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Making Michigan the Seed Potato State

How It is Being Done.—By H. C. Moore

THIS year 1,020 acres of potatoes were inspected for certification. Six hundred and fifty-four acres giving a total yield of approximately 97,000 bushels, passed the inspections and were certified. The amount of certified seed that is offered for sale is approximately 82,300 bushels.

The certified stock was grown in thirty counties. Nearly one-half of the crop, however, was produced in Presque Isle, Cheboygan, Emmet, Charlevoix, Antrim and Otsego counties. Antrim county, with 264 acres, passing the inspections led all other counties in the production of certified seed.

The Late Petoskey (Petoskey Golden Russet) or (Russet Rural), heads the list of varieties certified. There are approximately 75,000 bushels of certified Late Petoskeys for sale. The other varieties with the number of bushels of each that is offered for sale is as follows. Green Mountain, 47,000; White Rurals, 23,000; Irish Cobblers, 300. All of the Green Mountain certified seed was grown in the upper peninsula.

The inspection and certification work is carried on by the Michigan Potato Producers' Association in cooperation with the horticultural department of the Michigan Agricultural College. Two field inspections are made during the growing season. The first one when the plants are in blossom and the second one just before the vines are killed by the frost. In order to pass these inspections a field must meet the standards relative to freedom from varietal mixtures and diseases. Furthermore, the fields must show a vigorous growth and show no serious injury from the Colorado potato beetle, leaf hoppers, lice or other insects. Fields under inspection must also receive careful cultivation in order to prevent the growth of weeds and grass.

All potatoes that pass the field inspections are inspected again in the bin during October and November. This inspection is for the purpose of determining the presence of such diseases as scab, black scurf, fusarium wilt, late blight, etc. In order to pass

the bin inspection potatoes must not only be comparatively free from disease, but they must also be true to type, and practically free from serious mechanical injuries.

Certified seed potatoes are shipped in new bags that contain 150 pounds. Each bag must bear the official certification tag which bears the grower's signature, address, his certificate num-

is dug separately and its yield recorded. The records thus secured are considered along with conditions found in the applicant's field in the awarding of certificates of inspection. Those strains that maintain a superior yield over a period of two or three years are increased for distribution to those Michigan potato growers who are thoroughly interested in bettering the

quality seed, careful cultivation and thorough spraying with arsenicals and Bordeaux mixture has given good results is evidenced by the good yields that have been secured by those growers whose fields passed the inspections. The average yield per acre secured by all of the growers of certified seed was approximately 150 bushels. The average state yield will probably be about seventy-five bushels per acre.

All growers applying for the inspection service next year will be required to plant certified seed and the rules on the spraying work and other cultural practices will be rigid.

The seed department of the Michigan State Farm Bureau, Lansing, Michigan, is the official selling agency for Michigan certified seed potatoes. All inquiries for seed stock should be addressed to them.

Certification lists giving the standards used in the inspection work, together with the names of growers whose potatoes passed the inspections can be secured from the Secretary of the Michigan Potato Producers' Association, East Lansing, Michigan.

TWO POULTRY PROFIT SUGGESTIONS.

A CONSIDERABLE number of poultry houses are built so high and the amount of air space that must be warmed by the birds is so great that it is impossible for winter temperatures to be pleasant. This can be remedied by putting in a straw loft to occupy all excess space in the top of the house not needed as head room by the caretaker.

In providing ventilation also, enough space should be left open in the south side of the building so that the open front will equal one-tenth of the total floor space. This open screen ought to be near the bottom of the south side rather than at the top so that the warm air from the roosts will not flow up and out of the open space.

Do we say an untruth in this, that a healthy imagination, next to a balanced judgment and a clear conscience, is the greatest blessing of life?



Here is a Large Field of Certified Potatoes Being Harvested on the Farm of C. R. Millar, in Schoolcraft County.

ber and the name of the variety of potato. Buyers of Michigan certified seed potatoes should make sure that the stock they secure is accompanied with the certification tags.

Every effort is made not only to eliminate disease and varietal mixtures, but also to insure that all seed stock certified is from vigorous, high-yielding strains. In order to do this each grower making application for the inspection service is required to furnish one bushel from the stock which he expects to plant for inspection and certification. Each bushel sample received is planted in a large test field and notes are made during the growing season on the habits and vigor of the vine growth. At harvest time each lot

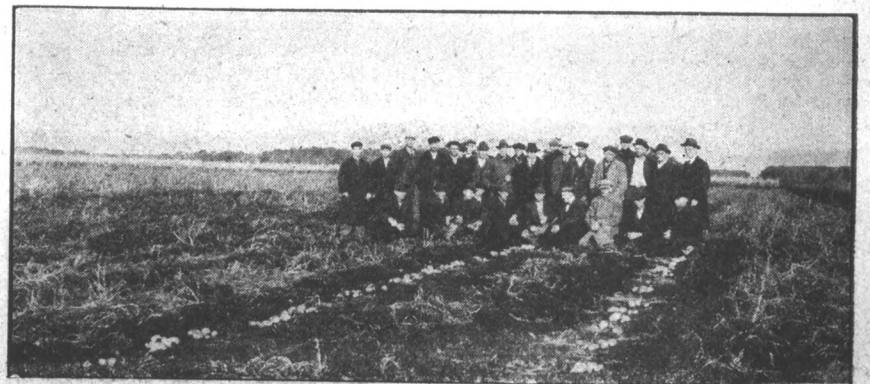
yield and quantity of this important crop.

As a further check on determining the low and high yielding strains of Michigan certified seed potatoes and to compare Michigan seed with that from other sources, tests were conducted in Ohio, Indiana, Illinois and Iowa with the various lots of Michigan certified seed potatoes. Several hundred bushels of seed were donated last spring for this work. Many of the records on this test have not yet been returned, but those thus far secured show that the Michigan stock gave excellent results.

That the following of the requirements relative to good cultural practices, including the planting of high-



Fields Are Inspected at Blossoming Time and Again Just Before Frost. This Vigorous Field of Late Petoskeys Grown by C. S. Dearborn, Antrim Co.



Down in Pulaski County, Indiana Demonstrations were Held in which the Value of Michigan Certified Seed was Emphasized by Actual Field Results.



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VOLUME CLVII NUMBER TWENTY-FIVE

DETROIT, DECEMBER 17, 1921

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

- Legume hay will win the day.
- Culled flocks cut egg costs.
- High yields increase the "net."
- Timothy-hay dairymen should take a course in alfalfa.
- The chea(pest) seeds are the "pest" seeds.
- The horse—he eateth not while he worketh.
- National security depends as much upon forests as upon navies.
- Only good farmers find profit in naming their farms.
- We want more farmers who will produce harmony from the "organ" in organization.

The Future Outlook

THE future outlook for agriculture is a subject of interest to every farmer, and indirectly to every person engaged in every other industry or occupation in this country. Today, as never before, government executives and business executives everywhere recognize the fact that a prosperous agriculture is the key to prosperity in all other lines of business. President Harding recognized this fact in his recent message to congress. He said everybody conceded that the producer is entitled to a larger proportion of the consumer's dollar than he is getting under present conditions and advised congress that "every encouragement should be given the cooperative marketing programs." The following is an excerpt from his message bearing on this subject:

It is rather shocking to be told and to have the statement strongly supported, that 9,000,000 bales of cotton, raised on American plantations in a given year, will actually be worth more to the producers than 13,000,000 bales would have been. Equally shocking is the statement that 700,000,000 bushels of wheat raised by American farmers, will bring them more money than 1,000,000,000 bushels. Yet these are not exaggerated statements. In a word, there are tens of millions who need food and clothing, which they cannot get, such a condition is sure to indict the social system which makes it possible.

There is the appeal for this experiment. Why not try it? No one challenges the right of the farmer to a large share of the consumer's pay for his product, no one can deny that we cannot live without the farmer. He is justified in rebelling against the transportation cost. Given a fair return for his labor, he will have less occasion

to appeal for financial aid; and given assurance that his labors shall not be in vain, we reassure all the people of a production sufficient to meet our national requirements and guard against disaster.

Broad minded business executives are thinking along similar lines. Practically every analysis of the business situation appearing in the leading financial journals devotes particular attention to the agricultural situation. There is general recognition of the lack of economic balance between agriculture and other industries at the present time, and the cause of and remedy for this situation is being sought in official and business as well as agricultural circles at the present time as never before. This situation is readily explained by the fact that while the farmers of the country were first to feel the full force and effect of deflation, most other businesses are feeling it just as keenly at the present time and there is a growing realization of the fact that every business, save none, must bear its just share of the burden before the readjustment process is completed and general prosperity is restored in the natural cycle of business events.

But the silver lining of the business cloud in which the world is now enveloped as the aftermath of the war is the practical unanimity of opinion among economists and keen observers of the trend of business that the worst is over and that there will be a gradual improvement in conditions from this time on. It is also generally conceded that as agriculture was first to feel the full effect of deflation it must be the first industry to make a recovery.

For Michigan farmers the outlook is undoubtedly brighter than for the farmers of most of the great agricultural states. This is due to the great diversity of our production, and the consequently increased opportunity to vary our production to meet present conditions, and our favorable location so far as big markets and transportation facilities are concerned. As compared with the farmers in the one-crop states, with tremendous freight charges between their farms and possible points of consumption of their products, our situation and outlook is very bright indeed. By comparison with most other sections of the country, the Michigan farmer's situation is a matter for congratulation, and when his average ability and resourcefulness is taken into consideration, we believe his outlook is indeed bright, not only as compared with that of his contemporaries in other states, but as well in comparison with that of the average man in any other occupation or line of business anywhere.

Make Co-operation a Success

THE cooperative movement among farmers has made great strides in Michigan during recent years. Its future development and success lies wholly in the hands of the farmer members of the various cooperative associations. Present conditions favor its further development. People are much more inclined to cooperate effectively when the conditions are difficult to meet than when they are easy. There is a better opportunity to make cooperation among the farmers of Michigan a big success than ever before. There is a better foundation upon which to build future success and a greater opportunity for effective service than in the past.

But to make cooperative enterprises the success which they should be they must be conducted on strict economic principles which will enable them not only to compete with, but to excel competitive avenues of distribution in economic results to their membership. Extravagant methods and expenditures creep into cooperative enter-

prises even more readily and easily than into private business organizations, and inefficiency is likely to be tolerated longer. Readjustment to meet present conditions is also obviously more difficult of accomplishment. But these factors must be given careful consideration if the movement is to progress as it should progress. Economy and efficiency must be the watchword if these organizations are to render their members the service which is due them and be of worth while economic benefit to them.

The season is at hand when delegates are to be selected to the annual meetings of most of these organizations. These delegates should be selected for their fitness to determine the policies of these several organizations in the interest of the membership and to select an official personnel which will carry out those policies, rather than in the interest of present or would be leaders of these organizations or because of the efforts of solicitous friends of present or embryonic leaders.

If our cooperative organizations are to be the success which they should and might be, they must be directed from the bottom up, rather than from the top down. And the only way this can be accomplished is through the active cooperation of their membership in picking the best brains in their local organizations to represent them at the annual meetings of the general organizations with which the local is affiliated.

The Bankers' Attitude

WE have received many letters in response to our appeal for information as to the attitude of local bankers regarding the handling of funds of the War Finance Corporation for the benefit of the farmers in their localities. These responses have indicated that some of the farmers, as well as some of the bankers, look upon this proposition as political buncombe. We are certain that they are entirely mistaken. There is no doubt that the director of this effort to help the farmers of the country is entirely earnest in his efforts, as well as those who were responsible for the development of the plan.

But the bankers who are charged with its development in Michigan and the local bankers who should be interested in seeing it function for the betterment of agriculture in their several communities are apparently, for the most part, either lukewarm in their efforts or definitely opposed to the functioning of the plan in Michigan as it is functioning in many other states. There is also an apparent feeling among the big city bankers that this money should be used for the extension of loans already made and the discharging of obligations to correspondent banks, rather than for the extension of additional credit to farmers.

But the War Finance Corporation is still interested in the proposition and its chairman has asked for the appointment of a committee by the chairman of the State Bankers' Association to promote the functioning of the plan in this state. In the meantime the farmers of every community who are entitled to and need assistance from this source should continue their efforts to convert their local bankers, by organized effort if personal effort is not effective to that end. There, of course, remains the expedient of organizing stock company loan associations to handle the matter, but this would be more difficult than to force a proper functioning of the plan through the regular channels, which can easily be accomplished if the farmers of the state will cooperate to that end.

It is either a matter for congratulation on the financial condition of the farmers of Michigan or a sad commentary on the attitude of the bankers

of the state, that not a single dollar of this War Finance Corporation money has yet been loaned in Michigan. From our present knowledge of the situation we believe it is both. But there is certainly some need of the functioning of this plan in this state, and to that extent it must be made to function.

