

Cap 2

KANSAS FARMER

MAIL & BREEZE

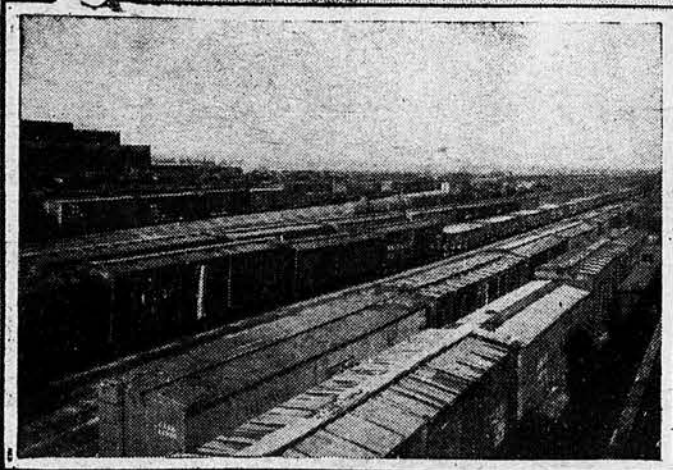
Volume 68

March 15, 1930

Number 11



Parsons—In Dairyland

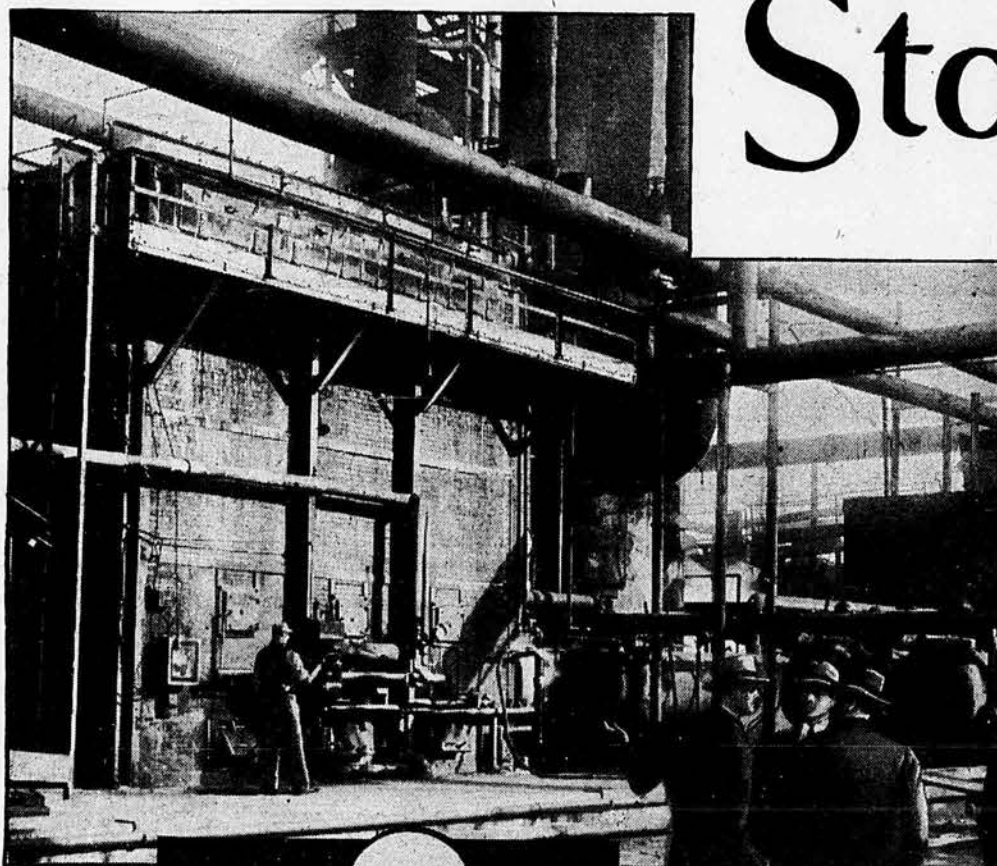


Upper Right—A Commercial Poultry And Egg Plant
Upper Left—A Parsons Park Scene
Lower Right—A Dairy Farm Near Parsons
Lower Left—M. K. & T. Railroad Yards

(See Page 30)

*A new development in Oil Refining
and what it means to you*

Here's the *interesting* Story



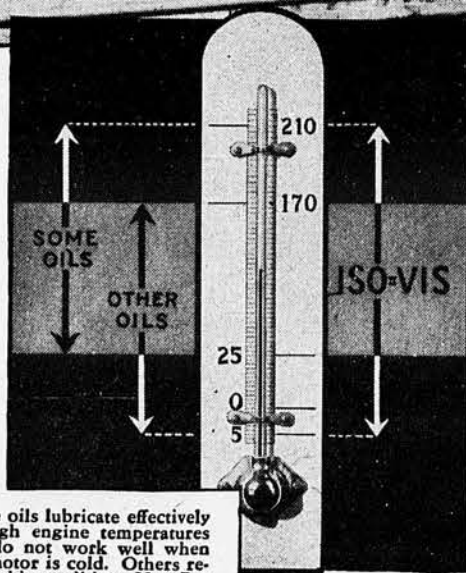
THE WHOLE STORY would be the record of months of work in one of the world's greatest oil research laboratories—of experiments running into hundreds of thousands of dollars. The important thing now is to tell you what this new motor oil which has finally been perfected will do for you in your tractor, truck or automobile.

First of all, it means a tremendous reduction in the carbon nuisance. New Polarine actually reduces carbon formation far below most oils selling today at premium prices.

One reason for this is the fact that New Polarine is a wholly distilled oil—its sturdy body is not obtained by the usual method of adding undistilled parts of the crude.

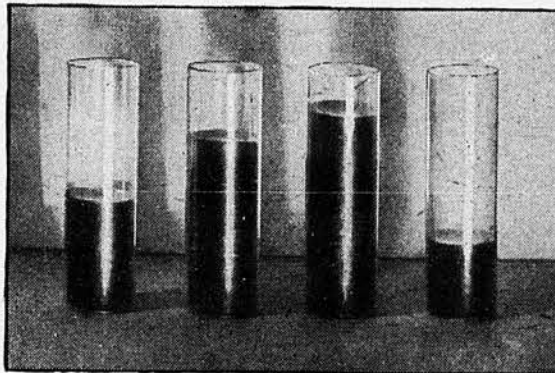
New Polarine also makes possible better lubrication at extremes of temperature—both high and low. This is of particular importance in an engine that is running under full power all the time.

New Polarine retains and improves upon all the good qualities of the old Polarine and adds some characteristics that are definite advantages. You will find nothing else so satisfactory or economical to use—*Try it today.*



Some oils lubricate effectively at high engine temperatures but do not work well when the motor is cold. Others reverse this condition. New Polarine not only stands up better under heat but it gives unusually good results at extremes of cold.

A view of one of the great "stills" in which this new oil is refined. The process is a new development and took more than a year to perfect. Only after countless laboratory and road tests, were our engineers ready to announce these final results.



These vials show the different amounts of carbon formed in the same motor after 50 hours of running under similar conditions with four different oils. New Polarine is at the right. Carbon in the other vials is from three premium-priced oils. Notice the difference.

New **POLARINE** 25¢ a quart

Notice the color of New Polarine. It is a rich amber. New Polarine is a wholly distilled oil. Its sturdy body is not obtained by adding undistilled parts of the crude.

Motor Oil



STANDARD OIL COMPANY (Indiana)

KANSAS FARMER

By ARTHUR CAPPER

Volume 68

March 15, 1930

Number 11



Who Will be Master Farmers of 1930?

Every County Has Men Who Should be Considered for This Honor

KANSAS FARMER is starting the annual search this week for Master Farmers. Without question you have men in your community who should be considered for this honorary degree, and we are asking you, our readers, to nominate the best men you know for "the class of 1930."

During the last three years 35 Master Farmers have been selected in the state, and to this group 10 more will be added this year. Nominations open March 15 and close June 1, but we urge you to name your candidates as soon as possible. The number of nominations for any given community is unlimited.

The purpose of the Master Farmer movement, which now is almost nation-wide, is to encourage farm folks to take the pride in their business which it deserves, and to inspire farm boys and girls by showing them that outstanding success is possible in agriculture as well as in any other kind of work. It establishes a very high standard by which Kansas farmers may measure themselves, and if mistakes are being made or opportunities lost, improvement can be worked out intelligently. Exhibiting methods, equipment, systems and character that earn farm success undoubtedly is an important factor in the development of a more profitable and satisfying agriculture.

Successful candidates this year will receive exactly the same recognition and honor as those of the last three years. From the candidates who are nominated this year the judges will select 10 who they believe are best, after giving each farmer careful and conscientious consideration, and measuring him according to the Master Farmer score card. To each of these men this publication will award the degree of Master Farmer, to be retained by the recipient permanently, together with a gold medal suitably engraved and a Master Farmer certificate to frame.

Who May Make Nominations

Nominations for this degree of Master Farmer will be accepted by Kansas Farmer between March 15 and June 1. Nominations may be made by a neighbor, the county agent, banker, editor of the local paper, business man, teacher, friend, any member of the family other than the nominee, or any other interested person. No farmer will be permitted to nominate himself. Men who are nominated will be compared by the score card method. Score your candidate, please, on the score card which appears on this page and mail it to the Master Farmer Award Editor, Kansas Farmer, Topeka, before June 1, but as soon as possible. The number of nominations from any community is not limited and additional score cards will be supplied on request.

Every nomination must be accompanied by a score card filled out as completely as possible, and in every case the name and address of the person doing the scoring should appear on the card. This information, however, will be regarded as confidential. Only the names of those who finally are selected to receive the degree of Master Farmer will be published.

Whenever it is apparent from preliminary investigation that a farmer has a chance to qualify, he will be visited personally by a member of the editorial staff of Kansas Farmer, who will obtain additional information about the candidate.

Only those men who live on

farms in Kansas, and who operate them as the principal source of income, are eligible to be nominated for the Master Farmer degree. This includes tenants and men who manage farms for others, as well as farm owners. The important thing is that they actually are responsible for the success of the farms, and of the farm homes in which they live.

The 35 men who have been selected as Master Farmers will hold that title permanently, so naturally they should not be nominated again this year. They are: Class of 1927, J. C. Frey, Manhattan, deceased; H. E. Hostetler, Harper; Henry Rogler, Matfield Green; James G. Tomson, Wakarusa; R. C. Welborn, Lawrence; Fred G. Laptad, Lawrence; Charles M. Baird, Arkansas City; Charles H. Gilliland, Mayetta; A. L. Stockwell, Larned; W. A. Gladfelter, Emporia; A. Yale, Grinnell; Tudor J. Charles, Republic; E. H. Hodgson, Little River; J. F. Staadt, Ottawa, and A. E. Wegener, Norton.

The class of 1928: Eugene Elkins, Wakefield;

Briefly—

TO NOMINATE a candidate for the Master Farmer Award of 1930, simply fill out the score card, which is printed on this page, to the best of your ability, and mail it, before June 1, to the Master Farmer Editor, Kansas Farmer, Topeka.

Every nomination will be acknowledged by letter, and every farmer nominated will receive the most careful consideration.

F. J. Habiger, Bushton; G. M. Miller, Cottonwood Falls; Marion Russell, Garden City; Herman Theden, Bonner Springs; John W. Swartz, Everest; Joe Koelliker, Robinson; H. W. Avery, Wakefield; M. T. Kelsey, Topeka, and Carl W. Kraus, Hays.

The class of 1929: John Coolidge, Greensburg; Harlan Deaver, Sabetha; Henry Duwe, Freeport; Ivan Frost, Otego; George B. Green, Whiting; J. R. Henry, Delavan; George W. Kinkead, Troy; E. P. Miller, Junction City; William C. Mueller, Hanover, and Alva B. Stryker, Blue Rapids. Every other farmer is eligible for nomination.

Please remember it isn't how much a man farms, but how well. It isn't how large his house is that counts; it is the kind of home he makes out of it. Quality alone should be your guide in nominating your candidates. All nominations will be acknowledged by letter so you will know your candidates are receiving proper consideration.

Three men of state-wide prominence, and who know farm work and farm life, will be the judges who make the final decisions. They will know candidates by number only, but in each case the location of the farm and the type of agriculture adapted to that section of the state will be taken into consideration in making the awards.

How to Score Candidates

The Master Farmer Award has been made a national project by the Capper Farm Press and the Standard Farm Paper Group, and Kansas Farmer has the honor and privilege of conducting the work in this state. Degrees of Master Farmer will be awarded at a special meeting called for this purpose, and announcement of this meeting will be made in Kansas Farmer sometime in the fall issues. A special article will be written about each Master Farmer following the selection.

Please make your nominations without delay so the judges will have sufficient time to consider every candidate from every possible angle. Names of candidates will be accepted until June 1. Nominations, requests for additional score cards and questions concerning this project, should be mailed to the Master Farmer Award Editor, Kansas Farmer, Capper Building, Topeka.

You will notice the first five items under "soil management"—a, b, c, d and e—are for the Eastern Kansas farmer, so for him you should score these and skip the second group of five. When scoring the Wheat Belt farmer you should skip these first five items and start filling his score card with the second group of five items—a, b, c, d and e. Thereafter, please score for every item you can.

(Continued on Page 34)

KANSAS FARMER

MAIL & BREEZE

Master Farmer Score Card for 1930

	Points	Possible Score	Candidates Score
A. OPERATION OF THE FARM		285	
1. Soil Management	75		
2. Farming Methods	25		
3. Man, Horse and Machine Labor	25		
4. Crop Yields	40		
5. Livestock Management	60		
6. Tools, Machinery and Equipment	20		
7. Field Arrangement	20		
8. Farmstead Arrangement	20		
B. BUSINESS METHODS		285	
1. Accumulative Ability	100		
2. Accounting Methods	50		
3. Safety Financial Practices	100		
4. Marketing Practices and Production Program	35		
C. GENERAL FARM APPEARANCE AND UPKEEP		90	
1. Upkeep of Buildings	25		
2. Condition of Fields	25		
3. Fences, Ditches and Roads	20		
4. Lots and Yards	10		
5. Lawn	10		
D. HOME LIFE		325	
1. Convenient House	125		
2. Character as Husband and Father	100		
3. Education and Training of Children	100		
E. PUBLIC SPIRITEDNESS		260	
1. Neighborliness	50		
2. Interest in Schools and Churches	60		
3. Interest in Other Community Enterprises	50		
4. Interest in Local, State and National Government	100		
Total		1245	

Name of Farmer Scored.....
Address.....
Name of Scorer.....
Address.....
Date.....

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 G. E. FERRIS.....Protective Service
 RAYMOND H. GILKESON...Livestock Editor
 FRANK A. MECKEL...Agricultural Engineer
 HARLEY HATCH.....Jayhawker Notes
 A. G. KITTELL.....Poultry
 RAYMOND H. GILKESON.....Dairying
 H. C. COLGLAZIER...Grain View Farm Notes

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Please address all letters in reference to subscription matters direct to Circulation Department, Kansas Farmer, Topeka, Kan.

Passing Comment

By T. A. McNeal

ONE of my readers writes me complaining about the inequalities of taxation. He has a well-improved farm modern home and other valuable buildings. The more buildings he puts on his farm the more he is taxed. The farm next to his has no buildings on it; the owner of that farm sows it to wheat and derives as much income from it as my complaining reader does from his well-improved farm, but pays only about half as much tax.

I frankly agree with him that our present system of taxation works an injustice; it imposes a penalty on enterprise. The assessor is not to blame. Under our present law he can do nothing else than assess the value of the improvements and add them to the value of the land. What is the remedy? The advocates of the Henry George philosophy say that the remedy is a single tax levied on land with improvements exempted entirely. That would result in effect in destroying private ownership of land; the Government, national, state and local, would be supported by the rental value of the land. This, the advocates of the Henry George theory insist, would encourage the making of improvements on the land for the reason that the revenues would be derived from the improvements. It has always seemed to me that the Henry George theory would work out much better in cities and towns than in the country, and that is the reason why that theory has never had any considerable following among farmers.

My personal opinion is that farms should be taxed on income rather than on the assumed value of the land, but in addition to that there should be a tax on lands held for purely speculative purposes—in other words, a tax on the unearned increment.

A Real Tax System?

WRITING in a somewhat sarcastic vein, C. F. Markley of Riverside, under the nom de plume of "Old Man Irony," says, "I hope the Kansas voters will send no more men to the legislature who favor the 3 and 4-cent gas tax and the income tax. Why not let the farm and home owners pay for road building, road maintenance, road patrol and all law enforcement with property tax? I have all my property in non-taxable and intangible property. So let the silly old tangible property holders do the tax paying or get sense enough to put their property out of the reach of the tax collector."

"What would happen to us fellows, the cream of the white race, who have built up our incomes at the poor devil's expense and have mostly intangible property, if all taxes were levied on incomes and profits?"

"These incompetent thinkers, the farmers and laborers, the peasantry of our land, were sent by God to pay our Government's expense, while we with brains and white hands accomplish the things worth while. Can you imagine anything so foolish as voters sending some rough, horny-handed farmer to the legislature? I hope these poor brainless boobs who think they are citizens because they vote and pay taxes will not get the idea into their heads of asking candidates for office to fill out answers to questionnaires. The less they know about candidates the easier for us to get the right men in office."

"What does it matter if folks complain about high taxes so long as they elect enough of our gang to office to make the appropriations? Who was that guy who wanted to tax overproduction of oil? It ought to be done, but I suppose we would have to pay more for gas, and the oil companies are smart enough not to produce more than can be sold at a profit."

We must not think of putting a tax on overproduction of farm produce, as the farmer would be forced to normal production and agriculture would become stable and thrive. The farmer must be kept in place and forced to produce food stuff at low prices so that we folks who amount to something may thrive.

"We don't want anyone to get excited about the crime wave—the less that question is agitated the better for we criminals. Let the thoughtless, brainless taxpayers keep right on paying for crime suppression out of the property tax, and they won't be so keen about law enforcement."

"What if some dormant legislator should wake up to the fact that 85 per cent of all crime

involves the automobile; that this crime can be controlled only by strict license inspection; it would be extensive and expensive but a 1 cent gas tax would provide enough road patrols and inspectors to almost eliminate the criminals. That would make roads safe for travel; the motorists would be paying for their own protection and the criminals would have to help pay for catching themselves. Don't start a tax like that; if you do I may have to work instead of steal. Keep the same men in office so we criminals won't have to train a new bunch every two years."

"We ask: (1) That you keep taxes on property almost exclusively, so that the payment of taxes may be avoided by the better class of people. (2) That you do not permit yourselves to even think of adding a 1 cent gas tax to pay the expense of eliminating crime brought about by the automobile. (3) That you do not control overproduction on farms by a tax on excess production. Keep the farmers in their place. (4) That you reduce taxes by increasing appropriations. (5) That you keep the farmer from using the questionnaire to get information about candidates. (6) That we have more good roads for escape and fewer officers to escape from."

'Rah for Harley Hatch

AND here is another kick about the inequalities of taxation from J. H. Crisswell of Sedon. "What I would like to know," he says, "is why the fellow who hasn't a thin dime's worth of improvement on his farm gets out of the taxes? The fellow across the road has \$10,000 tied up in improvements and is taxed on every dime of it. At the same time it increased the value of the unimproved farm. If land were taxed at its actual value less the improvements, I believe we would soon see more homes dotting the prairie. I think Governor Reed is doing his best to get this tax proposition properly adjusted, but is having a real time of it, and I can't see that he is getting anywhere."

"If there were some way to get at those individuals who have a few thousand dollars in cash who slip around the latter part of February and buy New York drafts and carry them in their pockets until after March 1 it would put part of the burden where it belongs. I suppose that you are bombarded with a lot of theories that find the waste basket. However, if we out here in the West ever get a look-in it will have to come thru the columns of newspapers that want to see a square deal given to everyone alike."

"Before closing I want to say, 'Hurrah for Harley Hatch for his remarks in the Kansas Farmer of February 22 on low fuel costs.' That is a sample of what we get in figuring our taxes."

'Tis a Clever Letter!

LAST, but not least interesting, is a letter from that clever lady politician, an ex-member of the legislature and prominent in Democratic party politics, Miss Nellie Cline of Larned. Miss Nellie's article is of course strongly the very cleverly saturated with partisan politics. However that does not trouble me greatly. If Nellie enjoys being a partisan Democrat, that is all right with me; but read what she has to say: "Never has the price of a bushel of wheat and a loaf of bread played so great a part in the drama of the world as now. At the present moment we are witnessing history in the making. For the battle of the giants is on—the United States on one side of the arena and the entire wheat growing world on the other. Never before has such a terrific struggle of master minds, world treasure and the glory of nations been pitted against each other, as it is right now. It might be likened to a gigantic game of chess with the United States Government for the queen and the farmers and wheat growers the world over for pawns."

"No battle of big berthas and all the instruments of war ever equaled the dramatic episode which took place this week when Uncle Sam, like a modern Atlas, holding up the breadbasket of the world, plunged into the market and purchased carload after carload of wheat, stemming temporarily at least the falling price and averting a wheat panic similar only to the

debacle which took place last fall in Wall Street in the stock market."

How long the Government can hold out against the whole world in this conflict without bankrupting the nation is but one of the many questions over which people are holding their breath today.

"Out in the wheat growing districts every elevator and grain center is teeming with farmers and wheat growers who are excitedly discussing the situation. While on the farms and in the homes every radio is tuned in and the people are listening eagerly to every scrap of news that can be obtained about the market and the spectacular effort which is being made by the Farm Board to prevent the price from dropping to a point where it will bankrupt the wheat growing interests of this country."

"And this crisis coming as it has just at the first of March, it presents another angle of almost equal interest to the country at large. It has a political aspect which causes both the state and national administration to turn apprehensive eyes on the plains and prairies and wheat growing districts and is causing office holders and office seekers to start campaigning earlier than is customary."

"For the first of March in Kansas marks not only the breaking up of winter and the opening of spring but it also means that every bushel of wheat still stored in the bin or elevator is taxable after that date, and the farmer who has spent two-thirds of a dollar raising this wheat and paid 8 cents storage on every bushel of it since harvest and is now compelled to throw it on the market at approximately 80 cents or else pay taxes on it isn't feeling any too optimistic toward the ruling powers that be."

"Hard times and a slump in prosperity have invariably spelled a revolt against the political party then in power."

"And harmless and innocent as a loaf of bread may appear to be, should the price of wheat remain much under a dollar until the fall campaign, woe unto the office holder whom the people may deem responsible even in part for such a state of affairs."

"The people vote their feelings a lot more than they reason out party platforms or events, and whether they happen individually to subscribe to high tariff or low tariff, Hamiltonianism or Jeffersonianism, they are going to manifest their acclaim or disapprobation in the one way they know anything about, and that's the ballot. And at the present writing, in view of the milling around and activity which is taking place at all grain centers, the politician who wishes to retain his toga has taken up a notch in his belt and gone to riding fence in all seriousness, for the soothsayer who warned Julius Caesar to 'beware the ides of March' is again abroad in the land."

An Involved Problem!

THESE letters seem to me to throw an interesting light on the subject of taxation, and to some extent show why we have not arrived at a reasonably fair and equitable system. The first is ironical of course, but with a great deal of vindictive bitterness and intolerance running thru it. It is full of unproved assumptions, as, for example, the assertion that 85 per cent of the crimes committed in this country are connected with the automobile. There are no statistics that prove either that the statement is true or false. Undoubtedly the automobile has furnished criminals a rapid means of escape, but on the other hand it has helped equally the officers in apprehending the criminal.

Another assumption is that the farmer has been the victim of a conspiracy to rob him and that thieves have enacted the laws by which the farmer is governed. The fact is that there has never been a legislature in Kansas which did not have enough farmer members to have enacted any law they wished to enact. If they did not, it was because they were no more in agreement than the legislators from other walks in life. Neither is it true that these farmer members were a lot of fools. The fact is that as a rule they have been men of more than ordinary good sense. If I were a farmer member of the legislature I would resent the implication that I was not as smart as the average town

member and that I could be hoodwinked by the man with a white collar. If our tax system is ever organized on a fair and equitable basis it will not be done by dividing taxpayers into hostile classes.

Among a good deal of chaff, however, there is a grain of truth in this letter, in my opinion. I believe that eventually the major part of our taxes will be derived from taxes on incomes.

Mr. Crisswell complains because improved land is taxed out of proportion to unimproved. The complaint is certainly well founded, but under our present constitution this discrimination is inevitable. Also my opinion is that if an amendment were submitted that would remedy this injustice it would be defeated by the farmer vote.

Then there is my charming friend, Nellie Cline. Her letter is about as smooth a bit of political propaganda as I have ever seen. And yet nowhere does she even suggest a remedy. Her point is that the farmers holding their wheat over will be taxed on it. She does not say that if no effort had been made by the Farm Board to stabilize the price of wheat it, in all probability, would be selling today for 60 cents a bushel or less. In other words, in order to save a possible 3 cents in taxes the wheat grower would have lost 20 cents a bushel on the price of his wheat.

Can Pay the Executor

There were five sisters. The mother died years ago. The will of the father provided that all five of these share alike in the property at his death which occurred January 1, 1929. We will call the sisters A, B, C, D and E. A borrowed \$2,000 from her father several years before her father's death. B borrowed \$500 at the same time. C, D and E did not borrow any. The notes of A and B were demand notes and A and B were ready to pay on January 29. Can they pay the notes or do they have to wait until the estate is settled? Does interest stop at the death of the father? A.

They have a right to pay into the hands of the executor of the will the money due on these notes. This, of course, would stop the payment of interest.

Hounds Go Visiting?

A and B own adjoining farms. A has a pack of hounds listed for taxation which are his taxable property. Has B a right to shoot or harm these dogs in any way while hunting and running across his farm? If B's stock goes out on A's farm and damages his crop, has A a right to kill the stock? B protects varmints that feed on A's crops and also on A's poultry. Has A a right to collect damages? In your January issue I saw an answer that hounds had no protection. I say you are wrong. They have the same protection as any other taxable property.

If Subscriber is so certain about the right of dogs to protection I do not know why he should have asked me the question. However, I did not say hounds have no protection. There was a somewhat misleading head put over the question and answer, which by the way, I did not write. If Subscriber had read the answer I gave he would have found I said that dogs which were not assessed as taxable property did not have property rights. Of course, hounds have the same rights as any other dogs.

As to the question: If these hounds are assessed as personal property they are protected except where they trespass upon the rights of private citizens. My opinion is the mere fact that these hounds run across the land of A would not give A the right to kill them unless they were damaging his property, for example, his stock or something of that kind. If B's stock should go onto the farm of A, A does not have a right to kill the stock. He has a right under the law to take up the stock and hold it for damages. Just what Subscriber means by B protecting varmints that feed on A's crops I do not know. B has a right

to forbid A from hunting on his premises. If that is what Subscriber means by his protecting varmints he is clearly within his rights, and altho these varmints as he calls them may go over onto A's land and eat A's poultry, that would not give A any right to collect damages from B. If these animals are what the law designates as wild by nature, B is not responsible for their acts.

The Dog Got Lost

If a dog follows his master to an incorporated town and gets lost and stays in town but does no damage can the officers of the town kill the dog as soon as they find him? Or would they have to advertise him according to the law of Kansas? A. F.

A dog has no property rights in Kansas unless he has been assessed as personal property, and even then if the dog were to be lost in town without anything to distinguish him or to tell who his



THE "RUSSIAN BEAR" HAS BEEN DISPLACED BY "RUSSIAN BULL"

master was or that he was assessed as personal property by some individual, the dog catcher might take him and treat him as any other stray dog.

Can Collect Damages?

A township board or the road overseer under their supervision, graded a road and did away with a bridge cutting a ditch and carrying the water about 40 rods on the upper side of the road to a slough. This carries the water from about 40 acres. Did the township officer have a right to change this natural water course and can I compel him to change it back or get damage for washing out my fence? J. T. F.

In my opinion they had a right to change the water course if that was for the benefit of the road. If by so doing this damaged your road you have a right to whatever damages you may have sustained.

Must Live in Missouri

My husband died some years ago without leaving a will. I am the stepmother of four children. My husband left a farm in Southern Missouri which must be sold or it will have to go for taxes in a short time. Will an administrator have to be appointed in Missouri or can one of my late husband's sons 30 years old act in that capacity without having to go to Missouri? All the heirs are willing to sell except one boy who disappeared four years ago and cannot now be located. Un-

der the Missouri law would they let the farm be sold for taxes rather than let it be sold without the consent of this missing heir? Might it not be sold and his share be set aside for him and kept under the care of the court? Also what is the wife's legal share in Missouri? E. G.

Under the Missouri law non-residents are not permitted to administer upon the estates of deceased persons even if appointed by letters testamentary. So that in order to act as administrator it would be necessary that this son establish a residence in Missouri. Under the Missouri law all property of the person dying intestate, that is without will, descends and is distributed as follows: First to the children or their descendants in equal parts. Second, if there be no children or their descendants then to the father, mother, brothers and sisters or their descendants. Third, the previous classes not existing then to the husband or wife. Fourth, these failing then to the grandparents, uncles and aunts and their descendants in equal parts. The dower of the widow in Missouri is a life estate in one-third of the real estate. If a husband or wife die leaving a child or descendant, the surviving wife or husband is entitled to a share in the estate equal to the share of a child.

Of course, taxes are a prior lien to the rights of the heirs and if the taxes are not paid the real estate would be sold under the Missouri law to satisfy the unpaid taxes. If the estate is administered and sold under an order of the court, the share of this heir whose whereabouts are unknown would be held by the court until such time as the law presumes this heir is dead and would then be distributed to the other heirs under the general law of descents and distributions in Missouri.

Mortgage Would Be Worthless

A and B are brothers and own a farm jointly. Could B mortgage this farm without A's knowledge or consent or their wives' knowledge or consent as they are both married? M. V. H.

No. Such a mortgage would be worthless.

Owner Lives in Boston!

Between my farm and an adjoining farm there is a hedge fence about 25 feet high. It is so tall I cannot keep it trimmed on my side and it shades at least four rows of my corn. The owner lives in Boston and is not interested in the little matter of a Kansas hedge and Kansas land. So I am asking you to see what can be done. C. M.

This hedge is, as I understand, on the other man's land. I do not know of anything you can do.

Can Take the Farm

A owned a hotel which is not mortgaged. C and B took this property under a judgment. A lives in said hotel and makes his home there. A owns a farm together with his brother. Can B take A's part of said farm under the judgment? A does not live on said farm. J. P.

My opinion is he can.

Just Forget About It!

I rented a building in town and put a partition in the building. When we moved out the party that owns the building forbade us to take the partition out. I have written them letters and offered to settle with them but they do not answer my letters. Now the party has sold the property. I went to see the second party about it and they say they bought it from the first party. What can I do? S. J. S.

You can forget it. That is about all you can do.

Can Hold the Property

A and B are husband and wife. In case of his death leaving no will or children can B hold all the property in the state of Colorado? The real estate was a homestead proved up on before A married B. Mrs. A. B.

The wife can hold all the property.

We Must Spread America's Buying Power

DURING the time we have been trying to solve our own distress by decreasing the production of agriculture, China reports 5 million persons starving and India 2 million dying for lack of food. If the truth were known probably 50 per cent of the entire world is undernourished.

The promise of the future is in spreading the American standard of living and the American purchasing power thruout the world.

It can be done if the statesmen of the world are wise enough to realize it and the statecraft of the world has the patience and the ability to work out a program with that end in view.

A report of Dr. Julius Klein, Assistant Secretary of Commerce, shows that 6 per cent of the population of the world is in the United States and that this small segment of Americans consumes 15 per cent of the world's wheat, 23½ per cent of the world's sugar, 51 per cent of the coffee, 26 per cent of the cotton, 17 per cent of the wool, 72 per cent of the silk, 66 per cent of the rubber, 43 per cent of the pig iron, 43 per cent of the copper, 36 per cent of the lead, 35 per cent of the zinc, 46 per cent of the tin, 39 per cent of the coal, 61 per cent of the petroleum, 35½ per cent of the water power, 40 per cent of the electricity, 78 per cent of the automobiles, 60 per cent of the telephones, and we send 34½

per cent of the mail, by pieces, delivered in all parts of the world, as well as 25 per cent of the world's telegrams.

Of the freight tonnage of the world 35½ per cent is transported within our boundaries. Measured in ton-miles, this freight is 63½ per cent of the freight of the world.

Our yearly income per capita for the United States is \$685, or approximately \$3,000 for the average family.

In the United Kingdom, including England, Scotland, Ireland and Wales, is found the next highest income per capita, \$410 by one estimate, and \$430 by another.

Income per capita in other countries is: Austria, \$355; Canada, \$270; Sweden, \$240; Germany, \$190 to \$210; France, \$185 to \$225; Italy, \$105, and Japan, \$45.

And in the United States we have 2,000 automobiles for every 10,000 inhabitants, or an average of almost one to every family.

All peoples desire the useful and necessary articles that contribute to the high standard of American living, but the difference is that the people of the United States have purchasing power.

Let us suppose what the world could do and have if thru some means the rest of its population could have the same purchasing power as

the people of the United States. If the rest of the world, even excluding China, consumed as much wheat per capita as the United States, there would be consumed 2,911 billion more bushels than the world consumed last year, or half again as much as was consumed last year.

If the world consumed sugar at the rate Americans do nearly 80 million more tons would be used.

If the world had the purchasing power it could drink 20 billion more pounds of coffee every year. It could use 44 billion more pounds of cotton every year and 6 billion more tons of rubber.

If the world had purchasing power it would have and use 3½ million more miles of railroad tracks, 869 million more miles of telephone wires, 27 million more miles of telegraph lines and 352 million more automobiles—5 times as many automobiles as there are in the world at present.

Yes, this would be a great world—if it had the purchasing power of the United States.

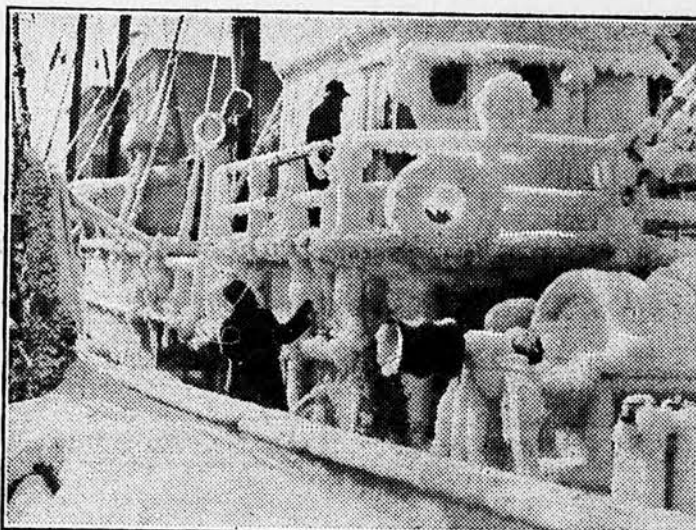
Arthur Capper

Washington, D. C.

World Events in Pictures



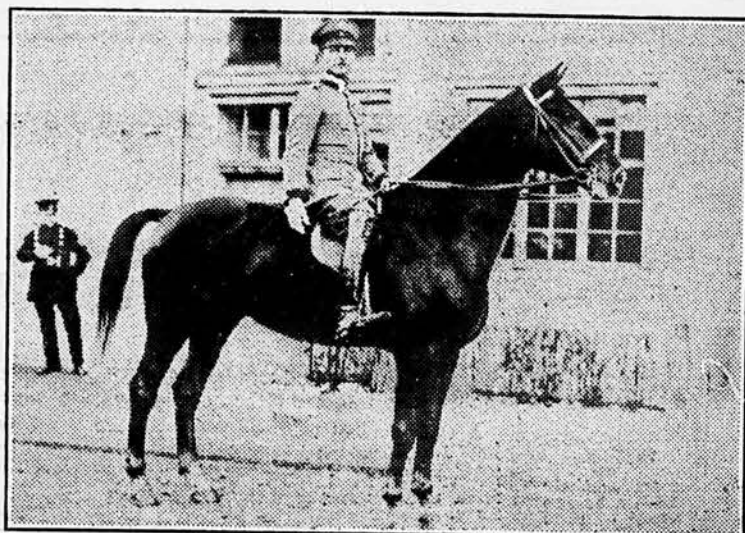
A Charming Parrot Green, One-Piece Tailored Frock of Covet Cloth Featuring a Flared Skirt. Note the Double Row of Plaits Above and Below the Striped Suede Belt



A Study in White—One of the Fishing Schooners Loaded with Tons of Ice as She Docked at a Boston Pier After Encountering One of the Coldest Spells Ever Experienced Along the Atlantic Coast



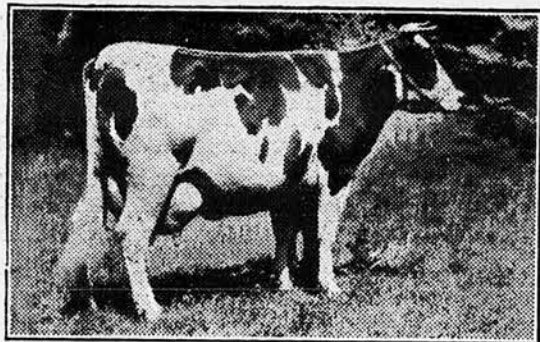
Seventeen of the 20 Chicagoans Who Established the Founders' Chapter of International Rotary in Chicago in 1905, Recently Commemorated the 25th Anniversary. Here is S. Schiele, First President



Major Buerkner with His Prize Horse "Packard," Which Was Awarded 15 Prizes at the Annual Horse Show of Germany in Berlin. The Horse Took All the Prizes for Single Horses and Received the Premium for Being the Most Beautiful and Efficient of the Entries



Members of the Senate Judiciary Committee Who Are Debating the Resolutions of Senators Norris and Wheeler for an Investigation of Prohibition Enforcement. Left to Right, Front Row, Borah, Norris, Overman, Ashurst, Walsh, Caraway, Stephens. Back Row, Stelwer, Waterman, Herbert, Hastings, Robinson, Deneen and Blaine



The World's Largest Dairy Cow, Corwin Ormsby Neta, a Purebred Holstein, Owned by Diamond K. Ranch, Littleton, Colo. She Weighed 2,305 Pounds Six Weeks Before Freshening and Ranks Near the Top for Production. She Now is 9 Years Old



Charles Evans Hughes, Recently Appointed to Succeed the Late William Howard Taft as Chief Justice of the Supreme Court of the United States



Left, the Best of All the Dogs Exhibited at the Eastern Dog Club Show at Boston, Weltona Frizette of Wild Oaks, with Her Master, R. C. Rondy, New York. At Right Is Another Prize, Wire-Hair, Fox Terrier



Sir Robert Baden Powell, Founder of the Boy Scout Movement, Ready to Decorate Two Nassau Scouts for Their Bravery in Rescuing Victims of the Hurricane Which Swept That Island in 1929. Sir Robert Is at Center Wearing Decorations. Sir Charles Orr, Governor General of the Bahamas, Is Seen at Rear in Civilian Clothes



This Cow Almost Jumped Over the Moon. At Any Rate an Airplane Took Her up 5,000 Feet Above St. Louis and Gave Her a 135-Mile-an-Hour Ride. During the Flight the Cow Was Milked and the Milk, in Paper Bottles, Was Parachuted Down to a Waiting Crowd at the International Aircraft Show. "Sunnymede's Ollie" is a High Producer as Well as a High Flyer

Beans Will Help Discouraged Incomes

May Be Grown for Seed or Cash Crop, for Feed and Fertility; Mills Demand Them for a Large Number of Commercial Uses

SOYBEANS are going to take a lot of the aches and pains out of agriculture in Southeastern Kansas. That opinion is based on recent interviews with soil specialists who are working in that section of the state, with farmers and with individuals who stand ready to contract, at a very profitable figure, for an almost unlimited supply of the beans for commercial use. The crop has many promising possibilities. It is recommended as a good tonic for soils and farm incomes that seem to have that tired feeling.

This legume will do things in that section of the state. It offers good net returns as a cash crop, for feed and as a soil builder. It has one big advantage over alfalfa and Sweet clover in that it will grow on acid soil, it fits in well as a catch crop where something else has been drowned out and will work in practically any rotation.

I. K. Landon, who is in charge of experiment station work in Southeastern Kansas, agrees with what most folks are thinking and saying down there now, which is: "Soybeans for cash, feed, fertility, increased yields of other crops and prosperity." In his opinion there is a big need for a larger acreage of the crop. Let's follow his reasoning. "Soybeans are not to oust alfalfa and Sweet clover, but to substitute for them. There is a real need for the crop because we cannot grow alfalfa and the clover without liming 90 per cent of the land in this part of the state. That would be a smart thing to do, but it is out of the reach of a good many tenant farmers who don't know how long they are to be on their present farms. But any of the land will grow soybeans and this crop does a good job of building up the soil fertility, it will provide good feed, it pays a good profit as a seed crop and now commercial concerns offer a good market.

Will Build Soil Fertility

"No matter how the crop is used it helps the land. It is all right to plow it under, but on the other hand it is very valuable for hay. It will yield 1½ to 2 tons an acre and is about equal to alfalfa; if the hay is figured at \$20 a ton you can see what plowing the crop under would mean. Turning it under on a truck crop will pay out, but not on corn and oats. Land will get a lot of fertility from just growing the crop no matter how it is used. One of the big values is growing hay, feeding it and returning the manure to the soil. Nitrogen is produced by the nodules on the roots and in addition there is the value of the manure. By this method a farmer returns more than he takes away from the soil.

"Corn is the best indicator of the fertility of the soil, so let's use it to illustrate what has happened. Fifty years ago the corn yield in the nine southeastern counties was something more than 34 bushels an acre. During the last 10 years it was 17.9 bushels in the same counties. This is due to straight cropping and depleting the nitrogen. But soybeans will help bring this back."

But to get results with the beans they must be inoculated. If they are not, Landon points out, they will be taking as much fertility out of the soil as corn, oats and wheat do. He mentioned a case in which a crop of wheat following a crop of beans that had been inoculated, made 30 bushels an acre, while wheat on the same kind of land following a crop of beans that hadn't been inoculated made only 17 bushels. The boy who planted the soybeans used old inoculation on the beans he planted one morning, while he used a fresh supply of inoculation on his planting of the afternoon of the same day. "That old inoculation was no good," Landon explained. "It must be fresh." In this case the beans were used for green

manure and the inoculation was worth 13 bushels an acre.

"When land is too sour for alfalfa or Sweet clover," Landon said, "or where these crops have killed out, soybeans can be used for a catch crop and will produce just as good legume hay. Then as the industry expands there will be a big demand for seed, but that won't last long. However, we import a great deal more cake and oil than we produce, so there is no limit in sight for our production. Mills are encouraging an increase of the crop, promising to buy the beans for commercial purposes. Indeed, we have a great deal of room for expansion before we get on an export basis. I am sure we could greatly reduce the wheat acreage, for example, in favor of the beans with profitable results. That not only would cut down on the overproduction of the bread grain, but it also would be replacing that crop with something very valuable. Again I wish to say that soybeans shouldn't take the place of the other legumes, but they can fill in for them. Manchu and A. K. beans do well, are the highest grain producers, and fortunately they are in demand by the mills. This year the mills paid \$1.40 a bushel at point of origin.

"There are too many values to the beans to overlook them. Even when the crop is sold for seed or to the mills, if the straw is fed and returned to the soil, good fertility value results. Beans work into a rotation nicely. If some crop fails because of too much moisture, soybeans will make an excellent catch crop, and after them a grain crop can be put in with little expense."

Recently a "Soybean Special" train operated in four different states, including Kansas. This was sponsored by the Kansas State Agricultural College and the agricultural development department of the Missouri Pacific Railroad in this state. The Fredonia Linseed Oil Works Company, of which S. H. Wiley is manager, co-operated in this to prove the value of soybeans to Southeastern Kansas. Hundreds of

farm folks visited the train and must have carried away with them a good fund of information regarding this legume.

Here are some of the things the college stressed in its exhibits: The time and methods of seeding, kind of seedbed needed, cultural methods, various ways in which the crop can be used, and time and method of harvesting. "Soybeans can be used profitably in dairy rations," one panel exhibit read. "Three years' experimental tests show that soybean meal is equal to, or a little better than, linseed meal for dairy cows. Soybean hay is a good substitute for alfalfa. One half acre of soybeans should produce forage equal in value to a ton of alfalfa. Soybeans, make good hog feed. They contain nearly as much protein as linseed meal and compare favorably with tankage when fed with corn to hogs."

Ten reasons the college gives for growing more soybeans include: They have a wide range of soil adaptation, will grow on acid soil but respond to liming, increase yields of succeeding grain crops, produce a higher yield of cured hay or seed than any other annual legume, are more drought resistant than cowpeas, are not subject to any serious disease or insect pests, they make an excellent catch crop and serve well as an emergency hay crop, are unexcelled for planting with corn for hog and sheep pasture, fit well into any standard rotation, and they comprise one of the most profitable grain crops.

All of this explains the value of soybeans to the soil and as a source of feed for livestock. But you who figure on growing the crop are quite as thoroughly interested in the "ready cash" angle which has been mentioned. A few days ago S. H. Wiley, manager of the Fredonia plant mentioned before, said this: "We will buy all the yellow beans Southeastern Kansas will produce for \$1.35 a bushel or more. That is our guarantee, and we don't make it and bind the farmer to sell to us. This year we didn't buy

any at less than \$1.40 at the point of origin. We will take a million bushels of the beans now. Why, we import 10 times as much as we produce, so there is no limit to the market for soybeans grown at home. Commercial use of soybeans has advanced since the war, and this is just in its infancy. Already a huge number of uses are made of the oil and this list is going to grow. The production of soybeans will meet an immediate need in Southeastern Kansas as a cash crop. They will lift the mortgage, allow the tenant to live and will pay the land owner good interest and meet his taxes."

"Save the Surface"

BY ROLF THELEN

The checking and weathering of wood can be prevented to a large degree by keeping the wood well painted or by storing it under cover, or by both. Such care of wood prevents rapid changes in moisture content because wood is hygroscopic; that is, when wood dries it shrinks; when it absorbs moisture it swells. Shrinkage of a flat-sawn board is considerably more in the direction of the width than in the direction of thickness. The stresses and strains set up by this unequal shrinkage cause a lengthwise separation of the wood known as seasoning checks. By retarding rapid-surface drying the tendency to checking, especially at the ends of thick stock, is greatly reduced.

Wood exposed to damp weather or rain will absorb moisture on the surface and the surface layers will try to swell. This swelling is resisted by the dry interior of the wood, with the result that a squeezing action, which tends to give the surface layers a permanent distortion, is set up. Later, when the surface dries out again, and attempts to shrink, a pulling action takes place, which may result in surface checks. If this process is repeated often enough weathering of the piece may take place. The injurious effects of changes in moisture content may be minimized, however, by retarding the rate of change. As already stated, this may be done by the use of paint or other moisture-resistant coatings, or by storing the wood under cover, or by both.

Now for Farm Flocks

GEORGE MONTGOMERY
Manhattan, Kansas

The number of sheep in the United States has been increasing rapidly during recent years. There probably were more sheep on farms January 1 this year than on that date in at least 30 years. It appears that the increase in numbers has reached a high point, but slaughter supplies may increase within the next year or two. It seems improbable that prices for these increased supplies can be maintained at the levels of the last three or four years.

