



This cow is a good milker. Just on ordinary feed-ground oats and corn, bran with oil meal -and with ordinary care, she made a profit addedof \$26.58 during December. Her butter-fat rat-ing was 3.4%. This coming shortly after fresh-ening, it would naturally be supposed that she was just about at the top of her production with the chances all in favor of her dropping off. about 10% each month afterwards. However, beginning with January, Dr. Hess Improved Stock Tonic was added to her feed, and this unquestionably made a difference in subsequent profits.

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This cow is also a fine milker, practically as good as the cow above. With the same feed and care she made \$24.51 profit during December. Buttershe made \$24.51 pront during December. Butter fat rating 3.7%. We should expect her also to be at her top production that month, and predict a falling-off for her—following the usual be-havior of cows after freshening. And this is exactly what happened. She did not have Dr. Hess Improved Stock Tonic added to her feed. This told in the profits as early even as January.



months, the upper cow receiving Dr. Hess Improved the Tonic at any time.

THE test began January 1st and continued seven Stock Tonic with her feed, the lower cow not receiving

Profits for both cows given month by month below

A TOREG TO, COLL COLL	
January-Non-Tonic cow profits 2.	8.81 April—Tonic cow profits \$24.08 1.64 April—Non-Tonic cow profits 10.18
Telesant Tenis com profits	9.84 May—Tonic cow profits - - - 29.61 4.26 May—Non-Tonic cow profits - - - 10.67
as 1 Maria anno Sta	6.74June—Tonic cow profits 25.013.61June—Non-Tonic cow profits
July-Tonic cow profit	ts \$17.62 profits 3.58

At the end of the seven months the records show that the Tonic cow had made a total profit of \$181.71, or an average profit of \$25.96 per month.

The Tonic enabled this cow to remain in finest milking condition and to maintain her highest production almost to the end of the test. Her fine showing is due to sustained production. The total profit of the non-Tonic cow for the seven months was \$79.78, or an average of \$11.40 per month.

The non-Tonic cow fell off regularly month by month from her peak production in December. Thus she came short by more than one hundred dollars of the Tonic cow's record of profit.

NOTE—It is worthy of note that the Tonic cow's milk averaged 3.59% and the non-Tonic cow's 2.97% butter-fat for the seven months. Compare with the December records in the descriptions of cows at beginning. This is mentioned as an interesting fact and not as conclusive proof that the Tonic will increase butter-fat content of milk.

Dr. Hess Improved Stock Tonic BALANCE APPETIZER-REGULATOR-MINERAL

All combined in one product

PRICES: 100-lb. drum, 10c per lb.; 500 lbs. 91/2c per lb.; 1000 lbs. 9c per lb.

Ton lots 81/2c per lb. (Except in extreme West and Canada)

N. W. AYER & SON

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What Lincoln Did for Agriculture

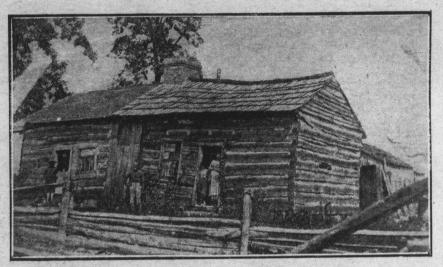
To Farming the Great Emancipator Made a Major Contribution By I. J. Mathews

N the little town of Granville, Illinois, which is in Putnam County, there stands a granite boulder, recently brought down from the bluffs of the Illinois river. On this is an in-scription saying that this boulder marks the spot where an epoch-making idea was born in 1851. This idea has since remade the agriculture and home life of the United States.

Because he stood at the parting of the ways and made possible the crystallization of this idea into educational monuments found in every state, President Lincoln may properly be regarded as one of the greatest benefactors of American agriculture. This aspect of his many-sided personality has been largely overlooked but it is very fitting that we refresh our memories on this point.

Commencement speakers, too often chosen for glibness rather than thoughts, tell farm raised boys and girls the fine features of about every profession under the sun except farming and home making. Farm boys and girls need to be "sold" on the calling and business that has given them their bread and butter and clothing so this fact should be allowed to soak in: The greatest men this country has produced have credited much to their farm training; moreover, many of their greatest contributions have been made in the field of agriculture. And Abraham Lincoln was no exception to this statement.

If newspapers had been as common



The Log Cabin Which Abraham Lincoln Helped His Father to Build in Coles County, Ill.

in Lincoln's day as they are now, he probably could not have been elected was discussed freely in Michigan durto the presidency, because he did two ing the forties, while the Michigan ing address and the convention things, either one of which would be repugnant to a large body of the country to become a reality in 1857. electorate. In the first place, he advocated agricultural training for farmers, and in the second, he made a preelection promise. Even now the first would make him unpopular in some quarters and the last would have made him liable to prosecution under the "corrupt practices" act.

The idea of an agricultural college Agricultural College was first in the But, back in 1819, one Captain Al-

Norwich, Vermont, had the temerity to work out a scheme for the teachsoil was then filled with virgin fer- merchants, and others. tility, harvest surely followed seed-

time, and with such easy going it is little wonder that the idea was on the shelf of oblivion for thirty-two years before it was dusted off and again brought to public notice. Lincoln had read the treatise of Captain Partridge and was an out and out disciple of his.

No doubt Lincoln's early training in hardship endurance on his father's farms in Kentucky, Indiana, and Illinois had much to do with his natural sympathy for those who lived by tilling the soil.

In the 1850's, Jonathan Turner was a leading light in Illinois educational circles. He also juggled the Partridge idea about in his mind finally evolving a plan whereby there would be made possible a system of education with an industrial university in each of the states. On every conceivable occasion, he spoke upon this hobby. Finally, the Buel Institute, not unlike our present farmers' institutes, called a convention to hear Professor Turner. This was called in 1851 at Granville, Illinois. Turner made the openwrestled with the plan for two days and nights and finally adopted it. It was a very hectic and dramatic conden Partridge of Norwich University, vention. It had been expected that only farmers would attend but when the gavel banged on the table, it was ing of agriculture. However, he got discovered that not only farmers were nowhere with the suggestion. The in the hall but also doctors, lawyers,

(Continued to page 179)

Wheats for Special Purposes The Michigan Station is Doing Interesting Work with this Grain

N improving wheats to meet the special demands of Michigan growers, millers, and elevator men, the Farm Crops Department of the Michigan State College is faced with a variety of climatic and soil conditions and particular market requirements. each of which demands attention.

Millers manufacturing flour for local use in bread making, desire red wheats of high gluten content, which will themselves make a good patent flour, or which will require a blending of the smallest possible amounts of hard spring or hard red winter wheat in order to achieve a patent flour of high grade. In general, they prefer red wheats which have hard vitreous kernels, a type which is high in gluten. Not only must the percentage of gluten be high but it must be of the proper nature to make an elastic, tenacious dough which will produce a voluminous loaf. For the manufacture of gluten meal, much the same requirements as to a high gluten content is made.

For the manufacture of pastry flour used in making crackers, cookies, cakes, quick breads, etc., white wheats with comparatively low gluten content are most desirable. Michigan has a great reputation based upon the excellent pastry flour produced by our millers from Michigan grown soft wheats, and, during late years, white wheats and soft red wheats have been in

By Prof. J. F. Cox Michigan Experiment Station

great demand. The market for flours more directly influenced by world of this type is well established in the prices. south where self rising flours and pastry flours are largely used and at points where crackers and biscuits are manufactured. This market is largely American and, since the war period, has been on a stronger basis than the market for the harder wheats better suited for patent flours which are

The farmer is interested in growing

a wheat which will give him the highest possible yield and bring the best price on the market. On the more fertile wheat lands; well supplied with nitrogen and mineral elements of fertility, the semi-hard high gluten wheats will yield well. On other soils,



The Plant Breeder Removes the Anthers of a Wheat Plant and Later Transfers Pollen to it from Another Plant in Order to Get a Cross

not so fertile and possibly carrying too great an abundance of moisture, white wheats and soft red wheats give much better yields and a better quality of grain.

In the vicinity of some mills, a premium is paid on the harder types than on the white and softer red wheats. For the past two years, however, the general market has been paying a premium for the white wheats. Just before and during the period of the World War (1908 to 1919), the harder red wheats were in greatest demand by our millers; the Michigan State College devoting the greater part of its efforts in wheat breeding toward securing a high yielding, high gluten wheat.

In 1914, our late plant breeder. Professor Frank A. Spragg, released the first Red Rock wheat. This was. developed from a single kernel of hard red wheat found in a white wheat with which he was experimenting. This kernel appeared to be exceptionally plump, translucent, and vitreous. In a test made at the Experiment Station from the seed increased from this single berry, it was found that the Red Rock was a high yielder, was winter hardy, and of such exceptionally high gluten content that it was unusually well fitted for bread making purposes. This wheat was increased by members of the Michigan Crop Improve-(Continued to page 181)

THE MICHIGAN FARMER

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DETROIT, FEB. 11, 1928

CURRENT COMMENT

Farmers' Week Program

HE Michigan TState College should be congratulated on the excellent program presented at East Lansing on

Farmers' Week. Certainly from the farmers' point of view it was a decided success. It was sane, practical, and timely.

As compared with former sessions, the event just past was particularly encouraging because of the interest shown in the forenoon programs of the various agricultural organizations and College departments. All of the sessions visited were unusually well attended, and what counts for more, the farm folks were interested to the point of asking questions and offering supplementary experiences on the questions at issue. This spirit was fostered by the practical nature of the various programs offered.

Another phase of this year's Farmers' Week that impressed the farmers was the splendid exhibits, covering all important lines of Michigan agriculture. These exhibits were ideal-builders. Seldom have we seen such uniformly excellent agricultural shows as were presented at East Lansing last week. The entries to these, in a majority of cases, were large. The visitors did with these exhibits exactly what was intended. They carefully inspected and studied the placings by the judges, all of which should augur for the improvement of quality in Michigan agriculture production.

After last week our respect for Michigan agriculture is more deeply grounded. The impressions at Farmer's Week gives one confidence that our farming is being anchored on a more lasting foundation than the shifting sands. However, the continuation of wise building in agriculture needs the earnest effort of all. Farmers' Week helps wonderfully in keeping folks pulling together. It aids in giv-

rural objectives and how best to reach this end.

Borer

A LONG letter has just been re The Corn ceived from a subscriber who undoubt-Program edly feels that the corn borer is not a

menace to Michigan agriculture and that farmers should forget the insect and go about their daily business. He rather severely criticizes giving public attention to this insect. Without question there are others who are of the same mind as this man.

But having watched carefully the progress of the European corn borer, first in Ontario, then in our own state, we are convinced that the most economical method of dealing with this insect is to promptly put into effect a uniform program of action throughout our state. Such a program would have to be thorough-going and universally adopted by our farmers. Unless practiced on all farms there would be little reason to use it on any.

This program should provide for a high state of fertility, to hasten the maturity of corn and produce good yields. Earlier varieties should be used. Crop rotations giving opportunity to fight the borer need to be adopted. The proper utilization of the corn crop by ensiloing, shredding, etc.,. is also necessary in this fight. Thorough plowing of all corn refuse and weeds before the middle of May is a most important phase of the work. These are the main features in a program that would enable farmers to avoid any large commercial damage from this insect.

These practices would improve our agriculture in many respects. The fact, however, that to be effective in the control of the corn borer the program must be practiced by every farmer, makes it necessary for public supervision. We feel confident that in the not distant future we shall all be unanimous in evaluating the damage that this pest can do to our agriculture. We shall also be agreed as to the need of some such program as mentioned above.

 $T_{\mathrm{the}}^{\mathrm{HE}}$ president of Michigan Why Stick Agricultural Engito the meering Association Old remarked last week that he knew of no

reason why farmers of today should do things as they were done by farmers of past generations. The introduction of electricity, gas, and six-horse teams as farm power units means that other adjustments will need to be made to secure the highest efficiency upon the farm.

He believes we should prove all things and hold fast to the good. In field operations, in the storage buildings, in the stables and home, there are endless possibilities for improvement. Nothing should be looked upon as perfect. If we have an open mind, there is hope for us; but, if we look upon the "good old times" as the real thing, the acme of perfection, the standard of life, there is nothing for which to live.

EAT more potatoes and dodge dia-Believes betes, Bright's disin ease and apoplexy is Potatoes the lesson learned by Denmark when war

cut off her grain importations, according to Dr. Hindhede, director of the Danish laboratory for nutritional research. He contends that, by eating more potatoes, America could annually save more than 100,000 people from the "diseases of civilization.".

His war experiences and observations led to the conclusion that the

whole rye bread, barley, oats, potathem. The fellowship at East Lansing toes, and butter with some vegetables will make a real contribution toward and fruit. On such a diet during the war the death rate in Denmark dropped to ten and four-tenths per thousand, which is a record for all Europe.

> He adds, "The potato is perhaps the best of all foods. It is also a remedy. It cures different forms of gout and rheumatism. If you send your patient to an alkali-well or give him plenty of potatoes, the result will be the same. But the potatoes are cheapest."

That we in Michigan are pleased to have this testimony of the merits of potatoes in the human diet, goes without saying.

Club

Work

I AM not sorry for farm young folks Value of who have an opportunity to be 4-H club members, but I do sympathize with the

thousands of boys and girls who are going through what was to me the most important part of my life, if they are unable to get this benefit," testified John Visny, former 4-H club boy of Connecticut, before the Senate Committee on Agriculture when that body held a hearing recently on Senator Capper's bill providing for increased federal appropriations for extension work in agriculture and home economics. It is estimated that the appropriation in the bill will employ sixteen hundred additional county extension agents to supervise 4-H club work and that one million more members may be enrolled annually. It provides as well for the employment of some fifteen hundred county home demonstration agents and seven hundred county agricultural agents.

John Visny testified also, that the ross farm income on his home farm had been doubled since 1923 because of his experience in the 4-H clubs. Viola Yoder showed how 4-H club work had trained her for a homemaker and how her own home had been improved and made more attractive.

The Senate Committee voted the bill out favorably and the Senate is expected to pass the bill. Eighteen national organizations are supporting the measure.

THE general impression people The have of France is French that it is a nation of Method high livers; but the tax situation would

indicate it as a nation in the control of farmers. The figures show that the business

men of France pay nearly nine times as much income tax as the farmers do, although the farmers are in the majority. The salaried men, who are in the minority, pay about six times as much as the farmers. Likewise, three times as many salaried men and four times as many business men pay income taxes as do farmers.

This apparent inequality of taxation has long been a subject of political discussion, but the good agricultural majority has always been able to defend the farmer with the argument that he was doing his duty in feeding the people.

Perhaps this shows that superior voting strength and political influence is a good thing in effectively getting others to realize the importance and the value of agriculture.

W E listened with interest to an Possibility address before the of soil association meet-Brains ing at Michigan State College on experi-

ments with jack pine lands. By giving publicity to this talk we have an idea of promoting the agricultural use of

FEB. 11, 1928

MICHIGAN SECTION THE CAPPER FARM PRESS ing us a common understanding of best diet for humans is composed of this kind of Michigan soils. There is no occasion now for adding an acre to the production area in this or any other state.

But a fact brought out in this talk illustrates how much the proper use of one's head might add to the production of his fields. In the tests made near Grayling, various crops were grown on lands that had been treated in a number of different ways. Naturally but few of these plots yielded worth-while crops. But on one plot where an alfalfa sod had been plowed down and lime and manure added, twenty tons per acre of Norfolk turnips were grown, whereas most other crops produced were altogether unprofitable.

By accommodating crops to our land, we may add generously to the feed producing capacity of our farms. In Michigan much experimental work with new crops has been done and will be done the coming years. Thinking farmers will watch these tests closely, study them carefully, and then try them out faithfully on a small scale at first. That is the only method by which we can find curselves agriculturally in Michigan or in any other place.

Rebutal

WAS interested in Hy's "explanation" because it had a personal reference. It may seem strange that I agree with some of the things he said.

I believe that the world "obey" should be taken from the marriage ceremony or put over on the man's side. The woman naturally is the one who holds the family together. Nature has designed that she have her great interest in her children, and it is



but natural that she wants to see them prepared for the duties of life. But the man. after he has said. "Hurrah, it's a boy," is ready to look some other silk stockings over.

This is not because man is man and woman is woman but because nature has made man a roamer and the woman the stay-at-home and raiser of children. And because of this, and to preserve the unity of the home as it is now established by our civilization, man is the one who should be made to say "obey." And it is necessary that woman take the management of the home to keep it a unit; also the management of a husband and keep him busy so that his natural roaming proclivities are kept in subjection.

Throughout nature there are three factors in the family; mother, father. and the young. The father is the most inconsequential but the most pretentious. The male is made for strutting and is most susceptible to flattery. He is supposed to be the provider but provides mostly provisosifs, buts, etc. Many a woman who, when arrayed in her wedding gown was in high hopes, has had to find solace for her sorrow in the comfort she got from the children.

Of course, there are women and women. Some of these so-called "gold digging" hussies who dote on dogs instead of children find life pretty ragged when they come to its end. Any marriage that is founded on dogs soon goes to the dogs. It needs children to stabilize marriage and make a home.

We farm women should insist on. the home conveniences that city women now do. They have many comforts and conveniences-no lamp chimneys to clean, no water and wood to carry, no stove ashes to care forwhat a life that must be.

SOPHIE ABIGAIL SYCKLE.



She Knows Fertilizers

And the Farmers Appreciate Her Advice

HAT Mrs. Metheney-you'll find ninety per cent of the soil samples her at the Lapeer Company's office -has certainly been worth a lot to me." It was a Lapeer County farmer speaking, "You know," he continued, "I believe she knows more about the soil and fertilizers than anyone else in the county."

If there is any person who interests me, it is one who is giving wholehearted service to the community, so quite naturally, I sought out Mrs. Metheney. Sure enough, here she was at the Lapeer Grain Company's office. She has been associated with the business for twelve years and in that time has made a study of all available information on soils, crops, farm practices, and correct fertilizers-so much so that her advice is sought by farmers because as another farmer expressed it, "She knows her stuff."

Medium in height, slender, finely molded face, studious eyes, calm demeanor. I asked her how she came to make such a study.

"Farmers would come in here to buy fertilizer," she said, rather hesitatingly. "In many cases, they had little idea what they needed and naturally, we wanted to sell them what would do them the most good. I have always had to watch my expenditures carefully so I felt that our farmer patrons would welcome anything which would help them to make the wisest possible choice of fertilizers. I found that farmers with a very acid soil were not getting results with fertilizers until they first limed their soil. We provided the office with Soiltex and in every case possible, we would test the soil for acidity first, then get a history of the field and compare this with the requirements of the crop to be grown. It is upon these facts that I have based our recommendations. I believe it is more profitable to our patrons to put in five acres right, than ten acres in a haphazard fashion." Mrs. Metheney states that about any use.

she has tested have shown acidity. She finds that each year farmers are using less straight superphosphate and that practically all the formulas sold contain all three plant foods .-- M.

FARM AGENTS BETTER LIKED

THE counties of Michigan appropriated \$201,000 for agricultural extension work this year, and fiftysix counties are cooperating in the work. It is said that the agricultural extension work is gaining favor with the boards of supervisors so that the increase in county appropriations amounts to about \$20,000 yearly. Of the nearly fourteen hundred supervisors who considered the county agent work, only 89 voted against it.

ORGANIZE CADILLAC POTATO SHOW

THE Cadillac District Potato Show organized last Friday and named H. L. Barnum of Lake City president at a meeting in the Cadillac Court House by a group of nineteen interested men.

K. Ousterhout, Wexford Farm Agent, was named secretary-treasurer and George Harrison, Manton, was selected as vice-president. The board of directors is made up of the additional men: Fred Van der Meulen, Fal-mouth; Clarence Van Houten, Mc-Bain; Frank Smith, Luther; Fred Hibst, Cadillac; I. Fay Horton, Manton; W. I. Crampton, Manistee.

constitution and by-laws were adopted providing for a board of directors of nine members, for a membership fee of one dollar, and for an annual meeting on the last day of the show.

Uncle Pete says that a good many second thoughts are too late to be of

The Smith Obsequies

'OTING almost three to one, the Senate of the United States has declined to seat Frank L. Smith, senator-elect from Illinois.

Mr. Smith was the senator chosen for the people of Illinois by Mr. Insull, head of the billion-dollar traction tion." and power combine in that and other states-chosen and paid for out of Mr. Insull's long and well-filled pocketbook.

The Senate's protest against the expenditure of millions of dollars to buy seats in that body, indicates emphatically we are not selling the Government of the United States to the highest bidder on the installment plan, or any other; that we are not offering at auction seats in the United States Senate; that we are not in the business of delivering senatorships bought and paid for. * * *

Mr. Smith's offending was particularly flagrant, it seems to me, and the facts stand unrefuted by Mr. Smith or DA. ers.

While Smith was chaiman of the Illinois Commerce Commission charged with regulating the rates of public-service corporations, he accepted compaign contributions from Mr. Insull and other public-utility magnates, although the state of Illinois has a law expressly forbidding any officer or agent of a public-servcie corporation to contribute money to any member of the commission, or for any member of the commission to accept such contribution under penalty of removal from office. To bring about Smith's nomination more than \$458,-782 was spent in the primary. Mr. Insull's contributions totaled \$158,735.

Here was a flagrant breach of public trust. Yet in certain quarters it was vociferously argued that the Senate was bound to administer the oath of office to a man whose credentials were "tainted with fraud and corrup-

This is an infamous argument, from whatever source it comes; besides it is not justified by the constitution, which expressly provides that each house of Congress "shall be the judge of the elections, returns, and qualifi-cations of its members."

There is no appeal from that.

When a senator takes his seat he becomes a federal officer and his salary is paid by the Treasurer of the United States. He is more than the representative of a state.

* 4 To admit Mr. Smith to the Senate is equivalent to admitting Mr. Insull may buy votes in the United States Senate whenever he needs them: that Mr. Insull, and other heads of utility corporations, may purchase states and the Senate be compelled to ratify the transaction; that cabinet members may be bought and made to betray their trusts by oil promoters seeking to exploit the Government's reserve oil lands.

That is something the American public will never admit-nor submit

I regret it is necessary to speak plainly in discussing this case, but with so vital a principle of government at stake, it should be discussed

in no other manner.

His feet are VARM and DRY

Perfect protection for your feet against the wet and cold ... good fit that insures foot comfort . . . long wear that means money saved-these are the reasons why millions of farmers, like H. I. Burnham, Montague, Massachusetts, choose Ball-Band rubber footwear. He says:

"I wear the Ball-Band two-buckle rubber arctic practically all the time in wer, cold weather. It sheds water like a duck's back and is high enough to protect the entire shoe, yet is light and easy on the feet. For climb-ing around the trees it is better than a shoe, because the rubber does not injure the bark. This kind of work is hard on footwear as a rule, but it doesn't seem to faze Ball-Band rubbers. I think it was about twenty-four ears ago that I bought my first Ball-Band footwear. I have been wearing them ever since; don't remember if I ever had a pair of rubber footwear that didn't have the Red Ball trade-mark."

Whatever kind of work you do, however bad the conditions under foot, and whatever style you like best, you can find just exactly the footwear you want in the Ball-Bandline. It is so complete, so varied, that every member of the family can be fitted.

Ball-Band boots, arctics

and rubbers are shaped to

fit without binding, pinch-

ing or rubbing at any

point. Made in styles and

sizes for every member of

the family

The true economy of Ball-Band footwear is revealed only by time. After you have worn a pair, you will realize that never before-unless you are now wearing Ball-Band-have you had footwear that lasted you so long, that fitted so comfortably or that kept your feet so warm and dry.

Begin now to enjoy the same benefits that Mr. Burnham tells about, and to cut your footwear bills. Ask your dealer for Ball-Band. Know that you are etting it. Look for the Red Ball trade-mark.

MISHAWAKA RUBBER & WOOLEN MFG. CO. 328 Water Street, Mishawaka, Indiana



I-BA **BOOTS · LIGHT RUBBERS · HEAVY RUBBERS** ARCTICS . GALOSHES . SPORT AND WORK SHOES . WOOL BOOTS AND SOCKS

Look for the Red Ball

AGAINST RECLAMATION

R EPRESENTATIVES of the farm organizations in. Washington are preparing to make an aggressive fight against any more Federal appropriations for new reclamation projects. They have reached the conclusion that none of the farm relief plans designed for the disposal of crop surpluses will be effective so long as the Federal government continues its present policy of land reclamation.

It is now understood that the railroad officials, land speculators, state extension workers, and others that will be called to Washington by the Secretary of the Interior to meet in conference on reclamation this month, will be told some plain facts concerning the agricultural situation, by the spokesmen for the farmers.

Some remarkable statements are being made by representatives of various industrial and civic organizations in favor of government aid to reclamation. Edgar Wallace, representing the American Federation of Labor, appeared at the Senate committee hearings on the Columbia River Basin project, and declared that the labor organizations favored government appropriations for the project because they want the farmers to have more land. He maintained that the greatest need of the farmers just now is government assistance to enable them to buy land.

The committee representing the Industrial Conference Board and the United States Chamber of Commerce evidently has gained a better understanding of the farmers' situation. They say in their report that "since farmers are now suffering from overproduction it seems worse than futile to spend new millions on reclamation projects with the aim of bringing still more land under cultivation. Not only have the reclamation activities of the Federal government contributed in some measure to the evil times which have fallen on agriculture, but the projects themselves have been very dubious ventures from the economic point of view."

THE INLAND WATERWAY

A S an initial in the proposed deep water channel from the head of Lake Superior to the Gulf of the St. Lawrence, Representative Chalmers of Ohio has introduced a bill providing for ship channels in the Great Lakes of a depth of twenty-five feet from the entrance of Welland canal to Cleveland, Toledo, Duluth, Superior, Milwaukee, and Chicago.

It is claimed that many large freighters on the lakes are built for a draft of twenty-four and one-half feet, but they are compelled to accommodate themselves to an eighteen and onehalf feet depth.

The matter of removing the shoals in the St. Lawrence river with a view to providing a depth of twenty-two feet between Lake Ontario and Ogdensburg, N. Y., has been taken up with the Canadian government with some probability that the two governments will begin this work at an early * day. It is well known that if the St. Lawrence ocean ship canal is constructed, the lakes and river ship channels above the canal will have to be deepened to permit the passage of ocean vessels to the Great Lakes ports.

NATIONAL INVESTMENT IN HIGHWAYS URGED

THE government should authorize the expenditure of \$75,000,000 annually for the next two years for highway construction, to safeguard the large investments in the automobile industry. This was the argument made by A. G. Brosseau, vice-president of the National Automobile Chamber of Commerce before the House committee on roads. Figures were pre-

THE MICHIGAN FARMER



sented at the hearings showing that the Federal government's contribufourteen per cent of the total expenditures of state highway departments.

A DEPORTATION BILL

THE Johnson deportation bill, which has the approval of the House committee on immigration, provides for the deportation of aliens who violate the prohibition, narcotic, or white slave laws and repeals the present law requiring the deportation of aliens convicted of moral turpitude, but does not affect the law barring aliens from entry where the last named offense is concerned. Deportation of convicts as soon as they serve their sentences is provided, an alien serving a sentence of one year or more being subject to deportation.

LATEST MUSCLE SHOALS NEWS

THERE are one or two noteworthy new developments in the Muscle Shoals situation. Senator Willis of Ohio has introduced in the Senate a bill similar to the Madden bill, which provides for leasing the plant to the American Cyanamid Company. for the production of fertilizers. A new bill introduced by Representative Morin of Pennsylvania is said to carry out the Department of Agriculture's plan for disposing of the plant. Nitrate Plant No. 1 would be turned over to the Secretary of Agriculture for experiment, research, and production of fertilizers. The Secretary of War is authorized to lease for not more than twenty years the power generating properties of the government, including the steam plant at Nitrate Plant No. 2. No lease can be made on terms returning less than four per cent of a reasonable value of the property. The funds derived from the lease or operation of the properties are to be placed in a fund. to be used for experimental work by the Secretary of Agriculture. It is not the purpose of this bill to put the government into the business of manufacturing fertilizers, as is proposed in the Norris government operation plan. Ketcham. His bill provides for flex-

It provides only for experimental operation on a commercial scale in the tion to road improvements is less than production of fertilizers, looking to private operation of such an industry.

NATIONAL FOREST DEVELOP-MENT

IF the United States is to maintain its forest independence of other nations, organized efforts must be made to put the now non-productive land to growing forest trees, according to a circular prepared for the Department of Agriculture by Raphael Zon, director of the Lake States Forest Experiment Station. This country now consumes as much saw timber as all the rest of the world combined, and of the world's total wood requirements, including saw timber, together with firewood and similar material, the United States takes twofifths.

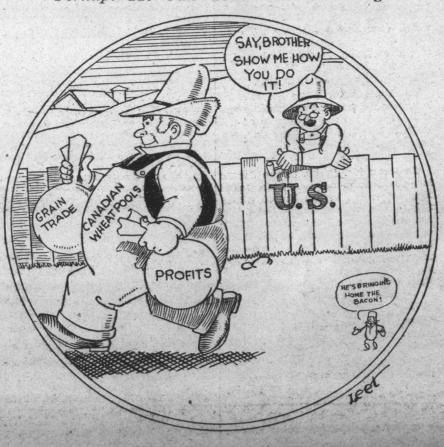
There are now nearly 3,000,000 acres of land in the Eastern national forests purchased at an average price of \$4.86 per acre, according to the report of the National Forest Reservation Commission. The ultimate objective is a total of 6,000,000 acres in the Appalachian, and other eastern mountains, 2,500,000 acres in the Lake states, and an equal amount in the Southern pine regions to complete the national forest systems in these regions.

KETCHAM SPONSORS GRANGE DEBENTURE BILL

REPRESENTATIVE Ketcham of Michigan, who is sponsoring the grange export debenture plan, after a visit to the White House for the purpose of informing the President that he was introducing a bill along the lines of the grange plan, said he found the President extremely interested in the farm situation.

The grange export debenture plan is the simplest but most effective plan yet evolved, and requires a comparatively insignificant appropriation to finance the little administration work involved, according to Congressman

Perhaps He Can Teach Us Something



FEB. 11, 1928

ible debentures to be applied according to each commodity situation, and a surplus control clause to provide automatic reduction in the debenture rate based on the increase in production of any commodity. Under the first provision the minimum debenture would be equivalent to no allowance at all and the maximum would be the tariff duty on the commodity concerned. Under the latter provision production increases would be judged by the average acreage over five years,

HORSE POPULATION DECLINING

THE argument is being used in opposition to Federal aid to farm land extension that the decrease in horse population of more than 7.014 .-000 head since 1918 means a shrinkage in the demand for horse feeds produced on an area as large as the total farm land area of Pennsylvania. Ohio, or Indiana. And the decline in horse numbers continues there having been a reduction in number of horses amounting to 1,289,000 head in the last two years, according to the report of the Department of Agriculture.

Health authorities are advocating the "Boston coffee habit" that is filling one-half of your cup with hot milk or cream before adding the coffee.

News of the Week

Hughie Jennings, one of the greatest characters baseball ever produced, and for fourteen years manager of the Detroit Tigers, died at his home, Scanton, Pa., February 1st.

An Italian Fascist newspaper claims that a secret treaty between France and Jugoslavia may bring a crisis be-tween France and Italy.

Czchoslovakia, Jugoslavia, and Rumania are asking the League of Na-tions to investigate Hungary's atattempt to import 2,000 machine guns. Attorney General Potter is going to

investigate the reason gasoline prices vary so in different parts of the state. Flint has put an embargo on interstate buses bringing in unemployed men as the city is crowded with un-employed and street panhandling is

The church war in Mexico contin-es. Recently forty-five Catholics who ues. rebelled were killed in one encounter. Jack Dempsey said recently that he would not enter the prize fight ring

on account of an injury to his eye. Ten companies control eighty-two per cent of the steel output of this country becay the industry. because of recent mergers in

Dr. J. A. Hill, assistant director of the census, claims that the U. S. popu-lation in 1930 will be 123,283,325.

An attempt was made on the life of William T. Cosgrave, president of the Irish Free State, when the train he was riding on enroute to Ottawa, Canada, was derailed. The accident occured at Limoges, Canada

Greater Detroit is credited with a population of 1,745,788 by the Polk Company, publishers of the Detroit directory.

Field Marshall Haig, the com-mander-in-chief of the British armies in France during the war, died unex-pectedly in London on January 30th. The dictatorship in Barcelona im-posed a new income tax which af-fected the workers. As the result, a general labor strike is effective.

Ernest A. O'Brien was selected as a member of the Wayne County cir-cuit court by Governor Green to take the place of the late Henry Mandell.

A thousand dollars has been offered for information leading to arrest of the Chicago gangsters who bombed the home of Charles Fitzmorris, city comptroller. There seems to be no let-up in the gang activities in that eity. city.

A fire wiped out the down town sec-tion of Fall River, Mass., an industrial town. Many lives are reported lost and millions of dollars of damage done

The final report from the World Conference on Faith and Order held at Lausanne, Switzerland, urges the elmination of needless overlapping and competition among churches in the interests of Christianity.

THE MICHIGAN FARMER

FEB. 11, 1928



The Famous Nation-Wide Values

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New Spring Coats and Dresses

For Women, Misses and Juniors

—in the latest styles, colors and materials — invite your immediate attention

The work-dresses of the house—Our House Frocks at 79 cents—are preferred by thousands

because of their superiority and style.

We recommend Jaciel Toilet Goods for we know them to be pure, efficacious and a delight to use. Sold only

in our stores. For Men and Young Men, Our Hats at \$2.98

and \$3.98 and Our Caps at \$1.98, represent

an unusually high craftsmanship and styling.

