led by the soprano sex on the farm.

I remember reading an article in a popular ladies' magazine that read something like this: "The town women pass by in their expensive automobiles and point out the growing grain, the beautiful flowers, the beauty of it all. They say our butter looks golden in the churn. But those same women have never seen my kitchen, hot, stuffy thing that it is; they probably never churned a 'batch' of butter in their lives. They do not know the work attached to it."

This is just a short extract of the original epistle. Doesn't it make you nearly "froth at the mouth?" Perhaps, some farm women have read that same article and looked upon it as authentic. But those of us who are lovers of God's "great, wide, beautiful, wonderful world" look upon it as scintillating rot.

It is not paved streets, the perpetual jingle-jangle of street cars, nor the jostling of elbows that makes some women want to leave their own glowing country firesides and live in the metropolis, a panorama of bright lights. Oh, no, it is usually the conveniences associated with the latter.

Does the farm kitchen have to be a hot, stuffy thing? Not when there is fresh air outside, it does not have to be. Give the average farm woman more light in her kitchen and she will look upon her vocation in a new light. "Whatever lessens woman's work benefits the race." Why not study her daily routine to see if her day's steps cannot be lessened, her day in the kitchen abbreviated a little by a few inexpensive conveniences, which, after all, spell true success?

Any man who is handy with tools can furnish a built-in wood-box. I have been slightly unfortunate in having a husband who is not especially graceful with a hammer and saw. But, nevertheless my ship has come in and I have a built-in wood-box at last.

No woman can work hard all day and "Come smiling through" like a newly-washed window. New linoleum, to cover that bare floor, a kitchen sink, and plenty of water close at hand will make her smile broader than she has done for a long time. Convenience, hominess, a touch of the artistic are within the reach of all.

It doesn't cost a cent more to buy

gay cretonne draperies for your living-room that will strike a note of harmony with the surroundings, than to buy plain scrim or marquisette ones.

The old-new braided and hooked rugs are more beautiful than ever before. They do not look like rags at all; they look like marvels.

There is a gasoline lamp now on the market that is "worth its weight in gold." The initial cost of it is more than a kerosene lamp; the general upkeep, however, is no more. How it does flood the room with its radiance! Truly, it is farm-earned money well spent. It would make even Mrs. Hard-To-Please think she were living in a big town where Thomas A. Edison shines in profusion.—H. Girard.

TO MAKE UNDERWEAR LAST LONGER.

KNITTED underwear, and especially that worn by children, is very likely to stretch, and perhaps to tear at the edges. To prevent this happening, and to about double the life of each garment, stitch white tape around the openings. Do not bind, as this has a tendency to make a hard edge. But baste very close to the edge of the garment, and stitch at each edge so that the tape lies flat. This will be found a very satisfactory method.—E. G. W.

HOOKS BEHIND THE STOVE SAVE STEPS.

WE used to have our fire shovel, poker, soot scraper, and frying pans hanging on nails in the back room. When we purchased a new range, Wife said, "Why can't you fix some hooks on the back of the warming closet to hang things on?"

I took a piece of iron three-quarters of an inch wide by one-eighth of an inch thick, and as long as the width of the closet, made hooks out of two-inch long pieces of the same iron, drawn to a dull point at one end,

drilled holes about six inches apart in the strip and also through the wide end of the hook, riveted the hooks to the strips.

Next I drilled holes in the strip to match the places where the top of the closet is bolted to the shelf, removed the bolts, placed the strip with the hooks in place and replaced the bolts. Now all the stove hooks, pokers, shovel, etc., are right at hand. Wife says it is the most convenient and handy device she has.—E. B. C.

APPLES A LA MANHATTAN.

PARE and core eight medium-sized apples. Make ready round pieces of sponge-cake—one for each apple—an inch in thickness and of the same size as the apple. Sprinkle with sugar and set them in the oven until the sugar melts. Make a syrup of a cup of sugar and a cup of water. Cook the apples very slowly in the syrup. When tender drain and put an apple on each piece of cake. Add half a glass of jelly to the syrup, cook until it is quite thick, then pour over the whole. Garnish with whipped cream and candied cherries.

HELPING MOTHER WITH HER CORRESPONDENCE.

A BUSY mother can write to several of the children away from home by getting typewriting paper and sheets of duplicating carbon paper. Between the sheets of paper, place the carbon. Write heavily on the first to make deep imprint. Pull the sheets apart, add the personal heading and a word of love and kindly advice added and the work of a number is done in the time it would take to write one.—Mrs. F. K.

Use your egg beater to smooth out lumps that oftentimes cook into your cereals, and also for beating frostings instead of using whip or big spoon.—Mrs. S.

Send the Washing with the Milkman

THE feasibility of cooperation in various lines of enterprise has proven it to be an institution based on sound principles. Through it the farmer receives greater marketing opportunities and direct financial gain.

But in this same institution there is an opportunity for the housewife also, the operation is put in cooperation. By means of the cooperative creamery, the output of butter-fat from the farm is made into food products ready to be sold to the consumer with all the work of its manufacture taken out of the home.

But, when the milk man comes along, or the men folks start for town with the milk, why not send the family washing along too? That is what a group of farm women have been doing up at River Falls, Wisconsin, and results have proven very satisfactory. Through a cooperative laundry operated in connection with a cooperative creamery in the past year, 255 families had their family washing done by this unified plan.

This coop. laundry was organized in 1914 and enjoys the distinction of holding the \$300 prize offered by the dean of the Wisconsin Agricultural College for the first farmers' cooperative laundry, which should operate successfully

for one year. For the first year of operation, the business amounted to \$6,343, but increased to \$13,570 in 1921, and the annual statement of last year showed an increase of twenty-one per cent over the latter date.

The only other farmers' cooperative laundry in the United States which has been successful for a term of years and has reported to the department of agriculture, is the Chatfield Cooperative Laundry, at Chatfield, Minnesota. It was established in 1912, and operated in conjunction with the Chatfield Creamery Company. Concerning this laundry, the secretary writes: "The coop. laundry is still popular. Last month eighty-eight farmers sent their washings, at an average cost of \$2.00 per patron."

Every housewife will grant that it takes a full day to do the family washing and ironing. The housewives up in Chatfield, Minnesota, could have this work done at an average cost of fifty cents per week. Since a mother's time for personal recreation or companionship with her family is of such great value, what a splendid thing it would be if only more mothers could have this extra day each week to spend in developing the family circle.



Loyal Carlless is 9, Faith is 5, and they Are Both Contented Farm Youngsters.

Michigan Farmer Pattern Service

Fascinating Styles for Spring

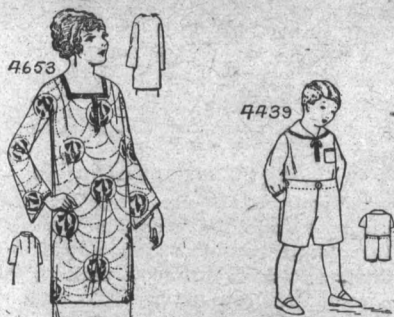
Send twelve cents in either silver or stamps to the Pattern Service Department, Michigan Farmer, Detroit, Mich., for any of these patterns. Be sure to state size wanted, and write your address plainly to avoid delay.

No. 4643—Ladies' Bath Robe. Cut in four sizes: Small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 4 3/4 yards of 40-inch material. Price 12c.



No. 4648—Misses' Dress. Cut in three sizes, 16, 18 and 20 years. A 16-year size requires 3 yards of 40-inch material. The width at the foot is 1 3/4 yards. Price 12c.

No. 4653—A Stylish Blouse. Cut in six sizes, 34, 36, 38, 40, 42 and 44 inches bust measure. A medium size requires 2 1/2 yards of 40-inch material. Price 12c.



No. 4439—Boys' Play Suit. Cut in three sizes, 2, 4 and 6 years. A four-year size requires 2 1/2 yards of 32-inch material. Price 12c.

No. 4668—Girls' Dress. Cut in four sizes, 8, 10, 12 and 14 years. A 12-year size requires three yards of 32-inch material. Price 12c.



No. 4500—Girls' Dress. Cut in four sizes, 6, 8, 10 and 12 years. A 10-year size requires four yards of 36-inch material. Price 12c.

No. 4457—Ladies' Dress. Cut in seven sizes, 36, 38, 40, 42, 44, 46 and 48 inches bust measure. To make the dress as illustrated requires 2 1/2 yards of figured and 4 3/4 yards of plain material. The width of the skirt at the foot is two yards. Price 12c.



No. 4646—Ladies' House Dress. Cut in six sizes, 38, 40, 42, 44, 46 and 48 inches bust measure. A 42-inch size requires five yards of 36-inch material. The width at the foot is 2 1/4 yards. Price 12c.

SCENES FROM HOME.

THAT the farm is a place where working conditions and playing conditions are ideal, was well impressed upon us by the pictures sent in for the contest this week.

A fine bunch of good-looking farm folks were represented and we regret that we cannot publish the prize pictures this week. After the contest closed, it was impossible for the engraver to prepare the cuts before this page went to press.

The winners were: Mrs. E. D. Hudsonville, Mich.; Mrs. L. D. Millington, Mich.; Mrs. L. L. S., Onondaga, Mich.; Mrs. L. G. Coleman, Mich.; Mrs. G. K., Detroit, Mich. Their pictures, with the stories about them, will be our secret until they are printed next week.

DRESSING UP THE LIVING-ROOM.

THAT the walls of our living-rooms should be good looking to make a suitable "setting" for our "good-looking" friends when they come to visit us is the belief of Miss Adele Koch, assistant home demonstration leader.

Before an audience of women at the recent Farmers' Week at the college that taxed the seating capacity in the auditorium of the new home economics building Miss Koch advised the use of neutral colors in all wall-paper or wall finishing. Large and "spotty" designs in paper must be avoided, and if figured paper is used, pictures should not ornament the walls.

The choice of harmonious colors in selecting furniture aids in developing the atmosphere of the living-room. The colors and finish should be in keeping with the use and surroundings. No piece of furniture should grace our homes unless it has a use and is harmonious and beautiful, says Miss Koch.

In the arrangement of furniture, we should follow structural lines and orderly arrangement. As a rule, the library table should not be placed in the beaten path of the room, advises Miss Koch. The best effect is gained by placing rugs at right angles rather than cater-cornered. This rule holds also regarding furniture, with the possible exception of chairs. If pictures are not hung on invisible hooks, the supporting wire should lead to the molding in two parallel lines rather than two converging lines. Miss Koch also illustrated her point by the use of square dailies and round doilies on square tables.

To add the finished touch to the living-room, accessories in the way of candles and holders, bouquets, pictures and calendars are needed, but they must be arranged as a unit of service and of necessity be well chosen. Miss Koch liked the natural pine with woodland berries, rather than artificial flowers, and thought that the majority of living-rooms were spoiled by the use of all the calendars given to the family by the various tradesmen. If we must use them, she advised the rotary method, or using them in rotation, changing for a new one each month. This one should be placed by the desk or table where the family does the writing.

PASS IT ON.

I HAVE derived so much good from your helping page, that if I may be allowed to I should like to contribute these few suggestions.

Use the coarse linen inter-linings that you take from old coats you rip up, and when washed they make wonderful doilies, buffet sets, between-meal cloths, and collar-and-cuff sets, by merely adding a touch of embroidery and crocheted edging.

*Take old stocking legs to re-foot your stockings with. Measure the length of foot to be made, lengthwise of your leg, rounding ends for toe and heels, and sew up. Now slit a hole in one side of new foot just large enough to accommodate the leg you intend to re-foot, and sew. These feet outwear the ones made crosswise.—Mrs. S.



Make every meal delicious with a Vapo Oil Range

Cooks with an odorless, smokeless flame just like a gas stove

The Vapo Range operates like a gas range because it burns gas. It has all of the conveniences of the gas stove and all its cooking qualities. The marvelous Vapo Burner converts the kerosene into gas and burns it with a hot, blue flame that neither smokes or smells. Turned on at full heat, it will operate from 32 to 36 hours on one gallon of kerosene. At a simmering heat, it will burn from 50 to 60 hours. That is real economy.

Vapo Bolo oven bakes and roasts like a gas stove

The cabinet types of Vapo Ranges have a built-in Bolo Oven—a feature found only on the Vapo. The adjustable Bolo plate will make the oven big or little. Bolo means "Big or Little Oven." This makes a more intense heat because it is confined in a smaller space. You can do slow and fast baking at the same time. Vapo is the only oil stove oven that offers you this advantage.

Vapo insures cooking comfort

Vapo construction includes many details which make for cooking comfort. The

cooking top is roomy enough to prepare a large meal without crowding. The high shelf does not interfere with use of a wash boiler on the top and yet is not out of reach. The range is the right height to prevent back strain. Bolo oven doors drop to form shelves when needed. The oil tank is placed right for easy filling and the range sets flush against the wall. A range to treasure and be proud of. Have your dealer show you a Vapo.

Use the coupon for free booklet

Vapo Oil Ranges, Heaters and Water Heaters are sold by one high grade hardware or furniture dealer in nearly every community. If your dealer has none in stock. Write us, giving us his name and we will see that you are supplied.

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How to Make Money Raising Foxes

If you get the right start, fox raising will pay you enormous profits—they are almost unbelievable. We show you how—we start you right. On a small investment you can start on the road to fortune.

THE BIG SECRET OF SUCCESS

In the fox raising business is getting the right foundation stock from reliable breeders. We have the finest stock in the country—animals with show records—Don't take chances—get your foundation stock from us and be on the safe side. Let us start you right. Write today for full particulars.

DeLuxe Silver Fox Ranch, Manistee, Mich.

An Easier Way to Wash Clothes

RED SEAL LYE

WOMEN on farms everywhere have found a way to wash clothes that relieves them of the drudgery of this dread task. They now use Red Seal Lye to soften the wash-water and loosen the dirt. Clothes emerge whiter and cleaner than ever.

Be Sure and Buy only the genuine Red Seal Lye

Write for FREE booklet, "Home Helps"

P. C. TOMSON & Co. Philadelphia, Pa.



FACTS FOR FARMERS Things Our Readers Want to Know

Red Seal Lye in the dairy keeps utensils spick and span. Separator bowls—usually so difficult to clean—are quickly made bright and odorless. It should not be used on aluminum utensils.

By sweetening hog-swill with lye hogs are made plump and healthy and protected from becoming a prey to dread cholera germs. The lye mixture acts as a stomach-cleanser.

Red Seal Lye is great for making an inexpensive and efficient sheep-dip.



Use this department to help solve your household problems. Address your letters to Martha Cole, Michigan Farmer, Detroit, Michigan.

TO REMOVE VARNISH.

Would you please tell me how to remove varnish?—Mrs. R. H.

There are several commercial varnish removers on the market, or you might use this method: Wash the surface with strong lye solution. Use a scrub brush so the hands will not have to touch the water. When the varnish disappears wash two or three times with clear water. If any spots of varnish remain, rub with wood alcohol. Sandpaper the entire surface before refinishing.

CREAM PIE.

I would like to know how to make a cream pie. I tried several times and always spoiled it.—Miss C. S. K.

This is a well tested recipe and I believe you will like it.

Cream Pie.

1 cup milk 1/2 cup sugar
2 eggs 1 heaping tb. butter
1 tb. corn starch Pinch of salt

Heat the milk to boiling, stir in the corn starch, add the butter and let cool. Add flavoring before filling the pie crust. Beat the egg whites with two teaspoonfuls of sugar and put over the top of the pie. Brown in the oven for a few minutes.

DOUGHNUT RECIPE.

I should like a good recipe for fried cakes, some which do not take up the lard.—Mrs. W. A. H.

I believe you will like this recipe.

Doughnuts.

1 cupful sugar 1 tsp. salt
1 egg 1/2 tsp. cinnamon
2 tb. butter 4 tsp. baking powder
Flour to make a soft dough 1 cup milk

Cream the butter, add the sugar and

beat until light. Stir in the well-beaten egg and the sweet milk. Sift the baking powder, salt and cinnamon with one and one-half cupfuls of flour and stir this mixture in, adding sufficient flour to make a soft dough. Roll half-inch thick and cut. Fry, drain and when partly cool, sprinkle with powdered sugar.

Be sure your lard is sufficiently hot before putting in the cakes, and they will not then tend to soak up so much grease. A good method for ridding fried cakes of excessive grease is to dip them into boiling water the instant they are taken out of the hot fat. Then put them in rows to drain.

GREASE SPOTS ON LEATHER.

Would you please tell me how to remove grease spots from a leather chair?—Mrs. S. D.

To remove grease spots from leather, apply beaten egg white to the spot. Set in sun to dry, and then brush off.

MENDING BROKEN GLASS.

I have broken a designed glass for the door of my cabinet, and am anxious to mend it. Can you suggest anything to use?—Mrs. H. H. J.

I believe you will find the following cement a very good one for the broken glass door in your cabinet. This may be used to cement either china or glass.

Mix one pint of milk with one pint of vinegar. Take out the curds and to the whey add the whites of five eggs. Beat well together and add enough finely sifted quicklime to make a thick paste. This cement is neither affected by fire or water.

Remember a hot dish for the children's lunch.

STRAWBERRY PLANTS Complete line of Small Fruit Plants, Asparagus Roots, Roses, Gladioli, Perennials, Ornamental Shrubbery, Etc. CATALOG FREE. WATSON'S STRAWBERRY ACRES Grape Vines \$25 and up per thousand. R. 8, Box 7, Grand Rapids, Mich.

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is different from any other preparation. It is made from oils extracted from wool of sheep—wonderfully healing. If after trial you find it the greatest healing ointment you ever used, send \$6 in payment at end of 20 days—if not, you won't owe us a cent.

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Dept. 14, Kenton, Ohio

Aspirin

Beware of Imitations!



Genuine "Bayer Tablets of Aspirin" have been proved safe by millions and prescribed by physicians over twenty-three years. Aspirin is the trade mark of Bayer Manufacture of Monoacetic-acidester of Salicylic acid.

Keep Your Machine Fit

GIVE your sewing machine a chance to give you work," is the advice of Miss Hazel Manning, of the home economics department of the University of Wisconsin. The spring sewing, which is usually started after the holidays, will be more easily done if the sewing machine is in shape.

The equipment for the upkeep of the machine may consist of: cleaning cloths, a can of the best grade oil, a brush to free the "feed" from lint, a screw driver, a wrench, and an inexpensive strap-cutter and punch to repair the "belt."

"Oil can make or mar your machine," says Miss Manning. "Poor oils have a tendency to gum and to make it run hard. The gummy substance can be removed best by dropping a little alcohol into the oil holes and running the machine for a short time unthreaded. A reliable oil should then be used. Ordinarily, once a month is often enough for oiling, but a machine that is in constant use should be oiled sparingly every day. It is the quality,

not the quantity, of oil that is important," she declares.

In cleaning, silk or linen cloths are preferable to those of cotton or woolen as the latter leave loose threads and lint on the machine.

Always close the machine when through using it. Dust tends to collect in the oil and causes the machine to work very hard and even to squeak. In such cases, remove the head of the machine from its table and soak for twenty-four hours in kerosene. At the end of this time it should be wiped thoroughly, replaced, and oiled.

Poor stitching may be due to different causes. "Skip-stitching," declares Miss Manning, "may mean that the needle is too fine for the thread, is bent, or is incorrectly threaded or set. If the stitch underneath is poor, it means that the top tension needs adjusting. If the stitching on top is not satisfactory, the bottom tension is at fault. Needles are easily bent if the thread is pulled forward instead of backward under the presser-foot when the material is removed from the machine."

Care in operating a sewing machine will add years to its life. Continual dropping of the presser-foot will gradually dislocate the feed. "Exceeding the speed limit" in stitching injures the machine and results in poor work. Cloth should never be pulled through a machine.

"Do not cast aside the attachments," concludes Miss Manning. "The time spent in learning their use from an instruction book is more than paid for in the end by unthought-of results in tucking, gathering, and hemming."



Thomas Martin, of Tustin, is the Proud Granddaddy of These Happy, Healthy Twins.

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Rural Health

By Dr. C. H. Lerrigo

THE TREATMENT OF DIPHTHERIA.

SEVERAL readers have asked me to discuss the value of anti-toxin in diphtheria and the question as to whether it does harm by inducing paralysis. There are many doubtful things in medicine, but the use of antitoxin in diphtheria is not one of them.

I do not mean by this that there are no problems as to the administration of anti-diphtheritic serum, but there is no question whatever that its use has lowered the death rate tremendously. It is quite common for prejudiced persons to charge everything that goes wrong in a case of diphtheria to the anti-toxin, and to insist that bad results remain for years.

Persons of experience can remember, however, that long before anti-toxin was introduced there constantly occurred cases of paralysis following diphtheria. If there are more of that nature now (which I am not prepared to admit) the logical explanation is that in the old days cases of this serious type died, whereas under the influence of the anti-toxin they recover, though with the disability of a partial paralysis which usually disappears under proper care.

The chief drawback to the universal success of treatment of diphtheria by anti-toxin is failure to use it in the early stage. Bear in mind that the serum only neutralizes the poison, it does not throw off that which has already invaded the system. So if a child be allowed to remain untreated until the last stage of the disease the little one may die from the effect of the poison already generated, even though the anti-toxin effectually stops the further ravages of the disease.

OPERATION FOR RUPTURE AT OLD AGE.

I would like to inquire through your medical department, about the advisability of having a surgical operation for a double rupture on a man seventy-seven years old. Have not been able to get a truss that would hold the parts in, and it is very difficult to do any work under the circumstances.—W. B. F.

Reviews of Good Books.

"The Soul of Abraham Lincoln," by Bernie Babcock, \$2.00.

This book is based on facts, and recreates scenes, characters and history with life-like fidelity and while it is a book of facts it is as interesting as fiction ever dared to be. A book that will be cherished and discussed by all admirers of Lincoln.