The Greatest Test

JUST why so much attention is given to the grand champion steer at the International and so little comparatively to the grand champion of the carcass class, is hard to understand. Likely it is because the tying of the honored ribbon on the first is more spectacular. Thousands are watching the judging with the keenest interest and when the decision is made there is a great ovation and outburst of enthusiasm. This, no doubt, has its psychological effect upon the reporters as well as the visitors and naturally shows itself in the resulting publicity.

But really, the greatest test is the block. The high percentage of dressed meat and the quality, both of which are accurately determined by the butchering test, ultimately should have precedence over outward characteristics and appearances in deciding the finest finished fat cattle at the great International. The final test of a good cow is the amount of milk and butter-fat she will produce. The test of a hen of the laying strain is the number and size of the eggs she lays. Why should not the highest test of beef cattle be the quantity and quality of the meat which is produced?

We hold this to be true and we desire to congratulate the breeder and the feeder who produced College Erin, the Michigan Agricultural College and the state of Michigan upon the winning of the grand champion awards at the International in the cattle carcass class which was won by this junior yearling Angus steer exhibited by our Agricultural College. The steer's live weight was 1,110 pounds and he dressed 694 pounds, a dressing percentage of 62.52 per cent. Again we say, all honor to Michigan.

I'm Apple-ly Surprised

LAST week I pressed my way into the Press Building at Grand Rapids and went up to the third floor to see what the cultivators of the downfall of man, called horticulturists, had to say for themselves.

I had a busy time right away. They were a reception committee waiting for me and I shook hands and shook hands. This committee was made up of Sam Smith, who is growin' Hill's Chilly peaches on the purspirin' landscape of Newaygo. I'm glad I saw Sam 'cause he was the only one I knew I saw.



Well, when I got into the meetin' proper they was a fellow working his Adam's apple up and down a mile a minute talking on something. Anyhow, his general conclusions was "Let us spray," which is good advice for men who are in the kind of business they're in.

Some newspaper man said that you will know them by their fruits. By that I judge some of them is peaches and others Keiffer pears.

The way some of the apples looked at the exhibition I don't blame Adam for falling. I felt myself slippin' when I was in their mist. Anyhow, I wouldn't mind a drink of soft cider any time.

HY SYCKLE.

Shall We Stick to the Dairy Business?

THESE are very discouraging times for the dairymen. Some dairymen have already disposed of their cows, feeling it inadvisable to continue the business, while others are reducing their herds by disposing of unprofitable individuals and pursuing a waiting course until market conditions recuperate. Few dairymen think it expedient to increase production. However, dairymen should not act hastily, as there are some factors connected with general dairy husbandry too important to pass unconsidered even in view of present discouraging conditions.

The gradual growth and development of the dairy industry in this state during the past quarter of a century has been an important factor in the farmers' income, beside retaining a high percentage of fertilizing elements for soil rebuilding. This latter fact in no small measure has been overlooked by many dairymen. The milk check is not the only thing that should be taken into consideration in the final analysis of whether one should stick to the dairy business or not.

Dairymen should not become disheartened simply on account of the temporary decline in market value of dairy products. There could be no foreseen solution to the present condition of affairs other than to wait until each line of industry adjusted itself to

What One Dairyman Thinks

after-war conditions. All industrial enterprises have suffered inestimable losses, but they are not abandoning the ship, so let us dairymen take courage and ultimately all will result well.

This is a good time for dairymen to make a study of the dairy business to effect improvement, lower cost of production and strive for a higher quality of marketable product. How can this be done? In various ways. First, by installing a modern equipment for handling the dairy herd. There is room for considerable improvement on the average farm where dairying is followed, not as a specialty but as a part of general farm management.

I have from time to time visited a large number of farms where dairying is carried on as an adjunct to general farming and find that many inexpensive improvements might be installed. The overhead track litter carrier has been used in our stable for about seven years and we find it a

wonderful convenience. Water in the stable, especially during the winter months, also is a great help. Cement floors and mangers are found in many dairy barns, yet a great many do not have them. A milk house for handling the milk and dairy utensils will cut labor costs and enable one to produce better milk.

During recent years, dairymen have heard a great deal about cost of production plus a fair profit for dairy products. This is surely a good doctrine. There is no good reason why the dairymen is not entitled to the same square deal that any other industry enjoys.

But the dairymen themselves have something to do before this can become an accomplished fact. First, dairymen are keeping too many poor cows, that is, cows producing not more than four or five thousand pounds of milk yearly. Few herds are free from these low-producing individuals. In or-

der for dairymen to lower cost of production and increase profit, they must cull out the low-producing animals. This is a good time to cull the herd and grade up. Secondly, dairy products lack in uniformity and quality to command the top market price. We dairymen must strive to overcome this condition through the production of a higher grade of dairy products second to none in the world.

This country needs more good dairymen who will apply business methods to the management of the dairy industry. Most dairymen need to keep fewer cows and better ones. During the past five years, I have been gradually cutting down the size of my herd and striving to make one cow do the work of two. I believe this is the ultimate solution to the present-day dairy problem. Fewer cows and better ones. I believe the farm must produce more feed for the dairy herd in the future than it has in the past. I am of the opinion also that dairying must be conducted as an adjunct to general farming and not as a specialty. Every farm where conditions are favorable should maintain a few good cows. There is no better method of maintaining soil fertility than through dairy husbandry. Stick to the dairy business, improve the quality of your herd and products and the future will take care of itself.—LEO REYNOLDS.



Plan Unique System of Fruit Demonstrations

Growers and College Cooperate

NO longer is the Michigan fruit grower forced to accept the advice of M. A. C. scientists without proof. A unique system of cooperative demonstrations, arranged between the college and nearly two hundred individual farmers, makes it possible for any "doubting Thomas" among the orchardists to "feel and see." These tests include all phases of fruit production, about one hundred of them being concerned with fertilization, seventy-five with pruning and a number of others with spraying.

The basis for these demonstration tests is, of course, to be found in the research and experimental work carried on by the college at Grand Rapids and South Haven stations and at other areas set aside. In the last two years, particularly, these experiments have been given a new impetus and now include every problem the orchardist faces, with emphasis placed on orchard fertilization.

Several tests of vital importance are being carried on at the Graham Experiment Station at Grand Rapids. One compares cultivation with cover plots, (1) on alfalfa sod in which one or two cuttings of hay has been left as a mulch, and (2) with grass sod. Another similar experiment compares the effect with (1) clover sod; (2) clean culture with cover crops; (3) alfalfa, removing all hay and using straw as a mulch, and (4) alfalfa, using two cuttings of alfalfa as a mulch. A third takes up a comparison of different kinds of cover crops with respect to the amount of organic matter and nitrogen they add to the soil. A fourth compares the growth of cherries on alfalfa sod with the growth of those where clean cultivation is practiced. In a fifth test, various systems of pruning are being used to determine

which is the most profitable from the standpoint of early and late bearing. Some growers hold that severe pruning delays bearing, but others are of the opinion that delayed bearing means greater profits in the long run.

Costs are being carefully kept in connection with each test so as to determine the relation of the various practices to the scheme of management. From those experiments begun in 1920 and 1921 reliable conclusions are expected to be available in from two to five years. However, any farmer visiting the Graham station may see results sufficiently striking to warrant approximate inferences.

At Paw Paw a five-acre vineyard has been maintained for several years to make possible a thorough study of the fruiting habits of grapes and the results of various pruning practices.

From the showing made in 1921, for instance, it is apparent that growers should exercise more judgment in pruning, leaving a comparatively small number of buds on the weak vines and a large number on the stronger ones. It has also been found that the buds most productive are those farthest from the head of the cane.

In Berrien county there are several fertilizer experiments with black and red raspberries and dewberries. These were begun only last spring. At the South Haven Experiment Station most of the work is in cooperation with the United States Department of Agriculture. Variety testing, fruit breeding and nursery investigations are being carried on. Ten acres in addition to the original fifteen are devoted to small fruits. Vegetable breeding and variety testing of vegetables comprise a portion of the experiments at East Lansing. Irrigation and non-irrigation of small fruits is also being compared.

A Squint at the Present Feed Markets

WINTER demand for feedstuffs is developing on a broad scale, quite auspiciously in view of the sluggish trade during the summer and fall months. Prices, too, are responding to the improved buying support from dairymen and feeders in general. Virtually all feeds have advanced materially, with some showing sharp gains. Feeds used extensively in dairying operations have shared in the principal advances, which is explained by the fact that returns to milk producers have been relatively greater than the profits from the fattening of meat animals, thus tending to stimulate the demand from the former class of consumers. Many meat animal feeders, in fact, are losing money. Advances, which may be temporarily checked during the early part of the new year just after the holiday season, may later be extended. How-

ever, there is hardly basis for the belief that radical upturns as often witnessed during late winter will again be noted this season, as too much feed in the aggregate is available.

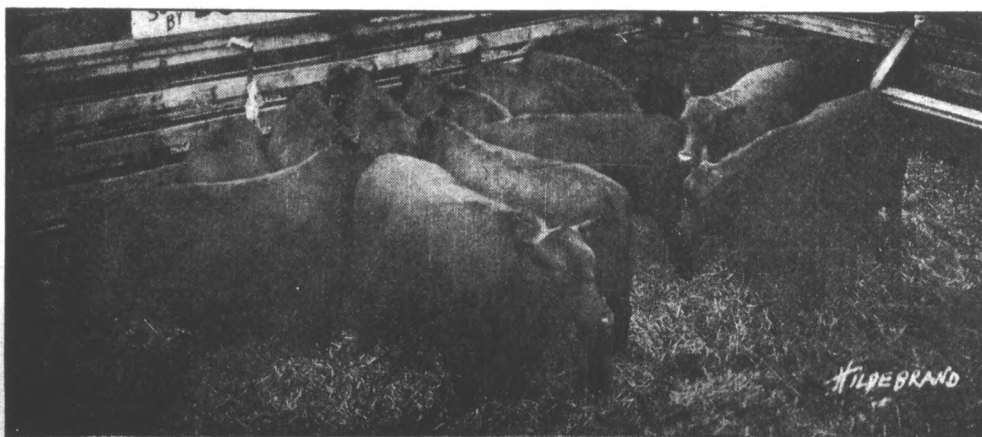
The high protein feeds, including

both cottonseed and linseed cake and meal, have responded to increased buying power, coming primarily from an augmented demand rather than from improvement in the sales to domestic feeders. Supplies of cottonseed cake

and meal have been exceedingly light, based on small offerings of seed available over the cotton belt from this year's very low crop.

Mills in Oklahoma are quoting prime forty-three per cent cake and meal around \$38 to \$39 a ton, with Arkansas about a dollar a ton less, basis Little Rock, showing a rise of fully \$5.00 a ton over a month ago. For thirty-six per cent cake and meal the quotations are about \$2.00 to \$3.00 a ton under the forty-three per cent grade.

Linseed feed has shared a relatively better demand than other high protein commodities in domestic channels, at the same time enjoying a fairly active foreign inquiry. Crushers in the northwest are quoting about \$42 a ton for linseed meal, while the eastern seaboard is asking up to \$48 a ton for cake. In view of the very



Grand Champion Carload at International Exhibited by John Hubly, Illinois. Sold for \$40 Per Cwt.

(Continued on page 591.)

LATE AGRICULTURAL NEWS

SHEEP KILLED BY DOGS.

CHIPPewa supervisors have voted to require the county agricultural agent to investigate the value of all sheep killed by dogs, with a view to adapting the amount allowed to the market price of the sheep on the day of the killing. The Soo Times reports that, last year, \$2,281.50 was paid out by Chippewa county to the owners of sheep killed by dogs.

SOME RESULTS OF ALFALFA CAMPAIGN.

AGRICULTURAL Agent Bentall, of Allegan county, tells us in a letter just received that cow-testing associations have already been started as a result of the alfalfa and dairy campaign recently held in that county, and others will be organized as soon as he and his co-workers can get to them. Activities in cleaning up herds from tuberculosis have doubled since the campaign was undertaken. Mr. Bentall says, "We have reasons to be well satisfied with results."

WHEAT PRICES HAMMERED DOWN—WANTS PROBE.

EVERY farmer who grows grain should write to his congressman and urge early action on Senate Resolution No. 133, which provides for investigation of the real factors that have been smashing wheat prices despite wheat exports that break all previous records," is the appeal made by President C. H. Gustafson, of the U. S. Grain Growers, Inc., in insisting upon a Federal Trade Commission investigation of the export grain trade.

Mr. Gustafson charges that at the same time wheat prices are being hammered down to the dollar mark, grain growers are being led to believe that a weakened foreign demand will not take care of the normal exportable surplus. Mr. Gustafson charges that this is not so and that more wheat is being exported than ever before.

PROTECT PUBLIC AGAINST IMITATION FRUIT JUICE.

FRUIT growers of the nation are determined that the consuming public shall be protected in the matter of artificial fruit juices, says the Michigan State Farm Bureau. Steps have been taken by the fruit growers to secure the enactment by congress of Truth-in-Fruit juices legislation. The move is supported by the American Farm Bureau Federation, State Farm Bureaus, fruit organizations and others.