A review of the trends in sheep production in the United States during the last six or seven years indicates that the peak in the period of expansion in numbers in the western states has been reached. The limited range makes improbable any considerable further expansion there. Such expansion could come with only relative high cost of production, and encouragement is not offered under present conditions.

While it may be possible for efficient producers in Kansas to make a profit with farm flocks at present levels of prices for lambs and wool, it does not appear to be a good time to expand operations, because increased production will tend to lower prices. Lower cost of production with small farm flocks will make favorable returns.

Big Field for This Legume

THE forage-crop specialist, W. J. Morse, with the Bureau of Plant Industry, United States Department of Agriculture, who has been in Japan for several months collecting new varieties of soybeans, reports that to date he has collected more than 5,000 lots, representing every type of soybeans grown in Japan.

A large number of soybean introductions have been sent into the United States by the Foreign Plant Introduction Office of the department in the last 20 years. Now the crop has established itself as one of major importance in this country, with a value of 70 million dollars for 1929. Due to increased utilization as a forage crop, for production of soybean oil and meal, and as a human food, it seems likely that the soybean will continue to grow in importance in the United States.

Soybean oil is becoming an important item in the manufacture of soap, paints, linoleum, rubber substitutes and glycerin in this country. When properly refined, the oil may be used in almost any foodstuff in which a vegetable oil is used. In China one of the principal uses of soybean oil is for human food, but it also is used in the manufacture of soap, varnish, printing ink, paints, candles, waterproof goods, and for lighting and lubrication.

With increase in the demand for soybean oil from American industries, efforts are being made by the Department of Agriculture to develop varieties with a high oil content. Where the beans are grown as a forage crop, especially for hogs, there is a demand for varieties with a low oil content, as the oil has a tendency to cause the meat to be soft, especially where large quantities of the beans are fed.

Samples from every lot of seed collected by Mr. Morse will be planted at the United States experiment farm at Arlington, Va., this spring, and when the seed is harvested tests will be made for oil content. In this way it is hoped that selections may be made which ultimately will develop into varieties with a wide range of oil content.

Mr. Morse writes that the Japanese use the soybean in a number of ways in their diet. They grind the beans and make flour, they serve the green beans as we would green lima beans, and they cook the dried beans in a manner similar to navy beans. Besides this, they make soy sauce, soybean curd, beverages, and bean sprouts from the soybean. He believes that the use of soybeans as a human food in this country will increase steadily.

Mr. Morse now is spending the winter in Tokio, studying the Japanese methods of utilizing soybeans. While he expects soybeans to grow in favor as a feed for livestock and food for people, he feels that the largest future development of the crop in the United States will be in the utilization of the oil and meal in industry.

You'll Enjoy the Musical Masseys

They Are Among the Most Versatile Entertainers WIBW Presents

WE HAVE a lot of fine folks to introduce this week. Let's start with the "Five Musical Masseys," who are entertaining you over WIBW at meal time and on the "Sunshine Hour." Despite their short acquaintance on the air from the broadcasting station of the Capper Publications, they are leading artists in fan mail, and are rapidly winning a high place with radio listeners of Kansas. They are among the most versatile entertainers on the stage and in radio work, and besides several singing and instrumental combinations, the five individual entertainers play a total of 35 different musical instruments.

This unusual family comes from Roswell, New Mexico, where "Old Man Massey," a pioneer old-time fiddler, provided entertainment for country-side dances in the "Cattle Country," almost since the covered wagon days. As each little Massey grew up and became old enough to hold an instrument, he was pressed into service with the elder Masseys for rural community entertainments. The children showed such remarkable aptitude in music, and the unique family combination won such praise and fame that they were booked on chautauqua circuits during the summer months while the children were not in school. Profits from these summer tours were invested in musical education for the children. All of them, except the youngest boy, have graduated from good music schools, and this boy will graduate this year.

There was romance in the family when the

in the radio audience, but a visual one as well.

And in the men's group photo, we find Arnold Johnson and his famous orchestra. They are heard on many Columbia programs, including the Majestic Theater of the Air, which you get from WIBW on Sunday nights from 8 to 9 o'clock. Mr. Johnson is famous as a composer as well as an orchestra leader.

WIBW's Program for Next Week

SUNDAY, MARCH 16

8:00 a. m.—Morning Musical—Columbia Ensemble and Soloist (CBS)
9:00 a. m.—Land O'Make Believe—Children's Hour (CBS)
9:50 a. m.—Columbia's Commentator—Dr. Chas. Fleischner (CBS)
11:30 a. m.—Five Power Naval Conference Reports (CBS)
12:00 m.—Five Musical Masseys from Pennant Cafeteria
12:30 p. m.—Ballad Hour (CBS)
1:00 p. m.—Watchtower Program IBSA
1:30 p. m.—Montreal Symphony Orchestra (CBS)
2:00 p. m.—Columbia Male Chorus (CBS)
2:30 p. m.—Conclave of Nations—Spain (CBS)
3:00 p. m.—Cathedral Hour—Sacred Music (CBS)
4:00 p. m.—The Melody Master
4:30 p. m.—Leo and Bill—Harmony Twins
5:00 p. m.—Rabbi Levey's Question Box
5:15 p. m.—Recording Program
6:00 p. m.—Our Romantic Ancestors (CBS)
6:30 p. m.—Leslie Edmonds' Sport Review
6:45 p. m.—The World's Business—Dr. Julius Klein—Courtesy Columbia Utilities Co. (CBS)
7:00 p. m.—Five Musical Masseys from Pennant Cafeteria
7:30 p. m.—Pipe Dreams by the Kansas Poet—Basil Willis
8:00 p. m.—The Music Hall
9:00 p. m.—Robert Service Violin Ensemble
9:30 p. m.—Arabesque (CBS) Courtesy Kansas Power and Light Co.

MONDAY, MARCH 17

6:00 a. m.—Alarm Clock Club
6:45 a. m.—USDA Farm Notes, time, news, weather
7:00 a. m.—Morning Organ Revue (CBS)
7:30 a. m.—Morning Devotionals

TUESDAY, MARCH 18

6:00 a. m.—Alarm Clock Club
6:45 a. m.—USDA Farm Notes, time, news, weather
7:00 a. m.—Morning Organ Revue (CBS)
7:30 a. m.—Morning Devotionals
7:55 a. m.—Time, news, weather
8:00 a. m.—Housewives' Musical KSAC
8:40 a. m.—Health Period KSAC
9:00 a. m.—Early Markets
9:05 a. m.—Sunshine Hour
10:00 a. m.—Housewives' Half Hour KSAC
10:30 a. m.—WIBW Harmony Boys
11:00 a. m.—Women's Forum
11:15 a. m.—Melody Three
11:45 a. m.—Complete Market Reports
12:00 m.—Try Dancing (CBS)
12:20 p. m.—Health for the Family (CBS)
12:25 p. m.—State Board of Agriculture
12:30 p. m.—Noonday Program KSAC
1:30 p. m.—American School of the Air (CBS)
2:00 p. m.—H. T. Burleigh Girls Quartet
2:30 p. m.—For Your Information (CBS)
3:00 p. m.—The Letter Box
3:10 p. m.—WIBW Harmony Boys
3:30 p. m.—U. S. Army Band (CBS)
4:00 p. m.—The Melody Master
4:30 p. m.—Matinee KSAC
5:00 p. m.—Markets KSAC
5:30 p. m.—Uncle Dave's Children's Club
6:00 p. m.—Daily Capital Radio Extra
6:10 p. m.—Five Musical Masseys from Pennant Cafeteria
6:30 p. m.—Jayhawk Trio
7:00 p. m.—WIBW Harmony Boys
7:30 p. m.—The Sod Busters
8:00 p. m.—Old Gold Paul Whiteman Hour (CBS)
9:00 p. m.—Graybar's Mr. and Mrs. (CBS)
9:30 p. m.—Columbia Symphony Orchestra (CBS)
10:00 p. m.—Tomorrow's News
10:05 p. m.—Will Osborne and his Orchestra (CBS)
10:30 p. m.—Publix Night Owl's Frolic (CBS)

WEDNESDAY, MARCH 19

6:00 a. m.—Alarm Clock Club
6:45 a. m.—USDA Farm Notes, time, news, weather
7:00 a. m.—Morning Organ Revue (CBS)
7:30 a. m.—Morning Devotionals
7:55 a. m.—Time, news, weather
8:00 a. m.—Housewives' Musical KSAC
8:40 a. m.—Health Period KSAC
9:00 a. m.—Early Markets
9:05 a. m.—Sunshine Hour
10:00 a. m.—Housewives' Half Hour KSAC
10:30 a. m.—Leo and Bill, Harmony Twins
11:00 a. m.—Women's Forum
11:15 a. m.—Melody Three
11:45 a. m.—Complete Market Reports
12:00 m.—Famous Composers (CBS)
12:20 p. m.—Health for the Family (CBS)
12:25 p. m.—State Board of Agriculture
12:30 p. m.—Noonday Program KSAC
1:30 p. m.—Syncopated Silhouettes (CBS)
2:00 p. m.—Columbia Ensemble (CBS)
2:30 p. m.—For Your Information (CBS)
3:00 p. m.—On Brunswick Platters
4:00 p. m.—Inter Collegiate Debates KSAC
5:30 p. m.—Uncle Dave's Children's Club
6:00 p. m.—Daily Capital Radio Extra
6:10 p. m.—Five Musical Masseys from Pennant Cafeteria
6:30 p. m.—Commodore Ensemble (CBS)
7:00 p. m.—WIBW Harmony Boys
7:30 p. m.—The Sod Busters
8:00 p. m.—The Crystal Gazer
8:30 p. m.—The Chanters
9:00 p. m.—Philo Hour (CBS)
9:30 p. m.—Grand Opera Concert (CBS)
10:00 p. m.—Tomorrow's News
10:05 p. m.—Hank Simmon's Show Boat (CBS)
Courtesy Nat'l Reserve Life Co.



In the Group Photo of the Men We Find Arnold Johnson and His Famous Orchestra. The Charming Young Lady at Right is Marie Gambrelli, Better Known Perhaps as "Gamby." And the Young Man, Lower Left, is the Famous Ben Pollack. The Four Men, and the Girl at the Piano, Are the "Five Musical Masseys," WIBW's Latest Addition. They Are to Entertain You Over the Broadcasting Station of the Capper Publications During the Spring



"Massey girl," as she is known in the cow country, brought home a new member of the orchestra, Milton J. Marble, another excellent musician. He married the "Massey girl," and now is business manager for the orchestra and is one of the leading musicians. Folks even call him Milton "Massey" instead of his real name, but it's all in the family, you know. The Masseys are on WIBW to stay during the spring months.

A young man you will be pleased to learn more about is Ben Pollack, the well-known maestro of the dance. He and his orchestra now playing from the Silver Slipper over WIBW and the Columbia Broadcasting System, are about the latest addition to the big national hook-up. During their Friday night programs, which are known as "Celebrities" night, Mr. Pollack brings to the microphone outstanding figures in the sporting and theatrical worlds.

The very pleasant-looking young lady this week is Marie Gambrelli, better remembered as "Gamby," one of the newest arrivals on the Publix Radio-vue, over WIBW and the Columbia Network, every Tuesday night at 10:30. She appears with Buddy Rogers, motion picture star, and Lester Allen, comedian. This program originates on the stage of the Brooklyn Paramount Theater, and is attended not only by thousands

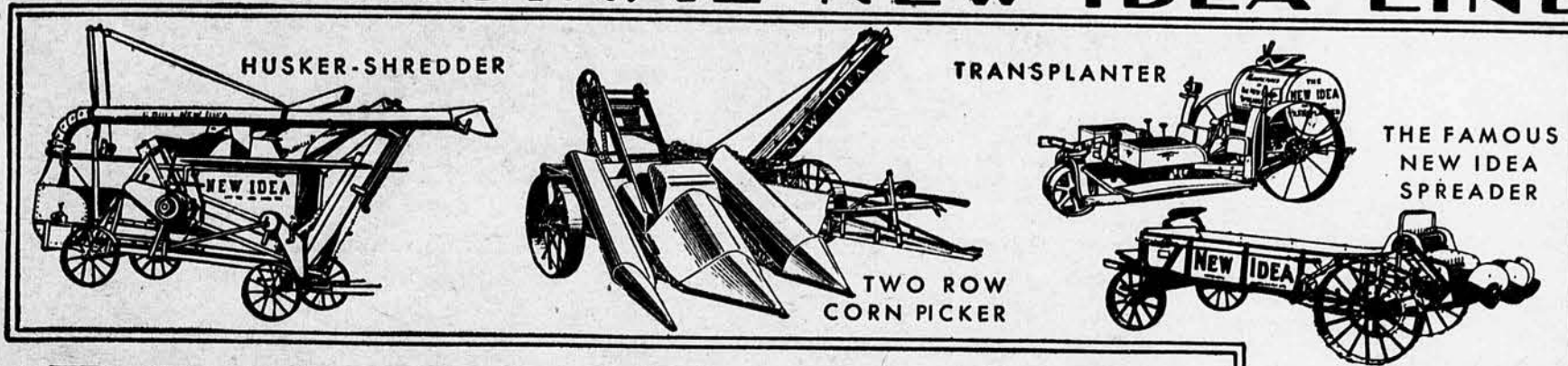
7:55 a. m.—Time, news, weather
8:00 a. m.—Housewives' Musical KSAC
8:40 a. m.—Health Period KSAC
9:00 a. m.—Early Markets
9:05 a. m.—Sunshine Hour
9:45 a. m.—Housewives' Half Hour KSAC
10:15 a. m.—Senator Capper's "Timely Topics at Washington" (CBS)
10:30 a. m.—WIBW Harmony Boys
11:00 a. m.—Women's Forum
11:15 a. m.—Melody Three—Boyd, Maudie and Sunshine
11:45 a. m.—Complete Market Reports
12:00 m.—Golden Music (CBS)
12:20 p. m.—Health for the Family (CBS)
12:25 p. m.—State Board of Agriculture
12:30 p. m.—Noonday Program KSAC
1:30 p. m.—Ann Leaf at the Organ (CBS)
2:00 p. m.—Cecora B. Danham's Dramatic Period
2:30 p. m.—For Your Information (CBS)
3:00 p. m.—The Letter Box
3:10 p. m.—WIBW Harmony Boys
3:30 p. m.—U. S. Navy Band (CBS)
4:00 p. m.—The Melody Master
4:30 p. m.—Matinee KSAC
5:00 p. m.—Markets KSAC
5:30 p. m.—Uncle Dave's Children's Club
6:00 p. m.—Daily Capital Radio Extra
6:10 p. m.—Five Musical Masseys from Pennant Cafeteria
6:30 p. m.—Voices from Filmland (CBS)
7:00 p. m.—WIBW Harmony Boys
7:30 p. m.—The Sod Busters
8:00 p. m.—Capper Club Skit
8:30 p. m.—The Cotton Pickers
9:00 p. m.—Kansas Author's Club
9:30 p. m.—Voice of Columbia (CBS)
10:00 p. m.—Tomorrow's News
10:05 p. m.—The Columbians (CBS)
10:30 p. m.—Jan Garber and his Hollywood Orchestra (CBS)

THURSDAY, MARCH 20

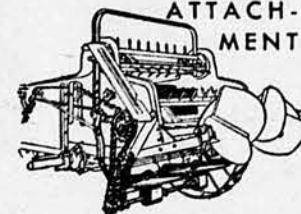
6:00 a. m.—Alarm Clock Club
6:45 a. m.—USDA Farm Notes, time, news, weather
7:00 a. m.—Morning Organ Revue (CBS)
7:30 a. m.—Morning Devotionals
7:55 a. m.—Time, news, weather
8:00 a. m.—Housewives' Musical KSAC
8:40 a. m.—Health Period KSAC
9:00 a. m.—Early Markets
9:05 a. m.—Sunshine Hour
10:00 a. m.—Housewives' Half Hour KSAC
10:30 a. m.—Leo and Bill, Harmony Twins
11:00 a. m.—Women's Forum
11:15 a. m.—Melody Three
11:45 a. m.—Complete Market Reports
12:00 m.—High Lights from Light Opera (CBS)
12:20 p. m.—Health for the Family (CBS)
12:25 p. m.—State Board of Agriculture
12:30 p. m.—Noonday Program KSAC
1:30 p. m.—American School of the Air (CBS)
2:00 p. m.—Columbia Ensemble
2:30 p. m.—For Your Information (CBS)
3:00 p. m.—The Letter Box
3:10 p. m.—WIBW Harmony Boys
3:30 p. m.—U. S. Navy Band (CBS)
4:00 p. m.—The Melody Master
4:30 p. m.—Matinee KSAC
5:00 p. m.—Markets KSAC
5:30 p. m.—Uncle Dave's Children's Club
6:00 p. m.—Daily Capital Radio Extra
6:10 p. m.—Five Musical Masseys from Pennant Cafeteria
6:30 p. m.—Jayhawk Trio
7:00 p. m.—The Vagabonds (CBS)
7:15 p. m.—Five Power Naval Conference-Wile (CBS)
7:30 p. m.—Alladin Old Time Orchestra
7:45 p. m.—WIBW Harmony Boys
8:00 p. m.—Songs at Twilight, Courtesy Capper's Farmer
(Continued on Page 45)



THE ORIGINAL NEW IDEA LINE

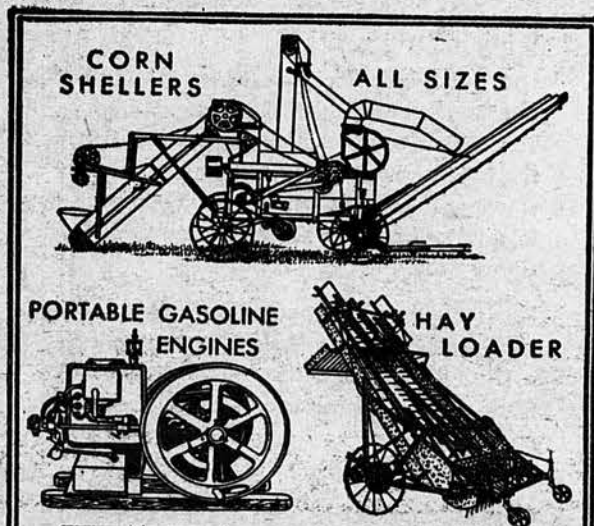
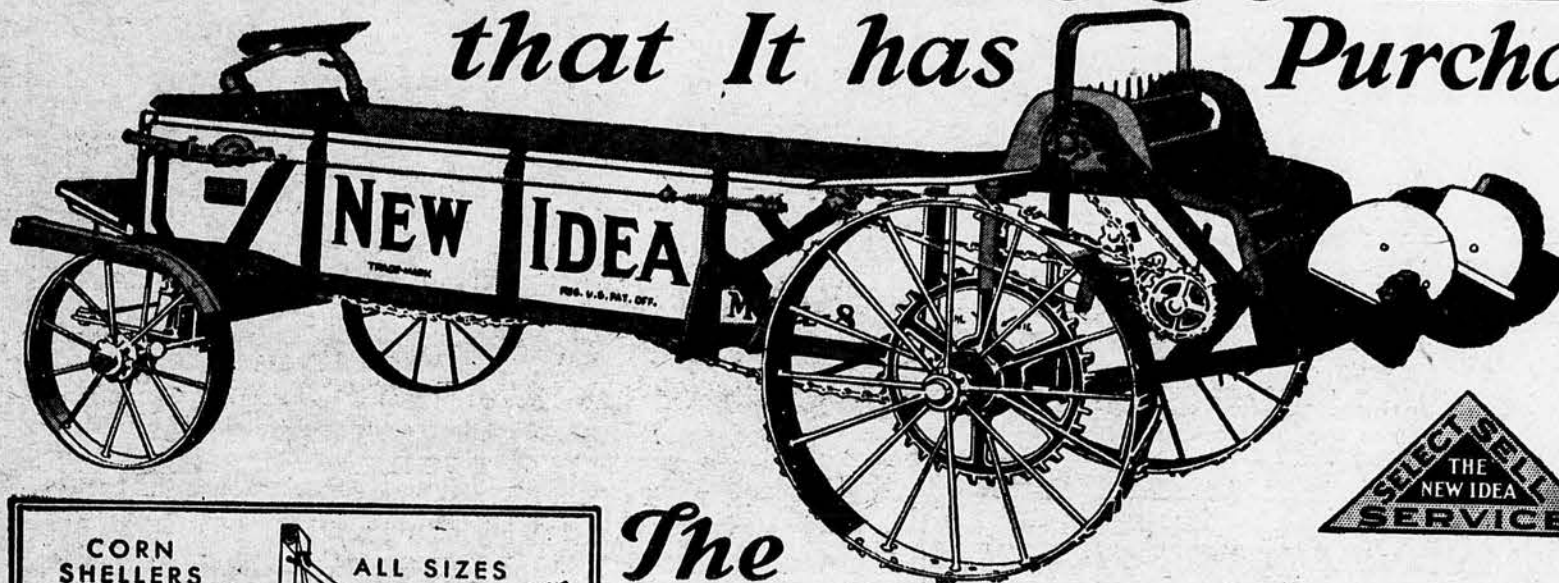


LIME SPREADING ATTACHMENT

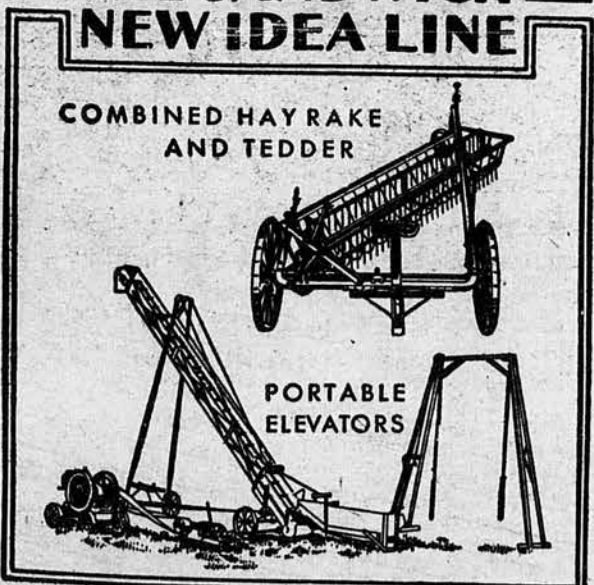


NEW IDEA Announces

that It has Purchased



THE SANDWICH NEW IDEA LINE



The SANDWICH Manufacturing Co.

THE NEW IDEA Spreader is unquestionably the best-built machine of its kind on the market. All other NEW IDEA Farm Machines rank equally high. And right on a par with them in quality reputation are the products of the SANDWICH Manufacturing Company of Sandwich, Ill., whose business and factory we have just purchased and added to our own. SANDWICH machines have won the praise of farmers and implement dealers for nearly 75 years. They will make a notable addition to the NEW IDEA line.

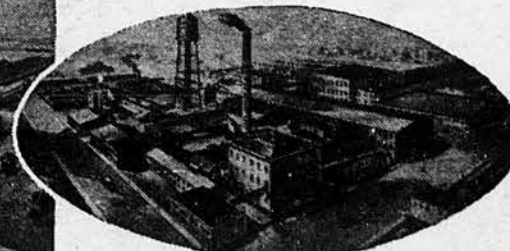
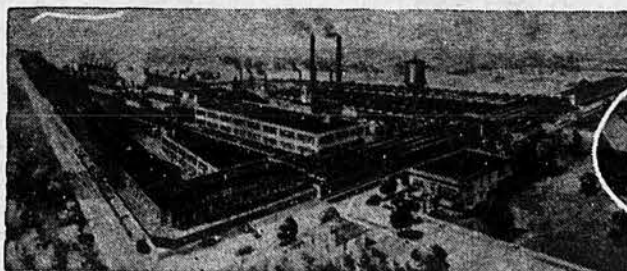
SANDWICH built machines, known as SANDWICH-NEW IDEA machines, are sold through reliable dealers and fully backed by NEW IDEA service and reputation. All NEW IDEA

branches and warehouses will at all times carry a complete stock of these machines and parts. The Sandwich factory will be continued in operation under NEW IDEA management.

Description of any NEW IDEA or SANDWICH-NEW IDEA machine sent on request.

THE NEW IDEA SPREADER CO.

BRANCHES: Harrisburg, Pa.; Madison, Wis.; Kansas City, Mo.; Syracuse, N. Y.; Jackson, Mich.; Moline, Ill.; Columbus, Ohio; Indianapolis, Ind.; Minneapolis, Minn.; Oakland, Cal.; Omaha, Nebr.
Factories at COLDWATER, OHIO and SANDWICH, ILLINOIS



Has a Many-Sided Income

If Dutton Sees a New Machine That Will Increase His Efficiency He Buys It

BY RAYMOND H. GILKESON

WE CANNOT get along on the farm without a steady income every day in the year." T. M. Dutton of Smith county stopped his work to make that remark. In his opinion every farmer should proceed on the same theory, and he fully believes that agriculture offers plenty of opportunities for this daily income.

Perhaps Mr. Dutton has this idea because he has been in other lines of business, but there are many, many farmers in the state who look at the matter of an agricultural income in much the same light he does. At any rate they are widely diversified with cash and feed crops, and depend on poultry, dairy animals and other livestock for steady money. That is the type of farmer we find in Mr. Dutton. Feeling he needed something to sell every day in the year he proceeded to lay out a program that would provide just that.

This fine morning not so long ago, when he stopped to tell his visitor about his work, he sat on the porch of his very comfortable home and looked out over one of the best all-purpose farms in his section of the state. He has a profitable orchard, some beef cattle, a dairy herd, he spends some time with hogs and sheep, and of course, poultry wouldn't be neglected. Mrs. Dutton joined the two on the porch to add her opinion of a "many-sided" farm income. "Most of our living is produced right here," she said pleasantly. "If we had to do without our poultry, eggs, milk, cream, butter, fruits and vegetables, we would learn more than we know now about their value to us. But we realize how important it is to grow all of the living we can right at home." The six children have been properly fed and clothed, and every one is getting the best education that is available. To Mr. and Mrs. Dutton

there isn't anything more important for the children, outside of the absolute necessities of life. They are helping their children become the kind of citizens who can contribute something to this old world.

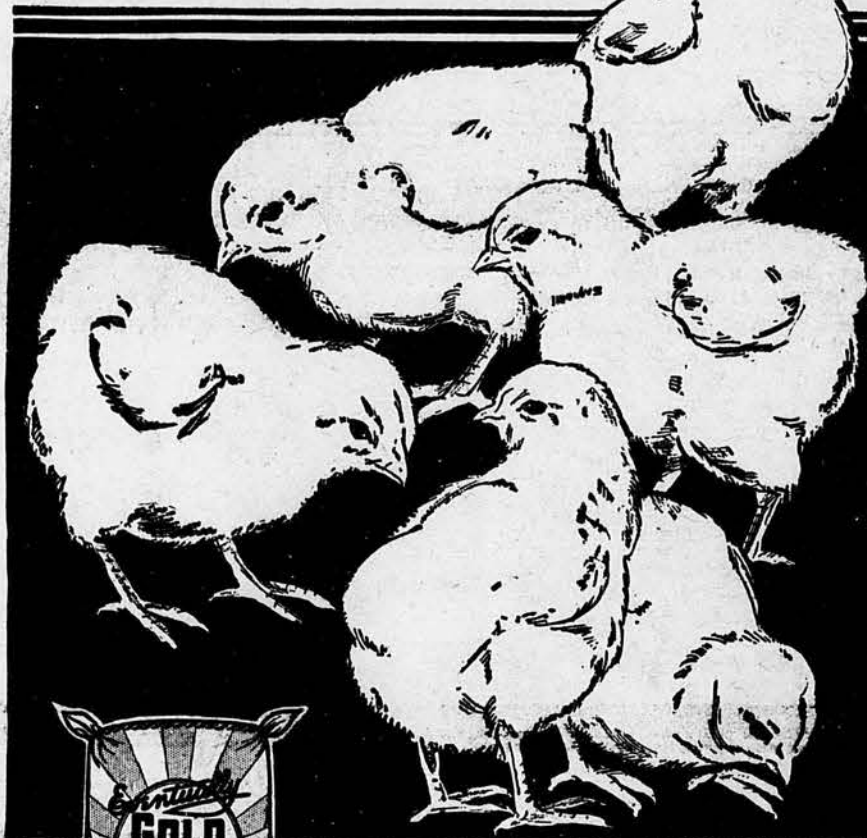
Orchard Is a Success

Naturally you will be interested in the success Mr. Dutton has had with his fruits. Briefly, it has been very fine. The orchard contains 6 acres and has been set out nearly nine years. To see whether it has paid we can subtract from the total cost of putting it out, which was \$600, the \$500 in actual cash the orchard returned two years ago and this income will last indefinitely. That was for fruit sold and doesn't include the large quantity put up for consumption by the family. The cost of selling this fruit is practically nothing, since customers call at the farm for what they want, and just as important, they pay cash for what they get.

In the orchard are 108 cherry trees, 72 plums and about 54 each of peach and apple trees. This is a very good arrangement for harvest, as one kind of fruit doesn't interfere with any other. There is considerable to the way in which the orchard soil is handled, according to Mr. Dutton. "I cultivate after every rain," he said, "using the spring-tooth harrow. I try to keep a dust mulch until September and then allow the growth to stand to catch snow and keep it from blowing.

"Planting is another thing of importance. My orchard is laid out in rows—all directions. I dig holes as I plant and put the top soil in on the roots and tamp the dirt well. No water goes into the hole with the tree. I find that too much moisture at the time of planting is likely to kill the tree. I did water my trees the second

Keep these little fellows healthy and vigorous



Start them on a good feed and you have everything to gain. With an uncertain mixture your profit for the year may be lost at the very outset.

Use Gold Medal Chick Mash this year and see how your baby chicks thrive and grow. This scientifically balanced feed supplies the health-giving body building food that a young chick needs. It is carefully prepared in a form that the delicate chick organs can digest easily.

Remember to have Gold Medal Chick Mash on hand when your first chicks arrive. It will build the healthiest, liveliest flock you have ever seen. See your Gold Medal dealer—he has a complete line of Gold Medal feeds.

Gold Medal Chick Mash is "Farm-tested" feeds made to the same high standard of quality as the famous Gold Medal "Kitchen-tested" Flour.

WASHBURN CROSBY COMPANY
Minneapolis - Kansas City - Buffalo

Send for our free Poultry Guide, which was written by a noted Poultry Authority. It covers every phase of Poultry, from Hatching to Marketing. It will point the way to greater profits for you in 1930.

Eventually
GOLD MEDAL FEEDS
"Farm Tested" Copyright, G. M. Inc. 1930
why not now?

WASHBURN CROSBY COMPANY—Dept. P-310—MINNEAPOLIS, MINN.
Please send me free copy of "Farm Poultry Profits".

Name _____ Address _____ Town _____ State _____
My Feed Dealer is _____

Eastern Efforts to Dominate Hoover

PRESIDENT HOOVER'S administration has passed its first anniversary. It has been a year of adverse conditions in business, for which the President cannot be held responsible, and of bickering in Congress which has prevented action on his recommendations. Owing to the tariff contention and the inauguration of the Federal Farm Board policy, the year politically has been marked by a sharper division between East and West than has occurred in many years. This division is bound to continue for some time and possibly thruout the Hoover administration, and if so, it may result in compelling the President to take a pronounced position. This in fact evidently worried Senator Grundy of Pennsylvania, who the other day expressed his alarm over the statement of a Kansas City paper that on the tariff President Hoover leans towards western rather than eastern ideas.

Recalling that President Taft early in his term had a similar problem, also turning on tariff revision, an eastern paper, the Springfield Republican, ventures a prediction as to Hoover: "The political fate of President Taft, it may be surmised, is a chapter of political history that is very familiar in White House circles. The Republican feels almost like risking a prophecy. It is that President Hoover will move West instead of East, if forced to move one way or the other, doing precisely the contrary to what President Taft did."

If the President should line up definitely for the western view on the tariff, the Republican thinks his action "would not lack political acumen." It suggests that Mr. Coolidge is a potential rival, so far as Eastern leadership is concerned. Mr. Hoover won his nomination because he was the western choice. The eastern politicians continued to the last to oppose his nomination, and there is no reason to believe they have changed their minds. The new tariff is going to be more western than eastern in any case, and largely because of the President's known attitude, eastern disgruntlement over the loss of control in tariff-making, added to the industrial recession and with prohibition on top of that, logically must suggest that Mr. Hoover's strength in 1932 will be mainly in the West, as it was in 1928.

The industrial East may be in for a period of depression and unemployment. There are some signs that it is the East's turn, after a severe agricultural depression in the West. If, then, eastern politicians continue to antagonize Hoover policies, on tariffs and agricultural relief, and provoke a party division, they have more to lose than the party itself. If they insist on being the party, against the administration and the majority in Congress, they may make a party split such as wrecked the Taft administration. They cannot get the electoral votes in 1932 in western states for any such program.

The lesson for them at the end of the first year of the Hoover administration is plain. Mr. Hoover has held to a middle-of-the-road course, not sectional, but not subservient to eastern influence. If a rupture in the party occurs it can be due to nothing but insistence by minority eastern regulars that they must be permitted to dictate the course of a Republican administration. They cannot do this with Hoover, and the only result of persisting in antagonism to his administration will logically be to drive him, as the Republican advises them, "into the arms of his home folks in the militant West."

summer, but I haven't lost a single one from drouth." Mr. Dutton follows the college recommendations in his pruning and spraying with excellent success, and he watches for all of the bulletins from the college and the United States Department of Agriculture that will add to his knowledge of handling an orchard.

There in Smith county is a farm orchard which is a success. It provides all the fruit a large family needs and in addition brings in an income of several hundred dollars some years. All the surplus fruit is sold at good prices, and even some canned fruits are sold. There is wide variety of all the fruits and the orchard is handled in a manner that makes its products very desirable.

Controls a Large Acreage

But that is just one of the things Mr. Dutton does, as we have indicated before. He controls 1,000 acres, with 820 under cultivation. He will average something like 700 acres of wheat a year, and all the seed is re-cleaned and treated against smut before being sown. Early seedbed preparation is absolutely necessary. A year ago Mr. Dutton had 200 acres plowed before harvest was over. Naturally he keeps the yields up to a good figure, and his reason for that, in part at least, can be found in this statement which he made: "We try to give the land the right care, and we have good machinery in condition to do the required work when it is time. Power farming is profitable. We don't plow a furrow with horses." And in the matter of seedbed preparation he did something a year ago which he believes is valuable. "Last year I pulled the tandem disk just ahead of the wheat drill with one tractor. This final touch got the last of the weeds and volunteer, and my yield made 25 bushels on that land."

Mr. Dutton believes in the right kind of equipment. "When we see a machine that will help us increase our efficiency we don't hesitate to buy it," he said. "As an example, a neighbor and I purchased an ensilage cutter. It not only filled our silos, but filling for others made us some good money. I am sure the right equipment pays."

Just a few beef cattle figure in this farm program, enough to take care of some of the feed. Another good market for feed is the dairy herd of 10 Holsteins, according to the figures on the cream checks. The poultry flock—or rather both of them—is a paying proposition. There are White Leghorns and Buff Orpingtons. "Hatchery buying pays," Mrs. Dutton said, "because we can get exactly what we want, exactly when we want them." A carload of hogs a year and about 60 head of lambs and ewes finish the livestock layout. The Duttons have had their troubles with livestock. One time they were about to lose some calves and poultry when the county agent came to their rescue. Needless to say these folks are strong Farm Bureau boosters.

How to Make Pit Silos

The construction of pit silos, which are especially feasible in the southwestern states because of favorable soil conditions, is described in Farmers' Bulletin 825-F, "Pit Silos," just issued by the United States Department of Agriculture. This type of silo, which is comparatively inexpensive to make and maintain, is especially suitable for farms where the soils are free from rocks, sand strata and seepage water, and where climatic conditions and scarcity of materials make above-ground silos more costly to build and maintain. The common objection to the hoist, which is needed to draw the silage from the pit, is only a minor drawback, and several types of hoists are suggested. Illustrations show various details of the construction and use of pit silos. Copies of the bulletins may be obtained from the United States Department of Agriculture, Washington, D. C.

Hogs Weighed 233 Pounds

The average weight of the hogs received on the St. Joseph market in February was 233 pounds, as compared with 238 pounds in February, 1929.



"I can turn over half again as many acres on a gallon of this New Mobiloil"

(and the farmer who says so lives in Missouri!)

Down in Missouri they don't take anything on faith. We knew that the New Mobiloil would last longer . . . save power . . . cut fuel costs . . . and reduce repair bills.

But it's only natural for a Missourian to take a manufacturer's enthusiasm with a grain of salt.

So our Missouri friend* made some oil tests on his own. His experience had shown that in buying oil it's not price per gallon that counts, but what it costs per acre covered, day in day out, season after season. He had a good idea of the cost of the oil he had been using, figured on that basis.

A 30-gallon drum of the New Mobiloil, and five months of close check-up on every kind of tractor work, was more than enough. Then he told his Mobiloil dealer, "This New Mobiloil may cost more a gallon, but that's not what interests me. I can turn over half again as many acres on a gallon of it, use less kerosene, and I haven't had a wrench on that 'mud-hog' since I began using it."

Refer to the complete Mobiloil Chart at your dealer's for the correct grade of the New Mobiloil to use in your car, truck or tractor. It will save you nickels every working day, and dollars by the month.

*Name on request

VACUUM OIL COMPANY

Makers of high quality lubricants for all types of machinery

the New



Mobiloil

MAKE THIS CHART YOUR GUIDE

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars, motor trucks, and tractors are specified below. If your car is not listed here, see the complete Chart at your dealer's. Follow winter recommendations when temperatures from 32° F. (freezing) to 0° F. (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford, Models T, TT, use Gargoyle Mobiloil "E").

NAMES OF PASSENGER CARS, MOTOR TRUCKS AND TRACTORS	1929		1928		1927		1926	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Autocar, T (own & Waukesha)H			BB	A				
"H (own engine)	A	Arc	A	Arc	A	Arc	A	Arc
"other models...	A	A	A	A	A	A	A	A
Bulck...	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Cadillac...	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Chandler Special Six	A	Arc	A	Arc	A	Arc	A	Arc
"other models...	A	A	A	A	A	A	A	A
Chevrolet...	A	Arc	A	Arc	A	Arc	A	Arc
Chrysler, 4-cyl.	A	Arc	A	Arc	A	Arc	A	Arc
Imperial 80	BB	Arc	BB	Arc	A	A	A	A
"other models...	A	A	A	A	A	A	A	A
Diamond T...	A	Arc	A	Arc	A	Arc	A	Arc
Dodge Brothers...	A	Arc	A	Arc	A	Arc	A	Arc
Durand...	A	Arc	A	Arc	A	Arc	A	Arc
Essex...	A	Arc	A	Arc	BB	A	A	A
Federal, 1K6								
"UB-6, T-6W, T-6B, F-6, A-6, 3B-6, 2B-6, T-8W, WR-6, 3C-6, F-7	A	Arc	A	Arc	A	Arc	A	Arc
"other models...	A	A	A	A	A	A	A	A
Ford, A & KA...	A	Arc	A	Arc	E	E	E	E
"T & TT...	BB	Arc	BB	Arc	BB	BB	BB	BB
Franklin...	A	Arc	A	Arc				
G. M. C., T-10, T-11, T-12	A	Arc	A	Arc				
T-20, T-30, T-40, T-42, T-50, T-60, T-80	BB	Arc	BB	Arc	BB	Arc	BB	Arc
"other models...	A	A	A	A	A	A	A	A
Garford...	A	Arc	A	Arc	A	Arc	A	Arc
Graham Brothers...	A	Arc	A	Arc	A	Arc	A	Arc
Hudson...	A	Arc	A	Arc	A	Arc	A	Arc
Hupmobile...	BB	Arc	BB	Arc	A	Arc	A	Arc
Indiana, 611, 6111	A	A	A	A	A	A	A	A
"other models...	A	A	A	A	A	A	A	A
International Special Delivery, Waukesha engine, 33, 43, 54C, 54DR, 63, 74C, 74DR, 103	A	A	A	A	A	A	A	A
"HS34, HS54C, HS74, HS74C, 104C, HS104C	B	A	A	A	A	A	A	A
"other models...	BB	A	BB	A	BB	A	BB	A
Mack...	BB	A	BB	A	BB	A	BB	A
Nash Advanced Six & Special Six	BB	Arc	BB	Arc	BB	Arc	BB	Arc
"other models...	A	Arc	A	Arc	A	Arc	A	Arc
Oakland...	A	Arc	A	Arc	A	Arc	A	Arc
Oldsmobile...	A	Arc	A	Arc	A	Arc	A	Arc
Overland...	A	Arc	A	Arc	A	Arc	A	Arc
Packard...	A	Arc	A	Arc	A	Arc	A	Arc
Paige, 8-cyl.					BB	Arc		
"other models...	A	Arc	A	Arc	A	Arc	A	Arc
Pontiac...	A	Arc	A	Arc	A	Arc	A	Arc
Reo...	A	Arc	A	Arc	A	Arc	A	Arc
Republic, 15, 15W, 25, 25W, S25W, 30, 30W, 35, 35A, 35B, 25-6	A	A	A	A	A	A	A	A
"other models...	BB	A	BB	A	BB	A	BB	A
Service...	A	A	A	A	A	A	A	A
Star...	A	A	A	A	A	A	A	A
Stewart, 7X, 10K, 21, 21X, Buddy	BB	A	BB	A	BB	A	BB	A
"other models...	A	Arc	A	Arc	A	Arc	A	Arc
Studebaker (Pass.), White, 15, 15B, 20, 20A, 59, 60	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
"other models...	A	A	A	A	A	A	A	A
Willys-Knight, 4-cyl., 6-cyl.	BB	Arc	BB	Arc	BB	Arc	BB	Arc
TRACTORS								
Allis-Chalmers, 15-25	BB	A	BB	A	BB	A	BB	A
"other models...	B	A	B	A	B	A	B	A
Case, 25-45, L...	BB	A	BB	A	BB	A	BB	A
"other models...	B	A	B	A	B	A	B	A
Caterpillar...	BB	A	BB	A	BB	A	BB	A
Cletrac...	BB	A	BB	A	BB	A	BB	A
E-B...	B	A	B	A	B	A	B	A
Fordson...	BB	A	BB	A	BB	A	BB	A
Hart Parr...	B	A	B	A	B	A	B	A
John Deere...	BB	A	BB	A	BB	A	BB	A
McCormick...	BB	A	BB	A	BB	A	BB	A
Oil Pull...	B	A	B	A	B	A	B	A
Twin City, 40-65	BB	A	BB	A	BB	A	BB	A
"other models...	BB	A	BB	A	BB	A	BB	A
Wallis...	BB	A	BB	A	BB	A	BB	A

TRANSMISSION AND DIFFERENTIAL

For their correct lubrication use Gargoyle Mobiloil "C" "CW", Mobilgrease, or Engine Oil, as recommended by complete Chart available at all dealers.

NOTE: For a season's supply we recommend the 55-gallon or 30-gallon drum with convenient faucet.

ARMOUR'S BIG CROP FERTILIZERS

**make your soil take off
its coat and go to work**

AN INVESTMENT in fertilizer is the most profitable money that a farmer can spend. A survey including 47,628 farmers in 35 states showed a net return of \$3.54 for every dollar invested in fertilizer. A return of \$5 and more was not unusual.

Properly made, correct-ratio fertilizers, liberally applied, increase yields and decrease growing costs. They improve quality and increase the feeding and sales value of the crop. But it is important that generous applications be made. Better to amply feed a small field than to half feed a larger.

Armour's BIG CROP High-Analysis Fertilizers are manufactured under the most careful scientific control. They are so made as to give a quick, vigorous, ample, early growth of stalk or vine while moisture conditions are good, and then carry the crop through a well-fed growth to an early maturity.

Make sure that your investment in fertilizer will bring the greatest possible returns. Armour dealers are prepared to help you in the selection of the most suitable BIG CROP Fertilizer analysis for your particular soils. You can command their services freely. If you do not know the name of your Armour dealer, write to us.

Charles H. MacDowell
President

Armour Fertilizer Works Chicago, U. S. A.



MAIL THIS COUPON TODAY

Charles H. MacDowell, President

ARMOUR FERTILIZER WORKS

Dept. 118, 111 West Jackson Blvd., Chicago, Ill.

Please send me, free, a copy of ARMOUR'S FARMERS' ALMANAC for 1930.

Name _____

P.O. _____ R. F. D. Route _____

County _____ State _____

Dealer's Name _____

Why Not Reduce Runoff?

**Let's Save the Moisture for Crops and Thus
Eliminate Soil Erosion**

BY R. E. DICKSON

RUNOFF and erosion are concomitant. The uncontrolled rainwater is merely the vehicle in which the soil takes a ride without a return ticket. There is not a section of the whole country where crops would not be benefitted, at some time or other during the year, by a small additional amount of water available for plant use. Over a large section of the civilized world water is the limiting factor in crop production. When the water problem has been satisfactorily solved there will be no problem of soil erosion on much of the arable land because there will be no runoff. The entire rainfall can be stored and used to advantage in most of the sections with an annual rainfall under 25 inches.

It is astonishing how little we know about storing and using rainwater. Thru countless centuries man's crops have suffered for moisture, while only a few weeks previously the streams ran bank-full of the commodity that was to determine the amount of harvest. Very little has been done to save this water as it fell so as to have it available for subsequent plant use; in fact, it has never occurred to us that anything could be done except to pray for more rain.

Is Afraid of Water

The average farmer is intensely afraid of water. He will not acknowledge it, but it is a fact nevertheless. A week of wet weather that keeps him out of the field makes a more lasting impression on his mind than does weeks of scorching sun and burning crops. He will spend his last dollar in court to keep his neighbor or his highway engineer from turning a little additional water into his fields.

The time is coming when this will be reversed. Farmers in some sections are already contending for the water that comes off the highways and upper catchments and are diverting it on to their lands and spreading it over their cultivated areas with splendid success. One of these farmers who had been increasing his effective rainfall during dry years by 3 to 5 inches, and doubling his yield, by use of runoff from his neighbor's farm, said at a public meeting on water conservation "Yea—Boy, it pays to know your water."

In the spring of 1926 the Texas Agricultural Experiment Station outlined a project which was approved by the Office of Experiment Stations, United States Department of Agriculture, to study the factors contributing to runoff. Erosion was not mentioned in that project. It was not considered as a major problem for Western Texas, a region that has an annual rainfall of only 22 inches. However, with the first 27 inches of rainfall, after the equipment for measuring the losses were installed, it was found that 40 tons of soil an acre were eroded from a fallowed plat having a 2 per cent gradient. The average for this plat for three years has been 22 tons annually, and this with less than normal rainfall.

The results obtained from a study of the factors influencing runoff has exceeded all expectations. The findings have been illuminating to those conducting the studies and to thousands who have become familiar with the results directly and indirectly. The studies, altho of a preliminary nature, have pointed definitely to larger crop yields thru the saving of rain drops and to the conservation of soil thru the prevention of runoff. It is a simple process! a workable procedure; one that is grasped readily by all classes.

Needs Sufficient Rainfall

A full discussion of the 42 tentative conclusions drawn from the four-years' work would not be possible here. However, a few of the more important findings may be mentioned briefly, and anyone interested in seeing a full report of the work can ob-

tain a bulletin on the subject by writing to the Director of Experiment Stations, College Station, Texas.

