

MICHIGAN FARMER

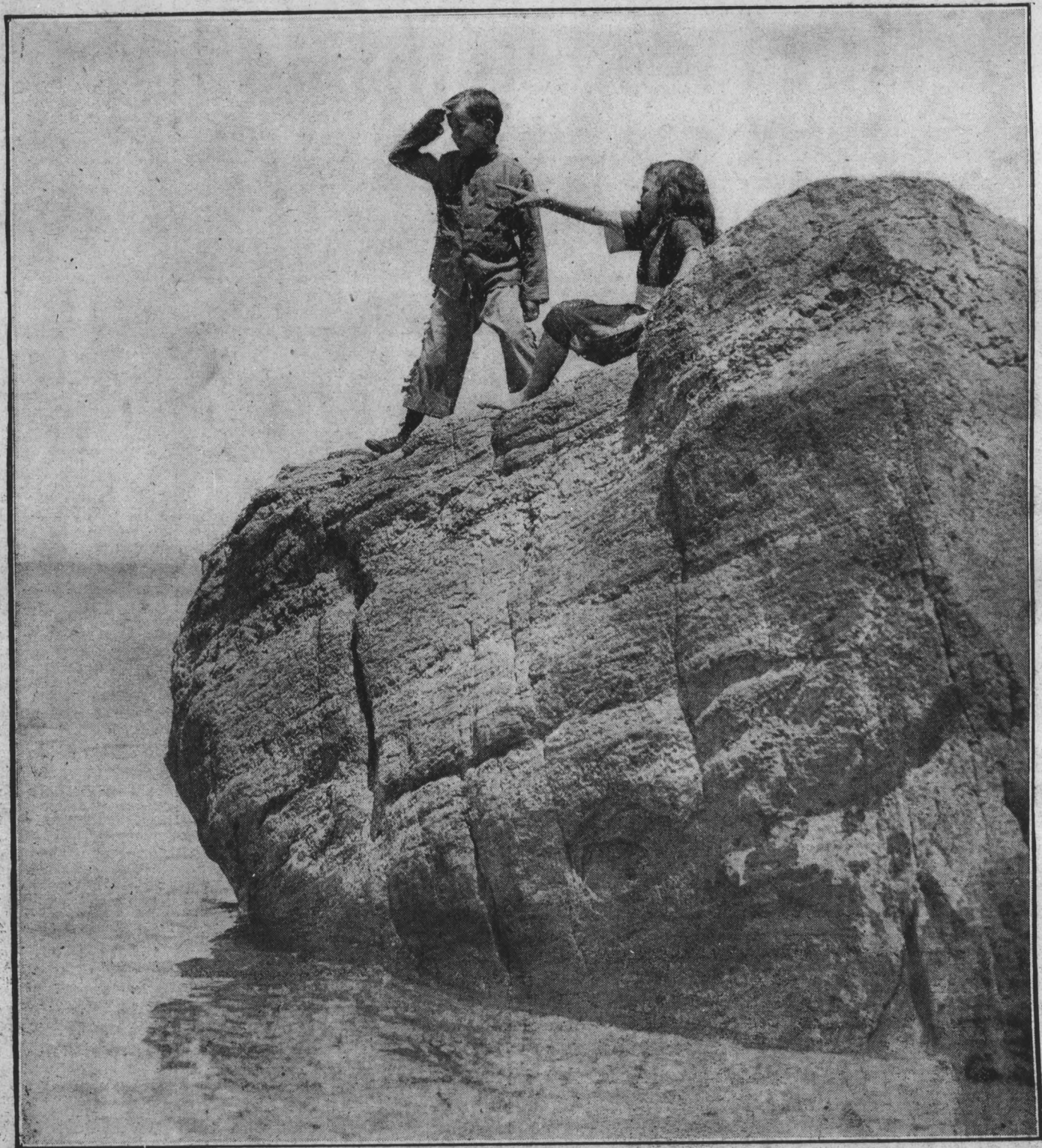
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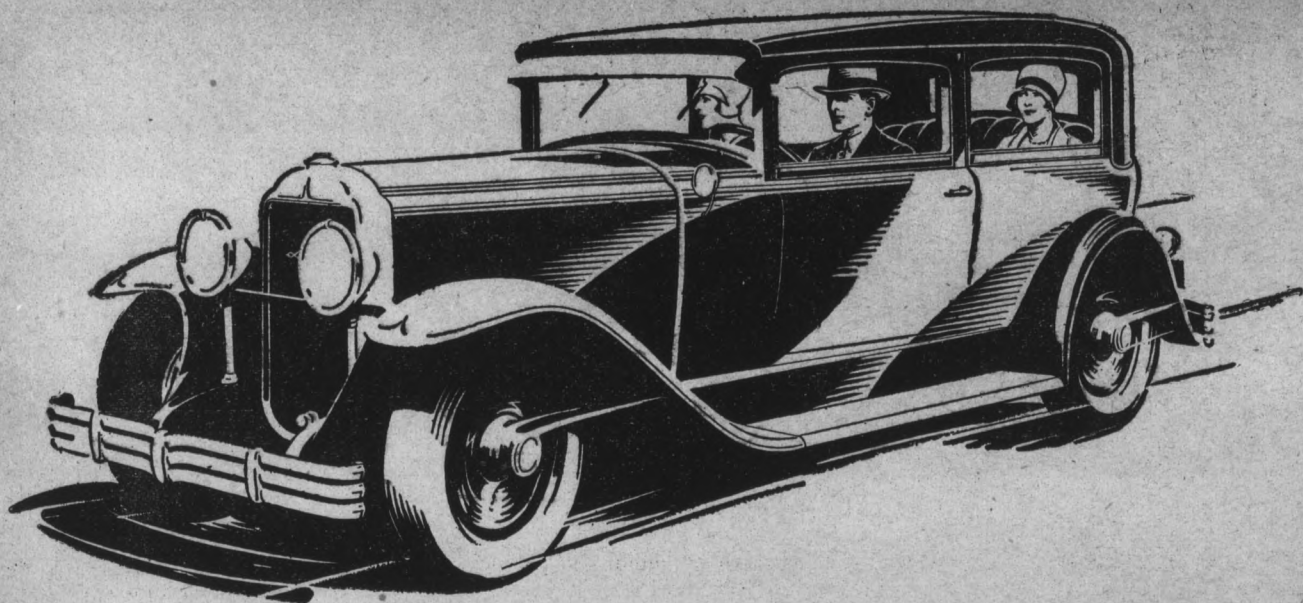
Vol. CLXXI No. 9

DETROIT, MICH., SATURDAY, SEPTEMBER 1, 1928

Whole No. 4828



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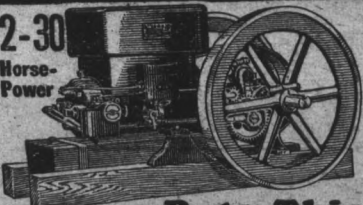
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UNITED STATES REPORT ON FEEDS

RECENT reports from the United States Department of Agriculture indicate that the dairy industry is likely to be a beneficiary of the unusual weather and crop conditions which have developed in the United States during the past two months. A detailed study of the crop report shows that, unless unforeseen emergencies arise, there is a crop of feed grains in the United States this year nearly ten per cent above last year. At the same time, a survey of the beef cattle being fed for market in the eight leading corn belt feeder states shows that there is a decrease of approximately six per cent from last year. The figures for the feed grains are as follows:

Corn indicated production a little over three billion bushels, nearly three hundred million more than the five-year average.

Wheat, eight hundred and ninety-one million bushels, eighty-two million more than the five-year average.

Oats, one billion, forty-four hundred and forty-two million bushels, ninety million more than the five-year average.

Barley, three hundred and forty-four

million bushels, one hundred and fifty-two million more than the five-year average.

These large increases totaling in all six hundred and twenty-four million bushels of potential dairy feed from these four crops clearly indicate an adequate supply and an easy market for the coming season. Of course, the crops are not harvested yet, and some changes may take place.

Hay is the only one of the important dairy feed crops below the average. Last year's hay crop was abnormally large—106.5 million tons. The inevitable reaction is a smaller acreage and crop this year, 83.3 million tons, which is 2.2 million tons less than the five-year average. Analyzed by states, this hay shortage is somewhat more serious than indicated by this small figure. While the hay supply is fully adequate in New England, the shortage begins to manifest itself in New York and Pennsylvania, and the figures show that there is a decreasing crop throughout the entire group of North Central states. Wisconsin, for example, is reported as having 900,000 tons of hay less than the five-year average and nearly two and a half million tons less than last year. The Minnesota crop is above the five-year average, but more than a million and a half tons less than last year. Iowa is 580,000 tons less than the five-year average and 1,139,000 tons less than last year.

News of the Week

Governor Alfred E. Smith accepted the Democratic nomination for president in an address delivered at the state house, Albany, August 22. He assailed the Republican administration on its Mexican and Nicaraguan policy; promised to make a "real" effort to outlaw war; declared for the public ownership of water power; would reorganize the federal government departments; gave a pledge that he would not countenance any "sudden or drastic" change in the tariff law; promised that he would enforce the prohibition law; but that he would use his influence to change both the amendment and the Volstead act; promised sympathetic treatment of the agricultural question by calling in experts to analyze the situation and then following their recommendations; favors the all-American instead of the St. Lawrence waterway route in connecting the middle west with the Atlantic.

Radio operators in the United States have intercepted messages from Bert Hassell and Parker Cramer, American airmen, who have been missing several days while flying over Greenland and Labrador. These messages locate the flyers on a little island north of Newfoundland, where, although well, they need immediate assistance.

A statement from the department of commerce declares that the past six months and the years just preceding have exhibited a "general stability unparalleled in the history of the United States or any other important industrial country."

Secretary of State Kellogg arrives in Paris to sign the pact for the outlawry of war.

Last week Herbert Hoover, Republican nominee for president, was feted by his old neighbors and schoolmates at West Branch, Iowa, where he delivered an address before 15,000 people who had gathered to join in the festivities.

Twelve persons have been arrested by Mexican authorities in connection with the assassination of the late President-elect Obregon and for plotting against the life of President Calles.

President Coolidge has appointed William F. Whiting, a paper manufacturer of Massachusetts, as secretary of commerce to succeed Herbert Hoover, resigned.

Five Ohio people were killed when their automobile was struck by a train at Yamachiche, Quebec.

Nine persons are known to have been killed and a hundred injured as well as millions of dollars of property damage done in a tornado which swept over southern Minnesota, August 20.

An earthquake in North Central Persia killed ten persons and did much property damage.

Floods are interfering with harvests in England.

Japan accepts the Japanese-American arbitration treaty.

The Philippine legislature is now revising the land laws of the archipelago, by which it hopes to promote the development of the islands.

DEVOTED
TO
MICHIGAN

VOLUME CLXXI

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
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A Practical Journal for the Rural Family
MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY
RELIABILITY
SERVICE

NUMBER IX

Reducing Hazards In Growing Wheat

This Farmer Has Worked Out a Practical Program for His Wheat Crop

By Ira Braun

WITH the yield of Michigan wheat below average for this year, especially in the southern portion of the state, and with the loss which many wheat growers will realize due to this abnormal condition, it behooves every farmer to study and practice the fundamentals of good wheat production to the best of his ability for the next year's crop.

This is especially true in those sections of the state where no beans or sugar beets are grown, and where the wheat crop is depended upon for the farmer's main cash crop. From my observation and experience in producing a good wheat crop on my own farm, and in general, I have come to the conclusion that producing such a crop in Michigan under ordinary conditions is not such a difficult task, if certain necessary precautions are taken and fundamental practices are put into operation. I shall attempt to outline these precautions and practices which have proven very valuable and successful to me as a wheat grower.

From four to six weeks are required to put land in the best condition for wheat. Wheat must have a firm, well worked seed bed carrying sufficient moisture for rapid germination. If prepared early and worked thoroughly, land can be put in such condition. Barley or oat stubble, which is generally put to wheat, dries quickly and should be plowed and fitted as soon as possible. I always like to see a good job of plowing at an ordinary depth for wheat, followed with a roller or cultipacker to pack the furrow slice, and then disc or harrow frequently. Where wheat is to follow beans, potatoes, or corn, the land should be disced as soon as possible after the crop is removed.

The fertilizer requirements for wheat vary according to the type of soil. Wheat is a heavy feeder and demands plenty of plant food. Perhaps the best method to explain the proper fertilizer to use is to state that a thirty bushel wheat crop takes fifty pounds of nitrogen, nine pounds of phosphorus, twenty-four pounds of calcium from the soil. From the knowledge of this wheat requirement and the state of fertility of the farmer's soil, the proper amount of fertilizer can be computed.

Barnyard manure is my favorite fertilizer for wheat ground. From six to eight tons to the acre not only benefits the crop by supplying the necessary plant food, but it also aids by increasing the water holding capacity of the soil. Inasmuch as barnyard manure is deficient in phosphorus, I make it a practice to apply 150 to 200 pounds of 16 per cent acid phosphate per acre to the soil at time of planting. Phosphorus is an element which aids materially in developing a large plump kernel, and increases the yield, as well as hastens the maturity.

These fertilizer requirements will not fit every type of soil. Where no manure is available, a complete fertilizer is necessary, and on lower soils usually a fertilizer higher in potash

is needed to stiffen the straw and prevent lodging.

Many farmers make a mistake by not sowing the best wheat obtainable. I never sow seed wheat until after it has been properly cleaned and all weed seed, dirt, smutted kernels, and light kernels removed. Heavy seed will give a greater yield than light seed, and nothing should be sown but the best, whether it be wheat or some other farm crop.

It seems unnecessary to state that

all seed wheat should be treated for smut before sown, and yet there is a large number of farmers who neglect this necessary and simple precaution. Each year in Michigan thousands of dollars worth of wheat are lost due to the disease of stinking smut. This serious disease can be easily controlled by the simple formaldehyde treatment which can be applied as follows:

Spread the seed wheat out on a cement floor and spray with a for-

maldehyde solution. One pint of forty per cent formaldehyde may be mixed with various amounts of water and the solution will treat fifty bushels of seed wheat. I have obtained successful results from using one pint of formaldehyde with one quart of water and applying this mixture to the fifty bushels of seed wheat with a hand sprayer. The grain should be shoveled into a heap after the treatment and covered for four hours with a canvas or blanket. After this procedure the grain should be aired for a few hours and sown. The grain need not be sown at once, but may be stored for a time in case of rain.

The amount of wheat sown per acre should vary somewhat according to the type of soil and time of planting. On poor soil or in case of late planting, more wheat per acre should be sown. The usual rate of seeding, however, is six pecks per acre, and this amount is ample on the majority of Michigan soils if sown at the proper date.

There is one more serious hazard which attacks the wheat crop and this is the Hessian fly. This pest is more numerous this year than it has been for several seasons, and for this reason more precautions should be observed in regards to its eradication.

(Continued on page 197)



The plot in the center received no fertilizer while those on each side were treated. The results are convincing.

Extension Worker at Eighty-Two

By Mildred Gardner

OF THE two hundred women that completed the work of the extension clothing class in Huron County this last June, there is one at least, that deserves honorable mention. This is Mrs. P. C. Smith, of Bayport, a lady of eighty-two years of age. Many women at this time of life are perfectly satisfied with the clothes they are wearing and are not interested in learning about the newer ideas of garment fitting and construction; not so with Mrs. Smith. She attended the clothing classes of the Bayport group regularly, and, with the help of her daughter-in-law, made a fitted pattern for herself. She has lost part of one finger on her right hand which makes it very difficult for her to use a needle. This would have been a good excuse for not working with the women in the class, but Mrs. Smith did not let this stop her. She kept at her work until the muslin model was fitted and the paper pattern made. Now she cuts a dress from this pattern and, without fitting it, sews it up, puts it on and she looks as well dressed as any of her younger friends and neighbors in her community.

Mrs. Smith was born in Milford, Michigan, in 1846, went to school in Ypsilanti, and married in 1866. They lived in Trenton until 1880 when they moved to Bayport. At that time, there was not a house nor a railroad in the place. Mr. and Mrs. Smith took possession of a large farm just on the

outskirts of Bayport and their business was dairying and vegetable gardening. Mr. Smith died in 1918 and since that time Mrs. Smith has lived with her son and daughter-in-law, who have been running the same farm for the past ten years.

Mr. and Mrs. Smith had only one child of their own, Mr. M. J. Smith of Bayport. They adopted several children and gave them the advantages of good home surroundings, high school or college education. There were two

little sisters, one two years and the other four years of age when they took them into their family. Both are married now, one is living in Milford and the other in Bay City. Then there were two little boys that were also fortunate in being taken into the Smith family. One of these boys went to college at the University of Michigan, taught in this same university for several years, and now lives in California. The other little boy was five years old when the Smiths adopted him. He taught school, married, and for twenty-five years worked in the office of the Rock Island Railroad Company at Chicago. At the present time he is also living in California.

Mrs. Smith has always been a very active church and social worker. She still enjoys taking part in any educational program that is being given in or near Bayport.

Huron County held its Achievement Day in the High School at Bad Axe on June 16th and Mrs. Smith gave us two very fine readings on that day. One was an old time recitation and for this she donned a dress that her mother wore in 1860. The audience was so delighted with her first recitation that they called her back and she gave us a very clever little encore. Huron County is planning on taking the project "The Well Dressed Woman" this coming year and Mrs. Smith is hoping to continue her studies with the Bayport group this coming year if she is able to do so.



Mrs. Smith with the dress her mother wore in 1860.

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 home problems.

VOLUME CLXXI NUMBER NINE

DETROIT, SEPTEMBER 1, 1928

Remember
the
Primaries

NEXT Tuesday is primary election day. Then the nominees for local and state officers are to be selected. One ballot may not change the results; but, if all men and women privileged to vote, go to the polls and register their choice conscientiously, the results will more fairly and satisfactorily represent what the people want, than where a handful of interested individuals who may expect some personal benefit from the election, are the only ones to vote.

The privilege of voting is a matter that should be taken seriously. A man is not justified in allowing an ordinary business engagement to keep him from the polls. He is not an ideal citizen if he fails to vote except under the most urgent necessities.

A republican system of government, such as ours, demands the active loyalty of its citizens. If their choice with respect to issues and public officials are thoughtfully and honestly recorded at each election, governmental policies will then more nearly cover the wants and needs of the people, and officials will seek more faithfully to carry out those policies. Persons who stay at home from the polls and perhaps look upon themselves with something of pride—these persons make possible many of our political shortcomings.

Conscientious voting at both primaries and elections in times of peace is quite as important in perpetuating American institutions as is the shouldering of a musket when an enemy appears at our borders.

Increase
Use of
Fertilizers

THE satisfactory results obtained from the use of fertilizers on wheat the past year have been an incentive to farmers throughout the state to plan to increase the use of fertilizers on the crop which will soon be sown. In many instances the farmers have

been able to determine the advantages coming through the use of additional plant food. Often check plots were left, so comparisons could be made. In other cases, the supplies of fertilizers at hand were insufficient to cover the fields, so, unintentionally, the farmers were given an opportunity to see how fertilizer increased their yields and improved the quality of their wheat.

Often by adding two or three dollars worth of fertilizer per acre, the owner has increased his income from eight to fifteen dollars over that from adjacent land where no fertilizer was added. As stated in an article on another page of this issue, the best results follow the combined use of barnyard manure and commercial fertilizers.

A good place to start a soil-building program on farms where little constructive work of this nature has been attempted is with the wheat crop. Since a legume, which may occupy the land for some time, is usually seeded into the wheat, this provides a most advantageous situation to reap the benefit from added plant food.

Radio
and the
School

EVER since the inception of radio broadcasting, the educators of our country have realized that a tremendous educational force was available. From the beginning, however, there seems to have been a hesitancy on the part of both schools and broadcasters alike to make definite use of this great force.

Schools did not go to the expense of radio equipment for no educational programs were being broadcast. On the other hand radio stations hesitated at the expense of broadcasting special school programs when few or no schools were equipped to receive them.

But a recent survey of conditions indicates a remarkable change in the past year. Improvements in receiving equipment have given to daylight reception a new degree of perfection. Certain educators have cooperated with broadcasting stations resulting in many programs of especial interest to school children being broadcast during school hours.

For the coming year an excellent group of programs to teach appreciation of music to children has been arranged by Walter Damrosch, director of New York Symphony Orchestra. These will be broadcast nearly every Friday morning at eleven o'clock from October 26 to May 10. There is promise this year of many more programs especially adapted to school children.

These programs which connect one with the outside world are needed in our rural schools. When school begins this fall, if the school board cannot be induced to supply the radio equipment, it would be well for the teacher and pupils to make early plans to raise the necessary funds that they may profit from these educational programs.

More
Efficient
Farming

WE could point to several things which prove to us that Michigan farmers are rapidly adopting more efficient methods of production. But the one which has come most persistently to our attention is the wide interest which farmers in every section of the state have taken in the multiple horse hitch demonstrations. Both in the lower and upper peninsulas have we seen these hitches working smoothly, enabling a farmer to do single-handed what, with two-horse teams, formerly required two and three men to perform.

The fine thing about the hitches being demonstrated by the extension men is that they enable the driver to

handle any number of horses as easily as one or two; put all the horses in a position to do a maximum of work, and they keep the lazy and the active horse, the unbroken or unruly animal, all in their places, and make each animal do its share and no more.

These demonstrations will do much to retain the horse as a major source of farm power.

Asbestos
is
Cheap

IT takes but a small piece of change to secure from your hardware the necessary asbestos and comparatively little time to protect exposed wooden posts and partitions against fire from the stoves. This little attention may prove the means of saving the home from burning and possibly the lives of members of the family. In peace of mind alone, it pays to provide this protection and to make periodic inspections of the home and the premises that all unnecessary fire hazards may be done away with.

Expand the
Rural
School

A MOVEMENT is on foot in our sister state of Wisconsin to extend the curricular work in the country schools to include studies in the ninth and tenth grades. At first thought, this idea may seem unreasonable, but it is receiving the active support of some of the best educators in progressive Wisconsin.

The majority of the country boys and girls complete their school work when they have finished the studies now given in the country school. However, it is the opinion of observing teachers that people learn most readily between the years of fourteen and eighteen. This change would enable many to take advantage of additional schooling when they could realize a maximum of benefit.

If the tuition money now paid to high schools by district school boards for extending education to those who have passed the eighth grade, could be retained in the district school for hiring teachers capable of giving at least two years of high school instruction—if that could be done, whole communities might benefit through the leadership of such teachers.

This is a matter that could well receive the attention of farm folks and educators, and we would be pleased to have their opinions on the suggestion. What would be the shortcomings and the advantages of such a change? If anything reasonable can be done to continue the usefulness of our district schools, we are for it.

Youth and
Bright
Lights

THE blazing boards of electric lights in the great cities charm the country boys and girls. Dazzling signs, streets that never grow dark, and brilliant window displays do make a sight that appeals for a short period, at least, to those unfamiliar with such things.

But, to a limited extent, bright lights need no longer be confined to the city. They now can be had to a satisfying degree in the country. The longings of the farm boy and girl in this respect can be met at home.

The introduction of electric lights certainly brightens up the old farm. Under their influence, dark corners become cheery, family ties become stronger, and outside attractions are less enticing. This lighting innovation promises to renew the social prestige of rural homes. Recent observations made during five thousand miles of travel among Michigan farm people justifies the statement that these promises are actually being fulfilled.

And every farmer in the state can have electric lights today so far as mechanical problems are concerned.

Thousands now enjoy the advantages of central power. Thousands of others, at no greater cost, have electric lights and limited power service from isolated plants.

We have met many farmers who have gone to the bank and hired the necessary funds to put in electric lights and electric power. The majority of these have declared that it was the wisest investment they have ever made. And the thing most emphasized in these remarks is the influence it has had on the home life of the family.