BACK of every great industry are the ideals of some pioneer, some leader, some master-mind —that hew close to the line of some great

principle. To operate in strict conformity with the principles of the Golden Rule was the ideal of Mr. J. C. Penney when he founded the family of J. C. Penney Company Department Stores in 1902.

This ideal, this pledge, was unfailingly kept in his first Store. No one was disappointed. Because people had confidence in Mr. Penney, they bought his goods and returned for more.

The Store-small but guided by

an unwavering idealwas the beginning of a mercantile achievement which, twenty-six years later, was to be a boon to the consuming public thruout the United States. The J. C. Penney Company today has 954 Department Stores, scattered over 46 States, which serve with the same faithfulness, millions of men,

women and children.

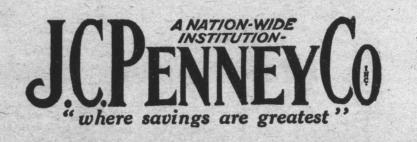
Courteous treatment, a sympathetic interest in the buying problems of customers, built-in quality that lasts and a fair price —from these people have learned to have confidence in the Company and its operations. Large buying resources are made to function to the economical advantage of the public.

7-171

The J. C. Penney Company Store nearest you, cordially invites you to call, to judge for

yourself its values and its preparedness to serve you well and save you more.

Our Spring Store News Catalog will tell you of many economies. If your address is not on the mailing list of our Store nearest you, please send it. The Catalog will be ready soon after March first.



Dry Goods, Clothing, Furnishings, and Shoes, for the Entire Family

Home Offices: 330 West 34th Street, New York City-40 Stores in Michigan, as Follows-

- Adrian Albion Allegan Alma Alpena Battle Creek Benton Harbor
- Big Rapids Cadillac Calumet Caro Cheboygan Coldwater Crystal Falls
- Escanaba Hillsdale Holland Houghton Ionia Iron Mountain Iron River

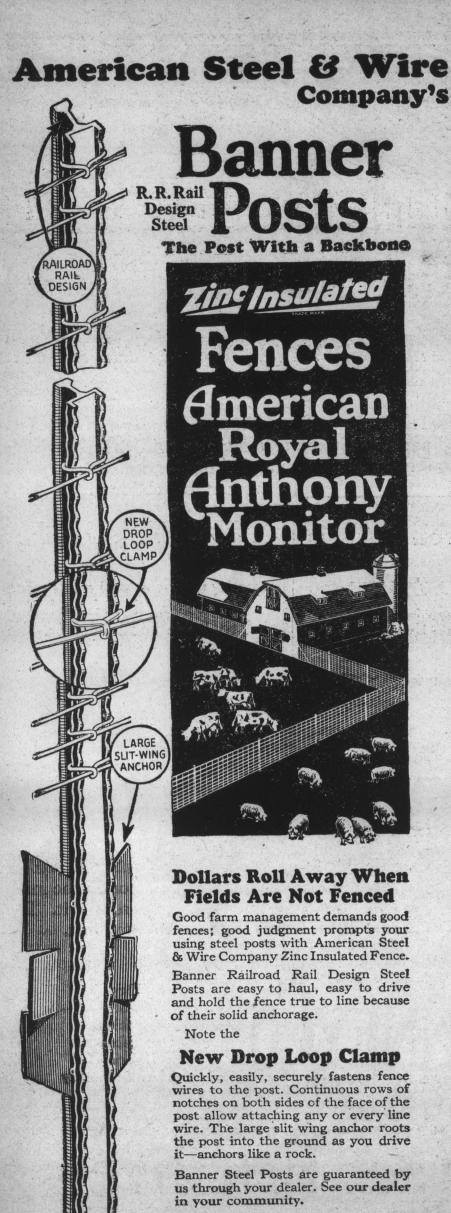
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THE MICHIGAN FARMER



AMERICAN STEEL & WIRE COMPANY Sales Offices: Chicago, New York, Boston, Atlanta, Birmingham, Cleveland, Worcester, Philadelphia, Pittsburgh, Buffalo, Detroit, Cincinnati, Baltimore, Wilkes-Barre, St. Louis, Kansas City, Minneapolis-St. Paul, Oklahoma City, Memphis, Dallas, Denver, Salt Lake City. *San Francisco, *Los Angeles, *Portland, *Seattle, *United States Steel Products Co.

ORCHARDANDGARDEN

Winter Garden Notes By C. W. Wood

but parts of the state, especially we row. of the north, have a goodly number of blizzards to go through before we see the first robin. In the meantime, we have quite a little to do before we could start active garden operations were it fit for such work now. First of all is the garden plan. Properly prepared and conscientiously followed, it should be a time and labor saver and a record that will, when followed year after year, enable the gardener to intelligently follow crop rotation. A garden plan, even when drawn to scale, is not the complicated affair that some would have you think. First, draw an outline of your garden. Then determine the quantity of each vegetable that your family will require, and the amount of space each will occupy. For example: if experience has taught that you need five hundred feet of row planted to early spinach and the garden rows are one hundred feet long, you will want five rows of spinach. With rows planted eighteen inches apart, this will take seven and one-half feet from the width of the piece to be planted. Draw the five rows on your plan in the space allotted to this crop and mark them for future information. Early spinach will be harvested in time to plant the same space to a late crop of beets, radishes or other quick maturing vegetables. Your plans should show this information. And so on, through the entire list of crops, you can follow this method until your plan is completed.

The Seed Catalog

Another pleasant (and it may be made profitable as well) way to spend a number of winter evenings is to go over the new seed catalogues that have been arriving since the first of the year. This sales propaganda is, of course, made with the primary purpose of selling the seedman's wares but the catalogue of the modern, worthwhile seed dealer is more than mere selling talk; it is quite often a manual of gardening and, withal, can be relied upon. Hundreds of plant breeders throughout the world are working every day to produce better flowers and vegetables and it is only through the seedsman and plantsman that you and I can get in contact with these new things.

While planning the vegetable garden for 1928, do not neglect the salad crops. Nearly everybody grows lettuce and cabbage but some of the others, although equally desirable, are seldom seen in farm gardens. Spinach is so easy to grow and matures so quickly, it deserves a place in every home garden. Plant it in a sheltered spot in rows far enough apart to allow cultivation just as soon as the ground can be worked. Succession plantings should be made about every two weeks until the last of April. Then drop off until about the first of August when another sowing may be made and another one about the middle of that month. Spinach likes cool weather so do not attempt to grow it during the hot, dry summer months. Bloomsdale and King of Denmark are good varieties. Mustard is another cool weather salad crop that does well in our state. Even though you may not like mustard when cooked alone, you surely will enjoy its piquancy when it is added to other cooked "greens." A selected strain of one of the horticultural varieties such as Elephant Ear will give you

FTER we have passed Ground a new idea of mustard as a salad, Hog Day, we seem to be able to Treat it as you do spinach although see spring around the corner it requires a little more space in the

> For a late fall and winter salad, there is scarcely a thing to replace It comes at a time when any kale. salad is particularly welcome. Sow from early spring until July, and, although the late planted crop will not mature, its small, tender leaves will make good "greens." Freezing weather improves the quality. Another fall salad crop that deserves more attention than it gets is endive. Plant it from early spring until July and thin to stand about a foot apart in the row. About three weeks before it is wanted for the table, draw the outer leaves together at the top and tie se-This will blanch the inner curely. leaves to a creamy-white and produce a nut-flavored salad hard to beat. Grow Endive

But for real class in the salad line. do not overlook witloof chicory or, as it is sometimes called, French endive. This is strictly a winter salad coming at a time when you will appreciate it more than at any other time of the year. Plant the seeds in spring and treat just like you do the carrot crop; lift the roots in the fall along with the carrots and store in the same manner. When they are wanted during the winter, select as many roots as you need, trim to even lengths and stand upright in a box, fill in around and between the roots with sand or loose soil, water, and place near the furnace in the cellar. If the cellar room is not dark, it may be well to invert another box over the roots to exclude light so the leaves will be blanched when they are ready to be used. I know of no more delicious salad than witloof and, I am sure, you will agree after you have tried it.

SAVE PAPER SACKS

SAVE all the paper sacks that come to the house with groceries in and by early spring I have a lot of them in all sizes. When I plant early cucumbers, melons, squash, and corn I find good use for the paper sacks. The large sacks I use for squash. I fill the sacks with eight inches of dirt, dig a hole, and set the sack into it, then I plant the seed inside the sack. For corn I use a smaller sack and for melons and cucumbers I use up all the small sacks that I have. When the planting is done, I water them and twist the sacks together. When the seeds start to germinate I untwist the top of sack and cut sack on the south side down to the ground. This lets the sun and warm south air in but excludes the cold north wind. When the weather is nice I leave the sacks when it seems colder I again twist it together at the top. This has proved to be good protection for my plants, they grow strong and vigorous and bear fruit at least two weeks earlier than the ones I seed right into the garden for a later crop of the same varieties. By the time the roots reach the bottom the sack is rotted and the roots pass right through. This is also a good way to keep the cut worms away. They never go through paper.--C. E.

Since an epidemic of blight may seriously damage pear trees and shorten their lives, it is essential that as much fruit as possible obtained from them. while they are still young.



Swift's high analysis cuts fertilizer costs say successful farmers everywhere



You know it's good—it's Swift's TALK with successful farmers who have used *high analysis* fertilizer. They will tell you they would use no other. They know it gives them their plant food for less money. It's concentrated—so they save on bagging, labor, freight and hauling.

That's why more farmers everywhere are using *high analysis* fertilizer. It cuts the fertilizer bill, reduces crop production costs.

They know that the right kind of

fertilizer will give them larger yields per acre. That means "extra bushels" beyond the yield needed to pay production costs. That isn't all. With the *right kind* of fertilizer they get crops of better *quality*—and that means higher prices.

Be sure of your fertilizer If these are the facts, why take chances with the kind of fertilizer you use? Successful farmers don't. They put their faith in Swift's Red Steer Fertilizers. They know they can depend on these fertilizers because they are *Swift's*. They know that for more than 50 years the Swift name on any product has meant the best product of its kind.

See your A. S. A. now

Follow the practice of successful farmers, the advice of experts. Plan now for larger acre yields of better quality crops—by using Swift's Red Steer Fertilizers.

See the A. S. A. (Authorized Swift Agent) in your community now. He knows good fertilizer practice in your locality. He has established a necessary business and performs an important service for your community. He can help you select the kind and amount of Swift's Red Steer Fertilizer to make you the most profit. Look for his sign.

> Swift & Company Fertilizer Works *Cleveland, Ohio*

Hammond, Ind.

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Follow the ad-
vice of your
ExperimentIt is based on the results of years of careful study and
field tests. Swift & Company's staff of fertilizer ex-
perts, adding their own knowledge to these results,
have worked out recommendations for the profitableuse of Swift's Red Steer Fertilizers. Ask your A. S. A.
(Authorized Swift Agent) for these recommendations
-the kind and amount of Swift's Red Steer Fertilizer
to use on your soil.



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NEW STRAWBERRY

MASTODON

9 to a layer; 18 to a Qt.

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Drawing from actual photograph shows one of Gillan Brothers' trees

which received 7¹/₄ lbs. Sulphate of Ammonia each year for 4 years. The condition of the tree tells the story.

Company



MAKING ELECTRICITY PAY ON THE FARM

MOST firms selling electrical power to farmers are now changing their rates from a low service charge and high power rate to a higher investment and service charge and a very much lower power rate. This is a much fairer and more intelligent arrangement, since it encourages the use of electrical power for whatever uses will bring an economic return.

There are many ways in which electricity can be utilized that will pay part of the expense of electrical home conveniences. Grinding grain at home for dairy cows costs about one-half as much as hauling it to town or to the neighbor's to do the same job for time is worth something. Some records kept on the experimental test line in Illinois showed that grinding' and mixing chicken feed at home cost fifty per cent less than buying it in town. It costs between one dollar and a dollar and a quarter to elevate 3,000 bushels of ear corn into one farmer's 24-foot crib. A portable fivehorse power motor can be used to grind feed, elevate corn, saw wood, mix concrete, pump water for stock, and many other jobs at a very low cost. Even more striking comparisons are reported on the Michigan experimental line from Mason to Danville.

Lighting the poultry house to increase egg production was taken advantage of by two of the ten farmers on the test line. Incubation of eggs and brooding of chicks are other uses of electricity in poultry production that are becoming very popular, as it takes less care to operate the machine, the temperature is controlled very accurately and fire hazard is practically eliminated.

Germinating seed corn has been on the increase for the past few years and the electric germinator has proved very successful in doing this job. In fact, several small communities have cooperated and built a large electrically heated seed germinator with an energy cost of about ten to twelve cents a bushel for germinating corn. An 800-ear size is very practical for the average farm.

The electrical refrigerator is bound to become an important use for farm electric power, since it offers such great possibilities for the chilling and keeping of milk and dairy products for market, as well as keeping foods for home use. Electric ranges are great labor savers and are becoming increasingly popular. Other well es-tablished uses are the electric milking machine, the cream separator, the washing machine, and electric mangle, and so on.-I. W. D.

TEST OIL FILTERS FROM TIME TO TIME

ONE of the new and important accessories found on most new cars is some sort of an oil filter, and some also putting standard equipment. As the oil circulates through the bearings and moving parts, it is constantly picking up fine parts of metal, bits of dirt, and other gritty material. By passing the oil through the oil filter, these particles are taken out, so that instead of being used 500 miles it can often be used 3,000 miles where thermostatic heat control and crank case ventilation are used to prevent undue dilution.

Ordinarily a filter will run about 10,000 miles without needing much attention, although this will depend very much on the road and dust con-

However, conditions may ditions. arise where the filter unit will clog in much less time, so that every motorist should have his oil filter tested from time to time to see that the filtering material is not clogged and the oil is flowing through it freely.

WATER RUNS FROM CHIMNEY

We built a new chimney this fall starting it in the basement. It is built of pressed brick with flues in side. Every time we build a fire, the water runs out of the chimney where the stove pipe goes in. This chimney is built on outside of house. Please advise.—G. F. S.

What appears to be water is probably creosote. You do not state what fuel you are burning, but I presume that it is wood because creosote forms more freely from wood, especially when it is green. The chimney being on the outside of the house would be cooler than it would be within the house, and for this reason would condense vapors passing out with the smoke, and you get creosote and probably some water running back through the pipe. If the stove is given as free a draft as possible, it will help to keep down this nuisance .- F. E. Fogle, M. S. C.

SULKY PLOWS

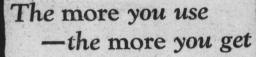
Are sulky plows beamed the same as walking plows? I have a new sul-ky plow (14 inch bottom) purchased last November which does not seem to operate right. I cannot seem to make it take land enough to cut a 14 inch furrow or turn the soil to any degree of satisfaction. I have tried every method of hitching I can think of. The beam is lined up just the opposite in relation to the plow bottom or land-side as it is on my walking plow. Should it be this way?—M.K.

Sulky plows are invariably beamed the same way as walking plows. Standing at the rear of the plow and sighting along the beam, you should find in a right hand plow the share point to be from 11/2 to 2 inches to the left of the center of the beam. However, there would be no objection to beaming on the opposite side, if three horses were to be used. Most horizontal beam hitches are capable of several inches of adjustment either way from the end of the beam thus providing for two or three horses. With a 14-inch plow bottom, the center line of draft is 2 inches in from the landside at about the junction of the moldboard with the share. The center line of draft then would be 12 inches from the furrow wall or 19 inches from the center of the open furrow. Now if the beam is placed as it should be, a stag plow with two horses should cut a full 14-inch furrow, using a 38-inch doubletree or evener without side draft. If the beam on your plow passes to the left of the share point as you state then either one of two factors may be responsible for your difficulty: The plow base may be improperly assembled to the beam; or the plow may be designed for three horses abreast, one horse in the furrow and two on the land.

To use this plow as described by you with two horses it will be necessary to spread your horses using an evener possibly 48 inches, depending upon the amount that your plow is beamed to the left of the landside .---E. C. Sauve, M. S. C.

Your flower garden for the coming season deserves thought and planning now.

The tree that bears fruit is the one that is always clubbed-the barren one is never bothered.



This is the experience of Mr. R. Johnston Gillan, of St. Thomas, Pa. For four years he has applied Sulphate of Ammonia to his "York Imperial" apple trees

Read Mr. Gillan's own story of the results he got-

"We have been using Sulphate of Ammonia in our orchard of 'York Im-Amountain our orchard of the form perials' for the past four years, keeping careful fally of the yield of each tree every year. We have put it on at the rate of 3¹/₂, 7¹/₄, and 10 pounds per tree at a time and while the gains in growth and crop have all been satisfactory, the higher application has given the larger financial return."

A generous amount of quickly avail-able nitrogen in the form of Arcadian Sulphate of Ammonia before blossom time will increase the amount of fruit set, enable the tree to carry a full crop of well-sized fruit to maturity and promote fruit bud formation for next year's crop. Mail the coupon for free sample and bulletins.

ARCADIAN Sulphate of Ammonia

The Barrett Company (address nearest office) Please send me sample package of Arcadian Sulphate of Ammonia. I am especially

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WINTER GOOD TIME TO HAUL LIME

THE Cornell Experiment Station recommends that it is good practice to spread limestone during the winter where clover of any kind will be seeded in oats or other spring grain next season. The rush of spring work often makes it desirable to have the lime on the land in advance, and if the spring is cold and wet, this advantage is emphasized.

It is also good practice to haul lime to the farm during winter. Our dirt roads are not conducive to cheap hauling in the spring. Larger loads can be hauled by sled than by wagon. Lime can be hauled home sometimes instead of returning empty after delivering farm products to market.

Anything that can be done during winter aids to get spring crops seeded at the proper time in a well-prepared seedbed. Hauling lime to the farm during winter may be insurance against seeding clover on unlimed sour soils. Seeding on sour soil may result in losing the seed as well as the clover hay crop for 1929.

To make the occasional hauling plan effective, some cooperative method of buying, unloading, and storing limestone and phosphate at the railroad could be worked out. In many cases the local bankers and elevators are doing this service practically at cost because of the much greater crop production and farm prosperity which limestone is sure to bring. In other cases the farmers' cooperative society is making this an additional part of their service.

LONGER LIFE LUMBER FOR FARM BUILDINGS

I find the lumber sold as yellow and white pine does not last very long. Would like to know if there are other woods better suited for such work and give longer service. For instance, would cypress or cedar last longer? Any suggestions will be appreciated.— Subcether Subscriber.

The best wood to use for farm buildings in any particular locality is often a compromise between quality and cost. Both cypress and cedar give relatively longer life than fir, yellow pine, and the other timber usually carried in the average lumber yard, but on the other hand will cost considerably more and often would have to be ordered specially from the mills.

A better way to meet this problem of securing longer service from buildings is to use the lumber available at a reasonable price from the lumber dealer in such a way that there will be little chance for it to rot.

For example, homes built on concrete footings and foundation walls of concrete or masonry laid in cement mortar coming up well above the ground surface, topped with waterproofing and carrying sills made of creosoted lumber, resist dampness and the attacks of white ants. With this as a start, the framework, built of ordinary lumber, will last a long time. The outside can be covered with good siding, which, if kept well painted, should also last a long time. Or if veneer or stucco; or the whole walls may be built of masonry and properly insulated. This type of construction, with an asphalt shingle or other type of fire resistant and long service roof, should make a building last a long time.

"Barns, hog houses, poultry houses, and granaries could be built in much the same way by using concrete and other long life materials for the parts subject to dampness and exposed to the weather, and the cheaper materials for the fully protected parts. Individual hog houses, poultry coops and other small structures which must necessarily come in contact with the earth should be of creosoted material, if at all possible.---I. W. Dickerson.

THE MICHIGAN FARMER

TWATER KENT RADIO FEEDING MARKET PRICES-HOME DECORATION SPANING GOOD ROADS-COOKING RECIPES

11 - 175

YOU can trust Atwater Kent Radio as you would a faithful friend. Your neighbors down the road or over the hill-they know. The dealer in town-he knows. Everybody with radio experience knows.

Knows what? Knows that Atwater Kent Radio will never go back on you. This is its reputation. This is the reason for its leadership. This is why most farm families-buying prudently, selecting carefully-have chosen Atwater Kent as their Radio.

Because so many do buy, the price is low. You, too, can benefit by the economies of careful mass production. Note the new low 1928 prices. Compare our radio with others-for tone, range, selectivity, workmanship-see for yourself that you can pay much more for radio and not get Atwater Kent performance.

ATWATER KENTMANUFACTURING COMPANY 4769 Wissahickon Avenue A. Atwater Kent, President Philadelphia, Pa.

If you have electricity

The receivers illustrated here are battery-operated. If you have electricity from a central station your dealer can equip any of them for all-electric operation. Or he can supply you with the Atwater Kent House-Current Set, which takes all its power from the lighting circuit and uses the new A. C. tubes.

MODEL 35, a powerful ONE Dial, six-tube Receiver with shielded cabinet, finished in two tones of brown crystalline. Ideal for a small table, window sill or bookshelf. Without accessories. \$49 MODEL E RADIO SPEAKER. New method of cone suspension, found in no other speaker, makes certain the faithful re-production of the entire range of musical tones. An extraordinary speaker. Hear 21 874

ONE Dial Receivers licensed

under U. S. Patent 1,014,002

Prices slightly higher from the Rockies West

Sam Pickard says:

"Radio is probably the greatest boon to education since the

printing press was invented." Mr. Pickard, formerly chief of

the radio service of the U. S. Department of Agriculture, is now a Federal Radio Commissioner. The Department of Agri-

culture is the largest user of radio for informative purposes in

the world. Countless families are profiting by its market and

weather reports and educational programs for men, women and

children. Entertainment-travel-adventure, too-all at your

Atwater Kent Radio Hour every Sunday night

on 23 associated stations

finger tips as you turn the Atwater Kent ONE Dial.

it! \$24



STOP ATRUSS

MODEL 33, a very powerful ONE Dial, siz-tube Receiver with solid mahogany cabinet. Unusu-ally effective where distance-getting is essential or inside antenna is necessary. Simple antenna adjustment device assures remarkable selec-tivity. Without accessories. \$75

Free-Trial Plapao-Free STUART'S ADHESIF PLAPAO-PADS are STUART'S ADHESIF PLAPAO-PADS are surprisingly different from the truss—being mechanico-chemico applicators—made self-athesive purposely to keep the muscle-tonic "PLAPAO" applied continuously to the af-fected parts, and to minimize painful friction and dangerous slipping. No straps, buckles or spring attached. Soft as velvet—casy to apply—inszpensive. For almost a quarter of a century satisfied thousands report success without delay from work. Stacks of sworn statements on file. Process of recovery natural, so no subsequent use for a truss. Awarded Gold Medal and Grand Prix, Trial of "PLAPAO" will be sent you absolutely FREE Write name on coupon and send TODAY, FREE Plapas Co., 408 Stuart Bldg., St. Louis, Mo. Name

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Two Wonderful Tillage Tools

Special Terms if You Order Now! MICHIGAN SHO CO., Kalamazao, Michigan

The McCormick-Deering Rotary Hoe

Try a Michigan Farmer Liner

HE McCormick-Deering Rotary Hoe does a perfect job cultivating young crops and breaking crusts. You can use it after the delicate plants are struggling through, and also after they are well up. It is the only tool that will cultivate right in around the young plants; the only tool to cultivate solid plantings of soybeans-without harm to the plants. It cannot be beat for winter wheat cultivation in the spring. Growers of mint, beets, potatoes, cotton, tobacco, garden truck, etc., find this a most effective mulcher, cultivator, and weed killer.

The McCormick-Deering Rotary Hoe can be driven either way of the rows and cultivates a strip 84 inches wide. A new hand with a green team and a Rotary Hoe will do the young crop more good than two old hands with single-row cultivators.

For a new and better tillage method ask the McCormick-Deering dealer about the Rotary Hoe; tell him you're from Missouri and waiting to be shown.

606 S. Michigan Ave.



The McCormick-Deering Soil Pulverizer

Not only the finest seedbed but made in fastest time-that combination has created the great demand for the McCormick-Deering Soil Pulverizer. In many soils you can use it behind the tractor disk harrow and go just once over the field at the rate of 20 acres a day and your seedbed is ready. Time, labor, and money saved in the rush of spring work.

But the biggest thing is the perfect seedbed. The Soil Pulverizer makes a finely mulched, deep, mellow seedbed, ideal for conservation of moisture and maximum germination of the seed. No other type of implement will produce so fine a condition from top to bottom, and none will do it so economically.

This is a big-enough job for any implement but the Soil Pulverizer has many other uses. In small corn, wheat, oats, cotton, potatoes, sugar-cane, etc., it pulverizes crusts and lumps with no damage to the plants. It keeps down weeds, conserves moisture, keeping little plants firmly set in finely mulched soil.

Drop us a line for folders describing, in full, McCormick-Deering Soil Pulverizers and Rotary Hoes INTERNATIONAL HARVESTER COMPANY OF AMERICA (Incorporated) Chicago, Illinois

93 Branch Houses in the U. S.; the following in Michigan Farmer territory--Detreit, Grand Rapids, Green Bay, Jackson, Saginaw

Service Department QUALIFICATIONS OF OVERSEER

Does a man have to be a tax payer in order to hold the office of highway overseer?—J. McQ. By compiled Laws 1915 Section 2162,

the qualifications of township officers are declared to be that they be citizens of the United States and voters of the township. Nothing more can

By the Federal Revenue Act of 1924, whenever a resident of the United not more than \$30.00, in all at any one States dies leaving a gross estate ex- time. The remedy is to bring suit ceeding \$50,000.00, it is taxed at the rate of 1% on the excess up to \$100,-000.00; and above that amount the rate increases 1% at \$150,000.00, and due. If he is paid in advance or again at \$200,000.00, and so in increase every day this remedy would be of ing amounts until above \$10,000,000.00 no avail.-Rood. again at \$200,000.00, and so in increasthe tax is 25%. In the case of nonresidents of the United States there is SHOULD COAL TAR BE USED ON no exemption. The state tax upon inheritance depends somewhat upon the person to whom the property goes. The share transferred to the wife is

not taxed until it exceeds \$5,000.00; the share of a child under 17 years of age at the death of the ancestor is taxed only so far as it exceeds \$1,000.00, and the excess up to \$50,-000.00 is 5% of the clear market value, and larger sums in greater proportion. The provisions of each statute cover a good many printed pages and the foregoing only hits the high spots.

FEB. 11, 1928

GARNISHEE

be required.—Rood. INHERITANCE TAX What is the Federal Inheritance tax law and the Michigan Inheritance tax law?—F. G. F. By the Federal Inheritance tax Law?—F. G. F. A single man owes me \$500 and has nothing that I can sue for. He earns \$5.00 a day. Can I garnishee his wages? Must I garnishee 'him every pay day? Please explain as to how I should go about this.—A. H. Forty per cent of the store

Forty per cent of the single man's wages are exempt up to \$8.00, and against him and summon the employer as garnishee at some time when it is thought there is a considerable sum

METAL ROOF?

Is coal tar alright on a metal roof to keep it from rusting? Will it in-jure the roof to use it?—J. T.

Coal tar is not considered a safe material to use on metal roofs, since ordinarily it contains considerable free acids, which may have a destructive action on both the galvanizing and the metal itself. One roofing firm recommends coal tar on galvanized steel roof, provided enough Portland cement is mixed with it to neutralize the acids. Only by mixing this several days ahead and then testing it for acid could one be sure that it was neutral; and I do not know just what effect the cement would have on the weathering value of the coating, if an excess of cement was used.

Probably the best thing to use on a metal roof is a coating of first class asphalt paint and next best is redlead and linseed oil, while a good cheaper paint is red oxide of iron and linseed oil.-I.

A 50-50 SHEEP PLAN

I am farming a 200-acre farm on the fifty-fifty basis. I am to furnish half of all seed and live stock; also pay half of all threshing, binder, twine, and coal expense for thresh-ing. I am to furnish teams and hired help that is needed on the farm. The landlord bought a bunch of old ewes last spring. He told me that if I took care of them, furnished half the feed, paid half of the shearing, twine, and board expense besides supplying half of the help for shearing, and haul the manure on the farm, I would re-ceive half of the wool and half of the lambs. Some of the old ewes died this summer, and some are so old they haven't any teeth. Now he wants to sort the flock and wants me to re-place the old ones with the undivided lambs. He also expects me to replace lambs. He also expects me to replace the ones that died. Is it right that I should do this?—J. S.

On the basis of a 50-50 rental the tenant should have shared equally in the sheep at the outset. In either case it is fair to make good the original flock before lambs are divided. However, if ewes were old and in poor condition it might be better to replace them on a value basis rather than on an animal basis. Again, if landlord and tenant agreed to terms as stated, they should abide by original agreement.-F. T. Riddell.

FIXING PRIVATE ROAD

When a road is being built by my farm, and my drive is spoiled, does the state or county or whoever is building the road have to furnish a culvert and fix my drive, or do I have to build it myself?—L. H. M.

The statute provided that the highway commissioner shall provide an entrance to each farm and field when a ditch is constructed along the highway between the road and the premises.-Rood.

KIWANIS CLUB BOOSTS BETTER BOYS AND BETTER SPUDS

FOR some years, the grocers of Chelsea, Mich., have complained that they could not buy good potatoes for their patrons locally and since some of these grocers belonged to the local Kiwanis Club, they conceived the idea of working with the Washtenaw County club agent, A. E. Hagan, in developing a potato club in the community as an expression of their motto "We Build."

So last spring, the Kiwanis Club got in one hundred bushels of certified seed potatoes. Each of the thirtyeight members of the Kiwanis Club sponsored one farm boy, helping him to finance his seed when necessary and visiting his potato patch during the summer. In all, there were fortyfive members in the club and they had among them one hundred and fiftyfive bushels of certified seed potatoes to plant, fifty-five having been brought in privately.

The club started off in the spring with a banquet to the potato club members by the Kiwanis Club and ended with the same sort of a social function to the members and their parents. Forty-three of the boys reported their yields at digging time and they grew 2,023 bushels on ten and two-tenths acres or more than two hundred bushels per acre. These were fertilized according to the M. S. C. potato specialist's recommendations with 2-12-2 fertilizer. In the show which was held, there were forty exhibits.

"The boys were more than pleased with their results," says Mr. Hagan. They sold their surplus of potatoes grown from this certified stock for seed getting \$1.50 per bushel whereas ordinary table stock was bringing but a dollar a bushel."—I. M.

IMMENSE PROFIT FROM CORRECT POTATO FERTILIZER ON MUCK SOIL

I N any appraisal of the natural resources of the State of Michigan, it must be concluded that the undeveloped muck which is estimated to be from two to four million acres, is one of the greatest. Muck soils respond to fertilization very markedly and if they are properly, yet not too well drained, they have an additional advantage that is not to be had on upland soils in that the water supply can more nearly be regulated.

In Lenawee County, south of Tecumseh was a piece of muck that had been abandoned as useless. The tract was owned by the Golden Valley Farms Company. Culver Wilcox, the agricultural teacher at Tecumseh became interested, together with his agricultural class, in learning that it took to make this produce. Soil tests were made and these showed very little acidity on this muck, but it had been lying idle for quite a time.

Last spring a potato plot was put out, part unfertilized and part treated at the rate of 1,500 pounds per acre of a 2-8-16 fertilizer. As a matter of record, it must be said that the unfertilized area had to be cultivated four times to keep down the weeds while the fertilized potatoes grew so rapidly that three times cultivating kept them down until the tops took the competitive spirit out of the weeds.

At digging time, the agricultural class compared the yields of the two plots. They found that the unfertilized muck yielded 102.6 bushels of potatoes while the fertilized, 1,500 pounds per acre of 2.8-16, gave a yield of 568.3 bushels, or an increase of 465.7 bushels. Valuing the increase at one dollar per bushel which they were easily worth in this locality, it will be seen that the gain for using the right fertilizer formula on this type of soil earned a very high rate of return on the investment.—I. J.

THE MICHIGAN FARMER

13-177



THE MICHIGAN FARMER

8 weeks old under Flex-O-Glass 8 weeks old under glass The Flex-O-Glass

178-14

SCIENTISTS DISCOVER PLAIN **GLASS KILLS YOUR CHICKS**

If sounds as ridiculous as Radio did to our grand-farthers, but this test at the Nebraska Experiment Farm proved it true beyond any doub. All of the above chicks were of equal health, weight and number when three days old. The group at the right was under Flex-O-Glass. The group at the right was under Flex-O-Glass, as you see above, and all were fed and cared for the same. These photos were taken when the chicks were eight weeks old, and all but three chicks and died under plain glass. It had actually killed them. The chicks under Flex-O-Glass were all strong, healthy, full of pep, free pas you can easily see. This proves the sun's Ultra-violet (health-producing) rays which Flex-O-Glass admits make chicks grow amazingly fast and strong.

Actual Proof-Not Just Guesswork

admits make chicks grow amazingiy fast and subult. **Actual Proof—Not Just Guesswork** Similar tests were conducted by the Jowa. Ohio, wisconsin and Kansac State Experiment Stations, the American Medical Association (the world's greatest authorities), as well as thousands of users in every state, and the exceptional results they had with chicks raised under Flez-O-GIASS costs only one-eight as much as glass. Last a sensa-tional National Recommendation of this wonderful product for all poulity house and brooder windows, in place of glass.—And FlEX-O-GIASS costs only one-eight as much as glass. Is cut with ordinary shears, nailed on easily removed and re-installed. FLEX-O-GIASS brays for itself in a few days in critra chicks saved—but it lasts for years. It doesn't hay to turn your chicks out in the Science has proved you cannot raise them successfully under glass.— Put them in a brooder house with large FLEX-O-GIASS windows that admit plenty of unskimmed sunlight. Every chick will stay healthy, the from nickets (weak logs) and other diseases. Their fast, strong rowth will be amazing. Use 15 square yards of FLEX-O-GIASS—our Jy StOM worth-for 300 chicks. Also keep your heas in this coop next winter and gather sess while they are high. Raise your early pigs under FLEX-O-GLASS. Give them actual sunshine indoors—Nature's only healthy producer. FLEX-O-GLASS Hotheds raise strong plants for transplanting. Frames are light, easily made; easily handled and hold heat better than glass. "FLEX-O-GLASS" marked on every yard assures they rotected by patents. Dealers wanted.