The total rainfall for a region is a poor yardstick for measuring the agriculture of that section. Only a certain amount of water is needed to produce maximum crops, and when an excess occurs it sets up many complications, such as soil erosion, insect infestation, deterioration of crops in the fields, extra labor in suppressing weed growth and numerous other costly results. An ideal farming country is one that has sufficient rainfall but not an excess. It is possible to increase the amount of effective rainfall by preventing runoff.

Seasonal rainfall is much more important than the total rainfall. Localities, and even regions, with annual rainfall around 40 inches frequently have crops to suffer for lack of moisture in mid-summer. Other sections with only 18 to 20 inches annually have sufficient rainfall, as it occurs at the season that crops are needing it. Farming under this latter condition usually is the most profitable, as the cost of production is relatively low.

Eighty-five per cent of the annual rainfall at Spur comes during the growing period of summer crops. There is a spring rain peak centering in May, a dry mid-summer, followed by another rain peak the last of August. By conserving the water from the spring rains the crop is carried thru the dry mid-summer and carried into the fruiting period in August in a thrifty condition necessary for the production of large crops. The seasonal rainfall at Spur is very similar to that thruout the Great Plains region of the United States.

Rains have been classified as effective and as ineffective. Effective rains may be defined as those that are stored in the soil and are subsequently used for plant development. Ineffective rains are those that have no value in-so-far as plant growth is concerned. Rains may be made ineffective by occurring as small isolated showers that are lost thru evaporation shortly after falling. Other rains are rendered largely ineffective thru runoff. These rains are also destructive. Still other rains occur in off-season for the crops that are to be grown, and the moisture that has been stored in the soil is lost thru evaporation, percolation, or transpiration in weed growth before the crop has an opportunity to use it. Undoubtedly much less than 50 per cent of the total rainfall is effective.

The planting dates of crops has been shoved forward so that fruiting would take place during the favorable conditions existing in August and September instead of the dry mid-summer. Crops that have shown the ability to stand thru periods of depressed rainfall and revive with the abundant rains occurring later have replaced the less dependable strains.

Terraces Have Helped Greatly

One of the most interesting factors studied is the relation of the slope of the land to runoff. The laws of physics relating to the movement of water of a soil incline are not generally and well understood. As a matter of fact the slope of the land also is not generally well understood. Level land may mean land with a gradient of less than 1 per cent to a farmer in Western Kansas and to any land with less than 10 per cent to the farmers in Eastern Kansas. Tremendous water losses have occurred from land with slopes of less than 1 per cent slope. The runoff water losses from a field having terraces built with $\frac{1}{4}$ of 1 per cent slope have been four times as large as from a similar field with level terraces. The crop yields have been 15 per cent larger on the fields having level terraces.

The nearer level the land the easier it is to save all of the water, and the more nearly perfect is the distribution. (Continued on Page 17)

A Message to Farmers



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Corn Yields Can Be Raised!

Seedbed Preparation and Cultivation Have a Close Relationship to Profits

BY S. C. SALMON

Professor of Farm Crops, Kansas State Agricultural College

THE growing of corn, so far as the more fundamental operations are concerned, has not greatly changed since the white man discovered America. Then as now the ground was cleared of vegetation and tilled before the seeds were planted. The planting was done when the ground had warmed sufficiently in the spring, and a certain amount of cultivation was practiced to control weeds. Our understanding of these various operations, however, has been greatly enlarged, so that we are now able to grow a much larger crop and produce it much more economically than has ever before been possible. The American farmer also has found it possible, because of the information at his command, to fit the methods of production to the various soils and climates that are encountered, which the Indian was not in a position to do.

These facts are more important than they may at first seem to be, and particularly so in a state such as Kansas, where the soil varies from a light sandy loam to a heavy clay, the rainfall from more than 40 inches a year to scarcely 15, and with corresponding variations in temperature, humidity, and length of the growing season. Never before has it been so important to produce crops economically, and never before has the need of doing so and the methods by which it may be accomplished been so clearly recognized. Because of the variation in conditions, as mentioned above, it is more or less necessary to consider each operation in relation to the portion of the state in which it is to be applied, as well as in relation to the other conditions that may likely be encountered.

When Planting Corn

In the Corn Belt proper corn is almost universally planted with a corn planter on ground that has been previously prepared by plowing. In Kansas this method also is followed to some extent, but by far the greater portion of the corn is listed. For the central and western parts of the state listing has certain advantages that are worthy of careful consideration. The principal ones are the ease and low cost with which the ground may be prepared and the corn planted and cultivated. Such corn stands dry weather better than that which is surface planted. It also is easier to keep the weeds under control, and there is less danger from lodging. Another advantage which is frequently not appreciated is the protection afforded the young plants in the spring against frost. This is shown clearly in experiments at the Kansas Agricultural Experiment Station, Manhattan, in 1923 and 1924, in which the two methods of planting were compared. The per cent of plants killed by frost when planted by each of three methods, including listing, is shown in the table below.

Relation of methods of planting to injury by late frost:			
Year	Listed	Surface Planted	Planted in Open Furrows
1923	10	89	85
1924	8	37	19
Average	9	63	52

It will be noted that as an average for the two seasons only 9 per cent of the listed corn was injured by frosts, while 63 per cent of that which was surface planted and 52 per cent of that planted in open furrows was killed.

In Central and Western Kansas larger yields usually are secured from listed corn, since it stands dry weather better.

The advantages, however, are not all in favor of listing. Corn planted by this method does not germinate so well and there is more danger that it will be covered by heavy dashing rains or washed out by water running down the furrows. Erosion of the land also is much more serious where the corn is listed unless the furrows are made to follow the contours of the field, which is frequently an im-

practical thing to do. Ordinarily these facts mean that listing produces a lower yield in Eastern Kansas than does surface planting and for other reasons is less satisfactory. In the experiments at Manhattan, for example, conducted for many years, there is no material difference in the average yields of listed and surface-planted corn. In wet years surface planting has given the best yields, whereas in dry years the best yields have been secured by listing.

In Shallow Furrow Planting

The shallow-furrow method of planting corn is a modification of surface planting and has several advantages over the latter method. Furrow openers, consisting of a set of disks that are attached to the shoe of the planter, open up a shallow furrow in which the corn is planted. A number of tests have been conducted by the department of agronomy of the Agricultural Experiment Station in which the shallow-furrow method of planting has been compared with ordinary surface planting. The use of the fur-

row opener increased the average yield 1.5 bushels an acre in tests covering eight years. Corn planted in this way may be cultivated easier than that which is surface planted. The spike-tooth harrow may be used with less injury, and the weeds in the row can be covered more readily by early cultivation. In fact, many of the advantages of listed corn are obtained by the use of furrow openers.

In Western Kansas, where it is necessary to cover corn deeply to prevent the drying out of the loose soil over and around the kernels, the shallow-furrow method of planting is not always practicable.

There has been developed recently for Western Kansas a method of growing corn in rows twice the usual distance apart. Two advantages are claimed for this method. The corn is said to survive the drouth better because the roots do not reach the centers between the rows until about the time the plant is in ear and most in need of water. The moisture in the center therefore serves as a reserve available for the plants when they most need it, instead of being used to produce an excessive vegetative growth which later proves detrimental. Also the 7-foot space is just sufficient for planting wheat with a drill between the rows of corn. The stalks of the latter are left to protect the wheat during the winter.

Certain experiments at the Fort Hays Branch Experiment Station and elsewhere have shown material gains both in yield of corn and of the following wheat crop by this method,

but in other cases the results have not been so good. It appears quite certain that in favorable years the yields of corn will be less by this method than when planted in the usual way. It is therefore likely that it will prove desirable only in the drier portions of the state, and more information is necessary before it can be definitely recommended for any given territory.

Results of experiments show that there is very little difference in yield from planting in hills or in drill rows where equivalent stands are obtained. The check-row method permits easier and more complete control of weeds, since the corn may be cultivated both ways. This is often very important, as continued wet periods frequently make it difficult to kill weeds in drilled corn. The general practice where corn is surface planted is to check-row rather than to plant in drill rows. Drilling is the more practical method where the corn is listed.

The Time to Plant

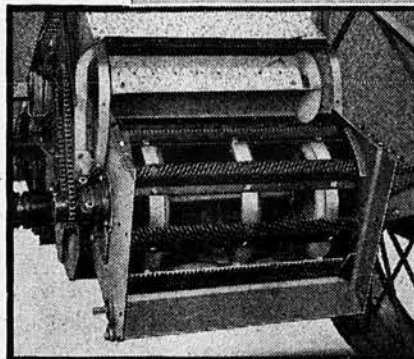
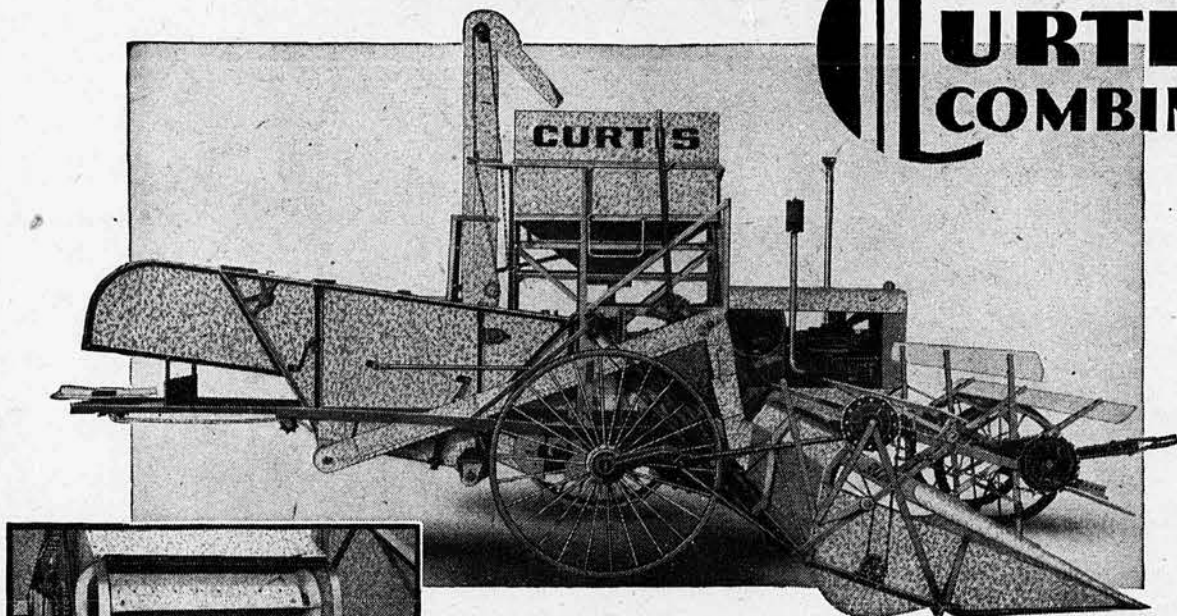
The time to plant corn varies with the season and the locality. In the western part of the state the altitude must be considered, since the seasons become shorter with increasing elevation. Under average conditions there is a period of about three weeks during which corn may be planted with equal chances of success, altho sometimes because of peculiar climatic conditions, very early or very late plantings are best.

At Manhattan corn has been planted at 10-day intervals from April 10 to June 1. In these experiments, which



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have been conducted for 11 years, there has been practically no difference in yield for any dates of planting between April 10 and May 10 except when the early planted corn has been injured by frost. This has occurred twice in the 11 years.

Relation of time and method of planting to yield of corn. (Manhattan, Kan., 1914 to 1924):

Method of Planting	April 10	April 20	May 1	May 10	May 20	June 1	Average
Listed	49.1	49.6	50.8	48.9	42.7	41.5	47.1
Surface planted	46.5	51.1	51.2	49.3	41.0	41.9	46.8
Planted in open furrows	49.6	49.0	50.7	53.1	43.7	43.0	48.2
Average	48.4	49.9	50.9	50.4	42.5	42.1	48.2

*Injured by late spring frost in 1923 and thinned to a uniform stand after the frost.

There usually has been a marked reduction in yield from planting later than May 10, altho in some seasons the best yields have been secured from planting as late as June 1.

In the vicinity of Manhattan it usually is desirable to have planting complete by May 10, and in favorable seasons it may begin as early as April 20 without material danger from late spring frosts. The most favorable dates should be earlier in Southern Kansas and later in Western and Northern Kansas.

It is a difficult matter to obtain always the proper stand of corn, for there are many factors beyond the control of the farmer that reduce the stand. The general tendency is to plant much too thick, with the hope that enough corn will survive to make a satisfactory yield. This practice is not always the best, as too often the corn is too thick for satisfactory results. If a good seedbed is prepared and seed of strong vitality is used it will be much easier to secure the proper stand.

The rate of planting should vary with the size of the variety, the fertility of the soil, and the average rainfall. A small-growing, early-maturing variety may be planted much thicker than a large-growing, late-maturing one. Likewise it should be thicker on rich bottom land than on thin uplands.

Experiments at Manhattan have given the results indicated in the next table. Pride of Saline has been used in these tests. The corn has been drilled in rows 3½ feet apart.

Relation of rate of planting to yield:

Distance Between Plants in Row	Average Yield—Bushels per Acre
12 inches	57.9
16 inches	50.7
20 inches	49.4
24 inches	48.7
28 inches	47.8
32 inches	44.9

*The year 1918 omitted.

It will be seen that spacing the kernels anywhere from 16 to 24 inches apart has made no marked difference in yield. There has, however, been a considerable difference in the size and number of ears, they being more numerous and smaller for the thicker rates. Since the cost and inconvenience of husking increases as the ears become smaller, it is evident that planting thicker than is necessary to secure the highest yield is not the best practice. It seems that on good land in Eastern Kansas the plants generally should be spaced from 16 to 18 inches apart in the drilled row, or, if check-rowed, from two to three kernels a hill.

In central Kansas spacing the plants 24 to 30 inches apart and in Western Kansas 30 to 36 inches apart is not too thin for average conditions. If corn is grown for silage somewhat thicker planting may be desirable.

Depth to Cover Corn

Corn should be planted sufficiently deep to insure the kernels being placed in moist soil without danger of drying out. The depth is governed largely by the nature of the soil, by its moisture content when the corn is planted, and by the time of planting. As a rule 1½ to 3 inches is about right. On wet, heavy soils, 1½ inches or possibly less may be sufficient, while on light, sandy soils 3 inches or more may be necessary for the best results. Deep planting is often desirable in Western Kansas to prevent the soil around the corn from drying out. Corn need not be covered so deeply early in the season as when planted late, as the ground does not dry out so rapidly at that time of the year.

The nature of the preparation of the ground for corn varies greatly according to the soil and the rainfall, as well as with the method of planting. In most parts of the state thoro and early preparation of the land before planting is a profitable practice.

Since corn can be planted with a

lister without any previous treatment, too little attention is given the preparation of the land where this method of planting is employed. The most common practice is to list the ground when the grain is planted. A better method is to cultivate the land

sufficiently previous to listing to insure control of weeds and good tilth of the soil. This may be done in various ways, the most practical, perhaps, being with a disk or a lister.

Spring disking is the most popular method of preparing ground for listed corn, and on the whole, is very satisfactory. This treatment leaves the ground in excellent condition to absorb and retain moisture, cuts up and works into the ground cornstalks and trash, kills weeds that have started, and hastens the germination of those that have not sprouted.

The time to disk in the spring depends on a number of conditions. If the alternate freezing and thawing of the ground has left the soil loose on top, disking is not necessary or advisable until a crop of weeds has started. If the ground comes out of the winter in a crusted condition, or is crusted by heavy early spring rains, it is a good plan to disk as early as the condition of the ground will permit. A second disking is often desirable if heavy rains pack the ground or a crop of weeds starts too far in advance of planting time. Disking puts the ground into better condition for listing and cultivation, and the advantage gained in this way is often sufficient to pay for the extra work even tho no increase in yield is obtained.

Fall Listing

Usually fall or early spring listing gives excellent results. Of the two, fall listing is the better practice, since it puts the land into ideal condition to absorb rain and hold snow during the winter. The ridges may be split at planting time or the corn may be planted in the old furrows.

A method that has given excellent results with sorghums in Western Kansas, and should be equally as satisfactory for corn, consists of listing in the fall and disking or harrowing the ground in the spring as soon as weeds start to grow. At planting time the lister is run in the old furrows, which by that time are partly filled with dirt worked in from the ridges. This fine, mellow earth is in excellent condition for the seed, and germination usually takes place at once and subsequent growth is rapid.

Listing early in the spring and again at planting time does not always give satisfactory results, especially if the weather is dry thruout the spring, because of the greater drying out of the surface soil. This method is sometimes used on heavy soils in Eastern Kansas.


A practice that is coming into favor rapidly in certain sections of Eastern Kansas is to list the ground late in the spring and plant in the same furrows. Where the planting is delayed for some time after the ground has been listed, the bottom of the furrow has an opportunity to become warm, and a better germination and a stronger growth of the corn is obtained. Thus one of the disadvantages of listing is avoided, while all of the advantages are retained.

Plowing for Listed Corn

Plowing either in the fall or early spring, and then planting corn with a lister, is an excellent method of preparing a seedbed for corn, provided the ground becomes sufficiently settled to permit a good job of listing. It is not a practical method, however, for Central and Western Kansas, and in general, if it is desirable to plow the ground, surface planting will give as good or better results than listing. While the method is not generally recommended it may be found useful for heavy soils in Eastern Kansas. The plowing in such cases should be shallow.

Where the corn is to be surface planted, fall or early winter plowing, as a rule, is advisable, altho exper-

(Continued on Page 17)



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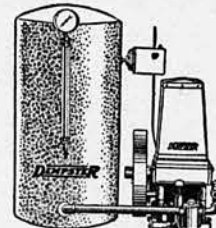
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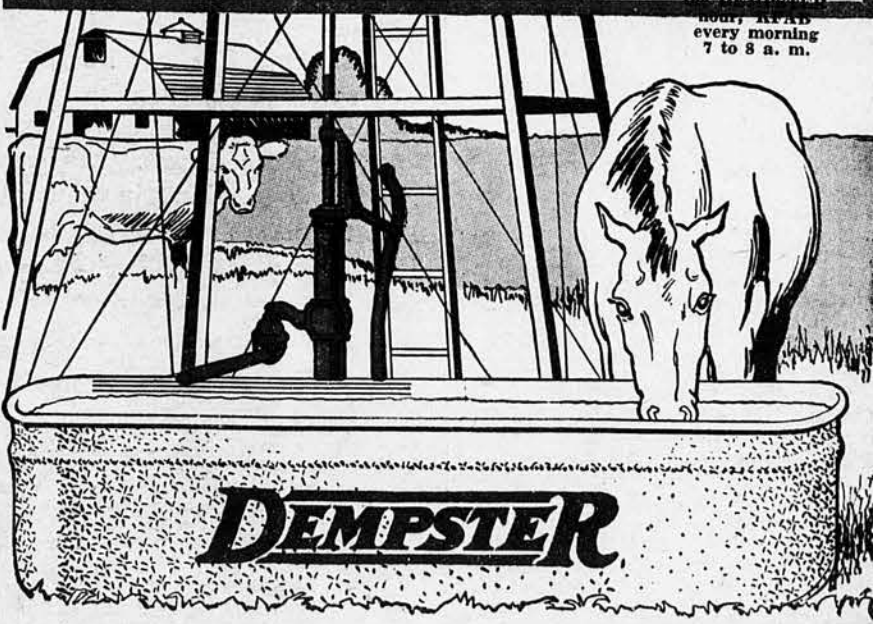
The Dependable Dempster Fig. 812 Deep Well Pump (shown at right) for operation with gas engine or electric power, forms an economical water system. Automatic when electrically driven. Requires no attention. Supplies 150 to 450 gallons of fresh, running water per hour, dependent upon size of cylinder used. All working parts fully enclosed, and run in oil. Easily installed—moderately priced. Gives homes far from water mains the advantage of city water service. (D-1)

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Moving Day Was Very Cold

Three Changes Are as Bad as a Fire; Why Not Pay Interest Instead?

BY HARLEY HATCH

MARCH 1, moving day for farm tenants, was a cold, cloudy, windy day, cold enough to freeze at night. What this freeze will do to the oats can be told later, but I have seen much harder freezes than this and the seed survived. The oats sown earliest, say around February 18, are just on the point of breaking thru the ground, which is a record for earliness so far as I know, but it may be a case of being too early. So good has been the weather for the last three weeks that nearly all tenants have moved and are established in their new quarters, but there were a number of instances where the tenants were held off until March 1 for reasons hard to find. Three moves, the old saying had it, were as bad as a fire; there is much truth in this old saying; the cost of moving farm tenants every year would amount to an enormous sum could it be rightly computed. Many folks say it is cheaper to pay rent than interest, but if a place to my liking could be found I would try to meet interest payments instead of facing a yearly move.

Share Rent is Best

In comparing cash with grain rent it has always seemed to me that in this part of Eastern Kansas, grain, or share rent, was the fairest to both owner and tenant. Cash rent works a hardship on tenants in a poor crop year; on the other hand, in some years of good crops and good prices the landowner feels that he has not received his share of prosperity. When share or grain rent is paid both parties share alike in good and bad fortune. In cases where both parties share in the expense of stock, machinery and feed and where the net receipts are divided equally, the common practice is to put the labor of the tenant against the land. This usually works out pretty equitably, but there are instances where it may not. Whether such an agreement is fair can be told by comparing a fair cash rent of the land with the amount that the labor of the tenant would be at going wages. In such agreements it is perhaps best to exclude the poultry, as the work of caring for them is much greater than for other farm property of equal value. A fair agreement would be to let the tenant have all the proceeds of the poultry, he to own and provide feed for them.

Stockmen Prefer the Sumac

A friend at Baldwin writes regarding the value of the different kinds of cane and kafir both for grain and fodder. He asks for a comparison of Orange cane with Sumac and for a comparison of Atlas cane with Black-hull kafir. Both the cane varieties mentioned have good feeding value. What most stockmen in this part of the country are coming to prefer in Sumac is that it does not grow so tall or so coarse and stands up much better. The main fault with Orange cane, especially in a wet fall, is the fact that it lodges so badly. The medium variety of Sumac does not lodge badly; in the years we have raised it we have never had it lodge so but what it would be cut in good condition. I think the feeding value of Sumac seed greater than that of Orange cane the fodder value does not differ greatly. If grain is to be the main crop, our friend had better stick to his Blackhull kafir instead of changing to Atlas, for kafir usually will outyield Atlas by 30 per cent.

Insurance Rates Are Low

The 40th annual report of the Grange insurance company, the official title of which is "The Patrons Fire, Tornado and Hail Association," contains many notes of interest not only to Grangers but to all farmers who carry insurance on real property. This company carries insurance only for members of the Kansas Grangers, and made a net gain in insurance carried during 1929 of 3 million dollars. The rates charged by this company

are a little less than half those charged by old line companies. This low rate is due to the fact that virtually all those insured own their own homes and because of this are careful of their property. There is, among these farm risks, very little moral hazard, which is the chance that the insured will fire his own property to collect an over-insurance. The Grange insurance solicitors also collect much smaller fees than do old line agents. While the rates charged by this mutual company are but half those charged by old line companies, they are sufficient to carry each year a fair amount to the surplus fund, that at this time amounts to \$290,000, which is a certain protection against an increase in rates or an assessment of members.

Tenants Had Hard Luck

There were in 1929 93 fire losses paid in this Grange mutual company, 163 lightning losses, 243 tornado losses and two losses caused by hail

damage to buildings. Of the 93 fire losses, 20 were on barns and half of these were caused by putting in hay that was damp or not cured. Of the lightning losses, 11 were on barns burned, but not one of these barns were protected by rods. The company makes this notation regarding lightning losses: not one building that was insured by the association was struck when protected by lightning rods. Of the 243 tornado and wind-storm losses, more than 75 per cent were on barns or smaller farm out-buildings, indicating that light or faulty construction was responsible for most of the loss. And now we come to a rather astonishing fact: of all the farm dwellings insured, four out of every five are occupied by the owner, while the other fifth are tenant occupied, yet the total losses paid on owner dwellings was but \$7,145, while on the one-fifth occupied by tenants the loss paid was \$11,600. This would indicate that the tenants either occupied dwellings that were old and a much greater fire risk or that carelessness played an important part.

'Tis a Loose Soil

A friend who lives in Chicago but who owns land in North Dakota writes to ask why winter wheat could not be raised in that state. This friend travels much over the West and he has noted that in the rather

severe climate of Northwest Nebraska winter wheat thrives and makes a good yield, and he asks "Why not in North Dakota?" I am not familiar with conditions in that state, but if we judge by conditions in Nebraska I should say that perhaps the soil has as much to do with it as climate. In the rather sandy district in which I formerly lived in Northern Nebraska, it was found that winterkilling of all grains and alfalfa as well was greater on the loose, porous soils than on the harder ground. Frost penetrates this loose soil to a great depth; I have known of water pipes being frozen in severe winters when laid to a depth of 6 feet. I have heard that North Dakota has a loose soil in many parts and that this soil often is dry and bare during the winters, and this probably is the cause for winterkilling of wheat. The degree of cold would not interfere with the growing of winter wheat if it had snow protection, but this it seldom has in the dry parts of North Dakota.

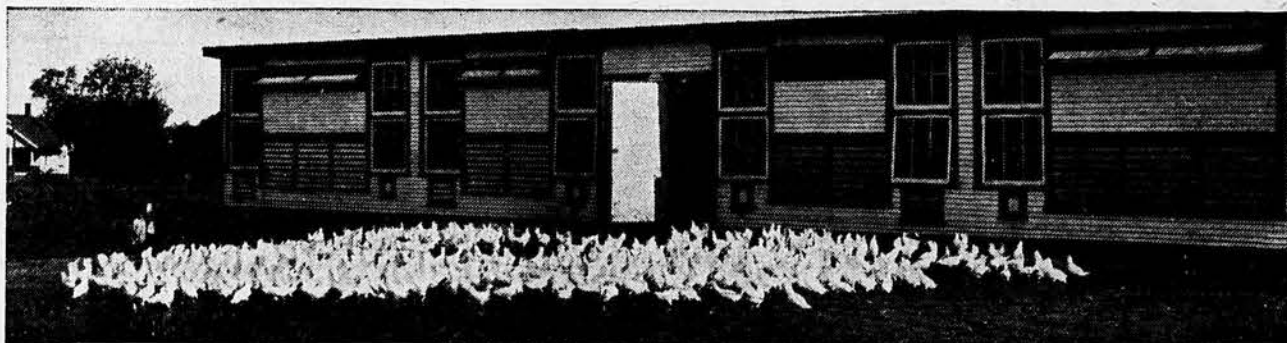
Chance to Elbow Yourself

McGinty—"I've a terrible corn on the bottom of my foot."

Pat—"That's a fine place to have it. Nobody can step on it but you."

When the buyer is made equally guilty with the seller, the police will arrest the audience when they raid an obscene show.

These pullets are part of the flock that F. E. Lewis, of Nankin, Ohio, saved out of the 1975 chicks he raised last spring. Figured at a dollar apiece, the 987 are worth \$987. He sold the roosters for \$508.95. Roosters and pullets both add up to \$1495.95. They cost him \$553.21. That's figuring feed, heat, cost of the chicks, cost of Dr. Hess Poultry Pan-a-min, cost of everything at 10 weeks. Subtracting this \$553.21 from \$1495.95 leaves him \$942.74 net profit. He gave these chicks Dr. Hess Poultry Pan-a-min regularly from the day they were old enough to eat.



1975 chicks lived... 25 died

POULTRYMAN F. E. Lewis, of Nankin, Ohio, had 2000 chicks just out of the shell on April 9 of last spring. Ten weeks later he still had 1975 of them... alive... healthy... past the danger age. He had raised all but 25 of those 2000 chicks.

He had raised more than 98% of this big brood while many poultrymen were raising only 60% and less.

These chicks were fed a good starting ration, supplied with fresh water, handled carefully... and one thing more in addition to feed and care. They received Dr. Hess Poultry Pan-a-min regularly from the time they were old enough to eat.

Dr. Hess Poultry Pan-a-min contains a

full supply of minerals which are essential to the rapid growth of feathers. It contains tonics to promote appetite, keeps chicks hungry and hearty, which enables them to resist the ravages of disease. Pan-a-min chicks live where others are dying. They grow and develop into quick profit. (See profit figures above the picture.)

Take your chicks through the doubtful weeks with Dr. Hess Poultry Pan-a-min this spring. Shield them from sickness and bad weather. It'll cost you only a penny a chick for ten weeks. It'll pay you profit in lives saved... whether you are raising two thousand or two hundred.

Dr. Hess & Clark, Inc., Ashland, Ohio

Dr. Hess Poultry PAN-A-MIN

A conditioner and mineral supplement

Corn Yields Can Be Raised!

(Continued from Page 15)

ments in general have failed to demonstrate any marked difference in yields. Land fall-plowed is more thoroughly subjected to weathering agencies during the winter, and these put the soil in better physical condition and tend to liberate larger quantities of plant food. Fall plowing also results in the destruction of any insects which are injurious to corn, and this fact alone often makes it desirable to plow in the autumn. Possibly the most important advantage of fall or winter plowing is in having it done and out of the way of spring work.

Heavy clay soils, when plowed early in the fall, may need to be plowed a second time in the spring for best results, because of the tendency of the soil to run together and become too compact. In such cases spring plowing will usually prove more profitable.

Depth of Plowing

The depth to plow varies with the nature of the soil and the time when the work is done. Deep fall plowing, that is, 7 to 8 inches, is advisable on nearly all good corn land. On thin soils, especially when the top soil has been washed away, deep plowing may not be advisable, and in some cases may be injurious. Where the ground has not been plowed previously more than 4 or 5 inches it is best to increase the depth gradually until the desired depth is reached, as turning up a considerable amount of unweathered soil may result in decreased yields the first season.

Every farmer realizes that it is necessary to cultivate corn to secure the best yields, but not everyone knows just why cultivation is beneficial. If he did, considerable labor could no doubt be saved and better yields obtained.

The reasons most frequently given for cultivating corn are to control weeds, to establish a dust mulch in order to conserve moisture, to liberate plant food in the soil, and to put the surface soil in the best condition to absorb rain. All of these are probably important at times, but in general the control of weeds is more necessary than any of the others. This fact is illustrated by experiments conducted by the Agricultural Experiment Station on the Agronomy Farm at Manhattan, in which four methods of cultivation have been compared: (1) Ordinary cultivation, that is, three or four times during the season, and the corn laid by with no further attention; (2) ordinary cultivation followed by cultivation with a one-horse cultivator during the summer as seemed to be desirable in order to mulch the soil or kill small weeds; (3) ordinary cultivation followed by cultivation with a one-horse cultivator every ten days; (4) no cultivation whatever after planting, but with the weeds removed by scraping the surface of the ground with a hoe. The results of these experiments, which have been continued for nine years, are presented here.

Yields of corn secured by four methods of cultivation:

Method of Cultivation	1914	1915	1916	Yield in Bushels per Acre	1917	1918	1919	1920	1921	1922	1923	Ave.
Ordinary cultivation	13.0	65.1	43.9	39.7	27.7	74.8	60.1	50.6	61.5	49.2		
Ordinary cultivation, followed by one-horse cultivation during summer as seemed desirable	13.4	62.0	43.3	39.5	28.1	77.5	63.9	52.9	59.6	49.2		
Ordinary cultivation, followed by one-horse cultivation every ten days during summer	11.0	58.8	43.5	39.6	24.4	76.3	64.5	52.8	58.9	48.1		
Not cultivated, weeds removed by scraping	9.2	65.0	45.3	35.1	25.7	76.0	65.7	55.4	61.0	48.4		

It is a rather surprising fact that practically no gain was secured by cultivating beyond that necessary to control weeds. It is important to note that the ground has always been in excellent condition when the corn was planted. Similar results have been secured in other states. It follows from this that if land is kept as free of weeds as is possible by good cultural methods, rotation of crops, and getting the land in good condition before planting, the cost of cultivation may be reduced very materially. Time can often be saved by harrowing the corn just before it comes up, or after it is up but before it has made sufficient growth to be injured. This may be very important when wet weather interferes with later cultivation.

Never Mind Ear-Muffs

It was necessary for taxation purposes to decide which side of the Ca-

nadian and United States border a farm, which an old lady had just purchased, actually lay. Surveyors finally announced that the farm was just on the American side of the border. The old lady smiled with relief. "I'm so glad to know that," she said. "I've heard that winters in Canada are terribly severe."

Sorgo for Sirup Making

Sugar scarcity after the World War so stimulated the manufacture of sorgo sirup as to bring about a production of nearly 50 million gallons, with a value of \$1.06 a gallon to the producer in 1920. With a normal sugar supply, production dropped to less than 25 million gallons in 1925, and increased to nearly 27 million gallons in 1928. The value to the producers in 1928 was 91.5 cents. Sorgo sirup manufacture is carried on by relatively small industrial units, and sorgo sirup is commonly used for table and cooking purposes in the states where it is manufactured, says Farmers' Bulletin 1619-F. "Sorgo for Sirup Production," just published by the United States Department of Agriculture, Washington, D. C., and now available for free distribution to those who ask the department for it.

"The adaptability of the sorgo crop to many soils and climatic conditions is noteworthy," says H. B. Cowgill of the Bureau of Plant Industry, author of the bulletin. "It is cultivated over a wide area, and is now grown to some extent in 35 or 40 states, including those with such diverse climatic conditions as Minnesota, Alabama, Indiana and New Mexico." Sorgo sirup manufacture is most important in the southern states. Sorgo is the name now applied to the sweet sorghums to distinguish them from the related sorghum plants commonly used primarily for seed or fodder.

Referring only briefly to the methods for the manufacture of sorgo sirup, which is treated more fully in another Farmers' Bulletin, Mr. Cowgill gives detailed consideration to the production of the crop, from the selection of the field and the preparation of the ground to the harvest and the selection of seed for the succeeding crop. He also comments briefly on the utilization of sorgo sirup and the by-products of manufacture, on sorgo diseases, and on insects injurious to sorgo. The suggestions are simple and non-technical.

Why Not Reduce Runoff?

(Continued from Page 12)

bution of water over the field. Many of the farmers on the Plains of Texas are now terracing their lands and contouring their rows. It appears to be only a question of time until the natural drainage of the Plains country will be dried up and be put into cultivation, as the rain water will be held on the land where it falls. The impounding of the entire rainfall has been found to be practical and profitable at the Spur Station. This saving has been accomplished thru the con-

struction of level terraces with the ends closed. There has been no water lost thru runoff from a 10-acre field during the last three years, and there has been a number of heavy rain periods during this time. Neither has there been any apparent damage to the growing crop. This field area, having the ends of level terraces closed, has produced 24 per cent more cotton over a period of two years than a similar area where the ends of level terraces were left open so water could escape during rain periods.

We are just in the kindergarten in our study of the utilization of rain water. The lessons before us to be learned are going to result in larger crops; the reduction of the risk element; and more permanently anchored acres.

The best white paint is a mixture of white lead and oil.

NEWS...For People Who Want a NEW Coffee

(PUBLISHERS PHOTO SERVICE)



WASHING AND DRYING COFFEE IN A TYPICAL CENTRAL AMERICAN MOUNTAIN FAZENDA. Unusual care is used in preparing these rare coffees for market.

Try the piquant tang and rich mellow body of coffees from the Mountains of Central America

WHEN you're tired of ordinary coffee. And you want a coffee that is *really* different—Try coffee from the mountains of Central America.

From certain high volcanic valleys along the West Coast of Central America come the choicest flavored coffees known today.

They have a winey tang, a deliciously rich mellow body that experts concede are not duplicated anywhere else in the world.

Years ago, this coffee was first served in the famous Bohemian restaurants of San Francisco. Travelers tasting it there spread its fame. From all parts of the world they wrote back for shipments. For that was the only way it could be obtained. Today, however, your grocer has it packed by Folger in flavor-tight vacuum tins.

brand of coffee to another. For over 70 per cent of all the coffee entering the United States comes from one common region—giving it the same common taste.

Nature herself makes Folger's coffee utterly different. For it is grown in a different region altogether—in the high mountains along the West Coast of Central America.

You will realize that this is no ordinary coffee with the very first rush of fragrance that comes with the opening of the tin.

The Flavor Test

Because Folger flavor is so distinctly different, we make an unusual offer. Buy a pound of this coffee today. Drink it tomorrow morning. Next morning drink the coffee you have been using. The third morning serve Folger's again. If for any reason you do not choose Folger's, your grocer will gladly refund the full price.



Native Coffee Picker in Costa Rica

Why Most Coffees Taste Alike

Ordinarily you note little real difference when you change from one

We'll pay him. That's fair, isn't it? Why not try it today? © F. C. C., 1930

FOLGER COFFEE CO.
Kansas City San Francisco Dallas

No Worms: Larger Profits!

The McLean County System of Hog Production Is Necessary Now on Kansas Farms

BY JAMES MACEY AND G. BOHSTEDT

IN THE older hog producing areas of Kansas the round worm looms up from year to year as a growing danger to profitable pork. This is because continuous production in the same lots and pastures has caused an intensity of contamination that calls for immediate measures of control. In the newer sections where trouble has been less pronounced, the same control measures will afford protection to the enlarging swine industry.

The round worm, or "ascaris lumbricoides," is one of the most injurious of swine parasites. It generally is responsible for the lack of growth and general unthriftiness of growing

Illinois the use of sanitation measures has now spread to the entire nation. Drs. B. H. Ransom and H. B. Raffensperger, of the United States Bureau of Animal Industry, were the first advocates of sanitation as a means of control, and the initial work that gave the name to this plan was instituted in McLean county, Illinois.

Because the round worm eggs are resistant to climatic changes and to ordinary means of disinfection, the four steps in the sanitation plan emphasize the need for keeping the young pigs from coming into contact with soil and filth that are harboring places for the eggs of these parasites. If hogs have been kept in lots and houses for a number of years, the eggs will be present in considerable numbers, and only extreme care in prevention will show returns for the time and effort put forth.

Four Main Steps

When early spring pigs are desired and when they must be farrowed in a central hog house, the swine grower must follow these directions:

1. Clean the farrowing pens thoroughly and scrub them out with scalding water and lye.

Cleaning the pens is a task that requires "elbow grease," and the more thoroughly the job is done the less will be the danger of worm troubles that season. The cleaning usually is done just a short time before the sows are ready to farrow. After the manure, dirt and litter have been scraped out, scalding water and lye are used to add the finishing touches. Lye is used in the water at the rate of 1 pound in 30 gallons of water. The lye does not kill the young worms in the eggs, but merely acts as a cleansing agent in the removal of the dirt where eggs are most likely to be lodged.

There may be some difficulty in cleansing the pens in the cold weather of late winter and early spring, due to freezing temperatures. Some few breeders are using portable colony houses for the early farrowings. When this is done the houses may be cleaned the fall previous if they are unoccupied during the winter. One breeder has built his colony houses with detachable floors, and the floors are used only from the time the litters are farrowed until they are placed on pasture. The floors are cleaned and stored away for another season when the houses are removed to the pasture lots.

Extensive use of disinfectants for cleansing the pens is not to be recommended, since the worm eggs are too resistant to be affected by these mixtures.

2. Clean the sows with warm water and soap just before they are placed in the clean farrowing pens.

Particular attention should be paid to cleaning the udder and sides of the sows where the young pigs come in contact with their mothers during the first few weeks of their lives. If mud and filth are not removed from the sows before they are placed in the pens they may carry a multitude of worm eggs and disease germs that would reinfest the clean farrowing quarters.

3. Haul the pigs from the clean pens to clean pastures.

The young pigs and their mothers may be moved to clean pastures any time after warm weather sets in. The use of a stone boat and crate is recommended to prevent the possibility of infection that would result if the animals were driven thru the old hog lots. Failure to use due caution during the trip from the pasture lot may nullify the effort made in cleaning the sows and pens. A sufficiently large number of worm eggs could be picked up on the bodies of the sows and pigs to cause considerable loss some weeks or months later.

4. Keep the young pigs on the clean pasture areas until they weigh 75 to 100 pounds.

After the pigs have attained from 75 to 100 pounds in weight there is

ROUND worms are still doing an immense amount of damage to the hog industry of Kansas. Most of the lots are infested badly—apparently the only successful plan is to shift to the McLean County System. Mr. Macey and Mr. Bohstedt are outstanding hog specialists with the Wisconsin Experiment Station. If the methods they suggest are used more generally in Kansas, the "mortgage lifters" should produce far more adequate returns. The article is especially timely now, as the market levels for hogs probably will be fairly satisfactory in 1930.

pigs, and also may be the cause of a large amount of damage that is not easily detected in the swine herd.

The "ascaris" develops from an egg produced by the mature worm, and passes out of the body of the older pigs in the manure. After a certain period of incubation in the soil, varying from a few weeks to a few months, depending on the weather, the egg develops to the first of the infestive stages. If swallowed by young pigs at this stage the parasite continues to grow and becomes a tiny worm.

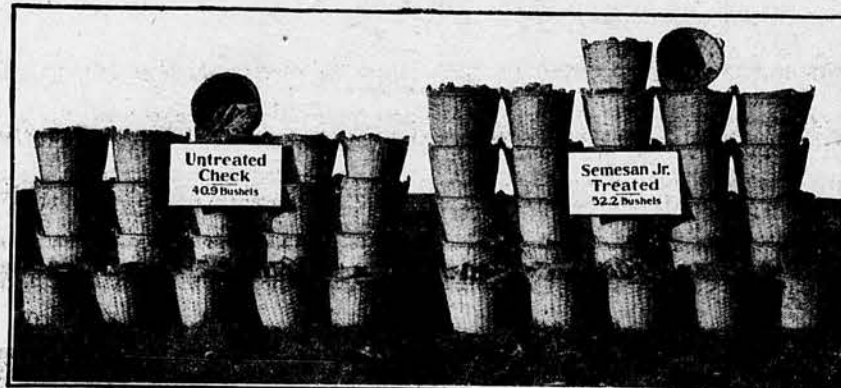
During the course of the first few weeks it follows a circuitous route in the pig's body that takes it thru the wall of the intestines, into the blood stream, thru the heart to the liver, and lungs. From the lungs the tiny worms are coughed up thru the windpipe, into the rear portion of the mouth, and are swallowed, thus finding their way back to the intestines thru the esophagus and stomach. After this trip the worm settles down to grow to maturity in the intestines, and in about 10 weeks will have reached its adult stage.

May Cause "Thump"

In this trip thru the body the ascarid may cause serious trouble in the lungs. If large numbers of the worms make the journey at one time the lungs show signs of irritation, due to the presence of the tiny worms, and such irritation may be mistaken for other disturbances. "Thumps," a name given by swine breeders to the difficult breathing so often experienced by growing pigs, frequently is nothing more than a disorder caused by the presence of these tiny ascarids. Similar irritation may result in pneumonia, with consequent losses in numbers of pigs and less rapid gains in weight. During the lung stage, treatment is an impossibility. After the worms have reached the mature intestinal stage worm expellers may be used with some degree of satisfaction, but damage that has occurred before treatment results in irreparable loss.

While large numbers of farmers are attempting to control the ascaris difficulties by treatment of the pigs after they show signs of worm infestation, the results that come from this method probably will be less successful and more expensive than the use of a program of prevention. The value of prevention has been demonstrated clearly in swine producing areas in various states, and while the foundation work was really done in

Iowa corn yields INCREASED 4.2 bushels per acre by seed treatment



In one Iowa test, Semesan Jr. seed treatment increased the corn yield 11.3 bushels per acre, as pictured above. In other tests, the yield increases averaged 4.2 bushels per acre.

Semesan Jr. prevents seed rotting Controls seed-borne diseases Improves crop quality

In Iowa, where corn production is a tremendous industry, big yields per acre are not at all unusual.

But tests conducted in 1929 by R. H. Porter of Iowa State College, prove bigger yields may be had there, and wherever the crop is grown, by easy seed treatment before planting. An average increase of 4.2 bushels per acre was obtained in these tests by seed treatment with Semesan Jr., the easily-applied dust disinfectant.

Prevents disease losses

This year, let Semesan Jr. prove to you that it will increase your crop by preventing losses by seed decay, seedling blight, and root and stalk rots. Dusted on seed corn, it kills seed-borne disease organisms before damage can begin. Semesan Jr. costs less than 3c an acre, so an increase of even a single bushel will return a good profit on your investment.

Makes early planting safer

Corn planted before May 10th brings better yields, authorities say. But when cold, wet periods follow early planting, seed corn often decays in the ground. By

protecting seed corn against rotting, Semesan Jr. assures vigorous, satisfactory stands

Semesan Jr. increases yields

In tests and in practical farm use, Semesan Jr. dust treatment so often has caused yield increases that its value cannot be doubted.

Circular 34 of the U. S. Department of Agriculture reports it increased the yield 1.9 bushels per acre on nearly disease-free seed, and by 12 bushels per acre on diseased seed.

J. T. Maish, of Indiana, writes he obtained over 10 bushels more corn per acre from strong tested seed by Semesan Jr. treatment. When used on infected seed corn in Henry County, Ill., Semesan Jr. caused an average increase of 15 bushels per acre.

Economical; quick; safe

Any farmer can afford to treat his seed corn with Semesan Jr. It costs so little—less than 3c an acre for field corn; only a trifle more for sweet corn. And treatment is just a matter of a few minutes.

All you do is dust Semesan Jr. on your corn—2 ounces to each bushel. It is harmless to seed and contains no harsh ingredients to slow up the rate of drop or clog the planter.

Ask your dealer for our new Semesan Jr. pamphlet. It is free. Or, write to Bayer-Semesan Company, Inc., 105 Hudson St., New York, N. Y.



SEMESAN JR.

REG. U. S. PAT. OFF.

Dust Disinfectant for Seed Corn

CERESAN for
Seed Grains and Cotton

SEMESAN for
Flowers and Vegetables

SEMESAN BEL
for Seed Potatoes

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to say nothing of busses, trucks, vehicles, trains, street cars and any one of these may get you tomorrow. But why worry? You can't always avoid accidents but you and every member of your family between the ages of 10 and 70 can get the protection afforded by our

\$10,000 Federal "FARMERS' SPECIAL" Automobile Travel and Pedestrian Travel Accident Insurance Policies Which We offer for But \$2.00 a Year.

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little further danger, and the young animals may be placed in more convenient quarters for finishing for market. If good pastures and good feed are provided the pigs will make rapid gains and should be ready for removal to any part of the farm by the time they reach 4 months old. It is important to remember that the greatest danger exists during the first few weeks of the youngsters' lives, and if infestation can be avoided at that time the chances are greatly in favor of having worm-free pigs at market time.

On Clean Pasture

A fact peculiar to the round worm is that if the eggs are swallowed by the young pigs immediately after they have been voided in the manure of the older hogs, the eggs pass on thru the bodies of the pigs without hatching, and are, therefore, harmless. This peculiarity makes it possible to have the brood sow remain with her litter without her becoming a source of danger to the young porkers either in the pen or after they have been placed on pasture. The eggs do not become dangerous to the growing pigs until they have been in the soil for at least a few weeks, and by that time the pigs have passed the stage of greatest susceptibility.

Portable colony houses are the most suitable shelters for the sows and litters after they have been placed in the new pasture lots. These may be built in a number of sizes and shapes to meet the needs of local conditions.