Permanent Waves

WELL, I went down town the other day and got a permanent wave, and I ain't decided yet if it is becomin' or not.

Permanent waves is stylish nowadays, but they don't always look just right on what they are. Fer inst. some women look like they was wearin' somebody else's hair and some of the fellows who try to look like movie heroes, look like ma's little boy. Just the way your hair is fixed,



don't make heroes anyhow, although it might make a few girls sigh and say, "Ain't he a he-man."

And ain't it funny about this permanent wave stuff? Those that got it don't want it, and those that ain't got it want it. There's the chocolate-colored folkses what pay to have the kinks taken out, but we folkses whose ancestors wasn't born in Africa pay to have them put in.

I don't know just why they have them permanent waves, but maybe the girls know that all can't go to the sea shore, so they pay the price of a automobile tax to have the waves put in, so the boys kin look at their hair and think they are sittin' by the sea, wonderin' what the sad sea waves are sayin'. And I suppose lots of boys wonder what those waves mean and just what's goin' on in the head under them.

Well, about this permanent wave of mine; it didn't cost me nothin'. I went down town and was parkin' and run right into a car in back of me, so I got a permanent wave in the rear right fender which was just new. Of course, it was the other fellow's fault, 'cause his car shouldn't be in my way. All the rest of the fenders are old, so I ain't decided if the wave is O. K. or not. It makes it look more like the old fenders, but from the standpoint of beauty, the wave don't balance the waves I got in the others. But seein' as it will cost about ten dollars to have these waves taken out, I guess I'll let my, what you call, artistic sense suffer. There's lots of other things I could do with ten dollars if I had it. Fer inst. I could go to a prize fight to give my sportin' blood some exercise. And maybe, too, I'd get some pointers on how to stop family arguments.

HY SYCKLE

The majority of us try to put off everything except a good time.

A fertilizer demonstration showing the use of commercial plant food for celery on muck land is being run on the Heycoop Brothers farm at New Era, Oceana County.

The Hersey Banking Company, Hersey, planted 23,500 pine and spruce trees on land between Reed City and Elvart. The Farwell school at Farwell enlarged their project by adding 3,500 trees to the number planted last year. Professor W. W. Chambers, University of Chicago, planted 6,750 trees on the east shore of Glen Lake.

The Quack Grass Bogey

Success in Control Depends Much on the Weather

By I. B. McMurtry

DURING my six years of work as a county agricultural agent, much experience was gained in the matter of handling quack grass. Early this year I was called to jury service. One case involved farming methods on a quack infested farm. I was chosen as foreman. The jury-men were all tillers of the soil. Time and again I was forced to call attention to the fact that we were to decide a damage case rather than to determine the best way to kill quack grass. But every man had to explain his methods for killing quack before the trial case could be decided.

The interesting thing was that every man had a different method and his was the one sure method for getting the stuff!

During all of my years of farming experience I have found only one sure death for quack under all conditions. Follow these simple directions and you will be sure of success. First, take a six-pronged fork or potato hook and dig out the quack, being especially careful to get long roots. Takes these roots and hang them in the fork of the cherry tree! After they are dry use them to kindle the cook stove fire.

Under certain weather conditions one method will kill the quack. Under some other conditions that method is not successful. One must fit the method of treatment to the weather conditions, time of year, the crop that is to follow, etc. Given a month of dry, sunshiny weather and any piece can usually be pretty well whipped by a very shallow plowing—less than five inches—and a thorough discing, preferably with a sharp double disc, every week. If the period is rainy this method will not work, but with dry weather it will usually do the trick. If this work could be done in June and the pieces sowed heavily with buckwheat by July 4th, there should be very little quack left. If the ground is poor, the buckwheat should be well fertilized. A vigorous growing buckwheat crop will smother most anything, quack included.

Late fall plowing, unless it be very shallow, does not hurt quack. The roots that are exposed during the winter will die, but not so the buried roots.

Here is a good method for preparing a piece of quack for beans or potatoes next year. Not later than September 15th go onto the piece with a sharp, heavily weighted disc. Go over it at least four times—different directions. The piece should then be cut up for a depth of three to six inches, and all of the quack grass roots cut into short segments. Plow the piece not over six inches deep. Disc again and sow to a very heavy seeding of rye. If the ground is rather poor, put on 200 pounds of good fertilizer per acre. Next spring when the rye is nearly ready to head out, go onto it with the disc and cut it up as before. Then plow it down, using a jointer, as deep as eight inches if possible. It is best to do this immediately preceding the planting. Then with the beans or potatoes well fertilized and with careful cultivation, the quack roots should all be turned into fertility for the crop by the rotting process.

Summer fallowing is all right if the weather is dry, but like this past rainy summer in central Michigan, one is wasting his time at it.

I do not like to use a harrow on quack. It scatters the roots all over the field. Nor do I like that old method of trying to rake the roots up and burn them. Better disc and plow down the roots for fertilizer.

The best small tool I have found

for plowing out quack in corn, etc., is the old-fashioned double shovel plow. It just digs out the roots and puts them on top of the ground.

Any ground that will produce a good crop of quack will produce good cultivated crops, so do not become discouraged. If those roots—two or three tons to the acre—can be turned into fertilizer it is a fine crop to grow.

But make your strong gesture to kill the quack before you put the crop on the land. The disc should be the favorite tool.

EXPECT ALFALFA SEED

THIRTY or more Ogemaw County farmers are letting their alfalfa fields stand to produce seed. The weather is reported to be favorable for the development of an alfalfa seed crop. Some of the farmers are pulling all the weeds from the fields to give the seed crop a higher value.

WHEAT SCAB ABOUNDS

THE prevalence of wet weather in the state has caused an unusual amount of fungus diseases this year. One of these, wheat scab, has been reported from several sections. Wheat which is affected with this disease shows moldy spiklets in the wheat head or the entire head may be attacked.

Farmers which have had this disease in their grain fields this year should not plant wheat after wheat, and they should use especial care to

remove the light kernels from the diseased heads from their seed wheat. These kernels can be taken out by thorough cleaning with a fanning mill.



Potato growers get first hand information on potato culture and diseases.

Jersey breeders of Macomb County have organized a County Jersey Cattle Club.

loss of stand due to black scurf. An adjoining field of certified seed stock which was planted with treated seed showed no loss of stand from disease.

WHEAT YIELDS REPORTED

ALTHOUGH the Michigan wheat crop is below normal this year, some good yields have been reported by members of the Michigan Crop Improvement Association. Glenn Sprague, Ionia, harvested 600 bushels from twenty acres; M. E. Parmelee, Hilliards, had an average yield of twenty-five bushels for twenty acres; and Farley, Albion, obtained a yield of twenty-eight bushels per acre.

INTERESTED IN HOME CONVENIENCES

TWO hundred and thirty people attended the six meetings held at stops made by the home convenience truck in Washtenaw County. The county agricultural agent reports that there are several requests each month for aid in obtaining plans and forms for the construction of septic tanks.

Not Good for the Sudan

But the Captain Made It Good After We Shaved

By Francis Flood

A MAP OF AFRICA—if it's a big map—will show a dot called Abechir. It's almost in the exact center of the Dark Continent, on the southern edge of the Sahara Desert. This forlorn little spot in the black heart of Africa is not an inviting looking locus to the average person who has never been there—and still less to one who has.

But to us Abechir seemed the end of the rainbow trail. At least it was the peak of the arch, with only the downhill slide to the pot of gold at the end. There would be a little store at Abechir, our first opportunity in 2,000 miles or six weeks' time to buy anything at all except long-legged chickens and long lived eggs.

An automobile expedition had once made the trip from Abechir to the

Red Sea. Thus if we had no trail we at least had a precedent to follow. It is true, the head of that expedition, an Englishman and a member of Parliament, wrote a book about his trip, and it was not a good roads ad by any means. He, too, had crossed Africa, but by a more southerly and much easier route than we. And the darkest pages of his book were about that part of his trip between Abechir and El Obeid, where we had yet to go. But Jim and I had proved, to ourselves at least, that we could travel on our motorcycles absolutely any place an automobile could go. The worst auto reports we could get would be good news for us.

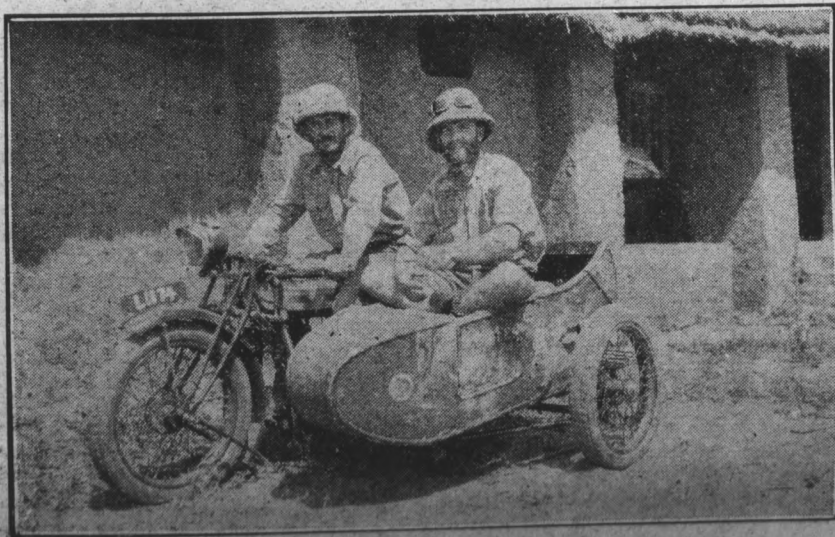
The gasoline problem threatened us again. We towed one bike behind the

other whenever it was at all possible and finally reached a little grass village called Hemmina, only fifteen miles from Abechir. It was almost dark. We had just enough gasoline to run one motorcycle the fifteen miles into town. Jim took that and started out, promising to send some gasoline back on a native's head for me or to bring it himself on a horse.

I tried to get a dozen villagers to tow my machine on into Abechir, or at least until we met the gasoline coming back and argued in the sign language until I was almost as black in the face as they. I even offered them money, but they were afraid of the lions in that lonely land at night. In English or French I might have convinced them that I wasn't afraid myself, but it's hard to lie in signs. They towed me to a little round mud hut a half-mile from the village and suggested that I stop there for the night. I had no gasoline and I had no choice.

I sent the curious crowd away with instructions to bring me water, a chicken, and some eggs. A few minutes later two dusky knaves, a half-dozen boys and a young woman returned. The two men were in the uniform of a French soldier; that is one wore the trousers and the other the coat. They knew a few words of French and explained that the chief had sent them to guard me during the night and the boys to bring the water and chickens and eggs. The young black female was a special gift from the chief that I might be assured of his hospitality and feel entirely welcome and at home as long as I remained in his village.

(Continued on page 194)



At Geneina, most western point in the Sudan, we had to shave.

Western Men For Western Policies

AS one other Westerner has done before him, Herbert Hoover has surprised the nation and touched the heart of its Americanism. His speech of acceptance voiced the noblest ideals of the people as deep speaks unto deep, while with splendid common sense he gave them as clear an outline of their present-day problems—and the means of solution—as they have ever had presented to them in so many words.

To have the Hoover speech of acceptance make such an impression on the people regardless of party, should please Westerners. To impress on all that he meant what he said, he prefaced his address with, "We shall use words to convey our meaning; not to hide it." Hoover doesn't quibble.

This brings back to mind the time when a tall, ungainly, somewhat shabby man, not even nationally known, rose in Cooper Union hall, New York, and electrified the nation with what he had to say on the issues of that day, voicing as Hoover has just done the ideals of their Americanism because he himself felt them so deeply that he had to say what he felt in words as only a Lincoln could say and express them.

Lincoln was the prophet of that time as I think Hoover is of ours. That both of these men should have come out of the West and emerged from the humblest beginnings, is only another proof of the fine Americanism the pioneers of Kentucky and of the Great Plains states carried in their blood. Such also is the lineage of Curtis. A presidential ticket with two such sons of the West heading it, is something which should stir Western patriotism, I think.

The policies these men advocate are Western policies, yet none the less national policies as broad as the country's welfare. For this reason they hold out more encouragement for the aspirations and ambitions of the West than the purely Eastern viewpoint ever can or ever has held out for us. No better example of this may be found, I think, than in that part of Hoover's address showing how the Middle West is cut off from the rest of the world by the wall of high transport rates. As Hoover says:

A large portion of the spread between what the farmer receives for his products and what the ultimate consumer pays is due to increased transportation charges. Increase in railway rates has been one of the penalties of the war. These increases have been added to the cost to the farmer of reaching the seaboard and foreign markets, and result therefore in reduction of his prices. The farmers of foreign countries have thus been indirectly aided in their competition with the American farmer. Nature has endowed us with a great system of inland waterways. Their modernization will comprise a most substantial contribution to Mid-West farm relief and to the development of twenty of our interior states. This modernization includes not only the great Mississippi system, with its joining of the Great Lakes and of the heart of Mid-West agriculture to the Gulf, but also a shipway from the Great Lakes to the Atlantic. These improvements would mean so large an increment in farmers' prices as to warrant their construction many times over. There is no more vital method of farm relief. But we must not stop here.

Senator Curtis in his address of acceptance referred to the extensive project authorized by the last Congress and now being carried out—the barge line to extend from St. Louis to Missouri river points which, when in full operation, will bring decided relief in the cost of transporting farm products. . . . The condition of agriculture being the country's foremost concern, he declared that measures to place agriculture on a basis of economic equality with other industries would promptly be found and set in motion.

Except for the St. Lawrence-Great Lakes project, which has met with steady opposition from New York, our inland waterways are virtually ready for the development Mr. Hoover outlines, so that the West's dream of low-priced transport by water is much nearer realization than is generally known. Eventually this will end our commercial isolation.

Governor Lowden, a staunch advocate of the McNary-Haugen plan of farm relief, speaking of Mr. Hoover's utterances on that subject, says:

"His frank recognition that the agricultural problem is the most urgent economical problem in our nation today is very heartening. I have stated a thousand times," Governor Lowden goes on to say, "that a general acknowledgment that the problem exists would be half the battle. If

there had been such recognition years ago, the agricultural situation would be vastly different today. Mr. Hoover's aspirations to bring the farm population up to economic equality with other groups have my heartiest approval."

Western men for Western policies. If ever there was a time for the West to show its political wisdom it is now. This year the situation calls for a united West for "dry" reasons as well as agricultural. This, it seems to me, would be the height of good sense and patriotism for which for once we might well sink all party differences. Certainly the welfare of agriculture and of the nation can best be served this way—that the West may take its place in the sun of a new development and an abounding prosperity.

Arthur Capper

News and Views

From INGLESIDE FARM—By Stanley Powell

GONE but not forgotten is our local fair. For two days now I've been decidedly under the weather and haven't a thing to lay it on except the dissipation of spending long hours each day at that exhibition and eating a few of the things sold there. Yesterday afternoon we were threshing oats from the field here at Ingleside. I was supposed to be running the tractor, but was barely able to sit up and watch the wheels go around. It rained hard in the night so we couldn't thresh today. I've been puttering around "enjoying poor health" and taking things more leisurely than at any time for a year or so. Being sick is a luxury in which I indulge but rarely, thank Providence.



Tomorrow I expect to be back on a more substantial diet. We plan to start threshing again in the morning, and if all goes well we shall be through with that dirty job before night, as far as Ingleside is concerned. I hope before another week rolls around that we may clean up all the threshing in the neighborhood and put the separator away for another season. I'm anxious to devote our full attention and energies to affairs here in Ingleside again. There's no other place where work seems to yield as much satisfaction and hold as much interest.

How glad I am that I don't have to follow the fair circuit week in and week out! To do so is to learn to appreciate the privacy and privileges of home and the advantages of one's own familiar bed and meals that may be eaten with confidence and without calamity.

Our Milking Shorthorns came back to Ingleside from the Ionia Fair, but the Shropshires started on an indefinite circuit beginning as follows: Caro, Bay City, Detroit, and Saginaw. Our plans are not fully decided for the latter part of the show season, but probably the sheep will invade several southern states during October and November. They went on a similar extended tour a few years ago and returned with glory and profit.

Cherry Grower Visits Us

We were favored this afternoon by a visit from Rev. and Mrs. Thies and

their friends, Mr. and Mrs. Roy Hooper of Old Mission. Rev. Thies is pastor of the LeValley Methodist church, a fine community institution with a splendidly equipped new church edifice located a few miles south of Ionia. The Hoopers are fruit raisers from that narrow peninsula that juts up from the main body of Grand Traverse County into Grand Traverse Bay. They were taking a brief vacation trip between the cherry season and apple harvest and being down in this part of the state wanted to visit Ingleside and become better acquainted with those folks and surroundings whose ups and downs they had been following through these letters.

The conversation which we had during this brief visit impressed us anew with Michigan's varied agriculture. Mr. Hooper told us that he owned two light horses, but had loaded them into a truck and taken them thirty miles away to pasture and was carrying on his fruit raising this summer without any horse power other than that furnished by his tractor. He expressed surprise that we were able to pasture alfalfa and maintain a stand, saying that on the light sand of his neighborhood alfalfa made good hay, but pasturing it soon replaced the alfalfa by June grass. To Mr. Hooper, our 290 acres seemed like a large enterprise, but I guess that I would just as soon try to run it as to tackle a few acres of fruit trees.

Mr. Hooper spied the tractor and exclaimed, "I see I had guessed correctly as to what kind of tractor you had." He was much interested in the stoneboat load of rocks with which we had practiced Dora and Fan for the pulling contest and seemed surprised when I told him that they could pull it down the bare driveway.

Naming the Homestead

Thinking back toward our recent fair, the thought strikes me that most of the live stock exhibits came from farms that had been named by their owners. I believe that it is a splendid practice for us each to designate our farm by an appropriate name. It gives it a certain dignity and sense of permanence and helps a farmer to realize that he is really a business man. Then, too, I believe there is nothing that so ties the boys and girls to the farm as naming the old homestead. Naming the farm and using that name may seem like a little thing, but it goes far toward arousing healthy sentiment and transforming dreaded drudgery into interesting adventures and acts

of love—love of the folks, the stock, the crops, yes, the fields themselves.

Having named our farm it is good business to use this name in our correspondence. I believe I have advocated in a previous article the advantages of printed farm stationery. However, this matter was brought to my attention again this evening by noticing the following little article in a local paper:

"A neat, well-worded letter head is the finest kind of advertising for the progressive farmer. The name of the farm is the big feature of the well-planned letter head, the product is second, and the farmer's name is third in importance. A short, snappy, easily remembered slogan often adds to the force of this advertisement.

"Keep the letter head simple and dignified. Do not crowd too much on it. Make every word count. An illustration, if well done, adds to the attractiveness. The paper should be of good quality.

"Farm letter heads are not a luxury—they are a business necessity."

Tells Experience as Hired Man

I've been receiving quite a lot of varied correspondence recently from Michigan Farmer readers. One letter of two large sheets of closely typewritten material was decidedly unusual. The writer lived up in Oceana County and having lost his mother who kept house for him, had concluded to dispose of his 120-acre farm and, as he puts it, "be someone's good hired man."

After giving a very detailed review of his career, capabilities and characteristics, this farmer concludes his epistle with the following soul-searching paragraphs:

"Now, Stanley, I've told you a lot about my disposition, now I'll ask you a few questions: Where does your hired man wash his feet? Who washes his clothes? Do you give thanks to the Heavenly Father for the privilege of gathering about the table, spread with Thy bounties? and then all pitch into a saucer full of corn flakes and an egg omelet with a glass of skimmed milk, to pitch hay on till noon? Did your wife ever drive seven miles to town to buy a peck of potatoes to feed a family of five and the hired man? When the little cherub gets big enough to sit in the high chair at the table, will his mother grab the biggest and most choice piece of meat from the not-too-well supplied platter, and give it to him and laugh when he throws it on the floor? Will you lick the gravy spoon and put it back in the bowl and pass it to the hired man? Will you always blow your nose on the towel when you wipe your face? Will the Mrs. be peeved, if the hired man does not choose to let the little fellow play with his watch? Do you take skimmed milk to the barn for the calves to drink and not scald the pail before milking in it? All these things I have witnessed during my three years 'bumming' around as hired man.

"This is getting lengthy, so I'll quit boring you and just say the question of wages is a secondary consideration with me. I stress the conditions under which I operate more than the pay. I forgot to tell you that I can cook most anything as well as a woman and can beat the most of them in the washtub and can patch a grain sack so it will last till the sack wears from around the patch. I have no objection to cleaning up the evening housework while the family goes out. I despise this wildcat time and wonder how a farmer operates with it.

"Dew surely bothers during haying and harvesting and most of the time in cultivating. I'd rather work late than to tie an alarm clock to my ear. I'll close by saying if you think I'd make a satisfactory hired man, tell me so and I'll step on this Ford and give you the chance to look me over at close range."

At present we keep but one regular helper here at Ingleside. Sometimes I have wondered if I could afford to hire two men by the year. As we have two tenant houses, I would prefer hired men who could maintain their own households. The family circle is an intimate and sacred thing which cannot be stretched promiscuously without losing something very precious.



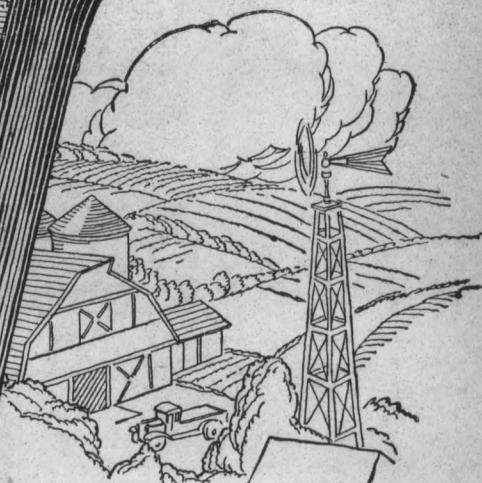
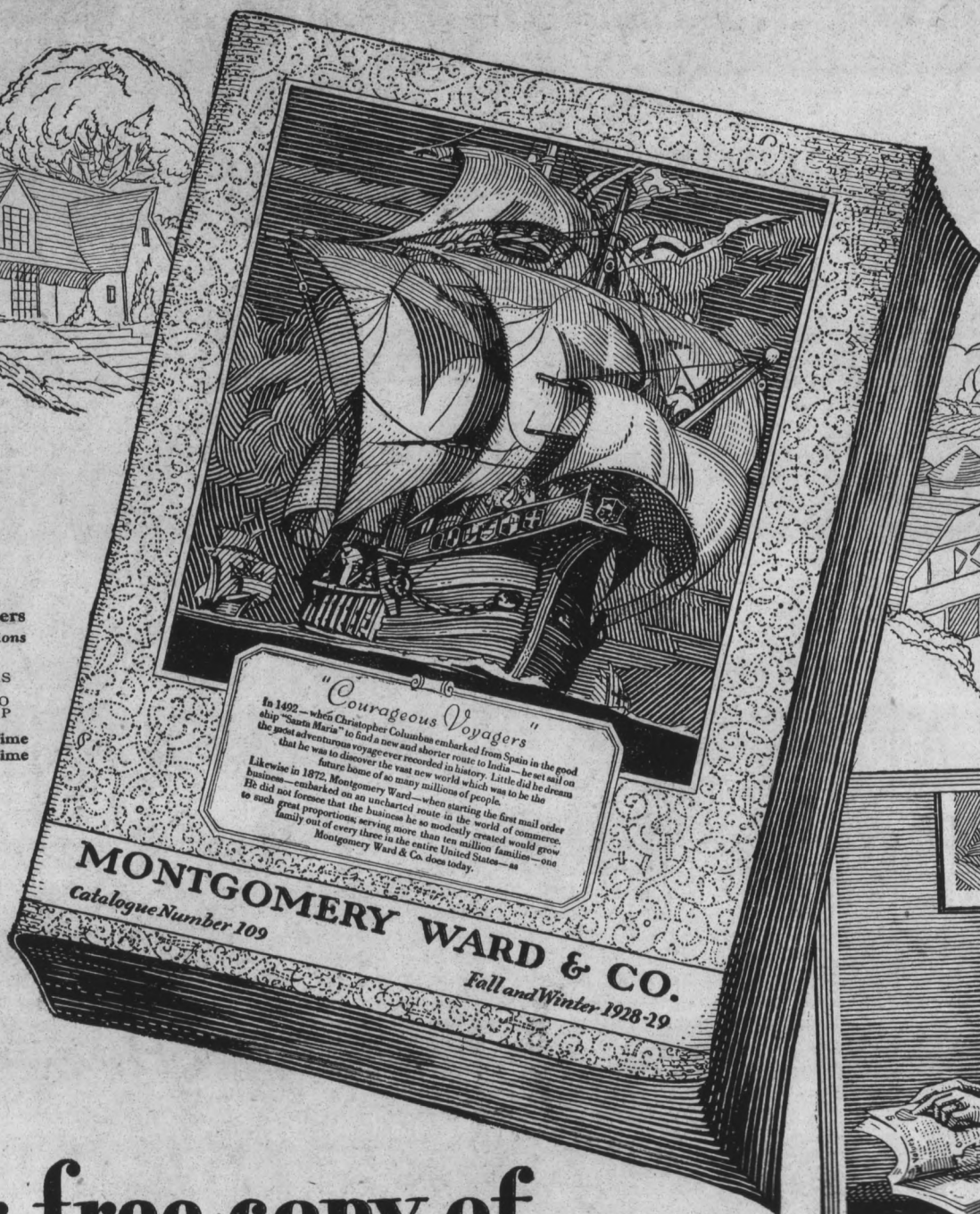
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Read What Dr. Heasley Says of Fos-For-Us:

"You will be interested to know that the sensational win made by me at the Michigan State College Egg Show contained eggs from Fos-For-Us developed stock. In the largest and best display of eggs ever shown there, we won Sweep-stakes in the Record of Performance Class: sweep-stakes in the Hatchery Class and Grand Champion sweep-stakes in the whole show on white eggs."—Dr. L. E. Heasley, Grand Rapids, Mich.