Speaking of the manner in which natural fruit juices are being imitated and misrepresented and the consuming public fooled by possibly injurious concoctions, Mr. Adams said that gum arabic and other ingredients are being used to make the artificial drinks "cloudy" so that they resemble fruit juice drinks; the public cannot tell the difference. Frequently fruit is displayed at stands where chemical drinks are sold and the advertising is so adroitly worded that the consumer is led to believe that he is drinking fruit juice instead of some chemical concoction. This deception the fruit growers of the nation intend to stop.

VOTE MONEY FOR HISTORICAL WORK.

MARQUETTE county board of supervisors has voted two hundred dollars in aid of the work of the Marquette County Historical Society. The

board so far has voted a total of eight hundred dollars to this organization, half of which is used in the collection of historical material relating to Marquette county and the upper peninsula, and half of which has been used in placing markers at various points of historic interest throughout the county. This latter feature adds much to the interest of tourists and others using the highways of the county.—C.

GOVERNMENT DOES NOT ASK PACKERS TO RETAIL.

RECENTLY published news reports in daily and agricultural papers to the effect that "the government has urged the packers to enter the retail meat business" are wholly without foundation so far as a thorough investigation in Washington discloses. No one can be found in the department of commerce who has taken any official action of this character. No information can be had at the office of the secretary of agriculture regarding this matter. Chester Morrill, in charge of the packers and stockyards administration, says that he has never heard of any such action being taken or seriously contemplated. From the office of the attorney-general comes the statement that no such suggestion could possibly have been made by anyone connected with the government inasmuch as the so-called packer consent decree absolutely forbids the

packers from entering into this business.

The story no doubt owes its origin to the fact that the Southwestern Cattle Growers' Association asked the Live Stock Committee of Seventeen to recommend such action. The Committee of Seventeen, however, turned down the proposition without discussion.

MICHIGAN STATE ASSOCIATION OF FARMERS' CLUBS.

THE twenty-ninth annual meeting of the Michigan State Association of Farmers' Clubs was held in the City Hall at Lansing, on December 6 and 7, 1921. The meeting was originally called to be held in the Senate Chamber of the Capitol Building, but this being unavailable the change in place of meeting was made as noted. An exceptionally good attendance of delegates was present. The program was very interesting and instructive, as usual, the Tuesday evening session included a banquet served by the ladies of the Baptist church. At this session the annual address of the president, Alfred Allen, of Mason, Michigan, was given. Mr. Allen pointed out pertinent needs for reformation in the state and local government which the members of the organization could help to bring about. Women's opportunities, by Mrs. Dora Stockman, and the Agricultural Outlook, by Dean Shaw, of M. A. C.,

presented hopeful pictures for the future of community life and agriculture. The question box and discussion of local club problems was as ever a most interesting phase of the program. Interesting features of the last session were discussion of Taxation Problems from the Farmer's Standpoint, by Mr. O. L. Barnes, of Lansing, with many years of experience on the Michigan tax commission, and an address on the Michigan Department of Agriculture and the Farmer, by Mr. H. H. Halliday, State Commissioner of Agriculture.

The report of the secretary-treasurer, Mrs. I. R. Johnson, showed the organization to be in a prosperous condition with adequate finances to cover its present and immediate future operations instead of a deficit, which was the case last year. Officers for the ensuing year were elected as follows: President, Lee S. Noble, Oxford; vice-president, W. A. Cutler, Grass Lake; directors for two years, Edgar Burk, St. Johns; Mrs. S. Holmes, Fowlerville; director to fill vacancy caused by the election of Mr. Cutler as vice-president, Mr. F. S. Brooks, Corunna. Resolutions were adopted as follows:

Resolutions Adopted.

The following briefs of resolutions offered by the committee on national affairs were adopted:

That we sustain our American delegation in its effort to lessen the primary cause of war by eliminating secret diplomacy, national selfishness and all those forces of subterfuge and evasion that lead to nation's inhumanity to nation;

That a square deal to all and service at a reasonable and fair price be an outstanding plank in the American farmer's campaign for a better country life;

That we endorse the building of a lakes to ocean waterway;

That Boys' and Girls' Club work be pushed as a movement for better farming;

That every possible force be commanded to resist to the very limit every move made to develop the liquor traffic again within our borders;

That we endorse the Sterling-Towner bill providing for a secretary of education in the President's cabinet and other vital features that help to make our educational system as efficient as possible;

That we promote the best type of organization for women and for the homes and that every opportunity be employed to stimulate and develop all means and methods looking toward the most constructive program for the home and family;

That we strongly recommend the community center as a potent factor in the constructive work for the organized farmer and his new day.

State Affairs.

Resolutions offered by the committee on state affairs were adopted as follows:

That a committee of the Farmers' Clubs be appointed by the president to confer with other farm organizations and business interests, to arrange for a meeting or plan remedies for bringing about an adequate ratio of exchange between farm products and manufactured goods;

That we favor calling a convention of farmers before next spring's planting to consider the acreage of crops now produced at a loss, and the preparation by the United States Department of Agriculture of statistics showing the normal requirements and general cost data of various crops in order to determine the acreage required;

That we approve the state income tax constitutional amendment;

That liberal appropriations be made for education and road building, but that at the present time we believe in a restriction of road building until the financial conditions of the farmer are better able to meet the expense;

That we give support to the efforts of the state administration to create efficiency and economy in state affairs;

That we urge the strict enforcement of United States and state laws against the manufacture and sale of liquor and the deportation of aliens who violate these laws;

That we endorse the further extension of the consolidated school.



Wednesday, December 7.

FOR the first time in four months, employment figures in Detroit show a gain.—Great Britain and the Sein Feiners agree on peace terms. Ireland is to be a free state like Canada.—Venezuela is in chaos because of the serious illness of General Gomez, who is virtually dictator of the country.—The strike at the Union Stock Yards in Chicago involves 41,000 men.—It is reported that Germany will be granted a three-years' delay in her cash indemnity payments.

Thursday, December 8.

HOBONING has ceased to be a vocation and has become a necessity to many. Over 20,000 trespassers were put off the Southern Pacific trains during October.—A California court decides that holding a baby for a board bill is illegal.—Using a money bag containing \$1,800 as a weapon, a New Jersey book-keeper routs robbers.—A New York motorist bought a pig from a negro for \$2.50 which he kept over night in his bathroom. The next morning he had nine.

Friday, December 9.

THE Liberals, headed by W. L. MacKenzie King, won a sweeping victory over the Conservative party in the recent Canadian election.—China stands firm in the peace conference for her rights in Shantung.—Eight United States fishermen were seized by Mexicans for illegally fishing off the Mexican coast.—A Nebraska man was wedded to a girl in Paris, France, by wire.

Saturday, December 10.

OVER five million evergreens will be used as Christmas trees in this country.—The American Farm Bureau is endeavoring to get farm machinery standardized.—The second annual

meeting of the National Silver Fox Association was held at Muskegon, where \$750,000 worth of foxes were exhibited.—The state needs more room to store booze seized in prohibition raids.—Over a hundred small corporations are delinquent in the payment of corporation tax, according to the state department.

Sunday, December 11.

TWENTY ships and eighteen lives were lost in the storm which recently raged off Newfoundland.—Fifty-one are rescued from the Submarine S.48 which sank off Bridgeport, New York.—Seventy thousand cases of nine per cent beer have been exported from Ontario to Detroit in the last two months.—James Oliver Curwood, famous Owosso writer, says state conservation board is riddled with politics.

Monday, December 12.

CENSUS Bureau finds that just a little more than half of the 1919 potato crop was sold from the farms.—Elinor Glyn said that modesty is coming back and vulgarity will go, when she referred to the conduct of American girls.—Dr. Adolph Lorenz, the famous Austrian bloodless surgeon, is invited to treat cripples in Detroit.—Prohibition Commissioner Haynes says officers cannot search in pockets for liquor.

Tuesday, December 13.

DURING the past year there has been a hundred per cent drop in trade between Canada and the United States.—A Brooklyn dentist has to pay \$3,500 for allowing an extracted tooth to fall through a lady patient's windpipe into her left lung.—Two hundred and twenty-two United States merchant ships were sunk through accident during the past year.—Former Emperor William publishes a book on war facts.

Explaining County Agent's Work

That the agent should spend equal portions of his time with marketing and production is the statement made by W. A. Lloyd, in charge of county agent work in the northern and western states who recently issued instructions as to their powers and duties. However, the agent is not expected to handle any business for farm bureaus or other commercial organizations.

"He should no more do the farmer's business for him," declared Mr. Lloyd, "than he should milk his cows or plow his fields. He helps determine what crops should be grown, advises how to grow crops efficiently and follows up with crop and live stock demonstrations. In like manner he helps determine what business organization is necessary, advises in regard to the best methods for cooperative organization and 'big brothers' the cooperative enterprise.

"He should never handle money or assume any financial responsibility personally or officially in connection with cooperative business. His first duty is to help farmers help them-

selves, and he defeats his own ends if he does those things which they should do for themselves.

"County agents no doubt at times have gone beyond the above limitations and perhaps particularly during the past year some have assured a direct business agency for farmers. It has not always been easy for the farmer to see the impropriety of the county agent as a public official performing what is essentially private and personal service which he should either do himself or hire done; nor has the county agent always curbed his own enthusiasm to 'get results,' forgetful for the moment that his big job is to inspire initiative, promote a willingness to assume responsibility and so develop leadership in the farmers themselves.

"There are highly important matters incident to quality standardizing, grading and packing that are vital to cooperative business success that lie clearly within the county agent's field and it is in connection with these matters that he is usually best qualified to give aid."—HENSHAW.

Francisco Farm Notes

By P. P. Pope

WE are out of letter heads again. This happens about once in two years and we miss it. To write a business letter on plain paper doesn't seem right somehow, after once using a printed letter head. Most every mail brings something that requires an answer so we are not permitted to forget it for long. The order will go in to the local printer for a new supply at the earliest opportunity. It will be plain and simple, no frills or flourishes, but on material of good quality.

We have had perhaps a dozen different printed letter heads, some of them more or less elaborate. Styles in letter heads change like they do in clothes, or automobiles, or eye glasses, although they may be harder to keep pace with. There is plenty of leeway, however, to satisfy the most discerning. The tendency has been toward more simplicity for some time, and the more I see of it the better I like it. There is an indefinable something in a man's handiwork that tells what kind of a man he is. This shows up in his letter head as well as in his farm or his live stock or his home. The letter head is in no small degree an indication of the character behind it. A modest, simple heading without a lot of advertising, is bound to leave a favorable impression upon the recipient, while a loud flaming letter head often carries with it the idea of cheap advertising, of bluff and bluster. It destroys confidence instead of inspiring it. Advertising is all right in its place, but I do not think it is good business to jam too much of it into a letter heading.

All good business farmers should have printed letter heads. The cost is little more where they are secured in quantities than the same amount of plain paper would amount to if bought at retail. They add prestige both to the farm and to the farmer; they are a source of satisfaction, both to the sender and receiver; they are very often a great help in deciphering the hieroglyphics of many of us, especially



as regards signatures and addresses. Flushing the Sows.

We are just now in the midst of the season of mating the brood sows for spring litters. Most of the older sows are bred and the gilts will be taken care of now as soon as they are ready. We like to have our spring litters some several litters at a time or very close together. Pigs that are within a week or ten days of an age may be allowed to run together, several litters of them, with their mothers after they are two or three weeks old, and can be relied upon to take care of themselves very well. Litters that are much younger are very apt to be robbed by the older pigs and not do well. The same is true with the young sows where they are forced to fight for their food among the older ones, so we aim to have our breeding dates on the aged sows as close together as possible, and also the gilts, although this year we are breeding the gilts to farrow later than the aged sows.

We are usually able to accomplish our object by what is termed "flushing" the sows. This consists simply in increasing the feed for a week or two before breeding time arrives. The ration should be well balanced and fed liberally. If the sow is not too fat to begin with this is the surest way in the world of bringing her into a full, natural period of heat and is a very practical means of insuring large litters of pigs. We attribute much of our success in this regard to having the sows in a vigorous, healthy condition and gaining in flesh at breeding time.

Pig Crates.

To the average farmer who raises only a few hogs, a strong light crate or two comes in mighty handy. To the breeder who raises pure-bred hogs to sell for breeding purposes they are an absolute necessity. He is called upon to send hogs all over the country by express, and express companies are not much interested in hogs unless they are securely crated. We learned long ago that we must build them strong. We also learned that considerable in the way of express charges could be saved if we built them light. To build them strong enough to be safe and with no excess weight, that has been the problem. We have used

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\$17.50

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50 GALLON IRON DRUM

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It takes us fifty times longer to fill and handle 50 gallon cans of EN-AR-CO Motor Oil than it does one 50-gallon iron drum. The difference is \$17.50. This Difference Is Yours.