Per yd. 36 inches wide: I yd. 50c; 5 yds. at 400 (\$2.00); 10 yds. at 35c (\$3.50); 25 yds. at 32c (\$8.00); 100 yds. or more at 30c per yard (\$30.00). SPECIAL \$5 TRIAL OFFER

SPECIAL \$5 TRIAL OFFER The Flex-O-Glass Mfg. Co. will send you 15 square yards of FLEX-O-GLASS in a roll 36 inches wide and 45 feet long, postpaid to your door, for \$5.00. This will cover a scratch shed or Brooder house 9 x 15 feet-size for 300 chicks-or use for hotbeds, Enclosing Screened Porches, Storm Doors, Poultry, Barn, and Hog' House Windews. Flex-O-Glass is weather proof, unbreakable. Lasts for years. Just cut with shears and nail on. Order your supply today. You take no risk. Satisfaction guaranteed or your money back. "Prevention of Chick Diseases" FREE with your order. Mail a check, money order or currency now. 24-hour service. Send \$9.50 for 30 yards. If you wish larger roll on trial. FLEX-O-GLASS MANUFACTURING CO.

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Find enclosed 5 for which send m pards of Flex-O-Glass 36 inches wide, parcel post, it is understood that if I am n after using it for 15 days I may return it a refund my money without question.	ot satisfied

Name.....



Foundation for Success with Poultry

Feeding For Egg Production

Some Suggestions Given by Prof. C. G. Card

"Feeding for Egg Production" was delivered by Prof. C. G. Card in place of C. M. Ferguson who has resigned from the college staff and accepted a poultry position in South America. Mr. Ferguson made many friends among Michigan poultrymen through his work on the college staff and his management of the laying contest and will be greatly missed by all.

Prof. Card reports that poultrymen in general have not had an exceptionally high production this winter but that some expect too much from their birds. One writer who gathered 1,400 eggs from 2,300 birds on the day of his letter, was much disappointed and wished to know how to better his production. A fifty per cent production in winter is good and usually means a good average for the year. A production of twenty-five to thirty per cent under many conditions is good. A Good Slogan

The slogan, "Grow Better Chicks," is to be a part of this year's extension program. In discussing laying mashes, Prof. Card stated that both the home mixed and commercial feeds are good but that no brand can be called the best. Supplement feeds can now be purchased and mixed with the home grown grains to make up an economical laying mash.

The old standard rations are still good but colleges should not be criticized for changing as changes in methods are bound to come due to the increased study of poultry problems. The scoop shovel method of mixing laying mash is alright if a good thorough job is done with the shovel. Do not mix carelessly. Put in all the ingredients. If any are left out, it is detrimental to egg production. The mash now recommended and used at the laying contest consist of 150 lbs. yellow corn meal, 100 lbs. fine ground oats, 100 lbs. flour middlings, 100 lbs. bran, 100 lbs. meat scrap, 50 lbs. alfalfa meal, 15 lbs. bone meal and 5 lbs. salt. A thorough discussion of the college methods of feeding can be obtained from Extension Bulletin No. 51.

The oats for the laying mash should be very finely ground. Local milling companies are asking the college for laying mash formulas and making them up largely from home grown products usually at a cost of about \$2.50 per 100 pounds. One elevator is furnishing a mixer free to farmers who bring in their home raised grain and buy the supplements that they need to produce a balanced laying mash.

Milk a Good Feed Milk is one of the best sources of protein feed and dairy cows, alfalfa, and chickens make a good combination. When alfalfa is placed in racks in the houses it can be left out of the mash. Be sure that the alfalfa is not mouldy or it may kill chicks and greatly reduce the egg production from hens. The third cutting of alfalfa is especially good for hens.

If you have plenty of milk for the hens, possibly one-fourth to one-half fection. as much meat scrap in the mash will give good results. Dried milk products are very good and a laying mash using a combination of milk and meat is very good. The use of semi-solid buttermilk as a medium for feeding cod liver oil has given good results. From three pounds to as much as four and one-half pounds of semi-solid buttermilk per one hundred birds has been used. One pint of cod liver oil is mixed with sixteen pounds of the semi-solid buttermilk. A good scratch grain mixture consists of fifty per cent corn and fifty per cent wheat and it is not necessary to crack the corn if it is raised at home. If the

HE Farmer's Week address on corn must be bought, it is probably best to buy cracked corn as the hens digest it a little easier.

Sprouted oats are a good succulent feed but are no longer classed as a green feed. When sprouted in dark cellars they produce succulence but not much material that is green. Alfalfa is the best source of green feed. Most of the so-called green feeds are only succulent feeds. It pays to use oyster shells even with limestone in the laying mash. Cod liver oil has proven very useful in improving the shell texture.

CHICK REARING IN 1928

N discussing poultry and chick problems at the Farmer's Week meetings, J. A. Hannah stated that there was no profit in market poultry meat in Michigan unless you have a special market or successfully raise capons or early broilers. The profit has to come from market eggs. There are four factors to be considered if a poultry flock is to be profitable. The birds must be well bred for egg production. The feed must be right. They must be properly housed. And poultry diseases must be controlled.

The best results in egg production are obtained when at least two-thirds of the flock is replaced each year with pullets. A hen will usually produce twenty per cent less eggs than a pullet and sometimes the production is less than that. While culling is a great help in making a flock profitable, most hens will pay from now until June first regardless of how much they have lost up to this time. This means that the loss may not be made up but the income from eggs during the next few months will be enough more than the feed bill to make it pay to keep many ordinary hens if they have been retained this long.

Don't breed from the entire flock. Raise chicks from the best. Be prepared for the chicks when they come and raise them on clean ground by the use of a portable colony house. Worms and coccidiosis cause severe losses and coccidiosis may live over in the soil making the loss a little greater each year until it is impossible to raise good chicks. Even if only one chick is sick with coccidiosis this year, it may contaminate enough soil to cause many chicks to be sick next year.

Board porches and concrete walks are being used where large quantities of poultry are raised on limited areas. Keep the chicks for seventy-two hours before placing them on sand and then give them the starting feed before they come in contact with the sand. This can be done by placing papers over the sand and placing the mash on the papers. It prevents sand impaction that may result if hungry chicks are left without feed where they can fill up on sand. Most of the white diarrhea is spread before chicks are one hundred hours old. After that time they are more resistant to in-

The mash advised for chicks consist of sixty parts yellow corn meal, twenty parts white flour middlings, ten parts dried milk, five parts meat

The amount of dried milk in the mash can be cut to five parts if the chicks have plenty of milk to drink but do not leave out the five parts of dried milk from the mash no matter how much liquid milk the chicks have to drink. The above ration is good

(Continued on page 195)

Power for Pumping Water

NEXT to the sun, the wind is the greatest power for raising water. The sun lifts a tremendous quantity of water every day which is scattered in mist to the ends of the earth. The wind, with a few simple pumping devices, will lift fresh water from beneath the surface of the ground and put it right where you can have it when you want it. With

when you want it. the modern equipment for pumping water there is no good reason why any family should be without an ample supply of fresh running

water at very small expense. Of all the devices for pumping water the Improved Auto-Oiled Aermotor, the genuine self-oiling windmill, is the most economical and most reliable. It runs for a year. or more, with one oiling and requires practically no at-tention. Just put it up and let it run day and night. The gears run in oil, in a tightly enclosed case, and every moving part is constantly lubricated.

The Auto-Oiled Aermotor runs in a breath of wind, but is so strongly built it can be safely left torun in the severest storms.

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You may send me Catalog	Name-	Carling and Carlin		
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WHAT LINCOLN DID FOR AGRICULTURE

(Continued from page 167) Lincoln and Turner were boyhood friends and the only recorded preelection promise that Lincoln made to anyone he made to his friend Turner, that being that if he were elected, he would use the prerogatives of his office to have such a bill passed and to sign it after it did pass.

In 1857, seven years after a delegation of Michigan farmers memorilized Congress on agricultural education, Justin Morrill, a representative from Vermont was persuaded to introduce the land-grant college bill which had been framed by Jonathan Turner. The debate which ensued was acrimonious at times and a typical outburst is that of Jefferson Davis, then a senator from Mississippi and later president of the Confederacy who said: "Agriculture needs no teaching by Congress. The wide extent of our country, the great variety of its soils and climate and products, renders it impossible that there should be anything else than local teaching in relation to agriculture."

At that, however, the measure passed both houses of Congress but was promptly vetoed by President Buchanan. The attempt to pass it over his veto failed.

In the meantime, another election came on and Lincoln was elected president. War clouds darkened the southern horizon and it became evident that civil conflict was in the air. The South was the agricultural part of the Union; the North was the nation's manufacturer. The identical measure was introduced again by Justin Morrill and with "greater production on the farms" a byword, the bill passed both houses by an overwhelming majority.

It was a memorable moment for agriculture when President Lincoln signed this bill on July 2, 1862.

On another historic July day, this nation had declared its independence of tyranny but on this July day, through the agency of President Lincoln, this nation was marked out for universal education and departure from what Lincoln had called the "mud sill" theory which was that certain laborers were fated to be hewers of wood and others for carriers of hods.

The world traveler finds America radically different from any other nation under the orb of Mars. Here there are no peers and no commons, no lords and no serfs, no masters and no peasants. The American public bestows no titles except on the no-meagre body of facts to teach and this bility of brains. Under our system of lead to an act authorizing the experieducation the boy brought up on the ment stations in 1887 and a further stony Vermont farm can cherish a act increasing public funds for the hope of succeeding to the highest posi- same purpose in 1890. tion that the nation has to bestow. Neither geography of birth nor finan- leges rearing their spires as an evercial condition of one's parents is a lasting Lincoln memorial and sending bar to reaching high estate. And for their graduates onto the farms and this, let us thank Lincoln because his into the homes and hamlets of every influence brought it about.

were "donated public lands to the Hawaii and one in Porto Rico. several states and territories which may provide colleges for the benefit than waiting until an incensed elec-of agriculture and the mechanic arts." torate demanded them. In his annual Each state was to get 30,000 acres of message to Congress, December 3, public land for each senator and rep- 1861, he said: resentative in Congress. In all, counting other recent grants of land to all est interest of the nation, has not a states for the same purpose, an area department, nor a bureau, but a clerkabout a third the size of Michigan ship only, assigned to it in the governhas been donated to the states for the ment. While it is fortunate that this purpose of education. Michigan had great interest is so independent in its anticipated this move on the part of the national government and started extorted more from the government, her Agricultural College in 1857 but later accepted the provisions of the whether something more cannot be Morrill Act. By 1870, several other states had accepted the provisions of tage." the bill and by 1885 many of these had become effective educational in- The United States Department of stitutions.

THE MICHIGAN FARMER

THE NEW TWONE DIYMOUTH **FRA** FEET PER BALE! FX

Look For the Red Topped Ball

" R^{ED} TOP" gives nearly a mile more twine than you get in any bale of Standard twine, enough *extra* to bind four acres more of grain! That's why "Red Top" is the most economical twine you can buy.

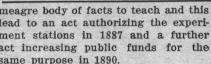
It is the only twine which is guaranteed 28,800 ft. per bale.

A finer grade of fibre makes "Red Top" stronger and evener than any "Standard" twine.

It leads in every one of the six points which make all Plymouth twines better.

Ask your dealer for full information, and insist on seeing "Red Top" yourself. The top of every ball is dyed bright red.

Plymouth binder twine is made by the makers of Plymouth rope.



There are now fifty land-grant colcorner of the earth. Every state has In the words of the measure, there such an institution besides one in Lincoln anticipated needs rather

"Agriculture, confessedly, the largnature as to not have demanded and I respectfully ask Congress to consider given voluntarily with general advan-

And his desires were carried out. Agriculture was established as a bur-After their founding, the agriculture eau in 1862 and created a department, al colleges found that they had a very (Continued on page 183) (Continued on page 183)



teeth break up crust and loosen the soil to the proper depth for best results. The first cost is practically the last, too.

Planet Jr.

PLYMOUTH

the six-point binder twine

Have you the Planet Jr. catalog? Or our free garden handbook, "Home Gardens-How to Grow What You Eat'''? Ask your dealer or write us today. S. L. ALLEN & CO., Inc. Dept. 58.B 5th & Glenwood Ave. Philadelphia

Plymouth Twine is spun 500, 550, 600

(Red Top) and 650 ft. to the pound. Each and every grade is guaranteed to be 6 point binder twine.

The Plymouth Six Points.

guaranteed on the tag;

time, less wasted grain;

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1. Length-full length to the pound as

2. Strength-less breaking, less wasted

Evenness—no thick or thin spots— no "grief";

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6. Mistake-proof-printed ball-and

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4. Special Winding-no tangling;

instruction slip in every bale.

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THE MICHIGAN FARMER

Chilled Plows That Last Longer

THE length of life and the kind of work a plow will do determine its value. In a chilled plow, as in other plows, these qualities depend upon the way it is made.

The Syracuse process of chilling makes the hardest plow metal known and leaves the moldboard wearing surface smooth and regular. That is the reason for the longer life and better work of

John Deere-Syracuse Plows

Syracuse shares are chilled throughout—they last twice as long as shares of other makes. Moldboards intended for severe conditions have a detachable shin piece which provides a new cutting edge quickly and at small expense.

The John Deere-Syracuse No. 210 sulky is the lightest draft plow of its type. Rolling landside and two wheels carry all the weight. It can be had in left- or right-hand style.

The 1341-1441 Series plows penetrate well and do better work in any soil. Steel or chilled parts. Lefthand or right-hand. John Decre-Syracuse No. 210 Sulky The John Decre-Syracuse Hillside plow does good work in any soil. Close-fitting joints — no clogging. Beam will not bend or break.

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See these long-lived plows, at your John Deere dealer's. Write to John Deere, Moline, Illinois and ask for Folder AI-722

SYRACUS



o, m

Our Readers' Corner

Facts and Opinions by Michigan Farm Folks

THE PUNISHMENT

YOUR issue of December 24 includes an article entitled "The Reason I Am a Farmer" by D. C. Morris. Having been born on a farm and always been a farmer, I can appreciate the reason why he is a farmer. In his article he refers to the first chapter of the first book in the Bible as his authority for farming being the first or original occupation of mankind.

Let us turn to the third chapter of the same book and see what happened. We find that our first parents partook of the forbidden fruit. It might have been an apple-some say it was an orange. In either case they were disobedient. So they were turned out of the Garden of Eden where they were so nicely situated and what were they bidden to do? Go and till the soil! Perhaps it would be just as well for us farmers not to get too inflated over our occupation and think we have something on the city man when it is shown that farming was inflicted upon mankind as punishment.-G. E. C.

A PHEASANT DEFENDER

THE pheasant has been accused of pulling up corn even after it was ripe. He is also accused of destroying bird nests, killing quail and partridge, killing squirrels and even domestic fowl, and if we are to believe all of these complaints then we are threatened with dire calamity unless the pheasant is immediately exterminated.

A number of birds will pull corn. So will chipmunks and gophers, but a quick and sure remedy is to scatter fifty cents worth of corn around the outside of the field. However, it is very unusual to find corn that has been pulled by pheasants. The pheasant eats grain sparingly, if at all.

Owing to the fact that I had a trio of ringnecks in a park for several years and have reared young from eggs sent to me from the game farm at Mason, I have become quite well acquainted with them and their habits. know that from the day they hatched they put in the most of their time hunting and destroying all manner of insects, worms, ants, and bugs, all enemies of mankind. To balance their ration they eat certain kinds of grass and weed seed. Their diet is much the same as quail only they eat greater quantities. As to the complaint that they will fight and destroy other game and domestic fowl, there is absolutely nothing to it.

On our small farm of forty acres in Jackson County where pheasants are no doubt as plentiful as in most counties in the state we have several colonies near timber and brush land. Here in the early spring and summer months we have small flocks of game chickens running at large. Here also are several large flocks of very tame quail. Also close by and eating almost together are found many pheasants. In the spring we often hear the male pheasant crow to be answered close by the game cock. We have watched faithfully expecting and wanting to see the unique and deadly battle which has been promised us by those who look upon a pheasant as something to eat. Nothing doing. Each species attend strictly to their own affairs. The pheasant, the pugnacious game cock and the trim little quail dwell in peace and harmony. The fox squirrel eats out of my self-feeders in the colony house and multiplies. The pheasant is welcome to all that he desires and if his feed runs short, we will see that he is provided with more, for we are mindful of the fact that all through the summer

months, he is working faithfully to destroy our enemies.

Those who condemn him should charge against him only the actual, not hearsay, damage he has done. Then try to render an account of his virtues. And so that you may qualify as a competant judge, get a setting of eggs which will be furnished you free from the game farm, raise the young and give them the run of your garden, and see for yourself.

Some people measure everything from a dollar and cent standpoint and the only value they put on wild life is something to kill and eat. On the other hand, a great many citizens of Michigan love wild life for itself and everything that goes with it. They derive great pleasure in being able to see such fowl running wild. So we say, Mr. Ringneck, we are with you and may you multiply and prosper.— J. J. Forward.

TRUCK LICENSE

SINCE Stanley Powell has sounded the gong on the question of farm truck license, I feel disposed to take up the refrain. Two years ago last October, I purchased a small farm of forty-one acres. The property was badly run down with nothing growing but weeds. However, I had confidence it could be built up if one would make the sacrifice. On the first day of the same October, I bought five cows and a quantity of hay at an auction. Soon thereafter I took a job delivering milk mornings for the Milford milk man. The hay was too far away to make a trip afternoons with a team, so I bought a truck to get the hay home. One year ago I bought a license for our sedan at \$11.55. In June of last summer I began to take my milk to Highland, Michigan, where it was sold, in turn to a Detroit creamery. I found I could take it in the sedan so I bought no license for the truck. But the sedan rebelled three times from June to January. Twice I was able to get it back on the road almost without loss of time. The third time a repair man asked for two or three days in which to make the adjustments. He actually took four weeks. Rather than hitch the farm team to the lumber wagon I trotted out the truck and delivered the milk therewith, expecting every day to have the sedan. Before the sedan was fixed, however, I was reported and fined twenty-five bucks because of no license. It is a little bit better than three

It is a little bit better than three miles to Highland and return making twenty-five miles per week of travel. From June to the end of the year would make a distance of seven hundred miles, three hundred miles would fully cover all other travel making ten hundred miles altogether.

Since the cost of the license for sedan was \$11.55 and the substitution of truck \$25.00 amounted to \$36.55 and the distance traveled was a thousand miles, the cost per mile for using the roads amount to three and a half cents

For two years this property has nowheres near met expenses. My time has averaged me less than twenty cents per working hour. There are only six in the family. I wonder if the state would as leave help as hinder. I am only one of hundreds.— John Sluyter.

Electric service offers two enticing advantages to the farmers of Michlgan—an opportunity to improve living conditions and to increase the efficiency of labor on and about the farm.

WHEATS FOR SPECIAL PURPOSES

(Continued from page 167) ment Association, under inspection, and by others, and in 1920 was the leading wheat variety of Michigan.

The Berkeley Rock wheat was secured by crossing the Red Rock with the Berkeley (a hard winter variety of Kansas). The resultant hybrid was higher in gluten, harder in its physical qualities than the Red Rock, and apparently almost as good a yielder. The Berkeley Rock wheat had also been increased under the inspection and certification system of the Michigan Crop Improvement Association and is grown to a large extent in the Thumb of Michigan.

In the region surrounding Port Huron, a company interested in the manufacture of gluten flour has been instrumental in making it profitable for most of the wheat growers of that region to grow the Berkeley Rock and the Red Rock. One use of the gluten flour made from these wheats is in the preparation of a meal used in making gluten biscuits and bread for diabetic patients. The product is very high in gluten and low in starch.

At the Chicago International Grain and Hay Show prizes have been taken by the Berkeley Rock, for the past several years, in the hard red winter class. This class includes the wheats of Kansas and neighboring states. Michigan wheats are generally classed in the semi-hard or soft red winter class and our district is known as a semi-hard or soft wheat district. It is quite a triumph for the plant breeder to produce a wheat which will win against the hardest wheats.

The Berkeley Rock wheat also shows a very high resistance to stinking smut or bunt, being very little affected by this common fungus disease in test plats where other wheats were seriously damaged. As yet, it has been known to show damage from loose smut.

Both the Red Rock and Berkeley Rock wheat are bearded varieties. Apparently there is a correlation between the bearded characteristic and the resistance to winter killing. However, many farmers desire a beardless wheat and the plant breeders of the Michigan Experiment Station have been working to secure a beardless red wheat of high protein content and resistance to winter killing.

In August of 1925, while inspecting one of our wheat varietal tests in Ontonogan County I noticed the excellent yielding ability of a native red beardless wheat which had been grown in that extreme northern region for a number of years. A bushel of this ing in a comparative series. wheat was secured and placed in the selections were made from the most hands of Professor E. E. Down and promising. They found the O. A. C. he has made a number of selections wheat of the Ontario Experiment Staof this wheat with promising results. tion higher yielding than any other At the present time the work has pro- and proceeded to make an increase of gressed to the point where we feel the selection of this wheat. One acre assured that in a short time a high yielding, superior beardless hard red farm in 1927 and seed was released to winter wheat of excellent milling qual- the best seed wheat growers of the ity will be available for increase and Michigan Crop Improvement Associadistribution from the station.

mand for soft white wheats paramount with their strain selections in the hope in most Michigan counties, the breed- of securing further improvement. ing work with wheats has been along Since the market demands in Michthe lines of securing superior white igan are along the two distinct lines wheats.

son Golden Chaff and Cold Coin were leties be grown for these special purpopular and widely grown in Michigan. These are both beardless white ing. The itinerant thresher, passing wheats characterized by stiff straw from farm to farm, is the cause of the and good yielding ability.

From the work of Prof. J. A. Jeffery and F. A. Spragg, the American wheats classed technically as "mixed" Banner, a high yielding white wheat wheats. Where such mixing occurs, was contributed in 1908. This variety it would be best to secure seed wheat is giving good satisfaction and tends of high purity and to keep it from to produce an amber kernel higher in becoming mixed by having the threshgluten than the average white wheat. er ledges cleaned before the thresh-Beginning the work, Mr. Down and ing job begins and taking the seed for Mr. Brown gathered together all the planting of the next year's crop known varieties of white wheats of after fifty or more bushels have been Michigan and other states for plant- run through the machine.

Sherwood, Mich. The New Idea Spreader Co. Even if a farmer had to pay \$200.00 for a Model 8 NEW IDEA Spreader and pay for it in four payments, he would realize 500 per cent on his investment in two years and pay 10% on his notes. You can see what I think of mine.

Yours very truly, M. K. Clark

EW IDEA has never been content with merely offering the best spreader on the market. We believe that users of farm equipment are as much entitled to expect proper service back of their purchases as they are to expect proper quality in the articles themselves. The result of this policy is that you actually receive a double value when you purchase a

NEW IDEA

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New Idea Husker-Shredder

Farm equip-ment of the highest

quality

(7)

NEWIDEA Spreader

BACK of the world-beating Model 8 NEW IDEA are nearly thirty years of progress in design-ing and manufacturing. It is truly modern to the highest degree—in materials, in workmanship and performance. But back of it also is a service organization just as modern — ready to see that you

shall never lack for anything to keep your NEW IDEA Spreader in constantly useful shape. Even this most dura-ble of all spreaders may some day require a repair part. And if it ever does, you are certain of getting what you need in an absolute minimum of time.

Over four thousand dealers who believe that their customers deserve the best to be had, select, sell and service the NEW IDEA. There is one near you now. At Coldwater, Ohio, we have the largest independ-ent spreader factory in the world. At this factory, at twelve factory branches and at over fifty transfer points are carried the reserve stocks that assure you immediate service, whether you should require a dozen spreaders or a single cylinder tooth. See the Model 8 NEW IDEA—the spreader of double value—at your dealer; or write us for information.



kind on man or beast it is unequalled. LIBERAL SAMPLE FREE Corona is sold by nearly all druggists or direct from us on receipt of price — 8 oz. tins 55, 20 oz. tins \$1.25, postpaid. If you will send your name and address, we'll mail you a liberal sample and our 32-page book of uses Free. We want you to see for yourself the wonderful healing properties of Corona. CORONA MFG. CO. 257 Corons Bidg., Kenton, O.



News and Views

From INGLESIDE FARM-By Stanley Powell

More Money from Muck !

T PAYS to treat muck soils well. Good drainage, good cultivation, good fertilization are essential to profitable yields. Take care in selecting your

fertilizer . . . be sure that it contains plenty of potash.

Low lime peat soil, some-times called "acid" or "sour," needs phosphoric acid, potash and lime. After long cropping it may also need nitrogen.

High lime peat soil, called "sweet" or "non-acid," gen-erally needs potash alone ... or after continuous cropping ... both phosphoric acid and potash.

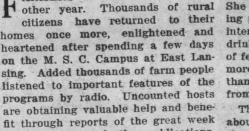
In any case make sure that your muck or peat fertilizer contains liberal quantities of potash. In addition to increasing yields and improving crop quality, potash lessens frost danger by lowering the freezing point of cell sap in plants. POTASH PAYS! Use it liberally.

We will be glad to send you free on request our booklet "Better Muck Crops". Write Dept. 192 of our nearest office.

Agricultural and Scientific Bureau



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ARMERS' WEEK is over for an-

printed in this and other publications. For a while it looked as though wife and I wouldn't be able to mingle with the Farmers' Week throngs as our hired man was confined to quarters wrestling with influenza microbes. With many and complicated chores to be done, someone must be on the job who is familiar with them.

Either our man or myself could take care of our stock fairly comfortably if nothing extra

> would come up to interfere. However, during the days when I was looking after things all alone it seemed as though circumstances just conspired to keep me on the jump. New pistons had just been placed in our old family

car and that proved very balky and had to be towed up the road a quarter of a mile or so every time we wanted to use it. The untimely death of one of our most beloved and respected neighbors saddened our community and, of course, we devoted one afternoon to paying our last public tribute to his memory. Our local Farm Bureau car-door agent telephoned that the shipment of our dairy feed had arrived and that he had just one day to unload the car. Various friends and strangers called to see me on all sorts of errands. Some stayed a long time. Every few minutes wife kept hollering at me that I was wanted on the telephone.

The Miracle of Motherhood The old red pure-bred Milking Shorthorn cow "Welfare Marie 3rd" did her bit to make things interesting by deciding more than a week ahead of schedule to re-enact once more the age-old miracle of motherhood. My attention was attracted to the fact that unusual developments might be expected from that source when I was milking the cow that stands just to the left of Welfare Marie, who was lying down and not paying much attention to her breakfast. Unexpectedly a long red hind leg straightened out nearly knocking the milking stool out from under me. I lost no time in hastening Marie to the maternity ward and in a short time an un-named heifer calf of noble parentage took up her residence at Ingleside.

I couldn't help rejoicing that the calf wasn't born during the night while the cow was confined in her stanchion. The little pilgrim might have been chilled or trodden under foot of unfriendly neighbors. Anyway, it seems like unnecessary cruelty to pillory a cow during that momentous experience during which a new life is ushered into this old world.

We usually plan to place each cow in a box stall at night for a week before she is expected to freshen. We are feeding a certain widely advergiving to cows two or three weeks before, and a like time after, calving.

calf is an unusually good one, being well bred, attractively colored, big

boned, and of pleasing conformation She will therefore be raised for breeding purposes. Consequently I had the interesting job of teaching her to drink milk out of a pail. I can think of few tasks around the farm that are more searching of a man's disposition than that of teaching a calf to drink from a pail.

The young miss in question was about as exasperating as they make them. About all she seemed to know was to bunt, kick, plunge around, fall down and slobber me with the milk. I tried all the usual tricks, standing straddle of her neck, backing her up into a corner, and giving her my fingers to suck. And, be it said to my credit, I kept pretty cool through it all. By the fifth feeding she drank all the milk without my giving her my fingers to suck. Since that time we set her pail in a potato crate and she drinks like a horse with no further bother.

Ingleside Sheep Are Shorn

Then to cap the climax during those busy days, neighbor John Welch, the f a r-famed . breeder of Hampshire sheep, telephoned the message that the sheep shearer had finished at his place and was headed for Ingleside. We weren't overly anxious to shear quite so early, but after giving it some thought we decided to go ahead. We are blessed with a warm basement sheep barn with stone walls two feet thick all around it, so ordinary winter weather has no fear for our sheep even though freshly sheared. During the fall and winter months we did quite a business in western and nativegrown breeding ewes and our Shropshire rams and ewe lambs became quite badly peppered with ticks from them. Of course, we dip all our sheep one or more times in the summer, but we weren't enthusiastic about dipping them this time of year and powdering proved pretty slow business.

We always like to have our breeding ewes shorn before the lambs begin to arrive. The little fellows can then find their nourishment without nosing around among a lot of dirty, greasy wool and tags. By shearing the ewes now they will have an opportunity to recover from this experience before that other important day for which breeding ewes are kept rolls around.

As I tied up and weighed fleece after fleece, I couldn't help letting my mind wander as to some of the various things which each such little cube of wool represents. My first thought was that it was the tangible result of a year's growth from the skin of that sheep. Then I meditated back over the history of wool production and thought of the centuries of careful breeding that had developed that fleece of superior quality. Then I visioned what those pounds of wool might do for humanity and fancied that I saw them made into warm blankets or attractive wearing apparel.

Of course, all our wool was tied in a wool box with paper twine. The tags were placed in a sack by themselves. The wool will be marketed cooperatively through the pool conducted by The Ohio Sheep and Wool Grow ers' Association.

After tying each fleece, I set it on some small scales and recorded the weight in my notebook. There were many surprises as the weights were noted. We didn't expect any very heavy fleeces, as our sheep were tised tonic especially prepared for shorn six or eight weeks later last spring, so our clip this season represented only about ten months' growth. Though prematurely born, the new The recently purchased Rambouillets were probably shorn in May or June last year.



You can't go wrong with "Pine Tree"

Isn't it a satisfaction, after the last drilling and broadcasting has been done, to say, "Well, every seed in that ground is the best that money can buy."

That's the satisfaction you get when you sow PINE TREE farm seeds, be-cause PINE TREE seeds are selected only from the cream of the crop. They are cleaned and re-cleaned to DINE TREE standards of famous PINE TREE standards of quality. Every bag is sealed for your protection against substitution and overy bag carries the Pine Tree Cer-tificate of KNOWN ORIGIN.

The difference between ordinary cleaned and PINE TREE re-cleaned seeds is ex-plained in our pamphlet "The Weeds That lack Grew." Free—ask your dealer or write for it.



QUALITY POTATOES THEIR AIM

QUALITY potatoes rather than quantity was the general agreement of the seventy-five leading potato growers and business men at the annual meeting of the Top O' Michigan Potato Show Association at Gaylord last week. It is planned to erect a building to take care of the show room expansion for several years, with a basement large enough to seat four to five hundred at the banquet. An interesting feature of the meeting was the discussion relative to financing the growing of certified seed by Boys and Girls Club Members in the counties represented in the Association. All the directors were re-elected with the exception of one. The Sixth Annual Show will be held at Gaylord on October 31 and November 1 and 2.

PLANT EARLY AND PROFIT

THE old adage that one should not plant corn until the oak leaves are as big as squirrel's ears does not hold true with modern sweet corn growers. Prof. Geo. Starr, of M. S. C., is a strong advocate of early planting and is developing early maturing kinds. His "Earliest of All" is one week earlier than Alpha, always considered the earliest true sweet corn. "Sunshine," one of the earliest yellow kinds, is also one of Prof. Starr's creations.

WHAT LINCOLN DID FOR AGRICULTURE

(Continued from page 179) with a secretary in the Cabinet of the President in 1889. Its scope as outlined at present is very largely the foresight and administration of one man, the hitherto little acknowledged "Tama" Jim Wilson who was secretary of agriculture from 1897 to 1913, serving under three presidents, a record that is without a peer.

Lincoln made only one speech on the subject of agriculture and few of his biographers have grasped its significance. After the Douglas debates in 1858, he was a prominent national figure so the Wisconsin Board of Agriculture asked him to speak at the Wisconsin Fair held in Milwaukee, September 30, 1859. His invitation was probably to call a crowd and add weight to the occasion. But with characteristic insight, he came at the subject at once and his remarks on agriculture are no less significant now than they were then.

Concerning the waning fertility of all farms, the Great Emancipator said: and when such systematic experi-"For the last four years, I do not believe the ground planted with corn in Illinois has produced an average of twenty bushels. It is true that herebeen pushed up to one-half its capacity.

will it require more to the bushel?" of finishing." It has taken farm investigators and bushel and not the cost per acre that the future. counts.

And here is his masterly summary: the deeper plowing, analysis of the sons, and the like, these causes (for low yields) would be found."



Finest because it offers all the latest improvements including Hyatt Roller Bearings at every main bearing point, Alemite-Zerk Lubrication, Weath-erproof Fiber Pulleys—a new feature for 1928—on every High Speed Drive, Bridge Truss Construction and rust-resisting Armco Ingot Iron in a threshing machine built around the famous 4 Threshermen of the Red River Special Line.

Fastest because it is designed in every part to do clean threshing fast. The size, speed and design of every unit is carefully worked out to keep the machine threshing at capacity without slugging and without rushing through the grain.