Use Fos-For-Us In Your Mash

THE HANDY MAN'S CORNER

DEVICES FOR HANDLING BARB WIRE

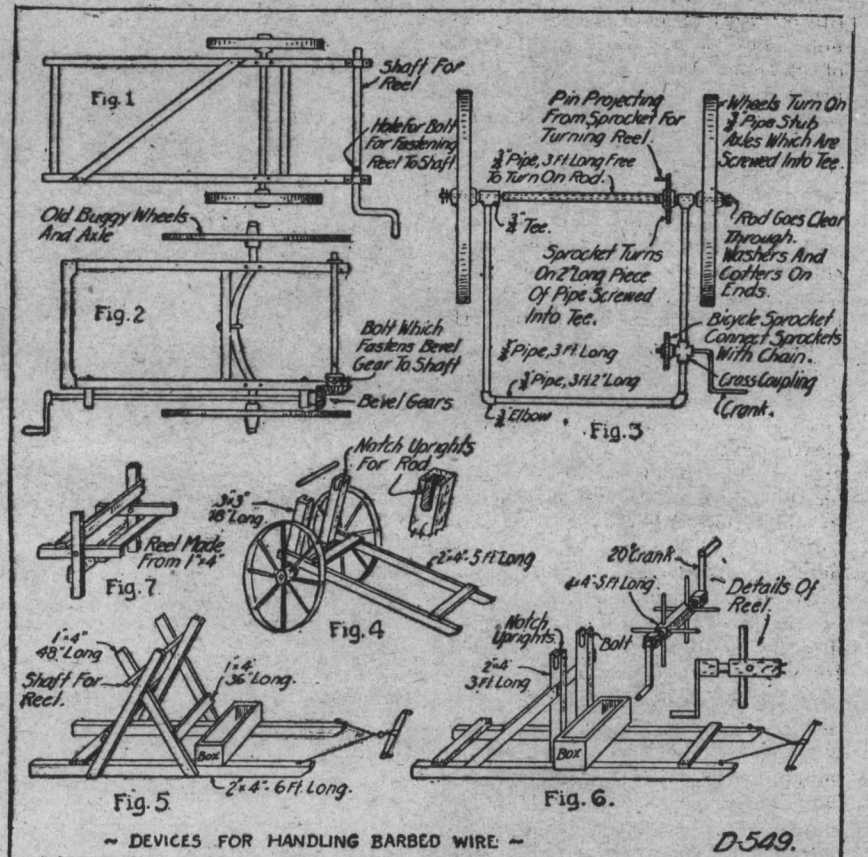
Please send me suggestions on how to make a convenient device for handling old barb wire.—D. M.

One of the troublesome jobs on any farm, especially on a live stock farm where much use is made of temporary fences for pasturing sweet clover and hogging down corn, is that of handling the barb wire which forms the basis of most of our temporary and much of our permanent fencing.

paraffin is also good. These same general methods will apply to all types of silos. In putting the doors in place when filling, a bucket of clay mixed to a fairly stiff mortar should be provided, and be plastered around the joints between doors and between doors and frame.—I. W.

SHOULD PIT IN TRENCH SILO HAVE DRAIN?

I am interested in the construction of a pit in trench silo, and would like



~ DEVICES FOR HANDLING BARBED WIRE ~

D-549.

Usually these must be home-made, since very little equipment of this kind is yet available on the market, and anyway a handy man can usually work up out of odds and ends some sort of a barb wire reel which will suit his particular conditions as well or better than anything he can buy. The accompanying diagram shows a number of barb wire reels which have been sent in by our readers and which have been recommended as being highly satisfactory. In most cases, the drawings are so complete that no further directions are necessary.—D.

STOP THE LEAKS IN YOUR SILO

MANY of our readers whose silos have been in use a number of years are having more or less trouble with pockets of spoiled silage around the outside, indicating that air leaks in the silo have gradually developed. The following suggestions as to locating and remedying the leaks will no doubt be helpful.

About the best way of locating such leaks is to cover the silo openings on a bright sunny day, then go inside with a handful of straws and stick one in each opening where the light shines through. This locates the larger openings, which can then be closed by forcing stiff roofing cement into them with the point of a small trowel. After the holes located at the first trial have been stopped, it is well to go through the operation again, as more leaks may show up as the light is shut off more completely. Special care should be given to joints between staves and to door casings.

After all large leaks have been plugged and staves have been well tightened, go over the inside with one coat of hot asphalt or two coats of asphalt dissolved in about its own bulk of gasoline. Two coats of hot

very much to know whether or not a drain is necessary.—T. G.

Opinion varies among silage experts as to whether a drain is advantageous in an ordinary silo with a concrete pit; but with the more mature corn now put into silos, a drain does not seem to be necessary with the ordinary type. Since the true pit silo extends several feet into the ground and ordinarily is cemented tight against water entering, a drain is hardly practical.

The trench silo, however, usually is not protected from subsurface ground water and often has a good many square feet of surface exposed to rain and snow. Hence it is considered very necessary to have a drain to prevent the collection of ground and rain water. Since usually about half the depth is formed by the banked up earth, it is ordinarily not difficult to secure good drainage. Good bulletins on trench silos can be secured from the College of Agriculture, St. Paul, Minn.; College of Agriculture, Fargo, N. D.; College of Agriculture, Brookings, S. D.

Allegan County farmers brought 146 samples of soil and seven samples of marl to be tested at the county agricultural agent's office last month. Sixty-three men also bought outfits to test soil for themselves.

Dr. Charles H. Mayo says that it is futile to attempt to run away from infantile paralysis after the epidemic begins, because recent experiments have shown that at such a time the germs of the disease exist in the throats of almost all children and of many adults, most of whom never show any signs of the sickness. "The best thing to do," he says, "is to remain at home, guard the children against overfatigue and indiscretions of diet, give them a little extra rest during the day, and watch their temperature."

Who Pays Broadcasting Bills?

AMERICAN broadcasting leads the world in talent, mechanical development and expenditures, but, unlike other countries, does not resort to direct taxation as a means of support. Who pays for broadcasting in foreign lands?

In Great Britain, for instance, the British Broadcasting Corporation, controlled by the government, provides the type of programs that the British desire and a direct tax is imposed by the Government upon every radio set which must be paid at regular intervals by the owner of the set.

In the vast area of the United States, with its over-crowded air channels, due to the very great number of stations—there are more than six hundred now in operation—it has been found necessary from a standpoint of public service to tie together groups of important radio stations by specially built wire lines. Thus the listeners in the United States can tune in on their favorite home station and receive clearly the great music, religion and education originating at the centers of population, where this talent is most available.

Who pays for radio broadcasting in the United States? There is no direct charge to the owner of a radio receiving set, for the American family sits by the fireside in the winter and on the porch in the summertime, and is entertained by the great artists of the world, informed of the greatest public events, reported as the events take place, and the leading ministers of the land talk for the first time directly to the millions in the peaceful atmosphere of the home.

Large American industries sponsor most of these programs. The business leaders of the United States have quickly grasped this new instrument as a constructive force in the development of better understanding, sympathy and support for the industry and its products by American families.

So the answer to the question "Who pays for Radio broadcasting?" is that, in the majority of cases, the listener pays. He does not pay directly three or five cents to receive the "Magazine of the Air," nor does he pay a regular tax on his radio receiving set, but through his response to the institutional indirect advertising of American industry, he is today paying for the entertainment of the air.

The radio station today which can show a profit is a rare exception to the rule. Most of the radio stations in the United States are owned by local industries, whether in the radio business, newspaper or other industrial activity and the institution owning a radio station must ordinarily charge the deficit for the year to goodwill advertising.

Vaughn de Leath, contralto and comedienne of the NBC station, is a musician and composer as well as a singer. "Rosemary," one of her latest, has already had its microphone debut, and two more, "Honey" and "Gingerbread Brigade", will be sung this month.

One of Miss de Leath's favorite hobbies is the collection of earrings. She has them for every mood and costume. So far as anyone at the broadcasting studio has ever observed, she has never appeared in public without earrings.

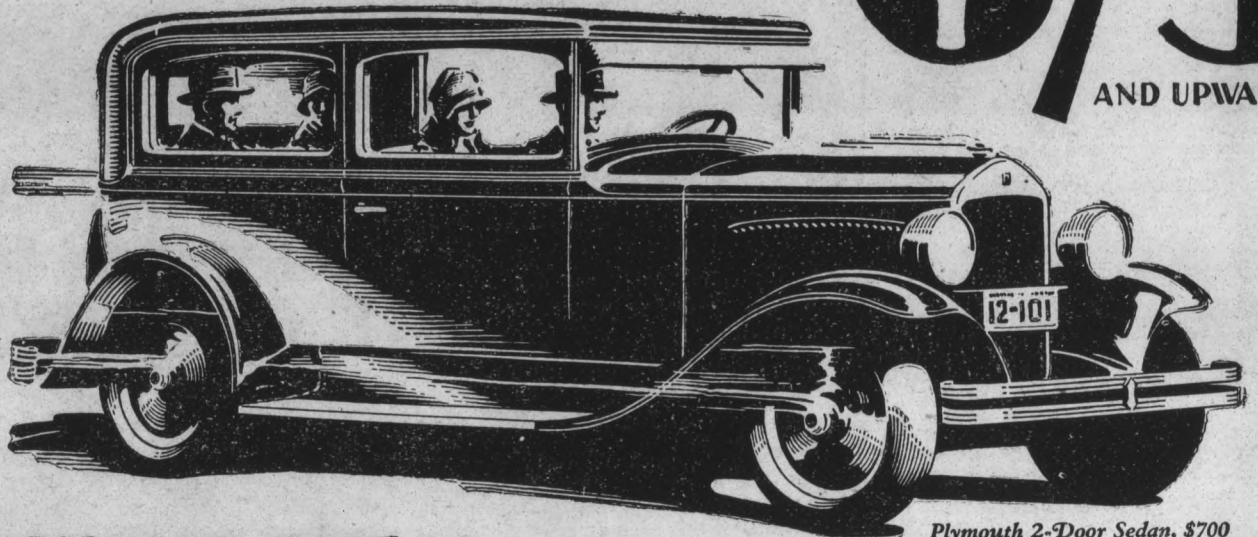
WHY NOT?

Mrs. Cohen: "What did you say was the occupation of your new boarder?"
Mrs. Kelley: "He told me he edits house organs."
Mrs. Cohen: "Be that so, I wonder if he could fix our phonograph."

No man works quite as hard as he would have his wife believe.

CHRYSLER Plymouth

\$675
AND UPWARDS



Plymouth 2-Door Sedan, \$700

GIVING THE AUTOMOBILE DOLLAR NEW VALUE

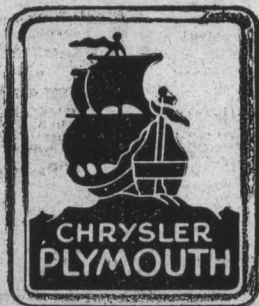
THE new Chrysler-built Plymouth offers entirely new style, size, comfort, ability and distinction to the millions who desire and deserve quality and performance at low price.

These buyers, measuring what others offer at or near this price, find this newest Chrysler product giving far more dollar-for-dollar value in full size, in style and in every phase of performance, than any of the few other cars in the lowest-priced group.

For no other than the Chrysler-Plymouth gives for style the new chromium-plated slender-profile radiator, the new type fenders, the pleasing new arched window silhouette. No other gives for comfort and elegance, such full-sized, roomy, luxuriously upholstered and finely fitted bodies.

No other gives for performance true high compression through the "Silver-Dome" high-compression engine using any fuel; and for safety, the surety and ease of light-action, internal expanding hydraulic four-wheel brakes with squeakless moulded brake linings.

And these are only a few of the features unique to Plymouth which are convincing thousands upon thousands that the Plymouth is the standard whereby to judge values in the lowest-priced fields—that anything less than the Plymouth gives is less than your dollar's worth.



Roadster . . .	\$675
(with rumble seat)	
Coupe . . .	685
Touring . . .	695
2-Door Sedan . .	700
De Luxe Coupe . .	735
(with rumble seat)	
4-Door Sedan . .	735

All prices f.o.b. Detroit. Plymouth dealers are in a position to extend the convenience of time payments.

PLYMOUTH MOTOR CORPORATION
(Division of Chrysler Corporation)

ARE YOU ACTUALLY AHEAD BY HOME-MIXING?

THERE was a time when home-mixing had advantages for the poultryman. He could home-mix cheaper than he could buy a ready-mixed feed. And he could judge the actual feeding value of the mixture, impossible with secret formula feeds.

But there were disadvantages too. At times the local dealer was out of some ingredients. At other times the ingredients were stale. And always the mash was imperfectly mixed.

Now AMCO FEED MIXING SERVICE gives you the advantages of home-mixing, without its drawbacks. Every bag of Amco poultry feed carries its formula, so you can judge its feeding value yourself, and select from three mashes the one you prefer. Only the freshest feeds are used, and the analysis of the mixture is always the same. And, of course, Amco feed comes to you in a perfect mechanical mix.

Finally, Amco prices its poultry feeds so fairly that men who were once confirmed home-mixers have found their net profit greater at the end of the year on Amco feed.

AMCO

FEED MIXING SERVICE

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Peoria, Ill. Omaha, Neb.
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save 1/3 to 1/2



New FREE book quotes Reduced Factory Prices. Lower terms—year to pay. Choice of 6 colors in New Porcelain Enamel Ranges. New Circulating Heaters—\$37.50 up. 200 styles and sizes. Cash or easy terms. 24-hour shipments. 30-day free trial. 360-day test. Satisfaction guaranteed. 27 years in business. 700,000 customers. Write today for FREE book.

Kalamazoo Stove Co.
121 Rochester Ave.
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"A Kalamazoo Direct to You"

Cabinet Heaters \$37.50 Up

\$300 EVERY MONTH

For Showing Your Neighbors this Amazing NEW Way to PREVENT FARM FIRES

Show your neighbors this amazing new discovery that absorbs fire, as a sponge absorbs water. The amazing new liquid that puts out fire in one third the time required by any other known extinguisher and operates at 40 degrees below zero!



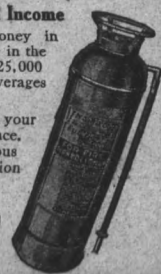
Be My Expert in Your Locality

I must appoint a man in your locality at once to act as Farm Fire Prevention Expert. Inspect barns, houses, out-buildings, and recommend equipment needed for Fire Prevention. No experience needed. I show you how—I TRAIN YOU FREE.

Ray C. Hahn
Distribution Manager
Make this money in SPARE TIME every month in the year. Viles, Wisconsin did \$25,000 in 2 years; Gill, Louisiana, averages \$600 a month!

I can appoint only one man in your locality and I must do it at once. So write today for my generous plans for Farm Fire Prevention Experts. Write to

RAY C. HAHN
FRY-FYTER CO.
56-J Fyr-Fyter Bldg.,
Dayton, Ohio



Winter Poultry Profits

How One Poultryman Successfully Played the Odds

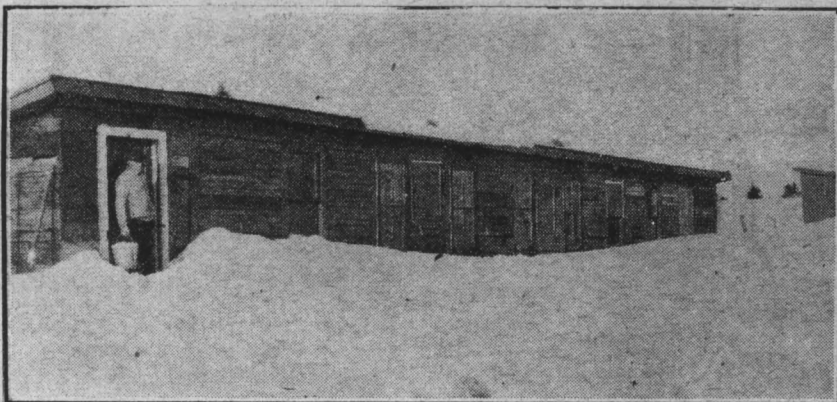
By L. R. Arnold

IS it possible to maintain heavy egg production in upper Michigan during the cold winter months? The opinion of many people is that this region has such a cold inhospitable winter that one could not expect to get good results from the laying fowls during the time of the year when high prices prevail.

When it comes to a question of raising poultry, we can conclusively prove that our weather is not too severe for heavy production during our coldest months. Southern Michigan poultrymen look upon northern Michigan as a poultry region of minor importance. They feel that the laying

tains. These proved inefficient; it is his contention that their greatest efficiency lies in their ability to catch dust. He regards them as being quite unsanitary. Particular attention has been given to sanitary measures in the houses, and about the yards. This man, who believes in doing things right, built portable brooder houses for the chicks immediately upon becoming a poultryman. He raises his chicks upon new ground each year, and he has never failed to fill his houses with strong healthy pullets.

Due to the profits obtained from his first experience with poultry, this man decided to venture into poultry rais-



Good buildings largest factor in poultry success where winters are cold.

fowl cannot be at her best in such weather as prevails in these northern counties. The writer, a southern Michigan resident up to one year ago, held just such an opinion. After spending one year in this more northern region, he has come to the conclusion that the cold weather need not be feared, providing proper steps are taken to protect the fowls. Records received from demonstration farm flock owners at the poultry extension office in Marquette bear out this contention. Farmers who cooperate in such work with the poultry department of Michigan State College send in monthly reports as to number of fowls kept, production, feed costs, etc. Many of these farmers have made records which would compare favorably with the records found in any other part of our country.

In order to be more specific we will take figures obtained from one of these cooperators, L. J. Baccus of Lake Linden in Houghton County. Houghton County is one of our most northern counties, and no one can deny that cold weather does prevail up there. Mr. Baccus' record is a fine one, much better than the average. Up to 1925 this farmer had not been interested in poultry; he had made his livelihood through dairying and gardening. In 1925 he decided to try out poultry, and started in with a flock of 200 White Leghorn fowls. The result was so satisfactory that an increase in the size of the flock has been made each year since 1925. He started the present poultry year on November 1, 1927 with 700 fowls. This continued increase indicates that he has been well satisfied with results. In discussing the matter he says, "As I increased the number of birds, I found that in order to do justice to the flock I would have to give up some of my other work. I sold off some of my cows and gave up much of my garden work. I feel that greater profits can be obtained by devoting most of my time to the chickens."

Through actual experience Mr. Baccus found that much of his success depended upon proper housing. He found that the laying house must be well built, such that it would be comfortable at all times for its occupants. He started by ventilating the first house through the use of muslin cur-

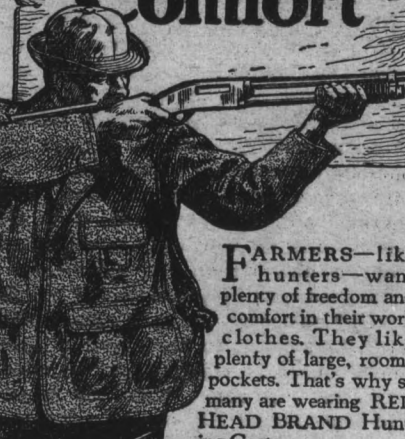
ing on a larger scale. He became convinced that a comfortable laying house was essential. In 1926 a modern laying house was constructed. It is a shed roof type house with a low roof. Such a roof tends to keep the house warmer. This house was made wind proof, practically air tight, by having inside walls of hard plaster. The outside walls consisted of tar felt, covered with shiplap. The house proved quite comfortable and was highly satisfactory, but in 1927 added protection to the fowls was afforded by covering the shiplap with a coat of stucco. During the winter of 1927 the temperature in the house was somewhat higher than during the preceding winter. There are two such fine houses on the farm today, both covered with stucco, and equipped with the modified King ventilating system. No trouble has ever occurred through the frosting of combs, although some severe weather has been experienced.

The record turned in by this cooperator to the poultry department of the college proves that production can be maintained throughout the coldest of months. The poultry year starts on November 1, and ends October 31 of the following year. On November 1 the flock consisted of 600 fowls. On October 31, 1927 it had been reduced to 300 birds through mortality and culling. Little culling was done until the last month of the year, October. The average of the flock for the year was 531.5 fowls. Total production over this one year period was 111,259 eggs, or the high average of 209.3 eggs per fowl. The most satisfactory part of the record is that the highest production occurred during the four coldest months when prices were at the best. During the period, December 1 to March 31 the production was 44,905 eggs, which gives an average production of 19 eggs per month for each fowl in the flock at that time. The average size of the flock for this four months period was 590 hens. In November, the first month of the year, when the pullets were just coming into production only 9.4 eggs per hen was averaged. The total egg income for the year was \$3,697.62, while feed costs amounted to \$1,531.65. Thus Mr. Baccus made a profit from eggs alone of \$2,165.97, or a profit per hen of \$4.07.

RED HEAD BRAND

Hunting Clothes

for guaranteed
Comfort



FARMERS—like hunters—want plenty of freedom and comfort in their work clothes. They like plenty of large, roomy pockets. That's why so many are wearing RED HEAD BRAND Hunting Coats.

Here is a coat that will keep you warm and dry in the stiffest rain—it's guaranteed waterproof. And it will outwear two or three ordinary coats or overalls. Ask your hardware or sporting goods store to show you a RED HEAD BRAND Hunting Coat. The price will please you.