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Think of it! You can now buy this high grade, scientifically refined En-ar-co Motor Oil—the oil that is known to, and used by thousands of farmers everywhere, and endorsed and recommended by prominent tractor, automobile and motor manufacturers, at the big cash saving of 35 cents per gallon, or \$17.50 when you buy it by the iron drum.

This big saving is made possible only by getting En-ar-co to you in quantity lots at the lowest possible expense. You know it costs less to handle fifty gallons of En-ar-co Motor Oil in one iron drum than fifty single gallons in fifty different packages. The difference in cost is 35c per gallon or \$17.50 per iron drum—and this

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You know the National Refining Company. It has been serving the public for forty years and has the reputation among everyone of making the highest quality Petroleum Products on the market. Nobody has ever made any better, and your farm paper or your neighbor will tell you of the high standing of the Company, and the scientifically refined quality of the goods that we sell.

Act Now! Order your drum of En-ar-co Motor Oil today. Advise what tractor, truck, automobile or light plant you want to use it for—we will send you the proper grade and guarantee immediate delivery.

If your dealer can't supply you, fill out the order blank below and mail it direct to us at Cleveland, O., or to any of the following 93 branches:

- | | | | | | | | | | | | | | | | | |
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Little Rock, Ark. | California
Lamar, Colo. | Illinois
Aurora, Ill.
Chicago, Ill.
Decatur, Ill.
East St. Louis, Ill.
Joliet, Ill.
Marseilles, Ill.
Monmouth, Ill.
Peoria, Ill.
Peoria, Ill.
Quincy, Ill.
Springfield, Ill. | Indiana
Attica, Ind.
Evansville, Ind.
Franklin, Ind.
Frankfort, Ind.
Indianapolis, Ind. | Iowa
Clinton, Iowa
Council Bluffs, Iowa
Dubuque, Iowa
Elkader, Iowa
Grundy Center, Iowa
Iowa City, Iowa
Iowa Falls, Iowa
Keokuk, Iowa
Malvern, Iowa
Red Oak, Iowa
Shenandoah, Iowa
Sioux City, Iowa | Kansas
Coffeyville, Kan.
Great Bend, Kan.
Holton, Kansas
Hutchinson, Kan. | Kentucky
Lawrence, Kan.
Leavenworth, Kan.
Salina, Kan.
Topeka, Kan.
Wichita, Kan. | Michigan
Kalamazoo, Mich.
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Hayti, Missouri
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Jackson, Miss. | Nebraska
Aurora, Neb.
Beatrice, Neb.
Falls City, Neb.
Florence, Neb.
Fremont, Neb.
Geneva, Neb.
Hastings, Neb.
Kimball, Neb.
North Platte, Neb.
Omaha, Neb.
Stromsburg, Neb. | Nebraska
Sidney, Neb.
Wahoo, Neb.
York, Neb. | Ohio
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Bowling Green, Ohio
Canton, Ohio
Cleveland, Ohio
Columbus, Ohio
Findlay, Ohio
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Marietta, Ohio
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Marion, Ohio
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Blackwell, Okla.
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Enid, Okla.
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Okla. City, Okla.
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Ship me at once by freight from your nearest distributing center.....iron drum of En-ar-co Motor Oil. I want it to lubricate.....(Name of Tractor).....(Name of Car), for which you are to charge me 80 cents per gallon, f. o. b. your nearest shipping station. En-ar-co Motor Oil is shipped in iron drums containing fifty gallons, so that the invoice price at 80c per gallon will be \$40.00 per iron drum, package free.

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We are the originators and the scientific refiners of White Rose Gasoline, clear, uniform, powerful; National Light Oil (kerosene), for lamps, tractors, for your stoves and incubators; also En-ar-co Gear Compound, twenty-five pound packages, for differentials, transmissions, etc., also shipped in barrel lots.

When a Federal Bureau reminds you that children should not drink coffee or tea—why not think of your own health?

The Federal Bureau of Education includes in its rules to promote health among the Nation's school children, the warning that children should not drink coffee or tea.

The reason is well known. Coffee and tea contain drugs which stimulate and often over-excite the nerves, and so upset health.

The harm is by no means confined to children, as any doctor can tell you.

If health is valuable to childhood, it is valuable always. If harm to health should be avoided until bodies grow up, is it worth taking a chance with health when bodies have grown up?

You can have that delicious and satisfying cereal beverage, Postum, with any meal, and be safe—you, and the children, too. There's charm without harm in Postum.

Postum comes in two forms: Instant Postum (in tins) made instantly in the cup by the addition of boiling water. Postum Cereal (in packages of larger bulk, for those who prefer to make the drink while the meal is being prepared) made by boiling for 20 minutes. Sold by all grocers.

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Guaranteed to save 20 to 30 cents on each dollar. More power, quicker warming up, sweeter running, no carbon. Accomplished through complete vaporization by the Scope Hot Spot. Price \$5.00 installed. Sold by any garage. Or send \$4.00 for sample with plain directions. Satisfaction or money back.

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Get a Bowsher Grinder at Reduced Prices

The Mill you have always wanted can now be had at cut prices. Bigger value than ever before. Grind More—Worry Less. The Bowsher is good for a lifetime. A money maker for those who grind and mix their own feeds. Write today for New List and catalog. D.N.P. BOWSHER CO., SOUTH BEND, IND.

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Aspirin

Always say "Bayer"

Unless you see the name "Bayer" on tablets, you are not getting genuine Aspirin prescribed by physicians for 12 years and proved safe by millions. Directions in package.

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KITSELMAN FENCE
Get It From the Factory Direct. PRICES AGAIN REDUCED. We Pay the Freight and save you money. Direct from Factory to Farm. Laura Struchin, Holden, Mo. writes: "The fence ordered of you arrived O. K. I saved \$14.00 on a \$34.00 order. You can't afford to buy fence until you get our Big Free Catalog showing 100 styles and heights of farm and lawn fence, gates, etc. Write today. KITSELMAN BROS. Dept. 273 Muncie, Indiana."

Men Wanted to sell dependable fruit trees and shrubbery. Big demand. Complete co-operation. Commission paid weekly. Write for terms. Willems Sons' Nurseries, Rochester, N. Y.

many kinds of material. White pine, basswood, spruce and elm have been the most satisfactory. White pine is rather expensive at present, elm is inclined to warp badly. We are using at present basswood and spruce almost exclusively. They are soft but strong and tough, do not split easily or splinter, and they are light.

Several years ago we had occasion to do a little lumbering and clearing on a piece of wild land that we had bought for pasture. Among the timber with which we had to work was a quantity of second-growth basswood. Ordinarily this would have gone into the buzz pile but before that was allowed a couple of men with a crosscut cut out everything suitable into what I called miniature logs. They were cut into three, four, five and six-foot lengths, with diameters from six to twelve inches. We found a lath mill near by that quickly worked this stuff up into ideal pig-crating material; twenty-five thousand board feet of it, and the expense was very light. That was twelve years ago. We have just used the last of the four-foot stuff;

the five and six-foot lengths gave out some time ago, but there is still enough of the short stuff to put the ends and tops on a lot of crates. We have to resort to the lumber yards, though, for the sides, and we are finding spruce very satisfactory. The bottoms are made out of any strong, sound material, not necessarily new. The weak part of a crate is usually where the sides and ends are fastened to the bottom. The entire weight of the hog comes on the bottom. I have seen an old sow pick the upper part of the crate right off from the bottom with her nose and walk out. I have also seen the bottom of the crate with its contents separate from the body of the crate when being lifted. We take special pains to see that the corners are tough and not apt to break or split and that the crate is well nailed throughout. They can be quickly put together if materials and tools are at hand. We make the bottoms first, then the sides, next nail them together, squaring everything as we go, put on the ends and the top, finishing up with the tail board.

Our Service Department

LEGAL DAY'S WORK.

Will you please give me the law of Michigan regarding the number of hours per day for a laboring man by the month or year, and what is the law on holidays? If a man works can he collect time and a half?—J. S. S.

Our statutes provide that ten hours shall constitute a legal day's work in all shops and factories in the state in the absence of agreement to the contrary, and that the laborer is entitled at the contract rate for all overtime. But it is expressly provided that this statute shall not apply to farm laborers. The writer is not aware of any regulation of farm labor other than the contract.—J. R. R.

FENCING WILD LAND.

Kindly advise if owner of wild land refusing to make his share of line or division fence account can be compelled to make his half. He does not use the land, but owner of adjoining land desires hog and cattle-proof fence so he can use his land for pasture.—N. A.

There is no obligation on the owner to pay for fencing so long as he leaves his land unenclosed. The duty to fence is purely statutory and does not exist further than required by the statute.—J. R. R.

AGE OF BREEDING MALE.

Last fall I bought a Rhode Island Red male bird. He was a yearling that they had used that spring, in one of their extra quality breeding pens, owing to lack of room to put him by himself, I let him run with the flock, which was large, until April 5. Then I penned him up with eighteen pullets. I got about a fifty per cent hatch, but all fertile eggs brought fine healthy chicks, which lived. I raised 120. Now what I should like to know is, whether I would be risking my next year's hatch to keep him over his third season. H. E. P.

Poultrymen usually find the best results come when cockerels are used for breeding purposes. However, I judge that you have a very good bird and if you wish to keep him over to obtain stock from him, you can mate him with eight or ten of your best pullets and stand a good chance of obtaining fine chicks. It would not be best to mate him with as many as eighteen pullets, such as you did this year. Of course, the apparent vigor of the bird next spring will determine his breeding value. But if he goes through the winter in good condition he may be all right. You might use

him with one breeding pen and keep a few vigorous cockerels for use with other pens or with a free range flock. In this way you would not risk your entire hatching operations if the cock bird did not prove as good as was expected.—K.

JOINT TENANCY OF PERSONAL PROPERTY.

I would like your opinion on the statement expressed in the inclosed slip in regard to joint ownership of personal property such as, notes, bank certificates and stock in building and loan associations, etc.—J. W. B.

The supreme court of this state has held that there can be no joint-tenancy nor entirety in personal property in this state. The contrary has been held in some other states. Nevertheless our supreme court has held that an express provision that the survivor shall take is operative as a species of gift. The result is that if funds are deposited in the bank in the joint names of husband and wife, and subject to the order of either, there is no survivorship of the whole fund to the survivor if either die while the funds remain on deposit. In such case the estate of the one first dying is entitled to a share of the fund. But if the deposit is made payable to the order of both, either, or the survivor, the survivor takes the whole fund.—J. R. R.

INFLAMMATION OF GIZZARD.

I found two of my Barred Rock pullets dead recently. One was still warm and one had been dead about one day apparently. They appeared healthy and all right in every way, but upon opening, all parts looked natural, except the lining in the inlet and outlet of the gizzard for about two inches seemed to be decayed.—A. L.

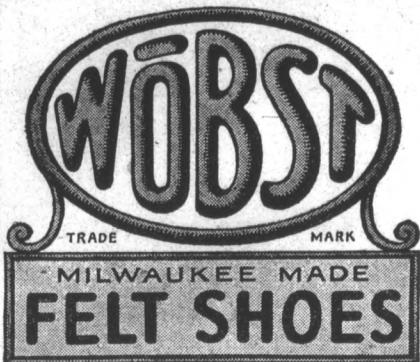
The trouble may be due to inflammation of the gizzard, caused by some foreign substance. It may have started from the bird becoming crop-bound and the tract from the crop to the gizzard becoming clogged. This can result from eating masses of grass or feathers. In a weak bird it might occasionally happen from a normal ration. Examine the crops and note the physical condition of the remaining birds in the flock and isolate any that appear sick and crop-bound. A dose of castor oil followed by a kneading of the crop may help a crop-bound bird. Eating too many oats without other food might produce an irritation of the digestive tract.

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HOOSIER SILOS last for generations. Proof against wind, fire and frost. Glazed or unglazed vitrified tile, reinforced every course. Continuous double sealed doors set flush inside allow even settling of silage. HOOSIER SILOS also in wood or cement stave. Same splendid value, backed by HOOSIER reputation. Build ALL farm buildings of hollow tile for permanence and economy. Write for prices, literature and special agency proposition. HOOSIER SILO CO. Dept. M99 Albany, Ind.

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Only the best of materials and workmanship go into Wobst Felt Shoes. Any buyer who finds a defect in a pair of Wobst Shoes may return them to his dealer who is authorized to refund the full purchase price of the shoes.

Cost Less Because They Wear Longer

UNTIL you have worn a pair of Wobst Felt Shoes you will never know the exceptional wearing service that can be secured from truly good felt shoes.

Wobst Shoes not only give the extra warmth and comfort that you expect in a felt shoe, but they are also unusually durable because they are so well made. Wobst felt is *wool-felt*—not cow-hair and glue. Wobst counters are of guaranteed fibre—not cheap paper. Where upper leather is used it is all grain—not “split.”

Made by the largest exclusive manufacturer of felt shoes in America. Wobst Shoes are made better and still sold at a price no higher than that of cheaply constructed shoes. And because they wear longer Wobst Shoes actually cost less.