All who know Lincoln through the books which have been written about him, know that it was his serene spirit that was the strength of the nation, and it is interesting to read about this great leader. This book is not only a true human portrait of Lincoln, but also relates the political intrigue of the day, and many other things are brought to light which have never been published before.

A most charming love story also is interwoven with this story about Lincoln. It is of a lovely daughter of the South and a Union officer. The stamp of greatness was indeed a "Lincoln mark" from his early years, and to read "The Soul of Abraham Lincoln" is to receive even a greater impression of his "Impressive Greatness."—J. B. Lippincott Company, Philadelphia, Penn.

"Boys and Girls in Bookland." Illustrated by Jessie Wilcox Smith, \$2.50.

This book is a treasure in any child's library, as well as adult. Its

A skillful surgeon may be able to perform a satisfactory operation even though you are seventy-seven. He would probably do the work under a local anesthetic, which is quite commonly used for rupture operations, no matter what the age. I have a record of a serious operation performed with good results on a man aged ninety.

GALLSTONES—BABY'S DIET.

1. What are the symptoms of gallstones and Bright's disease? 2. At what age does the change of life begin? Could you give a diet for a baby fifteen months old after weaning? 3. What are the symptoms of a gathering in the head? My baby acts as if he had one in his head.—Mrs. C. E.

1. These would fill a book. We cannot spare enough space to give even the principal symptoms.

2. Generally occurs from forty-five to fifty. No specific age.

3. If the baby is fifteen months old he may have about one quart of fresh milk daily, a well-cooked cereal for breakfast, a little meat broth or vegetable soup once a day, zwickel or dry bread, prune juice, orange juice, or tomato juice, (the juice of canned tomatoes will do), and plenty of fresh water.

4. A gathering in the head is usually an ear abscess. The baby is feverish, pulls at the ear, cries frequently and often rolls the eyes and gives other evidence of pain.

TROUBLED WITH ITCH.

I am a young farmer, twenty-two years old and seem to be in perfect health, only I am bothered with some kind of an itch. It is mostly on my legs, also some on my arms. My skin seems to be covered with small scales, which come off if rubbed, and the more I scratch them the more they itch. Have tried different kinds of salves, but they only help for a short time. I would like your advice very much.—W. A. R.

This may be scabies. If so, it is contagious and may spread to others. A sulphur ointment will cure scabies but I do not advise you to go through the disagreeable process of applying it until you have some competent doctor see it and confirm the diagnosis.

eleven illustrations are so delightful and the book being of such generous size, will afford anyone desiring to do so, opportunity to remove and frame. If you have a child to whom you wish to introduce good reading and the appreciation of good literature, this book offers the real "beginning," for its contents are tales woven around the famous children of literature.

"The Adventures of Maya, the Bee," by Waldemar Bonsels, \$3.00.

This book was published only a year ago, and nearly half a million copies have been sold. It has been translated into seventeen languages, which proves indeed, that it has become a children's classic. There is such inimitable beauty and charm and delicious humor about the adventures of this bee, that grown-ups will gain much by reading it. The reviewer preferred to delay the Sunday dinner for several hours, rather than lay Maya, the bee, aside unfinished. This book breathes of good will, kindness, the beauty of charity, and all who can see and feel will indeed recognize the worth of this book. This book helps one to see the beauty, even in ugly things in this world of ours, and I know you will love to read this book to your children, or have them cuddle up in a cozy corner and read to themselves.—Thomas Seltzer, New York.

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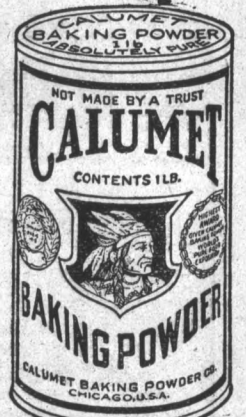
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THE WORLD'S GREATEST BAKING POWDER

More and Better

Home Grown Fruit

to eat and preserve.

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to beautify the grounds.

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Illustrated in natural colors from actual
specimens, is yours for the asking.

CHASE BROTHERS COMPANY

The Rochester Nurseries

Service Dept. D Rochester, N. Y.
Sixty-seventh Year

Don't neglect a Cold

Dangerous sickness often
starts with a cold. Ward off
your colds with Musterole
before pneumonia starts.

Musterole is a clean, white ointment
made with oil of mustard. It has all
the healing properties of the old-fash-
ioned mustard plaster but none of the
unpleasant features.

Musterole is not messy to apply and
does not blister.

At the first sneeze or snuffle take
the little white jar of Musterole from
the bathroom shelf and rub the oint-
ment gently over the congested spot.

With a tingling warmth it penetrates
the skin and goes right down to the
seat of the trouble.

Rheumatism, tonsillitis, lumbago,
coughs and colds are all symptoms
that call for Musterole.

To Mothers: Musterole is also made
in milder form for babies and small
children. Ask for Children's Musterole.

35c and 65c jars and tubes; hospital size, \$3.

The Musterole Co., Cleveland, Ohio



BETTER THAN A MUSTARD PLASTER



Children's Colds

Children's colds are decidedly
more dangerous than those of
adults and, until Muco Salve was
discovered, probably more difficult
to treat because the child's stom-
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Muco Salve is applied externally
and the treatment is so pleasant the
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ply the salve in each nostril, rub
on throat and chest then cover
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Muco Salve in the house always.

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A LIMITED OFFER—Other Sizes Less
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Cooks entire meal over one flame in 30 minutes;
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12 qt., \$17.75; 17 qt., \$21.25; 25 qt., \$24.75.
Reference, Peoples Stockyards State Bank.

Star Pressure Cooker Co.
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Write for literature

To raise 95 out of 100 chicks use

DICKINSON'S Globe Chick Mash
(With Dried Buttermilk)
The Albert Dickinson Co.
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Biggest Hatches Strong Chicks



That's what you'll get with a Champion Belle City Hatching Outfit. My Free Book "Hatching Facts" tells how—gives newest ideas and quickest ways to make poultry pay big with my

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140 Egg Incubator 230 Egg
Double Walls Fibre Board—Hot Water Copper Tank—Self-Regulated Safety Lamp—Thermometer & Holder—Egg Tester—Deep Nursery. **\$6.95 buys 140 Chick; \$9.95 buys 230 Chick** Hot-Water Double Walled Belle City Brooder. Save **\$1.95**. Order both. **140 Size Incubator and Brooder, Only \$18.95** **230 Size Incubator and Brooder, Only \$29.95**

Express Prepaid

East of Rockies & allowed West. **Low Prices on Coal and Oil Canopy Brooders** come with catalog. With this **Guaranteed Hatching Outfit** and my **Guide Book** you can make a **big income**, besides sharing in my **\$1000 in Gold and other prizes**. Save time—Order now or write today for my **Free Book "Hatching Facts."** It tells an interesting story. —Jim Rohan, Pres. Belle City Incubator Co. Box 14 Racine, Wis.



140 Egg Incubator \$13.25
30 Days Trial

Freight Paid east of the Rockies. Hot water, copper tanks—double walls—dead air space—double glass doors—a real bargain at \$13.25. Shipped complete, set up ready to use.

140 Egg Incubator and Brooder - \$17.75
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180 Egg Incubator and Brooder - 22.00
250 Egg Incubator Alone - 22.75
250 Egg Incubator and Brooder - 31.00

Made of California Redwood. Positively the best value on the market. Order direct from this ad. 30 days trial—money back if not pleased. If not ready to order now, don't buy until you get our 1924 catalog which shows larger sizes up to 1000 eggs.

WISCONSIN INCUBATOR CO. Dept. 120 Racine, Wis.

140 EGG Incubator
EXPRESS PREPAID \$13.85

Shipped complete, set up, ready to run, express paid east of Rockies.

Made of California Redwood, covered with galvanized iron, double walls, air space between, built to last for years; deep chick nursery, hot water heat, copper tanks.

140 EGG INCUBATOR WITH BROODER \$19.75
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260 EGG INCUBATOR, WITH BROODER 32.90
30 days' trial—money back if not O. K. —FREE Catalog Ironclad Incubator Co., Box 91 Racine, Wis.

WORLD'S CHAMPION LAYERS

Hollywood and Improved English S. C. WHITE LEGHORNS. The American Business Hens: 250-300 egg bred line. Large White eggs. Winners at National Shows and Egg-Laying Contests. **HIGHEST QUALITY CHICKS** from certified tested hens mated to high power pedigreed sires. Discount on early orders. Valuable **INSTRUCTIVE CATALOG FREE**. DEVRIES' GRANDVIEW POULTRY FARM, R.R. 6, Zeeland, Mich.



Baby Chicks S. C. W. Leghorns

Pedigreed Certified
Michigans Largest S. C. W. Leghorn Farm, over 2000 Birds. Hatch our own eggs only. Supply limited. Order early. One trial will convince you. Free Circular. **SIMON HARKEMA and SON, R. 1, Holland, Michigan**



POULTRY HOUSE CONSTRUCTION.

IN his address before the Michigan Poultry Producers' Association, C. M. Ferguson stated that birds require more air than other animals and a poultry house must have dryness, light and ventilation. The ideal equipment for the small farm flock would be one laying-house and one brooder house. The brooder house can be ten feet wide and ten feet deep, built on skids and this is a large enough load for a team when the house is moved to clean soil for the growing of the chicks.

The dirt floor in laying-house is a carrier of disease, unless five or six inches of the soil are removed and replaced each year. Board floors are all right, but expensive. Concrete floors are the most economical in the end. Fill in with field stone about six inches to break the rise of capillary moisture. An asphalt top on the floor helps to keep it dry. All of the floors in the contest houses are covered with a thin layer of asphalt over the cement. The asphalt paint is put on cold and allowed to harden for about three days and this keeps down the capillary water.

The Michigan poultry house which is giving good satisfaction, has a height of nine feet. The back wall is four feet six inches, and the front wall three feet six inches. The roof lights are of green sash to give an even distribution of light throughout the house. There are back windows to prevent the litter from stacking up near the back of the house and help in summer ventilation. Hens face the light when they scratch and the litter must continually be forked toward the front if the house has no back windows.

The ventilator for the Michigan house can be of galvanized pipe or wood about twelve or fourteen inches wide, and it is found that the wood ventilator is best. This type of ventilator helps to take the moisture from the straw and should extend to eight-een inches from the floor. Summer ventilators can be placed in the roof or near the top of the ventilator shaft to reduce the heat in summer. This proves quite necessary, due to the increase of heat in the house, which results from the windows in the roof.

Enough roosts should be provided in a poultry house to allow eight inches per bird. The roosts should be nine inches from the front of the dropping boards and nine inches from the back and they should be fourteen inches apart. Old sheds or sheep barns can sometimes be used for poultry houses by using a straw loft for ventilation. The waste oil from a crank case is fine to kill mites. The nests should be a foot square and hinged to the wall, and about one nest to six birds is a satisfactory ratio.

CHICK PRODUCERS FAVOR CERTIFICATION.

AT the Michigan Baby Chick Producers' meeting in East Lansing the members emphasized the need of state supervision of Michigan hatcheries. The plan of certification is not advanced to raise the cost of chicks to the buyer or increase the price paid the farmers for eggs by the hatcheries. It is to insure that the customer will receive good chicks so he will be more willing to buy. In this way it is hoped the hatchery will become more and more a substitute for the hen on the farm and many farmers will annually buy 100, 200, 300 or more chicks for the development of their pullet flocks.

It is hoped that the hatchery men may secure a man who will act as a sort of "Judge Landis" of the baby

chick business. Such a representative might have his office in Lansing and act as the supreme arbitrator in the problem that will confront the chick producers. This would mean supervision of the men who cull flocks and certify them.

He would also have some control over the advertisements of members and help them to tone down any statements concerning the quality and laying ability of their stock which they might ever have a tendency to overdraw.

D. E. Hale, of Chicago, discussed the Illinois system of certification and recommended that there should be a supreme court like the International Baby Chick Association to make uniform rules that will apply to all states. In this way the hatchery located near a state line will not be handicapped in obtaining eggs for hatching from a certified flock in the next state.

It is admitted that at this time little can be done to extend certification work during the coming spring, but the writer believes in the sincerity of the hatchery men to produce high quality chicks. Another meeting will be called in the near future to take up definite plans regarding future methods of certification.—G.

RABBIT RAISING NOTES.

JUDGE ECKERT, of Chicago, addressed the rabbit raisers during Farmers' Week at the college. He said the department of agriculture now have a rabbit experiment station and have issued three bulletins which can be obtained by producers. There are now about 100,000 registered rabbits. The average life of a rabbit is about seven years. The average litter is six and there can be four litters a year.

Sixty per cent of the furs sold are rabbit hides, and meat rabbits are now bringing about thirty cents per pound dressed, and fifteen cents per pound live weight. Rabbits are subject to colds, so the outside hutches are best, with three sides closed and a drop curtain in front to use in severe winter weather.

Rabbits are strictly vegetarian and it is found that many producers do not become sick of rabbit meat as soon as they do of poultry, if both are used regularly on the table. The domestic rabbits are good at all seasons and do not have a game taste. In feeding rabbits oats and hay of only the best quality should be used.—K.

CLEANING THE INCUBATOR.

I ALWAYS keep equipment handy to clean my incubator trays after each hatch. This consists of an old dish pan, a stiff scrubbrush, a wide, rather dull chisel, a hand potato sprayer, and a can of commercial coal tar disinfectant. The crust of droppings are first pecked from the trays with the chisel. Then a hot solution of disinfectant and the scrub brush are used to remove the remaining dirt.

Then the wire trays and the cloth-covered dust trays are rested against a wire fence and given a thorough spraying on both sides with disinfectant. They are given several hours of sunshine and drying in the fresh air and are then ready for the next hatch.

I clean out the inside of the incubators with a brush having a handle about three feet long. Any dirt plastered to the sides is loosened with the chisel. Then the inside of each compartment is sprayed with the disinfectant from the potato sprayer and the doors are closed. This equipment is always kept assembled in the old dish pan during the hatching season and it saves time

POULTRY

BABYCHICKS

The season of 1924 opens with some fine breeding pens in the 10 varieties of **PURE-BRED PRACTICAL POULTRY.**
Barred Rocks, Anconas, Rhode Is. Reds, Leghorns—White, Orpingtons, Brown, Buff

In the White Leghorns a Superior Egg Quality in the D. W. Young American type and in the English type.

It is now time to be looking after your Chicks for this season. Send for our descriptive matter and price list. You will be interested in the egg records our customers report.

Cockerels—A few unsold in Barred Rocks, and White Wyandottes.

STATE FARMS ASSOCIATION, Masonic Temple, Kalamazoo, Michigan.

PURE BRED BABY CHICKS

We have been carefully developing our flocks for eight years. Every chick pure-bred and from stock carefully culled, for type and production. Our chicks give satisfaction. Order today and get chicks when you want them.

Wh. Leghorns	50	100	500
Bd. Rocks, R. I. Reds	\$7.00	\$13.00	\$62.00
Wh. Wyandottes, Wh. Rocks	8.00	15.00	72.00
Wh. Wyandottes	8.50	16.00	77.00

Postpaid. 100 per cent live delivery. You take no chances. Ref. Farmers' & Mechanics' Bank, this city. No catalog. Order from this ad. **WASHTENAW HATCHERY, R. 5, Ann Arbor, Mich**

BUY DUNDEE Bred-To-Lay Chicks and Get The Right Start

Best utility and exhibition matings. Barred Rocks, 230 to 302 egg strain. R. I. Reds, Liddicoat's best Anconas direct from Sheppards. White Leghorns from Michigan Agricultural College. 100 per cent live delivery. Reference, Dundee State Savings Bank. Write for our 1924 catalog and price list; it will save you money. **THE DUNDEE HATCHERY, Box A, Dundee, Michigan.**

BETTER CHICKS MORE OF THEM

Barred Rocks, 50, \$8; 100, \$15; 500, \$72.50. Anconas, 50, \$7.50; 100, \$14; 500, \$67.50. White Leghorns, 50, \$6.50; 100, \$12; 500, \$57.50. Chicks from well-culled, vigorous, high-producing, free range flocks. Order direct from this ad. and avoid disappointment. Prompt Delivery. Our 6th year. Good Reference, **DILIGENT HATCHERY, Route 11 Holland, Mich.**

Wishbone Hatched CHICKS

The finest day-olds money can buy. Strong, big from free-ranged stock. All popular varieties. Shipped by parcel post. Write for moderate price list.

Wolff's Hatchery, R. 11, Holland, Mich.

PURE BRED CHICKS

Real producers. Flocks culled by expert. Beautiful breeding stock. Barred Rocks, R. I. Reds, 50, \$8; 100, \$15; 500, \$72.50. White Leghorns, Anconas, 50, \$7; 100, \$13; 500, \$62.50. Leghorns are Barron stock. None better. 100 per cent live delivery guaranteed. Order from this ad and get chicks when you want them. You take no chances. Ref. McLachlin State Bank, this city. **Petersburgh Hatchery, Petersburgh, Mich.**

Chicks with Pep

Try our lively and vigorous chicks from bred-to-lay and exhibition hens. They will make you money for they have the quality and egg-laying habit bred into them. A trial will convince you. All leading varieties. Safe delivery. Prepaid. Prices right. Bank reference. Big, illustrated catalog free.

Holgate Chick Hatchery, Box M, Holgate, Ohio

QUALITY CHICKS AT REASONABLE PRICES

English White Leghorns, Parks' Strain Barred Rocks, S. C. Black Minorcas, Reds and Anconas. My pen (10) at the 1923 Mich. Contest finished third among all heavy breeds, four hens making records over 200 eggs each, and one with a record of 254 eggs was seventh highest individual for the entire contest, 990 birds competing. Catalog free.

PINE BAY POULTRY FARM, HOLLAND, MICH.

SUPREME CHICKS

LAYERS! That's what you want. Standard Chicks are from just that kind of flock. Our strain of Supreme Laying White Leghorns is the result of our many years' experience, breeding and selection. They are large sized, long deep wedge shaped bodies, keen alert eyes, large lopped combs. The kind you will be proud of and eventually buy. Shipped postpaid. 100% Live delivery guaranteed. Illustrated catalog sent free.

STANDARD HATCHERY, Box A, Zeeland, Mich.

RELIABLE CHICKS

S. C. English White Leghorns and Barred Rocks. Every chick from carefully mated, culled, pure-bred flocks owned and developed by us for 15 years. Leghorn males from trapped 280-egg hens. Free catalog. Write for prices. **RELIABLE HATCHERY AND FARMS, 74 E. 16th St., Holland, Mich.**

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

Black Brown, Buff, White, Brahmas and Orpingtons. Anconas and Minorcas, Reds, Rocks, Wyandottes. Allegan Hatchery on Highway No. 89. Send for 1924 price list. Crescent Egg Company, Allegan, Mich.

in renovating the machines after each hatch in preparation for the new eggs.—Kirby.

FEEDING DUCKLINGS.

My ducklings were six weeks old last Saturday, and have been feeding them a mash as recommended in the Michigan Farmer, since they were hatched. Shall I change it?—Miss E. L. B.

Ducklings are often marketed at eleven or twelve weeks of age when they should weigh about five pounds

or a little over. In such cases they can be given the following ration for about two weeks before the marketing date. Three parts by weight of corn meal, two parts middlings, one part bran, one-half part beef scrap. To this mixture add about three per cent sand and ten per cent green food.

If the ducklings are to be held as breeding stock the same ration will keep them growing although it can be given in smaller quantities and no great effort made to force the growth of the birds. They should be given as much range as possible.

Egg Marketing in Missouri

By J. D. Harper

THE most extensive program that has been undertaken in the co-operative marketing of poultry and eggs in the middle west, is in operation in Missouri under the direction of the Missouri Farmers' Association. This association of farmers has a membership of 70,000 which sells through over 400 exchanges or collection points where the eggs are first assembled for the centralizing plants. There are nine of these centralizing or carlot shipping points where the eggs are handled and graded for carlot shipment. Poultry is fed and dressed for the market at these points, also.

Supplies such as feed, flour, auto tires, oils and greases, salt and some other commodities are bought in large quantities and distributed to poultry and egg producers through the exchanges. The state association buys on large contracts which nets them the usual brokerage fees on these commodities. Recently a contract for 550,000 egg cases was let to one concern. Association officials state that thirty-eight per cent of the twine sold in the state last harvest was handled through their exchanges. Fertilizer is also sold at less than dealer prices, at least before the exchanges started competition, according to Mr. H. C. Cowden, secretary-treasurer of the Missouri Farmers' Association.

The smallest unit of the association and the first assembling point for eggs and poultry in many instances, is the school-house club. Mr. Cowden says they have 3,000 school-house clubs which are the Gibraltar of the association. These farm clubs with their families, meet for their monthly club meetings, which are both social and educational gatherings. They bring their eggs and poultry and from here some neighbor delivers the lot next day to the exchange. More frequently, however, the eggs are delivered direct from the farm to the exchange.

A paid manager is in charge of the exchange. He may be a former elevator manager, small business man, some farmer or farmer's son who is selected to look after the business. The exchange is financed by stock subscriptions from producers, usually at \$10 per share. Their business is controlled by a board of directors, varying in number, but averaging about nine. Stock in the exchange may pay dividends up to eight per cent. All earnings about eight per cent are pro-rated back to the members as a patronage dividend on all products marketed by the association, including the eggs, poultry, cream, live stock, grain or other products sold and also on the supplies purchased through the exchange. In other words, the farmer who sells \$500 worth of poultry and eggs, \$200 worth of grain, and buys \$300 worth of fertilizer, is entitled to a patronage dividend on \$1,000.

The officers of the state, county and local associations do not consider the exchanges as country stores in any sense, although in some respects they are similar. In visiting some of these exchanges it was observed that the work of these managers varied. Some act as manager of the live stock shipping association and handle the other business of the exchange, while others

manage a grain elevator, receive and ship cream, eggs and poultry and sell merchandise. There is considerable adaptation on the part of the managers to the needs of the community. The manager is there to serve his stockholders, according to state officials, in whatever capacity the exigencies of the situation may require.