Write today for free circular describing complete line of RED HEAD BRAND Hunting Clothes, Gun Cases, and canvas and leather equipment. Ask for circular No. M

ALWARD-ANDERSON-SOUTHARD CO.
Inc. 1915
925-29 W. Chicago Avenue
Chicago, Ill.

RED HEAD WILL RAIN SHED

COAL

KENTUCKY HOT FLAME in carload lots delivered to your station at attractive prices. Best quality guaranteed. Farmer Agents wanted. Send for circular. THEO. BURT & SONS, Box 45, Melrose, Ohio.

1000's of Pullets Fairview Big Type Tested Leg-horns, all ages, up to laying stock, pedigreed and R. O. P. cockerels, hens. Prices low. Buy direct from a breeder, C. O. D. on approval. Fairview Hatchery, Box M, Zeeland, Mich.

Class "A" Pullets We have from 2 to 3,000 pullets ready to ship each week. BOS HATCHERY, Zeeland, Mich., R. 2 M.

PULLETS---HENS Pure-bred. Low Priced. CLOVERDALE HATCHERY, Zeeland, Mich.

MICHIGAN FARMER
Classified Liners get results. Try one.

Do you remember the Chicago fire?

You probably don't, but the point is that if Mrs. O'Leary had had a flashlight, the cow wouldn't have kicked over the lantern and burned down the town. Now you may have kickless cows or non-spill lanterns but, even so, you'd be better off with an Eveready Flashlight.

You can get one—a genuine Eveready—for as little as a dollar. Keep it loaded with long-lasting Eveready Batteries and you have a light-making combination that can't be beat. The flashlight habit has saved many the price of a new barn. Don't YOU take a chance with an open flame around your place, when an Eveready Flashlight costs so little and does so much. Get an Eveready and when it's time to reload, insist on genuine Eveready Batteries.

Production during these same four coldest months during the present poultry year was practically the same as during 1926-27. From an average flock of 683.25 fowls 51,871 eggs were obtained. This gives a production of 18.98 eggs for each fowl each month, a very satisfactory figure, to say the least.

Some very low temperatures were recorded during the period in question. A temperature of 31 degrees below zero was registered at the U. S. Weather Bureau at Houghton on January 26, 1927. On February 25, 1928 the temperature dropped to 20 degrees below zero. No frosted combs have ever been found, thus one must conclude that it pays to protect the fowls by building right. The accompanying picture shows one of Mr. Baccus' laying houses before it had received its coat of stucco.

Several other records in the office at Marquette are comparable to this one as far as production goes, although in all other cases the flocks were not so large. Such high production is primarily due to the fact that the houses are built snugly. Good feeding, sanitation, and culling all played a part in making such a record, yet without a warm comfortable house, no such record could ever have been made. Upper Peninsula poultrymen are becoming thoroughly convinced that well insulated houses are essential for best production, and in the future few houses will be constructed without some form of insulation.

CAPONIZE EXTRA COCKERELS

CAPONs fatten easier and at less cost, than cockerels. Male birds not sold as broilers, or otherwise used, may be caponized if they are to be held over. Market quotations on capons usually begin in November and are several cents more a pound than those for cockerels, especially for the holiday trade.

When successfully caponized the bird does not have the appearance of a cockerel. The comb and wattles do not develop and the saddle and hack feathers grow long. Caponizing a bird makes him more quiet and peaceful, and causes the flesh to retain the fine flavor and texture of broiler meat. Capons will stand closer confinement than cockerels.

Breeds used for capons depend on the market demands. For the production of large capons, Orpingtons, Light Brahmas, and Jersey Black Giants are satisfactory; for smaller capons any of the American breeds, such as Plymouth Rocks, Wyandottes, and Rhode Island Reds are adaptable. Leghorns make such small capons that it is doubtful whether it pays to caponize them.

Cockerels selected for caponizing should be about 8 to 10 weeks old and weight about 1½ to 2 pounds.

YOUNG TURKEYS DYING

What is the proper food for young turkeys, also the older birds? I had six little ones given to me about four weeks ago. I fed them a good starting feed, boiled egg and sour milk most of the time. They grew fine and were real lively until about four days ago, when two of them started to lose their appetite and acted sleepy, especially when they got in the sun. They finally refused to eat altogether and died in a few days. I cut them open after death, and their liver had yellowish round spots on it; also the food in their crops was decomposed. One hadn't eaten for a couple of days, but his crop had quite a little in, which smelled very bad. After a few days their droppings became watery and yellowish. Is there anything I can give them as a preventive?—E. G.

The condition of the turkey's liver, listlessness, loss of appetite and bowel trouble indicate that blackhead is probably the cause of the loss. In this disease the head may or may not turn dark. There is no cure for blackhead at present, but it can often be

prevented by raising the poults on soil that has not been used as a poultry range for several years. Turkeys are more subject to blackhead than chickens, but chickens often spread the disease among flocks of turkeys. If the poults were brooded with a chicken hen on soil used for several years for chickens, that might be a cause of the disease. This disease may attack the poults in spite of the best of feeding methods. By addressing the Division of Publications, U. S. Department of Agriculture, Washington, D. C., you can obtain Farmer's Bulletin 1409 entitled "Turkey Raising" which will give considerable useful information on turkeys.

Soils and Crops

GROWING WHEAT FOR LOCAL USE

HURON County farmers are reported to be planning an increased acreage of Berkeley Rock wheat. This variety produces a high gluten flour and a local milling company offers a price premium for the variety.

LOCATE LARGE MARL BED

A MARL bed showing a depth of 10 to 12 feet and covering an area of nearly twenty acres was recently surveyed by a specialist from the agricultural engineering department at Michigan State College and the Lenawee county agent. The marl deposit is located 10 miles north of Adrian.

Antrim county farmers who are producing radish seed are having trouble controlling aphids which attack the radish plants. The use of contact sprays promises to be successful in controlling these insects.

Variety tests of corn are being run on the farm of Archie McDougall, east of Petoskey, in Emmet county, and varieties of peas and oats are being tested on the farm of Clyde Kaufman at Brutus.

The county agricultural agent of Presque Isle county reports that alfalfa which had received an application of fertilizer made a growth of twenty-six inches while unfertilized alfalfa grew only fourteen inches.

The list of farmers growing certified seed potatoes in Antrim county this year totals 179. Last year there were 108 farmers in the county whose potatoes were inspected for certification.

Small grains grown in Eaton County under the supervision of the Michigan Crop Improvement Association for inspection as certified seed include American Banner, Berkeley Rock and O. A. C. wheat; Spartan barley; and Wolverine and Worthy oats.

Evidence of the need for potash on one type of Macomb County soil has led to the establishment of a fertilizer demonstration on alfalfa. One of the fertilizer companies is cooperating with the county agricultural agent in conducting this test.

Discing oat stubble as soon as the crop has been removed aids materially in the preparation of this land for wheat. Both plowing and after cultivation is done easier and better. In fact, we have found it advantageous to shock the oats in rows to permit discing between these rows before the crop is threshed or stacked. The sooner the discing is done the greater the amount of moisture conserved. —W. B.

BUY THE FEEDS IN STRIPED SACKS

Anaemic Hens pay no profit

LISTLESS hens with pale combs never bring profit to their owner. Usually, these birds are victims of anaemia—they haven't the blood strength that makes for vigor, good digestion, and honest appetite.

Feed your hens Quaker Ful-O-Pep Egg Mash and you eliminate anaemia. For this famous ration contains *cod liver meal*, known to science for its corrective and preventive value in treatment of anaemia. Cod Liver Meal strengthens the blood, keeps the tissues in better condition, thus preventing bleeding combs, blood clot eggs and other troubles due to weak blood. Do not confuse cod liver meal with cod liver oil. Each has its purpose and value.

Get Better Eggs and More of Them

Hens fed on Quaker Ful-O-Pep Egg Mash are eager, consistent layers. Their eggs are large, uniform, and strong-shelled. Such eggs are unexcelled for hatching purposes.

Quaker Ful-O-Pep Egg Mash contains in exactly the correct proportions just the things a hen needs to make eggs, and to keep her vital organs in fine condition. Oatmeal, nature's marvelous grain product, is the base of this mash. With the oatmeal are combined cod liver

meal, and valuable minerals. Hens relish this mixture, and it is economical to use because it does more and goes farther.

Keep your layers on Ful-O-Pep Egg Mash this fall and winter and enjoy top profits. Your birdswill come through in good condition; your spring hatches will be improved.

See the dealer in your neighborhood who sells the complete line of Quaker Feeds.

Quaker FUL-O-PEP EGG MASH

The Quaker Oats Company

CHICAGO, U. S. A.

Manufacturers of a complete line of live stock and poultry feeds—buy the feeds in the striped sacks

BUY THE FEEDS IN STRIPED SACKS

I SENT the whole troupe back with my compliments and gave my guards a few francs to pay the chief for his provisions. An hour later the zealous black guards returned with half a calabash of a strong smelling liquor they had purchased with my money. They were bound to guard me and were already drunk enough to insist on obeying their chief's commands. I rolled the motorcycle into the open doorway of my mud house and spread my blanket on the sandy floor inside. I had no gun, but I parked the hatchet near at hand and tried to justify this precaution by arguing that the lions I heard roaring out in the bush might try to come inside.

"Zip. Bing!" A ki-ki and a roar, and the sound of bare feet running through the sand awoke me in the dead of night. I seized my hatchet and peeked around the motorcycle wheels. A black man, spear in hand, was crouched behind the compound wall. Another spear zipped past my door and I pulled in my neck. Then I remembered that in the land of blacks the white man's constant show of superiority and fearlessness is the only guarantee of safety and respect, and here I was cringing in the shadows of my mud doorway. I strode out into the dim moonlight and sternly called my guards to time for making such a noise.

They were all excited. A lion, they said, had chased a jackal inside the compound walls and they had thrown their spears to drive the lion and his frightened prey away. Imagination runs high in the African mind, especially when lubricated with a combination of fear and bad liquor and a desire to show off their bravery before a well-framed white man. They insisted it was "le lion" and I piped them down and told them it was only a "chien". But lion or dog it was enough to keep me awake for—well, nearly thirty minutes I suppose.

ABOUT three o'clock Jim came back, bareheaded, on a horse. A black carrier was supposed to be somewhere behind with five gallons of gasoline on his head. The moment he arrived we poured the gasoline into our tank, gave him the horse to ride back, and started off. Since Jim had come away from Abechir without his cork helmet we had to be back before the sun got too high above the horizon.

At Abechir we found a Greek merchant. And a Ford! "Every time you turn up a stone in the Sudan you'll find a Greek merchant," promised the French Commandant at Abechir. "But don't think this car means you'll have good roads the rest of the way. From El Fasher to El Obeid you'll need to be towed. That's about 500 miles." This pessimistic prophecy was seconded by his two lieutenants who had never been over the road themselves but who knew all about it just as they knew all about the Prohibition situation in the United

States from their own imagination. They were all wet.

AFTER two or three days arguing with these irreconcilables who would believe everything bad about Prohibition and nothing good, Jim and I started out again. We made over 100 miles the first day to Andre, the last French fort. Geneina, the first British outpost in the Anglo-Egyptian Sudan, was only about 20 miles away—and that reminded us of our passports. Our all-inclusive

There was only a sandy caravan trail and not an officer or even a traveler in sight, but Jim immediately crossed over to the left side of the road. "Remember the English traffic rules," he warned me. "The right side of the road is the left again now." We didn't break any speed laws in that deep, soft sand.

We chugged right up to the house of the resident as soon as we reached Geneina, and I think our little English motors hummed a jolly "Fee Fi Fo Fum" all the way to that English-

bush but you can't make him a bushman. No one could have been better to us than the French during the weeks we were in French Equatorial Africa, but the French—well, they don't dress for dinner in the bush.

We showed the Captain our passports and trembled. The English are sticklers for law and regulations and we knew it. They will hardly consider a man born if there is the slightest irregularity in his birth certificate—and our passports were absolutely no good at all. Besides, we were "fool Americans", dirty and whiskered and ragged, and we had no dress suit for dinner. Clearly we didn't belong in the Anglo-Egyptian Sudan the way we looked.

SORRY, old beans," he finally announced, "but I can't recognize you from these photos in your passports. You're smooth shaven in the pictures. You'll have to cut off that brush. We don't live in the bush here. Boy, bring two pitchers of hot water!"

"He's got us, Pop," mourned Jim. "Shades of Bill Thompson. We've got to shave."

"He thinks you're a Red," I told Jim, for my partner's six weeks' of untrimmed beard was a flaming Bolshevik red. I had plenty of beard myself, and a long, flowing black moustache that looked like the spirit of '96. It was the eighth of February, and we hadn't shaved since Christmas eve. The Captain was right.

We shaved. He vised our passports and we slept that night between clean white sheets. We were ready for the Sudan tomorrow.

GIVE ME A ROAD

By Rosa Zagnoni Marinoni

Give me a road that is narrow and winding—
A little road that leads up a hill.
I want no grand highway, I want just a byway
That leads out to things that are peaceful and still.

Give me a road that is narrow and winding,
Where I may sing as I walk alone,
Where green things are growing, and limpid springs flowing,
Where I may rest on a moss covered stone.

For as I travel I want to sing loudly
Of the tall trees, the grass and the sky,
And rest by the way, to think or to pray,
When we walk alone, just Myself and I.

British vise for which we'd paid \$10 each read "Good for the United Kingdom and all British colonies, territories, mandates and protectorates, including Iraq and Palestine. Not good for the Sudan." It was as big a coverage as a patent medicine cure-all from cancer to housemaid's knee but just like those same medicines it wasn't good for what ailed us. If the passport had said nothing about the Sudan we'd have taken a chance, but since it went out of its way to provide specifically that the vise was "not good for the Sudan"—we could only take a chance anyway.

"They'll probably send you back to Lagos and the West Coast where you started from," said the Captain at Adre on the French side of the border. "You can fight the desert and jungle and drouth and heat all over again."

"Never again," vowed Jim.

"Or you can stay where you are, here in our Sahara," continued the Captain, looking out over a valley of desolation he called a lake.

"Not that," I said.

"Then you'll just have to slip on over the line to Geneina and ask Captain Evans to fix you up a passport vise. He can get it all right if he wants to."

THE next day we reached the border and British territory again, the Anglo-Egyptian Sudan.

man. It was a real house, too, with even an attempt at a hedge and a lawn that only a Briton would brave in that desert of desolation and drouth. We knocked on the first door we'd seen in any house for weeks, and a black houseboy, in a clean white gown, a neat, green turban on his head and a sash of the same material corseted about his midriff bowed us plump into civilization again.

THERE were rugs on the floor, real pictures on a decorated wall and some magazines, in English, beside a big upholstered chair. There was a bookcase to astound us, and this lone Englishman standing guard on the ragged fringe of Empire had even hung some tidy bits of drape about the first glass windows we had seen in a thousand miles of travel. Then, to complete this transplanting of Merry England itself there in the heart of the Dark Continent the black "boy" brought us a pot of tea and a little plate of cakes and announced that the Captain was just now coming from the tennis court. An Englishman is always English and he'll hang onto his home standards of comfort and cleanliness, his sports, and his dress clothes as long as he'll hang onto his bath, his beer and his congenial aristocracy—and that means as long as he lives. You can lead an Englishman into the

"By the Way"

AN EARLY CHANCE

Flapper: "Would you put yourself out for me?"

Her sheik: "Certainly I would."

Flapper: "Please do, then. It's after twelve, and I'm awfully sleepy."

NOT ON THE LIST

A youthful farmer strode up to the post office window. "Have you any letters for Mike Howe?" he asked.

"For whom?" asked the perplexed postmaster.

"Mike Howe," I said," yelled the man.

The postmaster shook his head. "No, I have not," he said. "Neither for your cow nor anyone else's."

ANYTHING FOR STYLE

Mother: "Oh, my dear, you are letting the sawdust run out of your new doll."

Little Betty: "Oh, it's all right, mummy. I'm helping her to reduce so she'll be fashionable!"

Activities of Al Acres—Al Seems to be in a Hurry

Frank R. Leet



KITCHEN FLOORS ?

above all things they should be easy to keep clean

WRITES HAZEL DELL BROWN

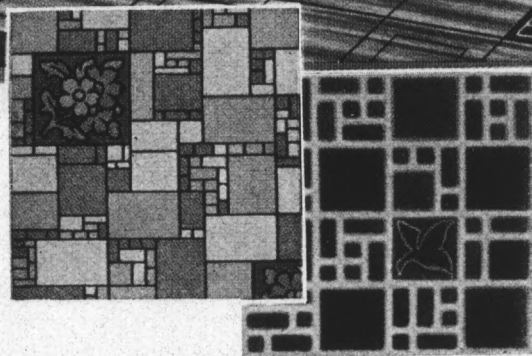


RIGHT: Armstrong's Printed Linoleum, Pattern 8415—a particularly practical and pretty design for hallway or kitchen.

MANY of you can still remember (and it was not so long ago, either) when rag rugs or carpets covered the kitchen floor—if indeed there was any covering at all. In many cases it was the bare wood floor itself, ugly and splintery, and a slavey's job to scrub it!

Later, old-fashioned oilcloth came in. Oilcloth was not very practical, as it very soon wore out. But in spite of its faults, it had its virtues—it was easy to clean, and, after all, that is important.

Now a-days, I think, nearly everyone has linoleum in the kitchen. It is perfectly suited for the purpose—not only is it easy to keep clean, but in addition, it is really pretty patterns and will last for many years of wear.



That is particularly true of Armstrong's Linoleum and Linoleum Rugs which are protected by the amazing new dirt-resisting Accolac finish. You will be just as pleased as I was, I am sure, when you first see this wonderful new lacquer-like surface. The rug illustrated is one of the new Armstrong patterns, No. 747—printed over genuine Armstrong's Jaspé Linoleum.

Armstrong's Linoleum Rugs
they wear and wear and wear

LEFT: Armstrong's Arabesq Linoleum, Pattern 9001—in the popular handcraft tile design, suitable for any room in the house.

Armstrong's Linoleum and Linoleum Rugs with the new dirt-proof Accolac finish, as well as the cheaper Quaker-Felt Rugs, also with the Accolac finish, can be seen now in the stores. Ask to see the latest Armstrong designs.

For 10 cents in stamps, Mrs. Brown will send you a copy of her book, "The Attractive Home—How to Plan Its Decoration," beautifully illustrating in color the prettiest linoleum patterns. Write her a letter, too, describing your rooms, and she will gladly suggest the most practical and attractive floor. Address Armstrong Cork Company, Linoleum Division, 1029 Jackson St., Lancaster, Pennsylvania.

Look for the
CIRCLE A
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for Economical Transportation



The New **UTILITY TRUCK**

Offering four speeds forward to meet every condition of road and load, equipped with powerful non-locking four-wheel brakes and incorporating numerous other advancements in design, this newest Chevrolet truck now provides for the farm a low-priced haulage unit of extremely wide utility.

Front shock absorber springs—air bound seat cushions—ball bearing steering mechanism—a greatly increased braking area—a heavier front axle and new channel front bumper are additional improvements offered in the New Utility Truck. Depend-

able operation and road stability are assured by a powerful valve-in-head motor and by semi-elliptic springs set parallel to the load. And outstanding features of convenience are its low loading height and generous road clearance.

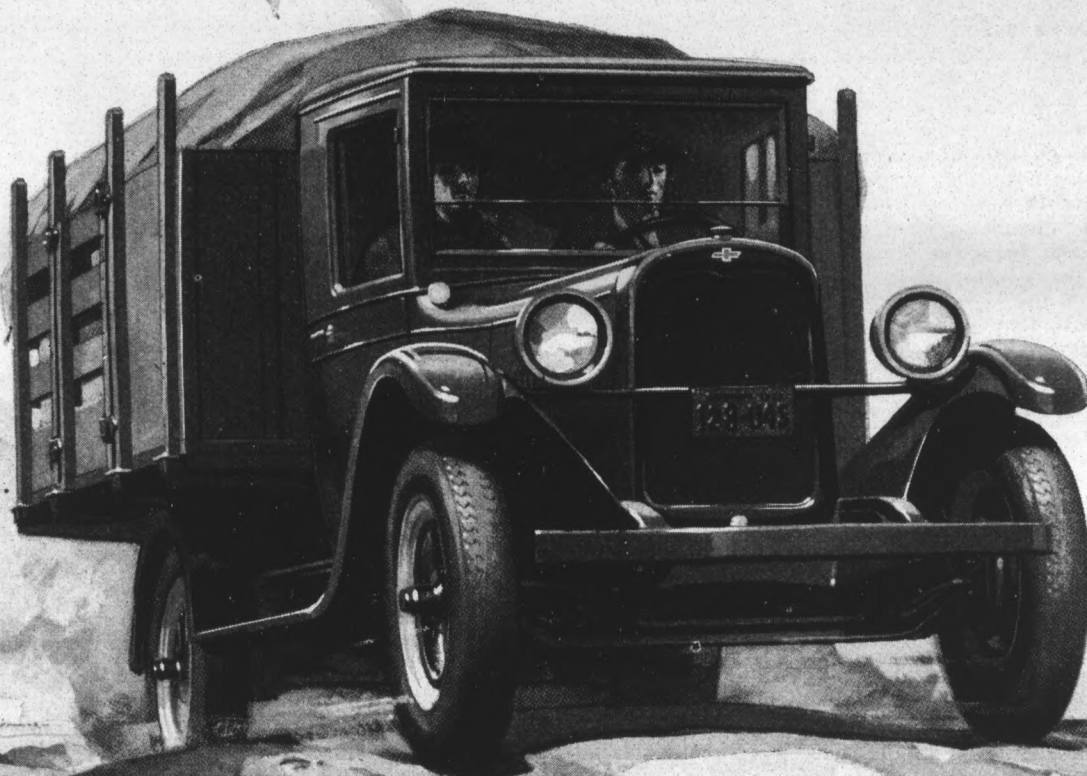
Visit the nearest Chevrolet dealer for a thorough inspection of this remarkable new truck—available in a variety of body types for every existing farm requirement—and providing the world's lowest ton-mile cost for every conceivable type of hauling.

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4 Speeds Forward 4 Wheel Brakes

Protective Service

Our Slogan—"Life and Property Protection."

SCARING OFF CHICKEN THIEVES

HERE is the way I have solved the chicken thief problem. A number of my friends also used it successfully.

At the head of my bed is an electric switch connecting with two searchlights in the attic windows. These throw a bright light over the growing yard of the pullets, and also over the main hen house. And for some reason or other, the thieves do not like to work in light!

The equipment is simple. In my case, it operates on a farm lighting system, but an ordinary automobile battery will do it just as well. The searchlights are home made of 100-watt bulbs and bright tin. The switch, costing ten cents, and a few feet of wire are the rest of the equipment. My police dog stays out in the growing yard, and when he barks I throw on the switch.

I know it works, and it doesn't take the thieves long to leave. It isn't very expensive, and it may save you a serious loss.—Haydn S. Pearson.

WARNS FARMERS ON FIRE INSURANCE POLICIES

FARMERS should be careful not to void their fire and tornado insurance, through failure to comply with certain well-established rules of all insurance companies. In a letter to all its borrowers, the Federal Land Bank of St. Paul calls attention to the fact that a number of its clients who had fire losses during the past year had voided their policies by neglecting to observe the conditions of the contract, and offers the following words of caution:

"If your buildings are vacated, fire insurance becomes null and void in a certain number of days, unless the insured obtains a 'vacancy permit'.

"Remedy: If your buildings are not occupied, even for a short time, report the matter to the insurance company at once and obtain a 'vacancy permit'. In writing, request one from the local agent.