Late spring and summer litters are being reared successfully by having them born in clean pasture lots and by keeping them there until they reach a 75-pound weight. Some successful hog men merely wash off the sows and place them in the new pasture lots to farrow. They provide the sows and litters with shelter and shade thru the use of movable colony houses or temporary sheds. Fall litters that are born before cool weather sets in can be accommodated with this same type of equipment during their stay on pasture. In newer swine producing sections many breeders are avoiding the construction of central houses and are depending entirely on portable colony houses for the sows even during the winter months. By placing these houses in sheltered parts of the farm and covering them with straw and corn stalks they can be made exceptionally comfortable and convenient.

Those "Worm Expellers"

Prevention is cheaper and more effective than treatment after the worms have become evident. However, it will be a number of years, at least, before preventive measures will have won all breeders to their adoption, and in the meantime the use of so-called "worm expellers" must be tolerated. Of these, a mixture of oil of chenopodium and castor oil probably is most effective when used properly. These materials are mixed together thoroughly at the rate of 1 ounce of oil of chenopodium to 15 ounces of castor oil. A 2-ounce syringe with a large nozzle is used for administering the mixture, and about 1½ to 2 ounces are given to a 50-pound pig. This should be given after the pigs have been without feed for at least 12 hours.

Another well established remedy is a mixture of 2½ grains santonin, 1½ grains calomel, 1 dram areca nut, and ½ dram of bicarbonate of soda. This is a dose for a 50-pound pig, and should be given after the feed has been withheld for at least 12 hours. This treatment is more expensive than the chenopodium and castor oils, and should be mixed by a druggist or veterinarian, since it is not easily mixed by the unskilled stockman.

Commercial worm remedies are also known to have some value in ridding infested herds of the troublesome round worm. The use of any particular remedy should depend on its known efficiency and relative cost.

On the average farm the use of a clean farrowing pen for the sow after she has been brushed and washed, and removal of the pigs to clean pasture at the earliest convenient time, will result in healthy litters. In certain herds where large numbers of hogs are produced each year, there may be occasion for additional care in pork production.

Rotation of pastures and selection of lots that have proper drainage and that can be kept in a sanitary condition are essential factors in the prevention of filth borne disease. Elimination of the old hog wallow is a long step in the direction of disease-free young pigs. Sanitary pens, concrete feeding floors, plenty of shade, and abundance of fresh water are facilities that the owner of profitable litters must provide. It is nearly always possible to replace the wallow with shallow tanks and to furnish shade with colony houses or temporary sheds where nature failed to place trees. So also is it possible to have concrete feeding floors for the last few months of heavy feeding, or to have corn fields into which the pigs may be turned to fatten themselves during the process of "hogging down."

Where concrete feeding floors are not used there also is the possibility of shifting the feeding grounds each season to prevent an accumulation of harmful parasites. Programs of prevention outlined in this manner and

followed out year after year are valuable in checking round worm losses and in eliminating much of the trouble that arises from other parasitic organisms. Sore mouth, bullnose, and necrotic ulcers are generally the result of lack of sanitary conditions on the pork producing farm. In other words, round worm control is also, generally speaking, disease control.

Not a few breeders have been following the practice of using fall sown rye as an early pasture crop, and using peas, oats, and rape, or rape alone, for later grazing. Where fall sown rye is used for early pasture it may be followed by a seeding of rape on the same field. This permits turning the soil under each year and presents a clean surface for the grazing herd.

Where the fields are fenced to permit such rotation, hog producers also are using a four year crop rotation with clover or alfalfa for hog pasture on a different lot each season. This can be done to advantage where four fields are located in such manner that the shifting can be accomplished

without too much inconvenience. This plan affords a method of worm control on larger farms where pork production demands a more extensive layout.

Prevention is the great need in checking the inroads that parasites make in swine herds. Prevention is cheaper than any possible remedy after infestation has occurred. If proper preventive steps are taken there will be no need for further concern about the health of the young litters.

No Imagination

A Kansas man confesses to having killed the brother of his fiancée because he insisted on the repayment of \$40 the killer had borrowed from him. Oh, well, a man with such ideas wouldn't have made much of a brother-in-law.

An English clergyman predicts a war between sexes. Think how the masculine army will quail when the feminine host cries "Charge it!"

For an Easier---More Profitable Harvest.....



When you buy a Combine you naturally want a machine that will save all your crops, and do the job under adverse conditions with a minimum of expense, time, trouble, delay and labor.

You expect to get a machine that will stand the strain of the strenuous work for which it is built—a machine that provides maximum acreage at minimum expense.

Experience has proved beyond a doubt that Gleaner Baldwin Combines give all this—that because of their unique and superior design and the many modern and exclusive construction features, plus the high grade material used, there are more actual acres built into them.

Before buying a Combine study the Gleaner Baldwin construction, beginning at the rugged, all-steel frame. Note the harvester unit, the steel pan, the all-steel spiral conveyor-feeder; note the absence of friction-creating, power-consuming working parts; note the absence of canvas conveyors and feeder raddles, features, which alone make Gleaner Baldwin Combines a better buy.

Study the action of the rasped bar threshing cylinder, its unique location and application. See how the grain is threshed, without chopping and pulverizing the straw.

Note the powerful, dependable, Model "A" Ford industrial engine, with self-starter equipment. Study the type of construction which incorporates the full equipment of genuine anti-friction bearings throughout; manganese steel shafting; Alemite high pressure lubrication system; the harvester balancing control.

You will at once be impressed with the absolute simplicity of the entire machine. Note the absence of long belts, pulleys, wooden parts and gray iron sprockets. Cut steel sprockets and high-speed roller chains are on all important drives. There is no re-cleaner mechanism. The cleaner shoe and two uniquely arranged fans do a positive job of cleaning.

Gleaner Baldwin Combines provide greater separating capacity. They are easier and less expensive to operate. They are built in one of the largest and most modern Combine factories in America.

If you are interested in a detailed description of these Combines, mail the coupon today for the 1930 Gleaner Baldwin Combine catalog, then see a Gleaner Baldwin dealer for terms.

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What the Folks Are Saying

A CHANGE in the trend of beef prices may be expected during the next year or two. The cycle of beef cattle prices probably has reached its peak, and a downward trend of prices over the next few years can be expected.

The increase in the number of cattle on farms is not expected to affect market receipts before the fall of 1931. It may be even further delayed. The increase in the number of cattle probably has been as great in the Corn Belt as in the range areas. The tendency for marketing at lighter weights and as baby beef has encouraged increased production. Present supplies warrant a special study of this phase before increased production is undertaken.

Caution should be exercised not only in increasing production but also in purchasing light cattle that will not be turned for a year or two. The high level of prices for this cycle apparently has been reached, and stockmen with cattle held for long periods may feel some effect of the long time decline in prices.

George Montgomery
Manhattan, Kan.

The Greatest Farm Industry

Measured in terms of people employed, capital invested, or value produced, dairying is our greatest agricultural pursuit. The dairy industry accounts for 16 per cent of the gross income of all agricultural pursuits, including both crops and livestock.

Farm values, however, are only the beginning of the values based on dairying. There are more than 4,000 creameries, nearly 3,000 cheese factories, 300 condenseries and many thousands of ice cream factories and other milk-processing plants in the United States. Out of a part of our annual milk supply, these industrial plants turn out products valued at nearly 4 billion dollars. The annual output of the automobile factories of America is about 3½ billion dollars. The value of the output of the steel industry is less than that of the automobile factories, yet steel has been called the barometer of American business. The annual value of all the building done in the United States is less than either of the other two so-called leaders. The product of no one of the three is equal to the value of the manufactured products that are based on milk as a raw material.

One-fifth of our annual expenditures for food goes for dairy products. When we reflect on the large part which butter, cheese and clean, pure milk play in the diets of infants and adults alike, and how vitally necessary they are in the sick room, dairying becomes not only the greatest but surely the most important of all American industries.

These facts should cause some revision of our national ideas as to the importance of the humble dairy cow, and point with new significance to the statement that dairying is our greatest industry.

W. C. Farner
Washington, Kan.

Corn at Lower Costs

With farmers in practically every farming community in the country using tractors to handle their corn crop, as well as small grain, hay and belt work, one does not have to go many miles to find some good examples of rock bottom production costs.

Mechanical power has become definitely established as a means of handling larger corn acreages at lower cost, and with no decrease in acre yield.

Furthermore, power has, as one major advantage, the ability to operate for long hours. This gives timeliness in doing tasks which need to be speeded up, and also the possibility of handling greater acreages.

Characteristic of the long-hour tractor day is the case of Chris Christensen, Atlantic, Iowa, who was among the first men in that state to use a general purpose tractor. Mr. Christensen spring-plowed the entire corn acreage on his 400-acre diversified farm, with his tractor and two-bottom plow, by following this schedule: out in the field before sunrise, breakfast at 8 o'clock, while his 9-year old son sat at the wheel; and then on the

seat again until noon. About 1 o'clock, an 18-year old son relieved him for dinner, and again at supper the 9-year old boy took his shift. Mr. Christensen then stayed in the field until dark.

Following schedules such as the foregoing, or at least putting in longer hours than was customary with old equipment, farmers are able to increase their acreage or replace a large amount of horse power. In this case Mr. Christensen cut his string of horses from 14 to six.

As we mentioned before, timeliness is often an advantage of power farming. The case of a Corn Belt farmer who capitalized on timeliness comes to mind. This particular individual looked forth on a discouraging sight one June evening, just after a beating hailstorm had broken off 75 per cent of the corn leaves, and also packed the soil until it resembled a beaten path. Ensuing days of hot, dry weather nearly ruined neighboring fields, but his were saved by calling out the multiple-row tractor cultivator and keeping it in the field from early morn till dark. This was a case of cutting costs by saving the crop.

Labor cost is diminished, too. This is obvious, but worth mentioning. A few years ago, 200 acres of corn was considered a big job for two men, but

today dozens of power farmers handle not only 200 acres, but in some instances even larger areas.

Now let us see, in figures, a number of examples of how men have lowered their operating expenses. Marion File, Pocahontas, Ill., used his general-purpose tractor 410 hours in raising 125 acres of corn to harvest time. This was at a total power cost of almost exactly \$2 an acre.

Records kept on the tractor showed a total cost of \$374.87 for 613 hours of use. The following table shows how the expense was distributed, and a slight calculation reveals that the total hourly charge for the year was only 61 cents:

Kerosene	\$140.12
Gasoline	2.50
Repairs	.25
Oil	30.00
Interest, 6 per cent	52.00
Depreciation	150.00
	\$374.87

Farmers have found that interest and depreciation costs are approximately the same, regardless of the number of hours a tractor is used. By using his tractor 221 hours in addition to the 410 hours necessary to care for the corn, Mr. File was able to distribute this fixed cost over a third more time, and thus operate for a penny a minute.

Mr. File sees other advantages in his equipment, two of which are, "it doesn't eat when not at work," and "it can be driven 24 hours a day on many jobs during the rushes."

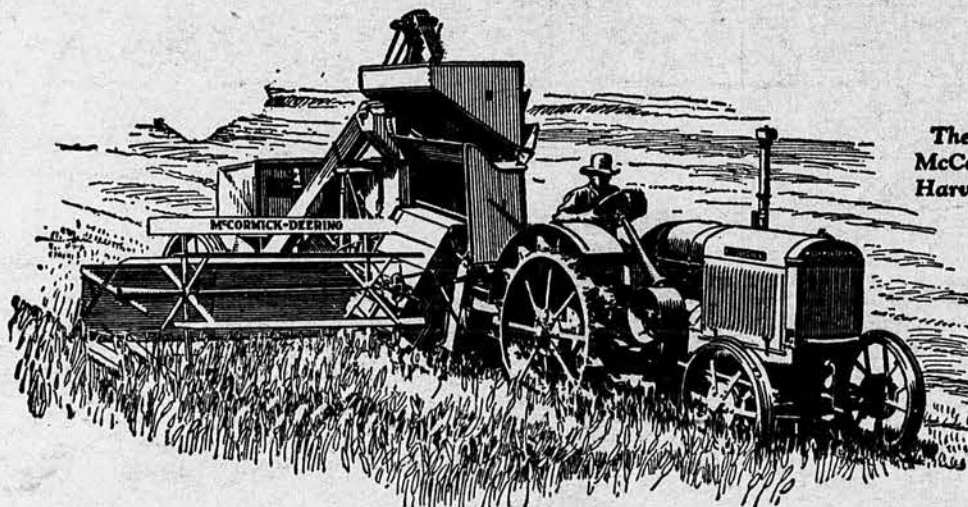
One more comparison of costs. Bryce D. Smith, Genoa, Ill., is well known for his success as a farmer. He handles a large farm with two tractors. Of the general purpose machine he says: "Our whole program for this farm is built around the general-purpose tractor. We hoe corn and soybeans at the rate of 70 acres a day. (We have done 80.)"

During the first two years, Mr. Smith used the two-crop tractor more than 2,000 hours. By August 5, 1929, it had already been in the field 622 hours for the third year. Repair expense for 2,622 hours had been only \$78; fuel costs 33 cents an hour. Making use of the tractor a thousand hours a year, as this man does, enables one to operate at a total hourly cost of less than 60 cents. Interest and depreciation are the lesser, rather than the greater charge, when the outfit is used such a large part of the time.

In the early days of corn production with power, soil preparation and cultivation were the principal jobs. Planting was done with the horse-drawn planter, while the finishing touches were being given the ground. Complete application of the row-crop tractor to corn growing is now a reality. Developments during the last year have been greater than ever.

Several announcements of the new general-purpose tractors head the list of 1929 corn growing equipment. Altho these machines are adapted to

Replace Your Old Binder With This New McCormick-Deering



The New No. 20
McCormick-Deering
Harvester-Thresher

THE man who uses an 8-ft. binder 4 or 5 days a year can now enjoy the benefits of combined harvesting and threshing with the new McCormick-Deering No. 20 Harvester-Thresher—an 8-foot combine that harvests and threshes 25 acres a day.

All the grain-saving and money-making features of the larger McCormick-Deering models—the No. 8 and No. 11—are incorporated in the No. 20. It has features of its own through which the weight of the thresher is reduced in proportion to the narrower cut.

The No. 20 can be operated through the power take-off of either the McCor-

mick-Deering 10-20 or the 15-30 Tractor. When equipped with a grain tank it is a one-man outfit. It is plenty large enough to do profitable custom work after the owner's crop is harvested.

Like the other McCormick-Deering models, the No. 20 has been thoroughly tested in the field for years. It has shown itself to be an economical and clean threshing machine—a fit companion for the No. 8 and No. 11 Harvester-Threshers.

Investigate the No. 20 and the other McCormick-Deering models at your McCormick-Deering dealer's. Write us for catalogs on this complete line of popular harvester-threshers.

INTERNATIONAL HARVESTER COMPANY

606 So. Michigan Ave.

of America
(Incorporated)

Chicago, Illinois

McCORMICK-DEERING

Popular Modern Harvester Threshers

No. 20—8-ft. cut • No. 8—10 and 12-ft. cut • No. 11—12 and 16-ft. cut

a dozen or more major crops, corn will claim the services of a great number. Adjustable rear-wheel width is one feature of several of the latest outfits. Each has its one or more outstanding features, however, with light weight but unusually great power an attribute of all. Low fuel consumption is another trait which will make for low costs.

Cultivating attachments in two, three and four-row sizes follow the same general principles now familiar to all of us. By this I mean that the complete outfit is compact and easily handled. Twenty to 40 acres a day is the ordinary day's weeding with one of these machines.

Tractor planters are a somewhat newer machine. The coming season will see them in use on a large percentage of the general-purpose outfits, however. Three and four-row widths are the usual sizes, and compactness is again a valuable feature. The operator can plant up to within a few feet of the fence row, and no more time is required in turning than if the tractor was operating by itself.

The rotary hoe continues to be a favorite with farmers, both because it is a valuable tool with corn, and also because it is so well suited to tilling soybeans and small grain. Speed is this tool's motto. Light draft, wide hookups and high gear travel are the reasons why one can cover 70 or 80 acres in a day without excess effort.

Another machine which is going to push costs down still further is the certain, and already effective, change to mechanical corn picking. Many years have passed since pickers were first used, but such a demand developed during the last season that the total number of these labor-saving machines now on our farms is perhaps 20 per cent greater than the number in use only a year ago.

Authentic reports have been received of corn growers who harvested as high as 800 bushels in one day with a two-row outfit. Eight to 10 acres a day is customary with a single-row machine, while 16 to 18 acres can be gathered with the larger type. As in other equipment, the size of one's acreage should determine which kind he should have.

Many farmers who have practiced a shrewd system of farm management, maintained soil fertility and crop yields, and marketed their products wisely, have been able to make a fair profit year in and year out. Such methods cannot be neglected with adoption of power, for it is only by recognizing all such factors in greater profits, that success can be attained.

Tudor Charles.

Chicago, Ill.

To Reduce Pig Losses

The loss of pigs at farrowing time frequently amounts to nearly 50 per cent. A considerable part of this loss can be prevented by proper feeding of sows during the gestation period, attention at farrowing time, and providing suitable quarters for the sow and litter. Raising the litter on pasture rather than around old hog lots will largely prevent trouble from worms.

F. W. Bell.

Manhattan, Kan.

Larger Farms Coming?

The average size of the farms in Western Kansas is increasing. The big use of the combine-harvester and the tractor is making a larger acreage for farms desirable. The trend toward larger farms also is evident in Eastern and Southern Kansas. It is probable that the census figures for 1930 will indicate that some material changes have taken place.

Manhattan, Kan. W. E. Grimes.

Don't Be in a Hurry!

Pastures start to become green in the spring as early as the season will let them. For some farmers and dairymen, however, the pastures never seem to be ready soon enough. The earlier the season, the sooner the cows are turned on to the pasture.

The reason for the rather general haste in turning cattle to pasture usually is that the winter's supply of hay or other roughage is gone before pasture is in good condition to receive the cows.

The well-known disadvantages of a practice of this kind are that the pasture is injured for the whole season by being eaten down too early and by

being trampled when it may be wet. Also, cows that go on pasture too early because of lack of available roughage are likely to be underfed thruout all the summer months.

On many farms where the winter's supply of hay is nearly gone, there still is a considerable amount of shock fodder available. While it is agreed that fodder at this time of the year is not equal to good hay for milk production, enough saving of the hay can be made by the use of some fodder now, so that the cows will have enough roughage to last them until the pasture has made a good spring growth.

Shock fodder this late in the season is not as palatable, nor will it be eaten with as little loss as fodder which has just been harvested. The palatability of fodder in the spring can be greatly improved, however, by grinding and mixing the ground fodder with the grain ration or with ground hay.

At the South Dakota Experiment Station, bundle corn stover was fed to dairy cattle, and it was found that

36 per cent of this feed was refused by the cows and was wasted. When the corn stover was ground for these cows, they ate it with no waste whatever. Even for fattening steers, fodder can be fed with good results if it is ground and fed mixed with the grain ration. At the Ohio Experiment Station, steers receiving half alfalfa hay and half corn stover as their roughage ration made much faster gains when this roughage was chopped or ground and fed with the grain ration than when the roughage was fed long.

At this time of the year, there is still much shock fodder in the fields. None of this feed need be wasted. If it is made more palatable, it will be consumed by cattle with no waste and can be of much value in helping the hay to last until pastures are ready.

L. H. Fairchild.

Crown Point, Ind.

Up Go the Alfalfa Yields

When alfalfa is grown on medium to thin soils in Eastern Kansas, the

addition of 150 pounds of superphosphate usually will result in higher yields. Co-operative tests with farmers have shown an increase of about 900 pounds of alfalfa an acre by this treatment. On some fields in Southeastern Kansas the increase has been as much as 1,400 pounds an acre. The superphosphate has been applied broadcast about the time growth starts in the spring.

F. D. Duley.

Manhattan, Kan.

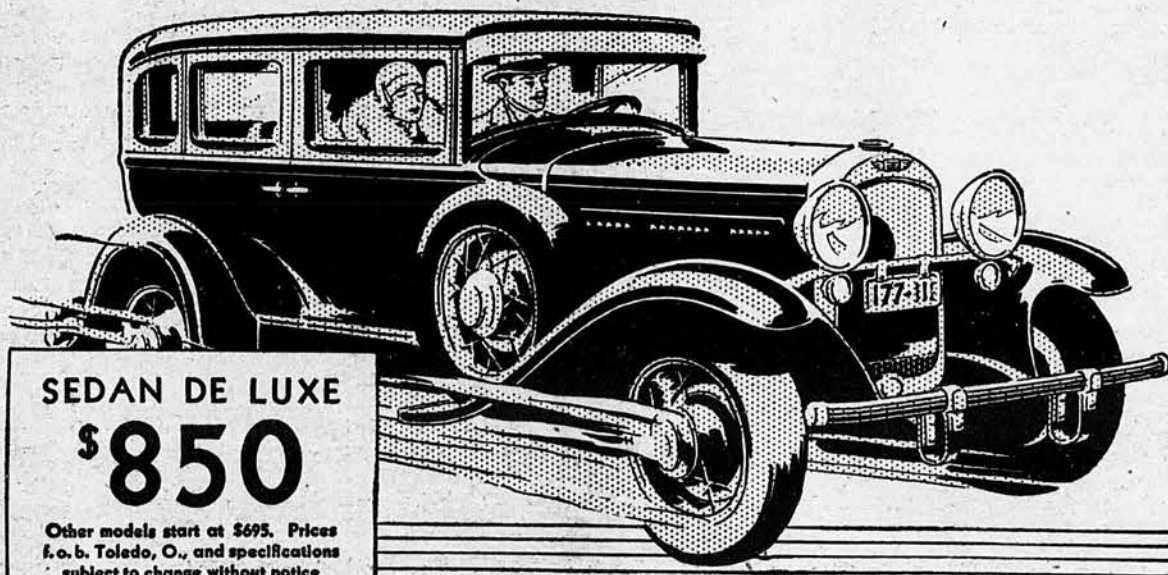
Why Not Grow Trees?

Waste land on most Kansas farms should be planted to farm woodlots. Woodlots may produce wood for home use and as a possible source of income. They tend to reduce soil erosion, and have an aesthetic value that is difficult to measure. Planting windbreaks around farmsteads, feedlots and orchards also is desirable. The program of planting more trees on Kansas farms is a co-operative project with the United States Forest Service.

William F. Pickett.

Manhattan, Kan.

72 MILES AN HOUR



48 IN SECOND GEAR
65 HORSEPOWER
INTERNAL 4-WHEEL BRAKES
RICH UPHOLSTERY
HYDRAULIC SHOCK ABSORBERS

Its performance must
be experienced to be believed!

NEW WILLYS SIX

PRODUCT OF WILLYS-OVERLAND, INC., TOLEDO, OHIO

Folks Like the "Club News"

It Leads Boys and Girls to Take Greater Interest
In Projects and Team Work.

BY J. M. PARKS
Manager, The Capper Clubs



This Group Picture, Showing the Officers of the Norton and Trego Capper Club Teams, Was Made at a Club Meeting in Norton County Last Fall. Left to Right, Dorothy Speckman (Norton); Irene Page (Norton); Elva Ruppe (Trego); J. M. Parks (Club Manager); Mrs. J. J. Wheeler (Trego); Mrs. O. F. Ruppe (Trego); Lloyd Wheeler (Trego)

SEVERAL times we have mentioned in this column that the Capper Club News, our little club paper, would be sent free every week to any person who is interested enough in club work to ask for it. We have received many requests of this kind, and the offer holds good until April 15, the close of the enrollment period for 1930. Don't wait until it's too late. Just write to the club manager and say, "Put my name on the mailing list of the Capper Club News." And while you're writing, give the names of any of your friends for whom you would like to do a good turn.

You cannot become fully acquainted with the Capper Club activities by reading only the articles that appear in Kansas Farmer. Here we can publish only two columns a week. The Capper Club News contains from 10 to 12 pages a week. Nearly all of the reading matter and pictures are furnished by club members. There are stories of club projects, jokes, news items, reports of club meetings, poems and friendly letters. It will give to you just what you require to make you feel better acquainted with other Kansas boys and girls, and, above all, to have a greater desire to make a success of whatever you attempt to do.

Of course, you may not think as others do, but we're going to let several of our readers speak for themselves. We did not ask them to say nice things about the Club News. The following statements were made just because the writers feel that way about it.

Prof. J. L. Jacobson, vocational agriculture instructor at Berryton, says that the Capper Club News is the best paper of its kind that comes to his school. It was the means of get-

ting the Berryton students interested in Capper Club work, and now they have an active team of 16 members, most of them Future Farmers.

"W. O'Connell, county agent for Marshall county, was in our home last evening and expressed a wish to receive the Capper Club News to get new ideas for the bulletins and cartoons that he sends out from his office. He was much impressed with the News. We have all of the recent copies on file and showed them to him."—Mrs. Frank Williams, 1928 winner of Mother's Cup, Marshall county.

"I must express my appreciation of the Capper Club News in its new form. It certainly is an interesting, attractive journal. It is a very fine medium thru which the Capper Club members thruout the state become acquainted with the activities of other members."—Miss Eulalie Weber, adviser for 4-H and Capper Club members, Marshall county.

"The new style Club News I like very much. We find it most interesting. Even 5-year-old Medina counts the years until she, too, may be a member of the Capper Clubs."—Mrs. J. Oscar Brown, Allen county.

"I enjoy the Capper Club News very much, and I think others would like it too, if they had a chance to read it."—Alice Shogrin, Meade county.

"I received my Club News. It's very interesting to read."—Alvin Zillinger, Rooks county.

"If all mothers on Kansas farms could see and would take time to read the Club News, they would surely persuade their children to join the Capper Clubs. Since the children write most of the contents themselves," (Continued on Page 45)

The Capper Clubs

Capper Building, Topeka, Kansas

J. M. Parks, Club Manager

I hereby make application for selection as one of the representatives of
.....county in the Capper Clubs.

I am interested in department checked:

Baby Chicks ☐ Gilt ☐ Small Pen ☐ Sow and Litter ☐ Farm Flock ☐
Dairy Calf (?) ☐ Turkey (?) ☐ Sheep (?) ☐ Bee (?) ☐ Beef Calf ☐

If chosen as a representative of my county I will carefully follow all instructions concerning the club work and will comply with the contest rules. I promise to read articles concerning club work in the Kansas Farmer and Mail and Breeze, and will make every effort to acquire information about care and feeding of my contest entry.

Signed.....Age.....

Approved.....Parent or Guardian

Postoffice.....R.F.D.....Date.....

Age Limit, Boys and Girls 10 to 21. (Mothers also may use this blank)

Fill Out This Coupon and Send It to J. M. Parks in the Capper Building, Topeka, and Get a Start for Profits in 1930

Railway Co-operation With Agriculture

Railways and farmers are the "oldest settlers" in the West. They have worked side by side in the development of our great Western states, and naturally have co-operated in their work. Such co-operation has been valuable to both railway and farmer, and the two are now working together more effectively than at any time in the past.

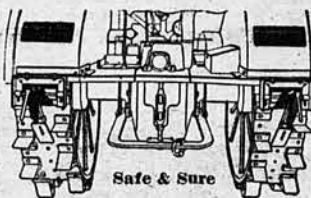
Railway co-operation with agriculture is shown in a number of ways. In the first place, railway service has been greatly improved in recent years. Car shortages have been practically done away with, and the losses formerly suffered by farmers from over-maturity of their crops and deterioration of their live stock while waiting for cars are now avoided. Freight service is faster than ever before, and the farmers' products move to market at a speed never before equalled, consequently arriving in better condition. Freight cars are in better shape and are handled more carefully, reducing loss and damage to shipments. Further, the railways are charging the lowest freight rates which will permit them to furnish the kind of service the farmer wants and needs.

Then, too, the railroads are active leaders in co-operating with state universities and other organizations to promote the welfare of the farmer. Reduced fares are granted to meetings of many farm institutes and to the short farm courses at many universities. Demonstration trains are run, showing the benefits of good seed, of better live stock, of crop rotation. Many roads maintain complete agricultural departments to co-operate with the farmers along their lines and to aid in the solution of farm problems. Others offer prizes for increased and improved production, or for the greatest improvements in farm homes. The introduction of pure-bred cattle and the distribution of seed and agricultural limestone are aided by the railroads.

The railroads in the past have adopted and followed a program of farm co-operation and assistance. This same policy will be followed in the future, as the interests of Western farmers and Western railroads are very closely connected. They are dependent on each other and neither can prosper unless the other prospers also.

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS

105 West Adams Street, Chicago, Illinois



Don't Dodge Wet Spots with—TRIP-O

No lost time when fields are wet; no slippage, no deep ruts. Trip-O Scrapers soon pay for themselves in saving of fuel, time, and repairs. Easily attached to McCormick-Deering Farmall, 10-20, 15-30, without drilling. Safe; guaranteed to please. Literature free. Lower prices. Dealers and Agents wanted.

TRIP-O SALES CO., Hannaford, N. D.

Contentment is the Surest Way to Happiness!

And you will feel much better when you have made provisions for your family. Insurance means protection, protection means assurance and contentment, contentment means happiness. This magazine offers the best insurance value you can buy—insurance that will give you the satisfaction of knowing you have made provisions for your loved ones.

\$10,000 Federal "FARMERS' SPECIAL" Automobile
Travel and Pedestrian Travel Accident Insurance
Policy for \$2.00 a year.

WRITE US FOR FULL PARTICULARS

Kansas Farmer Insurance Dept.
TOPEKA, KANSAS.



Protective Service

Membership in the Protective Service is confined to Kansas Farmer subscribers receiving mail on a Kansas rural route. Free service is given to members consisting of adjustment of claims and advice on legal, marketing, insurance and investment questions, and protection against swindlers and thieves. If you keep your subscription paid and a Protective Service sign posted, the Protective Service will pay a reward for the capture and 30 days' conviction of the thief stealing from the premises of the posted farm. Write for reward payment booklet.

Protect Your Own Interests When You Sign a Contract for Sale of Real Estate

SELECTION of an agent to handle the sale of your farm or any other piece of real estate is important. There are many reliable real estate firms that are listing and selling property and carrying on their business in a highly ethical manner. However, a few cling to the more unscrupulous methods of business as a means of making their living.

In the first place, if possible, deal with a firm with which you are acquainted or know by reputation. A local agent often is acquainted better with your property and better informed regarding the local real estate condition than a stranger, and you have in your favor the additional feature of knowing the men with whom you are dealing.

The question of whether a fee should be paid for listing your property for sale or rent is a difficult one to decide. It is one of the schemes that unscrupulous real estate brokers employ to make sure that they collect something from the prospective seller even if a sale is not made. On the other hand, some reliable firms require that a listing fee be paid to defray the cost of advertising the property to secure a buyer. It is just that they should be reimbursed for such expenditures if you are acquainted with the firm and know their methods of business you can judge for yourself whether the fee will be spent for such a purpose. If an agent has faith in your property he should be willing to spend some money in trying to find a buyer for it.

Another item to guard against is the signing of a contract that gives any firm the exclusive right to sell a piece of property over a long period of time. Use care or you may find

that you have given away your right to sell the property yourself without paying a commission to the agents. A real estate agent has a right to the exclusive privilege to sell your land over that of any other firm if he has spent time and money in advertising the property, but the time limit on this privilege should not be too long. If a firm is not having any success in finding a buyer after a reasonable time you should be able to give another firm a chance to find one.

I've Changed My Mind

BY G. M. MILLER
Cottonwood Falls, Kan.

What is a good fence worth? I do not know. I think I have a different idea in farm fencing than most farmers. My father came to the Cottonwood Valley in 1857. His first fences were rail, then hedge, stone and wire. He was a firm believer in permanent fences, well illustrated in stone fences still in use, some of them built of rock 24 inches to 6 feet long.

Of late years I have come to the conclusion that I do not want many permanent fences around my cultivated land, preferring to build temporary fences as the need arises and take them down when thru.

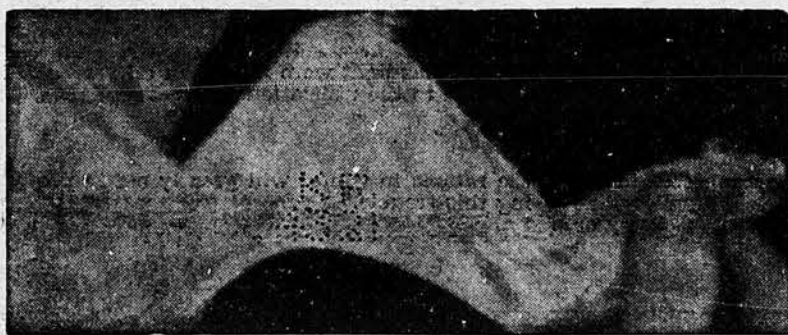
The cheapest way to build up soil is by pasturing or feeding on field. Around permanent pastures good fences are essential and cheaper, but they need not be expensive.

While bathing at a French seaside resort, an income-tax collector was attacked by a shoal of jelly-fish. Some jelly-fish evidently have more backbone than taxpayers.

Marking Poultry Insures Possession

IF POULTRY marked with Kansas Farmer's wing poultry marker is stolen and if the fowls are located, the owner can immediately recover them. One of the biggest thievery problems in Kansas is the stealing of poultry. Seldom can a farmer identify his stolen poultry after it has been sold and mixed with other poultry of the same breed. Thieves know it. Officers know it. Very probably there is not an officer in Kansas who has not faced the necessity of having to release chicken thieves because an owner could not positively identify his chickens.

Marking poultry insures recovery of the stolen birds, capture and conviction of the thief and payment of the cash Protective Service reward. More than 1,100 wing poultry markers have been bought by



Kansas Farmer Protective Service members. Every Protective Service member who owns a marker has his own individual mark registered with every sheriff in this state. Farmers make it just as easy as possible for thieves when they refuse or neglect to mark their poultry. Only two instances of the stealing of marked poultry has come to the attention of the Protective Service. It pays to mark poultry. The illustration above shows the mark that Kansas Farmer's wing poultry marker leaves in the wing of a dressed fowl. Kansas Farmer Protective Service members may obtain for \$2.75 a wing tattoo marker with enough ink to mark 100 chickens and a "Thieves Beware" sign to post near the farm entrance to warn thieves that the poultry on the posted farm is marked and that sheriffs have a record of the tattoo mark. Read the advertisement on page 40 of this issue.



"HARVEST WITH A WOOD BROS."

Your Best Harvest
Profit Insurance

BUILT IN THREE SIZES
10 foot - 12 foot - 16 foot

MANY EXCLUSIVE FEATURES

There is no combined harvester that offers more good common-sense features and advantages than the Wood Bros., such as—

- Impeller Feed
- Patented Rotary Grates
- Rotary Straw Racks
- Overshot Cylinder
- Patented Straw Divider
- Larger Cleaning Shoes
- No Space Wasted
- Strength with Light Draft
- Large Capacity
- Ample Power

There is A
WOOD BROS.
DEALER
Near You

WOOD BROS. COMBINE

Built by Experienced Threshermen
to Meet the Needs of Practical Grain Growers

There is no substitute for knowledge and experience. Over 44 years of leadership is back of every Wood Bros. Combine Harvester and Thresher.

Wood Brothers' Efficiency, Economy and Service have had a real meaning for thousands of grain growers in the United States and many foreign countries for nearly two generations.

That's the reason why the Wood Bros. Combine gives larger capacity with less power and up-keep cost. Its exclusive features insure your harvest. More grain saved and cleaned and more profits to you.

The Book That Leads to MORE-PROFITS-PER-ACRE FREE



Ask for our famous book on harvesting profits. See our nearest dealer, or write our factory or nearest branch. Learn how to stop your profit leaks at harvest time. Address

WOOD BROS. THRESHER CO.
Independent Manufacturers for over 40 years.
Dept. 100 Des Moines, Iowa
BRANCHES—Minneapolis, Fargo, Lincoln, Wichita, Peoria, Indianapolis, Madison, Wis., Portland, Ore., and Des Moines (at factory).

Protect Your Profits! Use CITIES SERVICE OILS AND GASOLENE



YOU work hard for your profits. Why let repair bills and excessive oil and gasolene consumption cut into them?

Cities Service Oils and Gasolene will help you protect your profits. Over 67 years of petroleum experience have been employed in producing these economical oils and gasolene. They are built to protect your ex-

pensive equipment—to keep it free from repairs—to keep it constantly on the job working for you, powerfully and economically.

For the most satisfactory operation your entire farm equipment can give, use Cities Service Oils and Gasolene exclusively.

Cities Service Oils & Gasolene

What's Ahead Now in Agriculture?

"The Optimist the Doughnut Sees, the Pessimist the Hole"

By Frank George

AGRICULTURAL historians 50 years from now are going to be puzzled at several paradoxes that occurred in the 10 years following the World War. They will read volumes about a financially embarrassed agriculture co-existent with unprecedented prosperity among industries that sell goods to farmers, and they will wonder where farmers got the money to pay for these goods. Where, for example, did farmers get the money to pay for more than 1 million tractors between 1918 and 1930?

They will read the opinions of leading agriculturists of the day that increased farming efficiency which resulted from the use of tractors, combines, corn-huskers and other machinery was in large part responsible for the so-called surplus problem, and they will wonder at an agriculture that bought more and more of farm machinery in order to dig itself deeper in the financial hole.

But regardless of these and other anachronisms, the historians will be generally agreed that the so-called agricultural depression following the World War was a great blessing in that it stimulated a laggard industry, in the industrial sense, to take stock of itself and to reorganize on a basis of equality with other industry. They will see the beginning of an industrial era in agriculture to the point where, by 1980, almost double the quantity of crops and livestock grown in 1930 will be produced with about one-half the man power used in the years following the World War.

Greater Acre Production Coming

Agriculture 50 years from now will be no more like the agriculture of today than is the agriculture of today like that of 1880. The last 100 years has been a period of extensive farming. It was cheaper to cultivate new lands than to intensify on old lands. But now we are entering on a period of intensive farming. American farmers used 58 million acres last year to produce less than 1 billion bushels of wheat, or an average of 1 acre to every 15 bushels. The day will come when they will grow 1 billion bushels of wheat on half that acreage.

With our present agricultural set-up, to be sure, half the wheat acreage in the United States could not be taken out of production. But as the demand for wheat increases, there need be no increase in the present acreage. The time will be shortly at hand when the acreage cannot be expanded, and the only way to satisfy the increasing consumption demand will be thru a greater acre production. European producers reached that condition many years ago, with the result

that today, in some countries, wheat and other grain production an acre is on the average more than double that in the United States.

Recent land utilization surveys show that practically all of our good arable land available for use without reclamation is contained in our present crop area. With the greater part of our available agricultural area already in use, and a population that is growing at the rate of 1,400,000 persons a year, the problem of productivity and soil fertility in their relation to our future food supply is becoming of increasing importance.

It is expected that the increasing demand of our steadily growing population for food will result in a level of prices that will economically justify the wider use of improved methods of

JUST what does the future hold for farming? Will the increase in the population of the United States, which now amounts to 1,400,000 persons a year, substantially raise the price levels of farm products? Mr. George is inclined to be rather optimistic. In this article, which appeared originally in Better Crops, he shows the factors that should bring this more favorable situation about. He also believes that we will presently be using better production methods.

production. That means the use of better cultivation methods; development of more suitable rotations, including the growth of legumes; more efficient use of crop residues and animal manures; greater use of commercial fertilizers, and the more common use of selected seed.

American farmers have made some progress in increasing acre yields in the last 40 years, but they have barely scratched the surface of possibilities in that direction. The statistics show that from an average of the five-year period 1885-89 to the five-year period 1920-24 the combined acreage of corn, wheat, oats and potatoes in the United States was expanded about 52 per cent, whereas the total production of these crops increased 77 per cent.

The rise in the yield of these crops during that period of 40 years made available annually during the half decade 1920-24 more than 800 million bushels of corn, wheat, oats and potatoes

more than would have been realized under the yield level prevailing at the beginning of the period. In other words, the increase in total production as a result of the rise in acre-yield level provided the population of the United States annually with about 7 bushels more of these crops per capita than would have been available under the acre-yield level of the base period 1885-89.

The larger part of this increased yield was secured for the most part in the older farming regions east of the Mississippi River, in regions that according to popular notion were "worn out." In the early decades of the last century the belief was general that virgin fertility in the older settlements was coming to an end. Crop yields were low in contrast with yields to be obtained on the cheap lands west of the Appalachians, and farm abandonment in the East was regarded as an evidence of soil deterioration. But the East, faced by the new competition from the West, launched upon a program of soil improvement, and yields began to rise.

Corn Yields Are Better

During the last 40 years there has been a marked increase in corn yields in the northern portion of the South Atlantic States. Corn yields during that period in the North Atlantic States increased from 6 to 10 bushels an acre; in the East North Central group from 6 to 12 bushels; and in the northern section of the South Atlantic States (comprising Delaware, Maryland, Virginia, West Virginia, and North Carolina) from 9 to 14 bushels an acre. The averages of the quinquennial period of 1885-89 compared with the averages during the half decade of 1920-24 in Iowa and Minnesota show increases of 6 to 8 bushels an acre.

Wheat yields for the several states have increased during the 40-year period from 5 to 6 bushels an acre in the northeastern states. There was a marked decrease in average wheat yields in Ohio and other states in the Ohio Valley during the period of 1920-24, but this was largely the result of unfavorable weather conditions during the years 1920-22, inclusive. In Kansas, despite the expansion of wheat acreage into the semi-arid portion of the state, yields have remained practically stationary for the entire 40-year period; and in Missouri, on a considerably expanded wheat area, yields have been practically stationary. The statistics of acre yields indicate that the southern part of the Corn Belt, as represented by Missouri and Eastern Kansas,

(Continued on Page 43)

Sunlight Completes the Ration

By Dr. R. M. Bethke

OF all the forces of nature, there is no other so wonderful as the mystic energy concealed in the sunlight. It is common knowledge that plants must have sunlight in order to grow. The direct rays falling on the leaf make possible the formation of sugars and starches, and from these other compounds that constitute our food stuffs are built. Nobody knows this better than the farmer. For the number of days and hours during which the golden rays of the sun fall upon his corn fields determine in part the number of bushels of corn which he gathers into his cribs and the number of dollars which he adds to his bank account. These are old facts, and we all knew that our indirect dependence for life was on the sun, for without the sun no plant life can exist, and with no plant life, animal life must ultimately cease. But who suspected that we and our animals were directly the children of the sun and that its rays play a direct part in the animal life on this globe? This is a new finding, a discovery of the Twentieth Century, and it was developed largely thru studies of a disease of animals known as "rickets."

Will Retard the Growth

Rickets is a disease which primarily affects the bone, or skeleton, of a growing animal. It is caused by a disturbance in the mineral metabolism of the growing organism. More particularly, the lime and phosphorus balance is disturbed so that lime salts are no longer deposited in the growing bones. The result is a weak and softened skeletal system which exhibits itself in weak, misshapen bones, enlargement of the ribs, and contraction of the chest, as well as retarded growth.

It is a common disease which appears only among those animals which man has been able to make captive, and upon which he has been able successfully to impose artificial conditions of environment and diet. It occurs in puppies,

lambs, kids, pigs, and less commonly among colts, calves and rabbits. It is the scourge of the poultryman with the early hatch and the winter layers, and the cause of many losses in this industry.

Codliver oil has long been recognized by the best physicians as a cure for rickets. It has been used from time immemorial as a tonic or remedy on the coast of France, Holland and England. It remained, however, for investigators in this century to show conclusively that codliver oil has the property of controlling, or regulating the assimilation and distribution of lime and phosphorus. This regulatory factor is known as the antirachitic vitamin, or more commonly as vitamin D.

Within recent years it has been conclusively shown that direct sunlight, as encountered in the open, also will control the assimilation of lime and phosphorus, and thus prevent rickets, or rickets-like conditions. Further, it is now known that only the rays of short wave lengths, or invisible rays, are active in this phenomenon of control of the deposition and retention of lime salts. Sunlight passing thru ordinary window glass is deprived of its beneficial effects, because the short or effective ultra-violet rays are absorbed. Thus, animals or birds confined in rooms lighted thru window glass are not much safer from contracting rickets, or suffering from a deficiency of antirachitic vitamin, than if they were confined in the cellar.

The presence of the antirachitic factor in foods appears to be limited. It does occur in certain fish liver oils, eggs, and in green plants, primarily legumes and grasses, and finds its equivalent in direct sunlight, or artificially produced ultra-violet light. Undoubtedly, sunlight after all is our most practical source. However, the potency of light varies, depending on the season

and the amount of smoke and dust in the air. Summer sunshine is several times as potent as winter sunshine, and the freer the atmosphere is of smoke and dust the more intense will be the light, with respect to its antirachitic properties. The use of artificially produced ultra-violet light by the stockman or poultryman usually is too expensive.

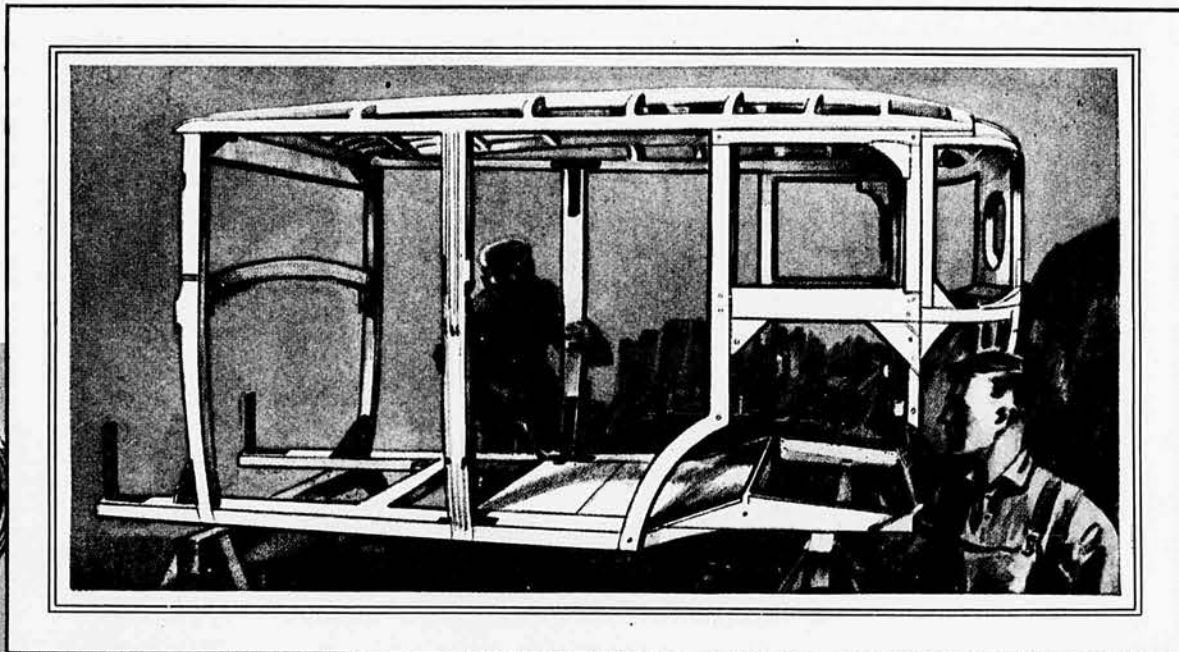
That direct sunlight is a factor in pork production has been shown in many experiments. Groups of pigs confined indoors invariably made slower gains than their litter mates receiving the same feed but in addition a daily bath of direct sunlight. Likewise, the indoor pigs exhibited signs of stiffness and paralysis, while those exposed to sunlight were normal in all respects. In addition to the utilization of direct sunlight whenever possible, the feeding of a sun-cured legume hay or meal, such as alfalfa, and providing generous quantities of calcium and phosphorus in the rations in winter will greatly aid in preventing this trouble.