Cleanest because it is built around the famous 4 Thresher. men, the Big Cylinder, the Man Behind

the Gun, the Steel Winged Beater, and the Beating Shakers, the greatest combination ever devised for getting the grain from the straw. Operating with them are the recovery and cleaning machinery that delivers the grain to its owner, clean, bright, and merchantable.

19 - 188

The Finest, Fastest, Cleanest Thresher marks the 80th year of building of high quality threshing machinery by the Nichols & Shepard Company

Since 1848, this company has been steadily improving the machinery it builds and sells. You know the great advances that have been made in it in the past few years; you will want to know all about the 1928 machine-so send the coupon for our new book "The Finest, Fastest, Cleanest Thresher," and you'll see why it is just that.

COMPANY In Continuous Business Since 1848 THE NICHOLS & SHEPARD COMPANY 280 Marshall St., Battle Crock, Mich. Please send me the Book-"The Finest, Faster, Cleanest Thresher" R. F. D. My tractor is a The ED ER R SP EC

when "book farmin" was unpopular ments as he contemplated were yet a long way in the future!

THE

Red River Special Line

for 1928

Threshers

22x36 28x46 30x52 32x56 36x60

Tractors

N&S

20-35

20-40

lichols &

Shepard

Corn Picker

-Husker

Combine

15' cut 20' cut

Prairie Type

Nichols &

Shepard Steam

Engines

Lincoln believed that the way one does his work has a marked effect tofore we have had better crops with upon his intellect for he said in the no better cultivation; but I believe it same speech: "The effect of thorough is also true that the soil has never cultivation upon the farmer's own mind, and, in reaction through his mind, back up on his business, is per-"What would be the effect upon the haps quite equal to any other of its farming interest to push the soil up effects. Every man is proud of what to something near its full capacity? he does well; and no man is proud Unquestionably it will take more labor of what he does not well. With the to produce fifty bushels from an acre, former, his heart is in his work; and than it will to produce ten bushels he will do twice as much of it with from the same acre. But will it take less fatigue. The latter performs a more labor to produce fifty bushels little imperfectly, looks at it in dis-from one acre, than from five? Un- gust, turns from it and imagines himquestionably, thorough cultivation will self exceedingly tired. The little he require more labor to the acre; but has done comes to nothing for want

Characteristic of all his speeches, farmers themselves a good many years this one closed with a sublime ideal, to reason out that it is the cost per a faith in mankind, and a hope for

"Let us hope . that by the best cultivation of the physical world, "It is almost certain, I think, that in beneath and around us, and the intellectual and moral world within us, soils, experiments with manures and we shall secure an individual, social, varieties of seeds, observance of sea- and political prosperity and happiness, whose course shall be onward and upward, and which, while the earth en-Think of such a statement at a time dures, shall not pass away."



Y old man has been getting after me to take more interest in the farm," replied Carson. "He insisted that I take up the sow and litter work this year. I didn't mind so much, seeing that you are to have a ball team and knowing about the club camp. I'll show these guys some fancy diving. Some of the club girls are mighty easy to look at, too," concluded Carson with an appreciative at Kate O'Neal, who had glance joined the group he had been conversing with. "Some swell little queen, that. I must get acquainted with her."

"Gosh, how he hates himself!" It was Ted Baldwin, who had been standing by. "All that bird needs to be a peacock is a spreading tail."

"Carson isn't a bad sort," informed Ross Burton. "He is a bit stuck on himself-but he might get that taken out of him. And he can sure play ball. How are you going to feel about having a rival, Bob?" The words were casual, but Burton's glance was keen.

"That's all right," was Bob's answer. "Makes a fellow fight all the harder and feel all the better if he wins. I don't want to brag, Mr. Burton, but I fought to play first on our Olden High team. I won. I expect to win this time. But if I don't and Carson or any other man is the better player, it's all right. The team's the big thing. I'm out to help beat Harmon County if I have to do it from the coaching line."

"Bully for you, Bob!" The slap on Bob's brawned back would have bowled over Ted Baldwin. "That's the spirit that wins. Well, we'll see. It's an open field and no favors. Won't 'Old Bill Tuck' be wild when he sees our team." Chuckling complacently, Burton was off to join another group. As he turned to follow Ted Baldwin, Bob noticed that young Carson had manoeuvered Katie O'Neal into a seat and was bending over her as he poured out a flood of small talk. Katie was looking up at him and her smiling, winsome face was very beautiful. As she flushed and laughed at some compliment, somehow a brand new sensation took hold upon Bob Barton's heart.

"Tell me about that Carson guy," Bob demanded as he overtook his friend. "Somehow, I don't 'cotton' to him at all. He's too all-fired cocky for me."

"Don't blame you," replied the grinning Ted. "Looks to me as if you are to be rivals more ways than one. Heck! If Kate doesn't look out, he'll bite her! Getting on your nerves, old man?"

"Cut out the joshing," growled Bob. "What do I care about his talking to Katie O'Neal. What I want to know is something about his folks and his farm. And if he can really play ball. I'm figuring on playing first on that team.'

"Atta boy!" applauded Ted. "Atta boy! I'm for you, and I'd hate to play the infield with that fresh guy to throw to. If I put one in his mitt he'd make getting it look like a grandstand play." Ted had been the reguUnder the 4-H Flag

By John Francis Case

lar shortstop, and it was taken as stuff for Harmon County. Come on,

pany me there, then each may come in turn.'

FEB. 11, 1928

As the first boy left, Bob Barton pondered over the words spoken. Why was it that all these men who were leaders stressed that one word, citizenship? Dimly Bob began to sense that back of everything which had been discussed was something bigger than could be put into mere words. Something intangible but all pervading, something which made indelible impress upon every phase of 4-H club work. Then he found himself in Mr. Lawson's room, acknowledged the introduction, ready to play a man's part in the big game of business life.

"You are a newcomer," said President Lawson, "and I know nothing whatever about you or your family. The loan which you desire is far above the average made for this purpose. Yet I have such confidence in the judgment of my friend Burton that I am going to make the loan. I might say," Lawson added, "that if I am any judge of character, you have it in you to make good. Here is the note for one hundred dollars, to be paid in one year and to bear six per cent. Sign and you will get the cash to pay for your contest gilt."

"Thank you, sir," replied Bob as he took the pen. "I'll do my very best." Then, hesitating, he turned to Ross Burton, who stood by. "Have you told Mr. Lawson about the bad reputation our farm has?"

"He knows all about it," answered the county agent, "and, like the most of us, he believes that it was just a family fight between the Harkins and Perkins crowd. That was before my time here. But, of course, you are going into this with your eyes open. Bob. The bank can't be responsible if you lose, and if anything should happen you'll have to take your medicine. The loan must be paid in full."

"Yes," said Mr. Lawson, "this is a business proposition with us. If. through misfortune, you are unable to make full settlement, I will recommend an extension. But the borrower, not the bank, must assume all risk of loss. When you sign this note payment becomes a matter of honor, no matter how difficult it may be to earn the money necessary. If you are fearful that you cannot make payment, you should not accept the loan."

Bob squared his shoulders and with a firm hand wrote "Robert L. Barton" upon the note. "I thank you, Mr. Lawson," said he, "and you'll get every dollar back with interest. If there should be any loss, it will be mine, not yours."

"Good for you, son," cried Lawson. "Depend upon me to help you all I can. I'll wager that anyone who tries to carry off your property will get a warm reception. Good luck. And now for the next boy."

If there can be such a thing as porcine aristocracy, Lady Mary Third had reason to turn up her nose at the other gilts who waited with her the coming of new owners. Long-bodied, sure-footed, carrying the weight of approaching maternity with no effort, (Continued on page 189)

Activities of Al Acres-Al Says He Was One of Our Worst Known Dealers



guy like that," commented Bob, "but small return; knew, too, the cravings I'll try and make things interesting of a boyish heart for something that for him."

matter of course that old members

"Don't be so sure," warned Bob.

"Let 'em hop to it," replied Theo-

"Well, Carson's father is one

'Somebody may beat you out, too."

of the biggest merchants in Warford.

He owns forty acres joining town and

lives there. He's crazy about farming

and always wanted Hal to really work.

But he never would. Reckon he thinks

this club work is about the last

"But can he play ball?" demanded

"Weak on low throws," Ted an-

Bob. "That's what I'm interested in."

swered, "just as you've told me you

are. But boy, how he can murder that

old apple! It's a cinch he'll be on

the team somewhere. Why, when Warford High played Brierly last

year all that bird did to us was to

knock two home runs and a triple,

drive in four runs and score four him-

"Pleasant prospect, beating out a

would hold their places.

dore.

chance."

self."

"You see," went on Ted, "Ross Burton is 'nuts' over having a good first baseman. Played first on his college team that won the Valley championship. Reckon he figured on coaching you for the place, but he won't do it now, for Burton believes in giving everyone a chance. I believe you can beat Carson out, though. If I were you," and again Ted grinned provokingly. "I'd be more concerned about that town sheik beating my time over there." Ted gestured toward the still engrossed couple in the corner.

"Cut out the joshing," again commanded Bob, but the look he bestowed on Carson had no affection. Katie O'Neal's a fine girl, but she doesn't give a whoop for me." "Oh, she doesn't," replied Ted, giv-

ing his pal a playful poke in the ribs. "If you could have heard her singing your praises over at our house and urging me to help get you lined up for the club you'd think you stood pretty well."

A warm glow, beginning somewhere in the cardiac region and spreading upward to Bob Barton's face caused him to welcome the approach of Agent Burton. But his token of appreciation was a resounding cuff which sent Ted Baldwin careening over a seat. "Here," said Burton as he caught Bob's arm, "what's going on? Save that rough room. The first in line will accom-

friendship which paid large dividends. Smiling at the group, Lawson began to talk in short crisp phrases which won instant and respectful attention. "You boys are here," said Lawson, "because you want to go into business for yourselves. Establishing credit is one of the first things necessary in business life. We are willing to lend you money, taking your personal notes. In law, as you know, such security is worthless. Yet we trust you because we feel that by the very act of enrolling in this great club movement you have shown yourselves to be above the average. We believe

in your ability, your honesty and integrity. We do not expect to lose one dollar of the money lent. It is an investment in good citizenship and the National is proud to have some small part in the building of citizenship. "Business is not transacted in pub-

lic," continued President Lawson, "although we have nothing to conceal. But each of you boys may have some information to give or some advice to ask. Mr. Burton is in my private

Frank R. Leet

could be called "my own." But with all his altruism, Lawson knew also that here before him were the future patrons of his institution and that not only was the lending of money to finance club work good business but that it constituted an investment in

Bob, let's go fix up that business I

was talking about." One of a group

of boys of various sizes and ages, Bob

soon found himself waiting in the

directors' room of a great bank. As

the time grew near when he was to

obligate himself for payment of a sum

which seemed large indeed to one who

never had handled money in excess of a few dollars, the new club member

became anxious and ill at ease. All

about him he could hear boys specu-

lating as to whether the venture would

prove profitable. Well, it was too late

to back out now. Win or lose, Bob

CHAPTER VII

The Pride of Ownership

His smile was pleasant, his manner

business-like. Farm reared, Vern Law-

son, now a successful banker, knew

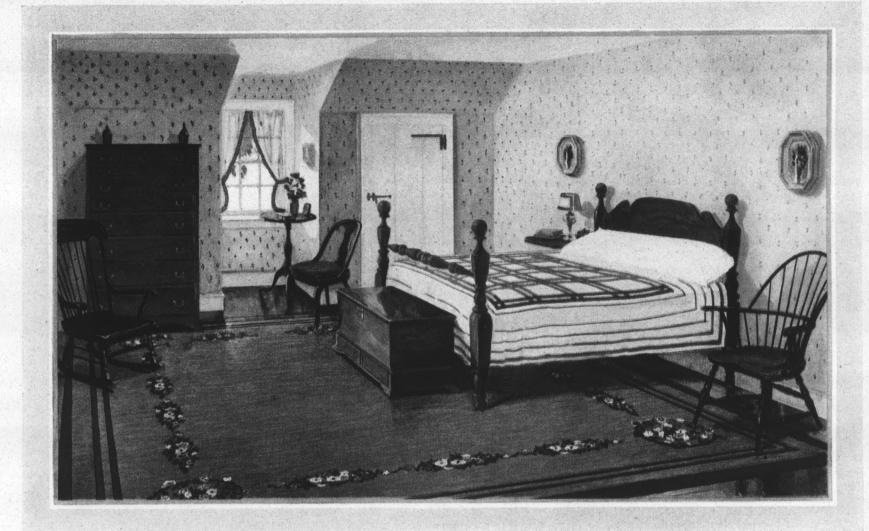
what it meant to work long hours for

NTO the directors' room of the

Warford National Bank came a

stocky, alert man of middle age.

would play the game.



A Pretty Floor Need not be Expensive A five minute talk about floors by HAZEL DELL BROWN

ODAY, the prettiest things are not necessarily the most expensive. Even the cheapest automobiles are offered in a wide choice of the gayest colors, instead of the dull drab, funereal black of a few years ago. And why not? Certainly it costs no more to make a thing beautiful than it does to make it ugly.

So it is with floors. There are so many pretty patterns in linoleum and linoleum rugs, there hardly seems to be any excuse left for old, bare wood floors. Either linoleum rugs or all-over linoleum floors are inexpensive and durable.

For bedroom, sitting-room or dining-room, pretty Jaspé rugs of Armstrong's Linoleum are most appropriate. These I recommend, not only because they are so attractive in appearance, but because they wear so wonderfully well. They are made of the same genuine linoleum that has made Armstrong's Jaspé Linoleum floors so popular, and they are finished with the new easy-to-keepclean lacquer surface. The color cannot wear off, because the Jaspé graining goes all the way through to the burlap back.

Still lower in price are Armstrong's Quaker-Felt Rugs which I do not hesitate to recommend to anyone who wants a cheap, practical floor covering. These, too, are protected by the longwearing Accolacfinish. This clear-lacquer finish is as hard, bright, and durable as the finish on your automobile. Whichever kind of rug you buy, be sure you know what you are getting and that you get what you pay for. You can easily distinguish an Armstrong's Linoleum Rug because it has a burlap back, and is soft and flexible. The Quaker-Felt Rugs are identified with a picture of the Quaker girl on the face of the rug.

After all is said about the beauty and durability of smooth-surface floor coverings, the most appealing thing about them to women, I am sure, is the ease with which they are kept clean. They require neither scrubbing, like wood floors, nor beating like carpets, but simply a damp mopping.

The Linoleum, or Quaker Felt Rugs I speak of, are suitable of course, only when the floor is in good enough condition for painting. Otherwise, I recommend an all-over floor of Armstrong's Linoleum. In the kitchen I believe the all-over floor is the most practical.

Don't hesitate to use color in the kitchen. It is the place you spend most of your time, and there is no reason in the world why it shouldn't be cheerful. In introducing color into any room, begin with the floor and repeat some of the colors of the floor in the curtains. Among the patterns

Armstrong's Linoleum Rugs they wear and wear and wear

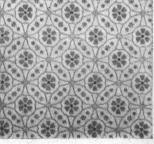
in Armstrong's Linoleum are many which would form an ideal base for a delightful color scheme.

If you are going to do anything with your floors this year, I shall be only too glad to help you plan somethingreally attractive, as well as economical. Write me a letter describing the room or rooms and I will send you suggestions for a colorscheme. There is no charge for this service, and you will not obligate yourself. For ten cents in stamps, I will also send you an attractive booklet illustrated in full color. Ask for "The Attractive Home-How to Plan Its Decoration." Writeyour Cook for the CIRCLE A letter to Hazel Dell Brown, Armstrong trade-mark on Cork Company, Linoleum Division, 1022 Jackson Street, Lancaster, Pa.

Above: Armstrong's Arabesq Linoleum, Pattern No. 9001 No. 8430

In the main illustration at In the main illustration at the top of the page is shown Armstrong's Jaspé Linole-um Rug, Pattern No. 725. A delightfully pretty floor-covering for bedroom living-room or diving-room room, or dining-room.

At the right: Armstrong's Printed Linoleum. Pattern



Nothing like a pipe, I say

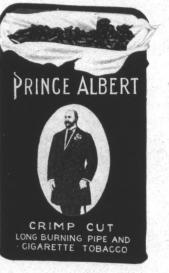
know that the taste more than matches the fragrance.

Cool as the old town pump. Restful as an easy chair after a hard day. Mellow and mild and long-burning. So mild, in fact, that you're always ready for another session, no matter how much you load up and light up. I've smoked P.A. for years—I ought to know!

If you don't know the contentment and satisfaction of a pipe, I urge you to go and get one right now. Fill it with good old Prince Albert and smoke up. You'll enjoy it as you never enjoyed a smoke before. You'll want your pipe for a constant companion from that time on, or I miss my guess. Try it!

PRINGE ALBERT

-the national joy smoke!



Not only quality, but quantity, too – TWO full ounces in every tin.

WHENEVER I want a real, honest-to-John smoke (and that's pretty often!), I get out my old pipe and pack it with Prince Albert. I know in advance what it's going to be like, but I get a new thrill out of it every time. A pipe and P.A. are so downright dependable.

Just to open the tidy red tin and drink in that P.A. fragrance is a treat in itself. No more appetizing aroma ever greeted a pipehungry man. And when that cool, comfortable smoke comes rolling up the stem, you

© 1928, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

Announcing the New De Laval 50th Anniversary Separators

IMPROVEMENTS

GOLDEN COLOR. These new 1928 machines are finished in beautiful gold and black colors, which are pleasing, durable and practical.

ENCLOSED GEARS. All gears on the "Golden Series" are completely enclosed and protected, insuring maximum durability.

REGULATING COVER. A new type of regulating cover and float affords a flow of milk from the supply can in a smooth, even stream, without spattering.

TURNABLE SUPPLY CAN. A novel feature every separator user will appreciate. Permits bowl and covers to be removed or put in place without lifting the supply can from its position.

EASIER TURNING. The "Golden Series" machines are easy to start and turn, requiring the least power or effort to operate for the work they do.

OIL WINDOW. Shows at a glance the amount and condition of the oil and whether the separator is being properly lubricated.

FLOATING BOWL. The finest separator bowl ever made. Self-balancing, runs smoothly without vibration, with the least power, skims cleanest, delivers a smooth, rich cream, and is easy to take apart and wash.

Liberal trade allowances are made for old separators of any age or make on account of new De Lavals, which will soon pay for themselves in saving of butter-fat and time.

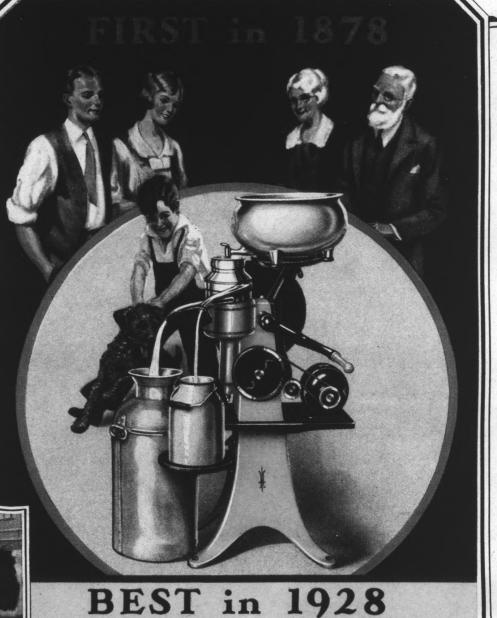
The De Laval Milker A GREAT companion to the De Laval Cream Separator — equally useful and efficient. Now milking more than one million cows in all parts of the world. Milks faster and better than any other method. Pleasing to the cows and produces clean milk. Simple and durable, does not require adjustment, and easy to operate. Makes dairying more pleasant as well as more profitable. Outfits for from five to 500 or more cows. Sold for cash or on selfpaying terms.



New De Lavals on Display

THE "Golden Series" Separators are now on display by De Laval dealer-agents, who will gladly show their numerous improvements and refinements. See and try one of the "Golden Series," or send coupon below to your nearest De Laval office for catalog and full information.

THE DE LAVAL SEPAR	
165 Broadway, New Yor	k .
600 Jackson I	Blvd., Chicago
	1 Beale St., San Francisco
Please send me, withou full information on	t obligation, { Separator Milker check which
Name	
Town	
State	



The GOLDEN SERIES

D^{R.} DE LAVAL'S invention, in 1878, of the first continuous discharge centrifugal cream separator, was the foundation of modern dairying and has done more than any other one factor to develop the dairy industry into the largest and most profitable branch of agriculture.

First in the beginning, the De Laval has kept in the lead ever since. Practically every detail of separator construction has been De Laval originated. As De Laval features have been imitated, further De Laval improvements have been made. Four million De Laval machines have been sold the world over. They have always been the standard by which cream separators were measured.

Now the 1928 "Golden Series" De Laval machines mark another step forward. They are the most complete, efficient and beautiful cream separators ever made. They are all that could be hoped for in such a machine. They must prove a source of pride as well as profit to every owner.

The best way to judge a new Golden Anniversary De Laval machine is to see one, and better still to try it side-by-side with any other separator. We do not believe anyone can do that and not choose the De Laval.

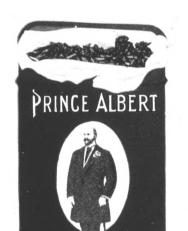
The new machines are made in seven sizes, ranging in capacity from 200 to 1350 lbs. of milk per hour. They may be operated by hand or any form of power. They may be bought for cash or on such terms as to pay for themselves.

Nothing like a pipe, *I* say

know that the taste more than matches the fragrance.

Cool as the old town pump. Restful as an easy chair after a hard day. Mellow and mild and long-burning. So mild, in fact, that you're always ready for another session, no matter how much you load up and light up. I've smoked P.A. for years—I ought to know!

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PRINGE ALBERT —the national joy smoke!

CRIMP CUT LONG BURNING PIPE AND CIGARETTE TOBACCO

Not only quality, but quantity, too – TWO full ounces in every tin.

© 1928, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

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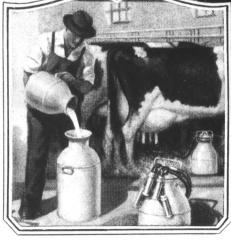
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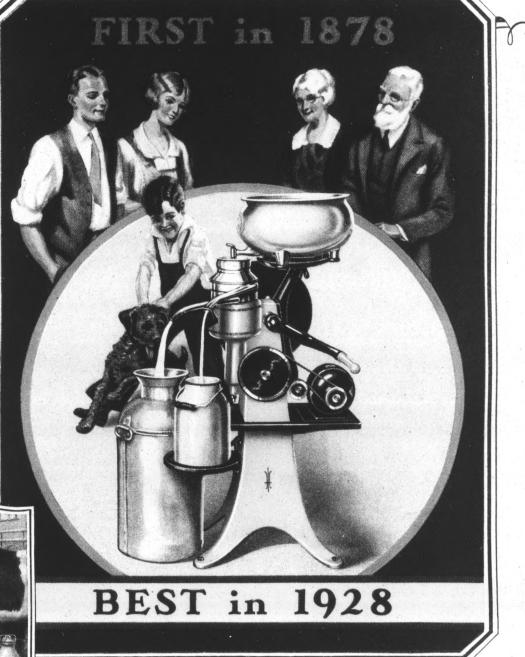
The De Laval Milker A GREAT companion to the De Laval Cream Separator — equally useful and efficient. Now milking more than one million cows in all parts of the world. Milks faster and better than any other method. Pleasing to the cows and produces clean milk. Simple and durable, does not require adjustment, and easy to operate. Makes dairying more pleasant as well as more profitable. Outfits for from five to 500 or more cows. Sold for cash or on selfpaying terms.



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The GOLDEN SERIES

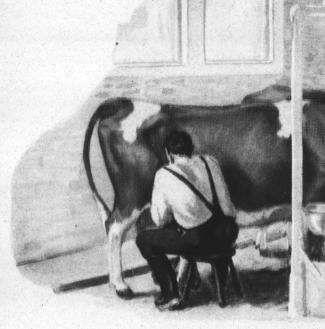
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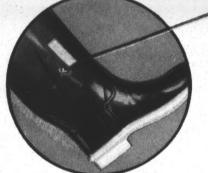
The new machines are made in seven sizes, ranging in capacity from 200 to 1350 lbs. of milk per hour. They may be operated by hand or any form of power. They may be bought for cash or on such terms as to pay for themselves.



In the dairy barn—and everywhere the farm job takes you—these "U.S." Blue Ribbon boots will keep you dry-shod and comfortable. And they are as husky as they look!

Farm tested..

This "U.S." Blue Ribbon Boot come in red or black - sturdy gray soles - knee to hip lengths stands the hardest wear . .



Stretches five times its length!

If you cut a strip of rubber from a "U.S." Blue Ribbon boot or overshoe-you'd find it would stretch more than 5 times its length! This rubber stays flexible and waterproof-long after ordinary rubber would crack or break 75 YEARS of experience in boot-making by the largest rubber manufacturer in the world that goes into every "U.S." Blue Ribbon boot. This boot is *built* to stand every farm test.

It's just as husky as it looks extra strong, every inch of it. You can't kick through that thick, oversize sole—it's as tough as the tread of a tire.

And the uppers — they are made of the finest rubber — rubber so elastic that you can stretch a strip of it more than five times its own length! No wonder, where inferior rubber splits and cracks, "U.S." Blue Ribbon boots stand up!

US BOOTS · WALRUS · ARCTICS · RUBBERS

And at every vital point where wear is hardest, from 4 to 11 separate layers of tough rubber and fabric are anchored in behind that strong surface—to give *extra* strength. Only "U.S." Blue Ribbon boots and overshoes have so many!

We know you will like the plus farm value in "U.S." Blue Ribbon boots and overshoes.

Every pair is built by master workmen—and built *right*. They fit better, look better, wear better. Get a pair and notice the difference.

United States Rubber Company

The "U.S." Blue Ribbon Walrus slips right on over your shoes. Its smooth rubber surface washes clean like a boot. Made either red or black - 4 or 5 buckles

Under the 4-H Flag

(Continued from page 184)

"She's a pet, Bob," Burton told his make a great playfellow for the kidfriend, "and a peach. Mr. Campbell says she is one of the best he ever bred. She's carrying the blood of champions in her veins and her coming family is sired by a champion. She's yours, Bob, and I want you to be proud of her."

"I'm proud of her right now," answered Bob Barton, and his words a challenge to the trust which Ross rang true. "On our farm a hog has always been just a hog. But I'm going to feel different about this one. Old girl," and as he scratched Lady Mary's ample back she grunted contentedly, "we'll see if you can't make a winner out of me."

"Mr. Campbell will send her right on out to the farm," announced Burton, "and you can put her in a stall in the barn until I can get out and help fix up a hog house. We've got to get busy and sow a patch of land to pasture mixture, mostly rape and cowpeas. This fall we'll seed some alfalfa so you can have it later. I've got a hunch," and Burton's smile was warm, "that the old Jones place has permanent tenants. I hope so, at least as long as I'm in Brown County.

There was warmth, too; in Bob's answering smile. "It's great of you to help me, Mr. Burton," he answered. "I don't know how I ever can pay you back."

"Hit a home run in the Harmon Burton answered instantly. game," "Help me beat Bill Tucker and we'll call it square."

So Burton was counting him in on the team. Bob vowed to himself that it would take more than a Brown County batting champion to keep him off. Aloud he said, "Mr. Burton, I'm still worried about that mystery nobody can seem to clear up. It would be tough luck to lose Lady Mary here after all you've done for me."

"We'll meet that if it comes," replied the county agent. "But there's one thing I want you to do for me. I've got an Airedale out at my boarding place that simply runs wild. I've been intending to give him to some friend who would really appreciate such a dog. If you'll take him, Bob, he can go home in the car with you. He's a great watch dog and we'll fix him a place to sleep close to Lady Mary's pen. If anybody takes anything Jock's guarding, he'll leave a leg as a souvenir. We'll go get him right now."

Bob thrilled anew to the thought of having a pedigreed dog of his very own. A "one man's dog" that could be depended upon to stand by his mas-ter through thick and thin. "I'll say I'll take him," said Bob. "Let's go. I can't wait."

If so ugly an animal as an Airedale can be termed beautiful, Jock was a beauty, indeed. Big and abounding in energy, he almost swept Ross Burton from his feet when they approached the house. "Old man," announced the farm agent as he patted the dog's head and looked deep into intelligent eyes, "here's a new master. Fight for him if he needs you as you'd fight for me." As if he understood the great dog reared upon Bob, probing deep into eves that smiled back. Then with a little whimper of content, Jock thrust a moist nose into Bob's protecting hand.

There was a suspicious huskiness in Ross Burton's voice as when, with the Airedale on the seat beside him, Bob set off, Burton called good-bye. An added bond of fellowship had linked the new friends. "You seem to be making quite an addition to the family, son," observed Bradley Barton, quizzically, for on arriving home they found Lady Mary already there. "A dog and a hog mean more expense and neither ever has proved profitable for

Lady Mary ambled up to be scratched. us. But we'll see. That scamp will dies." With ecstatic barking the Airedale was racing over the lawn, in his mouth a ball snatched from one of the children, who shrieked with delight as they pursued. But it was to Bob he came when romp ended and with worshipful eyes begged for a caress. Love and faith were reflected, Burton had imposed.

'We'll fight 'em, old scout," murmured Bob, 'you and me." And if sensing some impending danger, the dog, ears pricked, barked a response.

Sped the days, each filled with unremitting toil. Under the supervision of Burton and aided by Ted Baldwin, the home for Lady Mary and her expected family had been built. Facing the south and with glass for light and warmth, Bob thought it quite a masterpiece of carpentry. The hours spent with Ross Burton brought new evidences of congeniality. Possessing a keen mind and an ever-present sense of humor, Burton combined knowledge gained from practical experience with fine technical training. Without seeming to give advice, he had transmitted information which Bob Barton was to And even as he find invaluable. worked, Burton enlivened proceedings with jokes and stories.

"We'll just leave the old girl in her warm stall until the babies come," he had told Bob, "and that won't be long. It's as warm in there as-as an incubator. By the way, fellows," and Burton's rollicking laugh rang out, "don't believe I ever told you my favorite story about the city greenhorn who thought that pigs hatched." "Hatched?" said Ted incredulously. "Quit kidding us."

"It's as true as I live," replied the county agent. "You see, it was this way: A number of city men were visiting county agents and farmers to get first-hand information about farm conditions. One of them had his son along, a chap about the age of you boys. He told me that he was a junior in high school, but he was as ignorant about country life as any human could possibly be. We were looking over a litter of young pigs when this kid said to me, 'Mr. Burton, how long does it take a pig to hatch?" Of course, I thought I'd misunderstood him," went on Burton, "but he repeated the question. 'Pigs are born,' I told him, never cracking a smile. But he wouldn't believe it."

"Aw, gwan," Ted commented. "You can't pull anything like that on us. Nobody could be so dumb."

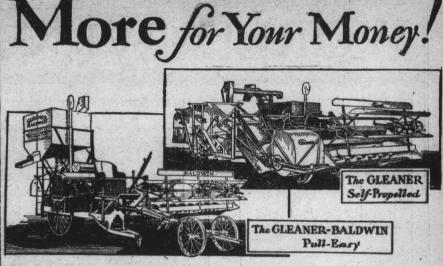
"I swear it's true," said the county agent, "and this is the reason he gave for not believing me. 'That can't be,' said the kid, 'for when we were over in Harmon County yesterday we saw an old sow carrying straw. Mr. Tucker, the county agent there, told us she was 'making her nest.' What would an old sow make a nest for if pigs don't hatch?"

Ted Baldwin fell off the hog house and rolled on the ground, while Bob and the county agent laughed a duet. "If ever I go to a city and pull a 'bone' equal to that," commented Ted, wiping his eyes, "I hope someone will put me where the squirrels can't get in. Of all the 'nuts'," and Ted was off again.

Continued next week)

Alexander Brown has discovered that the proper rearing of chickens has proven a most important factor in the success of his poultry business. He finds the colony system the best for brooding chicken on his farm.

Samantha says her idea of a "doubt-ing Thomas" is the fellow who smears muscilage on the back of a nice, new postage stamp.



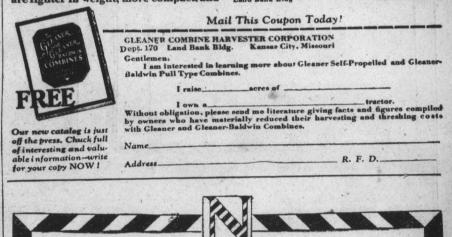
Whether you handle a large or small acreage, whether you raise wheat, rye, oats, barley, kaffir, maize or soy beans, whether you prefer a self-propelled or a pull model, we can supply the combine that will better meet your requirements.

Designed by combine specialists to lower production costs, built to give maximum service at minimum operating expense, proven on farms large and small in every section of the world, priced within the reach of every grain grower, the Gleaner and the Gleaner-Baldwin welcome every comparison, every test welcome every comparison, every test.

Revolutionary in design, embodying new principles, eliminating hundreds of unessential parts, harvesting without canvasses, threshing without teeth, they are lighter in weight, more compact, and

casier to operate. Ball and roller bear-ing construction, S. A. E. high carbon steel and chrome nickel shafts and the self-aligning, anti-friction bearings in dust-proof housings are typical of the quality built into every machine, guar-anteeing less trouble and longer life.

You want a combine that costs less and saves more . . . and that is exactly what we have to offer you! The coupon below will bring you complete information. GLEANER COMBINE HARVESTER CORP. Land Bank Bidg Kansas City, Mo.



TRADITIONAL SAFETY

Savings and loan organizations were founded in this country in 1831. During 96 years, losses have been negligible. No other group of savings institutions has surpassed these for safety.

First mortgage real estate security is back of all strictly savings and loan institutions. There is no better protection for funds.