A visit was made to the poultry feeding and packing plant of the association at Sedalia. This plant is a substantial frame building well equipped with feeding batteries, cold storage and candling facilities, and a feeding capacity of 35,000 chickens, and a killing capacity of 1,800 per day. Mr. H. W. Mullen, the manager, says that the plant was financed by 1,600 farmers, who purchased the \$20,000 worth of stock sold. The Sedalia plant, he states, will handle approximately 1,500 cars of eggs, poultry and product by the close of their fiscal year. Each of the nine plant managers are now selling eggs and poultry independently, he says, although they expect soon to have a man on both the Chicago and New York markets who will make their prices, which will be uniform for the nine plants. Mr. Mullen is not now supervised in his sale of either poultry or eggs, but consigns to the best market according to his judgment. The Sedalia plant cooperates in the distribution of auto tires, feed, etc., handled by the Missouri Farmers' Association. The producers have a large competitor at Sedalia, but are getting as much business as they can handle conveniently. The competitor stated that he has not been affected by the producers' competition.

The association has made no great improvement in the handling of eggs and poultry so far as the investigation showed. Neither the exchanges nor the centralizing plants are in a position to tell the producer how his eggs graded or what price he should receive. However, association officials state that the next step in their program is buying on the basis of grade or quality of eggs and poultry. Producers are now paid on the basis of current receipts and the exchanges, like most of their competitors, buy on a safe margin to take care of all losses in candling and grading. Of course, the producer may get the advantage in a patronage dividend at the end of the year, but under the system now being followed, profits on eggs may be wiped out by losses on flour, feeds, fertilizers and other merchandising enterprises conducted by the exchange.

Plans are now under way to sign the membership on a marketing contract covering all products sold from the farm. The association will take \$1.00 and the farmer's note for \$10 when he signs the blanket contract and agrees to merchandise his surplus products. The officials of the Missouri Farmers' Association state that they expect to get 120,000 farmers to sign this contract which binds them for a period of five years.

The skeleton or framework has been created for a serviceable cooperative poultry and egg marketing organization in Missouri. Competent management, strict accounting and returns to producers on the basis of grades are important planks in their platform for the future.

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From our BARRON ENGLISH & HOLLYWOOD STRAIN matings. OUR LEGHORNS are utility bred with the standard requirements. VALUABLE CATALOG FREE —it describes our wonderful breeding establishment and gives feed formulas—10 per cent discount for early orders. KARSTEN'S FARM, Box Y, Zeeland, Mich.



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Quality Leghorn Chicks

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Hollywood and improved English Barron strains of 250-287 egg lines. The most profitable hen.

50	100	500	1000
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From high grade, heavy egg producing strains of S. C. White Leghorns, S. C. Rhode Island Whites and White Wyandottes. All from pure bred, healthy, vigorous stock carefully culled and tested to insure your getting chicks that will be easy to raise, develop rapidly and become heavy winter layers. Shipped postpaid. 100% live delivery guaranteed. Catalog free.

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And eggs for hatching. Rose and Single Combs. Michigan's greatest color and egg strain. Bred from fourteen generations of winter layers. Write for free catalog. Interlakes Farm, Box 39, Lawrence, Mich.

OUR BOYS AND GIRLS

What the W. B. Didn't Get

Some Interesting M. C. Letters

Dear Uncle Frank:

I am going to try your contest again. I tried before but I got one wrong. I am not a M. C., but I hope I will be soon.

Don't you think every M. C. ought to be a true Merry Circle? I saw a certain story in one of the contests that I read in my little sister's Sunday school lesson. Uncle Frank, I know that I shouldn't have told, but thought you might want to know, maybe.

From a very-much-like-to-be-niece, Helen M. Piper, Spruce, Mich.

I am glad you told about that story. Whenever any M. C. sees anything of that sort I wish he would write me about it. We want M. C.'s honest, because that is the only way to be fair to other M. C.'s. Besides, it's the only way one should be anyhow.

Dear Uncle Frank:

Say, Uncle Frank, I want to ask you a question. My sister says we should use ink when answering contests. Do we? I haven't time in school as I am working to pass the eighth grade examination. I haven't any good pen at home.

I just love to read, so I enjoy the "Read-and-Win" contests best. Don't you think it is a good way to get the future farmers in the habit of reading the Michigan Farmer? When we work out the contest we have read it from "Kiver to Kiver."

I guess I had better stop and do some studying now, so good-bye, Uncle Frank.—Your niece, Gertrude Holton, M. C., Merrill, Mich.

You have the right idea about the Read-and-Win contests. No, it is not necessary to use ink. Good pencil writing looks just as good to me as that in ink.

Dear Mr. Puddin' Tame:

You see, I like it if Dorothy doesn't. I have tried for a Read-and-Win contest but I don't expect anything, but anyway I had the fun of looking them up. I have tried three times but I haven't any intention of quitting just yet.

I think we ought to mention honesty in our "Work-and-Win" don't you? Someone wrote you about two weeks ago (a poem) and said her mother helped her. I am glad one was honest enough to tell us anyway. I think the same as you do.

Hoping to be a M. C., I am a hope-to-be-niece, Beatrice Leggerdine, Clarkston, Mich.

Yes, we must be honest, for honesty is the only thing that pays. I have found some other than honest and they don't know that I know it. I am sure they do not enjoy the rewards they have won near as much as they would if they had been honest.

Dear Uncle Frank:

I do not like the farm for one reason: there is too much hard work. Otherwise I think it's splendid to roam about the fields and ride horseback, go flower hunting in the spring, and every other thing that girls can do.

I must close, because nobody else but Mr. W. B. will get this. With love, your want-to-be-niece, Lydia Villwock, R. 3, Miles, Mich.

It seems to me that the advantages of farming which you give overcome the disadvantages you give. There is no line of work but what one can find some disagreeable things about. Please remember the farthest pastures most always look the greenest.

Dear Uncle Frank:

I thought that you would like to hear from a Keystone Maid, so here I am with an answer to the Read-and-Win contest. I am a Reid, but I am not sure if I can win. I would think more of the Merry Circle button than any prize that you might offer, as my Daddy says that you only give them to girls and boys that are good and obey their mother and father. This is our last year in this state as we are going to move to Michigan this spring, so you see I will be from your state also. Well, if this gets through I will

write to you again, telling about the Sleepy Hills of Pennsylvania. With love from your Keystone niece, Flora Reid, Box 393, Avella, Pennsylvania.

I hope all who receive M. C. buttons are good and will listen to the counsel and advice their parents give them. I am glad you are coming to Michigan.

Dear Uncle Frank:

I am a sophomore and like my work fine. I am also a member of the canning club and calf club of this county. I think I saw a picture of you and Mr. Turner in The Michigan Farmer. Am I right? Mr. Turner has been to our place.

A want-to-be-niece, Emma Kalnbach, R. 1, McMillan, Mich.

Yes, you are a good guesser and you can also remember well. That picture was new quite a time ago. Mr. Turner, Miss Robb and myself were on it.

Dear Uncle Frank:

I'm going to tell you about a club we have. We are the Holloway Harmonic Hustlers. We are learning to sing and to act. We have given three one-act plays and made nearly \$50. We go places and sing, too. We have lots of fun.

We also have an organized Sunday School class, the "Leaders." We have class parties and work, too. We are now planning to have a box social to get money to help paint the church.

I suppose this is about enough from me for one time.—Your M. C. niece, Marie Robinett, Holloway, Mich.

It is fine that you have such organized boys' and girls' activities in your neighborhood. I bet those Harmonica Hustlers can sing some.

Dear Uncle Frank:

Our school had a Christmas entertainment which was about two and a half hours long. The grammar room scholars were all blackened up. We had five negro songs to sing. They all said that we did look comical with our faces all blackened up.

Leave the Merry Circle go without any officers. Uncle Frank is the only officer we need.

To pay something each month I think is a good plan. We'll let Uncle Frank decide the amount to send in. And don't you cousins think that it would be nice to let Uncle Frank be the treasurer? I do.—As ever, your niece, Mary Fox, M. C., R. 2, Sterling, Mich.

Those black-faced stunts are fun for the performers as well as the audience, aren't they? I have not done

anything with the idea of starting a fund, as I have not decided as to a good way to use the money. Let's have some suggestions.

Dear Uncle Frank:

I am just a little niece in upper Michigan. Uncle Frank, don't you think the Merry Circle writers should put a little more pep in their letters? I do. How many of you girls like dancing? I certainly do. I would like to hear from some that do.

If some one likes to freeze their nose, ears and hands they can come up here and they will. I believe it is just as cold here as at the North Pole. Ha! Ha!

With lots of love to all of the Merry Circle. From a little niece, Eva Hallgren, Waucedah, Mich.

If we want pep in the letters we can start the knicker-bobbed hair question again. Now I know where I can go to get frozen up.

Dear Uncle Frank:

Do you mind if I write on both sides of the page. I wrote on both sides of the page in my answers to the contest. —Charles O. Obert, M. C., Big Rapids, Mich.

I would prefer the writing on one side of the paper only. If the Read-and-Win answers are written correctly, they can usually be written on one side of a single page. Please put your name and address somewhere on the first page.

THE W. P. B.

The loyal W. P. B.

I've read so much about Is the hardest worked of all the force, I feel, without a doubt.

He's always there before the rest,

He's never known to shirk.

I really think he likes his job,

For he fairly EATS his work!

Although he's unobtrusive,

He has a winning way.

Sometimes I'm sure that he is full

Of things he'd like to say.

He knows his place and keeps it, too.

And this I must confess,

If he should leave us for one day,

Things would be in a mess.

And when you find your desk, with

work

Is piled up pretty high,

Just trust to W. P. B.,

He's always standing by.

—Elsie Mae Farmer, Durand, Mich.

Every day there are some "silent readers" who become active in M. C. doings. That's good, for the more we have inside the Circle the more fun there will be.—Uncle Frank.

Among the Club Workers

Alice Zurbrugg Makes Good with Canning

ALICE ZURBRUGG lives near Quincy, in Branch county, where they had a good local club leader. This leader got Alice to take up canning

sult, she won first place in her county and also in the state. This gave her, among other prizes, a scholarship at M. A. C., which she will undoubtedly use to advantage.

During that successful year Alice canned 388 quarts of fruit and vegetables. Another girl canned over 400 quarts, but the quality of her goods was not equal to that canned by Alice, so Alice won out on quality, not on quantity.

As the result of her club canning experience, Alice cans fruit for sale. She also does canning for others at their homes, charging so much per day for the work. She is working up a nice business along this line.

It is very evident from the brief outline of Alice's club experience that it has paid her well to go into club work. There are hundreds of others who have also done well in this work. This makes us so enthusiastic about the work that we wish every boy and girl could be a member of some boys' and girls' club.



Alice Herself.

club work. During the first year of her canning she won only one prize in her local club, but that was enough to urge her on. During the second year she began doing things. As a re-

Some Short Stories

By the Prize Winners

A PAYING PROPOSITION.

By Lettie Gulikson, Manton, Mich.

Mr. Hamilton gave his children, George and Mary, permission to use two acres of land in any way they wished.

One day as George was reading a daily paper he suddenly exclaimed, "Oh, Mary! listen to this," and he read an article stating the huge sum of money that the tourists spend each year in Michigan. "Let us use our two acres of land to produce something to sell to these tourists."

It was then that George and Mary made definite plans as to what would be the most salable products. They decided that they must have onions, tomatoes, cabbages, cucumbers and watermelons.

When spring came these seeds were planted as early as George could prepare the soil, and in due time tomatoes were ripe, cucumbers, onions, watermelons and cabbages ready for sale.

George harvested the products while Mary, who had a table by the roadside, sold them. She kept a very close account of all expenses and receipts, and found after everything was sold, that they had made \$200 on their summer's project.

Mr. Hamilton was very interested in all the work that George and Mary did and decided they should have land each year. He was, indeed, very proud of the common sense and business knowledge his children had displayed.

WHAT WE SHARE.

By Bethel Hallock, Hastings, Mich.

"I wonder why we never hear from Uncle Jason. He is old and cranky and I want his money," said Mrs. Manning to her daughter one cold day.

"I and mother have always loved Uncle Jason, and he never was cross with us," said her niece, Bess, who sat by a window sewing for Mrs. Manning. "He is very blunt in his speech, but he has a very warm heart." Bess arose hastily, said "Good afternoon," and hurried home, lest she should say too much.

"You are home early today Bess, why is it?" asked her mother, who was sewing by the fire.

With tears in her eyes Bess told what Aunt Mary had said. Then, taking a rope said she would go for wood. Mr. Manning had allowed them to gather the dead branches that fell from the trees in the park near by.

Not long after Bess left Mrs. Manning's, a poorly dressed and feeble old man came to the door and asked for a little to eat. Angrily she told him to be gone.

When Bess had gathered her load of sticks she started home. When nearly there she caught up with the old man.

"Young lady, could you tell me where I might get a bit to eat and a place to sleep tonight?" he asked.

"Certainly, sir," said Bess. "We are poor but you are welcome to a share."

"Thank you little Bess," he said, "I am your Uncle Jason. I dressed up as a beggar to test Mary, and she drove me from the door. It is possible to be more nice than wise, and it is not what we have but what we share that counts."

THE LUCKY TEN.

This contest was a humdinger for results. It was either so easy to do, or everybody was staying inside and did the contest for a pastime. As a result, many will become M. C.'s and will get their buttons and cards in a few days.

I am glad to see the boys win out in this contest. It shows that the can be strong competition for the girls if they will but try.

The following are the names of the winners in the Ad. Contest which appeared in the February 9 issue:

Fountain Pens.

Victor H. Sisson, Freeport, Mich.
Gordon Hollister, R. 2, Rochester, Mich.

Flashlights.

Eliza Turner, Brutus, Mich.
Bessie L. Armstrong, Jones Mich.
Gladys M. Cook, R. 5, Fowlerville, Mich.

Candy.

Kathryn Brown, R. 9, Coldwater, Mich.
Ellsworth Riley, R. 2, Perry, Mich.
Dick Watson, Davisburg, Mich.
Mildred Johnson, Box 57, Bark River, Mich.
Gladys Lutz, Alanson, Mich.

CORRECT ANSWERS.

HERE are the correct answers to the Ad. Contest of February 9. I would suggest that you keep these answers as next week we are going to have a contest in which you can use them.

1. Vapo burner—Page 190-18.
2. For the heart and nervous system—Page 25-197.
3. The DeLaval milker—Page 39-211.
4. Radiator warmth—Page 184-12.
5. Hall's Nicotine Sulphate—Page 186-14.
6. Carbola—Page 188-16.
7. Wyngarden's—Page 206-34.
8. Mineral matter—Page 210-38.
9. Herold-Bertsch shoes, Page 17-189.
10. Rubber in "U. S." boots—Page 5-177.

Egoreg Howsingant, Ramfing

reogge het cidonserde samn toms oblen wonasinght herfat ruo cucuptoino of marfgin cotruny.

No, it is not a foreign language—it's just the English language mixed up a bit. After I got it written up nicely, I took it out to the writer. He had an accident which caused the letters in the words to get mixed up and the words out of their places in the sentence. I am going to leave it to you to straighten out the jumbled mess.

To the ten who get this jumble correctly fixed up and most neatly written, I will give prizes as follows: The first two, handsome nickled fountain pens; the next three, handy tubular flashlights; and the next five, unique little boxes of candy.

All those who get the jumble straightened out will be allowed to come inside the Circle, and will receive Merry Circle buttons and cards, if they are not already members. I ask all who are M. C.'s to put M. C. after their names so that we may recognize them.


This contest closes February 29. Send your letters to Uncle Frank, Michigan Farmer, Detroit, Michigan.

MY MOST THRILLING EXPERIENCE.


By Wm. Danes, Lake Mine, Mich.

A friend of mine and I went on a camping trip. About eleven o'clock we awoke to find ourselves surrounded by a terrible bush fire. We had no time to save anything but our lives. We ran through fire with our faces scorching by the heat, until we reached a place of safety.

As it started to rain, we went into a haunted house. Neither of us believed in ghosts. We went in and lay on the floor to sleep. Soon we heard a noise between the partition. When it stopped, I took a garden hoe and broke the lath and plaster to investigate, and below, there was a big black snake. I shot it. It was six feet long. On examining the place further, there were enough bones of animals to fill a bushel basket. This spoiled our camping trip for the season.



New Low Prices On Miller Baby Chicks-Season 1924



Buy your chicks this season from an established hatchery. MILLER HATCHERIES is one of the finest in America. We hatch twenty popular varieties from stock which have been culled and bred for heavy egg production. 1,500,000 chicks via prepaid parcel post at the following low prices:

Varieties	50 chicks	100 chicks	500 chicks	1,000 chicks
Barred Rocks, R. and S. C. Reds, Anconas, R. C. Brown and S. C. Buff Leghorns	\$7.50	\$14.00	\$65.00	\$125.00
White and Buff Rocks, W. W. and Black Langshans	8.00	16.00	75.00	140.00
S. L. Wyandotte, White Orpington, S. C. Black Minorca	8.00	17.00	80.00	150.00
Buff Orpingtons	8.00	16.00	70.00	135.00
Golden Wyandotte	11.00	20.00	95.00	175.00
Light Brahmas and W. F. Black Spanish	13.00	25.00	115.00	200.00
S. C. White and S. C. Brown Leghorns	7.00	13.00	60.00	110.00
Assorted	6.50	12.00	55.00	100.00

Order direct from this advertisement or send for our FREE CATALOG. 21st SUCCESSFUL Season. Over 12,000 pleased customers in United States and Canada. Member, Missouri State, Mid-West and International Baby Chick Associations.

MILLER HATCHERIES BOX 651 LANCASTER, MISSOURI




HUBER'S RELIABLE CHICKS

1000000 for 1924

OUR 15th YEAR

POSTPAID, 100 PER CENT LIVE DELIVERY. Give us your order for OUR RELIABLE CHICKS and we will prove to you, IF BETTER CHICKS COULD BE HATCHED FOR THE MONEY WE WOULD BE HATCHING THEM.

FLOCKS PURE BRED CULLED BY EXPERTS
FINE ILLUSTRATED CATALOG FREE. Tells how we produce RELIABLE CHICKS that have pleased thousands of customers. We hatch 13 Varieties. COMBINATION OFFERS. VALUABLE BOOK GIVEN FREE with each order. HUBER'S RELIABLE HATCHERY, East High St., Fostoria, Ohio.




Great Northern Hatchery

Pure Bred Selected Flocks
100% Live Delivery

Strong, Sturdy, Northern-grown Chicks. Selected, pure-bred stock. Healthy Flocks on free range insure strength in every chick. Order from this Ad.	Prices on 50	100	300	500	1000
Leghorns (S. C. White and Brown)	\$7.00	\$13	\$38	\$62	\$120
Barred Rocks	8.00	15	43	72	140
White Rocks	9.50	18	53	85	165

Mixed Broiler Chicks, \$10 per 100 straight.
Hatched under best conditions in Newtown Incubators. Every Chick carefully inspected. 100 per cent live delivery guaranteed. Reference, State Commercial Savings Bank, this city. Write for prices on special matings. GREAT NORTHERN HATCHERY, Box 56, Zeeland, Michigan.



Early Maturing Baby Chicks

Quality Type Dependability Production

Our chicks are from flocks selected for their early maturing habits. This means high-producing individuals. These flocks are headed by cockerels from high-producing blood lines. Culled by experts. Each flock personally supervised. Pure-bred. From \$10.00 per hundred and up. We have a limited number of superior grade chicks from special matings. 230-302 egg strain. B. P. Rocks, R. I. Reds, W. P. Rocks, W. Wyandottes, W. Leghorns, Anconas.

Write for description and prices. 100 per cent live delivery. Ref., Milan State Savings Bank. MILAN HATCHERY, Box 4, Milan, Mich.

MEADOW BROOK

One Of The Founders Of The Chick Industry
Henry DeFree & Sons. 21 years in business

Pure-bred stock carefully developed for years. Order from this ad and get chicks just when you want them.

Prepaid prices on	50	100	500
White and Brown Leghorns	\$7.00	\$13.00	\$62.50
Rocks, Reds, Buff Leghorns	8.00	15.00	72.50
Wh. Wyandottes	11.00	20.00	95.00

Mixed Chicks (all varieties), \$10 per 100.
You take no chances. Ref: First State Bank, Holland, 97 per cent live delivery guaranteed.
Wh. Leghorns headed by male birds of 285-303 egg record strain. Other breeds highly bred. Circular free.

HOLLAND MICH. FEB 11-24



Highest Quality Certified Baby Chicks

From Michigan's Old Reliable Hatchery, the best equipped and most modern Hatchery in the State. Pure-bred Tom Barron English and American White Leghorns, Anconas, Barred Plymouth Rocks and Rhode Island Reds. Strong, well-hatched chicks from tested Hoganized free-range stock that make wonderful winter layers. Chicks sent by Insured Parcel Post. Prepaid to your door. 100 per cent live delivery guaranteed. Sixteen years of experience in producing and shipping chicks, giving absolute satisfaction to thousands. Write for valuable illustrated free catalog and price list. Get lowest price on best quality chicks before placing your order.

W. VAN APPLIEDORN, R. 7, Holland, Mich



FARROW CHIX

FOR SUCCESS

2 1/2 Million for 1924. Certified, vigorous, healthy, early layers, 95 p. c. alive delivery shipped most anywhere where postpaid. 9th season.

Farrow pullet lays 275 eggs in 1 year; another lays at 3 Mo. 8 days old. \$1000 to be given away. Write for free catalog.