The Wobst line includes both men's and women's plain felt, leather foxed and full vamp shoes—either unlined, gray felt or wool-fleeced lined—with choice of felt, combination felt and leather and all leather soles. If no store near you carries Wobst Shoes send us the name of your shoe dealer and we will see that you are supplied.

Men's No. 751

This 9" Blucher style shoe, with its heavy black felt upper, is exceedingly popular with the man who looks for extreme shoe durability and foot comfort. Where leather is used, it is selected all grain—not “split.” Lining is of high-grade grey wool-felt; sole is combination felt and leather; rubber heel. Sizes, 6 to 11.



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You will find the Wobst dealer the best man in your town from whom to buy any kind of shoes or other merchandise. He has been selected for the high character of his store, stock and trade.

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| BIG RAPIDS—Edson A. Darling | HERMANVILLE—Hayes Mercantile Co. | NORTH LANSING—H. B. Kebler |
| BUCHANAN—D. Di Giacomo & Co. | HIGHLAND PARK—Ford Market Shoe Co., 10 La Belle Ave. | OMER—M. B. Russell's Dept. Store |
| CALUMET—Thos. J. Dwyer | HOUGHTON—Kirkish Brothers' Shoe Store | PENTECOST—Glen Daniels & Co. |
| CARO—Zemke Bros. | ISHPEMING—Johnson Bros. Co. | PETOSKEY—Salisbury & Hazelton |
| CHAMPION—Mrs. J. Levine | LAKE LINDEN—Wm. Hopf | PORTLAND—L. C. Lehmann Shoe Co. |
| CHARLEVOIX—John Slezak | LOWELL—F. J. Hosley | ROCKLAND—C. J. Fredrickson |
| CHASSELL—Chassell Merc Co. | LUDINGTON—Forstind Bros. | ROYAL OAK—Ford Market Shoe Co., 415 Washington Av. Ye Bootery, Thos. J. Jackson, Prop. |
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| CRYSTAL FALLS—Albert W. Axelson | MATTAWAN—Ryan Bros. | ST. IGNACE—A. R. Highstone |
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| ESCANABA—The Boston Store Manning Peterson Shoe Company | | STERLING—R. M. Gordon |
| EVART—Fleming Shoe Co. | | |
| EWEN—Jensen Merc. Co. | | |
| GALIEN—G. A. Blakeslee & Co. | | |

WOBST SHOE CO. 413-415 VLIET ST. MILWAUKEE, WIS.

Automobile Insurance Congested Traffic Increases Accidents

The Citizens' Mutual Automobile Insurance Company of Howell, Michigan, is now finishing its seventh season of success and has paid out a total of \$948,061.09 for claims. In addition to this amount of payment, the Company has paid adjusting expenses and attorney fees for adjusting over 7,000 claims. The Company has been run on a conservative basis and has added to the surplus each year. The officers, agents and adjusters have had the experience to qualify them in assisting the policy holder when he suffers a loss.

The Company is well known to the automobile theft department in Detroit, Toledo, Chicago, Milwaukee, St. Louis, Indianapolis, Columbus, Buffalo, Cleveland, etc., and in case of the recovery of a Michigan car in any of those places is promptly notified. In case of an accident in which the policy holder becomes liable for serious personal injury or death, the officers and adjusters have had sufficient experience to handle the claim. On the other hand, the public realize that in case they have a just claim that is properly brought to the attention of the company that they can obtain prompt service without litigation or expense. In fact, automobile losses, as a rule, are complicated. The automobile owner should therefore select a company with experience, equipment and strength to take care of losses.

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Citizens' Mutual Automobile Insurance Company of Howell, Michigan

Fruit Growers Meet

THIS year's annual meeting of the State Horticultural Society was a record breaker in attendance and enthusiasm. At the opening session there were over three hundred people, and several times through the three-day session the hall, which held six hundred, was filled.

The program was also of unusual interest. The first day was devoted to the subject which is rapidly increasing in interest, orchard fertilization. Professor Marshall, of M. A. C., and county agents from various parts of the state gave reports on orchard fertility tests. The consensus of opinion is that the supplementing of cover crops with commercial fertilizers is of great value and that the use of sulphate of ammonia or nitrate of soda annually has greatly increased crops.

The students' judging and speaking contests were held Wednesday morning. For the first time in the history of the speaking contests a co-ed participated and she came out with first honors. She is Ruby Lee, of Lima, N. Y. In the judging contest F. M. Hazel, of South Haven, and J. D. Wilson, were tied for first place, while G. W. R. Baldwin, of Bridgeman, took third.

President George Hawley was re-elected, as were also Secretary Farland, Treasurer J. P. Munson, and the members of the executive committee whose terms expired. After the business meeting, James Nicol gave an interesting report of the meeting of the fruit committee of the American Farm Bureau at Atlanta, Georgia, of which he is chairman.

Orchard management was the subject for discussion for Wednesday afternoon. Mr. P. I. Griggs, of Romeo, told of the big peach crops Mountain View Fruit Farm grew outside of the "peach belt." This orchard produced thirteen thousand bushels of peaches this year, some of which sold for over six dollars a bushel. A great share of the crop was sold to consumers right at the farm.

Prof. E. J. Kraus, of the University of Wisconsin, gave an interesting talk on the relation of tree growth and productivity, and the control of growth by means of pruning and fertilizing. Too little growth would result in trees which would be inclined to blossom heavily but fail to set to fruit. Too much growth would prevent normal blossoming and proper maturity of fruit. By proper growth control the off year of the tree could be eliminated to a great extent.

Mr. Thomas Smith, well known for the work he has done with the renovation of orchards in various parts of the fruit belt along Lake Michigan, gave his talk on Orchard Management the next morning. His talk was full of practical suggestions. He is a thorough believer in modern methods of pruning, fertilization and spraying. During a season when poor fruit was much in evidence orchards showed almost perfect control from spraying.

Prof. W. C. Dutton gave a resume of the research work he has been doing in spraying and dusting. The conclusions of his talk indicated that dusting was not generally as effective as spraying in insect control but was of considerable value for peaches and plums in the control of the rots. Dusted fruit stood up in transit much better than any other. He has also proven that paradichlorobenzene was efficient in the control of peach tree borers that were close to the ground.

The Thursday morning program was devoted to discussions of cold storage, marketing, and small fruit growing. A representative of the bureau of markets spoke of storage and pre-cooling, while Mr. F. L. Granger, of the Michigan Fruit Growers' Exchange, discussed the marketing problems. William Daley, of Riverside, in the southern part of the state, gave the results of his experience in growing dewberries, and Arthur Watson, of Grand Rapids, told of irrigating small fruits.

At the final session Prof. R. H. Pettit made some suggestions on the control of some of the fruit insects, such as the apple leaf roller, grape berry moth and pear psylla, and Dr. G. H. Coons discussed apple canker.

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Suppose you could make a wish at the breakfast table and finally have the wish come true. Would you say,

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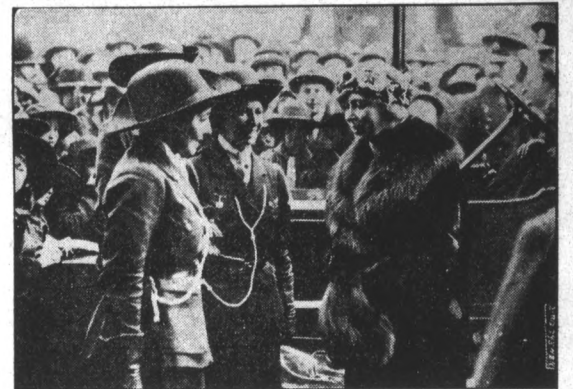
WORLD EVENTS IN PICTURES



Movie actresses like to have pictures taken. Jane Novak posing as Santa's assistant.



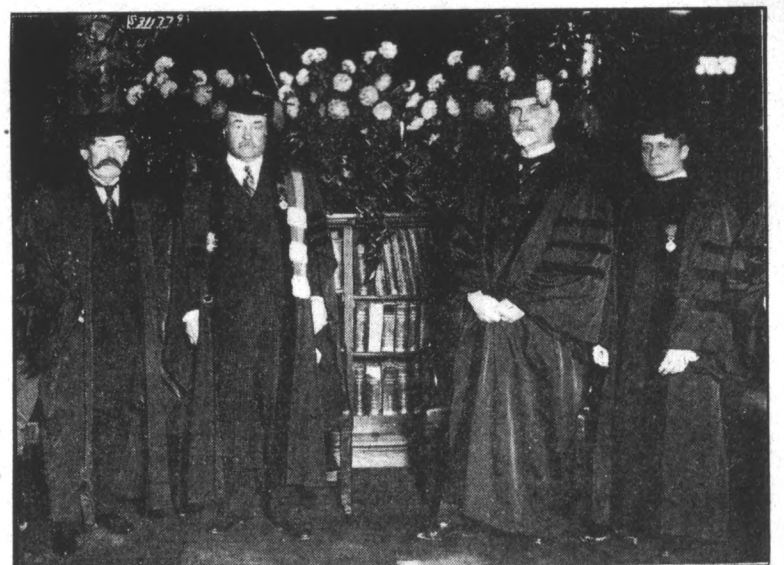
Goat gland patient at sixty-five feels like thirty-five.



Princess Mary, of England, announces engagement to Lord Lascelles.



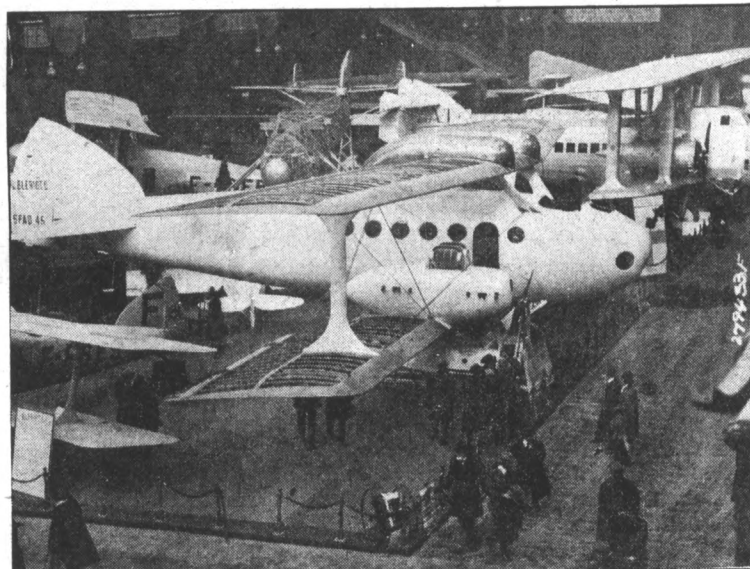
Equine dinner guests are entertained by girl of twelve, who has just won her two-hundredth horse show blue ribbon.



French Premier Briand receives the degree of L.L.D. from Columbia University, New York City. Briand at the left.



Liner sunk in river at New York to quench fire.



A twenty-passenger biplane makes a hit at the air show in the Grand Palais, Paris.



Prince of Wales in naval uniform greets women of Isle of Malta.



The navy goat meets the army mule just before the foot ball battle, in which the army lost.



The Queen of Spain and her children visit Moroccan war veterans. The queen is dressed as a red cross nurse.

THE BLIND MAN'S EYES

By William MacHarg and Edwin Balmer

Copyright by Little Brown & Company

"Father!" his daughter warned.

"Oh, I am careful, Harriet; Dr. Sinclair allows me to move a little. Mr. Eaton, in one of the three answers you have just given me, you are not telling the truth. I defy you to find in human reasoning more than four reasons why my presence could have made you take this train in the manner and with the attending circumstances you did. You took it to injure me, or to protect me from injury; to learn something from me, or to inform me of something. I discard the second of these possibilities because you asked for a berth in another car and for other reasons which make it impossible. However, I will ask it of you. Did you take the train to protect me from injury?"

"No."

"Which of your former answers do you wish to change, then?"

"None."

"You deny all four possibilities?"

"Yes."

"Then you are using denial only to hide the fact, whatever it may be; and of the four possibilities I am obliged to select the first as the most likely."

"You mean that I attacked you?"

"That is not what I said. I said you must have taken the train to injure me, but that does not mean necessarily that it was to attack me with your own hand. Any attack aimed against me would be likely to have several agents. There would be somewhere, probably, a distant brain that had planned it; there would be an intelligent brain near to oversee it; and there would be a strong hand to perform it. The overseeing brain and the performing hand—or hands—might belong to one person, or to two, or more. How many there were I cannot now determine, since people were allowed to get off the train. The conductor and Avery—"

"Father!"

"Yes, Harriet; but I expected better of Avery. Mr. Eaton, as you are plainly withholding the truth as to your reason for taking this train, and as I have suffered injury, I am obliged—from the limited information I now have—to assume that you knew an attack was to be made by some one, upon that train. In addition to the telegram, addressed to you under your name of Eaton and informing of my presence on the train, I have also been informed, of course, of the code message received by you addressed to Hillward. You refused, I understand, to favor Mr. Avery with an explanation of it; do you wish to give one now?"