"The insurance company's liability ceases at once when the farm is transferred.

"Remedy: Report transfer of farm to the insurance company immediately, in writing. The policies can either be transferred to the new owner, in which case the company should be asked to make the transfer and the new owner should pay for the unexpired insurance, or the policies can be cancelled and the unused premium recovered from the company.

"Insurance is immediately suspended and of no force if any premium note given in settlement for it is not paid when it comes due. This is also true as regards assessment policies where assessments are not paid in a certain number of days (according to the terms of the policy) after they are levied.

"Remedy: Pay premiums and assessments when due."

SMOKERS THREATEN FORESTS

EVERY time a careless smoker throws a burning cigarette into the dry grass or needles of a forest floor, he is giving the fire demon odds of one to nine that it won't start a fire, says the United States Forest Service. These odds, coupled with the fact that there is smoked and discarded in the United States the amazing total of 171,000 cigarettes per minute, day and night, during the entire year,

are believed to account for the large percentage of man-caused forest and brush fires that are started by smokers. Even if only one-third of the cigarettes consumed throughout the country were smoked out-of-doors, there would still be over 50,000 chances a minute of a fire starting from a burning cigarette butt, foresters point out.

RURAL HEALTH

By Dr. C. H. Lerrigo

DON'T GET TOO FAT IN MIDDLE AGE

AS we reach middle life the danger comes that we shall accumulate more fat than is good for our health. Without giving a long table of weights and measures, I will just say that the average weight for a middle-aged man of sixty-nine inches is 159 pounds and for a woman of sixty-six inches is 137 pounds. You can judge how far you are from standard. If you are more than ten per cent overweight give the matter careful consideration.

The chief item in reducing weight is to reduce food. If you are only trying to cut down some ten or fifteen pounds, you can do it by restricting the fats in your diet, such as butter, oil, and fat meat, and by severely limiting the sweet stuff that you eat.

But it is the folks in the two hundred pounds and better class that are chiefly in need of reducing weight. Many a man and woman with no definite symptoms of ill health, yet a general feeling of wretchedness, would clear up wonderfully by a reduction of thirty to fifty pounds in weight.

There is only one definite way to do it. Reduce your intake. Don't try to do it too rapidly. Be content to take off three or four pounds a week. Cut the amount of your food ten per cent. When you have become accustomed to that cut it another ten per cent. If that does not do the business the fat person is generally pretty safe in cutting it yet ten per cent more a few weeks later. After you have reduced the weight 30 or 40 pounds you will be glad to discover that you have regained your old efficiency.

The human body has many uses for fat. When properly distributed it serves to relieve the sharpness of our bony angles and make us more beautiful. It is an extremely helpful agent in keeping our heat in our bodies, serving as insulation in that way. It acts as padding in our "insides" and helps to keep the kidneys, spleen, stomach, and intestines in their proper locations. It fills in the chinks, generally. But don't put on too much of it.

KEROSENE AND JOINT FLUIDS

I have used kerosene (coal oil) as a liniment several different times. Now I am told that if used on or near a joint it will draw the joint water out causing a stiff joint. Will you please tell me in your department if this is true?—K. R. W.

No. It may blister the skin, but will not affect the joint fluids.

GIRL'S HANDS PERSPIRE

What causes hands and feet to perspire? My daughter, seventeen years old, has trouble all the time.—R. D.

While this is a personal peculiarity to which some people, otherwise in good health, are subject, there is al-

ways the probability that, in a young girl, it is caused or aggravated by poor circulation and undernourishment. Such a girl should be given extra meals of milk and eggs, she should get extra sleep, about ten hours a night, and she should be especially well clothed, wearing woolen goods, in winter, if possible.

KIDNEYS ARE SLUGGISH

Is turpentine harmful to the body to use to flush kidneys? My kidneys seem to be clogged, and if I use eight or ten drops of turpentine about every other day it seems to be of great benefit to me. I have good health other ways. But must keep my kidneys open good. If not, I feel bad. I am fifty years old and have used it several years.—J. L.

In the long run it is harmful and wearing on the kidneys. It will shorten your life. Drink an abundant amount of fresh water and you will not need to whip up the kidneys.

HARDENING OF ARTERIES

If a man past middle age has had "hardening" of the arteries for over one year, how long may he expect to live and what are the different stages of the disease?—R. M.

Every person past middle age has some degree of hardening of the arteries. It is a natural process. When it is abnormally intensified there is usually some form of body poisoning going on. The worst form is the lead poisoning that comes to painters and others who constantly handle such minerals.

REDUCING HAZARDS IN GROWING WHEAT

(Continued from page 185)

The Hessian fly lays its eggs on the young wheat stalk in the fall. The young maggot hatches and spends the winter here, and in the spring the second generation start working in the wheat. It is this generation which causes havoc with the wheat crop. By planting after a certain date—"the fly free date," or the time after which no eggs are laid by the fly, we can eliminate this pest from the wheat fields. It is quite evident, however, that the neighbors must also observe this date or the fly will lay its eggs on their wheat fields, and the second generation will attack your wheat as well as your neighbors. These "fly free dates" have been computed for each county and vary in accordance with the distance from the equator and the altitude. The average date for my farm in Branch County is September 24th, and no wheat will be planted before that date. The "fly free dates" for each county may be obtained from the county agent or from the Crops Department at Michigan State College.

Farmers should also bear in mind that the wheat crop is not assured as soon as it is properly planted in the fall although the precautions already mentioned are the most important ones in growing a good wheat crop.

Just before winter sets in a light top dressing of strawy manure or straw will be of great benefit in preventing winter injury. It is also a good plan to roll the wheat in the spring especially if the frost has heaved any plants out of place. The use of a roller presses the plants into the ground, aids in case of seeding and compacts the soil about the roots, thus making a smoother field at time of harvest. Harrowing with a spike tooth harrow is advisable when the soil is in a cracked or open condition, since the loss of much moisture is prevented by this process.

I have mentioned nothing concerning the removing of noxious weeds from the wheat field, the place of wheat in a rotation, or the harvesting methods, but as these factors are more or less familiar to the average farmer I believe their discussion is unnecessary in an article of this nature.



Duck Season is a'coming!

It won't be long before the whir of ducks overhead will make you long to get out the old shot gun and get your share of the game.

If you want a new gun of modern pattern to really enjoy this fall shooting, come to a "Farm Service" Hardware Store to talk "guns" . . . you will not only find a friendly welcome and a real interest in the subject, but you will find expert advice. Most all hardware men are real hunters themselves and the advice they give you is founded on personal and practical experience, as well as the technical knowledge of guns, ammunition and the right loads to use, that comes as a part of their business.

You will find these "tag" stores just the right place to get the best value for your money in ammunition, decoys and hunting and camping paraphernalia of all kinds. Why not come in now and get everything ready before the season opens?

Your "Farm Service" Hardware Men.



WORLD EVENTS IN PICTURES



"The Puritan," baby dirigible, built at Akron, Ohio, about to be christened with liquid air.



An airview of the city of Fort Pierce which was damaged to the extent of more than one million dollars by the hurricane that swept Florida's east coast recently.



This peculiar statue was used as confession letter box for politicians of the 10th century.



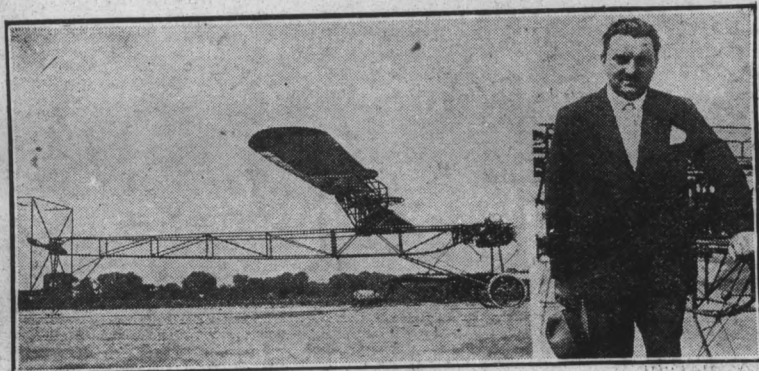
Left, Martha Norelius and George Kojac, right, who established new U. S. swimming records at the Olympic Games.



Capt. G. L. Brown is to pilot the Chelsea, one of the boats in Byrd's Antarctic expedition.



Mrs. Keith Miller and Captain Lancaster, who flew from England to Australia, are planning to fly from London to New York.



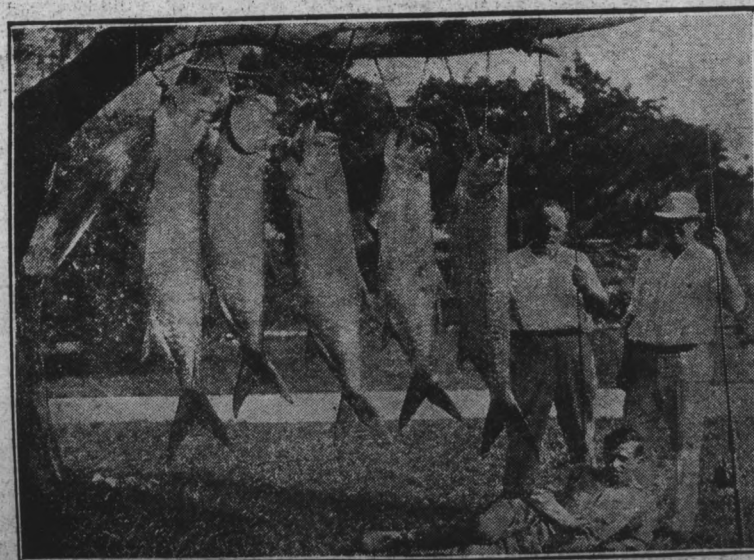
Left, a view of the new helicopter at Berlin, Germany, where its inventor, Ing Zschka, on the right, succeeded in rising and descending vertically in this strange apparatus.



Captain Courtney and his three companions, the gallant crew of the "Whale," the flying boat that caught fire and fell in mid-Atlantic, and was rescued by the S. S. Minnewaska.



The winners of the ankle, leg, and form beauty contest held at Willow Grove Park, Pa. Left to right: Claire Firman, form; Bertha Zarembo, ankle; and Ruth Wallan, leg.



Three men who went a-fishing off Florida's Coast and caught their own weight in tarpon after eighty-five minutes of fishing. These five magnificent silver kings weigh more than 600 pounds.

Paul The Builder

Our Weekly Sermon---By N. A. McCune

CAN you beat this man? The Romans beat him with clubs, but in the long run he beat them. Nothing stops him. He no sooner gets back from one exhausting journey than he starts on another. One partner fails him and he takes another. People with whom he works are sometimes faithless, and many of those whom he teaches are treacherous, but he never yields to disgust. He never acquires the going-south habit, either. I mean the habit of going South in the winter, where they drink mineral water for their health, play golf and avoid draughts.

All of us can get an enthusiasm which lasts for a time. But the kind that endures, is the kind that counts. Some people are always getting a new enthusiasm, which lasts about as long as the shine on a new car, and then they are after another. So they hop from one novelty to another. But a



passion that endures is a very different thing. Great genius seems to have this passionate devotion to its particular field. Leonardo Da Vinci, for instance, the painter, would mount the scaffolding early in the morning, and work until the approach of night, and in the interest of painting he forgot both food and drink, his biographer tells us. Of Dr. Thomas Arnold, an English educator, it was said by one of his pupils, "What stirred us was a sympathetic thrill, caught from a spirit that was earnestly at work in the world." Something akin to this, but of greater depth, was the attitude of Jesus when he said, "My meat is to do the will of Him that sent me," and Paul said of himself, "For me to live is Christ." All this, of course, is very high ground. No one can mount to such an altitude at one effort. We get there slowly, unless we get there by a burst of spiritual vision, as now and then one does. But usually such a person has long been in preparation for such an experience.

It may be interesting right here to suggest what modern psychology has to say on this subject. In a remarkable article, "The Psychology of Power," by Dr. J. A. Hadfield, of England, he indicates that the unusual energy of some people is not necessarily due to their being of greatly superior strength, but to the fact that these persons become channels of energy. Power flows through them. They are not merely receptacles for it. Such people are so engrossed in their favorite work that they forget themselves, and thus become transmitters of power, like the copper wire which transmits the electric current. Says Doctor Hadfield, "We are not merely receptacles but channels of energy. Life and power is not so much contained in us as it courses through us." That, of course, was precisely what happened in the case of Jesus, and in the case of Paul. They were carriers of life and energy to others.

Paul got over to Berea and found the people there much more receptive to his message than those in other cities had been. They "were more noble than those in Thessalonica, in that they received the word with all readiness of mind." What a congregation that must have been! Nobody went to sleep.

It is a fact worth thinking on why it is that some towns or villages are so much easier fields for religious workers than others. What Paul found in regard to Berea is as true now of some towns as it was then. Some communities are notoriously hard fields of labor. Others are more cultivable. The differences that create these conditions are, of course, many. But often the main cause goes away back to the founding of the community, and relates to the type of people who gave it its start. Here is a town that has always been a hard one in which to do religious work. Looking back, we find it was established by free thinkers who had no use for the church, and for some reason the town seems never to have fully outgrown that bad beginning. Here is another town which enjoys unusually strong Christian influences. The churches are in good condition, and religious work has always had a large measure of success. Upon a little investigating, we find this town to have been settled by earnest Christian pioneers, and the flavor of their lives seems to be still in the community.

Of course, one would not want to say that an unhappy start could not

be corrected later, in a community, the same as in an individual life. It can be, but often it isn't. Another factor which makes for a good religious soil are a few earnest Christian lives. Sometimes one person who had lived to advanced years in a town, and is known to be of consistent and sincere Christian experience, will sweeten the entire community. There may have been a saint or two like this in Berea, where Paul went. The white flower of a stainless life throws its perfume a long way. Character is infectious.

SUNDAY SCHOOL LESSON FOR SEPT. 2
SUBJECT: "Paul Organizer of

Churches." Acts 17:1-15. Rom. 15:18-20.
GOLDEN TEXT: Psalm 119:130.

HOW TO REMOVE DANDRUFF

Will you please tell me if dandruff is a germ disease? Does one person catch it from another? My hair has been coming out for many months and the tonics and remedies I have tried have done no good.—S. L.

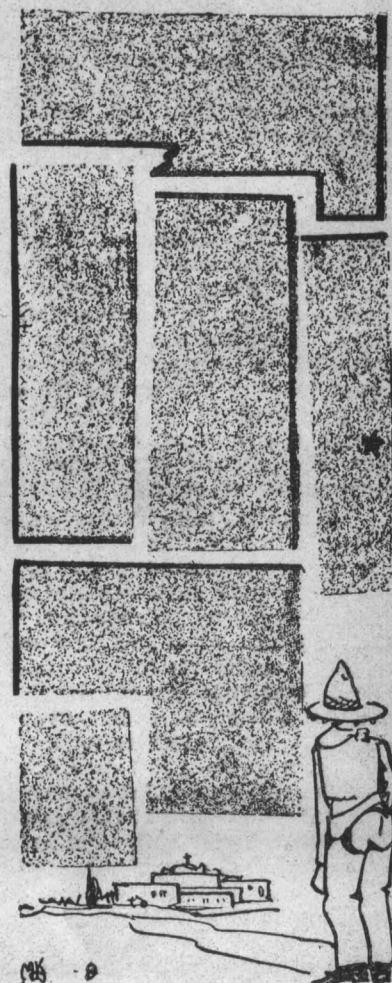
Dandruff is a real disease though not a germ disease nor a contagious one. Every bad habit must be set aside and all chronic ailments, such as constipation, indigestion, and low nutrition must be cured. The first thing in local treatment is to remove the crusts. You will probably lose some hair in doing so, but it will be of such low vitality that it would not

stick on much longer anyway. Soak the patches with some oily fluid such as olive oil or vaseline. Use enough to permeate the crusts, rub it in several times in 24 hours, and wear a flannel cap at night while the treatment is going on. When the soaking is complete, wash the scales with warm water and tincture of green soap, using a good lather. Dry the scalp thoroughly and anoint with a small amount of zinc oxide ointment, since your scalp becomes red and tender. After your scalp is thoroughly clean, keep the circulation active by daily brushing and by massage with the finger tips.

For Our Little Folks

STATE SECRETS

The Rio Grande bisects this state,
With cactus east and west;
The bandits from Old Mexico,
Just come across to rest.



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

The answer to the last State Secret was Pennsylvania and its capitol is Harrisburg.

SKIP ROPE TO BELLS

A delightful skipping rope game is made by fastening bells to an ordinary skipping rope. Two children hold opposite ends of the rope and hold it first low and as the game progresses higher and higher. The players form in a line and skip over the rope being careful not to ring the bells. Any player ringing a bell must drop out of the game until the last player rings a bell.—Aunt Martha.

OFTEN TRUE

Teacher: "Mary Lou, can you tell me the name of a well-known creature that supplies us with food and clothing?"

Mary Lou: "My dad."

Fall Fashion Features

Straight, Slender Ensembles Will be Popular this Fall



No. 143—Modish—Slender. Designed in sizes 16, 18, 20 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3 1/4 yards of 40-inch material with 3/4 yard of 36-inch contrasting.

No. 848—Typical Sports Coat. Designed in sizes 16, 18, 20 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 2 1/2 yards of 54-inch material with 3 1/4 yards of 40-inch lining and 3/4 yard of 5 1/4-inch fur.

No. 239—New Chic. Designed in sizes 16, 18, 20 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3 1/4 yards of 40-inch material with 1/2 yard of 36-inch contrasting.

No. 875—For Younger Fashionable. Designed in sizes 6, 8, 10, 12, and 14 years. Size 36 requires 1 1/2 yards of 40-inch material with 3/4 yard of 36-inch contrasting and 5/8 yard of lining.

No. 871—Peter Pan Collar. Designed in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1 1/4 yards of 40-inch material with 3/4 yard of 36-inch trimming.

No. 833—Smart Apron and Cap. Designed in sizes small, medium and large. Medium size requires 2 yards of 36-inch material.

The price of these patterns is thirteen cents.

NEW CATALOG READY

Our new Fall and Winter Fashion Catalog is now ready. From it you will get the trend of the new fall styles and be able to select the patterns for your new fall frocks. It contains styles for women, misses, and children. Also a five-lesson course that the beginner needs and that the experienced sewer will find helpful.

Order your copy early so you will not need to rush with your fall sewing. The price is thirteen cents. Address your orders for the catalog and patterns to the Pattern Department, Michigan Farmer, Detroit.

The WOMAN'S INTERESTS

Control Household Pests

By Simple Remedies and Untiring Persistence

By Mrs. H. B. Girard

VERY few households are immune from insect invasions. And each housewife is prone to imagine that she has a monopoly on them until her neighbor voices similar complaints. These gullible insects come under the heading of unwelcome guests—come without invitation and usually stay till they get ready to go, unless some attending calamity puts them to hasty exit.

The health of the family, especially of small children, is greatly endangered unless these insects are extricated from homes very promptly. Frequently, their bites are poisonous; they are bon ton disease peddlers; and certainly, they are most unsanitary.

Every homemaker should be on the alert for their debut, and have the offensive weapons at hand with which to combat them. The methods for eradicating them have been greatly improved within the last few years. The prevalence of screens barricades the larger insects; the worthy fly swatter puts in many sturdy licks; the druggists have many wonderful powders and preparations which have proven most effective.

Control Ants by Prevention

One of the most persistent and annoying of household pests is the streams of tiny ants—red and black ones—that file to the cupboards or to the table just when you least expect them. A quiet rivulet of miniature moving creatures—hungry and clamorous as a nest of young swallows. Boiling water is effective for the first contingent of them but does not prevent the perpetual influx of them that tag along in that excitable game of "Follow the leader." If one is successful enough to find their hills or nests, boiling water or kerosene poured into their refuge is a good remedy.

An excellent way to handle the ant is to put away or cover all the temptations that come within their scope of vision. The food stuffs which these insects like are numerous—bread, cakes, pies, cookies—and all sweetened knick-knacks.

The red ants have a loathing for the odor of cloves. Both the red and black ones are not on speaking terms with camphor. Sprinkled cloves in the path of the red ant spoils his cue; and small bags containing camphor gum hung near the cupboard or under the table are wonderful repellants.

The Cautious Cricket

The cricket on the hearth has been a slightly overdrawn character. It may sound sentimental and wonderfully traditional but is accorded by all housewives as a prolific nuisance. They come into most houses now and then when the outdoor atmosphere is on the cool order. Not only are they great food inspectors, they have many silk stockings, straw hats and woolen sweaters to their credit, things which were carelessly left within their reach.

Nearly everyone recognizes the brown insect by the chirping sound, or love call, which the male makes with its upper wings. One of the easiest ways of checking the growth of the cricket colony is to place a pan of milk or water on the floor—the thirsty cricket undertakes to dampen

his whistle, falls in and drowns as surely as the wolf that went down the chimney.

Cockroaches are heralded for their utmost bravery and vociferous annoyance. They are frequently called water bugs—recognized by a dark brown color and slippery broad bodies which delight to fortify themselves in kitchens, pantries—any place where food is stored. They hide from light in daytime and come forth at night,

crawling over food that is left uncovered—eating it and leaving a disagreeable odor along their trails. Leather books and upholstered furniture is endangered when this pest hails nigh. Their thin, flat bodies are easily stowed away in small cracks and crevices where one does not expect to find them. Worst of all, they are a rather educated insect, have an undeniable instinct which teaches them to avoid traps and poisons that are used

to destroy them or drive them away.

Many excellent cockroach remedies exist. Sodium fluoride and flour mixed in equal parts and broadcast generously around their nooks and crannies is unparalleled. They rush hither in mass formation; very shortly their discomfort becomes apparent and they are like the little dog whose name was Rover—"who died and died all over." Another effective concoction for them is one part of borax to three parts of cocoa. The cocoa attracts them, they consume the borax with it and pass into insect oblivion.

Another bothersome household pest with which every homemaker is familiar is the dreaded and cosmopolitan clothes moth. They may be seen anytime during the spring or summer flitting around watching for an opportunity to light on woolen garments or furs, where they lay eggs and hatch larvae. These clothes moths are not fond of sunlight. For this reason it is wise to hang clothes which are susceptible to moth invasions outdoors occasionally for an airing. Another habit that moths have is that of eating soiled spots in clothing. The coat or fur which has been cleaned before being put away has a better chance of getting through the summer in a wholesome condition. Keeping the storage places clean, and giving the clothes an occasional airing and brushing has been recognized as the best panacea against moths.

Moth proof bags are equivalent to a clothes insurance. Moth balls, cedar shavings, etc., are excellent for repelling moths, but do not help after the larvae is present.

Flies are on the wing; mosquito breeding places are fewer in number; the bedbug does not enjoy the popularity it once knew. As a matter of safety, it is a good investment to have a house fumigated when one is moving in. Fumigation by an experienced person is the best remedy to squelch the notion of prowling bedbugs which are waiting to disturb the slumbers of the newcomers. And if you would be doubly careful, beware of auction sale furniture or second-hand household articles—for certainly this is a splendid way to get initiated into the throes of bedbug pestilence. A good cleansing with kerosene or benzine or a mixture of one ounce of corrosive sublimate, one pint alcohol and one quarter pint of turpentine will always recompense with a radiant peace of mind.

SAVORY SANDWICH FILLINGS

WITH the ringing of school bells comes the need of more and varied sandwich fillings. Then, too, the hostess is ever in need of tasty simple sandwich fillings that can be made in a hurry. In these cases, I suggest:

Chopped dates, nuts, and cream cheese mixed with cream. Spread between slices of whole wheat bread.

Philadelphia cream cheese with a small amount of minced onion and pepper is very tasty.