THOROBRED QUALITY CHIX - PRICES Pens A	Pens A	Pens A	Pens B	Pens B	Pens B	
50	100	25	50	100	100	
White or Brown Leghorns	\$3.75	\$7.00	\$13.00	\$4.75	\$9.00	\$17.00
Barred Rocks, S. C. Reds, Anconas	4.25	8.00	15.00	5.25	10.00	19.00
Rose Comb Reds	4.50	8.50	16.00	5.50	10.50	20.00
White Rocks	4.75	9.00	17.00	5.75	11.00	21.00
Wh. Wynn, Buff Min.	5.00	9.50	18.00	6.00	11.50	22.00

D. T. FARROW CHICKERIES, DEPT. N. PEORIA, ILLINOIS.



Certified Pure Bred Baby Chicks

Trapnested direct from world champion layers; the famous Tom Barron and Hollywood strains of White Leghorns. Order these chicks from pedigree stock now at bargain prices! Hatched in the largest and finest hatchery in Michigan at the rate of 150,000 eggs to a setting. Also get our prices on Barred Rocks and other popular breeds. Satisfaction guaranteed or money back. Write for FREE illustrated catalog and special DISCOUNT PRICES—today.

SUPERIOR POULTRY FARMS Box 200 Zeeland, Mich.



Inspected and Approved Baby Chicks

From Best Egg Laying Strains in the World
Tandred, pedigree-sired and Tom Barron, S. C. White Leghorns, S. C. & R. C. R. I. Reds, Parks Barred Plymouth Rocks.

Our flocks are all on free range, closely culled, inspected and approved by Michigan Baby Chick Association. Every bird is healthy, has size, type and color.

Hatched in World's Best Incubator
Our chicks are strong, sturdy and healthy. They live and grow because they are hatched in the best incubator made. 100% live delivery to your door. Illustrated catalog sent FREE.

LAKEVIEW POULTRY FARM, R. 8, Box 5, Holland, Mich.

--CHICKS--

Investigate

Our chicks are the kind that make good. Every flock is carefully culled and mated. We have been in business seven years and have been building carefully and consistently to a place where we can offer chicks more than worth the money we ask. SINGLE COMB, ENGLISH STRAIN, WHITE LEGHORN, BARRED ROCKS, ANCONAS. 100 per cent live delivery guaranteed. Investigate our proposition before buying. A postal will bring full information.

STAR HATCHERY, Box 22, Holland, Mich.



PIONEER POULTRY FARM

STOCK OF EXCLUSIVE ENGLISH ANCESTRY

CHICKS CHICKS
Tom Barron Strain
Highest quality English White Leghorn chicks, deriving their notoriety from their ancestors, which were imported direct from England. Prices right, liberal discount on early orders. Write tonight for free illustrated circular. PIONEER POULTRY FARM, Box A, R. 10, Holland, Mich.

Please Mention The Michigan Farmer When Writing to Advertisers



A penny a day

is the average cost per cow for the use of Kow-Kare as a preventive of disease and aid to big milk yield.



Nearly Every Cow Can be made a Big Milker

Cow owners have learned that no effort on the farm pays so handsomely as the drive for **more milk**. Over 90% of the so-called poor milkers are capable of much better results than is obtained from them. An improved health standard is a sure booster of milk profits.

No wonder. Dairy experts say that under average conditions a yield-increase of only 10% will double the net profit of dairying. The fixed cost per cow of feed and care is about the same regardless of yield. After this cost is met, every pint of milk is added profit.

Perfect health has more to do with big milk yields than breeding or feeding. "Forcing" the milk-making organs to greater efforts ends disastrously unless extra demands are met with extra support of the cow's vitality.

Kow-Kare is invaluable to cow owners. It increases the activity of the milk-making function by promoting vigorous health in the genital and digestive organs. It prevents or relieves cow diseases and disorders by helping these organs to function as nature intended. Its benefits are widely recognized for the treatment of Barrenness, Abortion, Retained Afterbirth, Scours, Bunches, Milk Fever, Lost Appetite.

Let Kow-Kare help you to greater milk profits. Your feed dealer, general store or druggist can supply you—large size can \$1.25; medium size 65c. Order direct from us if your dealer does not have Kow-Kare. We pay postage.

Write for copy of our free 32 page book, "The Home Cow Doctor." It will show you the way to greater profit from your cows.

DAIRY ASSOCIATION CO., Inc., Lyndonville, Vt.

On thousands of farms KOW-KARE is Standard equipment

Here are just a few extracts from letters such as we receive in every mail from cow owners:

Wm. E. Starkey, Austin, Ind.: "I have found KOW-KARE is the best medicine for milk cows that there is. I found that it always paid to feed it whenever my cows went down on the quantity of milk they were giving. I have cured several cows that were down and could not get up."

James H. McClintick, Solon, Me.: "I had a cow that retained the afterbirth for five days, when I decided to try your Kow-Kare. Three doses removed the afterbirth completely and she is now all right. After that I decided to feed KOW-KARE to two other cows for experiment. It increased the flow of milk of one of them nearly one-half; the other gave more milk than formerly and gained in flesh. KOW-KARE is all that is claimed for it."

Joseph Stott, Norwich, Conn.: "I find that by giving a few doses of KOW-KARE it will keep cows in a healthy state, and the result will be more milk—just what we want."



DAIRY FARMING



Cows are Like a Trust

Heavy Milkers Produce Cheapest—Here Is the Proof

By Art Lonsdorf

BIG business men say "The larger the volume of business carried on under one organization, the less the overhead expenses." That's a proven fact, needs no argument. Monopolies and trusts make the most money.

A cow is a trust. She is an organized body; a big working machine; she monopolizes a lot of food and consumes it and manufactures one single concentrated product—milk.

The more she monopolizes the more she will produce and the cheaper the turn-over. For example: Cows producing over 9,000 pounds of milk, or 300 pounds of fat, produce much cheaper per hundred pounds of milk or per pound of fat than a cow producing only 4,000 pounds of milk or 150 pounds of fat. The following tables of actual records represent eight cows, which might be duplicated in most any herd, since the average herd has both real good and real poor cows.

Again see the difference. The first man made \$97 on every cow he had in the barn. The other man made \$41 per cow.

The eleven cows in the good herd produced \$1,073. The other man with sixteen cows got \$840. Here is another argument for a man with a large number of poor cows against the man with a few good ones.

High-Grade Herd of Guernseys.

Martin Bjorkman, of Norway, has fifteen cows which average 7,104 pounds of milk that tested five per cent, or 358 pounds of fat. It cost to produce one pound of butter-fat, eight-een cents, and to produce 100 pounds of milk, eighty-eight cents. A profit of \$115 was made on every cow he owned. You might say that this man has a real trust in his barn.

Eric Johnson tells this one: One of his cows last September milked thirty-five pounds of milk per day for the

No.	Months Milked.	Pounds Milk.	Pounds B. F.	Profit.	Cost Lb. Fat.	Cost Cwt. Milk.
No. 19	9	16,482	562	\$128	23c	80c
Bess	11	14,061	551	186	14c	53c
Tiger	10	10,834	473	141	18c	77c
Rose	10	9,186	394	123	16c	70c

The Four Poor Cows.

No.	Months Milked.	Pounds Milk.	Pounds B. F.	Profit.	Cost Lb. Fat.	Cost Cwt. Milk.
A	10	3,822	133	23	40c	\$1.40
B	..	2,950	133	18	34c	1.53
C	10	4,535	188	24	36c	1.48
D	10	2,365	125	12	40c	2.03

You see, Bess produced fat at fourteen cents per pound, and fifty-three cents to produce a hundred pounds of milk, as compared with "D" cow, where it cost forty cents to produce a pound of fat and \$2.03 to produce 100 pounds of milk. Also look over the profits. Bess made \$186 profit over cost of feed, whereas, the poorest cow made \$12 profit over cost of feed.

A man selling cream at forty or forty-five cents per pound of butter-fat wouldn't get much profit from these four poor cows. But selling cream at forty cents wouldn't be so bad, as when cream is selling at fourteen to twenty cents.

It's a simple matter to have one or two good cows in a herd, but a man who has a whole barn full of good cows is a man who has the real trust or monopoly. Here is a table showing an average good herd and an average poor herd:

month. This year when the same cow came fresh, she milked sixty pounds per day, simply because he took better care of her, since he joined the cow-testing association.

HELPS PRESERVE THE MILK.

IT has been reported that vegetable parchment is being used to advantage by farmers in the shipment of their milk. A sheet of the paper is laid over the top of the can and the cover then forced into place. The paper reduces the contact of the milk with any rust on the bottom of the cover and, making a tighter fit, almost entirely eliminates waste from slopping. The first advantage is, possibly, of greater moment than we may at first think, since tests show that milk coming in contact with iron sours much more quickly than it otherwise would.

Owner.	No. of Cows.	Lbs. of Milk.	Lbs. of Fat.	Cost Lb. Fat.	Lbs. Milk Per 100 Lbs.	Profit Per Cow Per Herd.
Andrew Gustafson	11	7,072	315	15c	\$.65	\$97.61
A poor herd	16	4,774	193	25c	1.00	41.21



Every Herd Has Them. The Cow at the Left Returned \$97.61 Above Feed Costs. The One at the Right But \$41.21.

Plow More Acres



Clipped horses are better horses. They work better, look better, feel better. Go on the job ready and willing. Dry off quickly. Cleaned twice as quick. Clip your horses this spring. Get a

Stewart No. 1 Clipping Machine

Ball bearing. Smooth running. Clips fast and easy. Best made. Lasts a lifetime. Clips cows and mules also. Only \$12.75 at dealers or send us \$2 and pay balance on arrival. Guaranteed satisfactory or money back. Order today.

CHICAGO FLEXIBLE SHAFT COMPANY

5576 Roosevelt Road Chicago

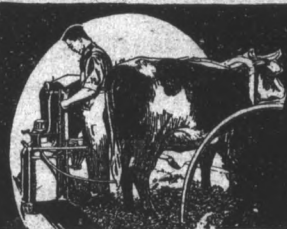
World's Largest Makers of Clipping and Shearing Machines. Complete catalog on request.

Color Your Butter

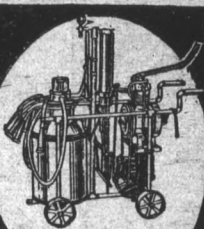
"Dandelion Butter Color" Gives That Golden June Shade which Brings Top Prices

Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade. "Dandelion Butter Color" is purely vegetable, harmless, and meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless. Large bottles cost only 35 cents at drug or grocery stores.

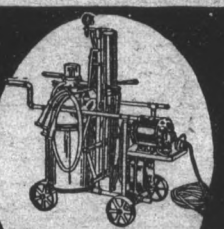
Wells & Richardson Co., Burlington, Vt.



Hand Operated



Gas Engine



Electric

\$123 for a complete milker
Nothing to install—move it in—move it out

All models are portable.—Mr. Dairyman, here's a chance to try out a milker without first putting a lot of trappings into your barn. Your choice of models on 30 days' trial. No money down—no C.O.D.—no obligations. Find out! The Page Milkers are so much simpler, that's why they are sold at the astounding rock bottom prices; and because they are simpler they are so much better—yes, the milking machine problem is now solved.

Book on Machine Milking—FREE!

The Burton Page Co.

Dept. 7702, 661 W. Lake St., Chicago, Ill.

Please send me your free booklet containing the facts of milking machines and full details of your 30-day free trial, easy payment offer on the Portable Page Milker models checked.

☐ Gas Engine Power ☐ Electric Power
Better because simpler; astounding rock-bottom price because they're simpler.

illustrating all models, quoting astonishing rock-bottom prices on these wonderful new simple milkers.

Also send me your Agent's Offer

Name.....
Address.....

"NOT A KICK IN A MILLION FEET"



If
You Want
Longer Wearing
Asphalt Shingles
or Roll Roofing

Make Sure
 that this
 trade mark is on
 the package

Manufactured by
THE LEHON COMPANY
 Chicago



STOP WASTING
TIME AND
MONEY
Put United Milker

Simple, sanitary, efficient, safe milking features to work for you at once. The famous Pump-Pulsator type Milker with the "See-thru" teat cup. Action as smooth and natural as that of a calf. Write at once for descriptive folders and literature.

Milker Dept. A-3
UNITED ENGINE CO.
 Lansing, Michigan.

PAPEC
The Biggest
Value in
Ensilage Cutters

THOUSANDS of farmers agree that the Papec is the biggest value in ensilage cutters—simple, rugged, long-lived. Fills the highest silo without plugging the pipe. Light of draft; costs less to operate. Every part is easy to get at.

The Papec is made in four sizes: R-10; N-13; L-16 and K-19. A gasoline engine, developing 3 h.p. or more, will operate the R-10 size. Any tractor can be used with the medium sizes. For heavy tractors use a K-19 Papec—capacity practically unlimited.

Write for free catalog and U. S. Gov't Bulletin "Making and Feeding of Silage." Every silo owner should read them. Mention size of your silo.

Papec Machine Company
 150 Main St.
 Shortsville, N. Y.



Your dollars buy more in the Papec

MICHIGAN STATE HOLSTEIN SALE.

THE fourth state sale of the Michigan Holstein Breeders' Association was held at the Michigan Agricultural College during Farmers' Week. An exceptionally fine lot of cattle was presented in this offering and a good average price secured, although it is stated by good authority that few of the animals would have been bought too high at considerably increased prices. However, the average price made at this sale is much better than that of any of the consignment sales of the whole country for several months past, so Michigan Holstein breeders are not dressed in mourning. The top price of \$420 was reached by two mature show cows close to freshening, (see list below). The forty head consigned sold for a total of \$10,080, an average of \$252 per head.

The Spencer Gift.

Following the consignment sale the association sold for the college free of cost, a group of ten selected heifers, a gift from the Grand River Stock Farm of Corey J. Spencer. The proceeds from the sale of these heifers is to be held perpetually in trust by the secretary of the Michigan Agricultural College and used to make short-time loans to needy deserving students. A total of \$1,102.50 was realized from this sale including gift bids from various sources. Let us hope this worthy fund may be added to from time to time by others as public spirited and generous as Mr. Spencer.

The complete sale list follows, giving in order, number of animal, name and address of buyer, consignor and price:

- 1—Wm. Tyson, Washington, Mich., John C. Buth, \$275.
- 2—L. C. Carlyle, Yale, Mich., John C. Buth, \$420.
- 5—Eugene Carmichael, Pittsburgh, Pa., McPherson Farm Co., \$200.
- 7—Arday Murray, Valley Center, Mich., McPherson Farm Co., \$155.
- 8—Ullmann & Grace, Manchester, Mich., W. R. Harper & Sons, \$190.
- 10—Martin D. Buth, Comstock Park, Mich., W. R. Harper & Sons, \$310.
- 4—J. C. Hays, Howell, Mich., McPherson Farm Co., \$360.
- 6—Louis Gerlack, Yale, Mich., McPherson Farm Co., \$215.
- 11—W. H. Wernett & Son, Plymouth, Mich., W. R. Harper & Sons, \$250.
- 12—Musolf Bros., South Lyon, Mich., George D. Clarke, \$280.
- 13—Frank B. Thompson, Lansing, Mich., R. 3, Earl A. Hayes, \$275.
- 14—C. E. Schmidt & Jenkins, Oscoda, Mich., H. E. Rising, \$290.
- 15—Ralph Wood, Melvin, Mich., J. G. Hays, \$200.
- 16—Glenn Banghart, I. A. Kidney, \$300.
- 17—E. E. Hohn, St. Charles, Mich., I. A. Kidney, \$400.
- 18—E. E. Hohn, St. Charles, Mich., I. A. Kidney, \$400.
- 21—Detroit Creamery, Detroit, Mich., C. J. Spencer, \$200.
- 22—Gerrit Meenwenberg, Fremont, Mich., Samuel Young, \$415.
- 23—L. S. Foster & Son, Rives Junction, Mich., Serradell's Farm, \$190.
- 24—C. R. Oviatt, Bay City, Mich., Wilder Bros., \$245.
- 25—Eugene Carmichael, Pittsburgh, Pa., Wilder Bros., \$295.
- 26—Joseph Brown, Decker, Mich., R. 2, E. L. Salisbury, \$290.
- 27—L. C. Hunt, Eaton Rapids, Mich., E. M. Stewart, \$165.
- 28—Louis Gerlack, Yale, Mich., E. M. Stewart, \$250.
- 29—John C. Buth, Grand Rapids, Mich., E. M. Stewart, \$390.
- 30—Musolf Bros., South Lyon, Mich., E. M. Stewart, \$250.
- 31—W. E. Scripps, Orion, Mich., M. D. Buth, \$145.
- 32—Neil Muir, Valley Center, Mich., A. R. Black & Sons, \$215.
- 33—Eugene Carmichael, Pittsburgh, Pa., J. N. Lamoreaux, \$250.
- 34—M. D. Buth, Comstock Park, Mich., J. N. Lamoreaux, \$420.
- 35—J. H. Loucks & Son, Wakausa, Ind., J. N. Lamoreaux, \$180.
- 36—Arday Murray, Valley Center, Mich., J. N. Lamoreaux, \$230.
- 37—Harry Macomber, Plymouth, Mich., J. N. Lamoreaux, \$120.
- 38—R. G. Powell, Howell, Mich., J. N. Lamoreaux, \$75.
- 39—D. D. Aitkin, Flint, Mich., Loeb Farms, \$275.
- 40—Arday Murray, Valley Center, Mich., M. B. Tilkins, \$250.
- 41—Guy Mead, Bath, Mich., Edward Drumheller, \$190.
- 42—L. C. Hunt, Eaton Rapids, Mich., Albin R. Pfau, \$195.

(Continued on page 297).

20% Less Butter Will Buy a 20% Better De Laval

Present-day purchasers of De Laval Cream Separators are getting more value than was ever before possible. You can now get a new De Laval for approximately 20 per cent less butter than the same size machine could be purchased for ten years ago.

In addition, the present-day De Laval is at least 20 per cent better, having 10 per cent more capacity, a bell speed-indicator, self-centering bowl, and many other improvements and refinements.

Self-Centering Bowl. The De Laval Bowl is so designed as to center and balance itself when it attains separating speed, which causes it to run smoothly, without vibration, and adds to the efficiency and life of the machine.

All-Around Superiority. A combination of the foregoing features, together with superiority of De Laval design, workmanship and materials, enables a De Laval to separate more thoroughly under all conditions of use, deliver a smoother cream capable of making better butter, to separate a richer cream with less loss of butter-fat, and to separate with greater efficiency at lower temperature, all of which means more money and profit for the user.

Pays for Itself. There are many worn-out and inferior cream separators in use today, wasting enough cream to pay for a new De Laval in less than a year. You can buy a De Laval on such easy terms that you can use it while it is paying for itself. See your De Laval Agent or send coupon for full information.

The De Laval Milker. If you milk ten or more cows a De Laval Milker will soon pay for itself. More than 15,000 in use, giving wonderful satisfaction.



\$660
to \$1430
Down
the Rest in
Easy Monthly
Payments

Send Coupon for Free Catalog

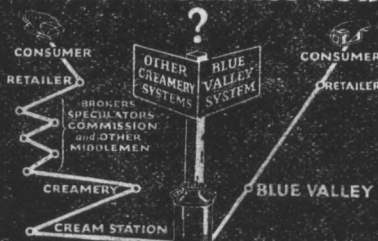


A Genuine Hap-
good Disc Harrow
\$28.00



A tool that has always sold for more money—a bargain at \$28.00. Get 1924 catalog and see the 1000 other savings—we sell for less.
HAPGOOD COMPANY
 107 Henry St. Alton, Ill.

Which Road for You?



For 23 years Blue Valley has given farmers a high direct cream market. No useless profit takers between them and Blue Valley—between Blue Valley and retailers. Blue Valley butter, the National brand, brings farmers bigger cream checks direct.

Another Blue Valley Booster

"I am more than pleased. Your service has been more than satisfactory to me."
 Mrs. W. A. Lipke, Aloia, Mich.

Thousands of B. V. B's (Blue Valley Boosters) will tell you it pays to ship your cream yourself direct to Blue Valley.

For Bigger Cream Checks

Ship to
BLUE VALLEY
CREAMERY CO.

Ship to Blue Valley Creamery in City nearest you:

Detroit, Mich. Grand Rapids, Mich. Milwaukee, Wis. Duluth, Minn.

Also creameries in 16 other cities. General Office: CHICAGO

BLUE VALLEY BUTTER
 is good butter
 that's why millions use it

One Man, Alone, Pulls Big Stumps Easy!

No Horses or Help Needed
 Clear idle stump land in spare time—without help or horses. Grow bigger, better crops on that rich, virgin soil! Increase farm value! Make big profits every year.

SEND NO MONEY
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DRUM TYPE KIRSTIN
ONE MAN Stump Puller

Fastest, most powerful of all One Man Stump Pullers. Pulls big, green, or taprooted stumps. Many patented improvements. Guaranteed three years in writing. Four speeds; double action lever. Mounted on wheels; easy to move. Clears 2-4 acre without moving.

BIG FACTORY SALE
CUT PRICE—EASY TERMS
 See what you save during this introductory FARMERS' SALE. Greatly reduced prices to all buyers. NO MONEY DOWN—Easy Payments. You will want to buy now even if not yet ready to start clearing. Illustrated Folder gives full details. No obligation. Write for it—TODAY.

SAVE MONEY
 We Ship from BALTIMORE NEW ORLEANS PORTLAND FRISCO

A. J. KIRSTIN CO. Escanaba, Mich. 309 Lud St.

A Plan to Finance Your Porter Barn Equipment

If you haven't the ready cash to make your barn modern, write for this plan. It contains facts and figures about production costs that your banker will favorably consider as a basis for credit. Don't put this off—just check the items in which you are interested, tear out this page, write your name and address in the margin and mail it back to us,

<input type="checkbox"/> Stalls and Stanchions.	<input type="checkbox"/> Hay Tools.
<input type="checkbox"/> Litter and Feed Carriers.	<input type="checkbox"/> Cupolas and Ventilators.
<input type="checkbox"/> Hog Barn Equipment.	<input type="checkbox"/> Steel Pens.
<input type="checkbox"/> Hog House Windows.	<input type="checkbox"/> Poultry Equipment.
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<input type="checkbox"/> Barn Plans.	<input type="checkbox"/> Water-bowls.