The National Loan & Investment Company is a strictly savings and loan association. Your savings will be safe here. In 38 years no investor has ever lost a dollar. Savings invested here earn

5% and 6%

Write for free booklet

Resources Over \$13,000,000 Established 1889

The National Moan & Investment Company,

1248 Griswold St., Detroit, Mich.

Detroit's Oldest and Largest Savings and Loan Association Under State Supervision



WORLD EVENTS IN PICTURES



A nineteen gun salute welcomed William T. Cosgrave, great Irish leader, to America.



It's easy sledding out in Idaho in this de luxe model of the aeromotor-sedan-sled. Powered by an airplane motor and propeller it travels one hundred miles an hour over the snow.



On foreign but friendly soil— President Coolidge is warmly greeted by President of Cuba.



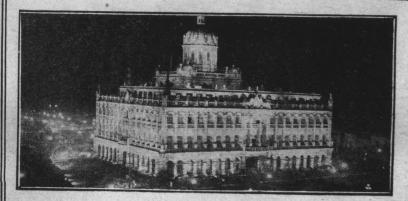
Nature's aviators—the four fastest carrier pigeons in the U. S. Navy and the cups they won in recent races.



This good looking cop is Mary Allen, commandant of London's women police.



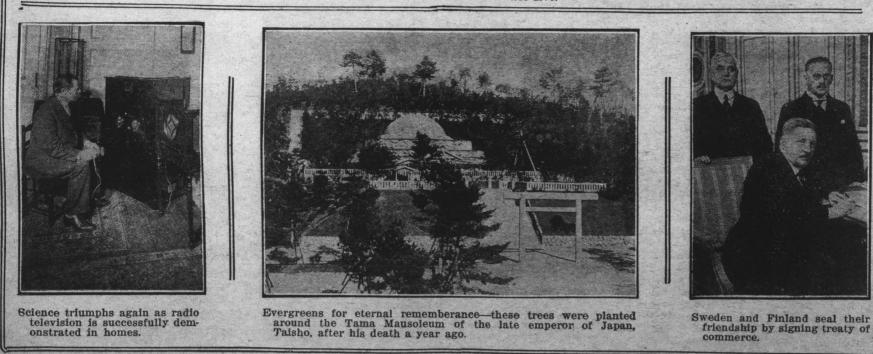
Four planes in one—ten motors and wing span of 310 feet features this German craft to be built for trans-ocean flights.



A night view of the magnificent presidential palace in Havana, Cuba, where President Coolidge was an honored guest during his recent visit to that island.



During England's recent flood they waded to the butcher and rowed to the grocer. Wine cellars were closed only to those who could not dive.



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Growing Kingdom of God Our Weekly Sermon-By N. A. McCune

the earth knoweth not how." pended on you, my friend, to advise lived as a boy. Apparently those two the seed you will sow in a few weeks, churches are the only ones he ever how it is to grow. Suppose that not heard of. So it goes. The want of one oat will sprout until it receives mind-growth is one of the commonest exact directions from you, as to just tragedies. how to proceed. The oat crop would be a bit thin, this year, would it not? What and where is this much-talked-You might get an expert agronomist of Kingdom? Is it present or future, from the State College. But could he as Christ thought of it? Both. "The start things going for you? As valu- kingdom of heaven is within you," able as his services are, I fear he could that is, in your midst. People are in not contain it, and it spread over into SUBJECT:-The Growing Kingdom of not function at just this point. Some the kingdom, but also it is in them. the next life. So we talk about heaven, things remain just over the margin of "It does not follow, because God is immortality, eternal life. The kingdom GOLDEN TEXT:-Matthew 6:10. knowledge, and probably always will.



The fuzzy chicks that are beginning to appear in incubators have their own secrets, and refuse to reveal them. How life starts, where it comes from, how it comes, are mysteries yet,

and bid fair to remain so, for a long time to come.

"How did living ceatures begin to be upon the earth? In point of science we do not know," says J. Arthur Thomson, in his "Introduction to Science." Later he says, "The simplest organism we know is far more complex than the constitution of the United States. The body of an ant is many times more intricate than a steam engine; its brain, as Darwin said, is perhaps the most marvelous speck of matter in the universe." So growth begins in mystery, and much of its continues in mystery. If we cannot explain many of the commonest happenings on the farm, we must expect to let some spiritual facts remain unexplained. As Whitman suggests, "A leaf of grass is no less than the journeywork of the stars, and the ant is equally perfect, and the grain of sand, and the egg of the wren, and the tree-toad is a masterpiece for the highest, and the running blackberry would adorn the par-lors of heaven, and the narrowest hinge on my hand puts to scorn all machinery.

But one thing we know, and that is, that there is growth. Things do grow, rapidly and luxuriantly. If they didn't, there would not be many farmers. And because we cannot explain all about it, we are not going to question the fact. We have too much horse sense for that.

The fact of growth is one of the most vital truths in the world. Take that out, and life would not be worth living. Once in a great while-we are thankful that it is only once in a very great while-something goes wrong with some of the glands in a child, and he stops growing, and becomes an adult in years but of pigmy size. I venture that Tom Thumb would rather have been a real, honest-to-goodness man and been unknown, than to have been the famous international dwarf that he was. We like to be normal. We like to grow, and we like to have our crops and animals and children grow. If there is a more beautiful fact in life than growth, one would have a hard time deciding what it is.

And that means also, the fact of spiritual growth. That is fully as real as any other sort of growth. Adults with childish notions about this and that are common. They have never grown in certain lines beyond the ideas of childhood. Here is the man who still thinks of the church as a one-roomed building, where they sing tin-pannish gospel songs, and the preacher preaches damnation sermons. A bit of growth in that department

S if a man should cast seed upon would not have hurt him. Another and the seed who says he does not believe in reshould spring up and grow, he ligion because of the quarrels between eth not how." Suppose it de- two churches in the town where he

What is meant by the "Kingdom?".

Father that all men are by nature embraces it all. Nothing can stop one choose to enter," but that is what it requires consecration, effort, purpose. comes to.

But the kingdom is also future. It is so big, so dynamic, so insistent and persistent that the present life can-



sons," says Rufus M. Jones. "Sonship from living and growing and experiis not a birth-relationship. It is an encing forever, if he or she is genuattitude of heart, a spirit, a way of inely within the kingdom, and stays life. Nobody is a son until he wants there. May one get out of the kingto be one, until he wakes up to his dom, once he is in? That depends on possibilities and chooses to enter his your theology. The perseverance of heritage. God is Father; we become the saints is a doctrine dear to the sons." So, the kingdom is within us, hearts of some churches, while others if it is anywhere in this life. Not maintain that it is not difficult to everyone is in the kingdom, and the lose one's place, or in other words, to kingdom is not in every one, because lose one's conscious grip on religious not everyone has so decided. He may experience. All agree, however, that not have said deliberately, "I do not to be a useful member of the kingdom

SUNDAY SCHOOL LESSON FOR **FEBRUARY 12th**

God. Mark 1:14,15; 4:1 to 34.





AGRITOL the New Land-Clearing Explosive succeeds Pyrotol, now exhausted

MILLIONS of acres are still going to waste, waiting only to be cleared of machinerysmashing stumps and boulders to become cropbearing acres.

And just as the great land-clearing movement was getting under way, the supply of reclaimed war explosives was exhausted. The Department of Agri-culture says in a letter: "It is expected that all of the Pyrotol available for land-clearing will have been shipped by the end of next March. So far as is now known, no other Government explosives are avail-able with which to continue such distribution."

Situation Saved_by New Explosive

The farm development work, so well started, was threatened. In most cases land-clearing would be impractical without low priced explosives. Now comes AGRITOL, a dynamite superior to Pyrotol. Made by the same company (E. I. du Pont de Nemours & Co., Inc.) that prepared Pyrotol under Government contract.

Agritol has been in constant use for several months. Here are some of the advantages, already discovered, of Agritol over Pyrotol.

Better than Pyrotol

Whereas Pyrotol ran only 150 sticks to the 50 lb.



E.I. DU PONT DE NEMOURS & CO., INC. Desk MF2 Explosives Dept., Wilmington, Del. Gentlemen: Please send me a copy. free, of your booklet describing Agritol for land clearing.

Name..... R. F. D..... Place..... State......

case, Agritol has about 172 sticks to the 50 lb. case-22 sticks more to the case.

Another economy: The strength per stick of Agritol is greater than the stick strength of Pyrotol. More heaving, breaking power for every pound of Agritol.

Still another: Doesn't waste when cut in half or split for loading. Resists moisture.

Safer and easier to handle. Much less inflammable than Pyrotol.

Efficient not only for stump-blasting, boulder heaving and cracking, but also for such agricultural uses as tree-planting and sub-soiling.

Your County Agricultural Agent will help you

He's your land-clearing authority. He can tell you whether or not land-clearing is profitable on your farm and, if it is, just how much it will cost and how to go about it. He'll tell you how you can buy Agritol on the community carload plan just as Pyrotol was bought.

This coupon will bring you a valuable booklet describing AGRITOL-the new land-clearing explosive replacing Pyrotol. Mail the coupon today.



Your County Agricultural Agent will help you make More Money out of your farm



THE MICHIGAN FARMER

Plan a Patriotic Party Feature the Menu With Dainties to Suit the Color Scheme

192-28

patriots, it's just the time to plan a surprising careers are divulged. patriotic party. Remembering the original thirteen states, why not make it a star party, using stars as the motif for decorations and refreshments? The invitations, too, may bear a star or two in the corner. The decorations might be blue room shields bearing thirteen red stars, with star-shaped paper shades hiding the electric lights.

Peanut Toss

This is a good ice-breaker to start off with as soon as the guests arrive. First, a red star measuring about six inches across is placed in the center of the floor. Each player is given ten peanuts. Standing with heels against one wall of the room, each take turns tossing the peanuts to see who can hit any part of the star. To hit the



One of the prettiest and latest models in dresses for spring wear, in printed crepe that is expected to be popular from spring days until the close of summer.

star counts one point, but if the peanut does not roll off the star it counts five points. The guest receiving the most points is awarded with a prize. Patriotic Masquerade

that her guests dress to represent some certain patriot or leave that choice to her guests. In this case no ice-breaking game is needed for the first part of the evening can be devoted to scoring the costumes and awarding prizes for them.

Biography

the biography of their favorite patriot. First, each one is given a pencil and paper. They are asked to write the name of their favorite patriot. The paper is then folded over and passed to the right. The next question to be answered is "When was he born?" Each person answers for his own hero. Then the papers are passed, another question answered, weeks. These were transplanted to and so on. The questions run some- other boxes and kept growing until thing like this: "Who was his father? Where was his home? What was his main interest in life? Whom did he

patriotism bubbles forth. Being have?" When the last question is an- two together with boiled frosting or the wall to allow it to support hangers. the birth month of two of our great swered, the papers are read aloud and fruit filling.

Finding Partners

To find partners when refreshment time arrives, the girls go into one room and the boys in another. The girls may be given the name Washington and the boys Lincoln. From these names they are to form as many new words as possible out of the letters in each name. The boy and girl forming the same number of words are partners

Refreshments À La Star

Unless the group is small, it is best to serve a buffet luncheon. For favors one could make tiny star sugar cookies and support them upright on a wafer by means of colored sugar frosting. In keeping with the occasion one might serve a menu similar Now when things go wrong there is to this:

Patriotic Salad Tutti Fruitti Sandwiches Tart Cheese Sandwiches Star Cookies Olives

Coffee Patriotic Salad 1 tsp. salt 1/2 cup sug

tbs. gelatine cup cold water cup weak vinegar tbs. lemon juice cups boiling water 1 cup mincerd 1 cup minced 2 mineed pime

Soak gelatine in cold water, add to rest of liquids that have been mixed with the seasonings. Add vegetables and pour into a deep star mold. Garnish with stars cut from cabbage leaves, beets, or peppers.

Tutti Fruitti Sandwiches chopped figs chopped cherries chopped dates 1/2 cup chopped nuts 1/2 cup orange juice

Mix thoroughly and spread on whole wheat bread.

Tart Cheese Sandwiches 2 cups oream cheese 2 tbs. horseradish

Dash of mustard 2 tbs. pimentos Mix thoroughly and spread on white bread.

Start Your Own Geraniums

TO plant is better suited for mass plantings in the home grounds than the geranium. Most of us seem to think the only way to get them is by purchasing the plants, unless we happen to have a greenhouse, then we can start them from cuttings and grow them to blooming size in If the hostess prefers, she may ask small pots. Geraniums are not very effective unless we have a lot of them. How to get them at small cost has long been a problem.

Last year, along in February, we double plants and these were taken up purchased a packet of Lady Washing- and removed to the cellar. Cuttings ton geranium seed, at a cost of a will be rooted from the best of these, quarter. Then we looked over the also from some of the Pelargoniums, seed catalogues and found another for planting this spring. Another stunt that will create much kind listed under the name of Geranmerriment is to have the guests write ium Zonale. We took a chance on as many other plants usually pur- the custard pie is ready to take out that at a cost of ten cents. Another chased from the florist, from seed is shelf back of the kitchen range for a very interesting process. All you still another packet. Three packets of geranium seed and they were planted in window boxes, set on a shelf back of the kicthen range for a few days, and then placed in a south window. Every seed seemed to make a sturdy plant inside of three the time to plant them outside had you will have a new book of interest arrived.

opened during the coming summer .----The Zonale varieties bore a lot of C. H. Chesley.

N February our true spirit of marry? How many children did he recipe, cut in shape of stars, and put the closet and far enough out from

ME AND MY ENGINE COOPERATE

FOR a number of years we had a hired girl to help me with the work in the house. But good hired girls for farm work seemed to vanish when automobiles and airplanes became common. In order to solve my help problem, I hired a gasoline engine, or rather bought it.

We installed it in the basement, together with a pressure tank and power pump. Now we have both hot and cold running water in the kitchen, bathroom, and basement. With the help of the engine, I do my own washing and churning, and the engine also furnishes power to separate the milk. no hired girl to walk out the front door and leave me in the midst of a pile of extra work. Rather with a bit of oiling and repairing, the engine Pickles keeps right at it, and I manage my work better than with the help of a girl.-Mrs. W. F.

MARK POISON BOTTLES

T 0 make the poison bottles feel dif-ferent to the touch in handling than any other bottle, I paste a strip of sand paper around them. I consider this a wise precaution.-Mrs. C. H. F.

DOUBLES SPACE IN CLOSET

OUR only closet down stairs was rather small and it was difficult to find a place for all of the things we wanted to put in it. After studying it carefully, the first thing we did was to place a rod (we used a piece For the sugar cookies use any good of old lightning rod) lengthwise of

single flowers ranging in color from

pure white to deep red. They were

always a mass of bloom from the

middle of June until killed by frost.

Plants were pinched back to keep

them sturdy. The Lady Washington

varieties are what florists offer under

the name of Pelargoniums. They do

not bloom as early as the Zonale var-

ieties, but the blooms are of many

beautiful shapes and colors. From the

packet of mixed seeds, we got a few

need to do is start the seed early.

have grown large double dahlias and

had them bloom in August, from seed

sown in the former month. Carna-

tions rivaling in beauty those from

the florist may also be grown. Look

over a good catalogue and purchase a

few packets of the rarer flowers and

This means in February or March.

An attractive dress for spring wear. This model is in an American print, based on a design of the Hopi Indian tribe. A white background is decorated with black, red, and yellow. The parasol matches the dress.

twice as much as it did before and it is much easier to keep in order.-Mrs. C. E. Y.

CUSTARD PIE

T took me a long time to discover that the secret of success with custard pies was in the baking. A very hot oven causes wheying in the center and toughness around the edges. A slow oven having a temperature about 300 degrees F. bakes the best custard pies and when the tip of spoon inserted in the center comes The growing of geraniums, as well out without anything adhering to it, of the oven. It is then a golden brown and free from large cracks. To prevent soggy crust, set the pie in a colander to cool. If this isn't convenient, place pie on four empty spools. This will let the air circulate under the pie tin. The result will be a crisp, flaky pie crust, which is et all times very desirable.--Mrs. C. H. F.

> Youth is a blunder; Manhood a struggle; Old age a regret.-Beaconsfield.



FEB. 11, 1928

This held all of the wardrobe that was being used and the hooks at the back were reserved for things not in use.

The shelf above was used for storing. To the inside of the door we attached a hat shelf. This was made of a smooth board four inches shorter than the width of the door and twelve inches wide, supported by two brackets. We bound the board on the one side and two ends with a narrow cleat and stained and varnished it to match

the door. Below this on the lower part of the door, we made a shoe rack by placing two towel racks three inches apart, the lower one being placed out two inches farther than the other one. Since remodeling, my closet holds

WHAT WOMEN WILL WEAR IN THE SPRING

W HAT styles has Paris sent over for spring wear? And of this group, what lines will be adopted by the smart women of New York? How are the new designs made? What materials?

All questions regarding the vogue

PARIS and NEW YORK STYLES



for spring are answered by the most attractive selection shown in our Spring Fashion Magazine just off the press. Send 13 cents now for your copy to Pattern Department, Michigan Farmer, Detroit, Mich.

EXTENSION STAFF GETS NEW SPECIALIST

M ILDRED GARDNER of East Aurora, New York has succeeded Miss Edna Gleason as clothing specialist with the home economics extension department of the college. Miss Gleason was forced to give up her work in December having been called home on account of illness.

Miss Gardner is a graduate of Columbia University with a degree of B. S. in Household Arts Education. She has had considerable experience in both resident and extension teaching. For the past four years she has been clothing specialist in extension at Cornell University.

ANNUAL REPORT INDICATES PRO-GRESS IN HOME ECONOMICS . EXTENSION

W ORK done through the home economics extension service of Michigan State College reported for 1927 shows that forty-two counties in the southern peninsula and nine in the northern peninsula are taking advantage of some of the courses of-

fered through this service. Five more counties are to be added for short time projects early this year. Six of the counties, Marquette, Kent, Ottawa, Oceana, Cakland, and Wayne employ a full time agent in charge of the work.

THE MICHIGAN FARMER

There has perhaps never been a better response from the women of Michigan toward the study of bettering home conditions and furthering the work in their own communities. This has been demonstrated by the fact that definite steps had to be taken to limit the number of women enrolling and to keep the class to a size where efficient instruction may be given. Many more in several counties are wishing to enroll than may be taken care of with the present number of specialists on the home economics extension staff.

NEWAYGO IN THE LEAD

NEWAYGO County is actively engaged in the study of nutrition this year as is shown by the fact that it ranks first among the thirteen counties in school nutrition and sec ond among the same counties in the home nutrition series of lessons given by Martha Mae Hunter, nutrition specialist of Michigan State College.

In the school nutrition series there are 854 children enrolled in forty-eight schools and the enrollment of women in home nutrition numbers 427.

The home and school nutrition series were formerly carried separately with no one to supervise. The results were that no reports could be obtained. For the past three years school nutrition work has been carried as a part of the home nutrition series, correlating the work of the home and the school. The teacher is better able to work through the children and to reach the families in a way that the nutrition leaders are unable to. As one mother said, whose child was enrolled in the school work, "The teacher can get the child to do things which the mother cannot."

Lessons cover correct food and health habits. It is the aim of the course to stress one health rule each month, teaching positive health until such an interest is aroused in the child's health and well being that the performance of these rules gradually becomes a part of the every day routine with each school child.

"Johnnie," said his father, "who's the laziest boy in school?" "I dunno."

"Why surely you do. Who is it that when the rest are studying, sits and gazes idly about the room?" "The teacher."



RGANDIE pillows are altogether new and they lend a touch of dainty color to any room. Design No. 5322 comes stamped on yellow organdie with flowers which are made to stand out from the pillow as if real, in soft shades of blue. The petals of the flower are of double thickness, the upper side of a pale blue, and the under side of a deeper blue. We suggest a double ruffle of ivory lace edging one-half inch wide to finish this pillow. A detailed working chart showing the exact color scheme is furnished with each pillow. Price postpaid to any address, 65 cents.

Pillow 5,223 is stamped on lavender organdie with the large flower in shades of light and dark yellow and orange. The petals are finished with a picot edge so that they stand out from the pillow. A detailed working chart showing the exact color scheme and how to completely finish the pillow is furnished. The price of this pillow is \$1.30 postpaid to any address. Address your orders to the Stamped Goods Department, Michigan Farmer, Detroit, Michigan.

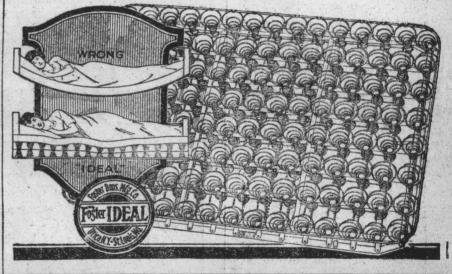
Over-eating is Not a Substitute

for Under-sleeping!

VOUR stomach cannot be right if your nerves are wrong. Get all the sleep you can, and to insure it be sure that you get a Foster IDEAL SPRING.

There's real rest-real spine support in the IDEAL's 120 super-tempered spirals and loose chain top, because there is perfect body fit. See that the bedspring you purchase is made this way. Count the springs. Look for the chain link top construction and make sure that you see the genuine Foster IDEAL TRADE-MARK on the side rail.

FOSTER BROS. MFG. CO. UTICA, N.Y. Western Factory, St. Louis, Mo.



Michigan Farmer Pattern Service Spring Togs for Mother and the Kiddies-Every One Easy to Make



No. 897-Youthful Appearance. De-signed in sizes 16, 18, 20 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 2¾ yards of 40-inch material with ¾ yard of 36-inch con-trasting and 6 yards of binding. No. 968-Achieves Detail Smartness. Designed in sizes 16, 18, 20 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3¾ yards of 40-inch material with ½ yard of 40-inch con-trasting and ⅔ yards of 36-inch mate-rial for separate camisole.



No. 938-It's Smart. Designed in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1% yards of 40-inch mate-Size rial with 1/2 yard of 32-inch contrast-

nai with 2 5th ing. No. 3093—For Wee Lads. Designed in sizes 2, 3, 4, and 5 years. Size 4 requires 1⁴4 yards of 32-inch material for trousers with 7% yard of 36-inch contrasting.

contrasting. No. 948—Important School Frock. Designed in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2 yards of 40-inch material with 14 yard of 18-inch contrasting.

The price of each pattern is 13c. Send an extra 13c with your order and a copy of our Spring and Summer Fashion Catalog will be sent to you. Address your orders to the Pattern Department, Michigan Farmer, De-troit, Michigan.

Wash days

tell you the whole story and show you the new methods and new kinds of equipment that make one of the hardest jobs of the old farm days an

"Tag" stores are also the

right place to buy such little

things as clothes lines, pails,

boilers, irons, ironing boards

and other housekeeping ne-

cessities. You will be sure of

a fair price, of goods that will

give you real satisfaction and

long use when you buy them

from us. Look for the "tag"

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Look

for the

Tagʻ

easy one today.

in the window.

THE MICHIGAN FARMER

FEB. 11, 1928

SLATE BLACKBOARD GIVES HOME NEWS

SLATE blackboard screwed to the wall by my kitchen door does daily-yes, hourly-service. It is used for menus, messages for the absent, time of food baking, lists for shopping, home work, games and hints as: 'Spotless hands for boys; or cry In vain for huckleberry pie."

Or: "Whoever first comes in at six, Please look at the beans and the table fix.'

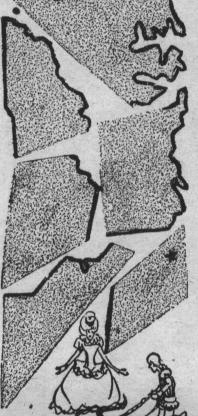
Good news is often written there to keep the family in the habit of watching it.-M. A. S

For Our Little Folks

STATE SECRETS

This state's called "North" and yet it's South.

Of Mason-Dixon's famous line; Like Raleigh (that's its capitol), Folks' manners here are extra fine.



The pieces of this puzzle when correctly put together, make a map of the state which this verse describes. The start indicates the capitol. When you have solved the secret of which state this is, write me all you can about the state and its capitol.-Aunt Martha.

The answer to last week's secret. was Florida and its capitol is Talahassee.

A JOLLY RECESS GAME

D ID you ever play "burney, burney?" It's just heaps of fun and it's a game you can play when only two or three of your little playmates come over to your house for an hour or so. You can also play it at school at recess time for the more players, the livelier the game. First all the players are seated in a circle on the floor or ground. Have one ball for every six players.

The balls are supposed to be hot and if they touch a player anywhere except on the hands, he is supposed to be burned and must leave the circle. The players roll the balls back and forth, trying to hit other players, who, in turn, attempt to grasp the balls in their hands and roll them toward other players. The balls must be kept inside the circle of players. When half of the players have been barred out, the circle is formed again and a new game is started.-Aunt Martha.

A Thousand Miles From Nowhere For Every Complication and Obstacle Gray Described

We've Met Two or Three

Francis Flood

UT of all the pessimistic advice first thousand miles, and did it at a and warnings which Jim and I received when we first began to plan our motorcycle trip across equatorial Africa the one hopeful voice crying in the desert wilderness was the fact that an Englishman named Frank Gray had made a similar trip a year or so before by automobile.

"But," our advisors warned-and they were legion-"Gray used an automobile, not a motorcycle and side car. Don't forget that. Then, too, he spent months in preparation and had as carefully organized an expedition. as could be arranged. He was a Member of Parliament, a man of wealth, and had an automobile manufacturer back of him. Furthermore, he had made a previous trip out here from England, looked things over and then went back to England to complete preparations. And don't forget thishe didn't make his attempt at this time of the year, for it's absolutely impossible now during the rainy season, and will be for some months to come.'

"And here's the main difference between you and Gray," they always concluded, "he used an automobile-two

much more unfavorable season than when Mr. Gray traveled. In fact, so far, an automobile could not possibly have traveled over some two or three hundred miles of the route we have taken at the time this is written. We didn't know when we read his book whether Mr. Gray exaggerated actual conditions or not and so we had to accept them as fact, but so far at least, for every complication and obstacle that he described in his book, we've met two or three-and we're still going strong!

As opposed to the attitude of one of the few Americans in Lagos, Mr. Bremmer of the Bull West Africa Line, who begged us almost with tears in his eyes not to sacrifice our year's trip around the world, and perhaps our lives as well, by attempting to cross the African Sudan on motorcycles, an Egnlish colonial was more optimistic. "There's nothing to be gained by making the trip. It's not difficult nor hazardous and you've really done nothing when it's over. There's no desert. You're simply wasting a lot of time."

Incidentally, neither of these two



The Village Blacksmith in Lagos, West Africa, Is Really Black of them in fact—and you are talking men had ever been very far along the motorcycle and side car, which is impossible."

I found a copy of the book which this Frank Gray wrote after making his famous trip from Lagos to the Red Sea, right across the continent of Africa and the southern edge of the Sahara, and I noted these remarks of his: "The journey (Lagos to Red Sea) has never previously been attempted on any form of mechanical transport, and it is doubtful if it has ever been accomplished by any living person, white or black, afoot or on camelsin other words it was a positively pioneer trip." . . . "The country to be traversed was almost devoid of roads even in the accepted 'overseas' interpretation, a large proportion of the route was absolute desert, water was scarce throughout and, for one stage gasoline, oil, water, food, kit, and spares for 1,600 miles had to be housed on the cars or (as finally decided) hauled by the trailer attached to the cars." . . . "With the aid of fifty natives we got up the bank from the raft, and one car is safe. The other is down the river on a raft, and as it is now quite dark we mount a guard over it till dawn. A whole day covering two miles." . "Of All Starting the 100 miles covered on this day's fight at a speed of only seven miles per hour, at least eighty have been done on second gear, ten on top, and ten on bottom."

W E haven't completed the trip yet -and maybe we never shallbut we've fought our way through the

route and knew no more about it than

the many others who gave us freely of their advice. And both were wrong. But these two are representative of the reliability of what little information we could get. We decided to go and see for ourselves.

ONE complication that caused two weeks of delay was the necessity of getting permission from the French to cross their territory, French Sudan, which lies between Nigeria and British-Egyptian Sudan. We hunted up the buzzing little French consul in Lagos, presented our passports, and explained our wants.

"But eet is most unusual," he objected, with a fanfare of waving hands and pointing of chins. "Eet is necessaire to write the governors of both colonies, the one in which Zinder is located and the one in which is found Fort Lamy. It will be for them to say." (He didn't know us.) "Let's wire," I suggested.

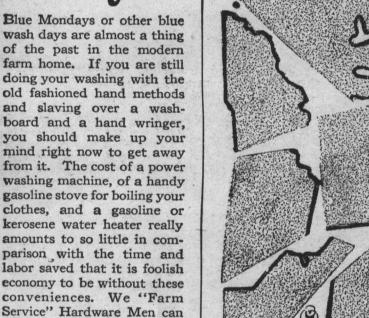
"But, no. Eet is the importance. A telegraph will not do. It must be a letter."

"How long will that take?" "About two or three months," he replied as calmly as a Frenchman can act.

"You'll have to wire then. We can't wait that long. Why won't a wire do?"

"Oh, but no. Eet has nevaire been done so before; therefore it can not be." That is good colonial policy but it didn't suit us.

(Continued on page 199)



CHICK REARING IN 1928

Continued from page 178) until the pullets go to the laying house. After three weeks some grain can be given.

Yellow cracked corn, cracked wheat, and steel cut hulled oats make a good scratch grain while the chicks are small. As soon as the chicks can eat whole wheat, switch to the regular scratch grain ration consisting of equal parts whole wheat and cracked corn.

It is preferable not to have production begin before the middle of Octo-After six weeks if the pullets ber. are early hatched, the dried milk can be cut to five parts. If they continue to mature too rapidly the meat scrap can be left out of the mash. If the chicks are hatched in late June and you wish to mature them as rapidly as possible, increase the meat scrap to. ten parts.

Alfalfa is the best green feed for chicks. Swiss Chard, Chinese cabbage, and lettuce are good green feed for chicks. A June grass pasture may become very tough and not contain much succulent green feed relished by the chicks. Chicks should always receive plenty of water.

It pays to market the cockerels as early as possible and have the room for the pullets. It is seldom possible to obtain much money for Leghorn cockerels and it often pays to sell them early and prevent further loss. A ten by ten foot colony house should furnish roosting space for not more than one hundred and fifty pullets.

A properly hatched chick free from white diarrhea is a sturdy living organism and responds readily to good care. While there are many successful methods of raising chicks, the above method has given good satisfaction. If a poultryman has enjoyed good success with the methods he has been using, a change in feed is not advised .- R.

CORRECTION

I N our January 14th issue, an ar-ticle entitled "Feed Cod Liver Oil in Winter" stated that one should be able to purchase good cod liver oil for not more than two dollars a gallon. Further investigation shows that a cod liver oil potent in vitamins A and D, the factors which made cod liver oil so effective, can not be bought for less than three dollars a gallon. Therefore, the article should have read "three dollars per gallon" instead of two dollars.

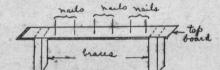
FERGUSON LEAVES

E. FERGUSON, who has been С. connected with the Poultry Department of the Michigan State Col-lege for some time, and has been manager of the International Egg Laying contests since they started, left Bogota, Colombia, South Amerfor ica. February 3rd to teach the Colombians the latest rural economics.

left with Mr. Ferguson to do soils work in Colombia. They are the only Americans selected by the Colombian government for agricultural work.

VEGETABLE SELF-FEEDER

ERE are directions for making a vegetable self-feeder for chickwhich I thought you would like ens to print. I took a board four or five feet long and drove long nails clear through so the points stuck up on the right side. I braced this on each end



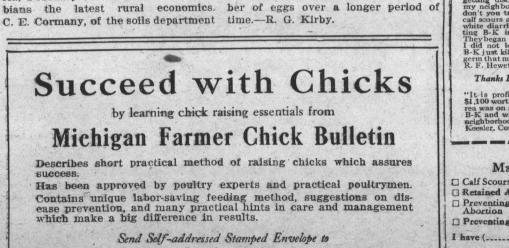
by nailing a strip to form a sort of table. I then cut carrots, turnips, or beets in half and impaled them, cut side up on the nails. The hens certainly like this arrangement for several reasons: (1) They have a firm solid base they can pick at the roots on; (2) It gives them plenty of exercise, and at the same time the nec-essary green feed. Potatoes and cabbage can be used in the same way, in fact, any vegetable one has. The hens always clean up every bit .-- Mrs. Clyde Swanson.

MASH HEAVY WITH CORN

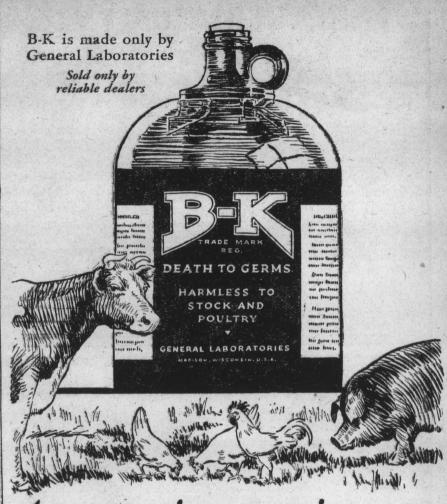
A^T the Illinois Station poultry farm they are using a ration heavy with corn. This ration is probably based on the fact that Illinois is a great corn growing state. In a state like Michigan where we raise good oats corn is also useful as part of the laying mash. However some farmers with an abundance of corn might find this Illinois ration useful. especially if they are keeping a breed like Leghorns where there is less danger of making the flock too fat.