Several Hours a Week Enough

The poultryman, likewise, should make use of winter sunlight whenever possible to insure good egg production and hatchability. This can be accomplished by the use of glass substitutes, which allow the passage of the ultra-violet rays, in place of window glass, and, whenever the weather permits, by opening the fronts of the houses so that the birds can "bask" in the direct rays of the sun. Experiments have shown that it is not necessary to have a daily exposure to direct sunlight. If the poultryman will manage his flocks so that his birds will be exposed to the direct rays of the sun several hours a week, good results will follow. The best ways and means of doing this is an individual problem and can best be solved by the individual himself. The poultryman, like the stockman, must become "sun-minded" if he expects to get egg production and hatchability to make his industry pay.

Into every **BODY BY FISHER** is built unusual durability and convenience

LOOK TO THE
BODY



LOOK TO THE
BODY



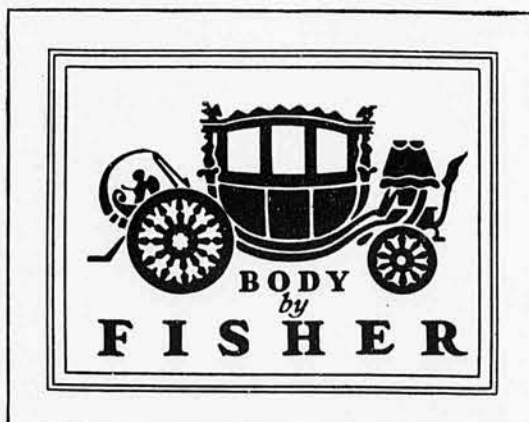
ALL Fisher Bodies are of wood-and-steel construction—the finest type of body construction known to the body building art. Enormous resources and unequalled facilities enable Fisher and General Motors to build bodies of superior wood-and-steel construction for motor cars in *all* price fields.

The framework of a Fisher Body is of selected hardwood, scientifically reinforced with powerful steel braces and covered with strong steel panels. Fisher Bodies stand up unusually well because of their structural strength and thus increase owner satisfaction and

motoring comfort. Fisher offers in addition to this greater durability many features of convenience. One of these is the adjustable front seat that may be adjusted quickly and easily to suit the convenience of the individual driver. Another, is the Fisher non-glare vision and ventilating windshield which reduces the

annoying reflections of windshield glare, permits unobstructed vision through a single pane of plate glass, and allows at the same time a thorough and scientific ventilation of the car. It may be adjusted as desired with one hand, even while the car is in motion.

When you buy a General Motors car, you make sure of this greater durability and convenience. Naturally, too, Fisher Bodies give added value and more pronounced leadership to General Motors cars, which are the *only* cars offering to the motor car buyer the important advantages of Body by Fisher.



GENERAL MOTORS



When Twilight Comes

When twilight comes, thousands of farm homes and buildings are lighted—lighted at the touch of a button—lighted by electricity, which is cleaner, cheaper, safer, and infinitely more convenient than the old methods. ¶ To be certain of the most economical and trouble-free electric service, install the G-E Wiring System and use G-E MAZDA lamps on your farm. ¶ Electricity is

bringing new profit to farms. The application of G-E motors does swiftly and cheaply hundreds of the old, slow, and tiring farm jobs. And in the farm home, electricity cooks, cleans, washes, irons, and refrigerates. ¶ If you are located on or near an electric power line, ask the power company for complete information concerning the possible uses of electricity on your farm.

Tune in on the General Electric Special Weekly Farm Program on WGY (Schenectady). In addition, join us in the "General Electric Hour" broadcast every Saturday at 9 P. M. Eastern Standard Time, on a nation-wide N. B. C. network.



Good lighting in the kitchen saves time and eyesight



Yard lighting makes your going easy and discourages marauders



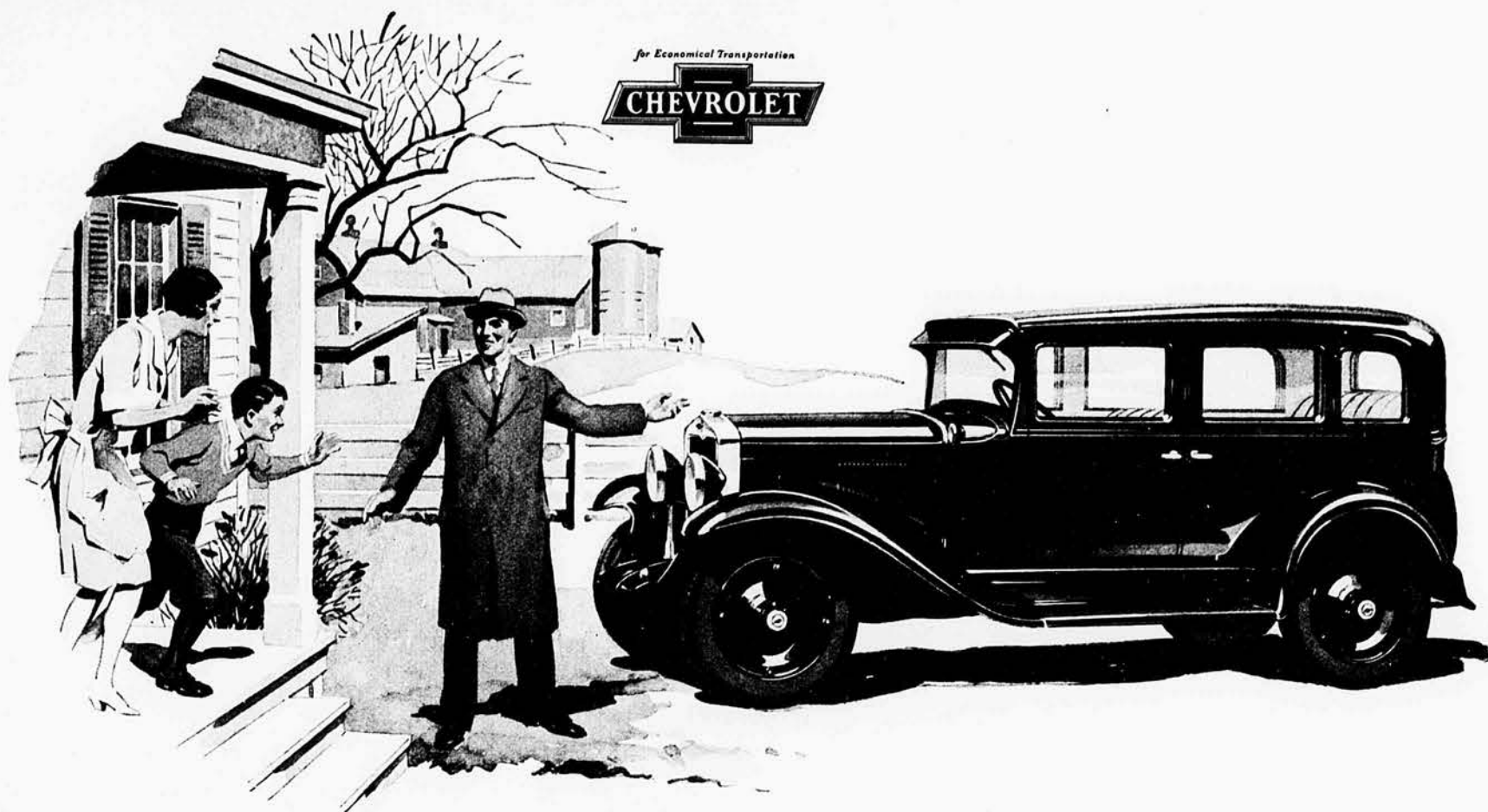
A path of friendly light between house and barn



Farm tasks are more quickly and easily done under good light

GENERAL ELECTRIC

95-632



The New CHEVROLET SIX

—more for your money than ever before

Those who seek the utmost in motoring satisfaction, at a price so low as to be within the reach of all, are invited to see and drive the new Chevrolet Six.

For, again, Chevrolet has used the savings made possible by its great volume production to build a smoother, faster, better Six—a Six that is, by every standard of comparison, the Greatest Chevrolet in Chevrolet History!

Not only does this new car retain all those basic qualities which have won for Chevrolet such great success in the past—but, in addition, it offers scores of specific improvements which vitally affect performance, comfort, safety and endurance.

Lighter, stronger pistons, with bronze bushings; fully-enclosed, internal-expanding brakes; Delco-Lovejoy hydraulic shock ab-

sorbers, both front and rear; sturdier transmission; heavier rear axle—these are typical of the engineering advancements found throughout the entire design of the car.

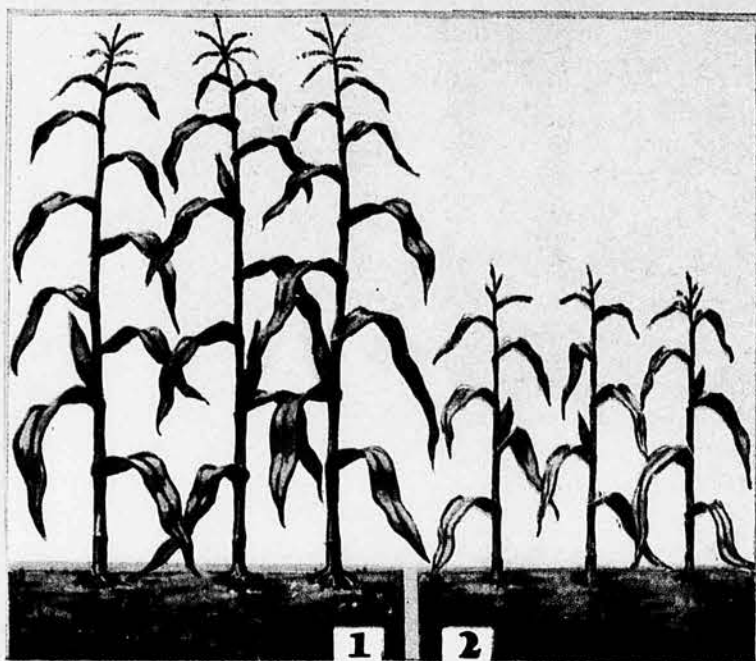
The new Fisher bodies have likewise been made better in every way. A new non-glare windshield, in all closed models, makes night driving safer and more pleasant. Upholsteries are richer and more durable. Seats are deeper and wider. A new instrument panel carries every device for perfect control of the car—including a new gasoline gauge. And construction throughout is stronger and sturdier.

But no listing of features can give you any idea of the extra quality and value provided in the new Chevrolet. You must see and drive this finer Six to learn how much more it gives for your money. Visit your Chevrolet dealer today!

Chevrolet Motor Company, Detroit, Michigan
Division of General Motors Corporation

A SIX IN THE PRICE RANGE OF THE FOUR

THE EXTRA PROCESS THAT BROKE ALL RECORDS



Fertility treatment tests made on corn by U. S. Department of Agriculture Experiment Station, showed that in plot No. 1 where a specified fertilizer was applied, the time from planting to silking was reduced by 25½ days from that of plot No. 2, which received no soil treatment. The yield was increased from an average of 11.6 bushels to 68.8 bushels per acre.

If interested in further details, write for U. S. Government information and the booklet, "The Secret of a Long Life," which will be mailed to you without charge. Address:

FIRESTONE TIRE & RUBBER COMPANY, Akron, O.
or, Los Angeles, Calif. — or, Hamilton, Ont.

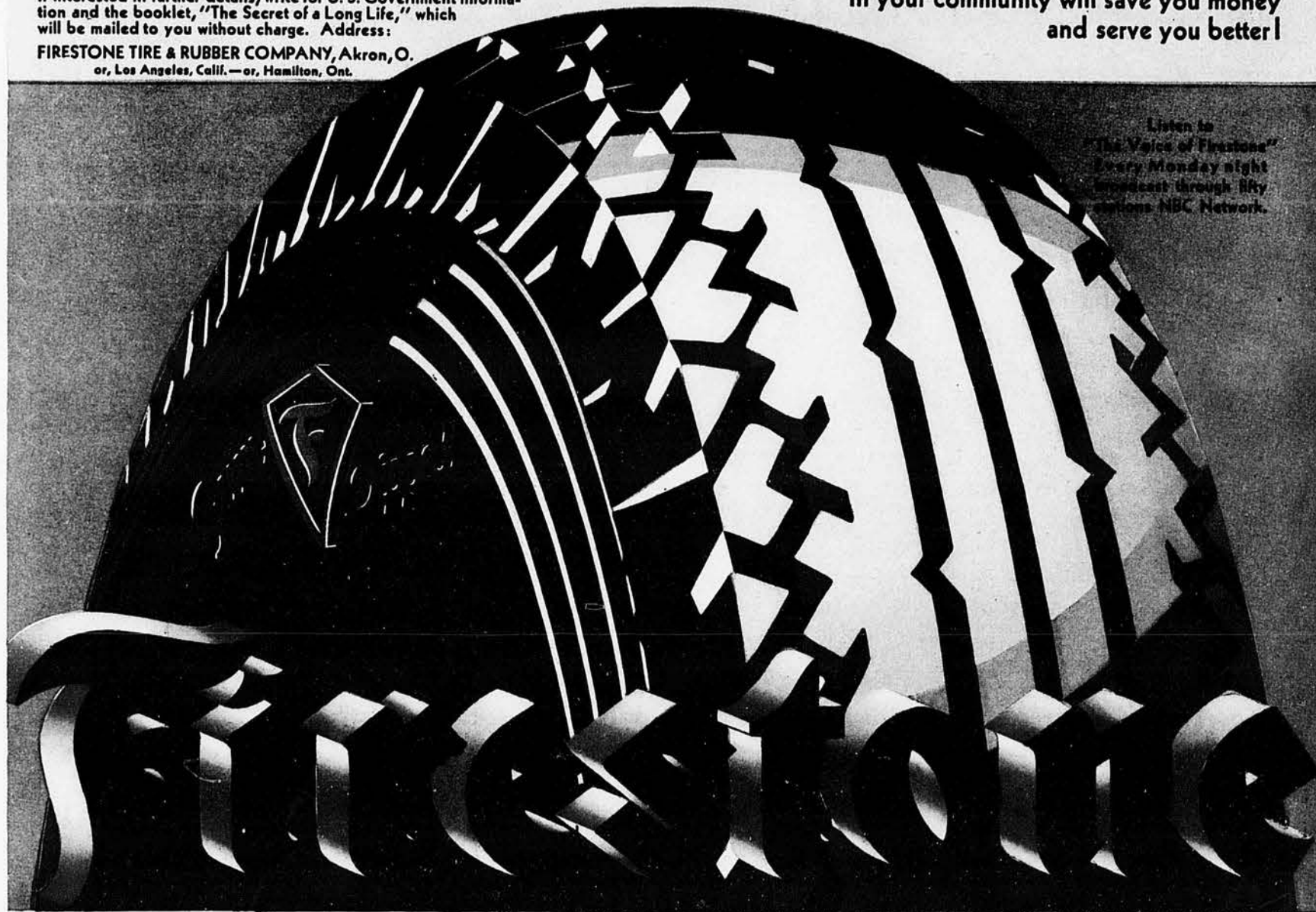
THE extra process applied to soil means the addition of certain elements that produce prize-winning crops.

The extra process applied to tires means the addition of Gum-Dipping, which doubles the flexing life of the tire, increases mileage and provides a greater degree of safety.

The size of crops which you take out of your soil will be in relation to the extra quality of the seed, the fertilization and cultivation you put into it.

In order to take more mileage out of tires, something extra must be put in. Gum-Dipping... the extra process used only in the manufacture of Firestone Gum-Dipped Tires... saturates and insulates every fiber of every thread within the individual cord with live rubber. This process minimizes friction and heat, the greatest enemy to tire life.

Insist upon Firestone Gum-Dipped Tires, built with the extra process, and assure yourself a bumper crop of extra miles of tire service at no additional cost. The Firestone dealer in your community will save you money and serve you better!



Listen to
"The Voice of Firestone"
Every Monday night
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stations NBC Network.

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Puzzle Fun for the Little Folks

USE the color of paper appropriate for your party, red and white for Valentine, green for St. Patrick, red, white and blue for Independence Day, black and orange for Hallowe'en, etc.

Cut a strip 2 inches wide of one color of crepe paper and another, 1 inch in width, of the other color. Frill ruffles by running the fingernail along the edges and paste to the underside of the plates letting them extend beyond the rim of the china. Ruffles for the glasses are made in the same way. A drawstring is then run down the center of both pieces and the ruffles tied around the center of each glass.

Hearts, shamrocks, bells, flags,



witches and black cats may be cut from paper and are very attractive when pasted to serving dishes and sherbet glasses.

Nut cups and favor holders are made by pleating heavy white paper over the bottom of muffin pans, stitching in the desired shape and covering with crepe paper, frilled on the edges.

Crepe paper streamers, pompons, Jack Horner boxes, cut out borders and table covers may be made in many different designs and colors and will add greatly to the festive spirit of any kind of party.

Won't You Write to Me?

I am 12 years old and in the seventh grade. My birthday is June 13. Have I a twin? I go to Lost Creek school. I have one mile to go. My

teacher's name is Miss Josephine. For pets I have two cats, four dogs and a pony named Daisy. I have five brothers and two sisters. I wish some of the boys and girls would write to me.

Belvue, Kan.

There Are Four of Us

I am 12 years old and in the seventh grade. I go to Stringtown school. My teacher's name is Miss Keever. I like her very well. I have three brothers. Their names are Gene, Max and Donald. My brother, Gene, and I ride a mile and a half to school. I live on a farm four miles from town. I enjoy the children's page and read it every time. I wish some of the girls and boys would write me.

Paul Cain.

Burlington, Kan.

Diamond Puzzle

1. — — — — —
2. — — — — —
3. — — — — —
4. — — — — —
5. — — — — —

1. Stands for south. 2. Have eaten. 3. To begin. 4. Before. 5. Consonant.

From the definitions given fill in dashes so that the diamond reads the same across and up and down. Send your answers to Leona Stahl, Kansas Farmer, Topeka, Kan. There will be a surprise gift each for the first 10 girls or boys sending correct answers.



"Gee, Mom! Aintcha Glad I Ain't a Girl? That Would be Awful for Both of Us, Wouldn't It?"

Can You Guess These?

Why is the history of England like a wet season? Because it is full of reigns.

What is the proper length for a young lady to wear her dress? A little above two feet.

Why is a painted lady like a pirate? She wears false colors.

Why are the Irish an uneducated

race? Because their national color is green.

What jury of twelve tries us for a year? The twelve months; they all try us.

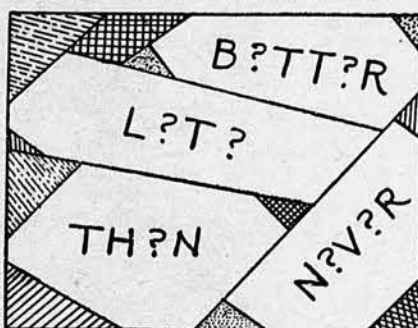
Why did the man call his rooster Robinson? Because it Crusoe.

Which has most legs, a cow or no cow? No cow has eight legs.

Why is a fretful man like a hard-baked loaf? Because he is crusty.

Why does a Negro not have the cap on his knee that a white man has? Because he has his own.

What Proverb Is This?



Supply the proper vowels in place of the question marks and find an old proverb. Send your answers to Leona Stahl, Kansas Farmer, Topeka, Kan. There will be a surprise gift each for the first 10 girls or boys sending correct answers.

Thelma Feeds the Birds

I am 14 years old, 5 feet tall and in the seventh and eighth grades. I go to the Willis grade school. My teacher's name is Miss Carlotta Halda. She is a good teacher. I have black hair and blue eyes and a fair complexion. My birthday is October 14. I have five sisters and two half brothers. Their names are Ethel, Cecile, Gladys, Imogene, Goldie, Francis and Orville. I have no pets but get great joy in feeding the birds every morning. I would like to have some other girls and boys between the ages of 14 and 17 write to me.

Willis, Kan. Thelma Johnson.

Sews for Her Dolls

I am 10 years old and in the fifth grade. My teacher's name is Miss

Brungardt. I like her very much. I have 1 mile to go to school. I am 4 feet 8 inches tall and weigh 81 pounds and have blue eyes. I have four brothers and one sister. My brothers' names are: Henry, Herman, Adam and August. My sister's name is Marie Elisabeth. She is 15 years old. Two of my brothers are married. I have two nieces. Their names are Rosa and Leone Mildred. I have no pets but I have a lot of playthings. I like to sew for my dolls. I always enjoy reading letters from boys and girls.

Pauline Bender.

Collyer, Kan.

Goes Two Miles to School

I am 8 years old and in the third grade. I have a pet dog Spot and a pony Hornet. I live 2 miles from school. My teacher's name is Myrtle Fleenor.

Carl Nelson Todd.

Whitecloud, Kan.

St. Patrick's Day Puzzle

1. What Pat mends his clothes?
2. What Pat loves his country?
3. What Pat is at the dressmaker's?
4. What Pat does sentry duty?
5. What does Pat play with the baby?
6. What Pat is a little pie?
7. What Pat is fatherly?
8. What Pat imitates raindrops?
The answer to the first question is "patch." Now I'm sure you can guess



the others. Send your answers to Leona Stahl, Kansas Farmer, Topeka, Kan. There will be a surprise gift each for the first 10 girls or boys sending correct answers.



The Hoovers—"Slow Counts" Lose Championships



Rural Health

Dr. C.H. Lerrigo.

The Modern Units of Measurement of Food Values Are Called Calories

A WOMAN who says that she is not half as much afraid to admit ignorance as to possess it, wants me to write a clear simple piece about calories. She wants to know what calories are and why they should have anything to do with being fat. "Too many calories!" her friends say. But she believes they really know no more than she about it.

The word calorie comes from the Latin "calor," which means heat. The human body may be considered as a furnace. Food is the fuel which "burned up" in the body produces energy. The fuel value of any food is measured by the amount of heat it will produce. The units of measurement are called calories. Thus it is that the food required by an individual to pep him up to his daily work may vary as to the articles used or the amount of each article. It may be one kind of food one day and another the next. The standard of calories does not vary, and so becomes the best language in which to express food requirements.

Roughly speaking, a housewife of medium size may need to eat foods amounting to 2,500 calories daily. If a big woman or one doing hard housework, she might need 3,000 calories. Her husband working long hours at farm work would perhaps need 4,500 to 5,000 calories, tho if he were a bookkeeper would need little more than the wife. Big people require more calories than small ones; those doing hard manual labor need more than those who "sit around." If you need 4,000 calories a day and persistently eat 4,500 you are likely to become fat. If needing 4,000, you eat only 3,500 your work may suffer and your body grow thin. But let no one think we can designate exactly the number of calories any given individual requires. That has to be a matter of experiment.

To give you some idea of how common foods show up in caloric value, I quote, from a table prepared by Professor Rose of Cornell University, the amounts of certain everyday foods that you will have to eat to consume of each food 100 calories: One medium sized potato; $\frac{2}{3}$ cup of cooked rice; 1 large raw apple; 2 tablespoons sugar; 2 thin slices of cooked bacon; 1 tablespoon of butter; 3 tablespoons of thin cream; 1 thick slice of un-buttered bread 3 by 3 $\frac{1}{2}$ inches; 1 $\frac{1}{2}$ medium sized egg; one slice lean beef (pot roast) 4 by 3 inches; $\frac{1}{2}$ cup of baked beans; $\frac{1}{4}$ cup of whole milk; 5 cups of shredded cabbage; 2 $\frac{1}{2}$ cups of boiled spinach. Few persons realize the number of calories in bread and potatoes.

Send a Stamped Envelope

Mrs. N. L. L. and many others: Our limited space will permit us only to reply in this column to questions of quite general interest. Letters about health questions that are purely personal will be given a reply if you give your full name and address. The best way is to enclose a stamped and addressed reply envelope with your inquiry.

Use More Codliver Oil

Please tell me what to do for my hands and feet. My feet crack till they almost bleed, are rough and they peel. My hands are cracked and are chapped all the time. I have used honey and almond creams, but with no results. Could this be some kind of disease?

P. H.
This is likely to be an eczematous condition of some kind. Possibly your diet is wrong. In such a case, I would suggest the use of cod liver oil daily, and at meals I would advise free use of butter, cream, bacon and egg yolk.

'Tis a Huge Loss

I have heard it said that people in the country are really not as healthy as those in town. Is that just talk or is it so? Can anything be done about it?

P.
I think I can answer best by giving the exact words of a recent letter

from Surgeon General Cumming: "In our rural communities there are about 1 million persons incapacitated all the time by illness, much of which is preventable; about 70 per cent of the school children are handicapped by physical defects, most of which are preventable or remediable; about 30 per cent of persons of military age are incapacitated for arduous productive labor or for general military duty, largely from preventable causes; and over 60 per cent of the men and women between 40 and 60 years old are in serious need of physical reparation, largely as a result of preventable causes. In view of these conditions, there is no room for reasonable doubt about the need for more and better rural health service in this country."

The Cover This Week

Parsons, pictures of which are featured on the front cover this week, is the ninth city in Kansas in population. It is one of the leading cities of Southeast Kansas and has played a major part in the organization of Southeast Kansas, Inc., an organization devoted primarily to the development of the dairy industry in that section of the state.

This city is the center of an agricultural section that is growing in importance as a dairy country. It is also a railroad division point and is in a prosperous trading area that makes it an important jobbing and retail trading point.

In the last two years considerable additional attention has been attracted by Parsons as the home city of Clyde M. Reed, governor of Kansas.

Tells of Ox Warbles

Veterinarians and leaders in the livestock and dairy industries are reminded that the Bureau of Entomology, United States Department of Agriculture, published about four years ago, Department Bulletin 1369-D, "The Cattle Grubs or Ox Warbles, Their Biologies and Suggestions for Control," which treats in detail of the studies and experiments by the bureau dealing with this pest. A small stock of this bulletin is still available for distribution to those who desire somewhat fuller information than is provided in the more recent popular-style, Farmers' Bulletin 1596-F, "Cattle Grubs or Heel Flies with Suggestions for Their Control," which is also obtainable on application to the Office of Information, United States Department of Agriculture.

Annual losses to the livestock industry caused by this pest, estimated at from 50 to 100 million dollars, make advisable vigorous steps for its eradication. Control on individual farms is usually advisable and profitable, but the campaign is likely to be much more effective if waged on a large scale, with eradication over a considerable area. The entomologists anticipate that in the long run it will prove necessary to conduct eradication work by areas somewhat after the methods of tick eradication in the South.

The studies reported in this bulletin afford the facts on which local control campaigns may be projected. The authors point out the desirability of many large scale demonstrations of grub eradication. Copies may be obtained from the Department of Agriculture, Washington, D. C.

"Baldness is often the badge of the successful business man," says a writer. It certainly means that he has come out on top.

That critic of Mussolini who gets a sentence of 30 years may console himself with the thought that it won't be a crime that long.

The NEW ABC—Faster, Easier, Cleaner Washing

NO one can own a more beautiful, longer lasting, faster washer than this—yet its cost is no more than you are asked to pay for the ordinary kind.

5 STAR FEATURES

- ★ Everlasting PORCELAIN tub.
- ★ Oversize, faster agitator
- ★ Soft roll wringer dryer
- ★ "Sealed-in" mechanism
- ★ 4-cycle gasoline motor

★—ABC PORCELAIN—fused on steel. Hard, non-porous, everlasting—keeps its lustrous beauty forever. Smoother than any metal, it positively prevents clothes friction—the greatest cause of clothes wear.

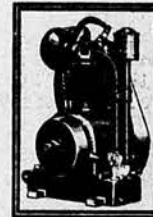
★—Big, oversize ABC agitator gives amazing speed and thoroughness. Now, bulky blankets, grimy garments, dainty lingerie are washed faster, cleaner and gentler than ever before.

★—16 position ABC swinging wringer. Self-adjusting big cushion rolls dry clothes evenly without breaking buttons or injury to finest fabrics.

★—"Sealed-in" mechanism—safe from tiny fingers. Needs no oiling.

BRIGGS and STRATTON 4-CYCLE GAS MOTOR

★—More power with only $\frac{1}{3}$ as much fuel as 2-cycle type. Same principle used in finest automobiles and tractors. Starts easily with foot lever, no hand cranking. Easy to operate; positive lubrication; economical of gasoline and oil. Constant, unfailing power, winter or summer, year after year.



ABC Companion
The PORCELAIN Washer

SEE THE 1930 ABC

Your next washer should be a lifetime investment. You owe it yourself to get highest quality at the lowest price. Send this coupon. Learn the price, free trial and time payment plan details.

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Peoria, Ill.
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Please send me your ABC folder and name of nearest dealer.
Name.....
Address.....
Town..... State.....

More Eggs Get More Feed More Eggs
WHAT CAN POULTRYMEN BELIEVE?
Better Profits More Eggs

You Can Decide by Test

You read of many ways that may make hens lay more eggs. But Reef Brand Pure Crushed Oyster Shell has been tested for you. It has helped set laying records for three years, has helped poultrymen everywhere get extra eggs of real profit. Reef Brand will give your hens needed egg-shell material. And will give you 25% more eggs with firm, strong shells.

Ask your dealer for this clean, odorless oyster shell, free of live animal matter. In 100 lb. bags; 3 1-3 and 8 1-3 lb. cartons.

You want these 4 Qualities in Oyster Shell:
Absolutely pure.
Best Layers' endorsement.
Calcium Carbonate over 99%
Digestible in 8 hrs.
Remember them; Reef Brand supplies them all.



Reef Brand
REGISTERED IN U.S. PATENT OFFICE

PURE CRUSHED OYSTER SHELL

FOR POULTRY

Gulf Crushing Co.

New Orleans, U.S.A.



After you read your Mail & Breeze, hand it to a neighbor who is not a subscriber. He, as well as you, can profit by the experience of others engaged in similar work.

Spring Frocks Are Flowered

The New Lines Are Simple, Appealing, and Easy to Achieve



FLOWERED frocks are poetic, romantic, feminine. I am glad to see them displayed in the shop windows this spring. For we need, as women, to return to the more feminine modes. Don't misunderstand me. I hope we'll never recall absurd, body cramping styles, but I do believe that all people admire the womanly woman. The trend of the spring modes are fashioned along this idea. The materials are beautiful, durable and dependable.

8230—This jacket dress will appeal to the woman of average full figure. The upper belt indicates the normal waistline, yet the lower belt has a tendency to hold the fullness snugly thru the hips. The shoulders have pin tucks. The scalloped outline of the front that closes in a deep V expresses smart femininity and lengthens its line. The skirt flares a bit. Design 8230 comes in sizes 16, 18 and 20 years and 36, 38, 40, 42, 44, 46, and 48 inches bust measure.

3062—This quaint frock features the Bertha cape collar, so popular on both dresses and coats this spring. It can be made with long or short sleeves and adapted to either classroom or party wear. Sizes 6, 8, 10 and 12 years.

3064—If you have a new dress with a hem-line that dips, you'll find that you need a slip to correspond. This is an exact copy of a smart model shown only in exclusive shops, and yet it can be made in your own home at a small cost. Style 3064 can be obtained in sizes 16 and 18 years and also in 36, 38, 40 and 42 inches bust measure. Size 36 requires 2½ yards of 39 inch material with ¼ yards of lace banding.

3131—This model makes up well in black crepe satin, using the dull surface for scarf, collar, cuffs and vestee. The long dart-fitted sleeves have smart open cuffs. Style 3131 accentuates slimmness and will make the woman of average full size appear charmingly slender. It comes in sizes 16 and 18 years and in 36, 38, 40, 42, 44 and 46 inches bust measure.

Folger Awards Are Made

TWO scholarships of \$150 each to the Kansas State Agricultural College are awarded by the J. A. Folger Company annually to the 4-H club boy and girl standing highest in leadership activities.

Leonard Rees of Dickinson county and Edith Painter of Meade county won these awards in 1929.

Leonard has been a 4-H club mem-

ber since 1925 during which time he has completed eleven different 4-H club projects. He holds the unusual distinction of having assisted in the leadership of his club ever since he first started as a 4-H club member. He has won numerous trips as a result of his club work and has been on outstanding demonstration and judging teams. The Dickinson County Who's Who 4-H club was organized by Leonard and later he was elected president. He served on the editorial staff of the "Who's Who," the annual year book of the 4-H club work in Kansas. He is active in community work, also.

Edith Painter has been a 4-H club member for eight years continuously since 1922, and has completed three years of sewing, three years of foods, and three years of leadership work. She has participated in several demonstration and judging teams. She was the Home Economics State Champion in 1925, president of the State Who's Who 4-H club in 1926, and editor of the "Who's Who" in 1928. Thru Edith's influence and leadership club work and its advantages has been brought to many farm boys and girls in her county.

These two winners are attending the Kansas State Agricultural College and will receive the benefits of their scholarships immediately. Competition for 1930 has started with assurance of a great amount of interest.

Women's Service Corner

Our Service Corner is conducted for the purpose of helping our readers solve their puzzling problems. The editor is glad to answer your questions concerning house-keeping, home making, entertaining, cooking, sewing, beauty, and so on. Send a self addressed, stamped envelope to the Women's Service Corner, Kansas Farmer and a personal reply will be given.

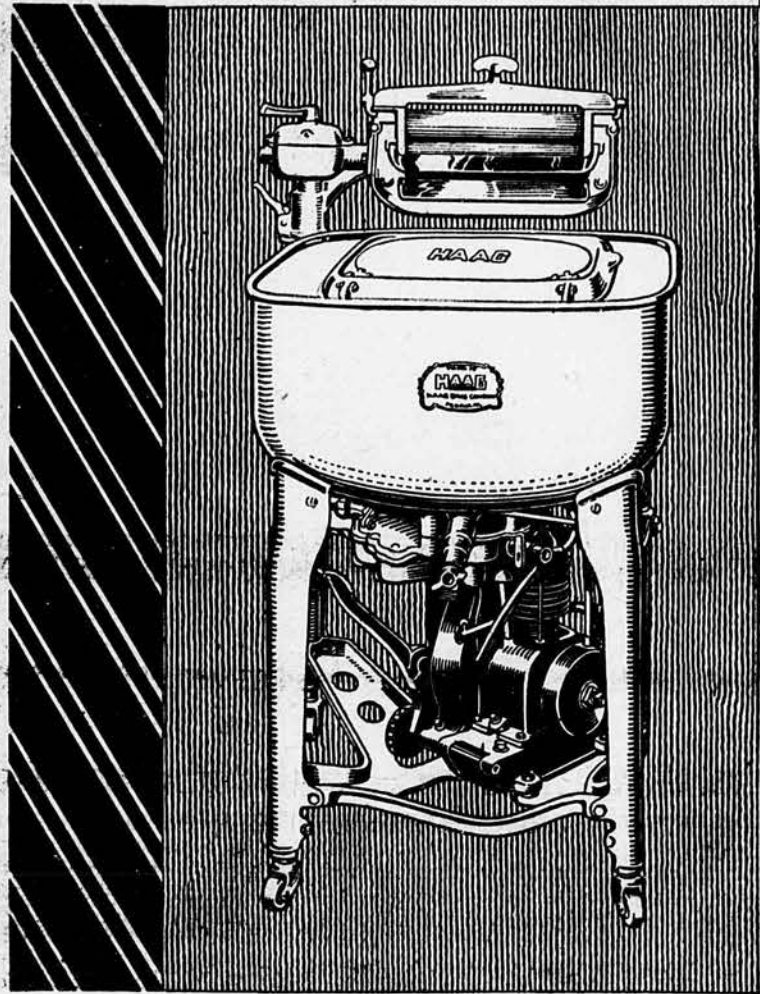
Teaching Toilet Habits

I am a young mother, and have but one child. I am so discouraged with my efforts to train this boy to the toilet. He is past 2 years of age, but seems to leave all the responsibility to me. Do you have any suggestions?
Mrs. D. L. C.

One comforting thing about your situation, Mrs. C., is that you have plenty of company. Keeping the child dry and making him enjoy being dry rather than wet has been suggested. Along with this must be constant reminders, journeys to the toilet and praise with success. I have a few other ideas that might be helpful, and will be glad to send them to you or any other young mother who may be having this difficulty. Address Woman's Service Corner, Kansas Farmer, Topeka, Kansas.

Our patterns sell for 15 cents each. The Fashion catalog is 15 cents also, except when ordered with a pattern. Then it is 10 cents. Order from the Pattern Department, Kansas Farmer, Topeka, Kansas.

Save time and work and worry



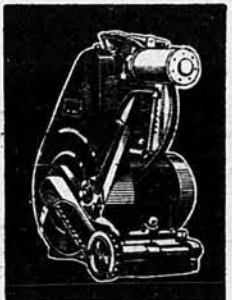
THERE is no reason why you should continue to be a wash-day slave. With a Haag Vortex 75 washer in your home you can have whiter, cleaner clothes in less time and with less work than you ever thought possible.

You don't need to have electric service to enjoy the benefits of this amazing washer. For it is powered by a built-in 4-cycle Briggs and Stratton gasoline engine, which is easy to start and which operates without trouble. The Haag 75 is also furnished with a ¼ h. p. electric motor, if desired.

Imagine how easy it would be to fill the tub of your Haag with soiled clothes, and take them out within a few minutes spotlessly clean and sweet!

Your nearest Haag dealer wants to do your next weekly washing in your home free of charge, just to demonstrate the truth of our claims. See or phone him. If you don't know his address, write us and we will tell you.

HAAG BROTHERS COMPANY
PEORIA, ILLINOIS



The Motor—

Does not require proportioning of gasoline and oil. Uses 20% less gasoline. Needs no batteries or switches. Does not leak oil.

A Few Features—

Pressed aluminum tub. Haag direct drive. Moving parts in constant oil bath, enclosed in grease-tight gear case. Patented safety agitator—cannot damage fabrics. Balloon-type (2½ in.) wringer rolls. Reversible metal wringer.

HAAG VORTEX

Do You Scorn the Lowly Paper Sack?

There Are at Least Ten Ways of Proving Its Usefulness

MY SPIRIT of thrift prompted me to fold the grocery bags that were brought into the household and carefully pile them away on the pantry shelf. Now they have become a necessary part of the household and are always in demand. I have found that they have as many uses as I have fingers.



Their first service is for use in packing cold lunches. The children prefer the paper bag since it is easily discarded. I disliked to dart into the cold to empty the garbage, and I disliked having a pan always stacked high with garbage. A heavy paper bag set in a convenient place will hold the garbage until everything is cleared away. One dash to the garbage can with the paper bag and all can be chucked in, leaving the kitchen clear. If you are afraid the bag will break, slip one bag inside another. Drain the water off the peelings so the water won't soak thru.

A paper bag slipped inside a waste paper basket will keep small particles from sifting thru the basket on to the floor.

I discovered that a heavy paper bag slipped over the electric fan and crushed and tied at the base would keep the dust out and conveniently protect the fan while in storage. The small electric heater can be protected in the same way.

The lowly paper bag will work just as well as a wet towel around vegetables. I run the water into the bag around the vegetables then crush the bag and let the extra water run out. The bag



will remain moist so long as the towel and can be discarded easily when you have finished with it.

Dry foods may be placed in paper bags and labeled so at a glance one can tell where each food is. It doesn't take more than a minute to write the names on the bags. I have a row of bags marked: rice, navy beans, butter beans, black-eyed peas, flour, sugar and so on. It is well to put the sugar bag inside another bag to keep sugar from spilling. The bags serve in the same way in the wardrobe where I have them full of odds and ends that are usually hard to find, such as darning threads, embroidery threads, lace, and so on.

Cut flowers stay in place in a deep vase if a paper bag is crushed about their stems.

Nothing will take the place of the paper bag when gardening. A heavy bag carefully tied over a potted plant will keep it from freezing even on a cold night. In gathering flower seeds the most convenient method of getting seeds from large flowers such as zinnias, and tame sunflowers, is to tie a paper bag over the flower when it starts to ripen into seed and let it finish ripening. When the flower has fallen, you can cut the stem and turn the bag up and you have all the seed carefully preserved. If you use a medium heavy bag it will take a lot of rain to break it.

There are the ten duties that I have assigned to paper bags in my household. The time they save more than pays for the space they occupy on the pantry shelf.

These Recipes Are Winners

BY NELLE G. CALLAHAN

THE art of cookie making has its origin in the days of "way back when." Judging from the many splendid recipes received it is not a lost art by any manner. There are just a few secrets in making cookies but they are important. One must be careful not to use too much flour; something that can be done easily. If the ingredients are cold the dough can be more readily handled with a smaller quantity of flour.

In making molasses cookies, or any cookies, wherein the materials are heated, it is well to let the mixture get cold before adding the flour or the cookies are apt to be stiff. All sugar cookies should be rolled as thin as possible and baked quickly. Fruit cookies and molasses cookies are

By Olive Hering Nelson

perhaps better rolled about one-fourth inch thick. They require a moderate oven.

The first prize in our cookie contest was awarded to Mrs. Emma Palmer of Riley county. The recipe follows:

Grandmother Palmer's Sugar Cookies

1 cup sour cream 2 cups sugar
butter size of an egg 2 eggs
(not too small an egg) 1/2 teaspoon salt
1 teaspoon soda Season with nutmeg

Grandmother Palmer says, "Butter the size of an egg, not too small an egg," and in testing this recipe I find that 1/4 cup butter gave me a generous sized egg.

The second prize went to Mrs. Anna Monroe, Riley county. Here is the recipe:

Mrs. Monroe's Fruit Cookies

2 cups brown sugar 1 cup shortening, half
2 eggs, beaten butter and half lard
1 teaspoon soda 1/2 cup sour milk or
1 cup English walnuts cream
1 cup quick-cook oatmeal 1/2 cup seedless raisins
1/2 teaspoon salt 4 1/4 cups flour

Mix in the order given, dissolve soda in milk, roll thin, cut in desired shapes and bake in a moderate oven.

Mary D. Curry of Greenwood county took third prize. Here is her offering:

Chocolate Drop Cookies

1 cup fat 1/2 teaspoon soda
1 cup light brown sugar 2 squares melted chocolate
1 beaten egg 1 cup chopped nuts
1/2 cup milk 1 teaspoon vanilla
1 1/2 cups flour

Cream the shortening and add the brown sugar gradually, then the well beaten egg, milk and flour, mixed and sifted with soda. Stir in the melted chocolate, chopped nuts and vanilla. Drop the mixture by spoonfuls onto a well-buttered pan 1 inch apart and bake in a moderate oven (350 degrees Fahrenheit).

Foreign recipes were received from Germany, Switzerland, Holland, Sweden, Norway, Russia and Scotland. One recipe from each of these countries is printed in the leaflet. The first prize goes to Mrs. Ethel McCracken of Brown county for her recipe which follows:

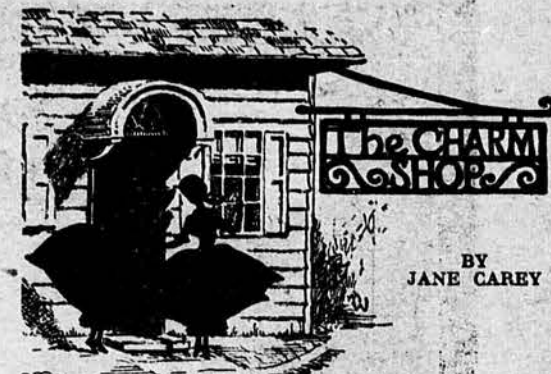
German Cookies

1/2 gallon sirup 2 pounds brown sugar
1 lemon, grated and nutmeg, cloves, cinnamon, anise, caraway
juice (1/2 ounce each)
1 pint buttermilk 1 pound butter
1 1/2 tablespoons soda 1 bar chocolate
1/2 cup citron 2 cups raisins
1 pint each of English walnuts, almonds and pecans Flour enough to make a moderately stiff dough

Let sirup come to a boil and add butter, sugar, spices, raisins, currants and citron, lemon, nuts,

milk and soda, then the flour. Let dough stand 3 days before baking. Cut in squares and bake in a moderate oven on large cookie pans. The longer they are kept the better they are. This recipe makes about 250 cookies, but it may be divided into smaller amounts.

Miss Callahan has tested all the recipes that came in the cookie contest. We have them in a leaflet which I will be glad to send you for 5 cents. Merely state that you want "Cookie Secrets" and address your request to the Home Service Department, Kansas Farmer, Topeka, Kan.



BY JANE CAREY

The Look of the Month

ARE you onto the tricks with powder? Pure white powder makes a face look unnatural, for no skin is pure white. Neither is there a pure pink skin, so a rose colored powder is out. All skins have yellow tints, but they are not always noticeable to the naked eye. A cream powder is best as a base for all complexions. By mixing flesh and pink powders with it you can obtain a powder that will match your skin perfectly.

Older women often find the skin becoming too ruddy, yet they use a pink powder. Peaches and cream is right for the florid skin; it tones down redness. For the pale complexion, be it blonde, red-head or brunette, rachel, combined with flesh, gives the cream-and-pink look. Delicate rose-tinted rouge belongs to this type.

Brunette powder with a peachy glow becomes the older woman; it is also right for a fallow skin.

I'd like, also, to call the attention of my readers to a new set of health exercises that I have worked out. They're yours, for the asking. Any beauty help is. Just write Jane Carey, The Charm Shop, Kansas Farmer, Topeka, Kan. Send postage, please.

Refinishing Old Furniture

By Ruth T. Larimer

DOES your furniture need refinishing before you clean house this spring and do you hesitate because of the expense incurred by having a refinisher do it? We purchased our furniture from second hand stores because we could not afford new. In order to make our home attractive and still keep expenses at a minimum, I refinished most of it myself.

This, at best is back-tiring labor, but now that it is finished I look at my work and feel that it has been worth while because of the improved condition of the furniture, and the money I have saved. The finish is there to last for years, and when Sonny wipes dirty little hands on it I can wash it with soap and water and wax it with paraffin oil or floor wax, without in any way marring the finish.

To get a good finish the wood must be as clean as new. The most effective way to remove old paint or varnish is the use of varnish remover. This I flow on freely with a brush and let it soak thru the wood. The old finish is wiped off with old rags. Another coat of varnish remover is applied and that is also wiped off. I am sure that every bit of the old finish is removed or the new one will look dirty. If there are any stains most of them may be removed with a paste made of oxalic acid and hot water. I do not leave this on long because it will bleach the wood. If there are

any cracks or holes they should be filled with plastic wood.

The next step is to polish the wood with sand paper until it is satiny. Now I am ready for the wood filler. Most woods require a colored filler for the pores. As soon as this filler loses its shiny appearance it is wiped off across the grain. Wiping with the grain pulls the filler from the pores.

Varnishing, to get a good effect must be carefully done. The room and varnish should be at least 70 degrees. In applying the varnish, the brush should be fairly full. I cover a small area with a fairly thick coat, and then spread it out evenly, brushing rapidly across the grain, afterward brushing lightly with the grain, using long, even strokes. Take care to run the strokes to the edge of the surface wherever possible.

Because I like a dull waxy finish best, I usually apply three coats of varnish rubbing each coat with 00 sandpaper, after it has dried thoroughly. For a shiny finish one or two coats are sufficient.