If you expect to build or re-model, ask for Special Plan Book.

J. E. Porter Corporation
 692 Guilin St., Ottawa, Ill.

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 Dependable Since Sixty-Eight



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Made from the enduring rocks, ground, dried, burned under exacting chemical supervision, then finally reground finer than flour, ALPHA CEMENT is a binder, that combines sand, stone or gravel into the most lasting form of construction.

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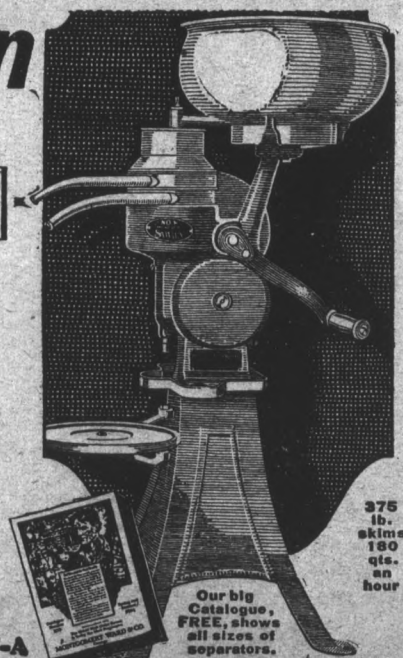
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NEWS FROM CLOVERLAND

SCHOOL WILL TEST SEEDS.

THE Menominee County Agricultural School announces that it will run seed germination tests free to any farmer of the peninsula on request. Farmers are directed to mail samples of seeds to be tested to Superintendent R. N. Kebler, of the school, or to Karl Knaus, county agricultural agent, Menominee. Reports are made back to the farmers as soon as the tests are completed. It is insisted that no seeds should be used by farmers of the peninsula unless germination tests have first taken place.

GETTING READY FOR BIG LAND-CLEARING CAMPAIGN.

FOR land-clearing operations in Ontonagon county, 32,000 pounds of sodatol have been ordered by 138 persons, reports the county agent. Additional orders are being collected by the agent, orders being placed up to March 1. The supply of 9,000 caps was exhausted in two days. Farmers are paying \$7 per hundred pounds, freights being prepaid to Ontonagon, Rockland, Mass, Hubell's Mill, Trout Creek, Ewen and Berglund.

The Schoolcraft agricultural agent is also assembling orders to be delivered about April 15. The price here is stated to be \$6.50, f. o. b. Manistique, the transportation costs being somewhat less than for Ontonagon, it appears. It is expected that one car of 18,000 pounds will be required for spring delivery in Schoolcraft. Last fall, sixty-two farmers took 1,680 pounds. The Schoolcraft agent advises his farmers to place as large an order for sodatol at this time as possible, since there is no assurance that further supplies of this war-salvaged explosive will be available hereafter.

FARMERS USING FARM LOAN PRIVILEGES.

DURING the past year farmers of the South Ontonagon County Farm Loan Association, placed loans with the Federal Land Bank of this district for \$95,400, it is reported. The total loans of the association so far amount to \$225,400. Dividends to the stockholders have run from six to twelve per cent. It is believed that these loans have been of material aid to farmers in this developing section.

GETS BEST RESULTS FROM THE NORTHERN-GROWN SEED.

VOUCHING on the advantage of northern farmers using northern-grown seeds, Mr. L. N. Geismar, agricultural agent of Houghton county, calls attention to the experience of Mr. W. A. Baker, a market-gardener of Hancock, who, for several years past, has been raising seeds of lettuce, cabbage, parsley, cauliflower, peas and beans, and over thirty other varieties of biennial and annual vegetables, herb and flower-seeds.

Mr. Geismar states that Mr. Baker frequently plants alongside of these similar variety of seeds produced in more southerly climates. The plants produced from home-grown seeds are very much more vigorous and prolific than those from southern-grown seeds.

Mr. Geismar, who was at one time in charge of the Michigan Agricultural College Experiment Station at Chatham, Alger county, quotes a Michigan Agricultural College Experiment station Bulletin of the year 1905. In 1904 beets at the station were left in the ground over winter for the production of seed in the following season. Seeds obtained from these beets produced

beets to the extent of three tons more per acre than was produced by beets from imported seeds.

NO TIE-UPS IN NORTHERN TRAFFIC BY STORMS.

WHEN the severe sleet and snow storms tie up traffic in southern Michigan and Wisconsin, as happened last week, our Lower Peninsula friends naturally wonder how unbearable conditions in the Lake Superior region must be. We often get inquiries of this sort.

In reality, the Lake Superior country is north of the sleet belt and such blizzards as paralyze locomotion in southern Michigan give very little concern north of the Straits. The prevailing lower temperatures give us a fine, light snow instead of heavy snow and sleet; yet these temperatures, close to the lake shore, are by no means unbearable.

On his recent visit to Marquette, Vilhjalmur Stefansson, the famous arctic explorer, told how often he found people supposing that it was so much colder in the Arctic regions, when, as a matter of fact, temperatures quite as low are attained in Montana and Manitoba.

It is similar with us. The maximum low temperature at Marquette, this winter, is officially put at fourteen below zero. Houses are built particularly warm, with double windows and doors. There are ample facilities for clearing streets, roads, and walks of snow.

Such delays in railway traffic as occurred, last week, were due to late connection with trains from the south which were tied up in the sleet-covered district below the peninsula. East and west trains through the peninsula had little difficulty in maintaining their own schedules.

MUCH TRAFFIC ACROSS STRAITS.

THE increasing migration of people between the two peninsulas of Michigan is indicated by statistics recently collected by the Upper Peninsula Development Bureau from the state highway department which operates an auto and passenger ferry at the Straits of Mackinac, and from the Michigan Central and Duluth, South Shore and Atlantic Railroads which operate the car ferries between the two peninsulas, at this point.

It appears that, between July 31 and November 19, 10,379 autos were transported over this route by the state ferry, both ways. Besides the passengers carried in connection with these automobiles, 2,418 other passengers were transported on this boat. The railroad ferries operated throughout the season from April 1 to early December, during which period 9,432 autos were transported both ways. As late as December 293 autos were carried on this route, showing the influence of the late fall and open winter.

The aggregate number of automobiles carried on both ferries during the season was 19,802. Since several persons are to be credited on the average to each auto transported, it is plain that there was a very large interchange of persons between the two peninsulas in 1923. The state will increase its carrying facilities next season by the addition of two new and larger automobile ferries. Improved dock facilities are being provided.

On icy days the auto frequently attempts the dog trot. It is exciting, but dangerous.

Shorthorn Sale and Show

A SHORTHORN sale immediately preceded by a show of the sale cattle, is coming to be an annual event at the Michigan Agricultural College. The cattle presented this year were a well-bred lot and carried more uniformity than is usual in a consignment sale. They had received very little fitting for the event and most all of the offering were young things. They were consigned by H. B. Peters & Son, Carland; Carr Brothers, of Bad Axe; John Lessiter's Sons, of Clarkston; S. H. Pangborn, Bad Axe; Michigan Agricultural College; L. C. Kelly & Son, of Plymouth; G. H. Parkhurst, Armada; and McLachlan Brothers, of Ewart. The range of prices was entirely to the advantage of the purchaser, many of them being painfully close to the beef level. The fifty-two head sold for \$4,845, an average of \$93.20. The complete list of buyers and prices were as follows:

To H. E. Hartwell, Williamston, No. 2, \$80.
To C. J. Porter, Williamston, No. 3, \$87.50.
To Wm. VanAlstine, Lansing, No. 4, \$65; No. 8, \$70; No. 24, \$82.50; No. 40, \$72.50; No. 43, \$40; No. 45, \$55.
To Amos Parmenter, Durand, No. 5, \$52.50; No. 14, \$62.50; No. 23, \$52.50.
To P. Wade, Owosso, No. 7, \$125.
To Glen Blystone, Clare, No. 9, \$85; No. 21, \$85.
To Harry Morrish, Cassopolis, No. 10, \$90; No. 12, \$90.
To Clyde Stoll, Charlotte, No. 11, \$90.
To E. B. Kenyon, Grand Ledge, No. 13, \$75; No. 26, \$50.
To Huston & Ikler, Granville, Ohio, No. 15, \$300; No. 20, \$300.
To J. S. Hawley, Stockbridge, No. 17, \$87.50; No. 27, \$60.
To Charles Bray, Okemos, No. 18, \$65; No. 36, \$65.
To Charles Wetzel & Sons, Ithaca, No. 19, \$85; No. 25, \$82.50.
To L. A. Clothier, Marlette, No. 28, \$115.
To Gartmann Bros., Ann Arbor, No. 29, \$145; No. 33, \$120.

To H. N. Searing, St. Johns, No. 30, \$60; No. 32, \$87.50; No. 37, \$52.50; No. 38, \$50.

To King & Winegar, Olivet, No. 31, \$115.

To W. A. Foster & Son, Lansing, No. 34, \$140.

To C. L. Hawkins, Armada, No. 39, \$57.50.

To Henry Peterson, Vermontville, No. 41, \$120.

To P. J. Wilson, Charlotte, No. 42, \$70.

To Michigan Agricultural College, No. 44, \$135.

To Harvey Gildart, Eaton Rapids, No. 47, \$67.50.

To E. B. Bursley, Charlotte, No. 49, \$62.50.

To W. J. Burkley, Williamston, No. 50, \$80.

To Ralph Stimson, Oxford, No. 51, \$100.

To Frank Aberst, No. 53, \$92.50.

To B. A. Annis, Leslie, No. 54, \$67.50.

To C. H. Cones, Jackson, No. 55, \$70.

To John Lessiter's Sons, Clarkston, No. 56, \$150.

To J. A. De Garmo, Muir, No. 57, \$155.

To L. E. Lang, Weberville, No. 58, \$62.50.

To E. E. Eckhart, Mason, No. 59, \$97.50.

To Stimson Bros., Charlotte, No. 60, \$117.50.

FORD OFFER FAVORED.

A FORWARD movement was made in the acceptance of the Henry Ford offer for the purchase of the nitrate plants and lease of the dam at Muscle Shoals, Alabama, for the purpose of manufacturing fertilizers, when the house military affairs committee reported favorably on the McKenzie bill authorizing the sale and lease of the property to Mr. Ford. It is expected that a vote will be taken soon and that the bill will pass the house by a large majority.

Michigan's Big Grain Show

(Continued from page 268).

Rye.

Class 16—Four quarts Rosen Rye: First, George and Lewis Hutzler, South Manitou Island; 2nd, A. W. Jewett, Jr., Mason; 3d, L. H. Laylin, Mason; 4th, H. C. Owen, Ovid; 5th, Mrs. Beh Johnson and Son, South Manitou Island; 6th, Lewis Hess, Ceresco; 7th, W. H. Warner, Concord; 8th, D. V. Bow, Saginaw, W. S.

Oats.

Class 17—Four quarts of any pedigreed variety of oats: First, A. W. Jewett, Jr., Mason; 2nd, J. W. Pickett, Dutton; 3d, J. C. Wilk, Alma; 4th, L. H. Laylin, Mason; 5th, J. A. Wilk, Alma; 6th, D. V. Bow, Saginaw, W. S.
Class 18—Four quarts of any other variety of oats: First, A. W. Jewett, Jr., Mason; 2nd, D. V. Bow, Saginaw, W. S.; 3d, L. H. Laylin, Mason; 4th, J. A. Wilk, Alma.

Sweepstakes—Four quarts oats: A. W. Jewett, Jr., Mason.

Barley.

Class 19—Four quarts of Six-rowed White Spring Barley: First, Henry Lane, Fairgrove; 2nd, L. H. Laylin, Mason; 3d, Fritz Mantey, Fairgrove; 4th, Charles Schiet, Fairgrove.

Class 20—Four quarts of Two-rowed Barley: First, A. W. Jewett, Jr., Mason; 2nd, L. H. Laylin, Mason; 3d, J. A. Wilk, Alma; 4th, J. W. Pickett, Dutton.

Class 21—Four quarts of Winter Barley: First, A. W. Jewett, Jr., Mason; 2nd, L. H. Laylin, Mason.

Class 22—Four quarts of Michigan Black Barless Barley: First, A. W. Jewett, Jr., Mason; 2nd, C. R. Oviatt, Bay City; 3d, J. C. Wilk, Alma; 4th, L. H. Laylin, Mason.

Sweepstakes—Four quarts of Barley: A. W. Jewett, Jr., Mason.

Sheaf Exhibits.

Class 23—Best Sheaf of Wheat: First, J. C. Wilk, Alma; 2nd, L. H. Laylin, Mason; 3d, J. W. Pickett, Dutton; 4th, A. W. Jewett, Jr., Mason.

Class 24—Best Sheaf of Rye: First, J. C. Wilk, Alma; 2nd, A. W. Jewett, Jr., Mason; 3d, L. H. Laylin, Mason; 4th, J. W. Pickett, Dutton.

Class 25—Best Sheaf of Oats: First, L. H. Laylin, Mason; 2nd, A. W. Jewett, Jr., Mason; 3d, T. J. Wilk, Alma; 4th, J. W. Pickett, Dutton.

Class 26—Best Sheaf of Barley: First, J. C. Wilk, Alma; 2nd, A. W.

Jewett, Jr., Mason; 3rd, J. W. Pickett, Dutton; 4th, T. J. Wilk, Alma.
Class 27—Best Bundle of Alfalfa: First, J. C. Wilk, Alma; 2nd, A. W. Jewett, Jr., Mason; 3d, L. H. Laylin, Mason; 4th, T. J. Wilk, Alma.

Beans.

Class 28—Four quarts of any variety of White Pea or Medium Beans: First, M. J. Smith, Springport; 2nd, J. C. Wilk, Alma; 3d, F. J. Kueffner, Saginaw, E. S.; 4th, A. W. Jewett, Jr., Mason; 5th, L. H. Laylin, Mason; 6th, R. L. Bow, Saginaw, W. S.; 7th, J. H. Vincent, Freeland; 8th, Ardent Marquand, Mason.

Class 29—Four quarts of any variety of Kidney Beans: First, C. F. Abel, Sand Lake; 2nd, W. H. Collar, Dansville; 3d, T. J. Wilk, Alma; 4th, J. C. Wilk, Alma.

Class 30—Four quarts of any variety of Soy Beans: First, T. J. Wilk, Alma; 2nd, J. A. Wilk, Alma; 3d, J. C. Wilk, Alma; 4th, Charles N. Abel, Dansville; 5th, Charles Laughlin, Dansville; 6th, D. V. Bow, Saginaw, W. S.

Class 31—Four quarts of any variety of Field Peas: First, Martin Peterson, Bruce Crossing; 2nd, George Laviollette, Bruce Crossing.

Miscellaneous.

Class 32—Four quarts of any variety of Buckwheat: First, L. H. Laylin, Mason; 2nd, A. W. Jewett, Jr., Mason.

Class 33—Four quarts of Vetch: First, A. W. Jewett, Jr., Mason; 2nd, L. H. Laylin, Mason.

Class 34—One quart of Alfalfa Seed: First, D. V. Bow, Saginaw, W. S.; 2nd, G. F. Ottmar, St. Johns; 3d, A. W. Jewett, Jr., Mason; 4th, L. H. Laylin, Mason.

Class 35—One quart Sweet Clover: First, A. W. Jewett, Jr., Mason; 2nd, L. H. Laylin, Mason.

Class 36—One quart of Medium or Mammoth Red Clover Seed: First, J. C. Wilk, Alma; 2nd, T. J. Wilk, Alma; 3d, J. A. Wilk, Alma; 4th, L. H. Laylin, Mason.

Class 37—One quart of Alsike Clover Seed: First, H. C. Owen, Ovid; 2nd, A. W. Jewett, Jr., Mason; 3d, L. H. Laylin, Mason.

Class 38—County Sweepstakes "Improved Grain" Exhibit: First, Ingham county; 2nd, Gratiot county.

Class 39—County Exhibit "Largest Number of Entries": First, Ingham county; 2nd, Gratiot county.



Prepare YOUR HORSES for Spring Work

Time will mean money to you, Mr. Farmer, one of these days

—when spring comes on, when the sun begins to shine.

The acres you plow, or harrow, or sow, each day will depend entirely upon the good condition of your team.

Condition them now with a course of

DR. HESS STOCK TONIC

You can feel it on the lines

It helps them shed their winter's coat, whets their appetite, tones up their digestion, cleans out the bowels and kidneys, drives out the worms.

Feed your workers Dr. Hess Stock Tonic and you will soon discover that you have a team before you that can do an honest day's work, without a pant or a tremble of the muscle. They will be there for business—and willing.

Excellent for mares in foal—and colts of any age. GUARANTEED.

Tell your dealer how many horses or mules you have; he has a package to suit.

25 lb. Pail, \$2.25 100 lb. Drum, \$8.00

Except in the far West, South and Canada.

Honest goods—honest price—why pay more?

DR. HESS & CLARK Ashland, O.



I spent 30 years in perfecting this Tonic.
GILBERT HESS
M.D., D.V.S.

Dr. Hess Dip and Disinfectant

Keeps the Dairy and Stables Healthful and Clean Smelling



"CLOVERLEAF" S. C. W. Leghorn Chicks

From carefully selected trap-nested stock that has years of good breeding back of it. The kind that produce the winter eggs. From highest producing stock, at a price that you can afford to pay. Why pay more? Buy "Cloverleaf" and see their superiority. 100 per cent live delivery guaranteed. Parcel Post paid to your door. Send for catalog. Special discount on early orders.
CLOVERLEAF POULTRY YARDS, R. 2-M, Zeeland, Mich.

CHIX FREE CHICK OFFER

Our Tom Barron Strain White Leghorns pay big dividends. We breed and hatch only one kind—the best. Our pure-bred chicks are strong, husky and easy to raise. Get our circular and FREE CHICK OFFER before buying eggs, chicks or breeding stock. It will surely pay you. PROGRESSIVE POULTRY FARM, P. Ver Hage, Mgr., Zeeland, Mich.

BABION'S QUALITY CHICKS

Varieties.	Prepaid Prices on	25	50	100	500	1000
Pure English White, Brown & Buff Leghorns	\$4.00	\$7.00	\$13.00	\$62.00	\$120.00
Barred Rocks, Reds, Anconas	4.25	8.00	15.00	72.00	140.00
Wh. & Buff Rocks, Wh. Wyandottes, Minorcas	4.75	9.00	17.00	82.00	160.00
Sil. Wyandottes, Orpingtons	5.50	10.00	19.00	92.00	180.00

Prices quoted are for chicks hatched from OUR GOOD UTILITY FLOCKS. Chicks from OUR EXTRA SELECTED FLOCKS will be \$3.00 per 100 higher and chicks from our Fancy Stock of BLUE RIBBON PENS will be \$5.00 per 100 higher. Postpaid. 100 per cent guaranteed. Bank references. You cannot go wrong. Order from this ad. Thousands satisfied. Ten years' experience. Our Slogan, the best chicks are cheapest, not the cheapest chicks the best.
BABION'S FRUIT AND POULTRY FARMS, Flint, Michigan.

Large, Husky Chicks

Pure-bred, high-quality chicks from certified, tested flocks on free range.	25	50	100	500	1000
Varieties.					
S. C. White & Brown Leghorns	\$3.50	\$6.75	\$13.00	\$62.50	\$120.00
Anconas	3.75	7.25	14.00	67.50	130.00
Barred Rocks, R. I. Reds	4.50	8.50	16.00	77.50	150.00
Assorted Chicks	2.75	5.50	10.00	50.00

Extra Select Stock, \$2.00 per 100 higher. Well hatched in modern machines. Each order carefully packed under our personal attention. Postpaid. 100 per cent live delivery. Bank reference. 1924 catalog ready.
WINSTROM POULTRY FARM & HATCHERY, Box A-6, Zeeland, Mich.

750,000 CHICKS \$10.00 PER 100 AND UP

Select, culled flocks of heavy layers on free range and properly cared for to produce vigorous, sturdy chicks.	25	50	100	500	1000
Varieties.					
White, Brown & Buff Leghorns, Anconas	\$3.75	\$7	\$13	\$62	\$120
White & Barred Rocks, Reds, Black Minorcas	4.25	8	15	72	140
White Wyandottes, Buff Orpingtons	5.00	9	17	82
Buff Minorcas, Silver Laced Wyandottes	6.00	11	20
Mixed	3.50	6	11	52	100

Postpaid. 100 per cent live arrival guaranteed. Order right from this ad. Bank references. Circular Free.

TRI-STATE HATCHERIES

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Brookwood Farm

Registered Guernseys of both sexes for sale at reasonable prices. Young stock from A. R. dams. Herd is Federal Accredited.

JOHN ENDICOTT, Owner
BIRMINGHAM, MICH.

Registered Guernsey Bull Calf
Three months old. May Rose breeding. Sired by Mich. State Fair Winner, 1923. A. R. Dam. Walnut Hill Farm, Milford, Mich.

Wallinwood Guernseys

Young bulls from A. R. cows for sale.
F. W. WALLIN, Jenison, Mich.

10 Reg. Guernsey cows, some A. R. Record May Rose breeding. \$2,600 for all; herd bull \$100. John Ebels, Holland, Mich., R. 2.

Reg. Guernseys Two Nice Bulls, nearly ready for service. Special terms if desired. J. M. Williams, North Adams, Mich.

Bulls From Year-Record Cows

Michigan State Institution herds have 40 cows with yearly records, 21 of which range from 900 to 1,254 lbs. butter, and from 20,000 to 27,913 lbs. milk, and many more are now on long-time test.