Peanut butter, mixed with salad dressing, is wholesome. Whole peanuts may be ground and used. To make a change, celery, olives, and

Running Water Saves Most Steps in Kitchen

Says Mrs. D. M. Cray



The dishwasher cleans vegetables quickly

MY DREAM of running water at a gleaming white kitchen sink really came true! How I did wish for that sink when I was carrying water from the well. Running water in the kitchen can save more steps than any other single improvement.

I wish the sink had another drain board, but in the corner where there was room for it, there was not space for a right hand drain board. If there were space I might improvise one out of a plain wooden board. But my sink does have one lovely drain board, one-piece, seamless, with rounded corners. It is so easy to keep clean for there is no crack or crevice where dirt can collect.

A very fine scouring powder is used, and I clean it once a day, when I finish cleaning vegetables for dinner. Hot soapy water and a curved vegetable brush help to keep it spotless.

Spinach cleans quickly if I put it into a pan of cold water, with a tablespoon of salt. The salt takes sand with it to the bottom of the pan. It is then sorted over, and given a rinsing with hose and spray, in wire basket where it drains before I cook it in my waterless cooker. The flavor is much finer than when cooked in a quantity of water.

Dishwashing Is Quick

This same hose and spray were

bought for dishwashing. My wire dish drainer is placed in the bottom of the sink. The stacked dishes brought from the dining table are put on the drainboard, and then placed in the drainer. A rubber dish scraper is used for scraping bits of food into the sink bucket which swings under the sink (an improvement over the sink strainer in the sink itself). The hot soapy water then runs through the hose, and I slant it edgewise on the dishes so that my clean apron is not spattered. I simply press the button on the front of the soap container, and the hot water comes through clear, for thorough rinsing. When finished, I usually set the drainer on the sink board, though it may be left in the sink until I have finished straightening up the cupboard and stove, when the dishes have dried themselves, ready to put away.

If the water is boiling hot, there are no tear drops or streaks on the dishes. This is possible with a kerosene hot water heater. It is economical of water, though one should never economize on scalding water for dishes, when considering health.

My sink is the right height for me to use without stooping. The back is high enough that the wall does not get splashed. If you need a low-backed sink to place beneath a window, you can buy one deep enough for comfortable work.

peppers or pickles can be added. Cottage cheese makes a satisfactory basis for sandwich fillings—either alone or varied with nuts, pimientos, celery or caraway seed.

Canned salmon or tuna fish combined with celery, ground pickle, hard cooked eggs and salad dressing is a change.

Whenever possible use vegetables, such as lettuce, watercress, and tomatoes in sandwiches.

An unusual sandwich filling is made by grinding crisp broiled bacon, celery, olives or pickles, and combining with salad dressing.—A. D. G.

FIT IS MAIN POINT IN CHOOSING SHOES

THINK first of how your shoes feel rather than how they look is one of the late advices of health specialists. To permit free action of the feet, shoes should be loose and flexible. Tight or short shoes press the toes together so that the muscles and bones lose their strength, and the toes deformed.

Two rules to remember are: Toe straight ahead, using the large toe as a lever; never toe out and keep the weight on the outer border of the foot.

Exercises often help foot troubles. These exercises should be taken in the bare feet two or three times a day. First pull the toes in and under as if picking up something—repeat thirty or forty times; pick up marbles or pencils with the toes; walk pigeon-toed; walk slowly on the outer borders of the feet with toes turned in.

Household Service

LEATHER BECOMES STICKY

The leather seats of my chairs stick to one's clothes. Can I remedy this without recovering?—Mrs. E.D.B.

Leather chair seats on upholstered furniture frequently become sticky. This usually is caused by the leather drying out. To prevent it, rub the leather every month or two with a soft cloth moistened in neat's foot oil. When a stickiness occurs, remove as much of it as possible with gasoline and apply the oil. Do not wipe the oil off for a day or two.

TRANSPLANTING GERANIUMS

This spring I planted some geraniums in my garden. When these plants were about five inches high, I transplanted them and brought them in. Some I set in a place out of direct sunlight and others I did not. When they started to grow, I put some in a south window and some in a west window. One west window is always open. Some I brought in the house would thrive for a while and then die down, while those in the garden grew well. Now the plants in the window are fine, but those in the house look

well for a few days after transplanting and then the roots are found to be black or dark and rotted just below the ground. What is the cause of this and remedy for same? We planted them in the same kind of earth. Mrs. G. B.

To transplant geraniums successfully during the summer while the growth is soft, certain precautions in the use of soil and shading are needed. Light soils should be used and after potting, one watering given, which should last for several days. The plants should be shaded at once from direct rays of the sun and sprinkled occasionally with water to keep down evaporation.

In digging, many of the feeding roots are broken off, while no corresponding amount of top foliage is removed. Consequently the plants suffer, wilt and often die before new feeding roots are formed. Shading will help that. No manure should be used in the soil in this transplanting.

In the fall these precautions do not hold in the same degree.—Alex Laurie.

WHEN THE CORN IS ON THE COB

WHEN the corn is a bit too tough to serve in truly American style—on the cob with rivulets of melting butter running between the rows of kernels—try these:

Corn Croquettes

2 cups corn	1 lb. minced onion
1/2 cup milk	1 lb. lemon juice
1/2 cup water	2 cups breadcrumbs
1 egg	Salt
1 lb. butter	Pepper

Mix all ingredients together and shape into balls or cones. Roll in fine crumbs, then in beaten egg, and then in crumbs. Fry in hot deep fat until golden brown.

Corn Chowder

2 1/2 cups corn	1 slice salt pork, diced
3 cups sliced potatoes	1 onion, sliced
1 cup tomatoes	1 cup milk
1 qt. boiling water	Salt, pepper

Pan-fry the pork in a saucepan, add the onion and cook slowly for five minutes. Add water, vegetables and seasoning and cook slowly until the potatoes are tender. Add milk and heat five minutes and serve hot with toasted crackers.

Corn Relish

1 1/2 doz. ears corn	3 tbs. salt
3 large red peppers	1/2 lb. mustard
3 cups white sugar	1 tsp. turmeric
4 stalks celery	3 pints vinegar
6 onions	

Chop celery, onions, and peppers. Put vinegar on to boil and, when boiling, add sugar, salt, corn, celery, onions, and peppers. Let simmer until cooked. Mix mustard, and turmeric with two tablespoons of flour. Dissolve this mixture in a little vinegar, and add to the contents of the kettle. Let simmer until quite thick. Put in sterilized jars and seal at once.

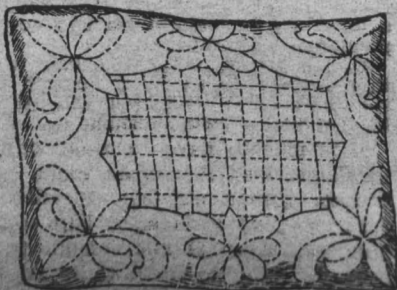
Beat sour milk with an egg beater before using it in cooking.

Even at its worst, life is amusing—if you have a sense of humor and a sound body.

Old-fashioned Art is Revived

ONE of the most pleasing revivals of the old-fashioned arts is the adoption of quilting stitch to dainty colorful pillows. They are both easy to make and easy to clean. An hour or so of plying your needle in the cool shade of your porch and you will have one ready for your davenport or daybed.

The pillows are made up by follow-



5335



5342

ing the stamped design on the wadding and carrying this design through to the front. They may be had in rose, Nile green, saxe blue, maize, tangerine, or black. Enough satin or rayon is included to make the back of the pillow. No. 5335 is 85 cents in rayon and \$3.25 in satin. No. 5342 is 70 cents in rayon and \$2.50 in satin. Address your orders to the Stamped Goods Department, Michigan Farmer, Detroit.

FREE PATTERN and FREE! BARGAIN CATALOG



29FW9592

A trig little two-piece outfit, equally "at home" on sport occasions or on the street. Small view shows style of dress. May be made in ensemble effect of one material, or dress may be made of one fabric, coat of another, velvet or velveteen being particularly smart for the coat in the latter case. Sizes 14 to 20 years, and 36 to 40 inch bust. Size 36 requires 3 1/2 yds. of 36-inch material for dress, and 2 1/2 yds. of 36-inch material for jacket.



29FW9584

A cleverly designed frock—featuring the popular jacket or vest effect at front only. A thoroughly individual tailored style particularly good in woolen fabrics, silks and materials with considerable body. Note diagonal placement of pockets. Sizes 16 to 20 years, and 36 to 44 in. bust. Size 36 requires 4 yards of 36-inch material with 1/2 yard of 36-inch contrasting.

29FW9588

This demure frock for the school miss fittingly adopts the popular, eternally youthful Peter Pan collar. Soft shirring at waist, and bows at cuffs, are other youthful notes. A style that lends itself equally well to any fabric, and is appropriate for dress or everyday wear. Sizes 8 to 14 yrs. Size 8 requires 2 yds. of 36-inch material, and 1/2 yard of 36-inch contrasting.

29FW9593

Enthusiastically accepted by women who desire the most becoming lines. "V" line at front, crushed belt, "kick" pleats, slightly full sleeves with tight cuffs. Silks, wash fabrics, or woollens all work up splendidly in this design. Size 16 to 20 years, and 36 to 44 inch bust. Size 36 requires 3 1/2 yards of 36-inch material, and 1/2 yd. of 36-in. contrasting.

29FW9576

Charming afternoon or street frock. Its shawl collar is one of the newer style notes; raglan shoulder and bell sleeve are unique. Front pleats make movement free. Very good in silks, wool fabrics, or practically any materials. Sizes 16 to 20 yrs., and 36 to 44 inch bust. Size 36 needs 3 1/2 yds. of 36-inch material with 1/2 yard of 36-inch contrasting.

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OUR PAGE

Some Views of Education

Two M. C. Boys Make Interesting Discussion

IS it necessary for a farm boy or girl to continue with their education any farther than the eighth grade?

Most people say, "No, I never went to high school a day, an' I get along just as well as any of them high school kids ever will."

These people may be in earnest, but they do not stop to think that a high school education is just as necessary to the young folks of today as an eighth grade education was to them. About forty or fifty years ago a young person did not need a high school education because there were not as many high school graduates to compete with then, as there are now. When a person had gone to school for eight years, he knew enough to



Inez Larson looks like a Spanish lamb tender.

get a job, and that was all that was necessary in those days.

But times have changed. Nowadays a person with an eighth grade education doesn't stand a ghost of a chance against a high school graduate.

Folks may give examples of certain persons that received no benefit from their education, but these cases are very few and far between. People shouldn't judge all high school graduates by those that never would make good if they went to school for twenty-five years.

My opinion is that young folks should go to high school if possible. But if a person goes to school just for a good time and not for business, he should be taken out of school and set to work on his father's farm.—Hans of Holton.

As Paula said, "Education is what the people of America need today." I agree with her, but will add that they always have needed it. But please understand that education and schooling are two different things.

Everybody likes success in business; that is what most of us get an education for.

Very recently I read an article written by a prominent business man, who, as an illustration, stated that about one man out of fifty of our business heads were college graduates. What does one call educated? Were not the other forty-nine educated?

Everybody wants to acquire an education. An education is a necessity to succeed happily in life and business. But if you want an education bad enough, you can get it without going to school, as Lincoln did. I believe he was an educated man.

I have no desire to master Latin and algebra, although I have a desire

to write and speak well and intelligently. I think good reading, the right friends and experience are good teachers.

When I passed the eighth grade, eight years after I started to school, I was undecided whether to attend high school or not. It was to be my choice. At length I decided that I would not attend. That was three years ago. I believe I have learned more in those three years at home than I would have at school.

"So many people mistake book learning for education," said Dr. Frederick B. Robinson, president of

A Merry Circler, who is also a Golden Circler, a girl in rather delicate health, wants to find a home in southern Michigan. Can cook, bake, sew and do housework. Would prefer to work for an elderly couple who would like a neat girl to care for them. She can furnish references. Graduated from school last June. Write to Uncle Frank if interested.

Dear Uncle Frank:

I haven't written for quite a while but I am still an M. C. I wear my pin and it attracts the attention of ever so many. I love to read the letters in the Michigan Farmer from the cousins.

I am a girl scout and I love the work. I think it is a wonderful thing for girls to belong to. Some of our girl scouts have been camping at our "Reelfoot Camp" on the east side of Pine Lake on Indian Island. We have wonderful times together. Our camp has an Indian name, our girls also are going to be called by different Indian names.

I am another lover of nature. I do not like to live in the city. I'm glad I live on a farm. I must close for this time. Your niece.—June Foote.

It is fine that you enjoy the wholesome activities of scout work. Naturally you would because you are a nature lover.

Dear Uncle Frank:

I have received my pin and membership card and I thank you very much for it. I've lived in the city of Chicago all my life except the last two years. I am living on a farm three and a half miles from Chesaning which is a nice little town, where you can see all of your friends on Wednesday or Saturday night.

On Wednesday nights we have a band that plays a number of pieces from eight to ten o'clock, and, believe me, we're all proud of that band too, since it's considered one of the best around and people from all over come to listen to it. On Saturday nights everybody does their shopping and goes walking around to see who they can visit with, so you find our town quite lively on these nights although it isn't very big. It's a nice clean town, everyone takes good care of their homes, lawns, and plants, everything looks neat and trim. There's lots of beautiful scenery in and around town; everybody does their best to improve everything that needs improvement. We're going to have a new bridge built over the Shiawassee River which runs through town, so that'll make things look better.

I didn't like the farm at all when we first moved out here because it was hard to get used to and lonesome, but I like it pretty well now. We all feel lots healthier than we did in the city.

I guess "Yours Truly" will sign off now, with best wishes to all M. C.'s.—Beatrice Pitour.

You live in a real community. That helps much to make life worth living. You naturally had to have a time for adjustment from intense city life to the peaceful and healthful life of the country. A good band is a real asset to the community because good music is wholesome influence.

the College of the City of New York.
—Claud J. Sprague.

Boycott

Teacher: "Give me a sentence with the word 'boycott' in it."

Pupil: "Farmer Jones chased his son and didn't catch him till the boy caught on the fence."

A Test of Value

"I bought a barrel of cider and I'm drinking it for my health."

"Is it doing you any good?"

"It is. I'm getting stronger every day. At first I couldn't lift the barrel—now I can lift it easily."

Saved From W. B.

Dear Uncle Frank and M. C.'s:

I never had a chance to feel the surprise of Miss Southerner in seeing her letter in print. Each time "Old Man Waste Basket" is very hungry. M. C.'s are disgusted about cold weather but I am sure I'm not although I live far north. I am satisfied although it rains almost every afternoon.

Do most of you go to church? I wish you would. I go each time and we have a splendid minister. He speaks so that a five-year-old child understands. He often visits the people and is very jolly; the kind I like.

I love friendships and it does seem heaven-like to be in friendship with very many. I always read the Michigan Farmer and I like the discussions very well. Best wishes to all for I must close.—Your friend and cousin, "Mary."

No one can complain about the cold now for it's heat that is troublesome. Real friendships are among the most enjoyable things of life. It is fine you have a good preacher for that makes church so much more interesting.

Dear Uncle Frank:

I think a contest about books as Edna Stockton suggested would be very nice. I like to read. My favorite author is Zane Grey. I like best his stories of pioneers in and about Fort Henry, now Wheeling, West Va. There are some rather awful scenes, but I like to read of them and dream of them. More than once, in my dreams, I have been with Betty Zane in Fort Henry fighting Indians, and once I was massacred at The Village of Peace.

Another author I like is L. M. Montgomery. Of his stories, I like the books of Anne and Emily, but my favorite is "Rilla of Ingleside." She is a daughter of Anne. Rilla's three brothers go to the world war and one of them is killed. Your niece—Laura Cheney, M. C.

You certainly like to read thrillers and have thrilling dreams. I bet the bed is in an upset condition after you get through with your dream fighting.

Dear Uncle Frank:

I've been a member of "Our Page" for many years and at last I've decided with courage and will power to write a letter for "Our Page." Really, I've been tempted many times to write to this wonderful page of ours and now I've succeeded.

I'm very fond of reading, and therefore especially enjoy "Our Page." I've answered a lot of contests but never succeeded yet. I'm patient though and will live up to our motto: "Work to Win." I hope all you cousins do!

I agree with Alfreda Sting regarding correspondence. I've a few dandy unknown friends through "Our Page," and I certainly never will regret the days I wrote to them.

The discussion of "Life" by two M. C.'s on "Our Page" recently, were excellent. I agree with them in all ways.

I wonder how many of the cousins attend Sunday School regularly. It's an important duty and I'm one of the cousins that love to. This summer I

help instruct a class and it's so very interesting.

Love and best wishes. Your niece—"Sunbeam."

It really isn't much effort to write to "Our Page," is it? Hope you will write again. Life is a perplexing subject and therefore it needs discussion. It's what we do with life that counts.

Dear Uncle Frank and M. C.'s:

How are you? Haven't written in so long you probably will have forgotten me. But I haven't forgotten you. Have been going to write but, as you see, I live on the farm and there's always plenty to do. Mother has gone away to visit a while and I am lonesome so thought I would write.

Next summer I go to either Pontiac or Lansing to business college. You see, I only passed the eighth grade and did not go on to high school



Emella, "Tom Marshall's" sister, is apparently doing some household duty.

which I would like to have done. I will either do that or try and go on to high and finish the twelfth grade, and then take up teaching. I just love botany, do you? There is no other study I like better.

You girls who paint, wear your dresses above the knees, no sleeves, and real low necks, roll your stockings, I should think the real nice boys would not think very much of you. Rolled stockings for small tots up to five years old is not so bad but for you up to thirty! Not much! I can say I was brought up better than that, thanks to the good judgment of my mother.

Smoking! Drinking! The very horror of our nation. Then think of some girls who think they are so nice doing those very things. Girls, you'll not keep very good reputations doing those very things.

A boy friend of mine said at a contest of some kind or other out in California which about fifty girls attended, only one said she was going to marry and keep house. All the rest were going through life the way some of you are doing. They wanted a good (?) time. I may marry some day but not for at least two or three years. I am a girl but will sign myself—"Whang Chang."

The fact that you miss your mother shows that you like her. I hope that you will be able to satisfactorily arrange for your education. You rightly knock bad habits hard but let's not judge too harshly.

Dear Uncle Frank and Cousins:

I am afraid that I may be called a slacker. I have won two prizes and have never thanked you for them. So here goes. Thank you, Uncle Frank. My first prize was a loose leaf note book, my last one is a clutch pencil and I am proud of it. I suppose that many other M. C.'s are proud of theirs too. I am writing this with my clutch pencil.

I have six friends to correspond with. It keeps me busy writing but I like to anyway. They are all girls. My brother always gets a letter from a girl. He has answered two correspondence scrambles.

I hope Mr. W. P. B. is asleep when this arrives or at least doesn't like the taste of it. Wishing you all the best of luck—Vera Philip.

It is nice to have so many correspondents, isn't it? The reason your brother gets a girl correspondent is that so many girls want boy correspondents there is not enough to go around. Glad to learn that you like the prizes.

READ-AND-WINNERS

THE Read-and-Win Contest brought a nice response, but quite a few neglected putting down the page numbers on which the answers to the questions were found. Most failures occurred, however, on question seven. From among the ones who had their papers correct, the following were drawn:

Fountain Pens

Margaret G. Thane, Cass City, Mich.
Mary Labunes, New Boston, Mich.

Dictionaries

Eloine Barber, 255 Emmett St., Battle Creek, Mich.

Doris Harwood, Ionia, Mich., R. 3.
Thelma Skelton, Auburn, Mich., R. 2.

Clutch Pencils

Eddie Laurila, Trenary, Mich.

Beulah Dalrymple, Alma, Mich., R. 1.
John Vloch, Carleton, Mich., R. 2.
Lucille Richards, Ypsilanti, Mich.
Maxine Harner, Deford, Mich., R. 1.

READ-AND-WIN ANSWERS

1. Throid—15-149.
2. 2,333,333—152-18.
3. Those with excellent manners and fine qualities—152-18.
4. 335 pounds—154-20.
5. Iodine—154-20.
6. Rapidly—150-16.
7. "There can be as much happiness on the farm in these twentieth century years as exists within our cities"—143-9.

Most of us are getting more fun out of work than we realize.

ORCHARD AND GARDEN

REMOVING RASPBERRY CANES

An Essential in Successful Raspberry Growing

IN order to give the young canes a good chance to develop and become vigorous and healthy, it is best to cut out the old canes from black raspberry bushes (also red raspberries) soon as possible after they are through fruiting.

These old canes not only take food and water from the young canes that come up from the stump of the plant this spring, but they harbor diseases and insects that are detrimental to the growing young canes. These old canes will die anyway later on, therefore, the plant foods necessary to keep them alive until that time are simply wasted.

In removing the old canes, cut them off close to the stump of the plant, remove them from the field and burn immediately. Some growers stack them up in piles between the rows and carry them out later. They certainly should be removed and burned before the leaves have time to dry up and fall off. By burning them when they are green, the disease spores and insects with which they are infected will be destroyed.

Common hand pruners can be used in removing the canes where only a few bushes are to be cleaned up, but in commercial fields, it is a back-breaking job to use the hand pruner, besides gloves must be worn to prevent the pricklers from pricking the hands. To prevent all this, some wise farmer devised a long handle pruner and "pincher" with which the canes could be cut off and pulled from the row without touching them with the hand. He took something like long-handled forge tongs, the kind blacksmiths use, and riveted a sharp blade on the under side of one of the jaws, so when the "pinchers" were closed this blade sheared past the other jaw, like a one-sided pair of shears, and cut the cane off. At the same time the jaws of the "pinchers" held the cane fast and it could be pulled from the row and thrown in a pile. Any blacksmith can easily make an instrument of this kind. The iron handles should be made so they could be driven into wooden handles about three feet long, thus enabling the farmer to stand upright and do the work.

It will be found advisable to throw the canes from two rows in one row of piles between them, and they can then be easily handled with a pitch fork. It is best to remove these piles of cane from the field before the leaves dry so they will not drop off and remain in the field.

By removing the canes and leaves from the field and burning them while they are still green, some diseased spores and insects will be de-

stroyed which would otherwise escape and attack the young growing canes left in the rows for next year's fruiting.—B. W. Keith.

BEAUTIFYING FARM HOMES

LANDSCAPE planting plans for eight Lenawee County farms have been made by a specialist from Michigan State College. Other farmers in the county have asked that plans be made for the beautification of their homes.

TREATMENT FOR POOR ORCHARDS

THE owners of two apple orchards in Lenawee County which have never produced a profitable crop of fruit were recently advised to make use of bees and bouquets of flowers

taken from varieties other than those in the orchard. This method used at blossoming time insures cross pollination of the trees in the orchards.

One of the Lenawee orchards contains 300 trees and is forty-eight years old. The other orchard has 3,000 trees which are eighteen years old.

The method of cross pollination advised by H. D. Hootman, specialist in horticulture, has been successfully used in many state orchards. Several varieties of apples are self sterile and whole orchards planted to these varieties will not produce paying crops of fruit.

BRACING WEAK TREES

METHODS of bracing weak trees are suggested by the New York state college of agriculture. Braces should be placed four feet or more above the weak crotch in order to be effective, and this may be done any day in the year before the tree comes into heavy bearing.

Three methods are illustrated. In two methods the materials used are No. 9 galvanized wire or small wire cable, wood screws, $\frac{3}{8}$, $\frac{1}{2}$ or $\frac{5}{8}$ inch, with eyes, preferably welded. By one method the screws or bolts are fastened into the main branches of the trees, then wire is fastened to these and stretched directly between the branches. In another the wires are fastened with screws or bolts to the main limbs as before but are all fastened to a heavy harness ring in the center, held in place by the wires.