After the third coat is sanded I make a paste of pumice stone and paraffin oil and rub it thoroughly, then wipe off the paste with the oil alone.

Old finishes that not marred or checked are greatly improved by washing with soap and water to which a little ammonia or benzine is added, dried with a soft cloth and rubbed with this paste and the paraffin oil.

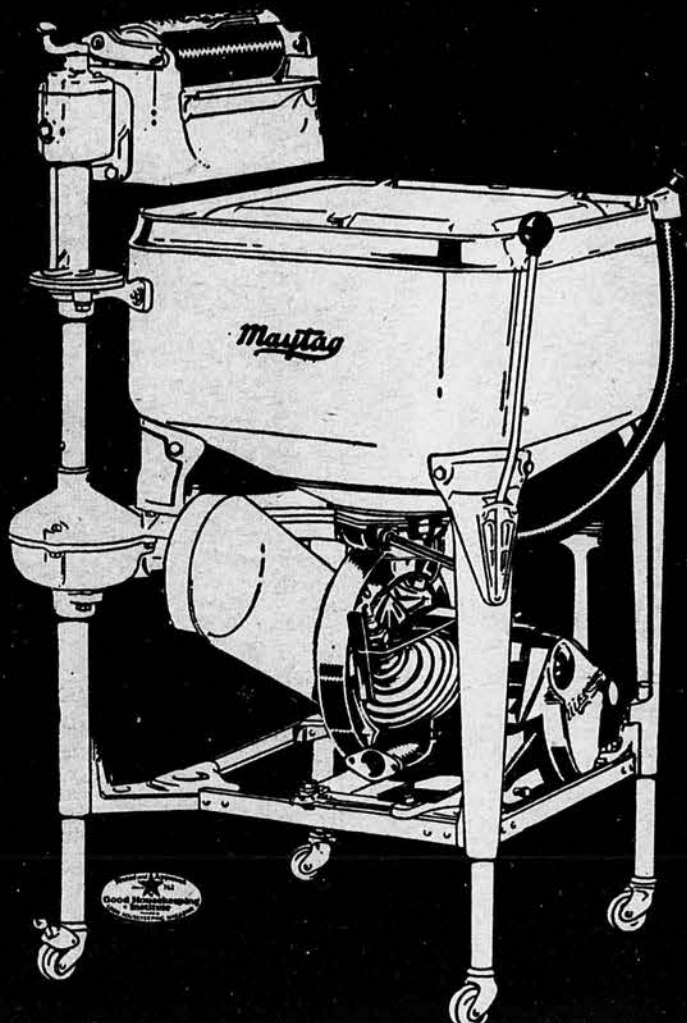
Precisely

A word is dead
When it is said,
Some say,
I say it just
Begins to live
That day.

THE GENIUS OF MAYTAG

Presents a

NEW WASHER



for Farm Homes with or without Electricity

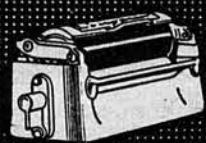
The NEW Maytag surpasses all other Maytag achievements as definitely as previous Maytags have blazed the trail of washer development. The NEW Maytag is the result of unmatched Maytag resources and equipment... product of the skill and science of the world's finest washer craftsmen. The NEW Maytag is made in the world's largest washer factory. The NEW Maytag is a \$4,500,000 product.

FOR THE FIRST TIME, a washer is equipped with a NEW one-piece, cast-aluminum tub.

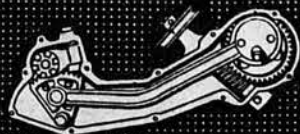
FOR THE FIRST TIME, Maytag offers a NEW Roller Water Remover with enclosed positive-action, automatic drain.

FOR THE FIRST TIME, Maytag presents a NEW, quiet, lifetime, oil-packed drive with handy NEW auto-type shift-lever.

These and other features give the latest Maytag triumph new results—new convenience, new washing ability. You must wash with the NEW Maytag to appreciate it.



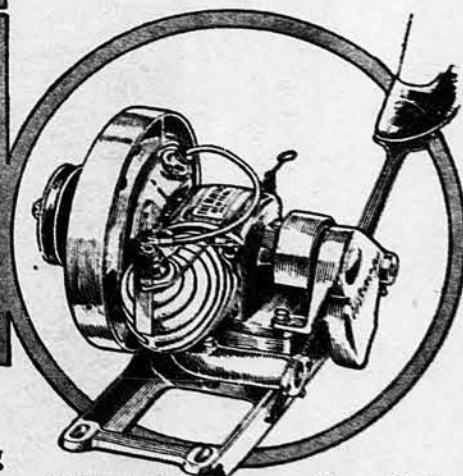
The NEW Roller Water Remover



The NEW quiet, lifetime, Oil-packed Drive



The NEW one-piece, Cast-aluminum Tub



The Gasoline Multi-Motor

This Maytag engine is interchangeable with the electric motor by removing only four bolts. It has only four moving parts, flood-proof carburetor, high grade bronze bearings, Bosch high-tension magneto and speed governor, and a new air-cleaner. "Step on It" and away it goes. Built for women to operate.

Aluminum Power Churn and Power Meat Grinder Attachments are also available with the Maytag as extra equipment.

F-3-30

FREE FOR A WEEK'S WASHING

Write or phone the nearest Maytag dealer for a NEW Maytag equipped with either an Electric Motor or gasoline Multi-Motor. If it doesn't sell itself, don't keep it. Divided payments you'll never miss.

TUNE IN on Maytag Radio Programs over N.B.C. Coast to Coast Network MONDAY Evenings 9:00 E.S.T., 8:00 C.S.T., 7:00 M.T., 6:00 P.T. WJZ, New York; KDKA, Pittsburgh; KYW, Chicago; KSTP, St. Paul; WSM, Nashville; WREN, Kansas City; KOA, Denver; KSL, Salt Lake City; WKY, Oklahoma City; KPRC, Houston; KECA, Los Angeles; KGW, Portland and 34 Associated Stations.

THE MAYTAG COMPANY, Newton, Iowa
Founded 1893
Maytag Sales Corporation,
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Branches, Distributors or Representatives in London, Berlin, Hamburg, Geneva, Genoa, Oslo, Sydney, Melbourne, Adelaide, Wellington, Buenos Aires, and other principal cities.

Maytag
Aluminum Washer

Master Farmers of 1930?

(Continued from Page 3)

A. Operation of the Farm—total of 285 points.

1. Soil Management—75 points.

For the Eastern Kansas Farmer

a. If he applies manure regularly as it is produced, or provides storage so it doesn't lose its fertilizing value, score 15 points. If he fails to do this, deduct 10 points. If he makes no use of manure, score zero.

b. If he feeds or plows under his straw, score 15 points. If he burns it or otherwise wastes straw, score zero.

c. If his soil washes and he uses Mangum terraces, soil saving dams, tile, crops or other means to prevent soil washing, score 15 points. If he makes no effort to prevent soil washing, score zero. If his soil doesn't wash, allow full score of 15 points.

d. If 25 per cent of his crop acreage is in legumes, score 15 points. Deduct accordingly as acreage of legumes falls below this percentage.

e. If he follows a definite system of crop rotation, score 15 points. If he does not follow a rotation system, score zero.

For the Wheat Belt Farmer

a. If he returns straw to the land directly or in manure, score 15 points. If he fails to do this, score zero.

b. If he practices control of soil blowing, score 15 points. If not, score zero. If soil doesn't blow, score 15 points.

c. If he practices summer fallow in lieu of crop rotation, score 15 points. If he practices alternate row cropping in lieu of summer fallow, score 10 points. If he practices neither, score zero.

d. If he grows legumes, score 15 points. If he can, but does not grow legumes, score zero. If he is beyond the legume territory, score 15 points.

e. If he follows practices equivalent to crop rotation, such as growing row crops, alternate row cropping, summer fallow, score 15 points. If he grows wheat continuously without fallow, score zero.

2. Farming Methods—25 points.

a. If he diversifies his crop production and follows a rotation; or in Western Kansas, if he follows practices equivalent thereto, score 5 points. If he fails to do this, score zero.

b. If he sows pure seed, score 5 points. If not, score zero.

c. If he sows seed of varieties adapted to his section of the state, score 5 points. If not, score zero.

d. If he practices early preparation of the seedbed, score 5 points. If not, score zero.

e. If he practices insect, pest and disease control, score 5 points. If not, score zero.

3. Man, Horse and Machine Labor—25 points.

If he has enough man, horse and machine power to do his farm work, score 25 points. If his power is deficient in any branch, such as men, horses, machinery, tractors, engines, trucks or other equipment, deduct points accordingly. If he has an excess of any power units, deduct points in accordance with what he should have.

4. Crop Yields—40 points.

If his crop yields are better than, or as good as the best in his community, fertility of his soil considered, score 40 points. If not, deduct points accordingly.

5. Livestock Management—60 points.

a. If he maintains the proper balance between livestock and crop production, score 8 points. If the number of beef cattle, dairy cattle, sheep, hogs, or laying hens is deficient in any way, deduct points accordingly.

b. If the maximum proportion of his feed crops is fed to his livestock, score 8 points. If not, deduct points accordingly.

c. If he feeds balanced rations to all classes of livestock, score 8 points. If not, score zero.

d. If he has proper housing for all classes of livestock during bad weather, score 8 points. If not, score according to what he has.

e. If he practices control of livestock parasites and diseases, score 8 points. If not, score zero.

f. If all sires are purebred, score 10 points. If not, deduct points ac-

ording to the per cent of grade or scrub sires he has. Example: If he has two sires and only one is purebred, deduct 50 per cent, allowing him only 5 points.

g. If he is receiving a net return from his milking herd, beef herd, hog herd, sheep flock, poultry flock, score 10 points. If any of his livestock projects are failing to make a profit, deduct points accordingly.

6. Tools, Machinery and Equipment—20 points.

a. If he has adequate tools, machinery and equipment to do his work efficiently and on time, score 10 points. If not, deduct points accordingly. If he is over-equipped, deduct points accordingly.

b. If he has a well-equipped repair shop, score 3 points. If not, score zero.

c. If his machinery is housed when not in use and is kept in good repair, score 7 points. If not, deduct points accordingly.

7. Field Arrangements—20 points.

If his fields are so arranged as to conserve time and labor in tilling, cultivating and other operations, score 20 points. If not, deduct points accordingly.

8. Farmstead Arrangement—20 points.

If his farm buildings are arranged so as to save time in doing chores, located so as to save time in going to and from the fields, and arranged so as to insure sanitation, score 20 points. If not, deduct points accordingly.

B. Business Methods—total 285 points.

1. Accumulative Ability—100 points.

If his operations since he has been farming have enabled him to accumulate a satisfactory surplus, score 100 points. (This surplus does not need to be in cash. It may be expressed in discharge of indebtedness contracted thru sickness or misfortune, the purchase of more land, improvements or education.) If his accumulative surplus has not been satisfactory, deduct points accordingly. Note: It is understood that you do not know the candidate's personal financial affairs, and that your score for him under this head, "Accumulative Ability" will be your personal opinion gained thru observation.

2. Accounting Methods—50 points.

If he uses a system of accounting for his farming, score 50 points. If not, score zero.

3. Safety Financial Practices—100 points.

a. If he invests his surplus money safely in sound securities or more farm land, score 25 points. If not, score zero.

b. If all of his farm buildings, household goods, implements, crops and livestock are fully insured against insurable losses, score 25 points. If not, deduct points accordingly.

c. If his life is insured to the extent of his farm mortgage and other indebtedness, score 40 points. If not, score according to coverage.

d. If his life is insured to provide a cash fund for his family beyond his indebtedness, an educational fund for his children, income for his wife and minor children, score 10 points. If not, score according to coverage. Note: It is understood that you do not know the details about your candidate's "Safety Financial Practices," but you should score him to the best of your ability from observation and from any information he may have given you in the past.

4. Marketing Practices and Production Program—35 points.

a. If he uses market information in buying supplies and in selling farm products, score 15 points. If not, score zero.

b. If he adapts his production program to market forecasts and probable demands, score 20 points. If he does this in any measure, score him for what he does.

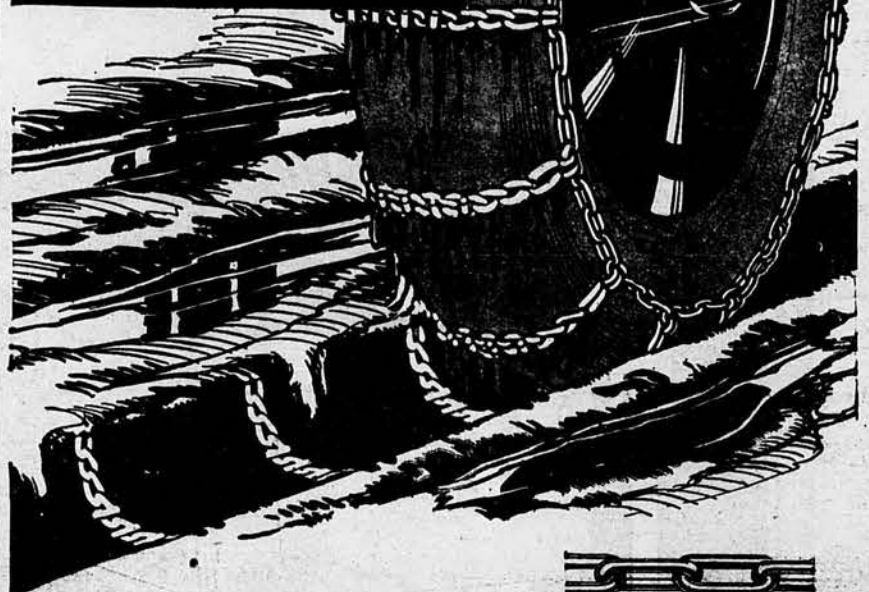
C. General Farm Appearance and Upkeep—total of 90 points.

1. Upkeep of Buildings—25 points.

If his buildings are kept in good repair, score 25 points. If not, score accordingly.

2. Condition of Fields—25 points.

If his fields and fence rows are neat and reasonably free from weeds, score

A Long-wearing
MUD TIRE CHAINAsk for the
WEED AMERICANTHE WEED AMERICAN
doubles the usual wear

This new tire chain doubles the wear you expect. It has re-enforcing bars of steel across the cross links that contact the road. They are welded on electrically. It has also a new electrically welded side chain. The result is much more mileage per pair of chains.

In fact, this new Weed American tire chain seemed too good to be true, so we abused it, misused it, and tried it out on every sort of road and testing ground. For two years we abused it. It stood up twice as well. So now we are telling you about it, and your dealer sells it. It's a great mud and rut chain. Look it over. That's all we ask.

AMERICAN CHAIN COMPANY, INC.
Bridgeport, Connecticut

THE NEW SIDE CHAIN
It's electrically welded. It has more links. It can't kink. It's tougher. It's stronger in the pull and withstands the roughest ruts. It wears longer.



THE NEW CROSS CHAIN
Re-enforcing bars are electrically welded across the cross chain links that take the road wear. These bars add a more tenacious road grip and make the chains wear much longer.



WEED CHAINS

Lime
Spreader
Attachment

A simple attachment spreads dry or damp lime—with one man—the driver.

The COMPLETE
SPREADER

When you pick a spreader today—you have a right to expect proven two-purpose performance.

The New Litchfield — with its lime spreader attachment offers a complete spreader service. The enduring quality of this advanced Spreader—its light draft—short turning—easy loading—ample ground clearance—are reasons for its wide-spread popularity.

THE NEW
LITCHFIELD
"PROFIT BUILDER"
STEEL SPREADER

Two new bulletins are now ready — "Lime Spreading" and "What Farmers Say About The New Litchfield." Mail the coupon for free copies.

LITCHFIELD
Mfg. Company
Waterloo, Iowa

Gentlemen: Dept. KF-4
Send me your two free bulletins and information on Litchfield Spreaders.

Name
Address

25 points. If not, deduct points accordingly.

3. Fences, Ditches and Roads—20 points.

If fences, ditches and roads are in good repair and free from rubbish, score 20 points. If not, deduct points accordingly.

4. Lots and Yards—10 points.

If his lots and yards are free from weeds and rubbish, score 10 points. If not, deduct points accordingly.

5. Lawn—10 points.

If his lawn is well kept and has an attractive selection of shrubs and flowers, score 10 points. If not, deduct points accordingly.

D. Home Life—total of 325 points.

1. Convenient House—125 points.

If his house is convenient and comfortable; if he has a water system, sewage disposal system, furnace, lighting system, power washer, provision for an ice supply in summer or some adequate method of refrigeration; a radio and any other labor-saving conveniences, score 125 points. Otherwise, score according to the equipment he has.

2. Character as Husband and Father—100 points.

If he has done everything within reason to increase the happiness and comfort of his family, such as providing companionship, recreation, entertainment, music, etc., score 100 points. If not, score according to what he has done.

3. Education and Training of Children—100 points.

If he has given his children proper training and schooling, and has encouraged or helped them to obtain a high school and college education, score 100 points. Otherwise, score according to what he has done.

E. Public Spiritedness—total of 260 points.

1. Neighborliness—50 points.

If he is neighborly, score 50 points. If not, score zero.

2. Interest in Schools and Churches—60 points.

If he takes an active interest in schools and churches, score 60 points. Otherwise, score according to the interest he does take.

3. Interest in Other Community Enterprises—50 points.

If he takes an active interest in other enterprises for the good of his community, such as farm organizations and civic organizations, score 50 points. Otherwise, score according to his activities.

4. Interest in Local, State and National Government—100 points.

If he votes regularly at all local and general elections, score 100 points. If not, score according to the way he exercises his voting privileges.

Grain View Farm Notes

BY H. C. COLGLAZIER
Pawnee County

The Southern Texas weather we had thru most of February left us rather quickly, and March came in with the usual cold and snow flurries. Most people seem to think March came in like a lion, but personally we thought it was just a husky ram lamb type of weather. The cold is a good thing for the wheat. It was making a very rapid growth. Some of the fields were about as far advanced as they are ordinarily the first of April. Alfalfa was about 2 inches high when the freeze came. Spring was coming too soon for the good of all plants. We noticed some of the shrubs on the lawn of the court house at Larned were in bloom. The caretaker said that usually no bloom showed up before the first of April.

Most of the oats and barley are sown in this locality. We sowed our barley on some last year's corn ground. The ground was clean and free from weeds. A thoro double disking made a very good seedbed.

This is the season when as good plans as possible should be made to save and rear as many of the pigs and chickens as possible. The number we lose largely determines our profits or losses for the year. With overproduction sitting on every farmers'

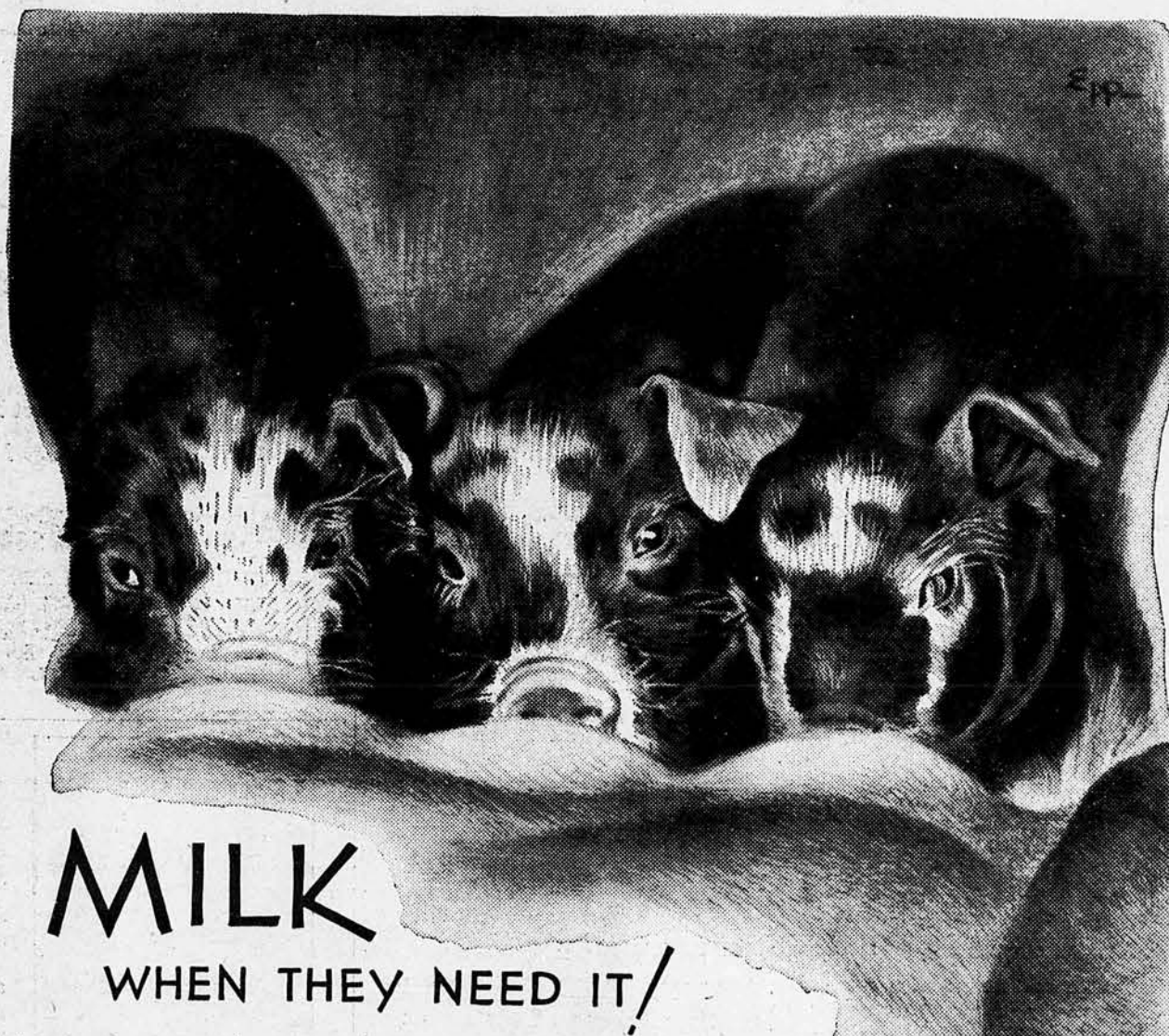
footstep, it behooves more than ever to not have so many acres and head of stock and poultry but to save those produced and make more profit a head and an acre. A few years ago we heard a hog raiser say he kept six large sows, and from the six sows during a 12-months period he raised and sold 120 head of hogs. The sows were well cared for all year and special attention was given to them at each time of farrowing. When the sows farrowed he sat up at night and took the pigs away and kept them in boxes in a warm place, and every 2 hours for several days they were taken back to their mothers and fed. It seems this type of efficient agriculture would lend some solution to low farm incomes. It is the usual custom for a farmer to keep eight or 10 sows and let them take care of themselves, and the pig loss and the cost of feeding several extra sows about takes all the profit out of the hog business. Figures go to show that a large percentage of the overproduction is produced by the acres that should not be farmed and the live-

stock and poultry individuals that are kept at a loss. The scrub producers are a double source of loss. They do not pay for their keep and their production causes us to take less for the products of the efficient producers.

Since combines have come into general use there has been quite an increase in the damage to wheat by the straw-worm. The worm does damage to the crop at two stages: first, while the plants are small, and then at the heading and filling stages. The young plants which happen to have an egg and maggot in them never develop. Near maturity when the maggot gets into the stem the plant fails to fill properly. The heads do not turn white as they do in the case of the joint worm. The pest lives over winter in the straw. The old style of harvesting and the common practice of burning the straw stacks held the pest in check. But with the combine the worms are all left scattered over the fields. Last year several fields over the country showed considerable dam-

age. Early plowing or burning is about the only method of control that can be followed.

This week is supposed to be a big week in co-operative marketing at the Agricultural College at Manhattan. We are planning on taking in the entire week. For a good many years we have been interested in marketing. It has been evident for a long time that better marketing would have to be given some consideration. The farmer has been most interested in his home and the details of production. He has become interested of late years in following his produce to the ultimate consumer. He has found that vast sums of money have been made on his products in speculation. Small investments of capital in speculation have returned fortunes without labor. Increased taxes and costs of farm operation has forced him to feel he should have more of the consumer's dollar than he has been receiving, and about the only way he can find to get his share is thru co-operation with his fellow producer.



LITTLE PIGS . . . farrowed today! How much they need milk . . . milk to keep them alive . . . plenty of milk to grow them fast and thrifty. A big job for the sow . . . and you know how often she fails.

Milk is made of feed. Naturally the sow must look to you for a milk-making feed . . . if she is to do the job of making lots of milk for her litter. This is the very reason why Purina Pig Chow should be before your sows . . . both before and after farrowing!

Little pigs need many different proteins to build their muscles. They need minerals . . . plenty of them . . . to build their bones. They get these things from sow's milk. The sow must get them somewhere. Make it easy for her . . . feed her Pig Chow!

Little pigs off to a flying start . . . no one knows better than yourself what a difference that makes . . . in the looks of your pig crop . . . in the extra money for you. Pig Chow makes that difference! Put it to work in your feedlot this week!



THE PURINA POUND IS THE CHEAPEST



BOOK DEPARTMENT

Books Can Play a Mighty Important Part in Home Decoration

BY D. M. HARMON

WHERE do you keep your books? Are they permitted to be thrown about and piled in an obscure corner because of a lack of a better place to put them, or are they treated with the respect you would treat the individuals whose personalities they portray? Besides the economic value of taking good care of books, they can be made to serve an important part in the decoration of your home.

The manner of housing books has been a matter of decorative importance ever since the days of Classic antiquity. However, book-lovers of the present day differ from those of ancient times inasmuch as they like to have their books where they can see them and enjoy their companionship rather than keeping them "caged" in cabinets and such places where they are concealed.

A Real Space Problem

The old Romans kept their parchment scrolls in ornate tub-like receptacles. The book-scrolls were thrust into them vertically, with their titles inscribed on tags attached to the top ends of the rolls. The storing of books has been a subject of architectural movement thru the Middle Ages and the Renaissance and down to our own day. Early in the Eighteenth Century the ordinary private library was not of any great extent. As a rule, the collection of books in any one house could be contained in several well-designed bookcases, handsomely fashioned by the cabinet maker and forming important items in the appointment of the room where they stood.

Later in the century, private libraries were growing more extensive, and the bookcases were in a transitional stage between movable furniture and fixed shelving. The increase in the number of books had brought a change in the manner of keeping them. The movable bookcases, altho beautiful and decorative, were no longer sufficient. The demand for adequate shelving and arrangement created a new and definite claim in the province of interior architecture.

Books Have a Decorative Value

Almost any family of reasonable culture nowadays has too many books to be put in one or two bookcases. Besides this, we have to consider the number of families who live in comparatively small houses where the area is restricted. Our generation has come to recognize the feeling of friendliness which books create around us, that books in themselves have a strong decorative value and

that their presence in a room contributes a degree of interest and character that nothing else can supply. The people of the Eighteenth Century must have sensed this fact, as they often used sham book-backs to fill empty shelves, or to give a uniform appearance to a space occupied by a cupboard or a concealed door.

No matter how small a house may be, nor how few rooms it may have, there is always a chance to make the book-shelving an interesting as well as a seemingly useful part of the architectural and decorative background. Besides the decorative character books give thru their color, design and binding, they also have the quality of being exceedingly good company and of furnishing a room with more personality than any other single factor of decorative equipment.

It is not at all necessary to have a room specifically set apart as a library. In fact, most folks find it preferable to have their books with them in the living room where they are constant companions, and where everyone is immediately in contact with them, so that they are an inseparable element in our daily lives.

They Deserve a Good Home

Not for a minute are books to be used for the sole purpose of decoration. We recently read of a millionaire who bought a sumptuous and tasteful new home, complete with a library purchased in bulk. The actual purchaser, an agent of the millionaire, only selected the colors of the bindings and left the selection of the books to the dealer. Such books are merely "embalmed." On the other hand, a good book deserves a good home which can easily be made to serve as an important feature in our interior decoration. A book that is well cared for is practically immortal. Food is bought and eaten, cigars go up in smoke, clothing wears out, a ticket to a theater can be used but once, but books are practically as good after they have been read a few times as they were when they were new. Never regard the housing of your books as a nuisance and source of perplexity, but rather as an inspiration and a foundation from which you can build up a decorative scheme.

Something to Talk About

"My wife explored my pockets last night."
"What did she get?"
"About the same as any other explorer—enough material for a lecture."

Books for the Home Library

NEVER let your library become crowded with "embalmed" books. Choose each volume because of its contents, then make use of its decorative value. Below we are listing a group of popular novels which have recently been added to the 75-cent list. Remit 75 cents for each title you want, and your order will be mailed to you postpaid. If the book you want is not listed here, write for our price.

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The Adventures of Tom Sawyer.....	Mark Twain
The Children.....	Edith Wharton
The Bishop Murder Case.....	S. S. Van Dine
Kitty.....	Warwick Deeping
Texas Man.....	W. M. Raine
Condemned to Devil's Island.....	Blair Niles
Wild Horse Mesa.....	Zane Grey
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Sunday School Lesson

by the Rev. N. A. McCune

JESUS had a good deal to say about growth. The parable of the mustard seed is all about growth. Dr. G. E. Post, formerly professor in the American College, Beyrout, Syria, tells us that the plant that Jesus referred to is the cultivated mustard plant. Its seed is tiny, and it grows in a season to a height of from 10 to 12 feet. It is large enough so that birds lodge in it. Growth is one of the beautiful facts in this world of ours. Last summer I saw, in the Garden of Plants, Paris, the great Cedar of Lebanon, the trunk of which is 40 feet in circumference. This tree was brought as a tiny seedling, so we are told, in a man's hat, from Syria in 1735. The voyage was long, and water ran low, and the man who brought the seedling watered it with water which he would like to have used to quench his own thirst. Today it stands there, a giant of a tree, and French children skip and play beneath its shade, while their mothers sit and knit.

When the granite blocks were brought from Colorado for the state house at Topeka, a cottonwood stake was driven in the ground to hold the guy-rope for hoisting the stone. The stake took root, threw out branches, and has developed into a large tree, said to be the best-loved tree in Kansas. What we fail to be today we may grow into, tomorrow.

That is part of his message about the kingdom. Now, what is the kingdom? Jesus speaks so much about the kingdom of heaven, or the kingdom of God, that we will not get far until we have gotten a fairly clear idea what it means. Is it present or future? Is it inner or outer? Individual and personal, or corporate and social? Without going into too much detail, we may say it is all of these. It is present. Did he not say, "The kingdom of heaven is at hand?" (Mark 1:15.) We are to seek to build the kingdom, which lies at our door, but which has never yet been fully realized. And what constitutes kingdom conditions? A certain type of building, sanitation, modern conveniences? No, we know better than that. We know that people can have all that science and invention afford and yet live in hell. The kingdom is found where love and life are found and peace and joy and good will and self-control. Paul gives the list of kingdom qualities in Galatians 5:22, 23. The community which has embodied all these qualities has never existed. Here is something to work for!

Then, too, the kingdom is inner. It is within one or it is not. Some persons have the kingdom in themselves. They have the mind of the Spirit, as Paul calls it, and that means they have life and peace. They are at peace with God, and that means they are peace within themselves. They possess that peculiar spiritual quality that is for those who have come into the experience of God. That is what is meant, I take it, by the suggestion of Christ, "Seek ye first the kingdom of God and his righteousness, and all these things shall be added unto you."

What is troubling many people of our day is that they have the exact opposite of all this. They have hell within, not heaven, not the kingdom. Milton makes one of his characters in Paradise Lost say, "I myself am hell." The kingdom within is the antidote to this state of death and misery.

And the kingdom is future. It is to be experienced in the future life, when we have left this life with its uncertainties for the next one with its certainty and its joy and love. However, we ought not make the mistake of looking forward to and thinking of the kingdom of heaven "over there" to the exclusion of bringing heavenly conditions in here. It is well to have the future look, but also well to have a concern for the world in which we live every day.

This is a tremendous dream, this dream of the kingdom. Only someone with a superhuman faith like that of Christ could possibly entertain it. And how often he must have been horribly disappointed! What opportunities there have been for bringing the kingdom a bit nearer, when suddenly some leader has developed a selfish

streak and gone off in the wrong direction! But on the other hand, how often have the wise and the good and the self-forgetful wrought and toiled until they have made kingdom conditions where they have lived! That is a long story, and a beautiful one. Read the history of the Mayflower and its human cargo, and the coming of the Quakers to America, and you will get a taste of it.

To discuss: Is the church making kingdom conditions today more real? Why is church discipline and the expulsion of indifferent members a thing of the past?

Lesson for March 16—Parables of the Kingdom. Mt. 13:24-52.
Golden Text—Rom. 14:17.

Atlas Sorgho Resists Lodging

BY JOHN H. PARKER

Atlas is the name recently given to a new and promising variety of sorgho developed in co-operative sorghum-breeding experiments at the Kansas Agricultural Experiment Station. The name Atlas was chosen because of its strong stalks which resist lodging.

Atlas sorgho is a pedigree selection from a cross between Blackhull kafir and Sourless sorgho, made by I. N. Farr, a farmer and sorghum breeder of Stockton, Kan. Mr. Farr sent hybrid heads to the Kansas station. Headrows were grown, and in 1923 the strain recently named Atlas was selected as being the most promising.

Since 1923 this selection has been tested in varietal plots at the Manhattan and Hays stations and on the Southeastern Kansas experimental fields. In 1927 and 1928 it was grown in direct comparison with other varieties by a number of Kansas farmers who co-operate with the Kansas station in conducting local varietal tests.


In nearly all of these tests Atlas has made good yields of both forage and grain, altho the forage yields usually were not quite equal to those of Kansas Orange, the most popular variety of sorgho now grown in Eastern Kansas. The tests indicate that in general Atlas sorgho may be expected to yield 80 to 90 per cent as much forage an acre as Kansas Orange. It is too tall and late for Western Kansas.

The advantage of Atlas over Kansas Orange lies in two important characters, stiff stalks and white, palatable grain. Atlas has the stiff stalks and the white seed of its kafir parent and the sweet, juicy stalks and leafiness of the sorgho parent. Only one other sorghum variety, Sunrise kafir, that is grown on farms in the United States, has this particular combination of characters. Atlas sorgho has much stronger stalks than Sunrise kafir and produces higher yields of forage.

In 1927 and 1928 the dairy department of the Kansas station grew Atlas sorgho on a field scale for use as a silage crop. In both seasons the Atlas sorgho was lodged much less than adjacent fields of Kansas Orange. The ability of Atlas sorgho to resist lodging has also been very clearly demonstrated in the varietal testing fields in Southeastern Kansas.

Feeding trials with silage of these two varieties, conducted by the dairy department during the winter of 1927-28, indicated that silage of Atlas sorgho is about equal to that of Kansas Orange. During the same winter, grain of Atlas sorgho and of Dawn (Dwarf Blackhull) kafir, a standard commercial variety, was fed to hogs at the Hays station in self-feeders. The grain of Atlas sorgho was found to be just as palatable as that of Dawn kafir.

Atlas sorgho will grade as white kafir on the terminal markets. Thus the farmer in Eastern Kansas and similar areas who grows Atlas sorgho either can feed the white, palatable grain to his livestock and obtain the same results as with kafir or he can market it and receive kafir prices for it. He can do neither of these things with the brown, bitter, unpalatable seed of the varieties of sweet sorghum now commonly grown.



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KANSAS farmers are willing to work together in solving the big problem of marketing. This was evident at the third annual school of co-operative marketing, held at the Kansas State Agricultural College March 6 and 7. The several hundred agricultural leaders who attended, indicated that they are ready to work now, and that the near future will see something more than merely a gesture in the direction of getting together. They are going to do more than simply say, "We ought to co-operate."

The purpose of the school is to provide information on the development of co-operative marketing, what constitutes co-operative marketing and what it can hope to attain. This is sponsored by the college with the division of co-operative marketing of the Federal Farm Board, and farm organizations of Kansas lending their very effective assistance. The school started at the request of Kansas co-operatives two years ago. The first one was held Farm and Home Week in February of 1928; the second on March 15 and 16 of 1929. At these two meetings the attendance was small, but last week the lecture hall was well-crowded both days.

Previous to this meeting a school was held for all of the county agents in Kansas in which they received intensive instruction in co-operative marketing, so they will be an additional source of the most reliable information for Kansas farmers. The address by President F. D. Farrell of the college, on "Some Human Aspects of Co-operative Marketing," touched a very vital point. He said:

"The history of human progress is largely the history of increasing co-operation among human beings. Virtually every great advance in civilization has involved an increase of group action. This is true of advances in finance, manufacture, education, government, transportation, religion and agriculture. If the required group action fails, progress does not occur. Just now, the trend toward large-scale group action and centralized control in all major fields of activity in America is particularly strong.

These Must Be Controlled

"Most of the major obstacles to the spread of co-operation are human obstacles. We enact laws and make elaborate plans for the purpose of utilizing the great potential powers of group action, but the laws and plans are ineffective unless the human obstacles are surmounted. This is as true of the marketing of wheat and butter and apples as it is of establishing and maintaining a stable government or of selling motor cars on a gigantic scale. In each instance, successful group action requires some degree of effective control of certain human qualities.

"These human qualities include intense individualism, or the desire of each of us to do as he pleases; impatience, fear and suspicion of the unknown, ignorance, or lack of understanding, and distrust. All these qualities are natural. Some of them in themselves are of great value. Yet each must be brought under some degree of control if group action is to succeed.

"Whenever a group of people are convinced that they can improve their condition by joint action, they come to recognize the necessity of modifying their individualism, curbing their impatience, increasing their understanding and trusting and supporting their representatives for the good of the group. The American farmer now is faced with the question of whether he is to continue to depend upon the commercial system of marketing farm products or develop a co-operative system of his own. Some of the imperfections of the commercial system are based upon the present status in the United States of such human qualities as have been mentioned as they relate to the production and distribution of farm products. So long as the farmer is unwilling or unable

to support a co-operative system, to be operated primarily in the interest of the producer, he must use a commercial system, which, of necessity, is operated primarily in its own interest. He cannot have a successful co-operative system unless he pays a price for it. The price includes infinite patience, farsightedness, group loyalty, selection and support of capable leaders and a genuine merging of certain individual interests with the welfare of the group.

"It is our hope that this school of co-operative marketing will contribute significantly to the development of understanding of the possibilities, limitations and requirements of co-operative marketing so as to aid the farmers of Kansas to decide how to meet their marketing problems and to act wisely and effectively after they decide."

McKelvie Was on Program

Other speakers on the two-day program included S. R. McKelvie, grain member of the Federal Farm Board, who explained the Agricultural Marketing Act of 1929 and the marketing of grain. Hutzler Metzger, of the division of co-operative marketing of the Federal Farm Board, told of the possibilities and limitations of a large scale co-operative grain marketing association, and about the progress of co-operative grain marketing. Scott Bateman, warehouse commissioner, Kansas State Grain Inspection Department, talked about public warehouses in Kansas. L. E. Webb, secretary of the Farmers National Grain Corporation, explained about the organization he represents.

W. E. Grimes, head of the department of agricultural economics at the college, started the second day's program in an interesting way by telling of the present status of co-operative marketing in Kansas. "Successful co-operative marketing begins with an understanding of what it is, what it can do and the member's relation to his organization," he said. "Thoroughly successful co-operative endeavor will exist only when the member recognizes that he is a real part of the organization and helps to further its interests in every way. The outstanding need in Kansas today is education. The biggest handicap of co-operative work in past years has been overselling of its possibilities."

Mr. Grimes was followed by C. G. Randall of the division of co-operative marketing of the Farm Board, who explained in detail the methods of co-operatively financing feeding and marketing, and talked on "A National Livestock Marketing Program." Dr. O. O. Wolf, Ottawa, told of plans for co-ordinating the co-operative marketing of livestock in terminal markets.

Telis of Poultry Feeding

Feeding Chickens, Farmers' Bulletin No. 1,541-F, which will be helpful to every Kansas farmer who has chickens, may be obtained free from the Department of Agriculture, Washington, D. C.

"Anybody can learn to dance," says an instructor. The simplest method is to volunteer to put up a shelf in the kitchen and hang a thumb with the hammer.

THEFTS REPORTED

Telephone your Sheriff if you find any of this stolen property. Kansas Farmer Protective Service offers a reward for the capture and conviction of any thief who steals from its members.

Albert Abner, St. John. Two hundred bushels of wheat.
F. R. Howlett, Kansas City. Eleven Buff Orpington pullets and two roosters.
Will Suberly, Kanopolis. Thirty-six Single Comb Buff Orpington hens.
C. D. Barker, Bonner Springs. Two sets of work harness.
Martin Dahl, Courtland. Newfoundland dog weighing about 100 pounds. White spot on breast.
Jesse Hecht, Bern. Parts off a binder.
Mrs. Will Sorick, Almena. Stand of bees.
Mrs. Effie Hill, Achilles. Year-old Eskimo Spitz dog. Nick in right ear.

At the New Jersey Experiment Station, 95% of a test lot of chicks were brought through to healthy maturity with this Cel-O-Glass Health Brooder. Write for free blueprints.






FIRST TEN WEEKS—THE DANGER PERIOD FOR CHICKS

This year—stop "Danger Period" chick losses with CEL-O-GLASS

Now you can really take the "danger" right out of the chick "Danger Period"—those first 10 weeks of constant battle against disease and death.

At the New Jersey Experiment Station a CEL-O-GLASS Health Brooder was built which brought 95% of a test lot of chicks safely through the 10-week "Danger Period"—strong and healthy.

What CEL-O-GLASS does to achieve such results sounds simple—yet it's impossible with ordinary glass or soiled cloth curtains. CEL-O-GLASS floods your brooder with the life-giving ultra-violet rays of sunlight. This permits you to do all your chick brooding indoors, because CEL-O-GLASS brings the benefits of the outdoors right inside your brooder, with none of the dangers of those cold, wet, early spring months.

These ultra-violet rays of sunlight promote the building of bone and body tissue, prevent

leg weakness and help keep the house free from disease. And they cause the chicks' blood to manufacture Vitamin D, which means faster growth and healthier chicks.

Not only that, but your chicks are guarded from those outdoor dangers such as coccidiosis, worm infestation, deaths due to chilling, drowning and crowding.

Write for these free blue prints today if you are planning to build a new brooder. To remodel your present brooders, just remove the glass or soiled curtains and install CEL-O-GLASS frames. Install the frames in a vertical position and hinge them to swing in or to the side or up under the roof.

Write for your copy of this free book, "Health on the Farm." CEL-O-GLASS can be purchased at hardware, lumber, seed and feed dealers. If your local dealers cannot supply you, please write Acetol Products, Inc., 21 Spruce St., New York City.



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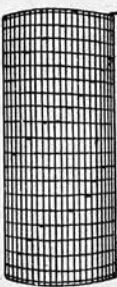
500,000 Farmers Have Borrowed from the 12 Mutual Federal Land Banks a Billion and a Half Dollars at an average interest rate of 5.4%

THIS \$1,500,000,000 in long-term loans secured by first mortgages on their farms provided much needed capital during a period when funds were scarce and the average farm income low. All but a small percentage of these farmers have met their obligations. The 12 Banks have total capital, legal and other reserves and undivided profits aggregating more than \$84,000,000. Their total assets exceed \$1,300,000,000. The net carrying value of the real estate, sheriffs' certificates and similar items owned by the 12 banks on November 30, 1929, was only 1.1% of their assets.

The services of the 12 Banks and the National Farm Loan Associations through which the loans are made have been of inestimable benefit and they will increase in the future.

The 12 Federal Land Banks are located at

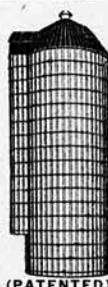
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Fine Progress Has Been Made With Field Work This Spring in Kansas

GOOD progress has been made with field work; farming has made a better record than usual in Kansas in the last few weeks, and is well in advance of the season. Wheat has grown rapidly and is supplying a great deal of pasture, altho here and there some damage from winter killing has been reported, as in McPherson and Rice counties. Most of the oats seeding has been completed. There was very little damage to alfalfa during the winter.

General business conditions are improving, taking the nation as a whole, altho there is still considerable unemployment in some of the industrial centers. The country has been fortunate that conditions have not been even worse than they have been.

To get a proper perspective on the economic and business outlook for 1930, it is necessary to go back to 1922 and 1923. In those years the country was recovering from the tremendous depression of 1920. The evils of such a panic were still fresh in the minds of executives and of the people generally. Farsighted students of American business, and especially Herbert Hoover, were contending that such a tragedy was unnecessary. Why, they asked, must business travel the old round of the cycles, with its inevitable booms and panics? At one period during the post-war depression, 6 million men were out of work in America, and a lack of national buying power was the most evident item on the business horizon.

A feeling of confidence in business developed slowly, and the nation presently returned to a productive basis, just as it had done following former panics. The business conferences of those years, largely under the leadership of the Department of Commerce, were very helpful. Presently the industrial life of America was flowing along a clear channel, and business was back to "normal," a much used word in those days.

But fortunately the country had men with vision who did not let the theory of the cycles rest at that point. They were looking forward to the problem of eliminating future possible depressions. With a free play of that individual initiative which has been the basic factor in the progress of our nation, they inquired into the history of the panics of the past, with a view to discovering what could be done to flatten out the business curve.

Their reasoning was simple. It was based on the old and logical theory in economics that, "If the right number of people are engaged in the different lines of work, and the channels of distribution are kept open, there can be no such thing as overproduction; the only possible result of such a system is to raise the standards of living for us all."

Certain general principles soon began to emerge from this research into the records of the cycles. A rise in commodity prices always came as the cycle approached a peak, followed by increasing sales resistance, then a decline in production, with a start of unemployment, and then a wave of fear.

'Twas a Breaking Point

Records showed that nothing of great national importance happened up until the time the psychology of fear hit the people—but following that plenty of unhappy events occurred with great rapidity. It was evident that here was the breaking point. This narrowed the problem down largely to that of holding the confidence of the economic leaders of the country in the soundness of the business structure.

Never, at any time, either in the past or now, has there been any difference of opinion on the results of business depressions. Everyone has agreed that they are fundamentally silly. We all have the elemental human desire to secure finer homes for our families—to provide them with better furniture, bathtubs and blankets. Our wants are greater than can possibly be supplied. With this broad market at our doors, why throw millions of men and women who might be making these commodities out of work, and into economic hardship, just because we have reached the peak of some alleged cycle?

The so-called classical economists of the hard-boiled school naturally contended that the business cycles, with their resulting productive loss and human misery, would be with us forever like the inevitable rising and setting of the sun, to plague us and our children and our children's children to the end of their days. But that was not the opinion of the then Secretary of Commerce, or of such outstanding men of vision as W. T. Foster and Waddill Catchings. Like missionaries of old, on the highways and bypaths of America, they went up and down the land, presenting the vision of a New Era in which maximum production and full employment, year in and year out, would rule. Presently their following increased. Gradually a considerable number of executives began to get a glimpse, at least, of an American business life in which there would be no violent ups and downs. Fortunately, also, into the minds of the outstanding leaders—the generals and the admirals of the business forces—there came a realization of the man's part they must play in overcoming the psychology of fear when it once more threatened to overwhelm the country.