Increase your herd average by using a sire whose dam has proved herself a high producer. Send for list of bulls from state institution herds.

Bureau of Animal Industry
Department C.,
LANSING, MICHIGAN

A Great Opportunity.

We are offering a young Holstein bull ready for service, by a 32.63-lb. son of Matador Segis Walker, a brother to Segis Pieterje Prospect, the World's Champion. The dam is sired by a 35.73-lb. bull, King Segis blood. Also some fine heifers for sale: F. B. LAY, KALAMAZOO, MICH.

Registered Holstein Bulls
Up to eleven months of age. Good individuals and good breeding, at low prices. Also a few young cows or heifers soon to freshen. A healthy herd, I. M. SHORMAN, Fowlerville, Mich.

For Sale: Herd 20 Reg. Holsteins
33½-lb. male. R. B. PARKHAM, Bronson, Mich.

FOR SALE Jersey bulls ready for service. All cows Register of Merit. Accredited herd. Would take a bankable note. SMITH AND PARKER, R. 4, Howell, Mich.

Brookwater Jerseys

Bull calves for sale. Majesty breeding. Herd tuberculosis free. Come or write. Brookwater Farm, Ann Arbor, Mich.

FINANCIAL KING BULLS

We have for sale a few bulls ready for service, also bull calves sired by Financial King Sensation, son of Financial Sensation, the \$80,000 sire. These bulls are from R. of M. cows. Write to Coldwater Jersey Farm, Coldwater, Mich.

JERSEYS FOR SALE

Two Young Jersey cows, sired by the prize winning bulls, "Constance's Brookhill" and "Baron's Owe Interest." One freshened November 12 and one is due on March 4. Will also sell one 2-yr.-old, one yearling, one 3-mo.-old heifers. HAROLD F. KLEIN, R. 3, Birmingham, Michigan.

Jersey Cattle Hood Farm breeding. Cows and bred heifers, bull calf for sale. Herd under state and federal supervision. Address inquiries Ira W. Jayne, County Building, Detroit. Jayne Hill Farms, (one mile south), Fenton, Mich.

For Sale Jersey Bull Calves, Majesty Breeding. From tested Dams. Federal Accredited Herd. H. S. Welborn, R. 1, Kalamazoo, Mich.

Registered Jersey cattle, young bulls, for sale. Tuberculin tested. J. L. CARTER, Lake Odessa, Mich.

15 Cows, 4 bulls from R. of M. Cows. Chance to select from herd of 70. Some fresh, others bred for fall freshening. Colon C. Little, Coopersville, Mich.

Hereford Steers

78 Wt. Around 775 lbs. 84 Wt. Around 675 lbs.
86 Wt. Around 550 lbs. 102 Wt. Around 625 lbs.
44 Wt. Around 600 lbs. 48 Wt. Around 500 lbs.
All dehorned, dark reds, good stocker order. One farm practically out of feed. You can buy your choice from either bunch. Real quality Herefords when finished are usually market toppers. Give number and weight preferred. VAN V. BALDWIN, Eldon, Wappello Co., Iowa.

HEREFORDS

Registered Breeding cattle, T. B. Tested at practical prices for production of Hereford Baby Beves profitably, all ages. T. F. B. SOTHAM & SONS (Herefords since 1839) St. Clair, Mich.

Thumb Hereford Breeders' Association can supply your needs with outstanding, well-bred registered Herefords, either sexes, polled or horned at reasonable prices. Inquire of E. E. TWING, Sec-Treas., Bad Axe, Huron Co., Mich.

HEREFORDS

Bulls, Heifers and Cows with Calves by side. Most popular strains. Allen Bros., 616 S. Westnedge St., Kalamazoo, Mich.

BIDWELL SHORTHORNS Revolution Jr. 573938 heads accredited herd 28917. Now offering 2 January roan bull calves of exceptional merit, reasonably priced.

BIDWELL STOCK FARM, Box D, Tecumseh, Mich.

Dutch Belted Dairy Cattle

Most picturesque high-producing cows in the world. Let us send you descriptions and prices. Seventy, all ages, to choose from. KIRBY ORCHARD COMPANY, Covert, Michigan.

Wildwood Farm Milking Shorthorns. An accredited herd bred for beef and milk. Headed by King Sales, grandson of Glenside Dairy King. Fresh cows and heifers priced reasonably. Visitors welcome. Beland & Beland, Tecumseh, Mich. Paved Road No. 50.

RED POLLED CATTLE Males and Females Large Yorkshire Swine. E. S. CARR, Homer, Mich.

Beef-Milk Shorthorns 12 young cows and heifers, also 3 bulls 6 to 12 mos. Price \$50 and up. J. J. FOSTER & SONS, Niles, Mich.

When In Need of Red Polled Bulls, Cows or Heifers. Buy from Michigan's leading herd, owned by Westbrook Bros., Ionia, Mich.

Brown Swiss Bull Calves For Sale, one ready for service. E. T. SPENCER, Sunfield, Mich., R. 1.

HOGS

2nd ANNUAL SALE
DUROC JERSEY SWINE

35 Bred Sows and Gilts 35

Tuesday, March 4, 1924

12:30 P. M. in Heated Pavilion at the Farm

HERD SIRES

"Riches Valley Colonel" 3rd Prize Aged Boar, Detroit 1923.

"Sensation Marsi" Sired by Marsi, Reserve Sr. Gr. Champion 1922.

Write for Catalog

Schaffer Bros.

R. 4, Oxford, Mich.

DUROC JERSEYS SOWS

Bred and open Sows of the finest practical type. Farrowed April 15 to May 15, 1923. Long, well-rounded body. Send for description and photos.

Fred Vreeland writes: "I am pleased with the Sows and assure you that they are satisfactory in every respect." Every shipment guaranteed to be satisfactory. STATE FARMS ASSOCIATION, Masonic Temple, Kalamazoo, Michigan.

DISPERSION SALE

FEBRUARY 26, 1924

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Registered Durocs

FOR SALE—Young boars and gilts bred from the best herds in Michigan and Ohio, at reasonable prices and fully guaranteed. W. E. Bartley, Alma, Mich.

DUROC JERSEYS Spring pigs either sex of March April and May farrow, sired by three outstanding herd boars. If you want six type and quality combined come and see or write us. F. J. Drott, Monroe, Mich. R. 1

Duroc Jerseys Extra choice bred gilts at reasonable prices. CAREY U. EDMONDS, Hastings, Mich.

Talcoa Farm Offers for sale eight sows bred to their boars, a son of Baron Mastodon and a grandson of Champion Superbus, due in April and May. Talcoa Farm, R. 7, Lansing, Mich.

Duroc Jerseys Bred Sows, July and September gilts at prices that leave no excuse for breeding scrubs or grades. Reg. and guaranteed. JESSE BLISS & SON, Henderson, Mich.

DUROC fall and spring boars of the best breeding and quality, at prices to sell. Fall pigs at bargain prices. W. C. Taylor, Milan, Mich.

Big Type Chester White bred sows and gilts. Sired by and bred to State Fair prize winners. Lucian Hill, Tekonsha, Mich.

O. I. C.'s 25 choice young boars for fall service. Clover Leaf Stock Farm, Monroe, Mich.

O. I. C.'s 75 spring pigs, pairs not akin, from 3 good sires, also fall pigs, recorded free. Otto Schulze & Sons, Nashville, Mich.

O.I.C. & Chester Whites Strictly Big Type with QUALITY. 2 Choice gilts with extra length. Bred for last March. Also a few Choice Sept. Pigs. NEWMAN'S STOCK FARM, Marlette, Mich.

25 Reg. O. I. C. Sows, Bred for April and May farrow. All Stock Shipped on Approval. Priced Right. Fred W. Kennedy, R. 2, Plymouth, Mich.

O.I.C.'s Sept. pigs, Sired by "Giant Boy" Senior Champion at West. Mich. State Fair, 1923. Milo H. Peterson, R. 2, Ionia, Mich. "Elmhurst Farm."

Hile's Good Polands

Big, easy feeding, quality Polands. That's the kind we like and sell. Bred gilts and sows for sale. A hundred years of constructive breeding back of them. WESLEY HILE, IONIA, MICH.

L. T. P. C. Bred gilts. Fall pigs, either sex. Brown Swiss Bull, Calved 4-29-23. A. A. Feldkamp, Manchester, Mich.

Fall Pigs either sex, by the great Boar, The Wolverine. Priced reasonable. Best of dams, W. E. Livingston, Parma, Mich.

Will the TB Campaign Pay?

H. R. Smith of the National Live Stock Exchange Treats
the Subject from Market Viewpoint in the Following:

A GREAT breeding industry cannot be built on a diseased foundation. Nothing is more urgent at this time than the elimination of tuberculosis from our herds. If we can put Michigan at the head of the health column it will give us a distinct advantage in making future sales, not only of cattle and milk products, but also of swine. There has never been a time when buyers from east, west or south have been so insistent about getting cattle free from tuberculosis as now, and this feeling will become still more pronounced in the future as county-wide clean-up campaigns are organized throughout the country.

Michigan is in an excellent position to be the first northern state accredited as practically free from tuberculosis. Our percentage of infection is lower than the New England states, New York, Pennsylvania, Ohio, Wisconsin, Minnesota—lower than any of the so-called dairy states. We are nearly surrounded by water which will make it much less difficult for us to keep clean once the work is completed. The price of breeding cattle will be enhanced an average of \$15 per head when the state has been made practically free from tuberculosis. This has been our experience in Hillsdale county and it will be true of the entire state.

Packers Glad to Pay Premium.

In addressing a meeting of officials of the Chicago Packing Companies recently, I mentioned the fact that out of 6,185 hogs shipped from Hillsdale county, slaughtered in Buffalo from November 15 to December 20, on which the ten cent premium had been paid only one carcass was condemned and one sterilized, whereas with the average hogs at Buffalo one per cent, or sixty-one carcasses would be condemned. These men agreed that the ten cent premium above selling price is fair and just and all will gladly do the same in Chicago. The packers are willing to pay this premium on hogs bred and fed in an accredited county, for the same reason that the housewife is willing to pay more for guaranteed fresh eggs in the spring of the year than common eggs.

The hogs from an accredited county are sold in the regular way without the buyer knowing the point of origin. Immediately after the price has been agreed upon between buyer and seller, the commission man takes from his pocket the certificate from the county board of supervisors, signed also by the shipper, in which he states that the hogs were all bred and fed in the accredited county and to his knowledge have not been exposed to the disease tuberculosis. The purchaser then has an additional check drawn, payable to shipper, for ten cents per hundred above selling price, or approx-

imately \$17 for a full carload of hogs. This premium is not subject to post-mortem inspection, but separate killing tests have been made as a matter of information.

While almost none of these Hillsdale hogs were condemned, a large number showed slight lesions, probably avian tuberculosis from eating chickens. Glands from these hogs have been sent to Dr. Van Es, of the University of Nebraska, who has done much research work on avian tuberculosis. Chickens and guinea pigs have been inoculated with the affected glands to determine whether it is bovine, in which case the guinea pigs will contract the disease, or avian if the chickens become infected. Dr. Van Es has already found that a large proportion of the slight cases of tuberculosis among swine in Nebraska is avian from chickens.

It is a pity that Michigan does not have a well-equipped laboratory for these investigations bearing on a subject of vital importance from human health standpoint as well as the economics of the meat and milk industry. Annual Loss Exceeds Two Millions.

The loss to Michigan farmers caused by tuberculosis in cattle, swine and poultry is in excess of two million dollars per year. Would it not be the best kind of an investment to spend one million dollars per year for the purpose of eliminating practically all of the disease from the entire state during the next four years. Why dilly-dally in fighting a fire that will increase in its intensity and destruction of human lives as well as property, when aggressive measures will eliminate tuberculosis and thus put out the fire in a comparatively few years.

We hear much about reducing taxes. Many of our legislators are elected on the promise of cutting appropriations and reducing taxes. We all favor economy in public expenditures and lower taxes. I believe we should lower the annual tax of over two millions caused by tuberculosis. Why not exact a promise from every candidate for the next Michigan legislature before election that he will vote for adequate appropriations for tuberculosis eradication to reduce and eventually to eliminate the high tax caused by that disease.

The state could be cleaned up soon if we had the funds with which to partially reimburse owners of reacting cattle. It took less than three years to clean up our county and it can be done in nearly every county of Michigan within that time, and in some in less time if we had an indemnity fund of one million dollars per year. The counties are willing to pay the operating expenses, as has already been indicated by thirty-eight counties, even though adequate indemnity funds are

Dividends Without Labor

(Continued from page 259).

timated at 2,860 pounds and worth these cattle should be charged to recreation, not labor, as the care of them has been a pleasure to him and his family. Thus it appears that the dividends resulting from this combina-

Twenty-three head sold July 16.....	\$ 1,766.15
Nineteen head sold October 16.....	1,250.55
Twenty-three head pastured for others.....	161.95
Seven horses pastured.....	70.00
2,860 lbs. gain at seven cents on cattle still on hand.....	200.20

Total credits.....	\$ 3,448.85
Investments in cattle sold.....	\$ 1,942.59
Interest on all investments in cattle.....	96.70
Interest on all investments in land.....	240.00
Taxes and incidentals, (estimated).....	100.00
Dividends declared.....	1,069.56

Total debits.....\$ 3,448.85

You will note that there is no labor charge. Mr. Loomis says the very little time taken up in looking after tion of grass and cattle have been sufficient to pay the entire cost of the land in four years.

not available, and in no immediate prospect.

In this connection I wish to mention a new law in Iowa, which I assisted in drafting last winter. It provides for county area testing on a broad scale, and a means of financing the project to a successful conclusion. In brief, this new law provides that when fifty-one per cent of the cattle owners in any county sign for area testing, the board of supervisors shall make a special levy of not to exceed three mills on all taxable property. This money can be used for either indemnity or operating expense. It also provides that when seventy-five per cent of the cattle owners sign or test, the remainder are compelled to test. This law went into effect last July. During the following September when the annual levy is made in Iowa, twenty-six counties had the fifty-one per cent, and some of them seventy-five per cent signed. These twenty-six counties now have a special fund in excess of \$700,000 for this year's work, in addition to the federal and state appropriation. During the month of December, 49,626 cattle were tuberculin-tested in Iowa. This was the largest number tested in any state last December, and Iowa is just nicely started. Iowa had no funds for tuberculosis eradication six years ago.

The total for all the states and the federal appropriation did not exceed \$300,000 that year. This year we have federal and state funds totaling \$10,500,000 for tuberculosis eradication. The demand for stamping out this dread disease is sweeping the nation. Illinois had no appropriation six years ago, but has a fund of \$700,000 for this year, and will have more next year. Forty-six counties in Illinois have appropriated \$4,000 each for operating expenses. Wisconsin has a fund of \$550,000, and New York has \$2,200,000 for this year's work. Why not all co-operate to make this a real project in Michigan? We can lead all the states if we will. Think of the children whose lives will be saved if we take off our coats and do this job promptly.

Dr. Olin, Commissioner of the Department of Health in Michigan, says in a bulletin:

"Seventy-five per cent of the gland case in children is bovine.

"Sixty-six per cent of generalized case in children is bovine.

"18.2-26 per cent of deaths from tuberculosis in children is caused by the bovine bacillus.

"It is a real menace to the children of Michigan. By wiping out the tuberculous cattle throughout the state we can save the lives and prevent the maiming of thousands of boys and girls."

Dr. C. H. Mayo, of Rochester, Minnesota, internationally known as one of the world's greatest medical authorities in the world, says in a recent letter, "Bovine tuberculosis is very common in children from rural districts; it comes in the form of tuberculosis of the tonsils glands of the neck, and especially in the glands of the messentery of the intestines or ulceration of the intestines, frequently locating in the peritoneum or the appendix."

What we need is more education on this subject. If all our people in Michigan realized fully what this project to our health and prosperity means, I feel confident that the necessary funds would be forthcoming. Michigan ranks high in her educational institutions and no state excels her in citizenship. Why not make, from now on, the project of eradicating tuberculosis the big issue, and by education, legislation and the use of the well-organized state and federal departments in Michigan, make this state the first to be accredited.

FINE WOOL SHEEP BREEDERS ORGANIZE.

A MICHIGAN Fine Wool Sheep Breeders' Association was organized at Lansing, Michigan, February 6, 1924.

Officers elected were as follows: President, Amos Parmenter, of Durant; vice-president of Black Tops, L. W. Hendee, of Pinckney; vice-president of Rambouillet, Carl Moeckel, of Munith; vice-president of American Merinos, E. M. Moore, of Mason; vice-president of Standard Delaines, L. B. Lawrence, of Chelsea; secretary and treasurer, Robert J. Noon, of Jackson.

The purposes of this organization are: To encourage further the interest of fine wool sheep; to encourage a record of merit sheep shearing festival, spring and fall; to come in touch with club leaders to establish these breeds; to hold a bred ewe sale in the fall.

As an association, we go on record as favoring the establishment of a Black Top Classification at our State Fairs. We also go on record as favoring the classification of Rambouillet into "b" and "c" types at our leading county fairs. It was voted that a membership fee of one dollar be charged.

SILOS FIND MUCH FAVOR.

(Continued from page 266).

one considers food values and high building costs.

Above all, the greatest advantage of the silo is in the feed itself. Ensilage is primarily, and almost universally, a cattle feed and the dairyman or beef producer who doesn't use it is working at a disadvantage.

Ensilage contains all the qualities of green feed and with the addition of a little concentrate and legume hay, an ideal winter ration for both milk and beef is secured. The succulent and laxative nature of ensilage keep animals' digestive system in good condition and makes the appetite keener.

I think ensilage a very desirable feed for sheep, especially breeding ewes, provided care is taken not to feed mouldy material.

When winters are long and ground is covered for long periods, we find the finer portions of ensilage are relished by all classes of poultry and consistent feeding of small amounts aids greatly in winter egg production.

In brief, I think the silo on the stock farms of America today is as necessary as the barn itself. The cost is negligible when one considers the great storage facilities provided, the benefit of salvaging frosted crops and the high adaptability of the feed itself for all classes of live stock. For these reasons, one can not understand why a sane man would ever abandon the use of a silo, or why a few are still slow in seeing the light.—Walter F. Jackson.

HOLSTEIN SALE.

(Continued from page 293).

43—Lloyd Frost, Grand Ledge, Mich., W. H. Gilkes, \$125.

Spencer Gifts.

3—A. M. Welch, Ionia, Mich., Spencer, \$175.

4—A. M. Welch, Ionia, Mich., Spencer, \$110.

5—George H. Ellison, Mason, Mich., Spencer, \$65.

6—W. E. Scripps, Orion, Mich., Spencer, \$130.

7—B. J. Brooks, Brown City, Mich., Spencer, \$95.

8—Neil Muir, Valley Center, Mich., Spencer, \$75.

9—Ralph Wood, Melvin, Mich., Spencer, \$70.

10—Lloyd E. Frost, Grand Ledge, Mich., Spencer, \$80.

1 and 2—Private sale, \$150.

Gift bids by numerous contributors, \$152.50.

VETERINARY.

Infected Udder.—I have a cow that gives lumpy, bloody milk, and fell down in production from twenty-four quarts to four quarts. What might be the cause of this, and do you think she can be cured? P. E. W., Three Oaks, Mich.—Give her a teaspoonful of nitrate of potash in feed twice a day; apply camphorated oil to diseased portion of udder twice a day.

Weakness.—Have bitch two years old that was spayed; now unable to hold her urine. This trouble came on two months ago. R. F., Sturgis, Mich. The muscle at neck of bladder is weak. She is incurable.

BRED TO LAY CHICKS

Certified

100,000 Highest Quality Certified Baby Chicks. Improved Sheppard Strain S. C. Anconas—hard to beat. Winter and Summer, English Strain S. C. White Leghorns. All our Leghorns mated with Cockerels from E. E. Shaw Champion winning pen at M. A. C. 1923 laying contest. Personally culled and rated by experts and certified by Michigan Baby Chick Association. Guaranteed 100 per cent live delivery. Catalog Free. Take no chance with just as good, but get your best foundation pure-bred stock from The Reliable Poultry Farm & Hatchery, Paul De Groot, Mgr., R. 1, Dept. P, Zeeland, Mich.

Improved S. C. White Leghorns

Bred for egg production since 1910. CHICKS from this high-grade laying strain will give you bigger profits, and absolute satisfaction. They have 13 years of careful selecting and breeding direct behind them, and mature in the shortest possible time.

You are benefited by our 13 years' experience in hatching and shipping chicks. These chicks possess great vitality and grow up uniform in size. 100 per cent safe arrival guaranteed.

Have us mail you a catalogue with prices. WOLVERINE HATCHERY, Zeeland, Mich., R. 2, Box 20.

Certified Chicks

at popular prices. We won 1st and 4th prize this year on English strain White Leghorn Hen at the National Poultry Show, Chicago, also first at Zeeland Poultry Show. Other breeds have had same careful supervision in developing and breeding. Pure-bred stock carefully culled. 100 per cent live arrival guaranteed. Our chicks are money makers and will improve your flock. Write for catalog and prices. A trial will convince you. All flocks certified. AMERICAN CHICK FARM, B. 115-A, Zeeland, Mich.

Baby Chicks

Our own breeding flock of large type American White Leghorns. 12 & 13 g. and standard qualities combined. 13 years' experience in breeding, hatching and marketing. Also high quality Barred Rocks and R. I. Reds. All flocks culled and inspected. Modern hatching plant, 2 hatches weekly. Quality chicks at commercial prices. Write for prices and circular. Egg Farm & Hatchery, Big Beaver, Mich. address Birmingham, Mich., R. 4.