The mash consists of 195 pounds gound yellow corn, 100 pounds wheat bran, 100 pounds wheat middlings, 100 pounds meat scrap, and 5 pounds of salt. The scratch grain mixture consists of 70 parts corn to 30 parts There are some Leghorn wheat. flocks that might use a ration of this kind during the spring and summer to good advantage in any state. I think there is a tendency for many Leghorns flocks to lay so heavily during the spring that many of the birds cannot keep up their weight and cease production early in the summer when eggs begin to increase in price.

Under present conditions, with the exception of November and December, summer eggs are worth about as much as winter eggs and it is desirable to keep a flock producing as long as possible. This is not possible unless the poultry stand the strain of heavy winter and spring production without becoming greatly reduced in bodily Possibly a ration containing weight. a liberal amount of ground yellow corn will help keep some flocks in condition to produce a profitable number of eggs over a longer period of



Poultry Dept., Michigan Farmer, Detroit, Mich. For Your Copy



31- 195

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you money.

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Conquers Calf Scours "Throke up the most persistent case of acours in a calf, that I ever saw. thad tried everything that I knew and failed until I got your B-K, and t did the work quickly. That was some months ago and the calf is now almost the equal in size and condition of calves, the same age that never secured." W.B. Sander-son, Loomis, Wis.

For cows that retain afterbirth "I also found it the greatest thing out for cowsthat do not clean read-liy after caving. This is a job I al-ways had to do by hand but now I use B-K. Peter Shallow, Prop., Pleasant View Stock Farm, Ocon-to, Wis.

Controls abortion "B-K sure does the work, as the ar-rival of strong, healthy calves is proving; the first that have lived in over a year. There were also cows that were sterile, that we have now got with calf. Nine more are almost due to calve and all are looking fine. All the creditised ue B-K." J. Mana, Canyon City, Colo.

Canyon City, Colo. Savedchickens from white diarrhea "I could not raise chickens without B-K. I bought fifty white Wyan-dotte baby chicks. They soon came down with white diarrhea. I waa getting discouraged, when en col my neighbors said to me. Why don't you try B-K. Not seed for call scours and "houd be good for white diarrhea. So I be good to white diarrhea, be drinking water. I do began to get well at ance and I do began to get well at ance and B-K just kills that white diarrhea germ that many chickahave." Mis. R. F. Hewett, Mineral Point, Wis.

Thanks B-K for escape from cholera "It is profits I am after. I sold \$1,100 worth of hogs, and the choi-rea was on all sides of me. I used

B-K and was the only one neighborhood to escape." Keesler, Corning, Ia. S. R.

Simply feed B-K in drinking water for con-trolling diseases of the digestive tract, such as scours in calves, white diarrhea and cholera in poultry. Abortion is fought by simple methods, too, and the B-K method of removing retained afterbirth and restorof removing retained afterbirth and restor-ing the tissues to health is simple, cleanly, and highly effective. Adhesions are dis-solved and the afterbirth comes out natu-rally—without unpleasant "hand work", and danger of infecting yourself. B-K and the methods for using it are the results of 16 years' study of the diseases which cause you loss. B-K is dependable. You simply follow directions." And if a new disease breaks out which

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stock is the only kind that makes

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	nd Bulletins covering subject Laboratories, Dept. 1468	
□ Calf Scours □ Retained Afterbirth □ Preventing Contagious Abortion □ Preventing Poultry Disease	 Sanitation for Hogs and Pigs How to sort, wash and disin- feet heavy sows without handling 	 Roupy Birds White Diarrhea Sterilizing dairy equipment without steam Sterilizing Milking Machines
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the baby chicks are raised to marketable size." With a Dickelman, you should be able to raise 90% to 97% to maturity. Buy one this year and let the additional chicks you will mature pay forit. Shipped knocked down in 500 chick units, or in long type suitable for continuous brooding systems. We have found by repeated tests that it takes a house this size to mature 500 chicks in a healthful condition. To use a smaller house is to jeopardize your profits. Mail the coupon today. Read what Dickelman Houses have done for practical poultrymen. Safe from SmatherIng. If is built circular in Safe from Smothering. It is built circular in shape and has no corners.

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THE DICKELMAN MFG. CO. Dept. 317 FOREST, OHIO





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February Poultry Notes By R. G. Kirby

artificial hatching of the poults. Then they are placed on clean soil starting mash and not fill up on sand and are often raised successfully without losses from blackhead. By that method the poult never comes in contact with a chicken or turkey hen which might add the germs of black- placed at intervals around the broodhead to the soil. In a recent visit with C. M. Ferguson at State College, he said this method of turkey hatching the feed but they do see the feed and had proven successful at the experiment station.

An egg customer who bought eggs from a farmer using cod liver oil, recently reported that three eggs in a certain dozen seemed to taste of cod liver oil. All of the other eggs were fine in flavor and it brought up the question of the influence of cod liver oil on the flavor of eggs.

I took up the proposition with several poultrymen to obtain general information along that line. One reported that he had never eaten eggs.



The south or front elevation of the portable colony brooder house, designed by the poultry and agricultural engineering departments of the Michigan State College. Complete plans and bill of materials of this house may be obtained by sending a self-addressed stamped envelope to Desk P, Michigan Farmer, Detroit, Michigan.

from an oil fed flock which seemed to take on any flavor from the oil. But he said that a basket of eggs allowed to remain for any length of time close to an open container of cod liver oil would take up some of the odor and flavor of the oil.

Another poultryman said that he considered thorough mixing of the cod liver oil important because, if one hen received too much cod liver oil, it might have a tendency to cause the production of at least one egg slightly tainted with the oil. Of course, the oil is too expensive to mix it carelessly and a uniform distribution throughout the flock is essential in obtaining its full value.

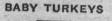
Another poultryman states that uncooked cod liver oil like uncooked fish might flavor eggs, but when the cod liver oil is properly made there will be no taint in the eggs. Many poultrymen have found that feeding a high grade fish meal from cooked fish does not flavor the eggs although the use of raw fish scraps will produce tainted eggs. It seems as if the same fact would be true concerning cod liver oil.

Cod liver oil in the winter ration of the hen has proven so valuable in adding vigor to the birds that it should not be disregarded when needed, through the fear of producing eggs with a cod liver oil flavor. It will pay, however, to mix the oil carefully in some vehicle like semi-solid buttermilk or charcoal so that all the hens of the flock will obtain their proper share. And eggs should not be placed in baskets or crates next to containers of cod liver oil. After mixing or feeding cod liver oil, be sure that there is no oil left on the hands before gathering or packing eggs.

N some sections the turkey busi- keep the feed as clean as possible ness is being greatly stimulated by and yet serve it in plain view so that all the chicks will see and eat the and brooder floor litter in their efforts to satisfy their appetites.

Commercial paper plates are used by some poultrymen. The plates are er canopy and filled with starting eat readily. As the plates become dirty they can be burned and clean ones substituted. Other poultrymen use magazines for scattering the starting mash. A page is turned for each feeding so the chicks always receive their starting mash on a fresh, clean surface. After a few feedings the magazines becomes thickly encrusted with dirt and can be burned and fresh ones placed around each brooder canopy.

After the first few days the chicks learn the right source of a feed supply and the sanitary metal hoppers can be substituted for magazines or paper plates. These should be long and contain enough feeding space to prevent excessive crowding. As the chicks grow in size there is more dirt to go into the feed and the starting mash should be protected from dropping as much as possible. If there is no time to build proper hoppers, it is always economical to buy the commercial metal feeders which do not waste much of the expensive starting mash and do help to keep the feed free from dirt. '



PERHAPS in the future the shipment of baby turkeys by mail as baby chicks are now sent will become a fact. The Layher Bros., of Jackson County, hatched over 2,000 turkeys in incubators last year and believe that the shipment of little turkeys is practical, despite the fact that they are more delicate than baby chicks.

The Layher Brothers get excellent results in egg fertility by using one tom to about nine hens, the results showing nearly ninety per cent hatchable eggs.

The first ten weeks of the turkeys' lives are spent in steam heated brooders. Great precaution is used to prevent the spread of disease. After each brood the brooder is thoroughly disinfected and cleansed. The gross sales from turkeys on the Layher farm often runs up to \$10,000 annually.

OHIO BUYS MICHIGAN BIRDS

ONE hundred Michigan R. O. P. White Leghorn cockerels were purchased by an Ohio hatchery recently. The record of performance birds came from the farm of W. C. Eckard, and were from hens which trapnested from 201 to 288 eggs in their pullet year. The cockerels were hatched from eggs that weighed at least twenty-five ounces to the dozen.

TURKEY'S WATTLE SWOLLEN

During a cold spell about two weeks ago, my young turkey gobbler acted futte snout which hangs over his bill was drawn out and seemed to be frozen stiff. We put on vaseline and yout is still partly drawn out and that and the one wattle seems to be hard as can be, but no pus inside. He hard as can be, but no pus inside. He hard bread and milk where he can reach it for that proboscis hinders him in picking up his food. What can I do for him? If he lives, will he amount to any thing as a breeder..... Swhen the wattle of a bird becomes During a cold spell about

When the wattle of a bird becomes When young chicks receive their hard and swollen it is apt to contain first feed, containers are needed which a thick leathery matter. The wattle must be lanced and the matter either ly on corn or they may become too squeezed out or picked out with a small knife blade. Then inject commercial disinfectant or roup cure. Sometimes it is best to lance the wattle near the top rather than at the tip as this makes it easier for the blood to stop flowing.

After the wattle heals, it may shrivel and never return to normal but it seems to cause the bird no trouble and does not appear to injure its value as a breeder. When such swellings are first discovered they may be filled with a colorless fluid which will readily drain from a very small incision. But even then the wound is apt to form a tough leathery scab on the inside and this must be removed before complete healing results.

Swollen wattles are the most apt to occur after severe cold weather and seem to cause the bird considerable pain. This handicaps the bird in eating and may tend to reduce its weight and vitality and in that way reduce its value as a breeder. If the swelling is not lanced and drained it may cause the under side of the head an part of the neck to swell. . Soon the bird is in a condition somewhat like a roup case and may die.

and one part corn makes a good grain ration for turkey breeding stock. Equal parts of oats, wheat, and corn are used with good results. The grain ration should be supplemented with alfalfa, clover, cabbage, or vegetables to furnish bulk and succulence in the ration.

Skim milk, sour milk or meat scrap in the winter ration is good for the breeding stock and substitutes for the insect food which turkeys gather on their summer range. Sometimes turkey owners give their stock a balanced laying mash just before the breeding season and this tends to stimulate egg production and aids in keeping the digestive system in good condition. A hopper of bran can be placed where the turkeys can eat it if they wish. Turkeys which have not been eating mash may prefer their scratch grain and grain should be continued as the most important item in the ration.

HEN WITH TUMOR

One of my yearling hens developed leg weakness. I killed her, and on examining her organs, found a growth larger than a good-sized egg. The liver had greyish spots throughout it, which would indicate tuberculosis. However, the bird was fat. Would this growth have anything to do with the condition of the liver? This is the first sick bird I have had in the flock. Do you think there is danger of contagion? If so, what course of action would you recommend?—O. S. Hens are subject to growths or

Hens are subject to growths or tumors of various types. Sometimes a ruptured oviduct will result in egg making materials gathering in a large lump in the abdomen and appearing like a growth or tumor. Tumors in birds are not found as frequently as in other animals and when they do occur, it can only be charged to a part of the normal loss which may occur in any poultry flock regardless of the feed and management.

The greyish spots on the liver might indicate tuberculosis although a laboratory examination is considered necessary to accurately determine that disease. If the remainder of the flock appear in fine healthy condition, there, may be no further losses.

YOUNG RABBITS DYING

I raise rabbits and never had any trouble with them dying until lately, but when they get 6 to 8 weeks old they start dying. We feed alfalfa hay and oats for green feed, cabbage and carrots. The alfalfa has some rye in it and we were wondering if that would cause the trouble.—G. W.

I have never received reports of rabbits receiving injury from eating alfalfa containing a little rye and none of my rabbit books mention any experiences of that kind. Rye or rye straw is not usually included in a rabbit ration but the feeds you are using such as hay, oats, and carrots are good, safe feeds. If you suspect the rye straw of causing trouble it might pay to sort it out of the alfalfa as much as possible when placing the hay in the hutches. Of course, mouldy straw or hay is dangerous feed.

Young stock six to eight weeks old may be injured by overfeeding and die of indigestion. Feeding bread and milk to young rabbits is a great help in promoting vigor and rapid growth. Too much cabbage would not be good for rabbits under three months of age.

FEEDING TURKEY BREEDING -STOCK

What would be a good ration for turkey hens that I am keeping for breeding purposes?—H. K. N.

Turkey hens that are kept for breeding purposes should not be fed heavi-

My boy seventeen years old is bothered with blackheads and pim-ples. They are over his face, in the hair, and there are pimples on his chest. What can we do to get his skin cleared up?—Mother.

RURAL HEALTH

By Dr. C. H. Lerrigo

SKIN IN POOR CONDITION

He can get them cured by making the skin of the whole body healthful. He must avoid fats and sweets, and eat enough vegetables and other coarse foods to make the bowels move every day. He will be greatly benefitted by taking a cold or cool sponge bath or shower bath every morning, followed by a brisk rubbing with a dry towel. Be sure that he washes his face thoroughly with a good soap, such a Castile, and warm water once a day. This is very necessary to clean an oily skin and it must be thorough.

WHOOPING COUGH

Would like to know what is good for whooping cough and how long after a child is exposed before they have it and how long they have it. My children have coughed for three weeks and have choking spells at night.— Mrs. S. L. K.

After exposure to whooping cough there is a period of fourteen days before development and it may be three or four weeks before the "whoop" appears. A case that runs only six weeks is doing well. Many run two or three months. Please bear in mind that whooping cough is a serious disease, causing more deaths than scarlet fever. It needs the best of medi-I know of no "home remcal care. edy" that is universally effective.

NERVOUSNESS

I seem to be in a condition I call nervousness. At times feel so weak and all in, so to speak, easily worried sensitive, given to crying easy, blue and gloomy at times and discouraged. Have nervous headaches which makes a sick feeling all over. Sleep good for an hour or two, then nap and doze and dream the rest of the night. Am 49 years old, weigh 165 pounds. Do my own housework for four in family, my own nousework for I youngest 16 years. Are these custom-ary symptoms at this age of life?-A Reader.

Such imptoms are not uncommon at your age, but certainly are not customary or normal. 'Unless you are 69 inches tall you are overweight. Very likely your diet should include less of the fattening foods and more green vegetables and other "roughage." Women of your age should cultivate a deep philosophy of life that looks to the bottom of things and refuses to be disturbed by trifles. It is possible and it pays.



MARTIN STEEL PRODUCTS CO., Dept. 6 Mansfield, Ohio



Some Interesting Viewpoints From Grown-ups

MUST write once in a while to let stiff featured and wear a strained exalways every word of it. I'm thirty- never suspect but that she was entwo years old and I can learn quite dowed with a real lively sense of a bit from your page so you see we humor which has never yet appeared are never too old to learn.

198 - 34

fine. We are always happiest when How about it, White Amaranth? we can do something for someone. aren't we? I'm glad so many of you fine exhibitions of real merit that it believe in a good education. Some-



Niola Hildner Apparently Prefers Small Pets

times we must make some big sacrifices in order to get an education but I don't think anyone is ever sorry in later years. I'm always glad when someone says something against smoking and drinking. There is absolutely no reason for anyone to use tobacco in any way. Everyone in this day and age knows or ought to know that the poison taken into the body in no matter how small amounts is sure to shorten our lives if kept up very long. I wouldn't smoke a cigarette if I were the only person on earth who didn't smoke. I don't belong to a church either but I think too much of my good health.

Once again I must say you young folks are doing wonderfully and also Uncle Frank. I have five children and I want everyone of them to be M. C.'s some day. I am the busy farm mother who wrote last year and I'm glad for the opportunity to write now. I wish Uncle Frank and all the M. C.'s a long, happy, and healthy life .--Mrs. John Birmels.

Responding again to your invitation to join the parley, I express my gratification in the development and improvement being made manifest in the letters and discussions of the young people. What a splendidly able and energetic class of farmers Michigan will have as a governing factor in a few years! These embryo orators, politicians, debators, and journalists are surely waking to not only their possibilities, but also to the necessity of taking hold of life's serious problems and advancing with determination the need of righteousness and justice. The literary and poetic aspirants also show a marked improvement.

Those who "took sides" in the clash between White Amaranth and me two years ago will be glad to know that we have exchanged letters and are sailing on peaceful waters, so they might as well bury the hatchet and sheath the scalping knife too-"mixed metaphor" Sh-h. Don't mention it. From the character and style of her composition, I had an idea that she would be

you all know I love your page. I pression and glasses. Imagine! And always read your page first and judging from her picture, you would in her articles but which she may be I think the Christmas box idea was reserving for some future, surprise.

> There have been so many other very would take too much time and space to comment on each one separately. Some have written here inquiring about Verda. Although she never acquired nor aspired to gain the Golden Circle membership she worked hard in school, graduated from High last June, and is now employed in the Telephone Exchange in Lansing. She won one of the first prizes in these contests, has won seven in all, and still has a year and a half before reaching the age limit. You may hear from her again.

I wish I had the command of as many different languages as the num- said. ber of dialects which "Cooney" has a smattering of. In his short article in the January 14 paper, besides the regular "ignorant American" there are specimens of no less than four

different dialects. Hash. No wonder Uncle Frank couldn't read it.

I wonder what you young people think of the hunting and fishing restrictions, the posting of farms against hunters, the destruction of farmer's crops and fowls by state protected animals and birds, and kindred subjects? I think the state should keep its live stock away from the farms or pay for damage done to crops, or else give farmers permission to shoot such trespassers.

With best regards for the future of this page.-Mrs. E. B. Cole.

One of my pet ambitions has been realized this last year. My oldest daughter is now a Merry Circler and I'm just about as proud of it as she is.

The good old page has had its usual improvement. I enjoyed the pictures of the Home-Comers immensely and I'm sure others did too, and I think the stories for the wee folks are much better this year than last too. Mylittle ones seemed to enjoy them more.

I could speak of several letters that I liked better or worse but will leave



Hello Everybody:

I don't suppose you remember me any more. It's about three years since I've written. However that does not signify I'm not interested in the M. C., for I am for I am.

have been interested in the dis-

for I am. I have been interested in the dis-cussions concerning tobacco and drink. As to smoking that isa't so bad, but those awful drinkers! By this I do not mean to say that I ap-prove of smoking. It is a hindrance to the body and some boys smoke just to act big. It isn't so bad if a boy takes a smoke once in a while, but the fact that some girls and women smoke, too, is awful! In that way you certainly would think that women aren't as refined these days as they have been in the past. Now as to drinkers. I think alcohol is alright if used for medical purposes only, but that awful drinking habit! In the first place drinkers sin against the Lord and themselves by getting drunk; secondly, they violate the na-tional law; thirdly, some men with families spend money for booze they need so badly for other purposes; fourth, they are hindering their health; and last, but not least, they carry that awful odor with 'them wherever they go. Many a drinker would buy moonshine with his money before he'd give it to the church. I read a little poem about a quarter ofnee. It said it wasn't enough to buy a pound of tobacco or a box of candy or even for a ticket to a big show, but for church collection it was con-sidered quite a lot. Well, this old world of ours is full

Well, this old world of ours is full of sin and sin is continually encroach-ing itself upon us. At what ages can you answer contests? If I remember right it is from the age of ten to eighteen, is it not?—Sadie Schipper, This is plenty of sin in this world but can you really believe it is increasing when you consider the history of the world? Both smoking and drinking are non-essentials. The Merry

Dear Uncle Frank: Mayflower wrote an interesting let-ter on punishing crimes. I don't agree with her on the punishment. I think a person who kills another for stealing or for any reason should not be hanged or executed, but should be imprisoned for life. For when a per-

Circle age is eight to eighteen.

and what do you consider adequate punishment, execution or life imprisonment?

Dear Uncle Frank and Cousins: Cousins, bonsoir! Comment allez-vous? My, isn't this the weather? It's just snapping cold around here. I am always ready to welcome winter when it comes, aren't you, cousins? As you most all live in Michigan, I believe you will agree with me. If you don't, you aren't a real Mich-igander. I think that if I were to spend one winter in the south-miss just one winter, I would feel as though I'd lost something forever. I never have, so I don't know. If any of you cousins have, remember I'm curious to know. It must be an unique and in-teresting adventure notwithstanding what you are missing. I have a secret ambition to go to Europe some day and when I go I think I shall go right for Switzerland. Why? I don't know. Boo-oo! Guess it's time I was fix-ing that fire. Au revoir.—Jerry. Michigan winters are O. K. They are energizing to ell who ene have.

Michigan winters are O. K. They are energizing to all who are healthy, and will bring health to those who have it not. I trust what you said at the beginning and end of your letter is perfectly good language. If not, you are putting something over on me.

Dear Uncle Frank:

I have not written you since I re-ceived the M. C. button and my clutch pencil. That was the first contest that I have ever entered through the Mich-igan Farmer and I was very much surprised and happy when I received them. them.

them. My sister also received a M. C. button. My parents have taken the Michigan Farmer for many years and would not be without it. I like to read Our Page, Al Acres, Hy Syckle, and the contests. I do not like the picture of you in the Michigan Farmer recently. I am sure you are better looking than that.

I am ten years old and in the fifth grade. I want to get a high school education. Well, I will close and leave room for the rest.—Carlyle Eggert.

It pleases us to know that you and the family get so much enjoyment from the Michigan Farmer. So, you do not think the picture flatters me. Maybe if you saw me, you would think SO.

Dear Uncle:

Dear Uncle: Since the last letter I wrote to the M. F. I have been living in Chicago. I am enjoying myself a gréat deal out here. I have been doing circular work but now I am instructing at a dance hall. It is lots of fun. From here I intend to go to Wisconsin. I like it a great deal better in the country though. I will be glad to get home again. Well, Uncle, when are you going to honor us by having your pic-ture in the M. F. so we can all see what our Uncle looks like? I hope it will be soon or sooner.—Gertrude Prepejchal.

I am glad that in spite of the time you are having in Chicago, you like the country better. The reason, I don't print my picture is because in most things anticipation is greater than realization.

The Mark of speak of several letters that I liked better or worse but will leave that for the regular members. Usually their comments leave little more to be said. Now I will close with the hope that the page improves in the future as it has in the past, and wishing you all good luck in the coming year.—Laura Blackmer. **TRER BOX** Son in the heat of passion kills an other he does not stop to think of the last execution. Therefore, adequate punishment does no good in a case of murder.—Black Bird. If adequate punishment does no good in case of murder, what does and what do you consider adequate

I hope that your interest in Our Page will continue although you are over eighteen. Thanks for the wishes. of good luck. Come back at some-Home-Coming time.

A WELL BUILT NEST

THE crow may be a black rascal, with all kinds of bad habits. Hemay have more enemies than friends, in the bird world as well as in the human world, and perhaps he deserves them. But at least one thing can be said for him. He builds for himself a neat, well constructed nest, with which he takes more pains than a bird considered far more many noble.

The nest of a crow is a deep bowl-



Crow's Nest

like affair, carefully built with small sticks and twigs. There is perhaps nobird nest with a more perfectly symmetrical hollow at its center than this one, and nowhere about the crow's home is there any evidence of careless or shabby work in the building. In order to make a deep and permaterials for the center that are could without their permission. easily woven and will make a soft lining as well. For this he uses strips of the bark of grapevines and similar material, and lengths of binder twine an extraordinary and unusual event which he finds in farmer's straw stacks and in harvest fields of the previous summer. He is particularly fond of these latter, and any crow's nest in the vicinity of cleared fields is sure to contain an abundance of them.

The crow has one base habit that offsets all his care in nest building. He is one of the few birds that will forsake nest, eggs, or young at the approach of an enemy, slipping away into the woods to save his own neck, leaving his home undefended to suffer what fate it may .--- Ben East.

DAD CONTEST

AS this is father and son month, I think some letters on Dad would be appropriate. Tell about what your father means to you, how he helps you, and how he can help you. Some Dads may not cooperate as they should, if so tell about it. I want your candid opinion about your Dad. won't tell him what you wrote.

The ten best letters will get prizes as follows: fountain pens, loose leaf note books, and little pocket knives. All other good letters will entitle their writers to a Merry Circle membership if not now members.

Don't forget to write neatly, put your name and address in the upper left hand corner of the paper and put M. C. after your name if a Merry Circler. The contest closes February 17th. Send your papers to Uncle Frank, Michigan Farmer, Detroit, Michigan.

THE SNOWFALL

Like a message from heaven In the spruce tree sitting low,

Are a huddle of little birdles Waiting for you some feed to throw.

There are boys who like to ski And Girls who like to slide, Every child likes the snow O'er the country far and wide.

Boy and girls are having fun On sleds, skates, and skis, Gliding over snow and ice Cn contraptions such as these.

The snow is falling fast Frisk, leap, slide, and run, Everywhere, there is music In the air, and some fun.

Then let us all now rejoice

And fix this thing up right, By fixing crumbs and suet For the birdies before night. -Claud J. Sprague.

A THOUSAND MILES FROM NOWHERE

(Continued from page 194) It took a lot of good American pressure to induce the Frenchman to break his precedent, but finally, upon our promise to cancel the French war debt, he did wire, under voluble and

discouraged protests. And then we waited two weeks for a reply to our telegrams. Plainly the French were taking no chances on letting just anybody travel through their precious desert. Finally I said we'd drive up there, cross the French am glad I've come to the end of this border under cover of darkness if nec- installment. More next week.

fectly round nest the crow must have essary and get across the best way we Of course, that would be absolutely impossible, for a couple of motorcycles crossing that country would be such that the news would soon carry to every government official in the colony. I simply mention this to show to what extremes of optimism we were ready to go. And since there is no holding Jim back he had agreed to help me rush the French border and smuggle ourselves across the Sudan on motorcycles, if official permission should be denied us.

THE MICHIGAN FARMER

FORTUNATELY for us, and for the French government's prison board account perhaps as well, official authority was finally telegraphed to the excited little consul in Lagos for him to vise our passports. I think his disappointment at not being able to buzz at us the French for "I told you so" was salved completely by his extracting ten dollars from each of us for the vise.

A hot time we'd have had waiting weeks in some desert jail, probably in the same old French fort at Zinder described so vividly in Beau Geste. And yet, at that, it might have been no greater loss of time than our two weeks wait in Lagos in that sticky, sultry, deadening atmosphere they call their climate. And the fine we might have had to pay the French would probably have been no more than the money we spent in Lagos buying curios from the persistent Hausa traders during those same two weeks.

These black, traders, Hausas, from the edge of the desert in Northern Nigeria where the distinct negro type of the native west coaster melts away into the sterner, sharper features of the desert African and the Egyptian or Arabian peoples, are the commercial experts of Africa. With the native cunning of generations of traders. in their blood, and bred and schooled in the shrewd art of barter from their birth, these old black Mohammedan sharpers with their bags of brass and leather curios, their native woven cloths, their feathers, ebony, ivory, and heads, are a subtle match for the canniest buyer in the world.

They are absolutely unscrupulous in their dealings and, pretending to no cloak of honesty at all, they expect no honesty in return, and the battle ground is narrowed down to the field of wits alone, without being cluttered up with a shambag full of ethics and golden rule mockeries. They're born crooks and clever and they are justly jealous of their heritage.

Jim and I started out with the idea of jewing them down, and if I bought a leather cushion or a brass tray for a little more than half what the trader asked I bragged about it to Jim until he bought one next day for a shilling or two less than I had paid. Finally we learned that a safe general rule was to base the actual worth upon exactly one-third the trader's price-and then get him down lower if we could ..

We bought boxes of their brass and leather goods and Jim bought yards of their cloth. I hate to confess how completely we Americans were outsmarted by these black sharpers and

Thank You

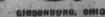
FOR the boys and girls as well as myself I wish to thank those who took part in our Parents' Parley, for the messages they have sent. know it inspires young folks to have the cooperation of their parents, not only in the home but in activities such as we have in Our Page.

All the letters we have received are from women, mostly mothers. That is natural as the woman has the greatest interest in the child. But, I would like the expressions of opinion of a few men as to our activities, or anything associated with them. As this is father-son month, I believe nothing would be more appropriate now than a few messages from Dads. I am sure that the boys and girls can feel proud of the grown-up

interest their work in Our Page has created. Don't forget to urge Dad to say a few words .-- Uncle Frank.



d Tile





Again the years repeat their message~ **Profit with Page**



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THE MICHIGAN FARMER

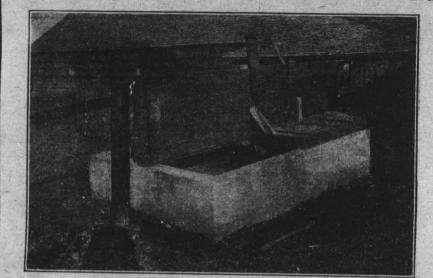
LIVE STOCK POPULATION REPORTED

THE estimate of the live stock population on farms on January 1, 1928, as made by the United States Department of Agriculture, provides some vital evidence as to the trends in different branches of the industry. Compared with a year ago, increases are shown in hogs, sheep, and cows and yearling heifers kept for milk, with decreases in horses, mules, and cattle kept primarily for beef.

The total number of cattle reported was 55,696,000 head compared with crease production. The mule population was 5,566,000 head compared with 5,679,000 a year ago and the peak of 5,733,000 two years ago.

FAT STEER PRICES DECLINE

PRICES of well-finished steers declined seventy-five cents to one dollar recently and thus far the market. has not shown the ability to rally which was in evidence earlier in the season. Packers have been making a stout effort to get prices to a lower basis, so that the break has been due to buying tactics rather than to an in-



No One Thing Contributes More to the Economic Handling of Live Stock Than Does an Abundance of Available Water at Drinking Temperatures

56,872,000 head a year ago and 68,- crease in supplies. Lower grades of 871,000 head on January 1, 1920. Since the number of dairy cattle is slightly larger than in 1920, it is evident that this decline has been entirely in cattle kept primarily for beef. Making allowance for dairy calves and bulls, it would appear that the number of beef cattle has declined to about 24,000,000 head compared with nearly 38,000,000 head eight years ago. The total number of cattle is the smallest in fifteen Values per head averaged years. \$54.12 on January 1, 1928, compared with \$42.36 last year and \$38.70 two years ago.

The number of cows kept for milk was 21,948,000 head, an increase of 130,000 head over last year, but 575,-000 head below the peak number reported three years ago. Yearling heifers kept for milk cows numbered 4,-175,000, or 127,000 more than a year previous, when the number was already slightly above a replacement basis.

The number of hogs was estimated at 58,969,000 head, an increase of 4,-461,000 head over a year previous. This is in line with the pig surveys which indicated that approximately 5,000,000 more pigs were produced in 1927 than in 1926. Only a small part of this gain in numbers had been marketed up to January 1, 1928.

Sheep and lambs were estimated at 44,545,000 head, an increase of 2,699,-000 head over a year previous and 8,359,000 head more than in 1922. Part of the increase compared with a year ago is due to larger numbers on feed, but most of it represents an increase in breeding flocks. Probably expansion of sheep production has reached the danger point, as flocks are about twenty-three per cent larger than six years ago.

Horses were estimated at 14,541,000 head, a decline of 604,000 head compared with a year previous and 5,307,-000 head less than eight years ago. Present numbers are smallest in forty years and reports on colts born in 1927 fail to show any tendency to in-

steers have shown more strength than the better kinds. Receipts of cows, heifers, and bulls have been moderate, but prices for these classes have dropped twenty-five to forty cents from their recent high points. Feeder prices are on the highest level since war days. Average cost of thin steers shipped from Chicago in the week ending January 21 was eleven dollars compared with seven dollars and seventy cents a year previous.

The number of cattle slaughtered under federal inspection in 1927 was 9,520,000 head compared with 10,180,-000 head in 1926 and 9,853,000 in 1925. The rise in prices was much more pronounced than the decline in numbers would lead one to expect. The number of calves slaughtered in 1927 was 4,877,000 head compared with 5,153,000 head in 1926 and 5,353,000 in 1925. The report on the cattle population shows that slaughter in 1927, although lighter than in 1926, exceeded production as it has in each of the last seven or eight years. That is the inference from the fact that the number of cattle on farms declined 1,176,000 during the year.

LAMB PRICES IMPROVE

M ODERATE receipts of lambs in the last two weeks have given prices an upward trend, the Chicago top reaching \$14.35, the highest in six weeks. Thus far, Colorado and Nebraska have not begun to ship in full volume and prices may lose ground in the next month as those sections load more freely. It is doubtful if prices will go lower than they were in December and early January, however.

For practical method of raising chicks that will assure results, send self-addressed stamped envelope to Poultry Department, Michigan Farmer, Detroit, Mich., for its new chick raising bulletin.

ilker in Your

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(6)

Put This Power

FEB. 11, 1928

THE BROOD SOW

THE sow that is to farrow in cold weather will need special care if she is to save her litter of pigs. In the first place she needs a warm house, well protected from the cold winds. I have found in a climate where the mercury drops below zero it is a good plan to line the north, east, and west side of the hog house with a two feet width of straw. This straw should be tramped down close-The straw can be held in place 1y. with woven wire stretched about the house. This will assure no drafts of wind on sow and pigs.

The door of the house should open to the south so that the young pigs may get all the sunshine possible during the day. They will scamper in and out and get a lot of needed exercise.

In the winter time the sow is inactive and is liable to become overfat. One should feed less corn and more of the succulent foods. Plenty of slops and alfalfa hay with turnips, beets, or pumpkins will provide a good ration. A fat sow seldom does well at farrowing time.

The passage into and out of the house should be clear. The sow that must drag her heavy body over an obstruction every time she goes in or out of the house will probably be injured badly before the farrowing time arrives, causing the loss of her brood.