"No," said Eaton.

"It has, of course, been deciphered," the blind man went on calmly. "The fact that it was based upon your pocket English-Chinese dictionary as a word-book was early suggested; the

deciphering from that was simply a trial of some score of ordinary enigma plans, until the meaning appeared.

Eaton made no comment. Sautoine went on:

"And that very interesting meaning presented another possible explanation—not as to your taking the train, for as to that there can be only the four I mentioned—but as to the attack itself, which would exonerate you from participation in it. It is because of this that I am treating you with the consideration I do. If that explanation were correct, you would—"

"What?"

"You would have had nothing to do with the attack, and yet you would know who made it."

At this, Eaton stared at the blind man and wet his lips.

"What do you mean?" he said.

Sautoine did not reply to the ques-



tion. "What have you been doing yesterday and today?" he asked.

"Waiting," Eaton answered.

"For what?"

"For the railroad people to turn me over to the police."

"So I understood. That is why I asked you. I don't believe in cat-and-mouse methods, Mr. Eaton; so I am willing to tell you that there is no likelihood of your being turned over to the police immediately. I have taken this matter out of the hands of the railroad people. We live in a complex world, Mr. Eaton, and I am in the most complex current of it. I certainly shall not allow the publicity of a police examination of you to publish the fact that I have been attacked so soon after the successful attack upon Mr. Warden—and in a similar manner—until I know more about both attacks and about you—why you came to see Warden that night and how, after failing to see him alive, you followed me, and whether that fact led to the attempt at my life."

Eaton started to speak, and then stopped.

"What were you going to say?" Sautoine urged.

"I will not say it," Eaton refused.

"However, I think I understand your impulse. You were about to remind me that there has been nothing to implicate you in any guilty connection with the murder of Mr. Warden. I do not now charge that."

He hesitated; then, suddenly lost in thought, as some new suggestion seem-

ed to come to him which he desired to explain alone, he motioned with a hand in dismissal. "That is all." Then, almost immediately: "No; wait!" Harriet, has he made any sign while I have been talking?"

"Not much, if any," Harriet answered. "When you said he might not have had anything to do with the attack upon you, but in that case he must know who it was that struck you, he shut his eyes and wet his lips."

"That is all, Mr. Eaton," Sautoine repeated.

Eaton started back to his compartment. As he turned, Harriet Sautoine looked up at him and their eyes met; and her look confirmed to him what he had felt before—that her father, now taking control of the investigation of the attack upon himself, was not continuing it with prejudice or predisposed desire to damage Eaton, except

as the evidence accused him. And her manner now told, even more plainly than Sautoine's, that the blind man had viewed the evidence as far from conclusive against Eaton; and as Harriet showed that she was glad of that, Eaton realized how she must have taken his side against Avery in reporting to her father.

For Sautoine must have depended entirely upon circumstances presented to him by Avery and Connery and her; and Eaton was very certain that Avery and Connery had accused him; so Harriet Sautoine—it could only be she—had opposed them in his defense. The warmth of his gratitude to her for this suffused him as he bowed to her; she returned a frank, friendly little nod which brought back to him their brief companionship on the first day on the train.

As Eaton went back to his compartment through the open car, Dr. Sinclair looked up at him, but Avery, studying his cribbage hand, pretended not to notice he was passing. So Avery admitted too that affairs were turning toward the better, just now at least, for Eaton. When he was again in his compartment, no one came to lock him in. The porter who brought his breakfast a few minutes later, apologized for its lateness, saying it had to be brought from a club car on the next track, whither the others in the car, except Sautoine, had gone.

Eaton had barely finished with this tardy breakfast when a bumping against the car told him that it was

being coupled to a train. The new train started, and now the track followed the Mississippi River. Eaton, looking forward from his window as the train rounded curves, saw that the Sautoine car was now the last one of a train—presumably bound from Minneapolis to Chicago.

South they went, through Minnesota and Wisconsin, and the weather grew warmer and the spring further advanced. The snow was quite cleared from the ground, and the willows beside the ditches in the fields were beginning to show green sprouts. At nine o'clock in the evening, some minutes after crossing the state line into Illinois, the train stopped at a station where the last car was cut off.

A motor-ambulance and other limousine motor-cars were waiting in the light from the station. Eaton, seated at the window, saw Sautoine carried out on a stretcher and put into the ambulance. Harriet Sautoine, after giving a direction to a man who apparently was a chauffeur, got into the ambulance with her father. The surgeon and the nurses rode with them. They drove off. Avery entered another automobile, which swiftly disappeared. Conductor Connery came for the last time to Eaton's door.

"Miss Sautoine says you're to go with the man she's left here for you. Here's the things I took from you. The money's all there. Mr. Sautoine says you've been his guest on this car."

Eaton received back his purse and bill-fold. He put them in his pocket without examining their contents. The porter appeared with his overcoat and hat. Eaton put them on and stepped out of the car. The conductor escorted him to a limousine car. "This is the gentleman," Connery said to the chauffeur to whom Harriet Sautoine had spoken. The man opened the door of the limousine; another man, whom Eaton had not before seen, was seated in the car; Eaton stepped in. Connery extended his hand—"Good-by, sir."

"Good-by."

The motor-car drove down a wide, winding road with tall, spreading trees on both sides. Lights shone, at intervals, from windows of what must be large and handsome homes. The man in the car with Eaton, whose duty plainly was only that of a guard, did not speak to Eaton nor Eaton to him. The motor passed other limousines occasionally; then, though the road was still wide and smooth and still bounded by great trees, it was lonelier; no houses appeared for half a mile; then lights glowed directly ahead; the car ran under the porte-cochere of a great stone country mansion; a servant sprang to the door of the limousine and opened it; another man seized Eaton's hand-baggage from beside the chauffeur. Eaton entered a large,

AL ACRES—The Kind of Stock that Squeezes the "Oil" Out of Soil.

By Frank R. Leet



beamed and paneled hallway with an immense fireplace with logs burning in it; there was a wide stairway which the servant, who had appointed himself Eaton's guide, ascended. Eaton followed him and found another great hall upstairs. The servant led him to one of the doors opening off this and into a large room, fitted for a man's

occupancy, with dark furniture, cases containing books on hunting, sports and adventure, and smoking things; off this was a dressing room with the bath next; beyond was a bed-room.

"These are to be your rooms, sir," the servant said. A valet appeared and unpacked Eaton's traveling bag. (Continued next week).

The Pathfinders

Milly Gets a Tip from Her Mother-in-Law

By Alta L. Littell

BY all the laws of domestic science the amount of soap Milly had used in the dishwasher should have made a creamy lather of Lake Michigan, but only sickly flecks of white on an expanse of blue blinked up at her coldly disapproving eye.

"And of course I've nothing to soften it with," she said exasperatedly. "soda" on the slate over the table, then paused to read the list of "must haves" already there. A short, broad spatula, hers was a long, flexible one; a thin, narrow-bladed paring knife, a half-dozen bath towels, they would make less work than the crash roller towels she had brought, as they needed no ironing; a middle-sized frying pan, and a funnel to fill her ketchup bottles.

A gentle tap at the door and an apologetic little laugh brought her round to greet Mother Allen.

"I won't take a mite of your time," Mother Allen was plainly embarrassed, "I wondered if you could lend—" she stopped as she caught sight of the slate filled with items. "O, never mind. I didn't know as you had so much to get yet; thought you were pretty well stocked up." She eyed the array of shining tools wishfully. "I guess I forgot what it means to get started."

"But what do you want?" Milly urged. "Anything I have is yours."

"O, nothing. I know you can't spare it. There's an agent at the door with a clubbing offer I've been wanting to get, a farm paper, a fancy work paper, and the county weekly. I need twenty-five cents more to make up the money, and I thought maybe you'd just as soon let me have it till pa can get around to draw a load to town. But if you've got to get all those things for yourself, I know you can't spare it."

"But only twenty-five cents," Milly laughed gleefully. "If it were twenty-five dollars I might say no, but the idea of not lending anyone a quarter. Of course you can have it. Don't you want more? Here's five dollars, better take that. You may need it before he gets to town."

"Five dollars! Mercy, no. I wouldn't think of borrowing five dollars from anyone," she said. "Goodness knows how I'll squeeze out the quarter to pay you back. You hang onto that five dollars and don't let no one but me know you've got it. You'll find enough ways to spend it before you get any more."

Milly's laugh again rang out. "There is lots more where that came from," she said.

"But it's not going to come to you now," Mother Allen's tone was grim. "Teaching school for \$100 a month as you've been doing is one thing, and trying to grub a living out of this sand is another. You take my advice and hang onto what you've got."

She turned to go, but stopped at the door.

"I promised myself I'd not be a snoopy mother-in-law and tell you how to run your business, but I don't believe you've sensed what you're up against here," she said. "This farm ain't like your pa's. There won't be any milk checks coming in, and you may have noticed my hens don't resemble your mother's Leghorns. I'm going to tell you just the fix I was in this morning when that fellow offered me those papers for two dollars. I had

just seventy-eight cents I've been saving a penny at a time since Easter; pa fished through his pockets and brought out sixty-nine more, and I shook twenty-eight cents out of Tom's bank. Pa won't have another cent until he sells something, and all we'll have in the house is what my eggs will buy. You are one of us now. That's your future, unless you see a way out we ain't found."

She was gone. Milly dropped down in a little rocker by the door, dishes forgotten as for the first time she really considered her future. Strange that she had never once thought what life was to mean financially in this new country. She had known that Bob owned forty acres of land, but she had never asked what he could make from it. He had told her she wouldn't find his farm like her father's, dad had thrown out hints about farming in a sand country, and mother had been tearful after the folks took a trip through the state. But she had been too much in love to think about anything so necessary as money. Come to think of it, Bob's year at college had been on a scholarship, and he hadn't dressed like the other fellows nor gone to any of the parties. Why hadn't she thought what all those little things meant?

Used to her father's prosperous farm home, with its herd of Holsteins, its big orchard, its sugar bush and bee hives, its atmosphere of plenty; with mother's flock furnishing frills and plenty of spending money, to say nothing of her own pay as teacher, it had never occurred to her that life could be any different.

Now she looked things straight in the eye. The supper Mother Allen had prepared for the night of their arrival. Of course, she had brought out her best when her oldest boy came home with his bride. And that best Milly's own mother would have considered a poor "pick-up" dinner for wash day. The faded print Mother Allen put on when she dressed up afternoons would long ago have made a rag rug in the old home.

From her place by the door she watched the mongrel hens wander about the neglected henhouse. How the sight would roil her mother. And this was to be her future. Of a sudden she threw up her head and straightened her shoulders. Well, not if she knew it! Millicent May Hawthorne Allen to sit down tamely and let herself drift to a point where she had to rob the baby in order to sign for a paper?

She arose and marched into the bedroom. From a pocket in her suit case she brought out a bank book and a music house catalogue. The good-sized balance she had intended to put into a player piano, but now she had another use for it. A flock of birds like mother's could buy a new piano in time, but certainly the piano would never buy the hens.

"Good-bye-piano," she said as she threw the catalogue into the stove. "O, you chicken, you may not be so musical but you'll sound good to me. I wonder, now, what type of house I'd better build. I must write the college for suggestions before I start work."



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I have never had a policy. I have simply tried to do what seemed best each day as each day came.—Lincoln.

Woman's Interests



Canaries, Their Care and Training

By Mrs. Harvey Haynes

MY start in the canary business was in the fall of 1918 when I purchased a canary—one among a large cage full with this sign attached: Your choice for thirty-five cents. You may get a singer and you may not. We hoped it would be a male bird, named it Peter, and spent hours playing the phonograph trying to teach it to sing, but alas, by spring we decided it was only a hen bird.

We bought a male bird and put them together. They went to work at once and raised seventeen birds during the season. Eleven were cock birds. We bought four pairs from bird stores and two pairs from the Jackson prison, and with these raised in 1919 seventy-five birds. These were sold by advertising at \$5.00 each for cocks and \$1.00 each for hens. I kept some of the best for breeders. When my own supply gave out I bought of ladies who had raised a few each, and sold these for a small profit. I sold this year \$632.87 worth, paid out for seed, eggs used, material for cages, and birds bought to resell, \$235.60, leaving me a net profit of \$197.27 for my year's work.

I commenced the season of 1920 with twelve cocks and twenty-four hens. We made new breeding cages and since the birds were hung all over the house and made so much extra work with their litter we decided to build a room for them. Our house faces the north so the east side of the house was chosen to give protection from the north and west winds. A room 12x24 feet, with three sides of double glass, with an air space between was added. Shelves were put up around the sides and all the birds moved into this room. In 1920 we raised 175 birds. These were sold by advertising at from \$6.00 to \$15, according to quality of song and color. Bought of others also, taking in this year \$714.50. Since now we bought our seed by quantity we were able to get it at wholesale price, so our expenses were no more than for the previous year.