BIG MONEY IN POULTRY

FREE \$5.02 PER HEN PROFIT Government report on pen of our stock. Bred-to-lay Rocks, Wyandottes, Leghorns, Reds. High record breeding males \$6 to \$12. BABY CHICKS \$20 to \$40 per 100. HATCHING EGGS \$5 to \$8 per 15, \$12 to \$20 per 100. (No duty to U.S.A.) 30,000 illustrated poultry and incubator catalogues FREE. L. R. GUILD & SONS, Box A, Rockwood, Ont., Can.

300,000 CHICKS

Eggs, Pullets and Breeding Stock Aristocrat Strain Barred Rocks, both light and dark matings. Sheppard Strain S. C. Mottled Anconas, 250-280-egg strain. Tom Barron S. C. White Leghorns, heavy layers. Write for catalog giving details as to breeding. Special discount on early ordered chicks. Can fill orders promptly. FAIRVIEW POULTRY FARM, R. 2, Box E, Zeeland, Mich.

Baby Chicks

Buy ready hatched baby chicks from high egg producing free range flocks. Highest utility qualities, best for general purposes. Nine most popular varieties. Shipped postpaid, 100 per cent live delivery guaranteed. Send for catalog and prices.

HOMER HATCHERY

Homer, Mich.

Lee's Quality Chicks

Eight varieties, all from pure-bred, selected stock. We guarantee satisfaction and 100% live delivery. Write for our FREE catalog.

Lee's Poultry Farms & Hatchery Box B, Edison, Ohio

DAY OLD CHICKS

S. C. White Leghorn Day-old Chicks (English Strain) from 2-year-old hens from our own stock. Strong and vigorous. Best breeding. Also Barred Rock Chicks from 2-year-old hens from best laying strain. Catalog free. Write today. Hillcrest Poultry Farms & Hatchery, Box A, R. 2, Holland, Mich.

Big 5 To 6 Lb. English White Leghorns. Larger hens, better winter layers. Chicks, hatching eggs. Free catalog describes them in full of practical money-making poultry information. Send for it. A. Wauchek, Gobles, Michigan.

CHICKS BARRED ROCK, English Strain White Leghorns and Brown Leghorns. Guaranteed full 100 per cent alive. Free Delivery. Hillview Poultry Farm & Hatchery, C. Bowen, Prop., R. 12, B. J., Holland, Mich.

CHESTER WHITE SOW SALE

40 Head of Big Type Sows and Gilts

bred for Mar. & April farrow will sell at the Alexander Farm 6 miles north of Vassar at

1 o'clock P. M. Mar. 6th

A Quality Offering.

Write For Catalog

F. W. ALEXANDER
Vassar, Mich.

F. L. BODIMER
Reese, Mich.

BEST CHICKS at Low Prices

Send for free catalog describing best bred chicks in the country. Tom Barron and Tanager White Leghorns, Michigan's Champion Winter Laying Barred Plymouth Rocks and S. C. R. I. Reds. No better chicks anywhere at any price. Satisfaction and 100 per cent live delivery guaranteed.

Brunner-Fredrickson Poultry Farm, Box 20 Holland, Mich.

FREE FEED "Just-Rite" CHICKS

Most Profitable Varieties. Trappist-Exhibition, Pedigree, and Utility Matings, direct from prize-winners at New York, Chicago, Nat'l Egg Laying Contests. Nabob Quality. None better at any price Satisfaction and 97 per cent live arrival guaranteed. Postpaid. Low Prices. Big Catalog FREE. Stamps appreciated. NABOB HATCHERIES, Ave. 20, Gambier, Ohio Ohio Chicks are Better

Barred Rock Baby Chicks

We hatch only Barred Rock Chicks from choice selected stock shipped by prepaid parcel post to your door, satisfaction and alive delivery guaranteed. Circular on request.

THE KAZOO HATCHERY CO
R. R. 3 Kalamazoo, Mich.

Highest Quality Chicks

Feb.-March prices. Heavy broiler chicks 12c. Barred Rocks or Reds 17c; Anconas, Black Minorcas 16c; White or Brown Leghorns 15c; White Rocks, White Wyandottes, Buff Orpingtons 17½c. Extra selected chicks, built directly from contest winners, 4c per chick more. Add 30c if less than 100 wanted. Hatching eggs. Catalog. Good reference. Beckmann Hatchery, TMF, 26 Lyon St., Grand Rapids, Mich.

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

Our supreme quality Eng. W. Leg. and Ancona chicks direct from our farm, delivered 100 per cent alive at your door, at only 15c each. Write for catalog, or order from ad. MODEL POULTRY FARM, Zeeland, Mich., R. 4.

CHICKS White and Barred Rocks, Strain White Wyandottes, Buff Orpingtons, Reds. 100 per cent live arrival Guaranteed. Postpaid. Order from this ad and get the best. Durand Hatchery, Fenton, Michigan.

Poultry Miller's Guide tells all about chickens—care, feeding and raising for profit. Also describes IDEAL INCUBATORS, Hot Water and Electric—IDEAL BROODERS—Coal and Oil Burning—Baby Chicks, Eggs for Hatching. Special LOW PRICES. J. W. MILLER CO., Box 67, Rockford, Ill.

Baby Chicks \$12.00 per 100 and up. We are listing 12 varieties of pure-bred fowls, chickens, ducks and guineas. Send for prices and circulars. Clinton Hatchery & Poultry Farms, Wilmington, Ohio.

Additional Poultry Ads. on Page 299

HOGS

For Sale Four bred Hampshire Sows and Herd Boar. Wonderful individuals from excellent breeding lines. Morley E. Osborne, Sun Haven Farm, Howell, Mich.

Hamshires Best of breeding. Choice gilts bred to farrow March and April. Herman Barchet, R. 3, Watervliet, Mich.

Hamp hire Bred gilts, spring and fall boars, at bargain prices. 12th year. Write your wants. John W. Snyder, R. 4, St. Johns, Mich.

Hampshires Of Best Blood lines; 100 Bred Gilts and Sows, some fine Boars. Luckhard's Model Farm, Bach, Mich.

SHEEP

Choice Bred Ewes

400 for sale in carlots, yearlings to solid mouths, black-faced, in good condition, bred to lamb April 10th. Located 25 miles south of Detroit on Detroit & Toledo Electric, and on Dixie Highway. Telegraph Address, Rockwood. Phone Newport. Post Office, South Rockwood. ALMOND B. CHAPMAN & SON.

Cotswolds—Bred Ewes

at farmer's prices. A. M. BORTEL, Britton, Mich.

10 Head Registered Shropshire ewes of exceptional quality. Bred for last of March and April. C. Lemen & Sons, Dexter, Mich.

S HROPSHIRE—Am offering 10 young ewes of Buttar and Senator Bibby blood lines for \$20 each. C. J. Thompson, Rockford, Mich.

HORSES

Registered Belgium Mares

Pair, 5 years old in May, well matched, weight 3,200 lbs. Both raised pair of dainty stud colts last year; due to foal again in May. Will work any year. Also Belgium Stallion, weight 2,100 lbs., prize winner at Fairs. Will sell cheap if sold at once. Herman Kohler, R. 2, Clinton, Mich.

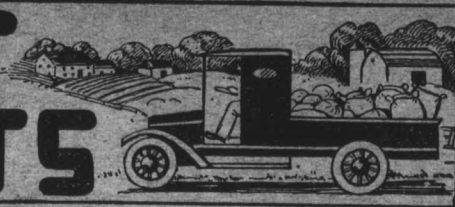
Reg. Percheron Stallions and Mares for sale. Okemos, (Ingham Co.), Mich. CHAS. A. BRAY.

GOATS

For Sale Goats—Two registered Angora does, with long silky mohair. Nice pets. Lone Cedar Farm, 111 N. Johnson Av., Pontiac, Mich.



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Wednesday, February 20.

Wheat.

Detroit.—No. 1 red \$1.16; No. 2 red \$1.15; No. 3 red \$1.12; No. 2 white \$1.16; No. 2 mixed \$1.15.
Chicago.—May \$1.10@1.10½; July \$1.10½; September \$1.10½.
Toledo.—Cash \$1.15@1.15½.

Corn.

Detroit.—Cash No. 2 yellow at 83c; No. 4 yellow 81c; No. 5, 74@76c; No. 6, 72@73c.

Chicago.—May 80@80½c; July at 80½c; September 80½c.

Oats.

Detroit.—Cash No. 2 white at 53c; No. 3, 51½c.
Chicago.—May 48½c; July 46½c; September 43½c.

Rye.

Detroit.—Cash No. 2, 73c.
Chicago.—May 71½c; July 73½c.
Toledo.—71½.

Barley.

Barley, malting 76c; feeding 72c.

Buckwheat.

Buckwheat.—New milling at \$2.10 per cwt.

Beans.

Detroit.—Immediate and prompt shipments \$4.70@4.80 per cwt.
Chicago.—Choice pea \$5.40; red kidneys \$7.60.

Seeds.

Detroit.—Prime red clover cash at \$12.15; alsike \$8.65; timothy \$3.70.

Hay.

Strong.—No. 1 timothy \$23.50@24; standard and light mixed \$22.50@23; No. 2 timothy \$21@22; No. 1 clover at \$20.50@21; No. 1 clover mixed \$20.50@21; wheat and oat straw \$11.50@12; rye straw \$12.50@13.

Feeds.

Bran \$33; standard middlings \$34; fine do \$33; cracked corn \$39; coarse cornmeal \$37; chop \$35 per ton in 100-lb. sacks.

Apples.

Chicago.—Barrels, "A" grade Greenings \$5; Jonathans \$5.50; Grimes \$3; Spies \$5@5.50; Kings \$4@4.50; Baldwins \$4.50; Spitzenberg \$4.

WHEAT

The wheat market reacted last week losing much of its recent gains. Weakness in corn, cotton and security markets, speculative profit-taking in wheat and an easier cash situation both in this country and abroad were factors in the downturn. The recent advance induced more producers to part with their holdings while milling demand fell off at some points. Numerous points of strength are still present so that prices are likely to advance again before long. The tariff commission reports that the cost of raising spring wheat in this country ranged from 85 cents to \$2.19 per bushel, compared with 53 cents to \$1.19 in Canada. These figures are believed to foreshadow an increase in the tariff from 30 to 45 cents a bushel.

CORN

Signs of a rather heavy movement of corn which will bring about a moderate accumulation at terminal markets caused the corn market to weaken in the last few days. Fairly heavy sales to March 1 are expected, although producers are disposed to tighten up on the decline. Some of the holes in distributing channels also have been filled so that corn is not disappearing quite as rapidly as before. It is unlikely, however, that the heavy movement will be long sustained or that stocks at visible supply points will become burdensome. Feeders are absorbing a large share of the movement from the country and industrial demand is fairly broad.

OATS

Oats prices reacted along with corn although less sharply. Receipts increased slightly on the recent advance while the demand was inclined to slow down. The undertone is decidedly healthy, however, so that it is quite unlikely that the highest prices of the season have yet been uncovered. Seeding of oats in the southern plains area has been delayed by wet weather and winter oats in the south and southeast are not doing well.

SEEDS

The agitation against foreign clover seed has had a telling effect so that domestic seed is commanding a big premium. Spring demand is fair, although cold weather tends to slow it

down. It is expected that the remaining supply of domestic seed will be absorbed at around current prices or higher.

FEEDS

The by-product feed market is easy in most departments. Demand is fair in some sections but the eastern dairy belt is buying less than usual at this season of the year, partly because of the unsatisfactory fluid milk market, and partly because large quantities of feed were bought last summer through cooperative associations. These feeds are now being consumed. The tone of the cottonseed meal and corn feed markets is steady as the production of these feeds is not heavy.

HAY

Hay prices are steady with a week ago, and the undertone is firm. Receipts increased as bad weather passed and producers in the surplus sections are beginning to clean up their holdings, but demand has had another spurt, especially for best grades. Keen buying of alfalfa at Kansas City continued, while the decline in prices in the previous few weeks revived southern demand.

BUTTER

The butter market was unsettled last week and declined slightly before the close. The weakness was partly sentimental although legitimate evidence of increasing production, larger receipts and heavier imports were at work. Scarcity of the lower grades of butter continued and the small discounts below fancy scores were maintained.

Prices of fresh creamery butter were: Ninety-two score, Chicago 50c; New York 50½c. In Detroit fresh creamery in tubs sells for 48@49c.

POULTRY AND EGGS

Egg prices declined sharply last week. Receipts are increasing and will rise rapidly during the next sixty days so that a further decline is to be expected. At Chicago, quotations for April delivery are about ten cents below the present market. Cold weather kept down production in January and February and the storage reserves were cleaned up better than expected, so that dealers will approach the new storing season in a little better frame of mind. Poultry prices have dropped from the recent high point. Receipts are tapering off, storage holdings probably have reached the peak, and con-

sumption is extraordinarily heavy so that the outlook is favorable.

Chicago.—Eggs, extras 38@39c; miscellaneous 30@31c; dirites at 26@27c; checks 24@26c; fresh firsts 31½@32c; ordinary firsts 29@32c. Live poultry, hens 22½c; springers 24c; roosters 16c; ducks 26c; geese 15c; turkeys 20c per pound.

Detroit.—Eggs, fresh candled and graded at 36½@37½c; Pacific coast whites 40@42c. Live poultry, heavy springers 25c; light springers 20@24c; heavy hens 25@26c; light hens 20@24c; geese at 18@20c; ducks 26@30c; turkeys 25@30c.

BEANS

Bean prices declined slightly last week to \$4.95@5 per 100 pounds for choice hand-picked whites f. o. b. Michigan. Light reds were quoted at \$7 and dark reds at \$8.25. Deliveries to elevators have increased slightly, although they are not heavy. The demand has grown dull, however. For the first time since last fall it has not been sufficient to absorb the deliveries and stocks offered for sale by country points.

WOOL

The wool market has been drifting and uncertain in the past week. The response of buyers has not been strong enough to stimulate heavy buying by mills, although they are picking up small lots here and there. They are using the low prices on goods as an argument for lower prices on raw material for both dealers and growers are firm in their views. Some buyers are disposed to wait till the new clip is available.

DETROIT CITY MARKET

Selling was stowed up by the cold weather. Cabbage was bought a little heavier, while the demand for parsnips and carrots was slower, with lower prices prevailing. Sales of potatoes were light to moderate, most being at 85c a bushel. The demand for apples was moderate and prices were firm to a little higher.

Apples, fancy \$2@2.50 bu; No. 1 at \$1.25@1.75 bu; beets \$1.25@1.50 bu; cabbage \$1.25@1.50 bu; parsley \$3@3.50 bu; onions \$1.50 bu; parsnips \$1.50 bu; potatoes 80@95c bu; turnips \$1.50 bu; parsnips \$1.25@1.50 bu; horseradish \$3@4 bu; eggs, wholesale 40@45c dozen; retail 50@55c; hens, wholesale 26@27c lb; retail 28@30c; springers, wholesale 26@27c; veal 19@20c; hogs 11@12c.

Live Stock Market Service

Wednesday, February 20.

DETROIT

Cattle.

Market is slow; all kinds very late due to storm.
Good to choice yearlings \$9.50@9.75
Best heavy steers 8.00@8.50
Handyweight butchers 7.25@8.00
Mixed steers and heifers 6.00@6.75
Handy light butchers 5.00@5.75
Light butchers 4.25@4.75
Best cows 5.00@5.75
Butcher cows 4.00@5.00
Cutters 3.00@3.50
Canners 2.50@3.00
Choice bulls 5.50@6.00
Bologna bulls 4.50@5.75
Stock bulls 3.25@4.25
Feeders 5.50@6.25
Stockers 5.00@6.00
Milkers \$45@80

Veal Calves.

Market steady.
Best \$15.00@15.50
Others 6.00@14.00

Sheep and Lambs.

Market steady.
Best lambs \$14.75@15.00
Light to common 7.00@11.25
Fair 12.50@13.75
Fair to good 6.00@8.50
Culls and common 2.50@4.25

Hogs.

Market steady.
Mixed and heavies \$7.50@7.60
Pigs 6.25@6.50
Roughs 5.85
Yorkers 7.25@7.50

CHICAGO

Hogs.

Receipts 34,000. Market is uneven.

Weighty butchers steady with yesterday's average. Light weight strong to 5c higher. Bulk of good and choice 225 to 300-lb. butchers at \$7.35@7.40; practical tops \$7.40. Two loads to yard graders at \$7.45@7.50; bulk of choice 160 to 210-lb. average \$7.15@7.35; bulk of packing sows at \$6.30@6.45.

Cattle.

Receipts 10,000. Market beef steers steady to strong; uneven; stots higher; killing quality improved; choice handyweight steers \$11.65; numerous loads weighty offering at \$10.50 and above. She stock slow, steady. Vealers strong to 25c higher; other classes steady.

Sheep and Lambs.

Receipts 14,000. Market fairly active, generally steady. Early bulk of fat woolled lambs at \$15@15.40; best lambs held higher; choice clipped lambs \$12.90; light weight fat ewes at \$9.50; medium to good kind of sheep \$8.50; feeding lambs \$7.45.

BUFFALO

Cattle.

Receipts five cars. Market steady. Calves \$15.50.

Hogs.

Receipts 25 cars. Market higher. Heavy \$7.80@7.90; yorkers \$8; pigs and lights \$6.75@7.50.

Sheep and Lambs.

Receipts five cars. Market strong. Top lambs \$15.25; yearlings at \$12@13.50; wethers \$10@10.85; ewes \$8.50@9.50.

GRAND RAPIDS

Hothouse leaf lettuce and fresh eggs fell to the lowest levels of the year early this week when the former was selling at 11 and 12 cents a pound and the latter at 33@35c a dozen. Hothouse radishes also were lower at 75c a dozen. Weakness of the greenhouse products was the result of a slackening in the consumptive demand while the break in eggs resulted from lower quotations in outside markets and not from any oversupply locally. Pork was slightly easier at 10c a pound, and beans were unsettled at \$4.35 as a result of heavier offerings from farmers and no improvement in the outside demand. Veal was barely steady at 13@15c a pound, with receipts increasing. Otherwise the Grand Rapids market was unchanged.

COMING LIVE STOCK SALES.

Hampshire Hogs.

March 4.—Gus Thomas, New Lothrop, Mich.

Shorthorns.

March 4.—Gus Thomas, New Lothrop, Mich.

Holsteins.

Feb. 26.—Baker & Keck, Ovid, Mich., R. 3, Dispersal Sale.

Durocs.

Feb. 26.—Michigan Farms, Pavilion, Mich.

Feb. 29.—Paul C. Clement, Britton, Mich.

March 4.—Schaffer Bros., Oxford, Mich.

Chester Whites.

March 6.—Alexander & Bodimer, Vassar, Mich.

March 5.—Andy Adams, Litchfield, Mich., Brood Sow Sale.

Holstein Dispersal Sale

On Tues. Feb. 26, at 12:30 o'clock

We will have a dispersal sale of 41 head of purebred Holstein-Friesian cattle at the place 1 mile north and 1½ miles west of Ovid.

The herd sire is Charlevoix Ormsby Boy No. 360889. His sire is Sir Pieter Ormsby Mercedes 40th, No. 132722, he is by Sir Pieter Ormsby Mercedes No. 44931, he has 72 tested daughters, 14 above 1,000 lbs. of butter in 365 days, 13 above 30 lbs. of butter in 7 days. His dam is Kolrain Alexander Korndyke No. 211507, with 859 lbs. of butter and 19.18 lbs. of milk in one year, she is a half sister to the dam of Kolrain Marion Fierne, who has 1,278.50 lbs. of butter and 33.339.5 lbs. of milk in one year, the great foundation cow owned by Loch Farms. His granddam has 30.13 lbs. of butter in 7 days at 4 years of age.

This herd has 10 daughters and 7 granddaughters of Fierne Johanna Payne Valdema No. 258877, all from high producing dams. His sire is King Valdema No. 137495, whose dam is Valdema Scott 2nd, with 41.88 lbs. of butter and 694.00 lbs. of milk in 7 days, 164.20 lbs. of butter, 2,933.90 lbs. of milk in 30 days, world's butter record when made. His dam, a 31-lb. three-year-old daughter of Fierne Pride Johanna Rue No. 121083. Butter in 7 days, 36.87 lbs., milk, 692.50. Butter in 1 year, 1,470.50, milk, 28,493.70, world's record when made. This bull is to be sold at the sale. Come and get some of his daughters, they are the kind to start with.

This herd is a heavy milking strain and good testers. It consists of 6 males and 35 females, good individuals. It is fully accredited for T. B.

This herd was formerly owned by Murrett Ridenour, of St. Johns, Mich.

Send for catalogues. Nine months' time will be given on good bankable notes drawing 7 per cent interest.

R. L. Bigsby, auctioneer; Will White, clerk; Guy E. Dodge with the pedigrees.

Baker & Keck, R. 3, Ovid, Mich.

Brood Sow Sale

Chester Whites and O. I. C's.

Wednesday, March 5, 1924

at 7 o'clock P. M.

NIGHT SALE will be held in good warm building, at Litchfield, Mich.

Offering will consist of 50 head, about one-half gilts bred for first litter, the balance are tried sows and fall yearlings that have had one litter, and a few good fall boars.

The sows in this offering are bred to two as good boars as any man owns. One is an Advance Type boar, bred by B. M. Boyer & Sons, of Farmington, Ia., and the other a Revolution Giant boar, bred by Frank E. Sherer, of Joy, Ill.

The Advance Type boar was 1st Senior Yearling boar and Reserve Senior Champion at Mich. State Fair in 1923. He also sired the under-6 mos. boar pigs that were 1st, 2nd, 4th and 5th, Junior Champion and Reserve Grand Champion at the same show. Also the under-6 mos. gilts that were 1st, 2nd and 3rd in same show. He and these pigs were shown at five of the best fairs in the State and were never defeated.

The Revolution Giant boar was Grand Champion at the West Michigan State Fair and won 2nd at the 1923 International, taken right out of the breeding lot without any special fitting.

The opportunity to buy this kind of foundation stock in the auction ring should appeal to farmers as well as professional breeders.