In the meantime the nation went ahead steadily season after season, into a golden age of industrial development. Steady gains were recorded year after year in profits. In 1922 the corporations of the United States earned 5,100 million dollars; in 1923, 6,700 million dollars; 1924, 5,900 million dollars; 1925, 8,100 million dollars; 1926, 8,200 million dollars; 1927, 7,700 million dollars; 1928, 8,34 million dollars, and in 1929, 9,700 million dollars.

To Keep the Factories Active

Then we changed national administrations. That was an event of major business significance which has not been appreciated properly, but to which economic historians of the future will give a great deal of attention. Up to 1929 the President of the United States was a Vermont Yankee who personified the old fashioned thrift principles of the early fathers. "A penny saved is a penny earned," and all that sort of economic reasoning, which is valuable in its place, but which is not of the type of commercial leadership that has made American life the envy and despair of the rest of the world. He was followed by the engineer, the practical exponent of production, who does not worship the saved dollar but who does believe in the productive, working dollar—a distinction of tremendous importance when applied to the problem of keeping the factories of America active.

As the months of the administration passed, business activity increased, to a point where the earnings of organized industry, 9,700 million dollars, were the greatest ever known in a nor-

mal time. As a natural result of these large profits, there was an increasing interest in the securities markets. Helped by an invasion of a flood of new investors—an encouraging force in the progress of America, despite the tendency of these amateurs to go off on tangents at times—security values increased in many instances to 20 times, 30 times, 40 times and in one case to 50 times current earnings. That is discounting the future with a vengeance. It also is a superlative type of foolishness which we need not classify. There can, of course, be only one end to that kind of inflated optimism, and we got it with the stock market crash of October and November.

But perhaps it is just as well, when viewed from the long-range standpoint of business progress, that this crash came when it did. In the first place it people with more cash and nerve than economic background propose to run wild all over the pasture, it is well that they be brought to a realization that they must "high-tail it for home." And in the second place, we apparently have established definitely, once and for all, that in this New Era of economics we have entered there is very little relationship between security prices and the free flow of American business. And if that has been demonstrated to the point where the folks will remember it the next time there is a flurry in Wall Street, the late debacle will be worth all it cost; in both cash and agony of soul.

As the weeks and the months since the stock market crash have gone by, the folks have been rubbing their sore spots, if any, and have been waiting and waiting and waiting for the grand national smash. They have waited so long for the show to start that most of the crowd has become tired, and gone on about its business. There was action, all right, but not what was expected. First, and not off the bat, was the series of business conferences called by President Hoover, in which the generals and the admirals of our national business life were called on to bolster up the lines in a manner which would have the greatest psychological value in combatting fear, along the lines they had discussed in years gone by, when life was normal and profits big. And they responded in a manner which to the end of time will be a source of wonder to the hard-boiled and pessimistic economists. Instead of the usual slowing down of effort, along with the reduced buying power, not to mention the lines that in the past have resulted from a fit of indigestion such as that which attacked Wall Street last fall, the business world is facing a year in which additional capital expenditures, the sum total of which will run into billions of dollars, will drive the lines of industry in many lines at a pace far in advance of what normally would have occurred.

And what do we discover if we examine the financial condition of these companies which are increasing their capital expenditures, or indeed of practically all the corporations of America? We find that their financial condition is excellent. Naturally, with profits of 9,700 million dollars last year, they ought to be in good condition! Working capital is ample, surpluses are sizable and the cash position compares very favorably with the record heights of last year. Dividends are amply protected.

Perhaps even more to the point is the fact that manufacturers of industrial equipment are looking forward to a satisfactory year. And this is perhaps as good a barometer as one can find in judging future business activity. Economists with the National City Bank, who have been conducting an investigation into this field, report that "machine tool makers report a good demand. The manufacturers of electrical equipment are entering the year with their order books showing a very satisfactory volume. The machinery manufacturers as a whole have a large amount of business in hand and are confident of another good year."

Increasing activity is to be noted in the steel industry. Agricultural machinery makers are excepting a fine season, judging from advance orders. In fact, practically anywhere you turn in the key industries you will find that the folks are looking forward to about a normal year, with special gains taking place in the spring, probably in May and June. There are some of the reasons why a conservative business student as Charles J. Bullock, president of the Harvard Economic Society and professor of economics at Harvard University, recently declared that this year we will have the "normal spring revival of activity."

Hogs and Beef Help!

Hog and beef-cattle prices are the main support in an otherwise depressed agricultural situation, says the Bureau of Agricultural Economics, in its March report on farm conditions in the United States. "Hog prices have advanced steadily since last November, and hog producers have fared better than they did last winter," says the bureau. "The hog situation and, in lesser degree, the beef-cattle situation, seem to be the bright spots at present, as far as the livestock industries are concerned."

The world-wide slump in grain prices and the weakness in cotton, however, have not tended to encourage producers of those crops. Lower prices for dairy products and for lambs likewise have raised discouraging signals within those two important livestock enterprises.

Continuance of the weakness in the wheat market and the recent sharp decline in domestic wheat prices are attributed by the bureau principally to the relatively slow movement of the season's comparatively small supplies into consuming channels. World shipments of wheat and flour in the first half of the current crop year were only about three-fourths as great as those for the corresponding period last season, with the decrease in North American shipments accounting for even greater amounts than indicated by the total figures.

"Recent changes in the fruit and vegetable situation," says the bureau, "include the not unusual February setback in the potato market; a considerable further price gain in cabbage; irregular, hesitating onion position; and a slightly rising trend in a dull quiet apple market. With two or three exceptions, there seems to be a decided tendency to increase plantings of truck crops for spring shipments."

"Some students of the hog situation have been of the opinion that there has been a tendency on the part of producers to hold hogs back in anticipation of higher prices later in the season, particularly since the price movement has been so much like that of last winter. If this theory proves to be correct, we are likely to have more hogs come to market in March than were received in March last year. While this would tend to check the price advance now under way, it is very unlikely that any material decline in prices would occur before April. In previous years, when prices moved upward in January and February, as they have this year, no decline of any consequence took place in March."

In response to inquiries from representatives of the press, Chairman Legge of the Federal Farm Board has issued the following statement:

"Some objection has developed in the grain

Extra Protection Against Poultry Stealers

THIEVES BEWARE ~CASH REWARD~

Thieves Will Steal Poultry Mostly From Farms Where
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Can You Afford Not to Warn Thieves?

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This **THIEVES BEWARE** sign is available only to Kansas Farmer Protective Service members for whom the Protective Service has registered with every sheriff in Kansas the tattoo number of their Kansas Farmer wing poultry marker. With an order for a wing poultry marker, the sign is obtainable. Mark your poultry so if any is stolen you can tell your sheriff positively how you can identify your fowls—by a tattooed number in the web of the wing. The \$2.50 price of Kansas Farmer's wing poultry marker includes enough marking ink to mark 100 birds and gives you an exclusive number assigned by the Protective Service and registered with every sheriff in Kansas.

Use This Convenient Coupon

Kansas Farmer Protective Service,
Topeka, Kansas:

I am a Kansas Farmer Protective Service member as shown by the attached address label from my last issue of Kansas Farmer. Herewith please find proper total remittance in payment of the following:

Thieves Beware sign \$.25
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(Including tattoo ink)

Name

Address Kansas only
(Please Print Name and Address)

trade against the action of the Farm Board in financing farm co-operatives in the purchase of wheat and cotton in the present situation. These activities will continue in the interest of agriculture and business as an emergency measure in the present situation. I have no fear that the co-operatives will not be able to eventually market these purchases satisfactorily.

"In connection with these objections I should like to make this statement as a conservative business man, addressed to the conservative business men of the country. The country as a whole was thrown into depression thru the collapse of speculation on the New York Stock Exchange. The action of the President in securing co-operation of the business world absolutely prevented this collapse from developing into a panic and has enormously mitigated its effects on employment and business, including agriculture.

The co-operation of the great employers of the country in holding wages, and therefore the buying power of the public, the action of the railways, the public utilities, the industries, the Federal Government, the states and municipalities in undertaking programs of construction, are greatly mitigating unemployment and giving protection to the workman and stability to business. These agencies are performing a service of inestimable value which assures our riding over to an unprecedented rapidity of recovery from what would otherwise have been a most serious crisis.

"The farmer also was the victim of this collapse. His products and his labor were jeopardized the same as the other workers thru the currents started in considerable part from the same causes. His only direct support in this emergency is the Farm Board, thru powers conferred upon it. The board is endeavoring, thru finance of the farmers' own organizations, to help to restore stability and expedite recovery from a crisis which the farmer did not create and for which he is not responsible.

"The measures taken are purely emergency measures in part with those taken by other business agencies of the country, and I am confident that the board deserves and will receive the support of all thinking business men in its endeavor to contribute its part toward the swift recovery of the country as a whole from this situation. The grain trade in particular is interested in the maintenance of stability, and the board earnestly hopes for their co-operation in the measures now being taken for restoration of the grain markets."

Three Acres Is a Farm?

A farm, according to the Census Bureau, is all the land farmed by one person, whether it is 3 acres or 3,000 acres. Sounds simple, doesn't it? But it wasn't so simple for the Government officials to decide what the enumerators shall enumerate as a farm when they take the census in April. Much study, in the light of years of practical experience, by officials of the Census Bureau, the Department of Commerce, aided by representatives of the Department of Agriculture, was necessary before the short, concise definition was agreed upon.

The area of farm land owned by one person has nothing to do with the definition of a farm so far as the Census Bureau is concerned. The question is not how much land does he own, but how much does he operate or farm? A man who owns 300 acres might farm half of it himself and rent the other half out to three tenants, 50 acres to each. This would go down on the census records as four farms, because the land farmed by each man is considered as a unit.

On the other hand, one man might rent various tracts of land from 10 different owners. He might rent a few acres on shares, a few more from somebody else for money rent, and the rest from other people on different terms. The different pieces of land might be widely separated. If they were all farmed and managed by one man, they would all be put down together as one farm. If, however, a separate manager were hired to supervise a certain part of the land, that part would go down as a separate farm.

Again, one man may operate 100 acres of farm land which he owns and he may also rent from a neighbor and operate an additional tract of 20 acres. In that case he will be reported in the census as operating one farm of 120 acres, but the report will show that he owns 100 acres of the farm and rents the additional 20 acres. This 20 acres of land should not be reported as a farm by the neighbor from whom it is rented.

No tract of land of less than 3 acres will be registered as a farm unless it produced, last year, at least \$250 worth of farm products, either consumed on the farm or sold. In the census of 1920, if a piece of land of less than 3 acres was farmed by a man who gave his entire time to the task, it was listed as a farm regardless of how little it produced, but this year none of these small tracts will be counted unless they produced \$250 worth of products, regardless of how many people spent their full time cultivating the area. The Census Bureau estimates that approximately 5,000 tracts of less than 3 acres in the United States are farmed by individuals who give their full time to the occupation. This change in the classification of farms is the only difference between the Census Bureau's regulations for farm enumeration in 1930 from those of 10 years ago.

There is necessarily a borderline between what is a farm and what is not, says the Census Bureau. A small place on the edge of a town or village is often the home of a city worker who undertakes to keep a cow, some chickens, and probably cut a little hay or raise a large garden or small crop. If the agricultural products from such a place amounted to \$250 or more in 1929, it shall be counted as a farm, regardless of how much or how little time the city worker gave to his farming pursuits, and regardless of how small the tract of land tended.

On the other hand, a large country place of 10, 15 or 20 acres may not necessarily qualify as a farm. Actual farming or agricultural operations must be carried out before any tract of land will be classified in this category. A large country estate of a retired capitalist is not a farm if the only work done around the place consists in mowing the lawns and trimming the hedges. If the estate is of more than 3 acres, however, a very small amount of agricultural products could give it the rank of a farm, regardless of whether the products amounted to \$250 or not. In such a case as this, it would be up to the judgment of the census enumerator to decide whether agricultural operations were being carried on. Farm land is considered "operated" not only when cultivated crops are raised on it, but also when it is used to any significant extent for pasture or for production of hay.

A number of agricultural pursuits not usually considered by the average person as farming come within the Census Bureau's definition. All market and truck gardens, fruit orchards, nurseries, greenhouses, poultry yards, places for keeping bees, and all dairies in or near cities, even though little land is employed, are, for census purposes, farms, provided they produced in 1929 \$250 worth of agricultural products. If such places contain more than 3 acres they are farms regardless of the value of their produce.

In 1925, the last year in which a farm census was taken in the United States, there were 15,151 farms of less than 3 acres. The total number of farms in the nation at that time was 6,371,640.

Barton—Farmers have been busy sowing oats. A considerable amount of road sanding is being done this spring. Wheat, 92c; corn, 90c; butterfat, 27c; eggs, 17c and 18c.—Alice Everett.

Cloud—The cold weather of the first part of March delayed farm work somewhat and put a check on the rapid growth of vegetation. Farmers

have been preparing land for oats and corn. Poultry and cattle are doing well. Incubators are being started later than usual.—W. H. Plumly.

Coffey—The weather has been ideal for field work. Good progress has been made with oats sowing. Fairly good prices are being paid at public sales for everything except milk cows. Corn, 85c; heavy hens, 18c; eggs, 21c; butterfat, 28c; kafir, 55c.—Mrs. M. L. Griffin.

Cowley—Farmers have been quite busy sowing oats and preparing for the planting of corn and kafir. A large acreage of Sudan grass will be sown here this year. Corn, 75c; wheat, 90c; eggs, 18c; hogs, \$9.25; butterfat, 38c.—E. A. Millard.

Douglas—Considerable spring plowing has been done; farmers have been busy sowing oats. There is a big interest here in the Farm Bureau and the 4-H Club activities. Wheat is in good condition. Prospects are bright for a fine season.—Mrs. G. L. Glenn.

Ellis—We had a nice shower a few days ago, which was helpful, as the top soil was becoming dry. Cattle are doing well on wheat pasture, and there is ample feed in addition to the pasture, so the folks should get the animals thru to grass in good condition. No public sales are being held. Wheat, 85c; corn, 61c; kafir, \$1.20 a cwt.; eggs, 19c; butterfat, 30c.—C. F. Erbort.

Franklin—Pigs sold for from \$12 to \$13 a head recently at the Ottawa Market Sale. A good many horses also were sold, at all sorts of prices. Farmers have been busy with their field work. Some seed corn is being sold here as high as \$3.50 a bushel. The folks are quite optimistic over the coming season, with the belief that it will be a good year.—Elias Blankenbaker.

Harvey—Wheat fields are green, and the alfalfa is making a good showing. Farmers have been busy with their field work. Wheat, 91c; oats, 45c; corn, 70c; eggs, 18c; butter, 40c; potatoes, \$2; heavy hens, 17c; light hens, 12c.—H. W. Prouty.

Johnson—Good progress has been made in the planting of oats and potatoes. Dandelions are in bloom and rhubarb is up. Despite the low prices for eggs, the folks are busy setting incubators and the hatcherymen report a good business. Sheep raisers have been disappointed over the low prices of lambs.—Mrs. Bertha Bell Whitelaw.

Lane—The heavy March winds are active, but the wheat fields have such a good covering that they are well protected. Farmers have been busy with their sowing. Ducks and geese are moving northward.—A. R. Bentley.

Lyon—The cold weather has delayed the growth of the wheat and grass somewhat, but it has been helpful to the fruit trees, which were becoming too much advanced in their growth for the season. A large acreage of oats has been sown. There is plenty of hired help. Livestock is doing well. Eggs, 18c to 24c.—E. R. Griffith.

Marshall—Last month was the warmest February in 16 years. Farmers have been busy with their field work, mostly sowing oats and preparing land for corn and kafir. A great deal of road work is being done. Corn, 65c; wheat, 90c; eggs, 17c; cream, 29c; hay, \$8; potatoes, \$1.50.—J. D. Stosz.

Mitchell—We have been having spring-like weather recently. Farmers have been busy sowing oats and cutting corn stalks. Wheat fields and barley are growing rapidly. A few carloads of lambs have been shipped recently, at low prices.—Albert Robinson.

Neas—The weather has been favorable for spring work. A considerable acreage of oats has been sown. The soil contains ample moisture. Good prices are being paid at public sales.—James McMill.

Osage—Farmers have made fine progress with their spring work. A considerable acreage of soybeans will be sown here this year. Livestock has wintered very well.—James M. Parr.

Ottawa—We have had some windy days recently, and the soil is becoming dry; more moisture would be welcome. Farmers have been busy sowing oats. Roads are in fine condition. Livestock is doing well, and there is plenty of feed. Hogs are scarce. There is some demand for work horses. Wheat, 85c; corn, 60c; cream, 33c; eggs, 18c.—A. A. Tennyson.

Reno—Wheat and grass are making a fine growth. Oats sowing is finished. Farmers are busy preparing the corn and kafir fields. A good many folks are leaving the farms for town; we wish them luck, but they may find that expenses are heavy, and that work is not always plentiful.—D. Engelhart.

Riley—We have been having some real spring-like weather. Farmers have been busy plowing and sowing oats. Livestock is doing well. Feed is plentiful on most farms, although on some places there will not be more than is required to take the animals thru to grass. Several farm meetings and public sales have been held here recently. Wheat, 90c; oats, 45c; corn, 82c; rye, \$1.25.—Ernest H. Richner.

Rooks—Farmers have been quite active in preparing land for oats. Wheat is doing well. Corn, 64c; wheat, 85c; bran, \$1.30; eggs, 16c; cream, 27c.—C. O. Thomas.

Scott—Wheat has made a good growth, and it is supplying considerable pasture. We have received some moisture recently, which was very helpful. Farmers have been busy with their spring work. Cream, 27c; eggs, 20c.—Ernie Neuschwander.

Smith—Wheat is greening up rapidly; livestock is doing well on the pasture it is supplying. Egg production is increasing rapidly. A good deal of livestock has been shipped to market from this county recently. Wheat, 82c; corn, 58c; hogs, \$10; cream, 30c; eggs, 20c.—Harry Saunders.

Summer—March came in like a lion here, with a very severe freeze. Wheat received a considerable "setback"; it is not possible yet to tell how much damage was done. Some oats are up, other fields are being planted. A considerable acreage of Sweet clover will be sown this spring. A large acreage of corn and kafir also will be planted. Very few public sales have been held this year. Wheat, 93c; corn, 80c; oats, 55c; eggs, 19c; butter, 35c; hens, 18c.—E. L. Stocking.

Willson—Wheat is in good condition. Farmers have been quite busy planting oats. Livestock is in fine condition. Many early gardens have been planted, and baby chicks are numerous.—Mrs. A. E. Burgess.

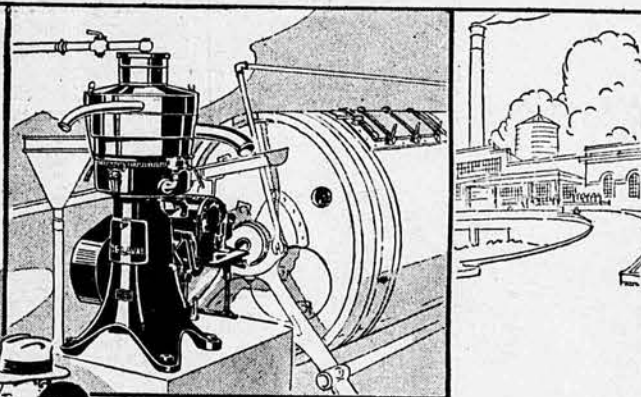
Some Valuable Bulletins

Any of the following Farmers' Bulletins may be obtained free on application to the Department of Agriculture, Washington, D. C.:

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- 744-F. Preservative Treatment of Farm Timber.
- 781-F. Tuberculosis of Hogs.
- 1001-F. Growing Fruit for Home Use.
- 1242-F. Permanent Fruit and Vegetable Gardens.
- 1403-F. Dewberries.
- 1437-F. Swine Production.
- 1452-F. Swine Production on the Farm.
- 1451-F. Making and Using Cottage Cheese on the Farm.

There hasn't been a bombing in Chicago for several days now, and we can't help but wonder whether the fruit-fly has finally attacked the pineapple crop.

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Farm Work Is Hazardous

1 farmer in 8 was seriously injured last year! Many others were KILLED.

Farm accidents are increasing! Fewer will escape this year. More autos—more machinery—these are bringing an increasingly heavy toll of farm injuries.

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Answers to Legal Questions

BY T. A. McNEAL

If I take out an accident policy when I am 69 and have an accident before the policy expires, but not before I reach my 70th birthday, can I collect for damages caused by the accident after the company has taken my pay for a year? It states that I am not entitled to compensation on account of reaching my 70th birthday.

IT WOULD depend on the terms of your policy. If this policy simply insured you against accident, or rather, provided for compensation in case of accident, at any time prior to your 70th birthday, and the accident did not occur until after your 70th birthday, the insurance company would not be liable. But if it insured you for one year for a certain amount and agreed during that year to pay you compensation at a certain rate in case of accident, you can collect although the accident may have occurred after you reached the age of 70.

Will Can Be Broken?

A is a young man who married B, a widow with two small sons. B had a small farm well stocked with horses, cattle and implements. A sells out the stock, gets everything in his name, and buys another farm deeded to A and B, and tells her sons if they stay with him until they are 21 he will let them have the small farm owned by their own father and mother. Later A and B have children. B dies first. Two years later A dies and leaves a will leaving all the property to his children, ignoring her children. Could he make a legal will in Missouri like that? If there was a will made earlier and signed by both A and B dividing the property equally, which will is legal in Missouri?

If B made a will, either separately or jointly, the division of her own property under the Missouri law would be governed, of course, by that will. If she died without will then her property under the Missouri law would descend as follows: To her children in equal parts, or if either of the children died, to the descendants of these children. This would be subject to the husband's dower, which is a life estate in one-third of her property.

If the husband in this case has undertaken to will his deceased wife's property as if it were his own, that will can be broken.

For the Babies

Is there a child's welfare board in Kansas? If so, where would one write to such a board?

There is no board designated by that name. However, there is a division of the Kansas State Board of Health known as the Division of Child Hygiene, under the general supervision and direction of the Board of Health. The general duties of this Division of the State Board of Health include the issuance of educational literature on the care of the baby and the hygiene of the child, the study of the cause of infant mortality and the application of preventive measures for the intervention and suppression of the diseases of infancy and early childhood. A letter addressed to the State Board of Health at Topeka would get any information you may desire in regard to the workings of this division.

Allowed But Six Months?

My husband and I bought a farm for \$8,200. We paid down \$600. We have lived on the place nearly four years and paid interest on the first mortgage until October 1, 1929. We have paid no interest on the second mortgage and have not paid the last half of the taxes for 1929. We also have done a lot of improving on the place and have a deed to it. Can the mortgage company put us off the place in six months or have we 18 months? Some folks tell us we have not paid enough down to hold it more than six months, while others say that makes no difference. It has not started proceedings against us yet, but as the interest was due on the first mortgage October 1, 1929, it may start any time now.

If this mortgage was given to secure the deferred payments on the land, then in case of foreclosure only six months would be given to the owners of the land to redeem, because less than one-third of the purchase price was paid.

See the County Attorney

Is there any law in the United States that would compel a son to help support his mother with two small children, the mother being unable to support herself? She is a widow.

If the son is a minor, he is required to contribute to the support of his parent. If he is not a minor there may be states in which he is required to support his parents by statute. That does not apply in Kansas. In Kansas the husband is required to support his wife and family, and both parents are required to support their children under 16 years old. Failure to do so in some cases is a felony, but our statute does not place the same obligation

on the child after he has reached the age of majority to support his parents. I do not say there are no states where a child is so required to support his parents. You can ascertain whether your particular state has such a law by calling on your county attorney.

Tell the Utilities Commission

Several farmers have been moving hay stacks 20 feet high over public roads from one farm to another for years. Renters and landowners with several farms have no other way of getting from one hay field to another. The Lincoln Telephone and Telegraph Company bought our local telephone company and is rebuilding the lines. At the crossroads they are too low and the employees are anchoring them with cables across the road until we are unable to get the stacks under. These obstructions are on Kansas roads. Have they a right to close the roads so that we cannot go thru with movable farm machinery? P. N. S.

Our law does not specifically designate the height at which telephone wires must be placed. The section of the statute bearing on this matter reads as follows: "Corporations created for the purpose of constructing and maintaining magnetic telegraph lines are authorized to set their poles, piers, abutments, wires and other fixtures along, upon and across any of the public roads, streets and waters of this state, in such a manner as not to incommode the public in the use of such roads, streets and waters."

Cities have a right by ordinance to fix the height at which wires shall be placed. I would suggest that the farmers whose transportation of their farm machinery is interfered with should take the matter up with the Public Utilities Commission at Topeka.

No Definite Law

What is the law in regard to a newspaper collecting the subscription price for a paper after the subscription has expired? Can it collect after the paper has been ordered stopped?

There is no definite law in regard to the collection of newspaper subscriptions. The Postal Department has undertaken to clean up the nuisance of delinquent subscriptions by requiring papers not to permit their subscriptions to be in arrears more than six months without simply paying regular first class postage rates. I hold that where a paper has no right to receive the benefits of the special rate given by the Postoffice Department for newspapers that it cannot collect a subscription unless it can be shown that the subscription was definitely ordered. I also hold that the publisher could not collect for subscriptions after said subscriptions had been ordered discontinued.

Can Marry at Once

A is a woman. She has lived in a certain state a number of years. She wants a divorce, and is going to go to Iowa or Missouri soon. Can she get a divorce in either state or will she have to get it in the state where she lives? If she can obtain a divorce in either state mentioned how long must she remain single before she can marry again? B. K. E.

If this woman goes to Iowa it will be necessary first for her to establish a residence there for a period of one year. She would not be permitted to remarry within one year after the decree. If she goes to Missouri it will be necessary for her to establish a residence for one year, but she might marry again as soon as the decree of divorce is granted.

In the Probate Court

Who has the right in Kansas and Missouri to appoint administrators or guardians? R.

In both Kansas and Missouri the appointment of administrators and guardians is vested in the probate court.

In All the States

In what states can second cousins marry legally? L. J.

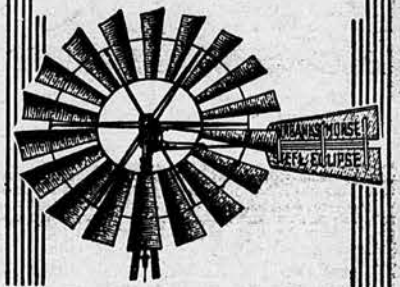
So far as I know they can marry legally in any state.

Must Have A's Consent

A bought a quarter of land from B. B had the land leased for oil and gas. B sold C a half interest in the oil and gas lease. B sold A the land with a warranty deed and gave an abstract. A had a lawyer look it over and found it was all right, but B wouldn't give up the oil and gas lease but did turn over his half of the rental to A. C will not turn over any of his half at all. I want to know if C holds any title to this land when A has a clear warranty deed and abstract. Can B and C put an oil rig on this land and drill for oil without A's consent or can A hold any royalty on his own land? J. P. S.

What B seems to have done was to sell a half interest in his royalty, which he had a right to do so long as

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he had title to the land. But when he sold this land under the warranty deed to A, while that would not affect the rights of C purchased before the land was sold, it would make B liable to A for this half of the royalty. In other words, A having bought this land with a clear title so far as the record was concerned has a right of dominion over it, and neither B nor C would have a right to come on this land now and put down a well for oil or gas without his consent.

What's Ahead Now?

(Continued from Page 24)

have lagged behind the northern portion, as represented by Iowa and Illinois, in the development of agricultural practices and soil-management methods that tended to raise the acre yields of the important crops.

In Western Europe, there has been an enormous increase in productivity during the last 150 years, largely on account of increase in crop yields. Wheat yields rose gradually from a level ranging between 6 and 10 bushels an acre in the various countries to a level of 20 bushels an acre in France and over 32 bushels an acre in England and Germany. In the smaller countries such as Denmark, even higher acre-yields have been obtained.

For many years preceding the American Civil War, the increasing demand for food to supply the needs of the growing European population resulted in rising prices that made possible the development of intensive types of agriculture in Northwestern Europe. Under the common field system on the continent the soils had long before the end of the medieval era lost their power to produce more than 6 or 8 bushels of wheat an acre, but from the later half of the Eighteenth to the middle of the Nineteenth Centuries the methods and practices used in the times of the Romans were re-adopted. The introduction of root crops and clovers from Flanders, the development of crop rotations, the increase in numbers of livestock, and the increasing and more efficient use of animal manures raised yields in England to 20 bushels an acre.

Wheat yields in Germany rose from 10 bushels an acre in the closing years of the Eighteenth Century to about 16 bushels by the middle of the Nineteenth Century. In France, wheat yields increased from an average of about 12 bushels an acre during the decade following the Napoleonic wars to about 16 bushels an acre by the middle of the century. Following the depression of the Napoleonic wars there was a steadily growing demand for food products as a result of the rapidly increasing urban population in England, and crop yields began to rise, until by the late eighties wheat yields had risen to a fraction of a bushel less than 30 bushels an acre.

Cheap grains from the United States, following the Civil War, acted as a check on both acreage expansion and efforts to increase yields in Europe, but the figures for the last 40 or 50 years show a continued rising trend in crop yields. Whereas the average yield of wheat in England and Wales in 1884, for example, was 29.9 bushels an acre, the average yield in 1928 was about 34 bushels an acre. The average wheat yield in France in 1878 was 15.5 bushels an acre, but now it is nearly 22 bushels an acre. In Denmark the average yield of wheat in 1878 was 35 bushels an acre, but in 1928 it was 48 bushels an acre, a peak of 57 bushels an acre having been reached in 1911. In Germany the average yield in 1878 was 21 bushels an acre, but in 1928 it was 34 bushels an acre. These increased yields are reported to be the result of widespread adoption of improved scientific methods in recent years and the increasing use of commercial fertilizers.

The so-called agricultural depression of the post-war period having ceased to be news, the press is now filled on the one hand with opinions of the great era of prosperity upon which agriculture is about to enter, and on the other with calculations of the deplorable state in which agriculture will find itself within the next few decades. The view is expressed, for example, that the population of the United States will become stationary within 30, 50 or 75 years—the latest opinion is that we will reach

this state about 1960 with a total population of 150 million people—and that production can be increased with such great ease that we will always have a surplus problem, with consequent low prices and an agriculture that will always be in the dumps.

The optimist, to the contrary, sees a condition when the problem will be to increase production, whereas now it is to hold down production. Agriculture will have expanded to its territorial limits, says he, and if the larger population of two and more decades hence is to be fed, emphasis must once more be placed on intensity of production—of growing the proverbial two blades. Acre costs under these conditions will mount high, but with the use of even more efficient machinery than we now know, and the use of intensive cultivation practices, we will have low unit cost of production on the highest priced land in the world. Farm land values then will make the war-time values look like "30 cents."

The American farmer of 50 years from now, says he, will sit in an office before an electric switchboard and control automatic plows, cultivators, and harvesters which will produce his crops without the aid of a single field laborer. Automatic farm machinery which runs without constant human supervision will be used widely. Field markers will be located so that all machines necessary for field operations will be guided by long arms attached to these monuments.

The manless machines will be able to work all night if necessary, thereby doing the work of two or three man-driven machines. Their forerunner, which has already proved successful, is a manless plow in use at Iowa State College which, after being steered across the field to make the first furrow, guides itself automatically by a guide wheel which follows the last furrow plowed until the field is completed.

Farm engineers now, he continues, are developing a soil-tilling machine which will so pulverize the soil, organic material, and plant food, as to make their full richness available the same year instead of consuming two or three years. A feed-grinder starts automatically at a certain time, is fed automatically, and stops when the grain runs out. It is operated at night by electricity when the power rate is cheap.

Meanwhile, there is the practice, not the theory, of the man on the farm. Regardless of whether the population is going to continue to increase or stop at a given point, his job year after year, as he sees it, is to grow the biggest possible crop at the lowest possible cost. Examine the record of every successful farmer and you will invariably find low unit cost of production. His total operating expenses may be enormous, but when they are reduced to unit costs, they show a profit even in the worst years of the agricultural depressions.

Wouldn't it be fun to run a manless farm?

More Than Fine Feathers

BY A. H. MOON
Junction City, Kansas

The importance of selecting birds of the highest standard quality for trap-nesting has been demonstrated in my work. I insisted on sending birds to the Geary County Contest that were show winners with the best type and color, and have disproved the old theory, "fine feathered birds are not good layers." Five of my pen of Single Comb Reds passed the 200-egg mark and hen number 9,986 led the entire contest with an official record of 297 eggs, didn't get broody and was a winner at the Topeka Fair in 1928. Another fact worth mentioning is that the hens laid a nice egg of the right color and texture. This is controlled by the careful selection of hatching eggs.

On Poultry Diseases

Poultry Diseases, Their Prevention and Control, Bulletin No. 247, may be obtained free from the Agricultural Experiment Station, Manhattan, Kan.

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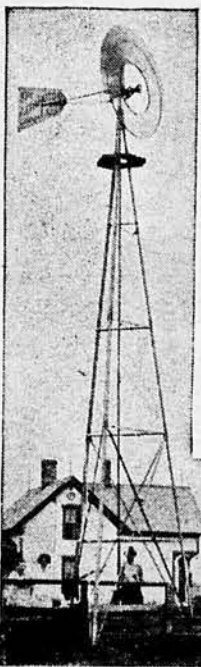
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Kansas Poultry Talk

by Raymond H. Gilkeson

These Pointers Aid in Putting Quality Eggs on the Market in the Best Condition

THERE are a number of factors affecting the quality of eggs which should be kept in mind in the daily work with poultry. These are summarized well by the United States Department of Agriculture in this manner: "Keep strong, healthy, vigorous stock and care for it properly. Provide plenty of clean nests for the laying hens. Gather eggs twice a day, keep them in a cool, fairly dry place, and hold out cracked, dirty, small and very large eggs for home use. Market eggs frequently and strive to meet the preferences of your market; grade eggs for uniformity in size, shape and color. Use only sound, strong, standard packages and pack the eggs properly."

Hendriks Method Available

A few weeks ago this department offered to send our readers a copy of the Hendriks method of feeding baby chicks free, if a stamped and addressed return envelope was included with the request. A great many have been sent out, and you may have one if you wish. A number of letters not only requested the method for baby chicks, but the one for the laying flock as well. In view of this fact Kansas Farmer has obtained a supply of pamphlets containing the complete "Hendriks Methods for Baby Chicks and Hens," which are available only thru the Capper Book Service, Topeka, Kan. The price is 25 cents postpaid.

Mr. Hendriks is a poultry expert. His method has helped cut chick losses from as high as 40 or 60 per cent of the birds hatched, to 5 and 10 per cent and sometimes no losses have occurred. In this book Mr. Hendriks gives the results of his years of experience with poultry. He not only discusses baby chicks, their feeding and care, but also the best methods he has found of handling and feeding pullets and hens. Much attention is given to disease control, housing and ventilation.

Hatching Eggs Pay Best

We never have raised poultry on a large scale because of a shortage of labor here on the farm. Our flock averages about 200 hens, and we derive our profits from various angles of the poultry business, rather than depending on egg production entirely. While our greatest profits, perhaps, come from the sale of eggs, that profit is realized from hatching eggs rather than market eggs. During the winter, spring and early summer we sell every hatching egg, except those we set to replenish our flock, at about double market price, either to customers who come to the farm, or to others at a distance. We ship eggs in bushel baskets, packing in fillers with excelsior. Later, we sell to a hatchery, or grade our eggs and receive select prices on our local poultry and egg market, which is an excellent one. The culls we use or sell to the stores.

We find the dual-purpose fowl best suited to our needs. When we have to cull the pullets or hens and sell on the local market, the price we receive more than pays us for their feed. But we do not have many culls; having started with good stock, and kept it bred up, we have a uniform flock of which we are justly proud. By exhibiting a few specimens at fairs and shows and doing a little advertising otherwise, we dispose of all our good surplus stock and eggs at much better than market prices. Our good cockerels we sell either as 8-week-old prospective breeders, or keep them until they are mature, when we realize a greater profit. Any cockerels not up to standard we use, sell as broilers or caponize.

We very seldom advertise "started" or "ready-to-lay" pullets, but there always is a good demand for such. Neither do we make a practice of selling baby chicks, preferring to sell

eggs instead. We hatch our chicks, along in March, in one or two bunches as nearly the same age as possible. We cull, cull, cull, all thru the year, which gives us ready cash, makes more room for our good stock, and keeps our flock on a profitable basis. Each egg or fowl we sell is sold to the best possible advantage. No dirty eggs are sold; culls are crate-fattened before marketing. This, in a general way, is how we make our hens pay us from \$3 to \$4 each year.

But perhaps the amount of profit any poultry raiser realizes from his poultry depends upon the percentage of the chicks he is able to raise to marketable or production age, more than upon the method used upon those that survive, for dead chicks are dead losses. Perhaps a few of the things experience has taught us may be helpful to others contemplating entering the poultry game.

Do not invest too deeply at first. Go slowly, until you get the knack of it.

Start with good quality, whether eggs or stock. Know what you are getting—which isn't as easy as it sounds!

Then raising the chicks! There's the rub! Lots of folks' chicken profits fizzle out before the chicks are half grown, in the form of sickly and dead chicks. Ours used to. First, I believe it is possible to get into trouble by over-feeding a chick the first week of its life. So I feed just a little at first, but feed often, gradually increasing the amount. I used to be a crank about waiting until the chick was 72 hours old before feeding. That's all right, but not necessary.

Then, for pity's sake, don't crowd them! You don't have to start with 500 chicks to raise 100 pullets. Why not start with 250 or 300 and raise all of them, healthy, instead of starting with 500, murdering half of them and maiming the rest for life? If you have room for 500, go to it! But don't try to raise that many when you've only room for half that number.

And don't burn them up, or chill them, and wonder why they die! Give them plenty of fresh air, but no drafts, keep a cozy place where they can run to get warm when they want to, no corners to pile in at night—and plenty of room.

Then be sure to have plenty of clean feed and drink before them at all times. There must be no crowding at the fountains and hoppers if you want them all to get their share and develop quickly and evenly.

We raise the largest percentage of our chicks when we keep them confined to the brooder house and an outside run with wire floor, until they are 8 to 12 weeks old, which lessens greatly the dangers from coccidiosis and worms. But even with this sort of management we had coccidiosis in every brooder house one spring. The houses, previous to putting in the chicks, were scrubbed with hot lye water and every precaution taken, except one, to prevent this dread disease. We did not disinfect our shoes before entering the houses to care for the chicks. In each case, at the first sign of bloody droppings, we discontinued feeding grain, giving only mash and all the milk they would drink. We lost only about a half dozen out of 300 in each bunch, altho they were a sickly-looking bunch for a few days, but soon recovered and were back to normal, no second case ever showing up.

Worms are a great bugaboo. When we pull our brooder houses to clean ground and raise our chicks away from the farmyard we are not troubled to any great extent with worms. But this entails more time, labor and steps than we can give. So we use "dope" for worms, which is very unsatisfactory. Round worms and tape worms take different treatment, and nothing will get all the worms without killing the chickens. But wormy chickens are profitless—they die, they

Wonderful Success In Raising Baby Chicks

Mrs. Rhoades' letter will no doubt be of utmost interest to poultry raisers who have had serious losses in raising baby chicks. We will let Mrs. Rhoades tell her experience in her own words:

"Dear Sir: I see reports of so many losing their little chicks, so thought I would tell my experience. My first incubator chicks, when but a few days old, began to die by the dozens. I tried different remedies and was about discouraged with the chicken business. Finally I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko Tablets to be used in the drinking water for baby chicks. It's just the only thing to keep the chicks free from disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."—Mrs. Ethel Rhoades, Shenandoah, Iowa.

Danger of Infection Among Baby Chicks

Readers are warned to exercise every sanitary precaution and beware of contaminated drinking water. Baby chicks must have a generous supply of pure water. Drinking vessels harbour germs and ordinary drinking water often becomes contaminated and may spread disease through your entire flock and can cause the loss of half or two-thirds your hatch before you are aware. Don't wait until you lose your chicks. Take the "stitch in time that saves nine." Remember, that in every hatch there is the danger of some infected chicks. Don't let these few infect your entire flock. Give Walko Tablets in all drinking water for the first two weeks and you won't lose one chick where you lost dozens before. These letters prove it:

Never Lost One After First Dose

Mrs. C. M. Bradshaw writes: "I used to lose a great many of the little downy fellows, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 42, Waterloo, Iowa, for their Walko Tablets for use in the drinking water of baby chicks. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after using the Tablets and my chickens are larger and healthier than ever before. I have found this Company thoroughly reliable and always get the remedy by return mail."—Mrs. C. M. Bradshaw, Beaconsfield, Iowa.

You Run No Risk

We will send Walko Tablets entirely at our risk—postage prepaid—so you can see for yourself what a wonderful-working remedy it is when used in the drinking water for baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for a package of Walko Tablets (or \$1.00 for extra large box)—give it in all drinking water and watch results. You'll find you won't lose one chick where you lost dozens before. It's a positive fact. You run no risk. We guarantee to refund your money promptly if you don't find it the greatest little chick saver you ever used. The Pioneer National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of our guarantee.

Walko Tablets are sold by leading druggists and poultry supply dealers.
WALKER REMEDY CO., Dept. 42
Waterloo, Iowa.

SAVE MORE CHICKS

This famous "Dee Moines" Brooder House saves ALL the chicks. Over 20,000 users endorse it. Latest, improved design keeps chicks warm, dry. Big Vio-Ray windows, perfect ventilation. Double floor, crooked, germ-proof. Sections movable. Three sizes. Cheaper than building your own. See dealer or write for free literature.

THE HARGROVE COMPANY
482 N.T. Ave. Des Moines, Iowa

20 CONCORD GRAPE VINES \$1.00
8 APPLE TREES 4 VARIETIES \$1.00
8 BUDDED PEACH TREES \$1.00
All Postpaid. Healthy, well rooted stock, sure to please.
Fairbury Nurseries, Box J, Fairbury, Nebr.

CROSS BRED SEED CORN

Now ready!... a new hybrid seed corn that greatly outyields ordinary varieties. Tests show 5 to 12 bu. greater yield per acre. Write today for prices and full particulars.

BARTLEDES SEED COMPANY
217 Barteldes Building
Lawrence, Kansas Denver, Colorado



NOTHING BUT A FENCE BETWEEN

"Why do you get twice the corn I get?" asked a farmer friend of Henry Bottin, at Ocheyedan, Iowa. Here's the answer. Tight fences permit Mr. Bottin to hog down, rotate crops, run stock on fresh pasture—and fertilize at the same time. E. E. Chandler, Elgin, Ore., made 300 rods of woven wire fence pay for itself three times over in three months by fencing meadow land, renting out for sheep at 10 per head per day. He made \$450 extra.

RED BRAND FENCE

"Galvanized"—Copper Bearing bought by money making farmers who hog down; save shattered and down grain; clean out weeds with sheep; rotate crops—and fertilize the farm by feeding what they raise. Ask your dealer to show you the fence that costs less because "Galvanizing" (patented, extra heavy zinc coating) and copper in the steel make it last longer.

VALUABLE FARM PLANNING BOOK

Successful farmers in fifteen states have contributed the material for this interesting, illustrated book on "Farm Planning". Describes actual, successful farm plans. Covers proper crop rotation. Shows value of legumes. How marketing crops on the hoof brings extra profits and builds up soil fertility through natural fertilization. Ask your dealer for one of these books, or write.

KEYSTONE STEEL & WIRE CO.
2156 Industrial Street
Peoria, Ill.



FREE MAY'S Money-Saving SEED CATALOG WRITE FOR IT

SAVE BIG MONEY ON ALFALFA

Get BETTER SEED at LOWER PRICE! Genuine hardy Northwestern Alfalfa purchased direct from the grower in producing field. Recleaned 6 times for sowing. Finest ever seen, why pay more than my low price.

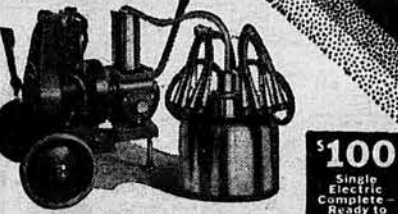
RED CLOVER—Another Bargain at Practical, hardy Red Clover Seed of better quality than you ever bought for so low a price. Priced low because I buy and sell direct.

Catalog of Seed Bargains—FREE! Sensationally low price on fine Grimm's hardy Alfalfa, Red Clover, Sweet Clover, Mixtures, Grass Seeds, etc. from best producing sections of the country. Write for it now.

MAY SEED & NURSERY CO.
Dept. 33 Shenandoah, Iowa



Capper Engraving
WRITE for PRICES ON CATALOGS & LETTERHEADS



Easier to Clean

and easier to put together because it has fewer parts. Ford's Milker Method is used on thousands of farms because it produces finer quality milk. No long pipe line to be contaminated. Cows like it—give milk freely. Finest construction, completely guaranteed. Many models to fit any barn condition.

Send for Catalogue No. 68

Ford's Milker

Electric or gas engine
MYERS-SHERMAN COMPANY
215-15 N. Desplaines St., Chicago

are susceptible to colds and other diseases, they do not lay as well. Every precautionary measure in the way of sanitation should be practiced to prevent worms. Either fence the chickens in around their houses, or fence them out of the barn, barnlot and other places where flies abound. Also enclose the dropping boards with wire, discontinue use of liquid milk in warm weather to eliminate danger from flies.

To control mites we paint roosts and nests with crude oil. Lice always were a constant worry until we tried "Black Leaf 40." Now we spend a few minutes two or three evenings a year painting "Black Leaf 40" on the roosts and lice never worry us or the chickens any more. We just "de-loused" about 400 hens and pullets recently in less than 30 minutes. "Black Leaf 40" is a liquid and can be obtained at any good drug store, or more cheaply at many feed stores. Parsons, Kan. Mrs. Ray Farmer.

Home Needs Come First

My main reason for raising chickens is to have fresh eggs and meat whenever we want them, which usually comes quite often. And what sounds better than chicken and noodles when we are having zero weather?

I have better success raising chicks from my eggs. They hatch better and the chickens are stronger—they always are from range flocks. I usually buy eggs from a certified flock to get my cockerels for the following year. I hatch these at home under hens so that I can keep them separate, but the other eggs I have hatched at a small hatchery near here.

I never feed my chickens until they are at least 2 days old. I clean my brooder house thoroughly so that it will be dry and warm for the chicks, then I put them in it early in the morning, so they can get acquainted with their surroundings, and are well-content and ready to go to bed at night.

About 8 o'clock the third morning I give them water and clabber milk, which is warm. They must have something to drink out of that will not allow them to get wet. I use the shallow granite pans. A small dish inverted, or some other similar article, easily cleaned, will keep the chicks out of the pan. The first week I feed about a handful of rolled oats with a little clean sand in it for every 100 chickens about four times a day. I scatter this out on paper, and if they don't clean it up in 5 minutes, I take it away. When the chicks are a week old I put clean sand in a box and growing mash in feeders and leave it with them a little longer each time, and gradually get it before them all the time. I never put sand on the floor, but prefer to use fine straw mixed with alfalfa leaves. The chicks eat the leaves when very small. I cut the winter onion tops and Bermuda grass for the chicks, beginning when they are a week old, and they surely enjoy it.

Atlanta, Kan. Mrs. S. N. Ratts.

Folks Like the "Club News"

(Continued from Page 22)

the training in English alone puts the Capper Clubs ahead of any other similar organization with which I am familiar."—Mrs. L. D. Zirkle, Finney county.