I have added for this season several imported German Rollers for breeders and trainers, and besides these a number of Oriental birds. Among these are a pair of green shell paroquets from Australia, a pair of bull finches from China, black-headed nuns from India, Japanese nuns, white faras from Java, strawberry finches from Africa, gold finches and siskins from Africa. We put a partition of screen across one end of the room and set aside a space 10x12 feet for the Oriental birds. They have a tree to roost in and nest boxes for their use.

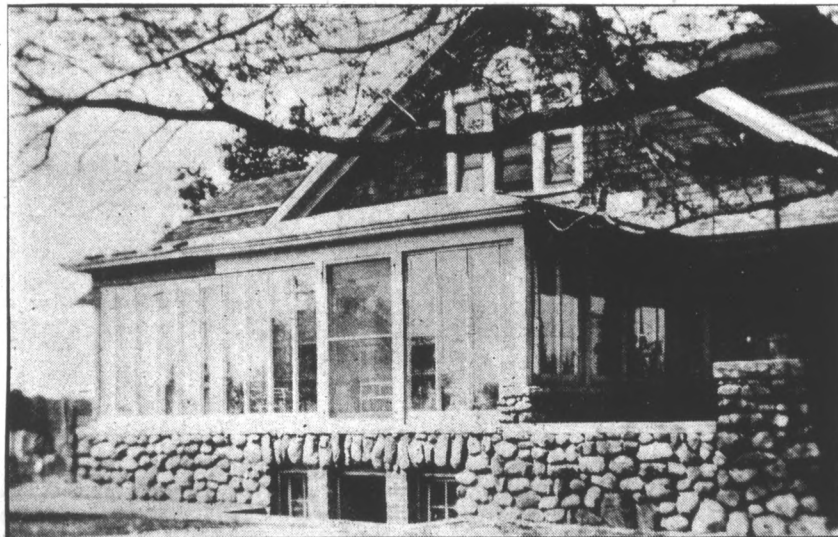
It is very interesting to watch the canaries build their nests and care for their little ones. Birds from one year to four years old can be used for breeding if they are in perfect health. If you want pretty marked birds select one as deep orange as possible and the other mottled or green. Don't mate two dark birds if you want light colored ones. If one bird is small mate it with one of the larger ones. The cock bird must be full of life and song, and if the hen bird is ready to nest she will be seen carrying around

bits of cotton string or paper and looking for a place to put it.

They need extra care previous to mating. Furnish plenty of sharp sand and cuttlefish, a bit of green food often, such as tender dandelion leaves, pepper grass, a catnip, and besides the regular seed a little hard-boiled egg mixed with cracker crumbs, or a bit of bread moistened in sweet milk. A piece of fat salt pork with cayenne pepper kept in the cage is liked. Keep them clean by allowing a bath often and watch out for lice. Every breeder has them to contend with. I go over all the woodwork in the cages with kerosene several times during the season and sprinkle insect powder in the nests, besides dusting the birds. If your bird acts dumpy and you are sure

nest. The hen bird lays from two to six eggs. She commences to set after she lays the first egg. On the thirteenth day the first bird hatches then one each day.

The baby birds are very tiny, with prominent eyes. They grow fast and in twenty-one days are able to leave the nest. The regular food for canaries is canary and rape seed, half and half, with a few linseeds added, but when the canaries have babies to feed we give them special food, such as hard-boiled egg, mixed with cracker crumbs and rolled hemp. The mother pre-digests the food before giving it to the little ones and then gives it to them as saliva. When they leave the nest they are furnished with plenty of soft egg food and left in the cage



The Sun-lit Room in which Mrs. Haynes Raises Her Canaries.

it isn't due to lice, three drops of castor oil will often correct bowel trouble.

Sometimes for a day before the hen bird lays her first egg she will act sick and her feathers will be fluffed up. If she is egg-bound hold her over a wide-mouthed bottle containing boiling water with a piece of flannel over the top, grease the vent, and often after a treatment she will lay after being returned to the nest. There will be no trouble after the first egg is laid. Many breeders remove the eggs each day, substituting a dummy one and keeping the eggs in bran until the fourth one is laid, then replacing all to the nest. By doing this all birds are hatched the same day. I do not do this. The eggs are fragile and must be turned twice a day, so I let the mother attend to them. After the fourth egg is laid the male bird can be taken out and the hen left alone for the next two weeks.

Our breeding cages, are 12x21x13 inches. We use wire nests and give them cotton batting or thoroughly boiled hogs hair. Some birds build perfect nests while others just dump the cotton in. Some birds quarrel at first but after a few days they will generally feed each other and make preparations to go to housekeeping. It takes about a week to build the

with the parents until they can crack seed.

By this time the female will be wanting to nest again. The old nest is taken out and scalded then returned. Put back the male bird and often during the time she is laying he will feed the little ones. When they bother her by sitting in the new nest remove them to a cage of their own. When they can eat seed they are placed in a large cage or the flyroom to grow strong and keep healthy until they are ready for the trainer.

When three months old they are put in the room with the trainer, which is the best bird we can procure, until they have learned their song.

The St. Andreasburg Rollers which were the best singers obtainable before the war, came from St. Andreasburg, a little hamlet located on top of the Hartz Mountains in Germany. Here thousands of young birds are trained to sing by means of a mechanical instrument called the water organ. Some use a bird for the trainer. When they do this the trainer's cage, also those containing the young birds, are kept covered. Several times a day the curtains are opened. The trainer bursts into song and the young birds try to imitate him. In color the German birds range from a mealy yellow

to green and measure from about four to five inches in length.

In England canaries are bred more for color and size than song and as such are known as the Norwich and Yorkshire canaries and the Manchester Cobby. The Manchester canary is the largest of all breeds with a crest on the top of his head. Their song, although loud is not musical. To get deep beautiful color the young birds are fed a specially prepared food with lots of cayenne pepper in it. This food is also fed when birds are moulting.

Birds are shipped all over the world. Canaries are shipped from Germany to three importers in the United States. They are accompanied by an attendant who sees that they have seed and water during the long journey. When we ship them they are put in a wooden box which has several holes bored in for ventilation. The front is a piece of celluloid with screen put over for protection. A double water fountain is used, a wet sponge to keep the air moist and plenty of seed. Thus equipped, birds are sent all over the United States.

In New York City there is a bird hospital owned by Miss Virginia Pope, located at 100 West 65th street. This fifteen-room house is devoted to the care and comfort of birds. When Miss Pope receives a call that a bird is sick and needs a specialist's care she sends for it and the little patient is given expert care until it recovers. At the present time Miss Pope has more than seven hundred birds in her hospital. She not only cares for sick birds but boards pets and does a retail business. Among her high-priced birds is a talented Mexican cockatoo which is worth in cash \$5,000. There is also a big white Malacco cockatoo with a rose-tinted crest which is valued at \$1,000. Some of the most valuable birds in the club at present are the brilliant black and yellow Tropials which can learn the sounds of musical instruments and to sound the bugle call. One of these in a big roomy cage was being prepared for a trip to England. Part of his food was being sent with him, seed and meal worms, and there were full directions for further diet of egg, chicken and apples that could be served to him from the ship's table. There is a surgical department to the hospital where broken wings and legs are set, sometimes satisfactorily, and anyway, the little sufferers are given the best of care and given a chance to recover.

To sum up: The work is pleasant. We built a room especially for them, but that wasn't necessary. Many breeders use their garrets. One lady in Detroit, Mrs. Benson, who raises from six hundred to nine hundred birds each year, does this. For one who could not get about to care for poultry yet wants to earn a little pin money, the raising of canaries even on a small scale, would be pleasant and remunerative. For breeders devoted to raising and caring for birds, The American Canary Journal at \$1.50 per year, is a publication that will prove very valuable.

The Boy Scout's Lincoln

Our Weekly Sermon—By N. A. McCune

WILL books about Lincoln never cease to be written? It seems not. And the impressive thing about it is, that many Lincoln books are not the hashing of old material but are new and fresh facts, never before published. At least three Lincoln books have appeared this year, "Lincoln, Man of God," a study of the religious convictions that dominated him; "Lincoln and Prohibition," a



book by a newspaper man, giving the facts concerning Lincoln's views on the liquor business, and, finally, "The Boy Scout's Life of Lincoln," by Ida M. Tarbell, which has just come to the writer. This is a fascinating book, and may

very well be a Christmas present of many a father to his growing boy. It ought to be in school libraries, also. If it is read during the long winter evenings, the old folks will derive as much pleasure from it, as the boy himself.

Getting such a story into the soul of a boy is worth a lot of lecturing, whipping, nagging and promising. It gets great, big gripping truths into the boyish heart in story form, and that is the form in which they stick. Moreover, the boy knows they are not legends which may not be true, but are stories well vouched for and authenticated. Moreover, they come to him with all the lilt and romance of patriotism. Give the boys biography of the right kind, and they feed on it, like sheep on alfalfa.

TAKE a story like this: Lincoln took to keeping store for a while. His partner was a drinking, irresponsible fellow named Berry. Soon Lincoln and Berry sold out to two other men. These two failed and skipped the country, without making any arrangement for paying the notes which they had taken over. Lincoln was the only responsible party in the lot, and he found himself obligated for the debts of the gentlemen who had taken over the venture, and for the three stores that had been consolidated the year before. He could have gotten out of it, by pleading bankruptcy, but that would not have been in accord with the rules he had laid down for himself. He said he would pay everything, if they would give him time. And he paid it—all of it. But it required years, and he used to speak of the obligation as the National Debt. About this time a man wanted Lincoln to help him in surveying. But Lincoln knew nothing of surveying. The only course open was to get the books and study up. His future employer said he would wait for him. Borrowing the books, he went to work. Night and day he was at it, and in six weeks he was ready. He was probably the happiest youth in all Illinois, for he now had a trade that he liked, and he was a most thorough and accurate surveyor.

All through life one finds this principle of unselfishness, of fraternity, cropping out. Sometimes it rises to the heights of returning good for evil. There was the case of the widow whose cow was killed on the railroad. She asked Lincoln to collect damages, and he took the case. Shortly afterward came a representative of the railroad, offering him a retainer of \$500 if he would represent the railroad. The company did not want an unfavorable decision, as that would establish a precedent, and make them liable for all stock killed on the tracks. Lincoln

needed the money badly enough. "I can't do it," said he; "I told the widow I would represent her." "O, never mind that," said the agent, "she can't pay you anything, and we will pay you well." "I said I had promised to represent the widow, and I will do so, and I will win this case." And he did.

ONE day he was called in as counsel on a very important case, to be tried in Cincinnati. He studied the evidence thoroughly, and went to Cincinnati. But to his surprise and pain, the chief counsel, Edwin M. Stanton, would have nothing to do with him and treated him with contempt. Lincoln endured it all in silence, and listened to the arguments throughout the case. A few years later when he was president and a secretary of war was greatly needed, whom should he appoint but Edwin M. Stanton, the lawyer who had treated him in so contemptuous a manner. A certain young man was accused of murder. Lincoln was well acquainted with the boy and his mother. He wrote, offering his services, free. The trial came on. The most damaging testimony against the alleged murdered was that of a boy who swore he saw Duff strike the fatal blow. "What time of night was it?" Mr. Lincoln asked. "Ten or eleven o'clock." "How could you see him?" "Why, it was full moon, and I could see as clear as when the sun was in the sky." Time and again Lincoln came back to this, and each time the witness said he had seen the blow struck, by the light of the full moon. When it came Mr. Lincoln's time to speak, he pulled out of his pocket an almanac and showed that on the date of the murder, the moon was in its first quarter, and had sunk more than an hour before the murder was committed. The accused youth was acquitted. For the time and toil spent on this case, Lincoln received no pay, and asked none.

IT is thought by many people who have never studied the life of this man, that he became president by accident, and that, once in office, he really did make a most excellent executive. But he was not elected by accident. No man ever earned the right to be president any more fully than Abraham Lincoln. And of all the men of his day he was the most fully equipped for the office. For several years he had been in training for it. Old men still living tell of the wild enthusiasm that was aroused in the contest between Lincoln and Senator Douglas. Men and boys came for many miles to listen to these debates, which were held out of doors. They slept in hotels, houses, or camped out. Whether slavery was to be admitted into the new states of Kansas and Nebraska, and, later, into other states, was the question. Lincoln was absolutely fair in his debates. He called no one names, he was always a gentleman. But he was also shrewd and far-sighted. He framed a question which Douglas was compelled to answer. If he answered it one way, the south would be displeased, and he would lose the southern vote. If he answered it the other way, he would lose the democratic vote in the north. He answered, lost the southern votes and the presidency. Douglas was called the "Little Giant," because of his short stature. Before the debates were over, Lincoln was called the "Big Giant." Boys loved to tell them, and he always had time to stop and talk a moment.