ANDY ADAMS, Prop., Litchfield, Mich.

Bean Pickers

Growers are saving hundreds of dollars in hand-picking costs by doing the work at home with an automatic efficient JUDSON JUNIOR.

Department-G estimates free of charge your profit. Advise us number bushels and pick of beans you have, with small sample in envelope. Polishes and picks dirty, rough, wet samples. Sorts Robust Variety.

Judson Michigbean Co.

409 E. Fort St.,

Detroit, Michigan

Wingarden Strain WHITE LEGHORN BABY CHICKS EGG BRED For 18 YEARS

Here's what you get when you buy
**Guaranteed Wingarden
BABY CHICKS**

(1) Pedigreed stock, from hens with records of 260 to 289 eggs per year, and males whose dams laid 298 to 304 eggs. (2) 100 per cent live delivery. (3) Chicks guaranteed to be healthy. (4) Absolutely pure-bred. (5) Absolutely no culls. (6) Stock that withstands winter cold as well as summer heat. (7) Free entry in our annual flock performance contest, whereby you may obtain 200 of our best Barron English White Leghorns free.

We know the quality of our stock because we maintain 42 hatchery farms of our own, instead of buying eggs wherever available. Sired by Hollywood and Funk Farms Males.

White and Brown Leghorns.

Send for our catalog and read full particulars of the Wingarden Strain.

Wingarden ZEELAND, MICH.
HATCHERY & FARMS Box M

Ship Your DRESSED CALVES Dressed Hogs and Live Poultry to DETROIT BEEF CO.

Oldest and most reliable commission house in Detroit. Write for instructions how to dress calves. Tags and market letter on application.

Detroit Beef Co.

1903 Adelaide St. Detroit, Mich.

I Will Condition a Horse or Cow in Twelve Days

Put flesh on its bones. Give it life and vigor. Can add fifty per cent to looks and value. Satisfaction guaranteed or no pay. Send postal for free offer.

P. M. FAUST, BRYN MAWR, PA.

Ship Your Cattle, Hogs and Sheep to Warns, Iles and Dankert

Union Stock Yards, Toledo, Ohio. For Top Prices—Big Fills—Quick Returns. Correspondence solicited.

MICHIGAN FARMER
Classified Ads. pay well.
Try one.

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates. Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order. Real estate and live stock advertising have separate departments and are not accepted, as classified. Minimum charge, 10 words.

Rates in Effect October 7, 1922

Words	One time	Four times	One time	Four times
10.....	\$0.80	\$2.40	26.....	\$2.68
11.....	.88	2.64	27.....	2.16
12.....	.96	2.88	28.....	2.24
13.....	1.04	3.12	29.....	2.32
14.....	1.12	3.36	30.....	2.40
15.....	1.20	3.60	31.....	2.48
16.....	1.28	3.84	32.....	2.56
17.....	1.36	4.08	33.....	2.64
18.....	1.44	4.32	34.....	2.72
19.....	1.52	4.56	35.....	2.80
20.....	1.60	4.80	36.....	2.88
21.....	1.68	5.04	37.....	2.96
22.....	1.76	5.28	38.....	3.04
23.....	1.84	5.52	39.....	3.12
24.....	1.92	5.76	40.....	3.20
25.....	2.00	6.00	41.....	3.28

Special Notice

All advertising copy discontinuance orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

MISCELLANEOUS

A HOME IN THE SOUTH on good Florida land. Near Pensacola on the Gulf Coast northwestern Florida, due south of Chicago, on beautiful Bay. Cows, Hogs, Hens, Vegetables, Peas and Fruits all do well. Save cost of Feed, Lumber, Labor and Winter Clothing. Enjoy Boating, Bathing, Fishing and Hunting. Climate delightful summer and winter. 10 and 40 acres for \$50 an acre. Easy terms. Write for our Free Map and Descriptive Folder No. 12. Brown & Sons, 5 N. LaSalle St., Chicago, Ill.

FOR SALE—40 acres, 24 acres first-class Concord grapes, good buildings. Lawton, 1½ miles, Paw Paw 2½, hunting, trout stream on place, Lakes near. \$1,000.00, half cash payment, deal with owner, E. H. R. 3, Box 12, Lawton, Michigan.

PRINTING—Poultrymen, Hatcheries, Farmers, Business men, get our prices on Stationery, Catalogs, Etc. Samples. Stamp Please. Mendel's Printing House, Grand Rapids, Mich.

EARLY Golden Surprise Seed Corn 1922 crop, 90 per cent Germination, also calico corn. Chas. Freed, Lancaster, Ohio.

PASTURE—Will pasture from 60 to 150 head of cattle in Central Michigan for summer season on share or low cash basis. Box 216, Michigan Farmer.

TREES, plants, shrubs, grapevines, Catalogue free. Land's Nurseries, St. Joseph, Mich.

FREE CATALOG. Carpenter's Auction School. Largest in world. Hall Bldg., Kansas City, Mo.

PATENT-SENSE—As one of the oldest patent firms in America we give inventors at lowest consistent charge, a service noted for results, evidenced by many well-known Patents of extraordinary value. Book, Patent-Sense, free. Lacey & Lacey, 795 F Street, Washington, D. C. Estab. 1869.

IMPROVED ROBUST BEANS—Heaviest yielding existing variety and latest improved Agricultural College Strain. Ninety-four per cent germination. Not polished or hand-picked. Ninety-pound bag, six dollars. Owosso. Will pick about three pounds to bag. A. B. Cook, Owosso, Mich.

SEED POTATOES—Certified. Pedigreed. Yield 300 bushels. Butternut Farm, Lupton, Michigan.

GLADIOLI BULBS, Fifteen, labeled differently, 50c. Mixed, 15c dozen. Postpaid. R. Fast, Moscow, Mich.

SEED CORN—Clement's Improved White Cap Yellow Dent. Field selected, dried on racks, car tested, with a guaranteed germination. This was one of the heaviest yielders in the State the past year in a test made by The Farms Crop Department of the Michigan Agricultural College. Write Paul Clement, Britton, Michigan, for catalog and prices.

TREES, Plants, Shrubs, guaranteed direct from grower. Lowest prices. New—Dr. Worcester Hardy peach and Ohio Beauty Apple. Planting Book Free. Woodlawn Nurseries, 951 Garson Ave., Rochester, N. Y.

LEARN MECHANICAL DENTISTRY—Day or night course. Equipment free. Write for information. Detroit Dental Mechanics' Institute, 1248 Griswold St., Detroit, Michigan.

FRUIT PLANTS, Prices Right. Stock Guaranteed. Strawberries, \$3.00 per 1,000 and up. Raspberries, Grapes, Gooseberries, Currants, Dewberries. Catalogue Free. Hellings's Nursery, Three Oaks, Mich.

100 MIXED Gladioli Blooming Bulbs, 200 bulbets, \$3.50, prepaid. Cream of 12 years' experience, many cut \$1.00 each, 4-inch flowers. Geo. S. Barnes, Battle Creek, Mich.

BERRY BOXES—Our Berry Boxes will carry your fruit to market safely, \$4.50 per thousand. Write us. Central Basket Co., Berrien Springs, Mich.

GLADIOLI BULBS—Blooming size, Le Marechal Foch, "Beautiful Pink New Variety," also mixed colors, \$3.50 per 100. Write G. Lubbers, Holland, Mich., R. 9.

STRAWBERRIES—Plants and all kinds of small fruit plants, thousands of plants. Get our list for cut prices. Sawyer Nurseries, Sawyer, Mich., Box 81.

GLADIOLI—25 big plump bulbs, fine varieties, and catalog postpaid, \$1.00. B. F. Kindig, Box 637, E. Lansing, Mich.

CERTIFIED Wolverine Oats. Order now. C. D. Finkbeiner, Clinton, Mich.

PET STOCK

GERMAN SHEPHERD—Aldriches, Collies, Old English Shepherd dogs, puppies, 10c Illustrated instructive list. W. R. Watson, Box 35, Macon, Mo.

PURE-BRED Scotch Collie Puppies. O. B. Robbins, R. 2, Mishawaka, Ind.

TOBACCO

TOBACCO—Extra Fancy Smoking, 10 pounds, \$2.50. Good Smoking, 5 pounds, \$1; 10 pounds, \$1.50; 20 pounds, \$2.75. Chewing, 5 pounds, \$1.50; 10 pounds, \$2.75. Quality Guaranteed. O'Connor Smokehouse, 8133, Mayfield, Ky.

NATURAL LEAF TOBACCO: Chewing, Five pounds, \$1.75; Ten, \$3; Smoking, Five pounds, \$1.25; Ten, \$2; Twenty, \$3.50; pipe and recipe free, pay when received. Co-operative Farmers, Paducah, Kentucky.

TOBACCO—Fancy Smoking, 10 lbs., \$2.50. Good Smoking, 5, \$1.00; 10, \$1.75; 20, \$3.00. Fancy Chewing, 5, \$1.75; 10, \$3.00. Quality Guaranteed. O'Connor Growers, 0-129, Mayfield, Kentucky.

HOMESPUN TOBACCO—Chewing, 5 lbs., \$1.75; Ten, \$3. Smoking, 5 lbs., \$1.25; Ten, \$2. Pay when received, pipe and recipe free. Farmers' Union, Paducah, Ky.

BABY CHICKS

CHICKS—White Leghorns \$12 per 100, \$6.25 for 50, and \$3.25 for 25; Barred Rocks, \$16 per 100, \$8.50 for 50, and \$4.25 for 25; White Wyandottes, \$17 per 100, \$8.75 for 50, and \$4.25 for 25; Buff Orpingtons \$18 per 100, \$9.25 for 50, and \$4.75 for 25, \$5 on each 100 chicks with order will book your order. Balance two weeks before delivery. 100 per cent live delivery guaranteed. Reference, Bank of Mt. Morris, Meadow Brook Hatchery, Mt. Morris, Mich.

PURE-BRED BABY CHICKS—Barred Rock, Buff Orpingtons, White Wyandottes, Rhode Island Reds, February 15th to April 15th, \$10.00 per hundred. After April 15th, \$14.00 per hundred. 98 per cent live delivery guaranteed. Brookdale Poultry Farm, Box 522, Paw Paw, Michigan.

BABY CHICKS—Barron S. C. W. Leghorns, \$12 per 100; Park Strain Barred Rocks, \$16.00 per 100. 100 per cent live delivery guaranteed. Liberal discount on early orders. Waterway Hatchery, R. 4, Holland, Mich.

STURDY CHICKS—Pure bred-to-lay and exhibition flocks, culled by experts. Reasonable prices. Catalog free. Single Comb White Leghorns, Anconas, Rocks, Reds, White Wyandottes. Sunnyside Poultry Farm, Hillsdale, Mich.

WRITE for free catalogue and prices on good, sound, thrifty Baby Chicks. Four leading varieties of T. B. S. C. White Leghorns, Barred Rocks, Shepard Anconas and Rhode Island Reds from thoroughly culled flocks, to the Summit Hatchery, Byron Center, Mich. 100 per cent live delivery.

BRED TO LAY Barred Rock chicks, hens, all blood tested for White Diarrhea by Michigan Agricultural College Bacteriological Dept. Pedigreed males from high-record hens used. Circular free. L. W. Aseltine, R. 1, Grand Rapids, Mich.

BABY CHICKS—Seventeen popular varieties. High egg production and standard qualities combined. Michigan State Fair winners. No better chicks available at same price. Write for prices. Litchfield Hatchery, Litchfield, Mich.

CHICKS—Genuine Tom Barron English Strain S. C. White Leghorns, bred from Imported Stock, and M. A. C. Barred Rocks. Write for our low price quality stock circular. Hillside Hatchery Farm, R. 3, Holland, Mich.

STERLING QUALITY CHICKS—Our matings this year are superb, the quality of stock has won a place in the hearts of our many patrons. Write for new catalog and prices. P. F. Clardy, Ethel, Mo.

BABY CHICKS—Write for our new free catalog and price list. Eight years' experience. H. H. Pierce, Jerome, Michigan.

QUALITY CHICKS, eggs; fifteen standard bred varieties; best winter laying strains. Free delivery. Reasonable prices. Catalogue free. Missouri Poultry Farms, Columbia, Mo.

BABY CHICKS from heavy-laying strains. All leading pure breeds. Low prices. Free. Live delivery guaranteed. Catalog Free. Smith Bros. Hatcheries, Mexico, Mo.

BRED-TO-LAY CHICKS from my own flock of Barred Rocks. Write for description and prices. Delivery Guaranteed. Krueper Poultry Farm & Hatchery, Milan, Mich., R. 3.

SINGLE COMB White Leghorn chicks, hatched from two and three-year-old hens, mated with pedigreed males from the Michigan Agricultural College. Krueger's Hatchery and Leghorn Farm, Ionia, Mich.

BABY CHICKS—Remarkable for size and strength. Reasonable prices. Leghorns, Anconas, Rocks, Reds, Wyandottes, Orpingtons, Minorcas, Spanish, Brahmas. Tyrone Poultry Farm, Fenton, Mich.

HAI LOOK! 100,000 chicks 12c and up, 15 varieties. From highest producing contest winners. Hatching eggs. Circular. Lawrence Hatchery, Box J, R. 7, Grand Rapids, Mich.

RICHARDSON'S ROCKY RIDGE pure Parks strain Barred Rock Baby Chicks, \$16 per 100. Hanover, Mich.

BABY CHICKS and eggs. Superior Ringlet Barred Rocks, R. C. R. I. Reds, White Leghorns. Circular. Wyndham's Ideal Hatchery, Tiffin, Ohio.

BABY CHICKS—White Leghorns, Anconas, Barred Rocks, Low Prices. Catalogue. Oak Dale Hatchery, Box Y, LeRoy, Minn.

BABY CHICKS—S. C. W. Leghorns, mated to Hollywood Pedigree Cockerels, 250-egg strain. Send for catalogue. Snowflake Poultry Farm, R. 5, Middleville, Mich.

BABY CHICKS and Hatching Eggs. Send for Circular. "Gibbs" Winterlay Ancona Farm, Bronson, Mich.

BABY CHICKS—Tannered and Barron Strain S. C. White Leghorns. Strong, sturdy, profit producing stock, \$15.00 per 100; \$135.00 per 1,000. Bekkers Hatchery, Holland, Mich.

BABY CHICKS—English strain White Leghorns, Brown Leghorns and Anconas. Booklet free. East Saugatuck Hatchery, East Saugatuck, Mich.

WHITE LEGHORN chix and eggs from best stock Michigan International Egg-laying Contest. Orms Thompson, Allen, Michigan.

BABY CHICKS—Bred to lay Rhode Island Reds, Barred Rocks & English White Leghorns. Also Brouler Chicks. Goret's Poultry Farm, Corunna, Mich.

74 VARIETIES—Chicks, Eggs, Turkeys, Ducks, Low Prices. Catalogue Free. Jas. Houck Co., Tiffin, Ohio.

S. C. BUFF LEGHORN Baby Chicks from good laying strain. Willard Webster, Bath, Mich.

POULTRY

SINGLE COMB REDS—Hatching eggs from selected matings, \$3.00 and \$5.00 per 15; \$15.00 per 100. They win, lay, weigh and pay. A few cockerels and pullets at \$3.00 each. Satisfaction guaranteed. Order now from this ad. Harry J. Theis, 233 Hunter St., Battle Creek, Mich.

QUALITY BIRDS CHEAP—Pure-bred Pullets, Hens, Cockerels, Turkeys, Geese, Ducks, Bantams, Guinea, Baby Chicks. Satisfaction Guaranteed. Catalogue Free. Evergreen Poultry Farms, Hatcheries, Hampton, Iowa.

STOCK and Eggs by 100 or 1,000 lots, all leading Varieties Chickens, Ducks, Geese, Bantams, Guinea, Turkeys, Fox Terrier Pups. Write your wants, Jesse Burasile, Judson, Ind.

ROSE COMB Rhode Island Reds. Winners of the state cup, 1924. April-hatched Cockerels, \$3.00, \$5.00 and \$10.00. A few Hens and Pullets. Red Acres Poultry Farm, Battle Creek, Mich., R. 6, Box 195-A.

ROSE COMB REDS—prize winning stock, 1st cockerel; 2nd, young pen, Michigan red meet. A few choice cockerels left. Order hatching eggs now. L. B. Hendrickson, 81 Frisbie Ave., Battle Creek, Mich.

WHITE WYANDOTTES from my prize-winning, heavy-laying strain. Males \$3 and \$5. Females \$3 each, \$5 pair. David Ray, Ypsilanti, Mich.

THOROUGHBRED Barred Rock Cockerels and eggs for sale at reasonable prices. Write for circular. Fair View Poultry Farm, R. 3, Hastings, Mich.

WHITE LEGHORN COCKERELS—Chicks, Eggs from best flock in country. Catalogue, Oak Dale Farms, Box Y, LeRoy, Minn.

BARRED ROCK—Cockerels, Chicks, Eggs. Chicago Winners, Great Layers. Catalogue. J. A. Schneider, Box Y, LeRoy Minn.

S. C. BROWN and English White Leghorns, 332-egg, Trapnested, Pedigreed, "Free Offer." Stock Eggs, \$1 to \$3. Catalogue. Vera Fulton, Gallipolis, Ohio.

BARRED ROCKS—State Fair Winners. Orpingtons, "Tannered" White Leghorns, Guinea, Circular. Fennor Bailey, Montgomery, Mich.

"RINGLET" Barred Rock Cockerels, also hatching eggs. Satisfaction Guaranteed. Earl Murphy, Britton, Mich.

BARRED ROCK Cockerels; Fine barred, egg and show type, \$3 each. Eggs \$2 per 15. Satisfaction guaranteed. L. H. Osgood, Cloverdale, Mich.

S. C. R. I. REDS—Pure-bred eggs for setting, 15, \$1.25; 100, \$3.00. Louis Morris, R. 1, Mt. Morris, Michigan.

BARRED ROCK COCKERELS—College stock, \$4.00, two, \$7.00. H. Wright, Mt. Morris, Mich.

SILVER LACED and White Wyandotte Chicks Cockerels. C. W. Browning, Portland, Mich.

WHITE ROCK COCKERELS—Choice stock, \$3.00 and \$4.00 each. Wesley Hile, Ionia, Mich.

SINGLE COMB Ancona Cockerels, Sheppard's best, \$7 to \$3. H. Cecil Smith, Rapid City, Mich., R. 2.

68 VARIETIES fine pure-bred chickens, ducks, geese, turkeys, fowls, eggs, baby chicks. Large catalog 5c. A. A. Ziemer, Austin, Minn.

WHITE WYANDOTTES Exclusively. Eggs \$4.50 per 100, Prepaid. Raymond East, Shippewana, Indiana.

PRIZE WINNING Rose Comb Red Cockerels, \$3.00. Chas. Beier, Dundee, Michigan.

GEESSE—Ducks, leading varieties. Free Circular. John Hass, Bettendorf, Iowa.

WHITE CHINA GEESSE, excellent layers, \$10.00 trio, Eggs 40 cents. Mrs. Alice Bonow, Mattawan, Mich.

GIANT BRONZE TURKEYS from prize winning birds. Large, healthy, unrelated stock furnished. Mrs. La Verne Brownell, Belmont, Mich.

NARRAGANSETT TURKEYS—Get something different from your neighbors. Express paid on trilos. Ernest Clement, Ionia, Mich.

GIANT BRONZE TURKEYS—Gold Bank Strain. Choice, vigorous birds. Unrelated stock. Write for prices. Mrs. Perry Stebbins, Saranac, Mich.

WHITE HOLLAND TURKEYS—Addressed, stamped envelope for quick reply. Alden Whitcomb, Byron Center, Mich.

PURE-BRED Mammoth Bronze Turkeys. Big boned young thoroughbreds. Mrs. Millie Dillworth, North Star, Mich.

MICHIGAN'S BEST Giant Bronze Turkeys. Extra good values in young toms. N. Evelyn Ramsdell, Ionia, Mich.

BOURBON RED TURKEYS—Registerable Collie puppies. Chas. A. Beatty, Milford, Mich.

WHITE HOLLAND TURKEYS—Hens, \$8; Toms, \$12; Trio, \$25. Mrs. Don Ross, R. 6, Marlette, Mich.

FOR GIANT BRONZE TURKEYS—Toulouse Geese, Buff Orpingtons, write to M. B. Noble, Salina, Mich.

MAMMOTH Bronze Toms, large, hardy birds of the best breeding. Mrs. Ralph Sher, Caledonia, Mich.

WHITE HOLLAND TURKEYS—bargain price. Mrs. Ella Cleveland, Millersburg, Mich.

HELP WANTED

ALL-MEN, women, boys, girls, 17 to 65, willing to accept Government Positions \$117-\$250, traveling or stationary, write Mr. Ozment, 167, St. Louis, Mo., immediately.

I WANT hustling man in each county to establish dealers for Hopkins Fertilizers. Create paying business for yourself. George Barker, Union Street, Hillsdale, Mich.

WANTED—Position as manager of stock or grain farm. Thoroughly experienced and capable of full management, no proposition too large. Address, Box 238, Michigan Farmer.

WE PAY \$200 monthly salary, furnish car and expenses to introduce our guaranteed poultry and stock powders. Bigler Company, X933, Springfield, Illinois.

SALESMAN, with car, experienced selling farmers, to sell farm equipment, \$50.00 a week, work year around in your county. Martin Products Co., Martinsville, Ind.

WANTED—Married man with family, on dairy and general farm near Detroit. Address Box 27, Michigan Farmer.

FIREMEN, BRAKEMEN—\$150-\$250, railroads everywhere. Railway Association, Desk W-1, Brooklyn, New York.

WANTED—Single, farm hand at once, good wages, good home, year-round work. F. Austin, Bourbon, Ind.

TRY a Michigan Farmer Classified Liner—They cost little and bring big results. See rates on this page.