The third method illustrates the use of natural braces. Watersprout growths are intertwined at the prescribed distance above the crotch. As the trees grow these remaining intertwined, form natural grafts, and furnish a strong living brace.

The cost of any of these methods is small as compared with the value of a bearing tree.

Our Readers' Corner

Facts and Opinions by Michigan Farm Folk

THINKS TEACHERS NOT TOO WELL PAID

I HAVE long been an enthusiastic reader of your paper. My father and grandfather have been subscribers for many years. Just now I read "Subscriber's" short article on the "High Cost of Education". Being both a teacher and a mother, I believe that I can see both sides of the question. Therefore, I feel free to express my opinion.

First of all, let me say that it is my opinion also that the rural children should be given a better chance for a high school education. I am at present teaching in the rural schools, and hope later to go on into the county normal work and do my bit toward training other teachers for this work.

I feel that something must be done to lower the school expenses for the rural child; but I feel that it must be done through some method of equalizing the taxes, or through the establishment of centralized schools, but most emphatically not through the lowering of the teachers' wages. Any teacher who cares anything about her professional standing attends some good summer school. Now who can hope to live a full year, attend summer classes (which costs from \$150 to \$250, depending upon the length of the session and local conditions), join the National Educational Association, subscribe to all good professional journals in her own field, subscribe to various charities, buy clothing suitable to her station in life, attend institutes, buy books for recreational and professional purposes, and do all else that is expected of her and have anything left with which to provide for her old age and periods of illness out of the sum of \$900 to \$1,000 per

year? Perhaps, Subscriber, you are a much better manager than we poor mortals are. If so, please tell us how to do it. We are surely eager to learn.

As for the charge that we work only six hours a day, that is absurd. Some few teachers may get by on this schedule, but they surely cannot do good work. Most of us work from nine to fourteen hours, depending upon the character of our work and the time of the month. Besides, this is brain work of the most exhausting sort and more rest is required than for manual labor, especially if the individual is of a nervous temperament.

Let me suggest that those who would berate the teachers, take a little time to consider the other side of the question.—R. M. P.

I AM THANKFUL THAT I WAS BORN ON A FARM

WHO should not be thankful that he was born on a farm? Men may build castles of glass, stone and steel; artists may paint pictures of beautiful women, landscapes, and magnificent buildings; but only God could have made a typical rural home. The wholesome food, the outdoor life, the odors of flowers, the touch of human sentiment and the sympathetic understanding of farm animals will make most youths what they ought to be. My early experiences among the hogs, cows, dirty clothes, fence rows, and grain fields accomplished much to develop my physical capacity and mental independence which are serving me so well in life.

I cannot say I enjoyed the many chores, the muddy barnyard, nor the clouds of dust as I followed

the harrow. My dislikes probably account for the fact that I sought and found other fields of usefulness. However, the urgent need of self-control, perseverance, determination, industry, and "give-and-take" mental attitude in my present occupation has more than ever taught me the value of the early training which I received on the farm. I early learned that one does not get something for nothing, to do things which not only required the use of my hands but also my head, to not neglect the watering and feeding of the farm animals, to appreciate the value of a dollar and to recognize the fact that lost time is never gained.

The many embarrassing puzzles that confronted us on the farm were testing and strengthening my mettle. Through trying days of depression; during floods and droughts, hail storms and tempestuous winds; and days when not a friendly smile beamed, experiences were forthcoming that either make or ruin men. Like a trusted child my family clung to the soil and Faith gently repaid the trust not in dollars, but in training that helped the children to be "square-shooters."

We boys had the companionship of the hogs;—not the most sanitary of the animal species—but they never sneaked around the corner and pulled a cigarette. We had to feed and pail the cows many times when we did not want to, and early in life we had the fellowship of our father and his word was law.

Five years as a supervisor of boys in athletics and agriculture, convinces beyond all doubt that there is a difference between the rural and town boys. As a rule the athlete from the country is more apt to train honestly, think cleanly, and speak frankly. I have found them to be more reliable, cooperative, and less apt to indulge in the "evil smelling" stories. I have never had much trouble with the boys from the farm and they are usually sincere, honest, and apt to be prompt and available when most needed.

Yes, I am certainly thankful that I was born and spent most of my early formative life in the country. I believe that the farm as a training center for leadership has proved itself in the past and has usually produced the highest type of citizenship which stands preeminent in the business and civic affairs of our country. This splendid opportunity for successful child-training cannot be duplicated anywhere else.—Harry Q. Holt.

Successful merchant to the reporter: "When I started in business, I had only a quarter in my pocket. That gave me my start."

Enterprising reporter: "And what did you do with that quarter?"

Merchant: "Wired home for more."

A salesman was attempting to sell a bicycle to a Scotch farmer. "They are so cheap that I can let you have a good one for seven pounds," he said.

"I would rather put that seven pounds into another cow," reflected the Scotch farmer.

"But you would look mighty foolish riding around your farm on a cow, now wouldn't you?" questioned the salesman.

"No more foolish than I would milking a bicycle," replied the Scot.

BOOK ON ROADSIDE MARKETING

AS part of the Vegetable Garden series of books published by the Orange Judd Publishing Company, Gilbert S. Watts has written one on roadside marketing. It is a complete book on the subject, giving valuable hints to those who want to sell direct to the consumer. The information contained in the book is the result of Mr. Watt's own experience as well as his comprehensive study of the subject. The book sells for \$1.25 and may be procured from the above publishing company in New York.

The Cow and the SOW



REMEMBER, it's but a short distance from your cow's udder to the cream pitcher, butter plate or nursing bottle.

Keep her surroundings healthful, free from germs, and clean smelling, with Dr. Hess Dip and Disinfectant.

Provide a wallow for your hogs. To each 25 gallons of water, add about one quart of Dr. Hess Dip. Your hogs will do the rest. Good night lice and disease germs!

Use the sprinkling can—in the poultry-house for lice and mites, wherever there is filth or a foul odor.

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40 East 34th Street, New York

Live stock AND DAIRYING

Hay Necessary For Cows

Needed to Maintain Health

By C. F. Huffman

Dairy Section, M. S. C.

HAY, especially the legumes cut at the proper stage of maturity and cured so as to retain the leaves and green color, makes the best sole ration for dairy cattle other than pasture. Cattle have been grown on a ration of hay and salt from a few months of age to maturity. E. V. Davenport more than thirty years ago,

are investigating the effects of heavy concentrate feeding and are attempting to discover the factor or factors carried by hay which are so essential to the health of cattle. The results show that concentrate rations adequate for rats and swine are not sufficiently complete to meet the needs of cattle from birth to maturity. Calves fed on such rations usually die in convulsions.

New Dairy Head



PROF. E. L. ANTHONY has been selected as head of the Dairy Department of the Michigan State College to succeed Prof. O. E. Reed, who now has charge of the dairy division of the United States Department of Agriculture. We bespeak for Prof. Anthony the fullest cooperation of the various dairy interests of the state. No department of Michigan agriculture has made greater progress than dairying during the past decade. Our state college has contributed abundantly to this growth in stimulating the use of more and better dairy animals, and by encouraging more efficient feeding. This good work will continue, undoubtedly, under the new administration.

Coarse feeds in the form of corn cobs, oat hulls, and shavings when added to concentrate rations have failed to prevent the onset of convulsions. Apparently, hay furnishes some factor other than bulk which is essential in the ration of cattle.

Different supplements have been added to concentrate rations. The addition of calcium carbonate, bone meal, or magnesium phosphate delayed but did not prevent the onset of convulsions in calves. Calcium and phosphorus metabolism of calves fed such rations is being investigated at the present time. The blood of animals fed on concentrates is also being analyzed for calcium, phosphorus, and alkaline reserve by the chemistry section of the experiment station. The symptoms produced in calves which are fed rations without hay are similar if not identical with those in animals suffering from parathyroid deficiency. This relationship is being studied. There is a possibility that hay carries some factor that regulates or assists in the functioning of the parathyroid glands.

The possibility of intestinal stasis is also being studied. Concentrate rations supplemented with neutral paraffin oil, raw linseed oil, and flowers of sulphur have failed to prevent the onset of convulsions.

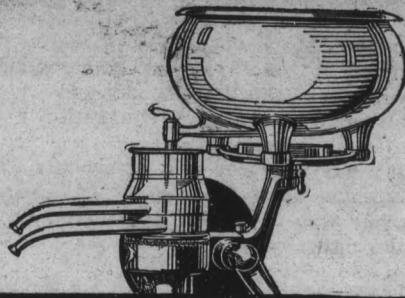
Cattle fed hay or grass and little or no concentrates produce an alkaline urine. However, when concentrates alone are fed the urine is acid. The possibility of an acid-base disturbance is being investigated, by feeding calves concentrates supplemented with sufficient bases to produce an alkaline urine.

Iron compounds have been fed as supplements to concentrates. C 27 was raised to 500 days of age on whole milk and 20 cc. of syrup of iron phosphate per day. This animal was normal in every respect until taken off the experiment. Another calf, C 58, fed whole milk and syrup of iron phosphate, was 109 per cent normal in weight at 405 days of age. However, death occurred in a convulsion at 413 days of age. This animal received only 15 cc. of syrup of iron phosphate daily. Other calves fed concentrates and syrup of iron phosphate have failed to manifest convulsions. Two grams of ferric phosphate added daily to concentrate rations, however, failed to prevent convulsions.

Effect of Feeding Wheat Straw in Place of Hay

The addition of wheat straw ad libitum to a grain mixture containing adequate protein, failed to bring about normal reproduction when fed to dairy cattle. Calves produced by cows fed this ration were born blind and paralyzed.

In a long time mineral feeding experiment, a ration consisting of grain, silage, and timothy hay has met the requirements of dairy cattle for growth, reproduction, and milk pro-



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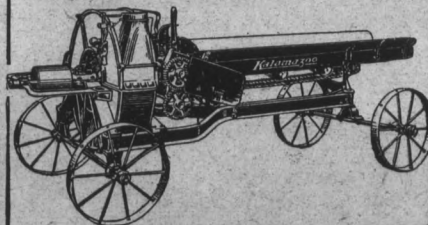
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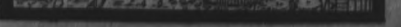
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duction. In order to determine the value of hay in such a ration, four Holstein heifers were fed the same ration except wheat straw was fed in place of timothy hay. The calcium content of the timothy hay and wheat straw was similar. The ration containing wheat straw in place of timothy hay produced normal growth. The animals appear normal. The estrus cycle was not disturbed, nevertheless, the effect on the strength and health of the offspring was marked.

Animal C 35 gave birth to two calves which manifested convulsions and were blind. However, the fetal membranes were expelled normally after both calvings. Heifer C 38 gave birth to a blind calf which also had convulsions. This cow retained the fetal membranes, which was responsible for complications which resulted in death seven days following the birth of the calf. C 46 gave birth to a blind calf which appeared paralyzed. She expelled the fetal membranes normally.

C 50 gave birth to a dead calf at two years of age and retained the fetal membranes. However, her second calf was normal. During the second gestation, C 50 consumed more wheat straw than during the first gestation and more than any of the other animals on this experiment. The palatability of the straw may be an important factor. C 35, C 38, and C 46 never consumed more than seven pounds of wheat straw a day, while C 50 during the second gestation consumed 10 pounds daily. No difficulty was experienced in getting the cows to eat sufficient timothy hay.

The results of these investigations indicate that the quality and quantity of hay fed to dairy cattle are important factors in maintaining health and reproduction.

LOSSES FROM ABORTION

WHILE in the last ten years, the losses from bovine tuberculosis have been halved, the losses due to that other great animal plague, abortion, have doubled, according to Dr. Mohler. More than \$50,000,000 a year is a conservative estimate of the losses from abortion. Abortion, says Doctor Mohler, strikes directly at the source of our cattle supply, and at the very organ, the udder, upon which the functioning of our whole dairy industry depends.

Up to the present time no medicine for the cure of abortion has proved an effective agent. The variable activity of the disease in a given herd has made it difficult to measure the value of remedies and has led to giving undeserved credit to substances of no value.

The heavy losses from abortion are adequate reason for a vigorous program of study and control. The Bureau of Animal Industry has asked for an appropriation of \$125,000 for the work on abortion from July 1, 1929, to June 30, 1930. It hopes to carry on extensive field trials for the control of the disease on the basis of information now in hand, and an additional program of investigational work to discover more facts.

ANOTHER DAIRY IMPROVEMENT ASSOCIATION

SIXTEEN Kalkaska County farmers are ready to enter their herds in herd improvement association work. John H. Breyfogle was recently appointed county agricultural agent in the county, and he expects that the test association will begin work soon.

BLACKTOP DELAINE BREEDERS SELECT OFFICERS.

AT the forty-second annual meeting of the Michigan Improved Blacktop Delaine Merino Sheep Breeders' Association held recently at East Lansing the following officers were

elected: President, George Haist, Chelsea; vice president, O. D. Luick, Chelsea; secretary treasurer, Herbert Collister, Laingsburg.

CASS FARMERS TO GET PREMIUM ON HOGS

THE procedure necessary to secure Cass County live stock producers the ten per cent premium on hogs from counties on the tuberculin free accredited list is being worked out by the county agricultural agent and the shippers of the county.

The East Oceana Herd Improvement Association is starting another year of work with a full membership. Will Vanderveen is the tester this year.

Members of the 4-H sheep clubs in Eaton county will exhibit 30 head of sheep at the State Fair at Detroit.

The county fair board of Ogemaw County has increased the premium list for calves shown by 4-H club members so that each member who exhibits a calf is assured of getting back a part of the money spent in showing the calf.

Guernsey breeders in Charlevoix County exhibited 29 animals at the field show held recently at East Jordan. No money prizes were given but ribbons were awarded winning animals.

The board of supervisors of Presque Isle County unanimously adopted a resolution asking that a Michigan State College employ an extension specialist whose duties would be to work in the field on problems connected with the control of contagious abortion of cattle. Animal pathologists at the college have done very outstanding work in investigating this disease, but the Presque Isle dairymen apparently want a man who will visit their herds and give advice on control measures.

WESTERN FORCE CATTLE PRICES LOWER

ARRIVAL of the first large consignment of western cattle at Chicago this season featured the past week. The bulk of the initial string consisted of cows and heifers. Thus far this year, about 7,600 have been on sale at Chicago compared with 5,300 to the same date last year and 16,500 two years ago.

Choice steers continue to meet dependable demand almost regardless of weight. Receipts include relatively few loads of finished cattle and shipping demand is sufficiently broad to maintain steady to strong prices on those eligible to sell at \$16 and above. Choice yearlings topped at \$17 again the past week and prime heavy steers made \$16.75.

The increase in receipts of westerns was responsible for a further price decline of 25 to 40 cents on the bulk of the short-fed steer and yearling supply selling at \$15.50 down to \$14. Grass-fed cows and heifers also shared in the price break. The bulk of the western steers on sale early in the week found outlet to killers at \$11.50 to \$13, the cow and heifer end selling at \$8 to \$10.50. These lower-priced cattle sold steady and were substituted for higher-costing beef in distributing channels.

A report released by the United States Department of Agriculture recently predicts a decrease of six per cent in the marketing of range cattle this fall under last year from states west of the Missouri River. The direct-to-feedlot movement is expected to be the heaviest on record. Reports from ranchers indicate that an unusually high percentage of calves will be attracted to market by high prices while the marketing of cows and heifers will be unusually light.

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"FILLED my silo without a hitch of any kind"—that is the almost universal report of Papec users. No pipe-clogging, no expensive delays or "hitches." Over 50,000 customers can testify to the Papec's rapid, dependable, trouble-free performance. It isn't due to any ONE feature—it's a 27-year blending of perfect self-feeding, powerful blowing, uniform quality, slow speed, light running features that spell SATISFACTION.

The Papec, in actual farm practice, is still the lightest running cutter made. It runs at slowest speed for non-clog elevation. Hence, it is especially adapted for use with small power electric motors. Even the powerful No. 127 runs with Fordson or similar power. Papec up-keep is very low. One farmer writes, "Have used Papec for 13 years and have never spent one cent for repairs."

Send for 1928 Papec Catalog. Tells how to cut your silo filling cost. Ask for **Grinder Folder No. 28** telling how to reduce your feeding cost by grinding both grains and roughage at home. No obligation. Send today. A postal will do.

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KEEP your tractor busy earning winter profits—with this AMAZING new Papec Grinder. It will pay for itself—will save you money—will grind your own feed (grains or roughage, any kind) BETTER and FASTER and CHEAPER than you can get elsewhere.

"Rapidly paying for itself Thursdays on custom work for neighbors," writes one. Customers say its performance exceeds all claims. "Capacity away beyond expectations." "Handles cracked corn, soybean hay, clover and alfalfa hay, sheaf oats, corn stalks, etc." "A great machine as to price, capacity, power and fine grinding." Sure death to corn borers.



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The Best is the
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It costs the same per pound to ship average beef animals to market as it does prime beef animals, yet the latter dress 10% more.

LOCKSHORE FARM GUERNSEYS

Yearling show bull, bull calves of excellent type, also bred and open heifers at reasonable prices. R. F. LOCKE, Owner. Address communications to

L. Stranahan, Supt., Cressey, Michigan

FOR SALE Pure-bred Guernsey sire, two years old. Registered. Son of Richland's Queen Maggie. T. B. tested. Write WM. RIPATTE, Lake City, Mich.

GUERNSEYS Have fine young bulls 3 to 10 mos. old. Sire Dam A. R. 905.80 fat. Foundation cows and heifers. WHITE OAK GUERNSEY FARM, Niles, Mich. R. 5, Dr. J. F. Shallenberger, (Near Pokagon)

GUERNSEYS either sex, whose sires' dams have official records of 15-109.10 milk, 778.80 fat, 19,460.60 milk, 909.05 fat. T. V. HICKS, Battle Creek, Mich., R. 1.

FOR practically pure-bred GUERNSEY or HOLSTEIN calves, from heavy, rich milkers, write EDGEWOOD DAIRY FARMS, Whitewater, Wis.

FOR SALE 2 Registered Guernsey bulls, also a few cows, the best breeding. Cheap. JOHN EBELS, Holland, Mich., R. 2.

SERVICEABLE AGE Registered Holstein

Bull Calves at prices the owner of a small herd can afford to pay. Grandsons of K. P. O. P. Bred cows and heifers are available for foundation stock.

RED ROSE FARMS DAIRY
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Reference: Northville State Savings Bank

FOR SALE Ten registered Holstein cows. Seven have A.R.O. records averaging over 20 lbs. butter in 7 days. Due this fall. HARRY COVERT, Leslie, Mich.

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

SHORTHORNS For Sale—Three cows with calves, four cows to calve early fall. One roan bull past year. C. V. TRACY, Ithaca, Mich., 4 miles south of Ithaca, just west of M-27.

FOR SALE—Ten Shorthorn Heifers
Good breeding. Geo. A. Wright, R. 4 Crosswell, Mich.

STEERS & HEIFERS

Few bunches nicely marked, dark reds, beef type, dehorned. Hereford steers. Calves, Short Yrl's, Yrl's, and 2 yr. old. Some Shorthorn bunches. Also a few bunches light weight Hereford heifers and wet Hereford cows. T. B. Tested. Sorted even in size, age, and quality. One to three carloads in each pasture. Will sell your choice from any bunch.

VAN S. BALDWIN, Eldon, Iowa

We Have Prize Winning Hereford Bulls

One year old, from prize winning stock. We won eight firsts and two Grand Champions last year. The kind that make \$16.75 per hundred. Short legged, straight back, deep red with white faces. DR. W. G. JENNINGS, Plymouth, Michigan.

HOGS

Duroc Spring Pigs

Registered in purchaser's name. Pairs not related. Also service boars and bred gilts.

Lakefield Farms, Clarkston, Mich.

O. I. C'S Last fall service boars and bred gilts, this spring pigs not akin. OTTO SCHULZE, Nashville, Michigan.

I Am Offering several extra good O. I. C. boars, ready for service. Fred W. Kennedy & Sons, Chelsea, Mich., R. 1.

LARGE TYPE P. C.

Fall pigs all sold, nothing for sale at present in hogs. Have a few registered Black Top Delaine yearling rams, good ones, for sale. W. E. LIVINGSTON, Parma, Mich.

Large Type Poland China bred gilts, also weanling pigs. Priced reasonable. JAMES G. TAYLOR, Belding, Mich.

SHEEP

1500 Breeding Ewes

1,000 choice large black-faced ewes, 1 to 4 years old, also 500 choice large Michigan Delaine ewes, 1 to 4 years old. Wholesale prices. ALMOND B. CHAPMAN & SONS, So. Rockwood, Mich. Telegraph address: Rockwood, Mich. 25 miles south of Detroit.

SHEEP Coarse wool, black face ewes with big, husky lambs by side, and a few loads of fine wool ewes with half blood lambs. Price right and ready to ship. Come and see them. LINCOLN & BRADLEY, North Lewisburg, Ohio.

SHROPSHIRE

Our show flock including some outstanding stud and farmer's rams will be at the following fairs: Detroit, Jackson, Adrian and Hillsdale fairs. See these rams, or write us your needs. D. L. CHAPMAN & SON, So. Rockwood, Mich.

For Shropshire Rams Write or come to the farm. DAN BOOHER, Evart, Mich., R. 4.

For Registered Shropshire Rams

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FOR SALE Registered Hampshire yearling rams. Call or write. CLARK HAIRE'S RANCH, Charles Post, Mgr., West Branch, Mich.

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THE LATEST MARKET REPORT



GRAIN QUOTATIONS.

Monday, August 27

Wheat

Detroit—No. 2 red old at \$1.46; No. 2 white old \$1.46; No. 2 mixed old at \$1.46.

Chicago—September \$1.11½; December \$1.16½; March \$1.21½; May, \$1.24.

Toledo—Wheat, No. 2 red new at \$1.47½@1.48½.

Corn

Detroit—No. 2 yellow \$1.13; No. 3 yellow \$1.11; No. 4 yellow \$1.09.

Chicago—September 93½c; December 73½c; March 76½c; May 78½c.

Oats

Detroit—No. 2 Michigan old 60c; No. 3 white old 58c.

Chicago—September new 38c; December 40½c; March 43c; May 44½c.

Rye

Detroit—No. 2 \$1.10.

Chicago—September 96½c; December 97½c; March 99½c.

Toledo—No. 2 \$1.10.

Beans

New York—Pea domestic \$10.25@ \$10.75; red kidneys \$8.00@ 8.75 to the wholesalers.

Barley

Detroit—Malting 85c; Feeding 81c.

Seeds.

Detroit domestic seed—Cash clover \$17.50; October \$18.00; December \$18.00; cash alsike \$18.50; October \$18.50; timothy at \$2.00; December \$2.45.

Hay.

Detroit—No. 1 timothy at \$15.00@ \$16.00; standard \$13.50@14.50; No. 2 timothy \$11.50@12.50; No. 1 light clover, mixed \$14.00@15.00; No. 1 clover \$12.00@13.00; wheat and oat straw \$10.00@11.00; rye straw \$12.00@13.00; alfalfa hay No. 2 to choice at Chicago \$22.00@30.00.

Feeds.

Detroit—Winter wheat bran at \$32; spring wheat bran at \$31; standard middlings at \$34; fancy middlings at \$40; cracked corn at \$46; coarse corn meal \$45; chop \$44 per ton in carlots. Poultry feeds with grit \$51.00; without grit \$55.00 per ton.

WHEAT

Wheat prices have shown some tendency to stabilize in the last two weeks, although they are holding near the low points of the season. Frosty weather in Canada has caused small upturns, but the offerings have exceeded immediate demand and rallies have faded away quickly. With the movement of the large spring wheat crop in both the United States and Canada just getting under way, no basis for a sustained advance in prices in the near future is apparent.