"I certainly do enjoy the articles in the Capper Club News. I like to learn what the other children of the state are doing."—Genevieve Headrick, Bourbon county.

"I sure enjoy reading the Club News."—Nevella Hodson, Sedgwick county.

"We like the club paper very much and watch with interest for the club news in the Kansas Farmer."—Mrs. Ethel Gardner, Wichita county.

"I listen to the radio club skit each Monday night and think you have a good program. I like the club paper."—Wallace Gardner, Osage county.

"The Club News is so interesting now that it is hard to get any work done until it has been read from cover to cover."—Mrs. A. H. Briley, Reno county.

"I have a boy who will not be old enough to join the club until 1931, but he is getting enthusiastic over club activities from what we read in the

Kansas Farmer and the little paper, the Capper Club News, two copies of which he has received."—Mrs. Catherine Brewer, Phillips county.

"I certainly do enjoy reading the Capper Club News."—Arlene Anderson, McPherson county.

"We receive Capper Club News regularly and enjoy it immensely. Please send the News to the following."—Selena McMillen, Washington county.

"We all like the weekly club paper, and we are going to send in some jokes."—Mildred Moore, Sumner county.

"I like the new form of our club paper fine."—Wanda Reade, Allen county.

"Received the Club News today and was very glad to get it."—Jack Parr, Johnson county.

Now, aren't you eager to learn whether all of these folks know a good thing when they see it? The only way you can be sure about it is to read the Capper Club News for yourself. Ask for next week's copy.

You'll Enjoy the Masseys

(Continued from Page 8)

8:30 p. m.—Sky Boat
9:00 p. m.—Voice of Columbia
9:30 p. m.—National Forum from Washington (CBS)
10:00 p. m.—Tomorrow's News
10:05 p. m.—Dream Boat (CBS)
10:30 p. m.—Bert Lown and his Biltmore Orchestra (CBS)
FRIDAY, MARCH 21
6:00 a. m.—Alarm Clock Club
6:45 a. m.—USDA Farm Notes, time, news, weather
7:00 a. m.—Morning Organ Revue (CBS)
7:30 a. m.—Morning Devotionals
7:55 a. m.—Time, news, weather
8:00 a. m.—Housewives' Musical KSAC
8:40 a. m.—Health Period KSAC
9:00 a. m.—Early Markets
9:05 a. m.—Sunshine Hour
9:30 a. m.—Housewives' Half Hour KSAC
10:00 a. m.—WIBW Harmony Boys
11:00 a. m.—Women's Forum
11:15 a. m.—Melody Three
11:45 a. m.—Complete Market Reports
12:00 m.—Music Box
12:20 p. m.—Health for the Family (CBS)
12:25 p. m.—State Board of Agriculture
12:30 p. m.—Noonday Program KSAC
1:30 p. m.—Ann Leaf at the Organ (CBS)
2:00 p. m.—Columbia Ensemble (CBS)
2:30 p. m.—For Your Information (CBS)
3:00 p. m.—The Letter Box
3:10 p. m.—WIBW Harmony Boys
3:30 p. m.—Club Plaza Orchestra (CBS)
4:00 p. m.—The Melody Master
4:30 p. m.—Matinee KSAC
5:00 p. m.—Markets KSAC
5:30 p. m.—Uncle Dave's Children's Club
6:00 p. m.—Daily Capital Radio Extra
6:10 p. m.—Five Musical Masseys from Pen-nant Cafeteria
6:30 p. m.—Jayhawk Trio
7:00 p. m.—Jenkins Melody Hour
7:30 p. m.—Kansas Farmer Old Time Orchestra
8:00 p. m.—True Story Hour (CBS)
8:30 p. m.—Lights and Shadows
9:30 p. m.—Curtis Institute of Music (CBS)
10:00 p. m.—Tomorrow's News
10:05 p. m.—Ted Weems and his Orchestra (CBS)
10:30 p. m.—Ben Pollack and his Silver Slipper Orchestra (CBS)

SATURDAY, MARCH 22

6:00 a. m.—Alarm Clock Club
6:45 a. m.—USDA Farm Notes, time, news, weather
7:00 a. m.—Morning Organ Revue (CBS)
7:30 a. m.—Morning Devotionals
7:55 a. m.—Time, news, weather
8:00 a. m.—Housewives' Musical KSAC
8:40 a. m.—Health Period KSAC
9:00 a. m.—Early Markets
9:05 a. m.—Sunshine Hour
9:30 a. m.—U. S. Army Band (CBS)
10:00 a. m.—WIBW Harmony Boys
11:00 a. m.—Adventures of Helen and Mary (CBS)
11:30 a. m.—Women's Forum
11:45 a. m.—Complete Market Reports
12:00 m.—By Popular Request (CBS)
12:30 p. m.—Radio Fan Program KSAC
1:30 p. m.—The Dominion Male Quartet (CBS)
2:00 p. m.—Columbia Ensemble (CBS)
2:30 p. m.—For Your Information (CBS)
3:00 p. m.—The Letter Box
3:10 p. m.—WIBW Harmony Boys
3:30 p. m.—Club Plaza Orchestra (CBS)
4:00 p. m.—The Melody Master
4:30 p. m.—Quiet Harmonies (CBS)
4:45 p. m.—Dr. Thatcher Clark—French Lesson (CBS)
5:00 p. m.—Hotel Shelton Orchestra (CBS)
5:30 p. m.—Uncle Dave's Children's Club
6:00 p. m.—Daily Capital Radio Extra
6:10 p. m.—Five Musical Masseys from Pen-nant Cafeteria
6:30 p. m.—Kansas State High School Basketball Tournament
9:00 p. m.—Paramount Publix Hour (CBS)
10:00 p. m.—Tomorrow's News
10:05 p. m.—Roy Ingraham's Paramount Orchestra (CBS)
10:30 p. m.—Guy Lombardo and his Orchestra (CBS)

Just One Ground Mole

A lineman with a broken leg was taken to a hospital for treatment. After his leg had been set, the nurse asked him how the accident occurred. He replied:

"You see, ma'am, it was this way I was stringing for the company and I only had one ground mole. He sent up a big come-along and she was a heavy one. I was pullin' on her and yelled to the mole to give the guy a grap; instead he threw a sag into her, and that broke my leg."

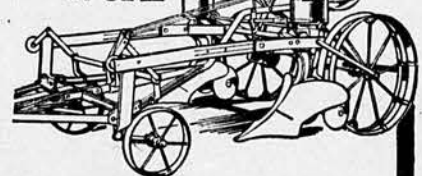
"Yes," the nurse replied, "but I don't exactly understand."

"Neither do I," said the lineman. "The darn fool must have been crazy."

Approximately 100 farmers' cooperative associations handle wool.



Does More Work



SAVES TIME MONEY

HERE'S real "Farm Relief"... the labor-saving, cost-cutting Bailer Planter Type Two-Row Lister. Built from the ground up. Backed by 25 years' experience in building dependable farm implements.

The Bailer is accurate plants perfectly. Hitch independent of beams permits even operation of bottoms. Automatic gear shift. Vertical lift saves plow points. Automatically runs level at any depth. Power lift on tractor-drawn models. Open planter wheels firm soil around seed yet do not leave crust. Many other superior features. See the Bailer before you buy.

FREE—Mail coupon for Catalog and full information on Bailer Listers, Cultivators, Disc Harrows, Haying Tools, etc. Also Special Low Prices and nearest dealer's name.

BAILOR CULTIVATOR CO.
Dept. L10 Atchison, Kan.

MAIL COUPON TODAY

Bailor Cultivator Co., Dept. L10 Atchison, Kan.

Please send me full information, prices, etc., on the BAILOR TWO-ROW LISTER and other BAILOR Implements.

Name.....
Address.....

AMERICAN MANURE LOADER

Handles 40 to 60 Loads a Day

Saves you 75 per cent in time and labor. Works by horse power. One man does the work of 10! Easy to operate. Lasts a lifetime. Costs only \$75.00 and pays for itself in one season.

WRITE for circular of full details. Here is just the loader you need.

American Scale Co.
210 Mfg. Ex. Bldg.
Kansas City, Mo.



KIRLIN CULTIVATORS



This Cut Shows Our Low Priced Runner Cultivator for Listed Corn

We also have new Kirlin Wheel Cultivators, and cultivators for tractors. Your dealer can supply you. Write us for circulars and any information.

L. Kirlin Cultivator Co., Beattie, Kan.

Drive Tractors in COMFORT

IN RAIN—SUN—WIND—DUST

Staunchly built, all-steel cab protects driver from all weather conditions. Ample head room. Side windows slide open. Easily attached.

MINENCO TRACTOR CAB

Fully guaranteed. Write for details. State make and model of tractor.

Minneapolis Engineering Co.
2936 Pillsbury Ave., Minneapolis, Minn.
DEALERS WANTED





Our FARMERS MARKET Place



Sell thru our Farmers' Market and turn your surplus into profits

RATES: 8 cents a word if ordered for four or more consecutive issues, 10 cents a word each insertion on shorter orders, or if copy does not appear in consecutive issues; 10 word minimum. Count abbreviations and initials as words, and your name and address as part of the advertisement. When display headings, illustrations, and white space are used, charges will be based on 70 cents an agate line; 5 line minimum, 2 column by 150 line maximum. No discount for repeated insertion. Display advertisements on this page are available only for the following classifications: poultry, baby chicks, pet stock, and farm lands. Copy must reach Topeka by Saturday preceding date of publication.

REMITTANCE MUST ACCOMPANY YOUR ORDER

Buy thru our Farmers' Market and save money on your farm products purchases

TABLE OF RATES					
Words	One time	Four times	Words	One time	Four times
10.....	\$1.00	\$3.20	26.....	\$2.60	\$8.32
11.....	1.10	3.52	27.....	2.70	8.64
12.....	1.20	3.84	28.....	2.80	8.96
13.....	1.30	4.16	29.....	2.90	9.28
14.....	1.40	4.48	30.....	3.00	9.60
15.....	1.50	4.80	31.....	3.10	9.92
16.....	1.60	5.12	32.....	3.20	10.24
17.....	1.70	5.44	33.....	3.30	10.56
18.....	1.80	5.76	34.....	3.40	10.88
19.....	1.90	6.08	35.....	3.50	11.20
20.....	2.00	6.40	36.....	3.60	11.52
21.....	2.10	6.72	37.....	3.70	11.84
22.....	2.20	7.04	38.....	3.80	12.16
23.....	2.30	7.36	39.....	3.90	12.48
24.....	2.40	7.68	40.....	4.00	12.80
25.....	2.50	8.00	41.....	4.10	13.12

RATES FOR DISPLAYED ADVERTISEMENTS ON THIS PAGE

Displayed ads may be used on this page under the poultry, baby chick, pet stock, and farm land classifications. The minimum space sold is 5 lines, maximum space sold, 2 columns by 150 lines. See rates below.

Inches	Rate	Inches	Rate
1.....	\$4.90	3.....	29.40
1 1/2.....	9.80	3 1/2.....	34.30
2.....	14.70	4.....	39.20
2 1/2.....	19.60	4 1/2.....	44.10
3.....	24.50	5.....	49.00

RELIABLE ADVERTISING

We believe that all classified livestock and real estate advertisements in this paper are reliable and we exercise the utmost care in accepting this class of advertising. However, as practically everything advertised has no fixed market value and opinions as to worth vary, we cannot guarantee satisfaction. We cannot be responsible for mere differences of opinion as to quality of stock which may occasionally arise. In cases of honest dispute we will endeavor to bring about a satisfactory adjustment between buyer and seller but our responsibility ends with such action.

POULTRY

Poultry Advertisers: Be sure to state on your order the heading under which you want your advertisement run. We cannot be responsible for correct classification of ads containing more than one product unless the classification is stated on order.

BABY CHICKS

HEALTHY CHICKS; LE GHORNS, \$10; heavy breeds, \$12. Catalog free. Hamilton Hatchery, Garnett, Kan.

YOUNG'S CHICKS FROM BLOODTESTED and heavy laying flocks. Alfred Young Hatchery, Wakefield, Kan.

STATE CERTIFIED WHITE LE GHORN BABY chicks, B. W. D. tested, \$13.00 hundred. Harry Geller, Chapman, Kan.

BARRERED ROCKS \$16.00. WHITE ROCKS \$15.00 blood tested excellent quality. Moorhouse Hatchery, Murdock, Kan.

QUALITY CHICKS THAT LIVE AND GROW, leading breeds. Price reasonable. Circular. Gamble's Hatchery, Altoona, Kan.

10 "MONEY-MAKER" CHICKS FREE WITH early orders. New, big catalog. Franklin Hatchery, Dept. C, Council Bluffs, Iowa.

BABY CHICKS AND HATCHING EGGS from State Certified flock. Pedigreed males eight years. Wm. Bauer, Clay Center, Kan.

HIGH QUALITY CHICKS REASONABLE—Leading varieties. Thousands weekly. Free circular. Schaffner's Chick Hatchery, Berger, Mo.

GOLD STANDARD CHICKS, BLOOD TESTED flocks only. Thirteen varieties. Reasonable prices. Catalogue and price list free. Superior Hatchers, Drexel, Mo.

BUY BRIGGS BLOOD TESTED CHICKS FOR greater profits, 100% live delivery guaranteed. 10 cents up. Write for price list. Briggs Hatchery, Formosa, Kan.

BABY CHICKS, 7 1/2c UP. FILL YOUR ORDER tomorrow. Prices so low every one can buy. Easy terms. Free catalogue. Nevada Hatchery, Nevada, Missouri.

SINGLE COMB WHITE LE GHORNS, SAFE sound investment in chicks that live, 5,000 each week. Write for particulars to Myers Hatchery, Clay Center, Kan.

CHICK WHOLESALE, 10,000 WEEKLY 20 breeds, 7 1/2c up. Prepaid, 100 per cent guarantee. Free catalog. Book orders now. Midwest Hatchery, Clinton, Mo.

HARDY OZARK CHICKS—14-YEAR FLOCK culling, four years blood testing. Ozark's oldest hatchery. Catalog free. Kennedale Hatchery, Route 4, Springfield, Mo.

PAY ONLY FOR CHICKS YOU RAISE. WE refund full price paid for all normal losses first three weeks. Missouri Accredited, 9c up. Free catalog. Schlichtman Hatchery, Appleton City, Missouri.

STATE ACCREDITED CHICKS, ANCONAS, Brown Leghorns, Buff Leghorns or White Leghorns, 12c each. Shipped prepaid. Live delivery guaranteed. Tischhauser Hatchery, Wichita, Kan.

GOOD STANDARD BRED CHICKS, WHITE Langshans, 12c; Rocks, Reds, Orpingtons, Wyandottes, 11c; Leghorns, 10c; Assorted 8 1/2c. Live delivery, postpaid. Ivy Vine Hatchery, Eskridge, Kan.

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White Rocks	12.00	15.00	18.00
S. & R. C. Reds	12.00	15.00	18.00
Wyandottes	12.00	15.00	18.00
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BABY CHICKS

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PURE BRED BUFF ORPINGTON HATCHING eggs \$5.50 prepaid. Free range flock. Mrs. George McAdam, Holton, Kan.

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PURE BRED WHITE ROCK COCKERELS, \$2.50; eggs \$1.00 15. Wilma Marsh, Chanute, Kan.

EGGS—FISHEL EXTRA QUALITY FLOCK. Class A. 6 years. \$7-100 delivered. J. R. Henry, Delavan, Kan.

HATCHING EGGS, WHITE ROCKS, STATE accredited Grade A. \$5.50 per hundred. C. E. Nelson, Roxbury, Kan.

MAMMOTH WHITE ROCKS, 300 EGG strain, eggs, \$5.50-100; \$15-\$15, prepaid. Frank Petráček, Jennings, Kan.

R.O.P. EGGS, CHICKS AND 10 WEEK cockerels, 200 to 292 egg records. Applebaugh's White Rock Farms, Cherryvale, Kan.

WHITE ROCK CHICKS FROM SIX YEAR trapnested stock. R.O.P. supervised. B.W.D. free. Flock headed by approved males. Dam's record to 270 eggs. \$20.00-100. Ethel Brazelton, Troy, Kan.

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PLYMOUTH ROCKS—BARRED

ARISTOCRAT'S BARRED ROCK HATCHING eggs. \$15-150, 100-\$6. Satisfaction guaranteed. Archie Kolterman, Onaga, Kan.

BARRED ROCK BABY CHICKS: STATE Accredited Grade "A" blood tested \$16.00 hundred. Moorhouse Hatchery, Murdock, Kan.

THOMPSON IMPERIAL RINGLETS: AC- credited Grade A. Eggs \$7.50-100; \$4.00-50; \$1.50-15. Prepaid. Patience Amcoats, Rt. 3, Clay Center, Kan.

"PARKS STRAIN" BRED TO LAY BARRED Plymouth Rocks. Cockerels \$3-\$10. Eggs 100-\$6.00; 500, \$27.50. Permit C-30. P. C. DeBusk, Macksville, Kan.

DARK BARRED ROCK COCKERELS FROM my show winning stock, three firsts at State show 1930. Constant winners and good layers. Cockerels \$3, \$5, \$10. Eggs \$8-100. Pens \$5 and \$10-15. Carl Ausherman, Elmont, Kan.

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BUFF ROCK QUALITY HATCHING EGGS. Brewer's Golden Rods, Della, Kan.

100 CERTIFIED BUFF ROCKS EGGS \$5.00. Mrs. Milo Orton, Alta Vista, Kan.

BUFF ROCKS, PURE BRED, EGGS \$4.50 per 100. Mrs. Robt. Hall, Neodesha, Kan.

BUFF ROCKS, 28th YEAR. EGGS \$6.00 HUN- dred, \$3.25 fifty. Prepaid. Mrs. Homer Davis, Walton, Kan.

PURE BRED BUFF ROCK EGGS FOR hatching. Heavy winter layers. Six dollars per hundred. Mrs. Beulah Warder, Ellsworth, Kan.

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 PARTRIDGE ROCK EGGS, \$5.50-100; \$3.00-50. Mrs. Sidney Hoar, Willis, Kan.
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 TOMPKINS STRAIN S. C. REDS DIRECT. Hatching eggs \$6.00 hundred. John Little, Concordia, Kan.
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 PULLETS 16 LBS. \$5.00. EGGS 25c. MRS. Fred Walter, Wallace, Nebr.
 MAMMOTH GOLDBANK BRONZE TOMS, \$7.50. Annie Hoffman, Ulysses, Kan.
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 LARGE MAMMOTH WHITE HOLLAND TOMS \$10.00. EGGS 25 for \$12. Baby turkeys \$1.00 each. Edna Mills, Plainville, Kan.

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plants. Large field grown, strong, well rooted, labeled and mossed. Cabbage, all varieties, 200-75c; 300, 1.00; 500-1.25; 1,000-2.00. Crystal Wax and Yellow Bermuda onions, pencil size, 500-75c; 1,000-1.25; 6,000-8.00. All postpaid. Prompt shipment. Satisfaction guaranteed. Culver Plant Farms, Mt. Pleasant, Texas.

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KANSAS

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EASTERN COLORADO SMOOTH WHEAT
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NEW MEXICO

WE FURNISH FARM IRRIGATION WATER,
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MARYLAND

FOR SALE—211 ACRE DAIRY FARM,
equipped, immediate possession. Frederick county, near hard road. Howard Smith, Loys, Md.

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PROSPER IN MINNESOTA RICH SOIL AND
plenty of moisture aid crops and pastures here. Improved and unimproved land at low prices, easy terms. Healthful climate, good schools, churches, towns, creameries—and 10,000 lakes. 1929 Minnesota farm products worth \$863,000,000. Share in this wealth. Write today for free book. Ten thousand lakes. Greater Minnesota Assn., 1501 University Ave., Dept. D, St. Paul, Minn.

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LAND SALE, \$5 DOWN, \$5 MONTHLY. BUYS
40 acres, Southern Missouri. Price \$200. Send for list. Box 22-A, Kirkwood, Mo.

POOR MAN'S CHANCE—\$5 down, \$5 monthly
buys forty acres grain, fruit, poultry land, some timber, near town, price \$200. Other bargains. Box 425-O, Carthage, Mo.

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IN THE GULF COAST country of Texas, there
is now a splendid opportunity to buy forty acre farms at very low prices with long, easy terms. Down payment within your means. Deep, black fertile soil with excellent drainage. Long and favorable growing season permits wide range of crops including cotton, corn, magnolia, figs, satsuma oranges, all kinds of vegetables. Especially well adapted for dairying, hogs and poultry. Lands ready for cultivation. Excellent railroad facilities afford ready access to large markets. Good roads, schools, churches. For detailed information address C. L. Seagraves, General Colonization agent, Santa Fe Ry., 970 Railway Exchange, Chicago.

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OWN A FARM in Minnesota, North Dakota,
Montana, Idaho, Washington or Oregon. Crop payments or easy terms. Free literature. Mention state. H. W. Byerly, 81 Nor. Pac. Ry., St. Paul, Minn.

THE GREAT NORTHERN Railway serves an
agricultural empire in Minnesota, North Dakota, and Montana, where opportunities abound for small farms or large operators to rent or purchase at the lowest prices and best terms of many years. Profits are insured by rapid progress being made in diversified crops and livestock raising. Idaho, Washington and Oregon offer opportunities in low-priced cutover lands, high producing irrigated land, or general farming, dairying, fruit or poultry. Mild climate. Write for free Zone of Plenty book with detailed information. Low Homeseekers' Rates. E. C. Leedy, Dept. 100, St. Paul, Minn.

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apartment buildings, each containing twelve 5-room apartments, modern, sleeping porches; income \$1,000.00 per month. Roy Crawford, Majestic Building, Topeka, Kan.

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BARGAINS—E. Kan., W. Mo. farms, sale or
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SELL YOUR PROPERTY QUICKLY FOR
cash, no matter where located; particulars free. Real Estate Salesman Co., 510 Brownell, Lincoln, Neb.

SMALL FARM WANTED
Located in Kansas, suitable for general farming, dairying and stock raising. If a bargain, write me full description and lowest cash price. John D. Baker, Mena, Ark.

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WANTED—GOOD GENERAL OR DAIRY
farm. Under \$30,000. Box 140-W, Brookfield, Ill.

260 ACRES

eight miles to Kansas State University. On
concrete highway. Good improvements, excellent soil. Cheap for quick sale. Address

KANSAS CITY LIFE INSURANCE CO.
Kansas City, Missouri

'Tis a Good Hog Year?

BY GEORGE MONTGOMERY

Hog prices during 1930 are expected to average as high as they did in 1929 and possibly higher. There will probably be fewer hogs for slaughter, but this may be offset by a decrease in foreign and domestic demand for pork products.

The number of hogs on farms on January 1, 1930, was about 7 1/2 per cent less than a year ago. In Kansas the reduction was 9 per cent. Indications are that the pig crop will be about the same as in 1929, but the weight of hogs going to market will be influenced by the size of the 1930 corn crop.

With the recent reduction in market supplies it is probable that the high point in prices this spring will be about the same as last spring or possibly higher. Indications are that the supplies will be larger in the late spring and early summer so that the early summer decline in prices may be greater than that which occurred last year.

The foreign demand probably will be less favorable during the latter half of the year, but this may be offset by lighter supplies during the late summer. The average level of prices from July to September probably will be about the same as last year. The peak of the late summer rise is expected to occur later than it did in 1929.

Conditions for 1930 appear satisfactory, but in view of the probable less favorable export outlet for American hog products in 1931 an increase in hog production would seem undesirable at present.

Avoid Waste for Me

BY JOE KOELLIKER
Robinson, Kansas

A good fence is worth everything that could be expected of it, while a poor fence is as bad or worse than no fence. I make fences work for me in keeping stock in certain fields and out of others. Only with good fences can I rotate my crops to the best advantage with livestock. With fences I can pasture my legume crops at the time they make the best pasture and also keep better sanitation. I arrange my fences so there are as few as possible but still do the work and avoid a lot of waste.

When washing windows, remember that newspapers are a good and cheap material for drying.

Anything Today, Market?

Stein's Idea is to Give His Customers What They Want, and He Profits by It

BY RAYMOND H. GILKESON

SERVICE—service—service! That is a big selling point of every business today. No matter whether it is groceries or a new radio tube, your dealer wishes you to know when you call on him that you will get service. In other words, you get what you want when you want it—for a certain cash or credit consideration, you know. Now that idea can be applied to the farm, and in a great many cases is. In this agricultural case the "customer" is the great buying and consuming public, even better known perhaps as "the market."

All right, Mr. Market, what will you have? Small, tasty cuts of beef, pork chops that are just the right size and flavor, fresh eggs that stand up in the skillet and chickens that



S. E. Stein, Sedgwick, Who Studies Market Needs as Well as Production Problems

will cook in various and sundry ways fit for any housewife's most particular guests?

Where may these be obtained? Quite safely we can answer, "just any county in Kansas." But at this point we wish to introduce a man who is giving his "customers" the markets, service equal to that which the tractor dealer, or any other, boasts. He is S. E. Stein of near Sedgwick. This Harvey county farmer has seen 50 years of ups and downs and market changes in Kansas, so probably there isn't anything very much in these lines that would surprise him. But thru the years he has tried, with real success, to change his farming operations to suit "conditions." He always wanted to give his buyers "service," if you will allow us to continue in that light, because he knew it would mean more net cash to him. In other words, he has tried to make his operations meet conditions in the most efficient manner.

Big cattle found a slow market. Now Mr. Stein handles a carload a year, but they go out as baby beef. He bought a bunch a year ago at 280 pounds as an average, grazed them a month and then fed alfalfa, corn and cottonseed. At the end of 160 days when they went to market they averaged 605 pounds. He turned his feed crops efficiently into the kind of beef we hungry Americans like to eat. Obviously he is giving service to his customers, and he is doing the best thing for himself—he simply is efficient. "We have to lay our plans according to market demands," he said. "Right now baby beef is the surest money because it is in demand. I can get 10 pounds of gain for a bushel of corn, some alfalfa and $\frac{3}{4}$ pound of cottonseed a day on baby beef, and at that rate the feed is marketed quite profitably." Mr. Stein handles Short-horns and Galloways, buying the larger percentage he feeds out.

This same market knowledge and efficiency of farm management is seen with the production of hogs. He

keeps 10 sows, perhaps fewer at times and more at other seasons. The pigs are farrowed clean and they enjoy all the luxury of good alfalfa and Sudan pasture. Mr. Stein makes good use of his cattle lots by sowing the Sudan in them for the pigs, which smacks of efficiency. The March pigs tip the scales at 190 pounds or better by September 15, which means that the pasture, tankage, corn and cottonseed ration is very satisfactory. It happens that the market wants lighter hogs and according to Mr. Stein, "The first 200 pounds on a hog are the cheapest," which seems to be a very favorable situation.

Already we have mentioned two satisfactory incomes—baby beef and hogs the markets want. But that isn't all. The flock of 200 White Wyandottes is accredited so there is a good demand for all of the hatching eggs that are available in season. At other times Mr. Stein has top grade eggs to put on the market. Four Jerseys and a purebred sire make up the dairy herd. The idea of the dairy animals first is to supply the family with their products and to sell any surplus, so it is another income.

The general crops income is increasing gradually, due to the improved condition of the farm land. Alfalfa is used in a rotation of wheat five years, corn three years, oats one year, alfalfa five years, and plenty of manure is spread where it will do the most good, some on wheat land but principally on the corn. About 8 acres of alfalfa are turned under every year.

So that wheat will have the best chance of making a good yield of the quality the markets want, Mr. Stein sticks to early seedbed preparation, good seed, and treatment for smut if necessary. It might do here to say that in order to add to his efficiency Mr. Stein joined the account club sponsored by the Kansas State Agricultural College. He agrees it is a valuable thing for him.

Efficient power has received as much attention as anything. "I wasn't a tractor man for a long time," Mr. Stein said, "but I got over my land so well last year in such a short time that I've changed my mind. Five men and 25 horses would have been needed to equal the tractor. I handled 20 acres a day with the machine, did a better job and saved three men." And if we wish to consider this from the



The Fine, Modern Home Owned by S. E. Stein, Harvey County

standpoint of "service to his customers" we can. This "better job" certainly means a better product for them, and in addition, the tractor saved some time that could be applied to do other jobs better.

Everything about the farm bespeaks efficiency. Even with the chores, time saving is the main idea but not at the expense of doing the job right. Granaries, feed bunks, water and everything necessary are right at hand to save steps. "I have to do this so I can handle the farm myself," Mr. Stein said.

Frozen Beef a Problem?

From the Business Week:

Problems of distributing frozen foods were the center of interest at a regional conference of meat packers in Chicago last week. Quick-freezing, some men think, will revolutionize the meat industry. Four packers

and one wholesaler are now in the business commercially. Many are experimenting. A record attendance, 300, bespeaks the interest with which the industry is watching developments.

"If freezing is the best way to handle perishable foods, prejudice need be considered only as a temporary resistance to sales, and must soon pass away," said Dr. Harden F. Taylor, vice president for scientific research, Atlantic Coast Fisheries. "The history of refrigeration clearly shows that public prejudice against frozen fish dies when confronted with obvious merit." Doctor Taylor has been called the outstanding "industrial explorer" into the realm of frozen foods.

The original freezing won't carry thru to the consumer's kitchen. Refrigeration must be continuous thru a long chain: manufacturer's warehouse, railroad car, distributor's cold storage warehouse, refrigerator truck, retailer's storage and display cases. A single failure anywhere along the line may spoil or injure goods. This already has caused trouble, particularly inefficient refrigeration in the small shop.

It is considered uneconomic for each manufacturer to set up his own distribution equipment. Each retail store would have a line of separate manufacturer-owned refrigerator cases for fish, meat, fruits, vegetables and whatnot.

A single refrigerating unit and display cabinet, suitable for all perishable commodities, is more sensible. It should be owned by the retailer, whether he be an independent merchant or chain store operator. But how to finance the small dealer, in the purchase of expensive equipment? To have a separate fleet of trucks for each commodity, as ice cream now has, will only increase food costs to consumers. At present, efficient co-ordination in distributing frozen foods seems remote.

Packers ask: Will marketing of individual cuts of meat, quick-frozen, increase or decrease cost to consumers?

Answers vary. Temporarily, there may be an increase. Ultimately, there should be a considerable decrease thru elimination of most retail meat stores and meat cutters, for which can be substituted single counters in food stores with lower salaried attendants. In Swift & Co.'s main office building is a refrigerated display case from which one girl sells employees more pounds of meat than a two-man market commonly handles. All she does is pass out packages and collect money.

At present packers believe there is too great a spread in price between choice cuts and others. Quick-freezing might correct this condition somewhat. A rolled roast of lamb breast, a neat attractive piece of merchandise, is made from meat the average retailer might cut up with a cleaver and sell for boiling.

Frozen meat can be kept indefinitely. Seasonal variation in demand and supply, and variation in demand within the week, as that due to large use of fish on Fridays, become less serious.

It is quite possible that slow freezing of meat may ultimately prove better than quick-freezing, after all, Doctor Taylor conjectured, replying to a question at the close of his address. The objection commonly given to slow freezing is that it tends to the formation of larger ice crystals which tear down cell tissue and cause a dripping and sliminess when meat thaws out.

Doctor Taylor's researches have led him to the conclusion that this is not the real cause, but that dripping is due to chemical changes that take place irrespective of whether freezing be quick or slow. He has developed a method of treating fish, prior to freezing, which largely eliminates dripping. It will apply to meat also, he believes.

If dripping is eliminated, then slow freezing, because it does tear down cell structure, may prove a means of making tough meat tender.

Doctor Taylor declined to give details about his process. "The most interesting part of his talk was what he left out," a packer remarked.

Mutton rams should be low set, deep and wide of body, with short necks and good masculine heads.

Are you thinking of New Tools and Implements for spring work?

Probably so. Most farmers are. So why not spend a few minutes right now in looking over the implement advertising which appears in this issue of Kansas Farmer? It may help you decide on what you want to buy and where you want to buy it. Every farm implement advertiser in Kansas Farmer has a catalog or descriptive folder of his implements which he will send you FREE. Write for them today, addressing the manufacturer at the address given in his advertisement in Kansas Farmer.

New Idea Spreader Co.	Page 9
Farm Poultry Profits	Page 10
Farmers' Almanac for 1930	Page 12
Great Harness Bargains	Page 13
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Count Your Chicks Before They're Hatched

WHY bother with the temperamental setting hen when it's so easy to buy ready-hatched chicks? In the Kansas Farmer you will find mammoth hatcheries offering quality chicks at reasonable prices. And you can buy from any of these Kansas Farmer advertisers with the assurance that you will receive fair and honest treatment. Read the display and classified baby chick advertisements in this issue. Do all your chick buying from the Kansas Farmer advertisers.

Poultry Needs Protein

BY A. R. LEE

Chickens under wild conditions require only feed enough for natural growth and maintenance and to produce a few eggs in the spring months for reproduction. Their needs are largely supplied by grains and seeds supplemented by a little additional protein from insects and worms. However, under domestication, poultry are kept for profitable growth and production, which can be obtained only by much heavier feed consumption, especially of high-protein feeds. Eggs are scarce on most general farms, during the fall and winter, largely because the chickens do not receive sufficient protein in the ration for rapid growth during the summer, and the hens do not get protein enough during the winter to produce eggs. An egg, aside from the shell, contains 3.4 per cent protein, while poultry flesh contains 21.5 per cent protein. A mixture of corn, wheat and other grains used for feeding hens contains only about 10 per cent protein and must be supplemented with a mash containing high-protein feeds. The use of these feeds, which are also the highest-priced in the ration, not only greatly increases egg production but materially lowers the cost of production.

The kinds and quantities of protein best suited for feeding chickens are now being studied, and considerable information has been obtained, although, so far, this field has been only slightly investigated. Experiments have shown clearly that proteins from animal sources are generally better for feeding poultry than those of a vegetable origin.

Meat scrap, fish meal, milk and tankage are good sources of animal protein. They all supply valuable mineral in addition to their protein. Good quality is very essential in these high-protein feeds. Protein in a good grade of fish meal probably is equal to the same amount of protein in meat scrap. Tankage is not so good as these other proteins for poultry, and needs to be supplemented with mineral. Milk is one of the best sources of animal protein and has a relatively greater feeding value than its actual protein content. Milk is used in the ration to help prevent mortality of baby chicks, to increase the rate of gain in growing chicks, and to increase the feed consumption and egg production of laying stock. The relative value of the various milk products is based largely on their total milk solids. Milk is used in the poultry ration mainly as a supplement to the other protein feeds, because of the relatively high high cost of its protein. The animal proteins, especially milk and meat scrap, are highly digestible.

The high-vegetable-protein feeds do not give so good results as the animal-protein feeds. However, they have a place in the poultry diet but must be supplemented with additional minerals for good results. Soybean meal, cottonseed meal, peanut meal and gluten meal are of value for this purpose. The use of considerable cottonseed meal in the ration may affect the quality of the eggs by discoloring the yolk. Eggs produced on cottonseed meal rations which appear all right when fresh may develop discolored yolks when placed in cold storage. The mash should not contain more than 10 per cent of cottonseed meal.

The quality of the proteins materially affects the results in feeding poultry. However, information on this phase of poultry feeding is very limited. It is known that at least three of the amino acids which make up the proteins are essential in the ration. These are tryptophane, lysine and cystine. Meat scraps and all the high-protein feeds may vary materially in the quality of their proteins.

The protein analyses of these high-protein feeds vary greatly and their analyses should be given more attention in mixing rations. The protein content of meat scraps may vary from 40 to 75 per cent, which may make a difference of nearly 10 per cent in the total protein content of two mash mixtures made by the same formula but containing two different samples of meat scraps.

The proportion of mash and of

scratch feed used in the ration greatly affects the amount of proteins supplied. Ready-mixed laying mash usually contain about 21 per cent of protein, whereas scratch feeds contain only about 9 per cent protein. As a general rule, about equal parts of mash and scratch should be fed as the average for the year, but the proportions are varied at different seasons. All-mash rations are used somewhat, but do not appear to have any marked advantage for average conditions over the feeding of scratch and mash.

The general practice is to use rations with less protein for young chicks than for partly grown chicks or for laying hens. Apparently, the protein requirements for young chicks are at least as great as for laying hens. Protein makes up 35 per cent, and fat 10 per cent, of the unabsorbed yolk of the chick at hatching time. Recent experiments indicate that somewhat higher protein rations than are commonly used for young chicks can be fed to advantage. Very high protein rations tend toward lack of uniformity in the growth of the chicks; moderate variations in protein content do not appear to have any effect on the mortality either of chicks or of hens.

The United States Department of Agriculture has conducted a number of tests on the effect of various amounts of protein from dried skim-milk and from high-grade meat meal both on growth of chicks and on egg production. The best growth and the lowest feed consumption a pound of gain in young chicks was obtained in the dried-milk rations containing from 13.9 to 17.5 per cent of protein, and in the meat-meal rations containing from 19.5 to 21.5 per cent protein. The best results with laying hens were obtained from the skim-milk rations containing about 15 per cent protein and from the meat-meal rations containing about 20 per cent protein. The best amount of protein to use in a ration from one product does not necessarily represent the best amount of protein from other products. These rations consisted only of corn meal and minerals with either meat meal or dried milk, and just as good growth and egg production were obtained on less protein from rations which contained a greater variety of proteins and of other feeds.

It pays to use good seed because it means larger yields of better quality.

LIVESTOCK NEWS

BY J. W. JOHNSON
Capper Farm Press, Topeka, Kan.

Goernandt Bros., Aurora, Kan., are advertising in Kansas Farmer 2-year-old and yearling Polled Hereford bulls, either a carload or just one. Look up their advertisement in this issue of Kansas Farmer and write them for prices and descriptions.

Vavroch Bros., Oberlin, sold 50 Duroc sows at auction in the sale pavilion at Oberlin, Kan., March 1. For an average of better than \$68 and the first 35 head in the sale averaged \$72.50. The top was \$115 for a spring gilt that went to George Anspaugh of Ness City, who also topped the sale last year. Charles Stuckman of Kirwin was a good buyer of top fall gilts. This is as far as I know the top sale of the year for Kansas and the same honor went to Vavroch Bros. last year.

Another letter from Burt Powell, McDonald, Kan., concerning bred sow sales held in Decatur county in February reports the Morton Bros. sale in the sale pavilion at Oberlin as resulting in an average of \$59 on 35 Chester White gilts. The top was \$82 and went to E. Estab, McCook, Neb. The date of the sale was February 22. Clyde Concoran, Oberlin, sold Poland China sows in the pavilion February 25. He averaged about \$45 with a top of \$67.50 paid by Elmer Pearl of Wakeeney. Col. Powell thinks the Vavroch Bros. average of \$66 on 50 head the top sale of the year.

April 3 is the date of the Northwest Kansas and Southern Nebraska Shorthorn consignment sale to be held at the fair grounds, McDonald, Kan. Burt Powell, secretary of the fair association at that place and livestock auctioneer, is the promoter and sale manager. About 30 head will be sold, 20 bulls and 10 females. The bulls are from 8 months old up to 18 months. This sale will be advertised in Kansas Farmer shortly and breeders or farmers who are going to need a good bull this spring had better plan on attending this sale. The consignments come from good herds in both Kansas and Nebraska.

W. H. Mott, Herington, Kan., announces the dispersal of the A. J. King Estate herd of Holsteins at Grandview, Mo., April 21. The sale will be held at Grandview Farm, joining Grandview, Mo., which is a few miles out of Kansas City, and 140 head are being cataloged and will be sold in one day. Kansas breeders and breeders all over the country will remember A. J. King as the buyer who never bid on an inferior animal but was continually on the lookout for the best. The great herd that he assembled and that is to be dispersed in this sale has not been equalled many times in breeding and in individuals. It is said that he never missed a Brentwood sale and many of his purchases were made at national sales. Probably one of his outstanding purchases was at a Brentwood sale when he purchased Berylwood Prince Johanna Segis, whose sire was Prince Aagie of Berylwood, the bull that sold for \$100,000, and whose dam was the world's record cow, Aralia De Kol Mead 2nd.

Among other purchases at Brentwood was a number of daughters of Ormsby Sensation and of the King of The Ormsbys. In the sale are 19 daughters and six sons of Berylwood Prince Johanna Segis. Included in the sale is the entire show herd that last came in off the show circuit late last fall. There are 92 females in the sale and about 60 are cows and heifers either in milk or springers. W. H. Mott has been engaged as sale manager and the sale very likely is the most important dispersal of Holsteins ever held in the Southwest. It is a complete dispersal held to close up the estate of A. J. King. Anyone who would like to visit the herd while in Kansas City prior to the sale can do so by calling at the A. J. King real estate office, 112 East Ninth Street, Kansas City, Mo. The sale will be advertised in Kansas Farmer soon.

H. R. Jones, Morrowville, Kan., Washington county, will disperse his Jersey cattle dairy herd at his farm 7 miles west of Washington, Wednesday, March 26. In the sale are 40 head, about half of them registered cows and heifers and the younger stock eligible and the other half are high grades. For six years this herd has been a member of the Washington County Cow Testing Association and some substantial records will be shown with their owners sale day. The herd is under federal supervision and is not sold because of any fault with it as a profitable dairy herd but because Mr. and Mrs. Jones want to take a rest and that is the sole reason for selling. They have a 320 acre farm and have to depend on hired help. The sale is about two miles north of Morrowville and is on highways 15 and 36. Lunch will be served at noon.

Nebraska's two big Shorthorn shows and sales for this spring are advertised in this issue of Kansas Farmer. One hundred and seventy-five cattle are cataloged for these two sales and either sale will be a good place for Kansas buyers. The show and sale at Grand Island is next Thursday and Friday, March 20 and 21. Grand Island can be conveniently attended by North Central Kansas breeders and farmers and remember it is Thursday and Friday of next week. The South Omaha sales are Thursday and Friday of the following week, March 27 and 28, and the offering will be of the same quality of good useful Shorthorns and both events are under the management of H. C. McKelvie, and this fact alone insures good honest cattle and an auction conducted in a businesslike manner. You still have time to write for the catalog for the South Omaha sale but hardly time to get the Grand Island catalog but you will find plenty of sale catalogs at the sale pavilion.

LIVESTOCK NEWS

By Jesse R. Johnson
1015 Franklin Ave., Wichita, Kan.

I. E. Rusk & Sons of Wellington, Kan., owners of the largest herd of registered Percherons in Kansas, have some good young stallions and mares for sale. The blood of Carnot and other noted sires.

Public Sales of Livestock

Holstein Cattle
April 21—A. J. King estate, Grandview, Mo. W. H. Mott sale manager, Herington, Kan.
June 3—Holstein Friesian Breeders Association of America Sale and Meeting, Denver, Colorado.

Jersey Cattle
March 26—H. R. Jones, Morrowville, Kan.
Shorthorn Cattle
April 3—Northwest Kansas Southern Nebraska breeders at McDonald, Kan. Burt Powell, sale manager, McDonald, Kan.

HOLSTEIN CATTLE

H. D. Burger Estate Herd
20 registered cows with Ormsby and Sir Pieterje breeding. They have excellent type and production with C. T. A. records. Also some heifers and bulls.
H. D. BURGER ESTATE, SENECA, KAN.

AYRSHIRE CATTLE

Ayrshires That Produce
We have three white bull calves, some heifer calves and two 2 year old heifers for sale now.
Address, J. L. GRIFFITH, RILEY, KAN.

HORSES AND JACKS

Young Percheron Stallions
We have 12 young stallions with lots of bone, size and quality. All sired by CARLEUX-166144. Priced low for quick sale. Write for prices delivered to your place.
A. H. TAYLOR & SON, Kansas, Sedgwick.

Reg. Percherons For Sale
A few choice young stallions and mares for sale. A number of them granddaughters of Carnot. Attractive prices. Write your wants or better still come and see them.
I. E. RUSK & SONS, WELLINGTON, KAN.

Percheron Stallions

Five good ones, 2 and 3 years old. Prices from \$200.00 to \$300.00. Also a few good mares.
H. G. ESHELMAN, SEDGWICK, KAN.

HAMPSHIRE HOGS

Whiteway Hampshires on Approval Choice bred gilts sired by grand champion boar and bred to junior and grand champion boar, Little Rock and senior and grand champion boar Muskogee, Okla. Also fall pigs.
F. B. WEMPE, Frankfort, Kan.

POLAND CHINA HOGS

Boars Ready for Service
Sired by Redeemer and Good News. The easy feeding, quick maturing type. Prices reasonable.
C. R. ROWE, SCRANTON, KAN.

Henry's Poland Chinas

Fall boars and gilts. Trios, not related. Best of breeding, well grown. Prices reasonable.
JOHN D. HENRY, LECOMPTON, KAN.

SPOTTED POLAND CHINA HOGS

Spotted Poland Bred Gilts
Bred to a full bro. of Corner Stone 1928 International Grand Champ. No better breeding. Boars all ages.
WM. MEYER, FARLINGTON, KAN.

SHORTHORN CATTLE

Big Annual Spring Show and Sales of Shorthorns and Polled Shorthorns

Grand Island, Neb.,
March 20 and 21Shorthorn show and sale the 20th;
Polled Shorthorns the 21st.South Omaha, Neb.,
March 27 and 28Shorthorn show and sale the 27th;
Polled Shorthorns the 28th.

175 HEAD

of high class cattle in these events.
Write for catalog of the sale you are interested in. AddressH. C. McKelvie,
Sales Manager, Lincoln, Neb.

BLUEMONT FARM SHORTHORNS

Young bulls and females of choice breeding and good individuals for sale now. Write to NEIL WISHART, MANHATTAN, KAN., R.R. 4

POLLED SHORTHORN CATTLE

POLLED SHORTHORNS Established 1907

"Royal Clipper 2nd" first at State Fair 1927 heads one of largest herds of Polled Shorthorns. 20 reg. young bulls, \$100 to \$200. Some halter broke, choicely bred. Reds, Whites, Roans. \$10 off of price list at barn. Write for price list. You will find us at Home if you Phone or write at our expense. J. C. Banbury & Sons, Pratt, Ks.

POLLED HEREFORD CATTLE

Polled Herefords

Ten Husky Bull calves. A carload of coming two-year-old Bulls. Good Ones.

One or a carload. Also a carload of females either bred or unbred in lots to suit purchaser. See or write

Goernandt Brothers,
Aurora, Cloud Co., Kansas.

JERSEY CATTLE

H. R. Jones Dispersal 40 JERSEYS

For six years this herd has been a member of the Washington county Cow Testing Association.

Sale at the farm two miles north of Morrowville, seven miles west of Washington,

Morrowville, Kan.
Wednesday, March 26

About half of the offering is pure bred cattle registered or eligible. The rest is high grades. 17 are young cows in milk. Balance yearling and two year old heifers and heifer calves.

Three young bulls, one 10 months old. Also our herd sire,

Whiteway Rambler, three years old. Herd under federal supervision.

60 high grade Chester White pigs will be sold.

H. R. Jones, Owner, Morrowville, Ks.
Jas. T. McCulloch, Auctioneer.

GUERNSEY CATTLE

WOODLAWN FARM GUERNSEYS

For sale a nice two year old bull and some springing cows. Also some fresh and springing first calf heifers. Also baby bull calves and heifers. Address

WOODLAWN FARM, Rt. 9, TOPEKA, KAN.

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LIVESTOCK DEPARTMENT
John W. Johnson, Mgr.
Kansas Farmer, Topeka, Kansas



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MEN
KNOW HOW GOOD IT TASTES

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