I do not think it is necessary for the sow to have a super-abundance of bedding in the winter. Just give her enough to keep her body comfortable. If the house is tight she should not be allowed enough bedding in which to bury herself. She is liable to get too warm and take pneumonia when she comes out into the cold air for her daily ration. Then, too, when pigs are born, they do not get tangled up in this surplus bedding, stray away from the mother and chill.

One should be very watchful about the time sow is to farrow. By being on hand when the pigs come you may be able to save those that are weak and need a little help to find the sow's breast. The sow also might need a little aid. The watchful eye of the farmer may save many of the newly born pigs in winter. It pays to keep a good lantern for use at night when sows are farrowing .--- W. D. Neale.

FOR MORE TARIFF ON MILK

BILL introduced by Representa-A tive Fish of New York would increase the tariff rate on fresh milk from 21/2 to 5 cents per gallon; buttermilk 1 cent to 2 cents per gallon; condensed milk 1 cent to 2 cents per pound; butter 12 cents to 15 cents per pound; cheese 5 cents to 71/2 cents per pound; live poultry 3 cents to 6 cents per pound; dressed poultry 6 to 12 cents per pound; eggs in shell 6 cents to 12 cents per dozen; eggs frozen or preserved 6 to 10 cents per pound; peas 1 cent to 2 cents per pound; Irish potatoes 50 cents to 80 cents per 100 pounds; tomatoes 1/2 to 2 cents per pound; turnips 12 cents to 50 cents per 100 pounds; celery 25 to 50 per cent advalorem; hay \$4 to \$6 per ton.

FINE WOOL BREEDERS MEET

Michigan, January 31, 1928. The meeting was called to order by President E. M. Moore, who gave an interesting comparison of greased basis and scoured basis.

Mr. L. W. Hendee gave an address on Black Top Sheep, and spoke of the expansion that is opening up in the West for this breed of rams. Mr. L. B. Lawrence told why he

raised Rambouillet sheep.

had prepared a chart in which he is not entirely dependent upon a nervcompared the scouring values in the ous or a mechanical stimulation.

different breeds of the fine wool sheep in this association. He also put on a demonstration for the breeders present in the arena with the same sheep that had had their fleeces scoured the spring previous.

Just wheel

it in and start

milking.

The Secretary and Treasurer's Report was accepted as read. The folpound; onions 1 cent to 3 cents per lowing officers were elected for the ensuing year: F. E. Reichert, president, Chelsea, Michigan; Vice-presidents as follows: E. M. Moore, Mason, Michigan; L. W. Hendee, Pinckney, Michigan; Carl Moeckel, Munith, Michigan; L. B. Lawrence, Chelsea, Michigan; Secretary-Treasurer, R. J. Noon, Jackson, Michigan.

Colliste HE annual meeting of the Mich- that the breeders report to the secreigan Fine Wool Sheep Breeders' tary the number of sheep, the age, Association was held at East Lansing, price, and sex they may have then for sale.

> Although the mammary gland of the dairy cow is one of the most important parts of the animal, its internal anatomy, its capacity, and its functions are very /little understood.

Milk secretion is, according to re-Mr. V. A. Freeman of the College cent studies, a continuous process and



37-201



every-stalls

Big, FREE Barn Equipment

BEND EQUIPMENT

TAKE COUNT OF MICHIGAN LIVE STOCK

A T an estimated value of \$167,092,-000, the live stock on Michigan farms January 1, 1928, was worth thirteen per cent more than on January 1, 1927, according to a statement by Herbert E. Powell, Commissioner of Agriculture, and Verne H. Church. Agricultural Statistician for Michigan. With the exception of hogs all classes of live stock had a total value greater than the previous year. The number of milch cows, all cattle and swine on farms January 1, this year, was greater than last year, while the number of horses and sheep declined and mules remained the same.

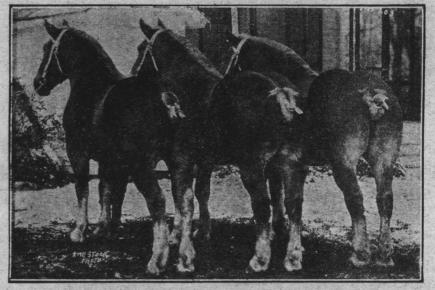
There were 426,000 horses on Mich-



FEB. 11, 1928

erage slightly lower than in December. It is probable that receipts are at the peak for the winter and a gradual decrease can be expected toward spring. Since November 1, about 1,000,000 more hogs have been marketed than a year ago, thus accounting for a part of the increase in arrivals to which the pig surveys pointed. Export trade in hog meats is smaller than last year, so that all the gain in supplies has been available for domestic consumption or for storage

Total slaughter of hogs under federal inspection in 1927 reached 44,-633,000 head compared with 40,636,000 head in 1926. The decline in exports of hog meats and lard represented the equivalent of about 1,000,000 head,



While the Number of Horses on Farms Is Gradually Decreasing, the Quality Shows a Rather Pronounced Tendency Upward

igan farms this year which is four per making an increase of about 4,000,000 cent less than last year and continues the decline for several years in horse numbers.

The increased interest in dairying is reflected in the estimates by a one per cent increase in the number of milch cows to a total of 849,000 now on Michigan farms. The increases in milch cows, heifers, and heifer calves for milk were more than enough to offset the decreases in all kinds of beef cattle so that all cattle showed a two per cent increase to 1,434,000 head. Although the number of breeding ewes is larger than a year ago, the sheep and lamb feeding operations were so much reduced this year that the total sheep on farms on January 1 was one per cent below last year or 1,301,000 head.

Hog numbers continued to increase this year and were eight per cent increased over last year. The large pig crops of 1927 were responsible for the larger number of 913,000 swine on farms on January 1, for sows were fewer in number than the previous year.

The value per head of all classes of live stock except swine was higher than a year ago. Milch cows were worth ninety dollars per head compared to seventy-three the year before, and swine were worth thirteen dollars per head this year and seventeen dollars and fifty cents last.

the value of the five principal classes of live stock on farms January 1, 1928, was \$5,596,922,000, which was ten per less of price. That it will effect the cent more than on January 1, 1927. prices, there can be no doubt, so that On all farms in the country, the number of milch cows, heifers being kept for milch cows, swine, and sheep was greater than a year ago, while the number of horses, mules, and total cattle was less. The largest changes were the increases of eight per cent in swine numbers and six per cent in sheep numbers.

DOMESTIC PORK MARKET LOGY

THE hog market still acts as though it is dragging bottom. Prices are virtually at the lowest point for the season, and January prices will av-

head to be disposed of in domestic consumptive channels during the calendar year.

WOULD INCREASE SIZE OF LITTERS

HE man who stood first in the Iowa pig crop contest produced 1,930.5 pounds of pork per sow whereas the man who stood last in the contest produced but 794 pounds per sow; a difference of 1,136.5 pounds. Think of it. We all know that there is no reason, at least good reason, for any such difference as this and we believe that it is easily possible to raise as many pounds of pork from five sows as it is from eight now, providing the findings of our agricultural colleges and experiment stations be followed.

It was possible to reproduce the ten million hogs on Iowa farms by the use of 1,250,000 sows as against the 2,000,-000 now required to do the job. In the first instance, we should have to save eight pigs per litter whereas in the latter, or as is now the case, only five pigs per litter are being saved. This would make it possible for the farmers and breeders of Iowa to receive, at a very conservative estimate, \$9,000,000 more while producing 150,-000,000 pounds less of pork. It is contended in some quarters that the For the United States as a whole way to get higher prices is by reduced production. Here is a way to reduce production and get paid for it, regardeventually this should work out very much to the interest of the breeder and farmer.-E. M. Christen, Sec., National Swine Growers' Association.

> SHEEP AND LAMBS SLAUGHTERED

N 1927, 12,882,000 head of sheep and lambs were slaughtered under federal inspection compared with 12,-961,000 head in 1926 and 12,001,000 head in 1925. The report on the sheep population shows that the number of lambs slaughtered in 1927 was considerably below the number produced.

THE MICHIGAN FARMER

The Hog Outlook Surveyed

sion in production stimulated by the acreage is likely in 1928 an average high hog prices and the favorable re- yield would insure a supply of corn lation between corn and hog prices for feeding next fall and winter at prevailing in 1925 and 1926. With an prices which would make feeding proincrease of six to eight per cent in fitable. pigs raised in 1927 over those raised in 1926 no reduction in seasonal hog supplies for slaughter is indicated exports, larger storage supplies, and until next fall and winter. While some prices of hogs and hog products much improvement in domestic demand for lower than in 1926 domestic consumppork is anticipated, information re- tion of hog products in the summer garding European hog production in- of 1927 was fifteen per cent larger dicates that export demand during the mand conditions as indicated, no the hog price level at the end of 1927 ter when market supplies will probtion resulting from the present unsatisfactory price situation.

FEB. 11, 1928

Supply Situation

The combined spring and fall pig crop of 1927, as indicated by the pig survey was about five per cent larger in the Corn Belt and six per cent larger for the United States than the crop of 1926. Losses from disease were considerably less than in 1926 as there was no serious epidemic of cholera like that which took an unusually heavy toll in 1926. Estimated number of hogs on January 1, 1928, was 58,-969,000 head compared with the revised estimate 54,408,000 on January 1, 1927.

Information regarding hog supplies for the current season November 1, 1927, to May 31, 1928, indicates that slaughterings will be from seven to ten per cent larger than a year ago. Inspected slaughter for the first two months of this season was six and nine-tenths per cent larger than in the previous year. Most of the increase in the spring pig crop of 1927 in the Corn Belt occurred in the states east of the Mississippi River where corn production in 1927 was much below normal. The scarcity of corn in this section is causing the early marketing of these hogs and at light weights. In the states west of the Missouri River, a near-record crop of corn was raised in 1927 and hog production was below the average of recent years. In these states the corn-hog ratio, while less favorable for feeding than last year, is much above the usual differential compared with the eastern Corn Belt and there is a marked tendency to feed longer and to delay marketings. While hog receipts at markets east of the Mississippi in November and December, 1927, were well above those of 1926, the receipts at Missouri River markets combined, were the lowest in many years.

An indicated increase of eleven per cent in the fall pig crop of 1927 over that of 1926 as shown by the December survey points to slaughter supplies next summer and fall somewhat larger than in the corresponding period of 1927. The December, 1927, survey indicates a decrease of about six per cent in the number of sows to farrow in the Corn Belt in the spring of 1923 compared with the spring of 1927. The present low level of hog prices compared with the past three years indicates even a larger reduction. With average weather conditions, the 'spring pig crop of 1928 will probably be about ten per cent less than that of 1927 in this region, which would mean a substantial reduction in market supplies in the winter of 1928-29.

Present supplies of corn are ample for hog feeding in the western Corn Belt but a shortage exists in the eastern belt where the crop was the second smallest in many years. With corn prices approximately twenty per cent higher and hog prices thirty per

THE swine industry is passing cent lower than last year the cornthrough the low period of a hog hog ratio is generally unfavorable for price cycle as a result of expan- hog feeding. As no decrease in corn

Domestic Demand With increased slaughter, smaller than a year earlier. A slightly largergreater part of 1928 will be even lower than-average seasonal drop in prices than in 1927. With supply and de- from October to December resulted in oils and fats markets due to a shorter material change in hog prices other being thirty per cent lower than a than average seasonal fluctuations year earlier but per capita consumpseems likely until next fall and win- tion was only about ten per cent as compared with a year ago. larger. The general downward trend ably be affected by curtailed produc- in the purchasing power of consumers in the last half of 1927 may have been partly responsible for the low level of wholesale and retail pork product prices. To the end of January, 1928, these prevailing low prices had sharply in 1927. Indications are that caused no increase in consumer demand which is now on a much lower level than a year ago.

> It seems likely that general business activity during the first half of 1928 will increase from its present relatively low level, but it is doubtful half of 1927. whether the year as a whole will show

ity as during 1926 and the first half of 1927. However, the domestic demand for hogs will probably be more benefited by the consequences of changes in retail prices than by improvements in the business situation. Readjustments in retail prices of pork products, in line with the changes in wholesale prices, have recently become marked, and beef prices have shown increasing readjustment of retail prices to higher wholesale prices. These changes will tend to turn consumer demand to pork products and help to bring about a higher level of prices for both hogs and wholesale products.

While lard stocks are somewhat large compared with recent years, a generally improved condition in the cotton crop and consequently higher level of cottonseed oil prices should help to maintain the demand for lard

Production of hogs in Great Britain and on the Continent increased greatly in 1927 with resulting much lower prices for hog products in European markets, and export demand for American pork products slumped export demand during the coming spring and summer will be even lower than last year, but that during the winter and spring of 1928-29 it will show some recovery to about the comparatively low level of the first

No change is likely in the British



39-203

Plow The Corn Borer Under And KEEP Him Under With An Acme Coulter Harrow.

Plow corn stubble deep-that's the beginning of the end of the corn borer. Then finish him with a harrow especially adapted to the job-one that won't puil the staks and valuable organic matter up to the surface. That means an Acme Coulter Harrow-the har-row that has made perfect seed beds for 50 years. Its sharp, double-curved coulters and sod-mushing spurs, penetrate to the full depth of the furrow and slice, chop, and pullyerize completely every stakk every bit of trash. The Corn Borer is down for keeps—soon killed by his natural enemies. And the finely sliced shuable organic matter unity rots, adding richness and increased for-tility to the soil. Acme Coulter Harrow made for horse and tractor quickly role, shalling richness and increased the tility to the soil. Acme Coulter Harrows made for horse and tractor use, sizes 3 to 173 feet. Mail coupon for FREE catalog which includes valuable chapters on "Bigger Crops from Better Tillage," also latters from farmers telling about their experiences with Acme Coulter Harrows. Ad-ditional Corn Borer information also sent FREE, NASH ACME HARROW CO., Dept. 17. Haddonfield, N. J. Bend me free catalog described above.

Address

Name







Good management of dairy cows in an effort to get a liberal flow of milk into the udder is lost effort if some naises the flow at milking time. Milk thus held back the Milk thus held back is absorbed by the system vorse, the cow is likely to form the habit of hold ing back the milk if the cause is not quickly re-

Losses

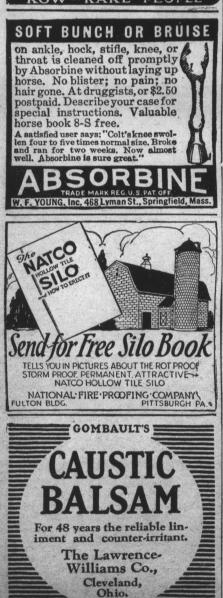
You can keep the deli-cate tisses of the udder and teats soft, pliable, productive by using Bag Balm, the great healing of trouble, For sore teats, of trouble, For sore teats, chaps, cuts, teats cracked or stepped on, Bag Balm is a quick cleansing healer. Fine for Caked Bag, Bunches, Cow Pox, etc. It quickly penetrates, teals, restores. Pleasant to use-will not taint the milk.

Big 10-ounce package only 60c—at feed dealers, druggists, general stores, Mailed postpaid if hard to obtain locally. Write for free booklet, "Dairy Wrinkles,"

Dairy Association Co., Inc.

Lyndonville, Vt.

KOW - KARE PEOPLE



THE MICHIGAN FARMER

HOW HE MAKES GOOD HOGS

AM a lover of good hogs which I think essential to the success of most any undertaking. Therefore, I use nothing but full blood and most always registered sires for breeding. About three weeks before breeding,

I start feeding soaked or ground oats, milk, tankage, or meat in some form. Sometimes a neighbor or myself loses a cow or horse which I feed to the hogs. I have the sleeping quarters a considerable distance from feeding quarters to encourage exercise.

During gestation period, I fed oats and corn, milk, oil meal, and a little salt daily, feeding so as to keep sow gradually on the grain until farrowing time. A week or ten days before farrowing time, I fed mostly oats and sloppy feeds adding a little middlings. oil meal, and salt each day. Each sow is put in a pen or stall by herself where I can pet and tame them, having them tame enough so I can move them, if in poor position, or the pigs at farrowing time without sow getting up. I stay with the sow until pigs all arrive and sows are over their rest- carry on the trophy offer, but to prolessness.

I have a two-by-six nailed up about a foot from the floor and a foot from the wall around pen so the sow isn't so apt to lay on pigs. When weather is bad, I keep sows in, changing bedding daily to keep quarters dry. I arrange things so pigs can get out to sunlight and dirt as soon as they are big enough.

After farrowing, ground oats, and middlings are fed, gradually adding corn. As soon as pigs start eating, I fix a creep so pigs can get all the soaked or ground oats and milk, middlings, oil meal, and salt for slop that they want. This being fed along with corn until four or five months old. Then barley takes the place of oats and feed heavier on corn. I gave them milk morning and night, fresh water at noon, or whenever needed. I always had coal and wood ashes in the pen or yard and had sweet clover pasture for hogs to run on at all times .--- W. L. Brooks.

HOLSTEINERS CONVENE

N^O eatin's in Eaton!" The statement is low class and we apologize. The point is that for the first time in the annals of the Eaton County Holstein Association, an annual meet was held devoid of a feed.

Another point is that the attendance of twenty-one men exceeds in numbers the masculine turn-out for present stated they had taken up this five years back. Interested enough to come out with no grub for lure, you see.

County Agent Taylor and State Secretary Hays took turns at gently chiding the boys for the inactivity of last season. The treatment seemed to steiners in Bay County.

Broadcasts Pictures On the Air

"take" as the meeting generated into as lively a session as one could wish for. Not to brag in advance, but it looks like somethin' would be doing in the nature of a real Holstein turnout next county fair! And bend an orb toward calf club work as Cliff Mc-Intyre is charged with putting vim into that.

Leaders chosen to head this apparently rejuvenated Holstein pack are President, L. C. Hunt of Eaton Rapids; Vice-President, E. P. Reynolds of Olivet; Secretary-Treasurer, A. N. Loucks of Charlotte.

Jacksonites Pick Projects

Several loyal souls gathered in the office of County Agent R. E. Decker, Jackson, on January 25 to discuss affairs of the county Holstein Association. Two definite projects were endorsed by the breeders; to work up better showing at the county fair, and to hold summer picnic or tour.

The secretary reported that Verne Clough of Parma had acquired permanent possession of the cup put up by the county Holstein Association as he had won it the third time on breeder's young herd. It was decided to cure for the purpose instead of a cup, one of the small size "True Type Model" Holstein cows. It was also decided to change the make-up of the breeder's young herd to include four females, all under two years of age, and at least two of which should be under one year of age; and a bull under two years of age; females to be bred by exhibitor.

Officers chosen to hobble along ahead of the faithful are President, T. Z. Jordan of Spring Arbor; Vice-President, John Foster of Rives Junction; Secretary-Treasurer, Arthur Perrine of Rives Junction; Sales Manager, Walter Reading of Brooklyn.

Bay County Makes a Start For the first time in history, breeders of Holsteins in Bay County held a get-together. Date was January 24 and the place Bangor town hall, north of Bay City. Thirty-three turned out. County Agent McCarthy in singing the opening chorus made it plain that nobody had any designs on the breeders, there was to be no organization jammed across, no snatching at dues! The purpose of meeting was to get acquainted and to gossip about Holstein affairs.

State Secretary Hays led such a discussion, telling of Holstein activities in the nation, state, and the counties. Particular interest centered around the new herd test, the Holstein Herd Improvement Registry. Three of those work at the start, January first.

A "contact committee" was chosen, Dwight Parsons of Linwood to be chairman. This committee planned on meeting Saturday, January 28 to discuss future activities for Hol-





The latest radio marvel is a radiophoto receiving set for the home. The original photo is broadcast en are sound waves only the light waves are converted into electrical impalses by a special device before broadcasting. It takes about ninety seconds to receive a photograph and it is said that the device when perfected will be comparatively inexpensive. FOR SALE Ten high grade Holstein cows, tuberculin tested for pereral reals, Never any reactors, FELDT, St. Clair, Mich., R. 3,





SERVICEABLE AGE

ERVICEABLE AC REGISTERED HOLSTEIN Bull Calves at prices the owner of a small herd can afford to pay. The sire of many of these calves is a Son of the highest record (30 lb.) two-year-old daughter of Creator. His sire is King Segis Alcartra Prilly, an undefeated Show bull with 70 A. R. daughters. Others sired by a 5 times 1200 lb, Champion Bull, the famous K. P. O. P. breeding. Bred cows and helfers served by these sires are available for founda-tion stock.

RED ROSE FARMS DAIRY Northville, Michigan Telephone: 344 Reference: Northville State Savings Bank

Dispersion Auction MDNDAY, FEB. 27th, at Farm, six miles southwest of Goshen. Ind., beginning at 10 A. M. Housshold goods, farm implements, 18 head of horses, sixteen Tearistered Beigians sized by Rubis 8004. Lourdean 8072. William De Hois 12354 to Bay Marce 8 years. Two source marces 4. 2 source marce 3, one bay mare 3, one bay mare 2. One flip 9 months, one stud rolt 5. These marces are bred. Siz stallions, ream. Tay and source coming 4 and 5. EriAS SMIDER 4 SONS. R. 6. Gosten, Indiana.

THE MICHIGAN FARMER

THE HOG OUTLOOK SURVEY

(Continued from page 203)

embargo on fresh pork, which had the effect of causing a shift of Dutch production from fresh pork to cured products, with resulting greater competition for American cured products in the English market. Numbers of brood sows in the principal foreign countries were twenty per cent larger in 1927 than the materially increased number in 1926 and will further increase foreign supplies this winter and so reduce the demand for American products.

No changes are anticipated in purchasing power in our principal foreign markets which will materially affect their demand for hogs. With the greater competition from foreign production, however, and the consequent lower foreign demand for our cured pork and to a lesser extent for lard, it is likely that exports of hog products will be even lower in 1928 than in 1927.

Price Outlook

Prices to June 1: Supplies of hogs during the first half of 1928 will probably be somewhat above last season, with slaughterings perhaps eight to twelve per cent higher than a year ago. Domestic demand is likely to strengthen but foreign demand will probably continue to weaken so no material improvement in the demand situation as a whole can be expected. Present supply and demand conditions, with large late shipments of heavy hogs from the western Corn Belt, indicate that the spring advance in prices is likely to be less marked than usual. It is possible, however, in view of the present low level of hog. and pork product prices, that any marked improvement in domestic demand in the next few months, due to improved business and a shift to pork consumption, might result in a rather marked price increase.

Prices June 1 to October 30: Supplies next summer will probably be somewhat larger than a year ago, but with continued low demand only a moderate strengthening in prices from those of the current winter can be expected, with summer and fall prices probably averaging lower than a year earlier.

Prices after November 1: If farmers carry out the reduction in the next spring pig crop that is indicated by the fall survey, supplies next winter will be substantially reduced. At the same time somewhat reduced supplies in Europe may improve foreign demand to a slight extent. While prices will be on the upward swing of the cycle, the upward trend will be just starting and no sharp advances seem likely before the summer of 1929, depending on the next corn crop and subsequent changes in number of hogs.

COMMITTEE ON ECONOMICS

COMMITTEE to study shifts and A trends in business, prices, and markets, composed of economists and business men, has been appointed by Secretary of Commerce Herbert Hoover, who says it is proposed to determine facts with regard to such questions as the shifts in employment, changes in methods of production in industry and agriculture, and in distribution, shifts in relation to price leads and profits, movements in business cycles, shifts in standards of living and other allied subjects which bear upon an understanding of the general business situation of the country. It is expected that this survey will result in a greatly improved understanding of the major business currents.

A nation-wide Federal census of distribution as the basis for an advance in efficiency in marketing in the United States, is advocated by Secretary Hoover. He declares that facts must displace guesswork in marketing and distribution.



O

Head Lice Remedy Sore Head Remedy

Remedy Sore Head Remedy Roup Remedy Roup Pils Fly and Insect Garden Insecticide Dip and Disinfectant

The Stanley J. Gardner Herd, Croswell, Michigan MILKING SHORTHORNS

For Sale---Polled Shorthorn Calves

88 Hereford Cows

HOGS

DUROC

FOR SALE-Duroc Gilts of type and quality, bred bears at right prices. Shipped C. O. D. on ap-proval. W. E. BARTLEY, Aima, Mich.

O.I.C. HOGS on time Write for Originators and most extensive breeders.

Salem, Ohio

Originators and most extensive bre THE L. B. SILVER CO., Box 196, S

Either sex, milk and beef, Federal tested. QUACK, Sault Ste. Marie, R. 2, Mich.

VAN S. BALDWIN,

West Point, Miss., Jan. 7, 1928. Dr. L. D. LeGear Medicine Co., St. Louis, Mo.

Dr. L. D. LeGear Medicine Co., St. Louis, Mo. I am engaged in the dairy busi-ness, and nothing has been of such a big help and wonderful benefit to me as Dr. LeGear's Stock Powders. I mixit with the feed. It keeps my cows healthy, and they give more milk than ever, and I get a much higher test. Am milking sixteen Jerseys, but expect to add to my herd from time to time. My barn is concreted, has electric lights and other conven-iences. I would never be without Dr. LeGear's Stock Powders. It has helped me to make a success of my business. Route 1, Box 8. A. W. Gable.

Read his letter

It is one of thousands received from farmers and dairymen having small herds. Big breeders write in same way.

Stock Powders MINERAL-IZED-THOUSANDS upon thousands of farmers, dairymen and stock raisers have used this

old reliable prescription for the past 35 years. Get a pail or package from your dealer today. If you do not find that your cows give more and richer milk and your horses and mules do and richer milk and your horses and mules do better work, return the empty container to your dealer and he will refund your money. Dr. LeGear's Stock Powders-Mineral-ized contains the proper minerals and ingredients needed in winter, which are lacking in winter feeds — TONICS to sharpen the appetite, aid digestion, purify the blood-LAXATIVES to correct bowel trouble — VERMIFUGES to expelworms-MINERALS for bone and blood.

WHITE DIARRHOEA—Protect your chicks against this deadly disease which kills mil-lions annually. Save them with Dr. LeGear's Chick Diarrhoea Tablets. Get a can from your dealer. If not satisfied with results, your money will be refunded will be refunded.

will be refunded. **EGGS**—*Dr. LeGear's Poultry Prescription-Mineral-ized,* keeps hens healthy, vigorous and laying. Insures better fertility. Contains all the essential minerals for egg produc-tion, rich blood, bone tissues and feathers—tonics for blood, nerves and egg organs—conditioners for the digestive organs —laxatives for the bowels. Get a pail or package from your dealer. Use all. If not satisfied, your money will berefunded. **FREE!** ment of Stock and Poultry''-128 pages; 50 illus-trations. A scientific treatise on diseases, treatment and care of horses, cattle, hogs, sheep and poultry. Ask your dealer for free copy, or send us 10 cents to cover mailing. *Dr.L.D.LeGear Medicine Co.;St.Louis,Mo.*

For Sale--Reg. O. I. C. April & May Pigs best of breeding. Shipped on approval. FRED W. KENNEDY & SONS, R. I. Chelson, Mich. Herd Sire, Tipperary Clyde 1331772. Grand Cham-pion buil Tennossee Stato Fair 1927. Sire of 1st prize buil call, lst prize pair calves. Srd prize get-of-sire, and reserve Junior Champion buil at Mich. State Fair 1927. Buil calves up to 8 mo's, old for sale, reds and roans out of cows with records up to 14,000 lbs. milk in one year. O. I. C's. Good lest spring pigs, not akin also fall pigs, recorded free. OTTO SCHULZE & SONS, Nashville, Mich. Chester White Gilts with quality. Have a March farrow. Also fall piss. Will sell chesp. NEWMAN'S STOCK FABM, Marlette, Mich. FOR SALE Dual purpose Red Polled Bulls from 10 to 12 mos. old. BAT-TENFIELD BROS., Fife Lake, Mich. CHESTER WHITES fall pigs. service boars quality. F. W. ALEXANDER, Vassar, Mich. Milking Shorthorns Central Mich. Shorthorn bulls, helfors, and cows, fresh and coming fresh, priced right. Oscar Skinner, Sec., Gowen, Mich. CHESTER WHITES a few bred gilts. fall BERT BORR, Clinton, Mich. Registered O.I.C. Gilts bred for April and May farrow. H. W. PAUL Registered Brown Swiss for sale, cows 10 and 11 yrs. old due in Feb. 2 bred heifers. Also bulls of serviceable age. A. A. FELDKAMP, Manchester, Mich. FOR SALE Poland China boars of March and April farrow. Also some choices bred gits, due to farrow in March and April. Every one immuned for cholera. WESLEY HILE, Ionia, Mich. L. T. P. C. GILTS bred for March and to 205 pounds, 35 and 40 dollars each, price up to to Feb. 15. Satisfaction guaranteed, JAMES G. TAYLOR, Belding, Mich. Big wide back kind, dark reds, dehorned. Bred to extra good Hereford bulls to calve about April 1st. Will sell you choice car load. Also 22 Hereford cows and calves and 24 heavy springers. Also other bunches. All T. B. tested. Also yearling and 2 yr. old stockers and feeding steers sorted even in size and quality. Large Type P. C. Bred Gilts Cholera immune and extra blg. Also fall pigs. Sat-sfaction guaranteed. Geo. W. Needham, Saline, Mich. Eldon, lowa BIG Type Poland China Gilts bred to son of Aller-ton's New Hope, 14th yr. Prices reasonable. F. L. Miara, Berrien Center, Mich., R. I. FINANCIAL KING JERSEYS We have for sale a most excellent selection of bull calves ranging in ages from 4 mos. to one year old. These calves are sired by Financial King Sensation and Financial Ford and out of Begister of Merit Stock. Prices reasonable. COLDWATER JERSEY FARM, Coldwater, Mich. FOR SALE Poland China Bred Gilts and Milking Shorthorn bull calves. CLAIR I. BROWN, Kalamazoo, Mich., R. 10. A FEW good Hampshire spring boars at bargain. Place your order for bred gilts. JOHN W. SNYDER, St. Johns, Mich., R. 4. For Sale Choice Jersey Bulls, grandsons of Sybil's Gamboge of Whitehall, SMITH & PARKER, Howell, Mich. R. No. 4. SHEEP A FEW bred Karabul ewes for sale, the right fur bearing kind. ANGUS HOME STOCK FARM, Davison, Mich. S PECIAL prices on Shorthorn bulls, cows and heifers. These will please the most careful buyers. GOTFREDSON FARMS, Ypsilanti, Mich. WILL SELL a few bred Registered Hampshire WELCH, Ionia, Mich., R. I. sows and gilts, bred to Junior Champion boar at State Fair. Service boars and open gilts. Premier breder at State Fair. Lakefield Farms Clarkaton, Michigan

200 Head Breeding Ewes mostly Delaines, bred rams. C. LEMEN, Dexter, Mich.

HORSES For Sale, Percheron Stallion color black, age three the Broke double. Is a great grandom of Etadl-ant. L F. FOSTER & SONS, Rives Junction, Mich. FOR SALE Belgians, Stallion Roan Bay and sorrels, coming four, five and siz. ERIAS SNIDER, Geaten, Ind.



GRAIN QUOTATIONS.

Monday, February 6 Wheat. Detroit—No. 2 red at \$1.45; No. 2 white \$1.42½; No. 2 mixed at \$1.42½. Chicago — March \$1.28%; May \$1.28%; July \$1.26%. Toledo—Wheat, No. 2 red at \$1.46 @\$1.47. @\$1.47.

Corn.

Detroit—No. 2 yellow 96c; No. 3 yellow 93c; No. 4 yellow 91c. Chicago—March 88%4c; May 91%; July 92%4.

Oats.

Detroit-No. 2 Michigan 62c; No. 3 white 60c. Chicago-March 54½c; May 55%c; July 51%.

Rye.

Detroit—No. 2 \$1.17. Chicago — March \$1.06%; May \$1.07%; July \$1.02. Toledo—\$1.16.

Beans.

Detroit.—Immediate and prompt shipment \$7.20 f. o. b. shipping points. New York—Pea domestic at \$6.75@ \$7.50; red kidneys \$7.75@8.35 to the wholesalers.

Chicago.—Spot navy beans, Michigan choice, hand-picked, in sacks at \$6.45 @\$6.50; dark red kidneys \$7.75.

Barley. Detroit—Malting 97c; feeding 94c.

Seeds.

Detroit domestic seeds:—Cash clover \$18.05; February \$18.05; March \$18.00; cash alsike (16.20; Fébruary \$16.20; March \$16.35; timothy at \$2.05; March \$2.10.

\$2.05; March \$2.10. Hay. Detroit—No. 1 timothy at \$13.00@ \$14.00; standard \$12.50@13.50; No. 2 timothy \$10.00@11.00; No. 1 light clover, mixed \$13@14; No. 1 clover \$11.50@12.50; wheat and oat straw \$10.00@11.00; rye straw \$11.00@12.00 alfalfa hay, alfalfa choice at Chicago, \$24.00@25.00. Feeds.

Feeds.

Feeds. Detroit—Winter wheat bran at \$40; spring wheat bran at \$39; standard middling at \$40; fan middling at \$43; cracked corn at \$43; coarse corn meal \$41; chop \$40 per ton in carlots. Poultry feeds with grit \$49.00; with-out grit \$53.00 per ton.

WHEAT.

WHLAT. Wheat prices are still holding with-in the narrow range marked out in the last two onths. Liverpool prices declined about 3 cents since early in January, but, broadly speaking, they still show a sidewise trend. Under lying conditions have shown no im-portant change in the last few weeks and the trend of prices later on prob-ably hinges on new crop develop-ments. ments.

ments. Supplies of wheat in North America probably are 80 to 90 million bushels greater than a year ago. This increase is partly offset by a reduction of about 40 million bushels in southern hem-isphere supplies and by smaller ex-ports from Russia. The poor quality of the Canadian crop also must be allowed for in appraising world sup-plies of wheat. The action of the mar-ket itself in moving sidewise for so long a period suggests that that in-crease in world holdings has been fully discounted. fully discounted.