Primary receipts have declined slightly as is usual just before the spring wheat movement starts, but they still average over 3 million bushels for each business day. With only small amounts being cleared for export, stocks are accumulating rapidly. The domestic visible supply has gained 40 million bushels in 7 weeks and already totals 79 million bushels, the largest on record for so early in the season. Exports are running much smaller than a year ago and new sales for export are light. Flour sales have increased in the northwest and protein premiums are rather firm. Southwestern mills have a large volume of orders for flour on their books from the buying movement earlier in the season, but the decline in prices since then has made it difficult for them to obtain shipping directions.

While Canada has had local frosts, the crop is so near maturity that little damage has been done and a crop of 525 to 550 million bushels seems probable. The carryover of old wheat on August 1 was 75 million bushels, the largest on record, and 26 million bushels more than last year. Late reports from Europe have been more favorable than before, and production in 16 counties which produced 90 per cent of the 1927 crop, exclusive of Russia, indicate an outturn of 55 million bushels more than last year.

RYE

Receipts of rye have increased but milling and export demand has been enough to absorb them and the visible supply shows a further decrease. The shortage in domestic and European rye production points to a strong market in relation to wheat all season.

Farmers have expressed an inten-

tion to reduce wheat acreage by 2.1 per cent under that seeded last fall, but to increase rye acreage by 8.6 per cent. During the past four years, the actual acreage of wheat sown has been about 6 per cent less than the expressed intentions. Part of this difference was due to unfavorable weather at seeding time.

CORN

Corn prices have been developing a firmer tone in the last ten days. While the promising outlook for the new crop in most sections is inducing farmers to empty their cribs, farm holdings are so small that offerings to terminals are not burdensome. Demand is fairly good and stocks are moving into distributive channels rather freely. The visible is 12 million bushels, however, and the possibility of any extreme pinch in supplies before the new crop becomes available appears remote.

High temperatures and lack of rain have caused some injury locally, especially in Missouri Valley areas, but the outlook is still for a large crop.

OATS

Receipts of oats have increased rapidly in the last two weeks, and are considerably heavier than last year or two years ago. Demand is only fair and is coming chiefly from elevator interests at some markets. Stocks are piling up rapidly at terminals.

SEEDS

The 1928 crop of timothy seed is believed to be 35 to 45 per cent smaller than the unusually large crop harvested in 1927, according to an estimate of the Department of Agriculture. Acreage fell off in practically all important seed producing districts as a result of the relatively low price of seed last year. Drought reduced the yield in most districts and dry, cold weather in April caused thin stands. Also, a shorter hay crop and

poorer pastures than last year forced farmers to cut a relatively large acreage for hay.

FEEDS

Feed markets have steadied due to a slightly better demand and less selling pressure. Prices of wheatfeeds were generally higher. Weakening factors in the market are cheap oats, prospects of a large supply of feed grains, good pastures, and a tendency toward hand-to-mouth consumption. Cottonseed meal prices are continuing the descent to a new crop basis.

EGGS

The egg market has advanced steadily in the past week to a new high level for the season to date. With really fine stock becoming less plentiful from week to week, prices on top grades will work higher. Hot weather has discouraged the use of refrigerator eggs, resulting in a freer call for fresh stock in spite of the advancing market. Cool weather will bring a good demand for storage eggs and relieve the present so-called pinch. The undertone of the market is strong and prices are expected to remain firm although the storage figures indicate a lessening in the bullish aspect of the egg market statistically.

Chicago—Eggs: fresh firsts, 30@ 33½c; extras, 33½@34c; ordinary firsts, 27@29c; dirties, 23@26c; checks, 23@26c. Live poultry: Hens, 28c; broilers, 29c; springers, 29c; roosters, 21c; ducks, 22c; geese, 14c; turkeys, 20c.

Detroit—Eggs: Fresh candled and graded, 31@33½c; dirties and checks, 25@27½c. Live poultry: broilers 40c; roosters, 18c; ducks, 22@25c.

BUTTER

A continued short supply of high grade butter was responsible for boosting prices of creamery extras last week to a new high level for the season. Receipts at the leading dis-

tributing markets have fallen to the lowest point this summer and there may be some further reduction in the make before the fall increases begin to show up. Ice cream manufacturers are still taking much milk and cream away from butter factories. Quality has shown little improvement with hot weather defects still showing up. The high prices for fresh butter have turned some buyers to storage stock which can be moved at a profit at prevailing prices, so that the period of distribution of reserve holdings has already started. Conditions are gen-

Prices on 92 score creamery were: Chicago, 46½c; New York, 47½c; Boston 47½c; Philadelphia, 48½c; Detroit 43@44c for 88-90 score.

HAY

Alfalfa hay of good quality is selling at the highest prices at this time in the past five years. Rains in the central west damaged a large percentage of the first and second cuttings in that area so that the supply of good quality market hay was greatly reduced. Receipts of this class of hay in the principal distributing markets have been light and premiums for green leafy hay have been advanced. The total alfalfa crop is estimated at 28,579,000 tons, or about 2 million tons larger than the five-year average, but 3,230,000 tons smaller than last year's harvest. Kansas and Nebraska, where the acreage was reduced this year, are expected to harvest about 750,000 tons less than in 1927.

DETROIT CITY MARKET

Markets were heavily supplied and trading brisk. A good demand for tomatoes caused a slight advance in the price, the 15 lb. basket selling at 50@60c and \$1.25@1.50 a bu. Hearts of gold canteloup sold for \$2.75@3.00 a bu. Cabbage sold out early at \$1.00@1.25 bu.

Apples, fancy, \$2.00@3.00 bu; No. 1, \$1.00@1.50 bu; wax beans \$1.25@1.75 bu; green beans \$1.00@1.50 bu; Lima 60c qt; beets 50c@1.00 bu; 40 @50c doz. bchs; canteloup \$2.50@3.00 bu; cabbage \$1.00@1.35 bu; curly 75c@1.00; red 75c@1.00; carrots 30@40c doz. bchs; \$1.00@1.50 bu; green corn 40@50c sack of 5 doz.; cauliflower No. 1, \$3.50@4.50 bu; No. 2, \$1.00@1.50 bu; celery, local, No. 1, 35@50c doz. bchs; No. 2, 20c; Kalamazoo celery 35@50c doz bchs; celery cabbage \$1.50@1.75 bu; cucumbers 50 @2.00 bu; pickles \$3.00@5.00 bu; eggs, wholesale, white 38c doz; brown 38c doz; retail 50c doz; endive \$1.00 @1.75; lettuce, H. H., \$1.25 7-lb. basket; head, No. 1, \$1.25@1.50 bu; leaf \$1.00@1.50 bu; green onions 40@50c doz; picklers \$2.50@5.00 bu; dry \$1.15@1.25 bu; peaches \$1.25@2.00; parsnips 50c doz. bchs; \$2.50 bu; parsley 40@60c doz bchs; parsley root 40@50c doz; green peas, No. 1, \$2.00 @2.50 bu; pears \$1.50@2.25 bu; potatoes 90c@1.00 bu; plums \$1.25@2.00; No. 2, \$1.00@1.50; pumpkin \$1.00 bu; poultry, hens, wholesale, 28@30c lb; retail 35c lb; broilers, wholesale, leghorns 30c lb; rocks, 38 @40c; ducks, 24@28c lb; retail 45c; poultry, dressed, broilers 45@50c lb; hens 38@40c; radishes, out-door, 30@40c doz. bchs; long white 50@75c doz. bchs; rhubarb 45@50c doz. bchs; romain 65@75c bu; spinach \$2.00@2.50 bu; sorrel 60c bu; Swiss chard 50@75c bu; mustard 50@60c bu; tomatoes, out-door, 50@60c 15-lb. basket; \$1.25@1.50 bu; pink \$2.00@2.25 bu; turnips 50@60c doz. bchs; 75c @1.00 doz. bchs; honey 15@20c comb; huckleberries \$6.00@6.50 24-qt. case; squash, Italian, \$1.00@2.00 bu; summer 50c@1.00; hot peppers 75c@1.00 bu; sweet 75c@1.00 bu; red \$3.50@4.50 bu; veal 21@23c lb; live pigs \$5.00 @7.00 ea; veal 50c bu; blackberries \$4.00@5.00 24-qt. case; elderberries \$1.50 bushel.

GRAND RAPIDS

Potatoes, 65@80c bu; onions, \$1.40 @1.50 bu; carrots, beets, and turnips, 75c bu; cabbage, white, 75c @1.00 bu; red, \$1.00@1.25; tomatoes, \$1.50@1.75 bu; sweet corn, 15@25c doz. ears; peppers, \$1.00@1.50 bu; spinach and leaf lettuce, \$1 bu; wheat \$1.34 bu; rye, 95c bu; barley, \$1.00 bu; pork, 14@17c lb; beef, 10@22c lb; veal, 16@23c lb; lamb, 20@25c lb; mutton, 10@15c lb; hens, 18@26c lb; chickens, 20@30c lb; eggs, 32@35c doz; butter-fat, 50c lb.

Live Stock Market Service

Monday, August 27

DETROIT

Cattle

Receipts 1,339. Market active on cow grades; steady on others.

Fair to good yearlings dry-fed \$14.00@17.00

Fair to good heavy steers dry-fed 13.50@15.50

Handy weight butcher steers 11.00@12.50

Fair to good heifers 10.75@11.50

Common light butchers 8.25@ 9.25

Common butcher cows 7.00@ 7.50

Best cows 9.00@10.00

Good butcher cows 7.50@ 8.50

Cutters 6.25@ 6.50

Canners 5.25@ 6.00

Light butcher bulls 9.00@10.00

Bologna bulls 8.00@ 9.75

Stock bulls 7.00@ 8.25

Feeders 8.00@10.75

Stockers 8.00@10.00

Milkers and springers 7.50@13.50

Calves

Receipts 593. Market steady.

Best \$19.50@20.00

Others 8.50@17.50

Sheep and Lambs

Receipts 1,362. Market 25c higher.

Best lambs \$14.50@14.75

Light 9.00@10.75

Fair 12.50@13.50

Fair to good sheep 6.00@ 7.00

Culls and common 2.00@ 4.00

Hogs

Receipts 619. Market on stags and extreme heavies steady; all others 15c higher.

Pigs \$13.00

Mixed, tops 13.15

Lights 12.75

Roughs 11.00@11.25

Stags 9.00

Extreme heavies 11.50@12.00

CHICAGO.

Hogs

Receipts 3,300. Market mostly 10@ 15c higher than Saturday's or steady with Friday's average; top \$12.90

paid for choice 180-220-lb. weight; bulk good 170-240-lb. \$12.55@12.85; 250-300-lb. weight \$12.30@12.55; strictly choice loads at inside weights up to \$12.65; bulk good 140-160-lb. average

\$12.25@12.75; pigs mostly \$11.00@ \$12.00; bulk packing sows less active than early.

Cattle

Receipts 19,000. Market choice steers and yearlings and fat she stock mostly to shippers steady to strong, nothing doing on other grades; bulk steers and yearlings early \$16.00@ \$16.75; best \$16.90; bulls steady; medium kind to shippers, few choice vealers with small killers and shippers barely steady, \$17.50; packers bidding unevenly lower; stockers and feeders steady.

Sheep and Lambs

Receipts 20,000. Market feeding lambs active, strong, 15c higher, sorts considered; good natives \$14.00 @14.50; bulk \$14.25@14.50; best held higher; throwouts inactive \$10.00@ 10.50, mostly; sheep weak; native ewes \$6.00@6.75; feeding lambs active, asking a little higher on stots; good 65-lb. average strong, sold at \$14.25; choice light weights quotable \$14.00, and steady.

BUFFALO.

Hogs

Receipts 4,000. Hold over 200; market active, 15@25c higher; bulk good 150-220-lb. \$13.40@13.50; 240-325-lb. \$12.75@13.15; strong weight pigs and light lights \$12.60@13.40; packing sows \$11.00@11.75.

Cattle

Receipts 1,900. Market dry fed steers and heifers scarce, active, fully steady; medium offerings closing 25c lower; choice yearlings and heifers \$16.25@16.65; short fed \$15.00@15.25 grass steers and heifers \$12.00@14; few \$14.25; cows \$9.50@10.25; all cutters \$5.25@7.25; medium bulls \$8.50@ \$9.00.

Calves

Receipts 1,000. Market active, steady; good \$18.50@19.00; culls and common \$11.50@12.00.

Sheep and Lambs

Receipts 5,600. Market on lambs \$1.00 lower; good \$14.00@14.50; throwouts \$11.00@11.50; culls strong to \$9.00; sheep weak, 25c lower; fat ewes \$5.50@7.00; cutters and common \$2.50@5.00.

CONDITION OF BEAN CROP MIXED

REPORTS from farmers in the more important bean counties of the state show a variety of conditions prevailing with respect to this crop. For the benefit of readers we are publishing below the substance of these reports.

Bay County: The bean crop in this county is almost a total loss. There have been excessive rains and in some fields the water completely covers the ground.—W. D.

The bean crop in Bay County this year is larger than what was planted last year, but rains have destroyed probably seventy-five per cent up to the present time. Last year, about one-half of the crop was lost during harvesting season.

Clinton County: The bean crop of Clinton County is looking fairly good. Have had plenty of rain and some vines are somewhat yellow. There probably is not more than enough damage to offset the extra acreage planted. The rest of the crop promises good yields with average conditions from now on. Altogether, would say that the prospects for Clinton County bean growers are good.—B.

Eaton County: The bean crop here is very good. There is plenty of moisture and the crop is developing fine. The acreage is about normal.—C. T.

Gratiot County: In a number of places in this county water has hurt the beans badly and in a few cases, old fields have been destroyed; however, more acres were planted this year than last. With the loss the yield probably will run much less than a year ago. Early beans are now about ready to harvest.—A. R.

Acreage of beans planted in this locality is probably five per cent above normal. Heavy rains during the planting season made it necessary to re-plant in many instances. Continued rains, however, resulted in poor stands from the second planting. Favorable weather during July brought the crop on rapidly and where good stands were obtained, prospects were fairly satisfactory, but on August 2, nearly four inches of rain fell, covering many fields. A hot sun followed, which did considerable damage, probably forty per cent of the crop is gone.—J. C.

Huron County: The acreage of the bean crop in this section is about eighty per cent of last year and the condition promises to be less than fifty per cent.—A. C.

Owing to excessive rains and heat, the bean crop looks unpromising at present. It probably will run about fifty per cent of last year.—T. A. N.

The bean crop is in a bad way. There was a larger acreage than usual planted, but wet weather has ruined many fields.—A. N.

Ingham County: Without any figures at hand, I would estimate the acreage of beans in this county to be twenty per cent higher than last year. The condition is excellent. With a few more rains and some good weather for harvesting we should have a large amount of beans for the market. Hot weather and frequent rains have caused the crop to recover from a bad start. Some fields are weedy, but the beans are keeping ahead.—J. G. W.

The bean acreage is about the same here as last year, and the condition is well up to normal. Some fields are weedy due to wet weather, but the outlook is for a good crop.—R. W.

About the usual acreage of beans were planted in this locality. The crop is backward, stands uneven and the yields will be less than a year ago.—A. C.

Ionia County: The bean acreage is below the average for this part of the state, probably will not run over sixty per cent of an average. The crop at the present time, however, is growing fine.—J. W.

Jackson County: This county is not the great bean section it once was, but this spring about the number of acres was planted as in recent years. The vines look very good at present and with reasonable weather we should have a good crop.—S.

The bean crop seems to be short in this locality. Fewer were planted than last year. The fields, however, are looking fairly good. Rain is needed at present.—J. W.

Kent County: Prospects are not good. Wet weather delayed planting and prevented cultivation, so that fields are quite weedy. More recently, hot weather did some damage to the crop.—W. N.

Prospects are for a fair crop. In some sections it has been a little dry, although earlier rains were excessive.—C. B.

Livingston County: The acreage of beans in this county, no doubt, is slightly larger than last year, and the condition at present is somewhat above the average. By all indications, beans are going to mature a little

earlier than usual which should insure better harvesting.—C. L. B.

Midland County: The bean crop was greatly damaged here by water. We have about the same acreage as last year, but some fields were almost totally destroyed while others are looking good. The crop will probably be about seventy-five per cent of a yield as compared to last year which was a normal crop in this county.—N. B.

Newaygo County: While this is not a large bean county, the crop here is far better than the average, and we anticipate a good yield.—C. E.

We raise mostly red kidneys in this section. They are backward. Highland beans are looking one hundred per cent. Lowland beans are not doing as well. If frost keeps off there should be a good crop of red kidneys.—S. A.

Oceana County: Beans are looking good. The acreage is probably slightly below that of last year.—C. H.

Saginaw County: The acreage planted is approximately twenty per cent greater than last year. Much of this acreage, however, was planted the second and third times. Rain damage has been very heavy. Most farmers have suffered a loss of fifteen to fifty per cent of their stands by excess water. It is poor weather, also, for the crop to set. Some anthracnose started. The probable yield is likely to run very low with many small beans. About August 1, it looked like an average crop, but now the outlook is quite unpromising.—A. B. L.

Saint Clair County: While our acreage is about the same as a year ago, wet weather has done the crop considerable damage. In some places wind and hail have added to the destruction.—A. W.

Sanilac County: The bean acreage this year greatly exceeds that of 1927. However, many farmers have turned their fields into summer fallows because the crop, due to so much wet weather, was not heavy enough to warrant leaving it. The yield will not be as heavy as last year, is the general opinion.—G. L.

Shiawassee County: The bean crop here is looking extremely good with the acreage about normal. Outlook is for a good yield. Much, of course, will depend upon the weather from now until harvest time.—C. G.

Tuscola County: Our bean crop is in a bad way. About a normal acreage was planted. Some of the fields were planted the second time. A large part of this acreage, however, has been lost through wet weather and what remains is poor.—J. B.

Veterinary.

Contagious abortion—Have a cow that will not stay in calf. She stays about four or five months and then drops calf and comes in heat again. What should I do?—A. R. Losing the calf is most likely contagious abortion. Clean and spray the barn with a five per cent solution of creolin. Also, if you have other cows, she should be isolated in a separate barn for a period of sixty days and not bred before the expiration of this time. The aborted calf and membranes should be burned or buried deeply, to avoid spreading the disease.

Kitten has grub.—My kitten has a grub on side of neck. Have used turpentine and iodine. Give directions for treatment. E. C.—Clip hair from around the diseased area and rub in iodine ointment once daily. Pure tincture iodine is also good, but should be discontinued for a few days when skin shows signs of blistering.

Ailing steer.—Steer has cough and holds his mouth open a good deal. He is in fair condition, but does not develop as he should. Eats grass well but grain poorly. Has been passed by veterinarians as safe from tuberculosis. Subscriber.—Since a chronic cough and unthrifty condition is characteristic of tuberculosis, it would be advisable to have another tuberculin test made. There may be other diseased conditions of the lungs, such as are frequently seen where animals have had pneumonia as calves, which usually leaves the lungs in an unhealthy condition. It might be advisable to have it examined by your veterinarian.

Cows Leak Milk.—What can I do to prevent cow leaking milk? She is an easy milker and when her udder is full it leaks out. C. W. D.—Drying the teats after each milking, then applying a few drops collodion to end of teat will help to seal the opening. Painting end of teat with tincture iodine gives good results in some cases. It is usually advisable to milk such cows three times daily.



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FOR SALE OR TRADE—160 acres in northeastern Colorado. No income taxes, all paid. Address Mrs. Gertrude Hephrey, Route 1, Box 214, South Haven, Mich.

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WANTED FARMS

WANTED—To hear from owner of land for sale for fall delivery. O. Hawley, Baldwin, Wis.

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GUARANTEED HOMESpun TOBACCO—Chewing, 5 pounds, \$1.25; 10, \$2. Smoking, 10, \$1.50. Pipe Free! Pay postman. United Farmers, Bardwell, Kentucky.

LEAF TOBACCO, good sweet; chewing 3 pounds 75c; 5, \$1.00; 10, \$1.75; smoking, 3 pounds 50c; 5, 75c; 10, \$1.25. United Farmers, Mayfield, Ky.

HOMESpun TOBACCO—Guaranteed. Chewing: 5 lbs., \$1; 10, \$1.75. Smoking: 5 lbs., 75c; 10, \$1.25. Pay when received. Farmers Union, Mayfield, Ky.

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WHITTAKER'S REDS, BOTH COMBS. R. O. P. Trapped. Michigan Certified. Cocks, hens, cockerels, pullets. Write for catalog. Interlakes Farm, Box 9, Lawrence, Mich.

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CHICKS OR BREEDING STOCK—White or Barred Rocks, Reds, Black Minorcas 12c. White Wyandottes, Buff Orpingtons 13c. White, Brown or Buff Leghorns, Anconas 10½c. Less than 100 lots add 10c. Order breeding cockerels from R. O. P. Male Matings 200 to 316 egg records. Beckman Hatchery, Grand Rapids, Michigan.

HELP WANTED

YOUNG MAN WANTED to assist with growing dairy and creamery business. Must have ability to work and desire to learn business. A fine opportunity for one interested in this kind of work. Character references necessary. Outlook Jersey Creamery, C. J. Chessman, Clarkston, Mich.

WANTED: MARRIED MAN, not over 30 years of age, to help milk 70 cows with De Laval machine, do barn and milk house work. Must be steady, neat, and a good fast dry hand milker. State wages expected and give two references. D. J. Schaaf, Station E., Columbus, Ohio.

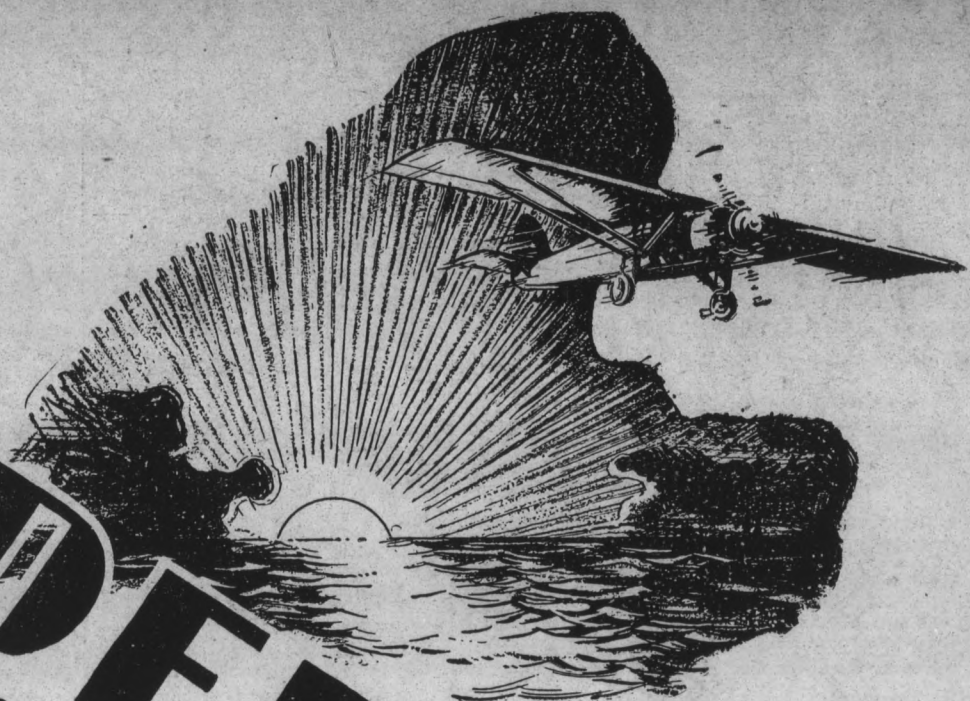
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