RYE.

Exports of rye since the middle of December have been comparatively light, totalling only about 300,000 bushels. Over a million bushels have been added to the visible supply, but it remains much lower than at this time in any one of the last six years.

CORN

Corn prices declined in the latter part of January under pressure from increased primary receipts, but de-mand has broadened enough to cause a stronger undertone once more. A high percentage of the supply consists of low grade corn, caring for which has overtaxed drying facilities, and discounts have widened out. Total receipts at primary markets in the last two works were peerly twice as heavy two weeks were nearly twice as heavy as in the same period a year ago, and the largest at any time in nearly four year

the demand is quite broad. Exports of corn have not reached the volume ex-pected nor do the clearances bear out the reports of export sales in the last two months. Improvement in foreign demand still seems probable in the next three months.

OATS.

Oats prices have been moving side-wise for about six weeks. Primary receipts have been large enough to satisfy demand without making drafts of any consequence on the visible of any consequence on the visible supply. From this time on, however, it seems probable that stocks will be-gin to move out and prices should strengthen as a result.

SEEDS.

SEEDS. Some moderate expansion has been reported in the demand for field seeds, although the real spring trade will not be fully under way before the end of February if the weather during the month is normal. Red clover seed has been marked a little lower, as demand remains dull. The relatively low prices for sweet clover have stimu-lated a more active trade in most markets. Due to the short supply of alfalfa seed, dealers are building up their stocks even on an advancing market, and higher prices are gener-ally expected as the season develops.

FEEDS.

Bran was marked higher last week although middlings and the heavy feeds averaged lower in many mar-kets. Demand is broadening as deal-ers believe prices will remain high until spring pasturage is available and they are beginning to antibinate their until spring pasturage is available and they are beginning to anticipate their requirements for the next two months. Chicago—Bir 20, \$34.00; standard middlings, \$33.50; hominy fee, \$37.00; gluten fee, \$38.70; old process oil meal, \$52.00; tankage \$65.00.

HAY.

Another spell of cold weather strengthened the hay market last week as the movement from the coun-try fell off and demand became more

active. The steady tone was confined almost entirely to top grades, how-ever, as supplies of undergrade hay are in excess of demand. Alfalfa hay is firmly held in all markets. A good demand from the south and southeast is reported and shipments from Ne-braska into Iowa and Illinois are made regularly. Local supplies of hay in most sections are large, however, which prevents any active inter-state trade.

EGGS.

EGCS. A break of 12 cents a dozen in frices of fresh eggs in eight trading days is drastic even when it happens the end of January when the unex-pected is in order. Supplies are grad-ully increasing and dealers work only in a hand-to-mouth basis. Consump-tion a hand-to-mouth basis. Consump-read a hand-to-mouth basis. Consump-read the same temporary production so that prices will be very ensistive to any change in supply. Re-epits of eggs at the four leading markets during January were 10 per ent smaller than in the same month year ago, but withdrawals of storage eggs were sufficiently large to fill d January, 1927. The number of hens of farms is believed to be smaller in the a year ago and with normal weather conditions, the early spring. Market during farmer in the same month is believed to be smaller in the same month of farms is believed to be smaller in farmer in the same month is believed to be smaller.

lay will not equal that of a year ago. An active consumptive demand is one of the chief supporting factors in the firm poultry market. Receipts of dressed poultry at the four leading markets during January were 7 per cent larger than a year agd, but stor-age stocks were drawn upon to sup-plement the receipts of freshly dressed stocks whereas in January, 1927, holdings were increased nearly 2 million pounds. Chicago-Eggs: fresh firsts 34½@ 35c; extras, 42@43c; ordinary firsts, 30@32c; dirties, 30@31c; checks, 30c. Live poultry: Hens, 25½c; capons,

Live Stock Market Service

Monday, February 6

CHICAGO.

Hogs Receipts 95,000. Market generally 15@25c lower on last deline; top \$8.20 paid for several loads choice hogs 160-200-lb; bulk good 170-210-lb. average \$8.05@8.15; 220-300-lb. \$7.85@ \$8.05; big weight butchers \$7.75 and under; light lights, uneven, largely \$7.50@8.10; bulk early sales pigs \$6.75 @\$7.25; most packing sows \$7.00 \$7.25; few choice light lights \$7.35 or better. better.

better. Cattle Receipts 18,000. Market on fed steers and yearlings slow, steady to weak, mostly steady; early she stock very slow; prospects lower on better grades; bulls strong, bidding \$1.00 lower on vealers; packers and feed-ers more active, strong to higher; best fed steers early \$16.50, several loads \$15.50@16.15; weighty sausage bulls \$8.15@8.25; lower cutters \$5.50@5.75; light vealers carrying bids on \$14.00 \$14.50; odd lots selected kind up to \$16.00; killers mostly \$14.00@15.00. Sheep and Lambs

\$16.00; killers mostly \$14.00(a)15.00.
Sheep and Lambs
Receipts 18,000. Market fat lambs active, steady grades largely to outsiders 25@35c higher; vealers proceeding with care; better grade lambs, 87-lb. down, largely \$15.00@15.50; gathering plain and weighty kind \$14.50@14.75; good 100-lb. kind \$14.00; good 90-lb. yearlings \$13.60; sheep strong; best feeding lambs scarce, demand good: lambs to country \$13.75. demand good; lambs to country \$13.75.

DETROIT

Cattle.

Receipts 688. Market steady.

Good to choice yearlings	
dry-fed	\$11.00@13.7
Best heavy steers, dry-fed	10.25@13.0
Handy weight butchers	9.00@11.0
Mixed steers and heifers.	
Handy light butchers	
Light butchers	
Best cows	
Butchers cows	6.00@ 7.5
Cutters	5.50@ 5.7
Canners	
Choice light bulls	6.00@ 9.0
Bologna bulls	7 00 0 85
	1.000 0.0

Calves.

Sheep and Lambs. Receipts 1,314. Market 50c higher.

Bulk good lambs	13.00
Best lambs	15.00@15.25
Fair lambs	12.00@13.50
Light lambs	8.00@11.50
Yearlings	11.50@12.75
Fair to good sheep	6.00@ 8.00
Buck lambs	7.50@12.25
Culls and common	2.50@ 4.00
Hogs.	
Receipts 2.174. Market	active 25c

	lower.	5, 200
	Pigs	7.75
	Mixed hogs	8.50
	Lights	8.00
	Roughs	6.50
	Good Yorkers	8.50
	Stags	5.50
	Extreme heavies 7.000	2 7.75
to refe	BUFFALO.	ne realizado

Hogs Receipts 14,500. Hold over 1,068; market 15@35c lower; bulk 150-200-lb. \$8.75; 200-lb. \$8.85; 210-225-lb. \$8.65; 240-280-lb. \$8.50; 300-lb. up \$8.25 @\$8.30; 150-lb. down \$8.00@8.50; pack-ing sows \$6.75@7.50.

\$8.65; 240-280-16, \$8.50; 300-10. Up \$8.20 @\$8.30; 150-1b. down \$8.00@8.50; pack-ing sows \$6.75@7.50. Cattle Receipts 2,000. Cows \$7.00; bulls steady; others 25@50c lower; heifers scarce; 1,100-1,250-1bs. steers \$14.00@ \$14.50; medium grade all weights \$11.50@13.25; yearling heifers \$12.50; others \$9.00@9.75; all cutter cows \$5.75@6.50; fat kind \$7.00@9.00; bulls \$7.00@8.50, few \$9.00@9.50. Calves Receipts 1,800. Market steady; good yealers \$17.50; culls and com-mon \$12.00@13.50. Sheep and Lambs Receipts 7,500. Market on fair lambs 25c higher, others steady; bulk good to choice lambs, 95-1b. down @\$15.50; culls and common \$12.00@13.50; 100-lb. yearlings \$13.40; fat ewes \$7.50@ \$8.50.

28@30c; springers, 27c; roosters, 20c; ducks, 25c; geese, 20c; turkeys, 28c. Detroit—Eggs: Fresh candled and graded, 36c; storage, 28@30c. Live poultry: Heavy springers, 30@32c; light springers, 24@25c; heavy hens, 28c; light hens, 23c; roosters, 16c; geese, 20@21c; ducks, 30c; turkeys, 36@38c.

BUTTER.

BUTTER. The butter market is steady at un-hanged prices although receipts are steadily increasing. Reports from anufacturers indicate that the marke is transfer than a few weeks ago and ply slightly less than at this time orders for immediate requirements and with the more liberal supplies of resh butter, the use of storage stocks and with the more liberal supplies of resh butter, the use of storage stocks and with the more liberal supplies of resh butter, the use of storage stocks and with the more liberal supplies of resh butter, the use of storage stocks and butter, the use of storage storage storage storage and butter storage storage storage storage storage storage and butter storage storage storage storage storage storage and butter storage storage storage storage storage storage storage and butter storage storage storage storage st

Prices on 92-score creamery were: Chicago, 46c; New York, 48c; Detroit, 42½@45½c per lb.

POTATOES.

POTATOES. Potato prices generally have re-mained unchanged except in eastern markets where slight advances are re-ported. Heavy losses in potatoes in storage are reported in the west and much damaged stock is being fed to live stock in Washington and Oregon. Northern round whites, U. S. No. 1, are still quoted at \$1.55 to \$1.65 per 100 pounds, sacked, in the Chicago -carlot market.

APPLES.

APPLES. Apple markets continue firm with prices considerably higher than a year ago. All varieties of good sound fruit find a ready outlet in domestic mar-kets, but the export trade is not so large as a year ago. Barreled apples of good quality advanced as much as \$1 to \$2 a barrel during January and boxed apples made some progress into higher ground during the month. Mich-igan A 2½ inch Baldwins are quoted at \$7 to \$8 a barrel at Chicago. BEANS

BEANS.

BEANS. The advancing trend which started in the bean market at the end of De-cember has continued until now. C. H. P. whites, f. o. b. Michigan ship-ping points, are quoted at \$7.10 per 100 pounds, sacked. Remaining stocks are in strong hands and probably will be fed on the market gradually. Deal-ers are buying sparingly at the higher prices, but so long as supplies con-tinue scarce, the market can remain steady.

CHEESE

The cheese market was steady last week, particularly on the lighter styles. Production is increasing a little faster than at this time a year ago and dealers are inclined to buy sparingly. So long as country costs are firmly held, however, no price con-cessions will be offered to influence sales. sales.

DETROIT CITY MARKET

SALE DATES Holsteins Feb. 15—Dispersal. McClarey & Her-kimer, Dowagiac, Mich.

c.

STEER PRICES SHOW WEAKNESS

S TEER prices have declined uneven-ly 75 cents to \$2 in the last three weeks, although receipts have con-tinued moderate. Several small rallies have occurred, but thus far, the quick proveries which featured previous breaks in the last four months have not been inevidence. Dressed beef trade reports show no congestion in that arm of the trade but packers maintain that cattle prices have been too high compared with dressed beef and are maneuvering to get values down to a lower basis.

FEEDERS ARE HIGH

P RICES of stocker and feeder cattle are on an extremely high level but most cattlemen have cashed in hand-some profits in recent months, so that the number willing to reinstate is suf-ficient to sustain prices of thin steers. Since January 1, shipments of feeders from 12 leading markets have been practically up to average, volume for the corresponding season and slightly larger than last year.

HOG RECEIPTS BEGIN TO

A FTER expanding to the largest of hogs have diminished in the last ten days, suggesting that the peak of the winter movement has been passed. Prices declined when pres-sure was heaviest almost to the De-cember low point but have ralled again. The market may continue to drag two or three weeks longer but with the seasonal shrinkage in market receipts, it is logical to expect grad-ual improvement toward spring.

time .\$0.90

.99 1.08 1.17 1.26 1.35 1.44 1.53 1.62 1.71 1.80 1.89 1.98 2.07

2.16

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Words

21 22 23

SHARP ADVANCE IN LAMB

L AMB prices have advanced sharp-ly in the last three weeks, the Chi-cago top reaching \$15.25 compared with \$13.25 early in the year. This is the best figure reached since early summer. Average prices do not make such a favorable comparison owing to the high percentage of heavy lambs which are selling at wide discounts under handyweights.

OPEACH TREES \$12.50

A RARE OPPORTUNITY to buy un-usually thrifty 3 ft. peach trees at this bargain price. Guaranteed stock. Wide selection of varieties. Our free 1928 catalog lists many unusual bargains on Fruit Trees, Shrubs, Vines and seeds. ALLENS NURSERY & SEED HOUSE BOX 7, GENEVA, OHIO



100 Lbs. Neb-Frozen large dressed Herring. \$6.50; round Pickerel. \$7.00; headless Pickerel. \$9.00; yellow Pike \$12.00; Salmon \$12.50; Tuiliber White-fish \$9.50. Remit with order. Package charge 30c per 100 lbs. We charge \$c per lb. more in less than 100-lb. lots. §cend for price list of all varieties fish. CONSUMERS FISH CO., Green Bay, Wis.



Weight, 160 lbs. net weight of fish. Immediate ship-ment. Pickerel, Round. \$7.35; Headless, Dressed, \$9.35; No. 1 Whitefish. Dressed, \$15.85; New Coast Frozen Halibut, Dressed, headless, \$14.85; New Coast Forcen Galmon, Dressed, headless, \$14.85; New Coast Forcen Halibut, Dressed, headless, \$14.85; New Coast Forcen Halibut, Dressed, headless, \$14.85; New Coast Hof Bas, of all one variety \$40 per Bas. nore. Write Smolecd, Canned and Dried Fish. Johnson Fish CO., Green Bay, Wite,

FOR SALE-120 acre farm, including 30 acres tim-ber, orchard, horses, cows, pigs, equipment, etc. 8-room and 4-room house on farm, 1% miles from town. Will sell cheap at reasonable terms. Apply Box 265, Harbor Springs, Mich.

FOR SALE-120-acres, half cleared, level, drained, black soil. 5-room house, barn 36 x 59, flowing well free from incumbrance 90 rods frontage on water price \$2,700. Write W. F. Umphrey, Evart, Mich.

110-ACRE dairy and potato farm for sale on M-44, good buildings. Silo. Glenn Gould, Admst., Ionia,

120-ACRE FARM FOR SALE in good shape. Owner Box 197, Almont, Mich.

WANTED FARMS

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results ender classified headings. Try it for want ads and for advertisements bring best results ender classified headings. Try it for want ads and for partment at classified rates, or in display columns at commercial rates. Rate 9 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 7 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order. Live slock advertising has a separate department and is not accepted as classified. Minimum charge 10 words.

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REGISTERED FOXES—Write for ranching offer 100% increase guaranteed. Booklet; terms. Breeder-Agents wanted. Cleary Bros., Empire Bidg., Seattle Washington.

BOYS, start your own business. Chinchilla Rabbits are very profitable, unequalled for fur and table. Pedigreed Chinchillas either sex, twenty dollars de-livered, trios, two does one buck, fitty dollars de-livered cash with order. Money refunded, less ex-press charges, immediately if rabbits not satisfactory when received. Wm. Reed, Lapeer, Mich.

RABBITS-Make Big Profits with Chinchilla Rabbits. Real money makers. Write for facts. 892 Conrad's Ranch, Denver, Colorado.

MATTRESSES

MATTRESSES made any size, low factory prices. Catalog free. Peoria Bedding Company, Peoria, III

FRUIT TREES AND NURSERY STOCK

MASTODON LARGEST EVERBEARING STRAW-BERRY, 100 plants. \$2.00; 300, \$5.00; 1.000, \$12.50; 1.000 Champion \$8.50; 200, \$2.50; 1.000 strawberry plants \$3.00, Gibson \$3.75; Big Joe, Cooper, Premier, \$5.00; 1.000 2-year Grape plants \$20.00; 100, \$4.00; 100 Raspherry or Blackherry \$2.25. Shrubs, aspara-gus, bulbs, thrifty well rooted plants guaranteed. Catalog. Westhauser's Nurserles, Sawyer, Mich.

PEACH TREES, \$5 per 100 and up. Apple Trees, \$7,50 per 100 and up. In large or small lots direct to planters, by freight, parcel post, express. Plums, pears, cherries, grapes, nuts, berries, pecans, vines, ornamental trees, vines and shrubs. Free catalog in colors. Teanessee Nursery Co., Box 125, Cleveland,

100 MASTODON EVERBEARING \$1.75. Catalogue free. Edwin Lubke, New Buffalo, Michigan. SEEDS

LYMAN'S GRIMM ALFALFA SEED. Buy direct from the Introducer. All seed Scarified, necessitating less per acre. Lyman's Best 42c per lb. No. 2 Grimm, a lighter and finer seed, but which gives excellent results, 23c per lb. while it lasts. A. B. Lyman, Introducer, Excelsior, Minnesota.

WOLVERINE QATS absolutely pure, color and ger-mination perfect. Very heavy. One dollar bushel, bags free. Freight prepaid, Michigan, on over twenty bushel orders received before March. Checks cashed early March when seed shipped. Satisfaction guar-anteed. A. B. Cook, Owosso, Mich.

REGISTERED AND CERTIFIED SEED CORN-Clement's white cap yellow dent, Picketts yellow dent and Michigan yellow dont (a very early dent). Cer-tified worthy oats, 2-row barley and sweet clover seed. Dept. A, Paul C. Clement, Britton, Michigan.

MICHIGAN REGISTERED Certified Hardigan Alfalfa seed, certified by Michigan Crop Improvement Ass'n. Purity 99.50 clenaed and scarilled. Price \$32.25 per bushel, immediate delivery. Irwin Reibling, Eikton.

SCIENCE AND PRACTICE demonstrate Improved American Banner wheat, Wolverine cats, Improved Robust beans best for Michigan. A. B. Cook, Owosso, Mich.

SWEET CLOVER SEED, white blossom, grown north-ern Michigan. Recleaned, scarified. Scaled bags. Delivered your station \$6.00 bushel. Thos. Buell, Elmira. Mich.

YELLOW DENT SEED CORN. Germination high and guaranteed every wdy. Write us before buying, Geo. W. Needham, Saline, Mich.

TOBACCO

SPECIAL OFFER-Chewing or smoking 5 lbs. \$1; 10, \$1.75; Cigars 50 for \$1.95; pay when received, money refunded if not satisfactory. Farmers Asso-ciation, West Paducah, Kentucky. HOMESPUN TOBACCO-Ripe, guaranteed. Chewin 5 lbs. \$1.50; 10, \$2.50; 20, \$4.50. Smoking 5 lbs. \$1.25; 10, \$2.00; 20, \$3.50. Farmers Union, May field. Ky. GUARANTEED HOMESPUN TOBACCO Chewing, 5 pounds, \$1.35; 10, \$2. Smoking, 10, \$1.50. Phpe Freel Pay postman. United Farmers, Bardwell, Kentucky. LEAF TOBACCO, good sweet chewing, 5 lbs., \$1.25; 10, \$2.00; smoking, 5 lbs., 90c; 10, \$1.50. United Farmers, Mayfield, Ky. HOMESPUN TOBACCO: Chewing 5 lbs. \$1. Smok-ing 5 lbs. 75c. Pay when received. Pipe free. Farmers Union, A5. Paducah, Ky. TOBACCO: Kentucky Sweetleaf, Mellow, Aged. Smok-ing 10 pounds \$1. Chewing \$1.50. Pay when re-ceived. Kentucky Farmers, Wingo, Kentucky. POULTRY WHITTAKEB'S MICHIGAN CERTIFIED REDS Both Comba, R. O. P. Trapnested, Michisan's greatest color and egg strain. Cockerels, chicks, eggs. Catalog free. Interlakes Farm. Box 9, Lawrence, Mich. BARRED ROCK COCKERELS. Start the new sea-son right with one of our well-developed exhibition quality cockerels with dark, even, narrow barring. \$5 each. 2 for \$9, 3 for \$12. Ingleside Farm, H. E. Powell & Son, Ionia, Mich.

8 VARIETIES Record of Performance Male Matings, Breeding cockerels, pullets, and chicks. Free catalog giving big early order discounts. Beckman Hatchery, giving big early order discounts. Box 57, Grand Rapids, Mich.

S. C. BROWN AND WHITE LEGHORNS, 332 egg. catalog. Harlen Fulton, Gallipolis, Ohio.

CHIX. All varieties chickens, ducks, guineas. bantams. Arthur Jarvis, CHIX. All va geese, turkeys, guin Waveland, Indiana.

COCKERELLS. Holterman strain of Barred Plymouth Rocks, strong, healthy birds, \$4, two for \$7. Mrs. Glenn Arnold, Saranac, Mich.

MALLARD DUCKS, trio \$5, singles \$2. M. R. Hodgdon, Birmingham, Mich,

BABY CHICKS

INSURE YOUR SUCCESS, buy Aseltine Barred Rocks or White Leghorns. Pedigreed males from Dan's laying over 200 eggs head our flocks. Blood tested five consocutive years. Trannesting 400 pul-lets under Record of Performance autorvision. Rea-sonable prices for this quality. Write for circular or visit our fam. Aseltine Poultry Farm, Comstock Park, Mich.

CHICKS, genuine English White Leghorns, overlay ing combs and non-setters. Barred Rocks 203-23. records. See display ad. Hillside Hatchery. Hol Ind. Michigan.

 FORDSON CLUTCH THROW-OUT LEVER, \$1.50

 premaid. J. A. Weaver, Sec., Kutler Mfg. Co., Bryan,

 Ohio.

 Premaid. J. A. Weaver, Sec., Kutler Mfg. Co., Bryan,

 Ohio.

 PET AND LIVE STOCK

 REGISTERED FOXES—Write for ranching offer,

TOWNLINE CHICKS, eggs, breeding stock in four leading varieties have made a record of profit per-formance for thousands of poultrymen that points the way successward for you. Don't fail to get our New 1928 Catalog . Tells how to raise chicks and why our egg blood lines make profits easy. Copy free, Townline Poultry Farm, Route I, Box 107, Zeeland, Michigan.

BABY CHICKS-You can buy your early hatched Michigan Accredited chicks right here at home. First hatch January 15. Also booking orders tow for spring delivery at special discount. Send for cratalog and prices. Brummer-Fredrickson Poulkry Farm, Box 28, Holland. Michigan.

BARRED ROCK CHICKS and Hatching Eegs. Record at Michigan International Egg Laying Con-test; winners heavy breeds 1927. Highest Barred Rock pen from Michigan past three years and to date in present contest. F. E. Fogle, Okemos, Mich-igan

ACCREDITED WHITE LEGHORN CHICKS. Holly-wood strain. Contest pullets now average 25 ounce-eggs per dozen. 1926 contest pen averaged 239 eggs-each. Customer's profit \$3.00 per bird. Also An-conas. Rocks. Catalogue. Wyngarden Hatchery. Box 14. Zeeland, Mich.

MICH. CERTIFIED S. C. W. Leghorn Chicks. Why not make an additional income this year with Gibbs Winter-Lay Strain Leghorns. All Approved R. O. P. males. Our new catalog will tell you all about them. Gibbs Winter-Lay Hatchery, Bronson, Mich., Box B. BARRED ROCK CHICKS—Incubators now running. Order chicks early. Card's chicks are better chicks. Chicks, ergs, and breeding stock. Flock under State and Federal supervision. Leo. V. Card, Hillsdalo, Mich., Phone Cambria 4109.

BABY CHICKS-From our extra large type Eng. W. Leg. Heavy producers. Get our circular before ordering elsewhere. Prices low. only \$107.50 per 1.000. A.-1 chicks. Model Poultry Farm. Zeeland, R. 4, Michigan.

BROILER CHICKS—Why have empty brooder houses? Make a profit on Pinecroft broilers. Accredited and blood-tested. Incubator now running. Pinecroft Poulty Farm, R. 6, Owosso, Mich. Write for cir-cular.

VIGOROUS BABY CHICKS. Flocks culled for vitality, type, and egg production. Barred, White, Buff Rocks, Reds, \$14; Wyandottes, Buff Orningtons, \$15; White Leghorns, \$12.50. Waterville Hatchery, Waterville, Ohio.

BETTER BABY CHICKS from State Fair winners, production class. Sighty per cent of our chicks go to old customers. Eleven breeds. Booking orders. Living prices. Write. Litchfield Hatchery, Litchfield, Mich.

MICHIGAN ACCREDITED CHICKS. Barred Rocks, B. I. Reds. Strong, husky chicks. Bred-to-lay strains. Special February-March prices \$14.00 por 100. Order now, Howe's Accredited Hatchery, Essexville, Mich.

OUR BABY CHICKS will make you money; our free booklet will tell how to raise them successfully. A postal will bring your copy. Hollywood Leghorns, Barred Rocks, Rhode Island Reds. Chapman Poultry Farm, Box 265, Plainwell, Michigan.

RILEY'S CHICKS.—Produced from selected pure bred-to-lay and exhibition flocks of healthy, carefully culled breeders. Reasonable prices. Folder free, White Leghorns, Barred Rocks, White Wyandottes, Sunnybrook Poultry Farm, Hillsdale, Mich.

BABY CHICKS of all standard varieties. Flocks carefully culled for laying, several years, by M. S. C. poultry men. Write for prices. Clinton County Hatchery, Maxwell and Kees, Prop's., St. Johns, Mich. Mich

MYERS PURE-BRED CHICKS, 100% live delivery, postage prepaid. Four leading breeds, White Leg-horns, White Wyandottes, Barred Rocks, R. I. Reds, Flocks bred for egg production. Send for descriptive circular. Myers Hatchery, Mt. Pleasant, Mich. stive S. C. W. ENGLISH LEGHORN CHICKS. March. delivery \$11.00 per 100. Discount on orders of 500 or more. Satisfaction and live delivery guaranteed. Henry Waterway, Holland, Mich., R. 6.

MONEY IN QUALITY CHICKS. Poulity experts and satisfied customers back our profit making chicks. Hustrated catalog free. Get the facts. Windmill Pointe Hatchery, 1318 Alter Road, Detroit.

BABY CHICKS AND EGGS Superior Ringlet Barred Rocks, Rose Comb Reds, Tancred and English White Leghorns. Catalogue, Wyndham's Ideal Poultry Yards, Tiffin, Ohio.

LOOK! 100,000 chicks 9c up, 20 varieties. Using many 200 to 312 ergs record bred ROP cockarels. Send for free catalog giving big early order dis-counts. Lawrence Hatchery, Grand Rapids, Mich.

BABY CHICKS and eggs for hatching from bred to lay Buff Leghorns. Hillcrest Poultry Farm, Bath, Mich.

BABY CHICKS-Rocks, Reds. and Leghorns. Each week, beginning Feb. 13. All stock bloodtested and Michigan Accredited. Pierce Hatchery, Jerome, Mich.

TURKEYS

WHITE HOLLAND TURKEYS and White Pekin Ducks, pure-bred healthy stock. Addressed stamped envelope for reply. Alden Whiteomb, Byron Center, Mich.

EDGEWOOD GIANT BRONZE—Large hardy Northern turkeys. Sire winner at International, son of 1926 All-American grand champion. Mrs. Edgar Case, Benzonia, Mich.

TURKEYS, all breeds. Strictly pure-bred. lated pairs and trics, reasonable prices. Ohio Poultry Farm, Beallsville, Ohio.

PURE-BRED NARRAGANSETT TURKEYS, not many left. Ernest Clement, Ionia, Mich.

BRONZE TURKEYS and White Guineas. Mrs. M.

AGENTS WANTED

NEW HOUSEHOLD DEVICE washes-dries windows. sweeps, cleans walls, scrubs, mops. Costs less than broems. Over half profit. Harpers, 173 Third St., Fairfield, Iows.

WANTED-Farmer or farmer's son or man to travel in country. Steady work: Good profits. McCon-non & Company. Bept. F 26, Winona. Minn.

HELP WANTED

MILK ROUTE SALESMAN WANTED \$200.00 cash bond required. Steady employment, good wages and chance for advancement. Write for further partic-ulars. Freeman Dairy Company, Flint, Mich.

SITUATIONS WANTED MARRIED MAN desires steady position on dairy farm. Address Box 136, Michigan Farmer, Detroit.

REAL ESTATE REALESTATE BUY UPPER WISCONSIN FARM LAND THIS TEAR. This Cloverhand district offers you fine sold-the best for dairying-barley, oats, rye, hay, potatoes, root crops. Never had a crop failure. Clover grows wild. Plenty sunshine and rain. Numerous lakes and rivers. Excellent drainage. Plenty hunting, fishing, and trapping. Good roads. High schools, rural schools, churches, cream routes. telephones. Only a few hours to largest markets in United States. 40 or 80 acro tracts from \$12 to \$30 per care. Lakelands priced a little higher. Small down payment-10 years on balance. Over 600 families here now. We show you how to start. Write for hooklet "Happy Homes and Farms that Pay in Happy Land"-it shows pictures-settler's letter-and tells you crerything. Edward Hines Farm Land Co., Room 2152, 100 W. Monroe St. Cheage. Ha

154 ACRES. Only \$750 Needed. 325 Poulity, 3 Cows. 25 T. Hay, Hoyses, also corn, buckwheat, potatoes; fruit, beets, carrots; onions, cabbases, equipment and tools; easy to see your winter's living is already provided with substantial income besides; well bal-anced fields, brook watered pasture and woodland; sugar groue and variety fruit; water piped inside confortable 5-room house, also to convenient barn; pottirt house, other bidgs; good markets nearby and all advantages. Owner called out of state, price No. 1236 in bargain folder. Copy Free. Strout Agency, 1105-BC Kresge Bidg., Detroit, Mich.

IN THE SAN JOAQUIN VALLEY of California general farming is a paying business, feeding millions of people in towns and cities. Alfalfa combined with dairying, hogs, and pouliry, yields a good income. A small one-family farm, with little hired libor, in-sures success. You can work outdoors all the year. Newcomers welcome. The Santa Fe Rallway has no land to sell, but offers a free service in helping you get right location. Write for illustrated San Joaquin Valley folder and gat our farm paper—"The Earth" ization Agent, Santa Fe Rallway. 912 Railway Ex-change, Chicago.

FINE DAIRY FARM 24/2 miles from Gladwin on Trunk Line M-18, 240 acres dark sand loam, 160 acres well improved, balance fine pasture. 7-room house, stone milk house, excellent frame barn 40 x 70 with large silo, hog and tool house, wonderful flowing well, woven wire fences. Price at \$6,000 less than two-thirds value for quick sale. Terms made, U. G. Reynolds, sells farms, Gladwin, Mich.

AN OPPORTUNITY RARELY OFFERED—to secure improved farm homes. 80 acres up. direct from owner, no profits, no commission; in famed dairy section Wisconsin; Bread and butter State Minnesota; Rich prairie soil North Dakota; fertile lands hear best markets in Michigan. 3200 to \$1.000 cash. Balance 36 years at 5%. Write today. Federal Land Bank, St. Paul, Minn., Dept. 33.

STANISLAUS COUNTY, California-where farmers are prosperous. Crops growing all year round. Land priced low. Write free bookiet. Dept. 6. Stanislaus County Development Board (County Chamber of Commerce), Modesto, California.

WANTED-To hear from owner of farm for sale for spring delivery. O. Hawley, Baldwin, Wis. **FARMS FOR RENT** FOR RENT-Farm large or small. Amos Kimmel, Lake Odessa, Mich. FARM TO RENT to a reliable party with own help, 127 acre dairy farm near Ann Arbor, 14 cows, 1 bull furnished. Milk goes to Ann Arbor. Rent farm on 50-50 basis. Apply to Chas. McCallan, R. 6, Ann Arbor, Mich. References exchanged.

MSCELLANEOUS

WHX BLAME THE BULL when your cow does not breed? Use Cow Catch 1 hour before service. Re-sults or your mensey back; 85 cents for one cow, \$2.90 for five cows. postpaid. Woodstock Farm, Renton, Route 2, Box 49C, Washington. OUR 1928 CATALOG just from press. 34 pages showing Largest Line of Poulity Supplies, in the World. (Over 300 items.) Write today for your copy Free. Brower Mfg. Co., C-27, Quincy, HI.

BIG BARGAIN—Send \$2, receive postpaid 100 double sheets and 100 envelopes. Hammermill Bond, each printed with name, routs, post office address. J. W. Barr Printing Co., Charlotte, Mich. VIRGIN WOOL YARN for sale by manufacturer at bargain. Samples free. H. A. Bartlett, Harmony, Dargain. Maine.

QUILT FIECES, Lovely percales, ginghams, 3 lbs \$1.00. Mrs. George Morgan, Vicksburg, Mich.

COMPLETE JOB PRINTING PLANT-only \$275.00. Frank Reed, Carsonville, Mich. -----

WANTED

WANTED-Comb Honey in large quantities. Joseph Milnarich, 34 East Charlotte, Ecorse, Mich.

EDUCATIONAL

BIG PAY JOBS open in anto and tractor work. Till train you in a few weeks so you can earn \$35.00 to \$75.00 a week to start. Qualify as an ex-pert and make \$100 to \$200 a week or operate your own garage or service station. No books-no printed lessons. Work with real tools and reat equipment. Age no barrier. Little schooling needed. Write today for big free auto book and remarkable tuition offer, which includes booked and remarkable tuition offer, which includes hoard and reinserkable tuition offer, which includes hoard and reinserkable tuition offer, which includes hoard and reinserkable tuition offer. McSweeney Auto Schools, 31-BS. McSweeney Build-ing, Cincinnati, Ohio or Cleveland, Ohio. FARM MACHINERY

HUMMER-SATTLEY IMPLEMENTS: Plows. Disc. hever, tandem and tractor harrows. Spreaders, cream separator, cultivator, rotary hoe, etc. Ask for cata-logue. Seth & Bean, Jackson, Mich.

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