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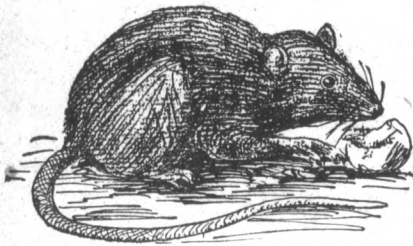
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Our Boys' and Girls' Page

What a Boy Wants for Xmas

A Letter to Uncle Abe from Nephew Bill

Dear Uncle Abe:

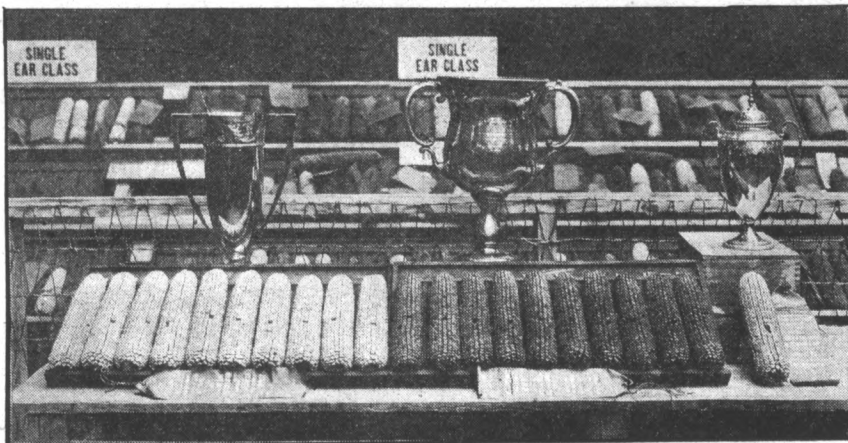
You ask what I want for Christmas and say you might remember a couple other kids in the neighborhood if I can write some suggestions. Well, I know something about Tommy Rankin. He isn't a frivolous kid. Last year I went over to his house with my new sled and asked Tommy what he had for Christmas from his uncle. He brought out a pair of nifty cuff links that came from Chicago.

Then he laid the links back in the drawer and came out and slid down hill on my sled. Tommy says he wishes he had got something more useful for Christmas from his uncle than cuff

Fred got a nice poultry book along with the chickens. The book had pictures in that told how to make things like food hoppers. Fred says he is going to join a poultry club and he is glad his folks gave him the chickens for Christmas instead of buying him a pair of pants or something like that.

You know Uncle Abe that boys have more fun at Christmas than anybody, even girls don't have so much fun. They like dolls and doll houses and baby buggies and such things that don't amount to as much as sleds and footballs and skates.

And father says that Christmas is never as big a day to men folks as it



Prize Corn of Frank Lux at the Left.

links when all his shirts have buttons already.

Then there is Asa Woodbury who wanted some mechanical toys for Christmas and he got a new wool shirt. Asa may have needed a shirt all right, and still he had a couple of fairly good ones. He thinks folks are too blamed practical at Christmas when they give shirts to boys that need something to make them play and think.

Maybe you would like to know what I think about boys' Christmas presents. I like pets and things like that. Once I got a pair of Belgian hares, and say, it was fun. It took a whole week after school to make a hutch for them out of boxes. That was a whole week of fun. And then it was nice taking care of them. Ma said it taught me to be nice to animals. I didn't worry about the nice part of it. Just took care of them because they had big brown eyes and were friendly.

Another time I got a woolly pup. He wasn't a stuffed teddy bear pup but a really live pup that got up on his hind feet and peeked out of the box when the lid came up on Christmas morning. Then he wagged his tail and was named Sport right away. That pup made Christmas a wonderfully fine day. He played until he was so tired he couldn't wiggle and had to curl up on the rug under the Christmas tree and sleep.

And then boys like books. You know the kind of stories about heroes and Indians and sailors that make you read and read until you're through, and then they're good enough to lend to other boys. Boys like books that tell how to do things. Such books furnish fun for all the year.

Fred Thompson down the road, had a trio of pure-bred chickens given to him last Christmas. He raised some nice chicks from them and now has a flock that lays eggs in winter and they make him enough spending money to buy presents for all his folks this Christmas without asking his father for any money.

is to boys. So I want things to play with and not just things a fellow has to have anyway, like a necktie and a pair of pants. From your hopeful and loving nephew.—BILLY.

FRANK LUX, 13 YEARS OLD, IS THE NEW CORN PRINCE.

IN the junior corn contest, the lad, who is the son of the 1919 Corn King, won first position. With his ten-ear sample he competed with Eugene Troyer, son of C. E. Troyer, last year's corn champion, and 500 other members of boys' clubs who, under a new division, were entitled this year to match skill for special board of trade awards.

"Our name is Lux, but farm sense and not luck wins our prizes," said the boy with a grin. "I won these two ribbons in Indiana state contests for boys. I knew I could win here." His ten champion ears of Johnson county white were picked from an acre that yielded 101.6 bushels.

In the ten-ear yellow class the following won first places in their respective regions: John Henderson, Cokato, Minn.; J. Emmet Brunker, Blue Mounds, Wis.; W. J. Ulrey, Attica, Ind.; J. W. Workman, Maxwell, Ind.; E. S. Burt, Benton, La.; W. S. Sonnetman, Haxtun, Colo.

In the ten-ear white class: Raymond Brown, Wilder, Idaho; T. R. Thorpe, Beloit, Wis.; M. H. Thornburg, Winchester, Ind.; Ora Bennett, Browning, Mo.; C. G. Rogers, Gainesboro, Tenn.; Lee Reaney, Grand Junction, Colo.

Regional winners in the junior corn contest are Theo. Peterson, Cokato, Minn.; John D. Quiring, Mountain Lake, Minn.; Eugene Troyer, La Fontaine, Ind.; Frank Lux, Shelbyville, Ind.; George Hoffman, Jr., Wiff, Colo.

"Sambo, I don't understand how you can do all the work so fast and so well."

"Well, boss, I'll tell yuh how 'tis. I sticks de match of enthusasm to de fuse of genery—and I jest natcherly explodes, I does."—M.

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If the dropping-boards are cleaned often the work is much easier. This prevents the hard freezing of the accumulations and makes a healthier house for the hens. Dropping-boards may become quite dusty if not cleaned and dust is a carrier of roup and other diseases.

When you isolate a hen because she is not well, it pays to give her the best of care or apply the hatchet. Sometimes there is the tendency to neglect a bird that is placed in the hospital for observation but such a bird will only be a source of infection to others and never will improve if neglected.—K.

VISIT THE POULTRY SHOWS.

IT pays to attend the poultry shows even if you only raise poultry for eggs. It is a stimulation to see the fine healthy birds that appear in such shows and visit with their owners. Most of us raise poultry for meat and eggs but the men who show their birds are undoubtedly the liveliest workers for the business and now that show types and egg types are coming closer together I believe that more farmer poultrymen are going to make a try at the prizes.

The Black Jersey Giants are a breed of poultry now attracting much attention in the east and Michigan poultrymen are becoming interested in them. The writer believes that they are a practical fowl for Michigan farm conditions and some poultrymen who are not already wedded to an established breed may succeed very well with them and do a lot of business. However, two breeds of poultry on a farm bring about unnecessary complications and the breeder with good stock seldom gains much by discarding it and trying another breed.—R.

POULTRY PROSPECTS GOOD.

AT the annual meeting of the Indiana State Poultry Association held early in October, members reported that business was good. There was no talk of a panic. Most hatcheries had no trouble in selling all the chicks they produced last year and many of them are enlarging their capacity again for this coming season. Breeders report an unusual year and one big commercial poultryman said that he was making more money with the present price of eggs and feed than ever before in the history of his business.

The fact that some people succeed and do it without any unusual opportunities or without an excessive amount of labor or equipment proves that success is probable. If one fellow can do it, so can another. Winter eggs can be obtained. Two things every poultryman should do. 1, keep up the egg records and the monthly count of hens. Face the facts squarely. If you are getting results, you want the figures to prove it, and if you are not getting winter eggs, it is just as important that you know it. Too many people have fooled themselves into thinking they were getting winter eggs because a few hens were laying, when as a matter of fact, the few eggs produced would not pay the board bill. 2, during the next few months take

time to go over your year's records and, if possible, check the weak places in your poultry work. Perhaps you hatched just a little late, not much, but just enough so that you are losing a month or two of good production this fall.

Perhaps you had a self-feeder for the growing pullets during the summer but they didn't eat enough mash even with this feeder. Sometimes extra efforts must be made to induce the pullets to eat this mash. Usually it is some of these small things that change financial results materially. A frank review of your poultry situation should result in some very definite plans for next spring's work and, as we all know, the success or failure of the spring work with poultry largely makes success or failure for our whole year's work.

FEEDING AND WATERING.

A BALANCED mash in the hoppers saves work on winter days. Regardless of the weather you know every bird will have a chance to fill up on a ration suitable for health and egg production. It takes a little worry out of poultry management to know that all of the hens have that feed supply constantly before them. It helps to make the laying-house a little more like the range in spring when the hen can balance her own ration from the bugs, worms, seeds and green food which are plentiful at that time.

Do not feed snow to the hens in place of water, and keep a water supply handy so they will not eat much snow even when permitted outside the house. Clean snow may do little harm but the snow around barns and hen-houses is not clean long and then it cannot be a healthful source of water for the birds.

Empty the water pails each night and you save drumming ice out of the drinking pails the next morning. Hammering the pails will produce leaks and hardware costs money. Freezing water is not best for the hens, but fresh cool water from the well seems more appetizing to them than warm water.—G.

INFLAMED EYES.

About two weeks ago some of the flock of hens began to go blind in one eye by starting with a yellowish coating. Then in a short time the eye would begin to swell and discharge. At first one or two hens were affected but now we have killed about a dozen.—L. W.

Sometimes hens have an inflammation of the membrane of the eyeball. The cornea becomes rather dull or cloudy and soon the bird loses the sight of the eye. If the inflammation in the eye is caused by a foreign body such as a bit of straw or dust, the material can often be removed and the eye bathed with a saturated solution of boracic acid.

Frequently the trouble is not noted until the bird is entirely blind in the eye and the inflamed condition has existed so long that successful treatment is impossible. Undoubtedly a few birds in a large flock might become blind, even if conditions were as ideal as possible. But I believe that most eye troubles are due to dusty litter which makes the air in the poultry house dirty when the birds scratch for grain. In cases of severe colds and roup the eye will swell shut and discharge. This can be largely prevented by sanitary precautions in the poultry house. Respiratory infections spread rapidly and sick birds should be located at once.—K.

SPECIAL NOTICE

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This is a campaign to help everybody get better acquainted with the Fouke Fur Co. of St. Louis, Mo., and to show trappers and fur shippers how much more satisfaction they can get by shipping furs to Fouke Fur Co. for top market prices with better grading. You can win—costs nothing to try—take a pencil and paper and start in. Extra copies of puzzle picture sent free on request.

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Anyone can try for the prizes—no one sends any money. If your answer is awarded First Prize by the judges you will win \$25.00. But we make a special offer whereby you can win eight, fourteen or even forty times, that much money by shipping your raw furs to the Fouke Fur Co., St. Louis, in addition to sending in your answer to the puzzle game. You Will Be Paid Highest Market Prices For Every Skin You Ship—no five per cent or any other commission will be deducted—check will be mailed to you within a few hours after your furs are graded—no delay—regardless of whether or not you win a prize you will get full value and big cash returns for your shipment promptly.

win \$200 instead of \$25; if at least twenty five dollars worth of your furs have been received you will win \$350 instead of \$25; if at least fifty dollars worth of your furs have been received you will win the Grand Prize of \$1,000 instead of \$25.

Send in your answer as soon as you complete it—state whether or not you are going to send furs in. Ship your furs in any quantity at any time during the contest—no need to hold them to make just one shipment. The amounts of your different shipments will be added together at the close of the contest and if the Judges declare you a winner then you will get whatever prize the total amount of your shipment entitles you to.

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4.....	5.....	50.....	75.....
5.....	5.....	30.....	60.....
6.....	5.....	25.....	50.....
7.....	4.....	20.....	40.....
8.....	4.....	15.....	30.....
9.....	4.....	15.....	25.....
10.....	3.....	10.....	20.....
11.....	3.....	10.....	20.....
12.....	3.....	10.....	10.....
13.....	2.....	5.....	10.....
14.....	2.....	5.....	8.....
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Guernsey cow coming four, recently fresh. One due in March. Fine large heifer calf also one bull calf. These are the kind that make Guernsey history. Free from tuberculosis and abortion. Pre-war prices. G. A. WIGENT, Watervliet, Mich.

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BORN JUNE 2nd 1920 by MAPLECREST DE KOL HENGERVELD whose three sisters have each produced over 120 lbs. of butter in a year. TWO of them former WORLDS CHAMPIONS. Calf's dam by an own brother of a 1248 lb. cow. Write for pedigree. F. B. LAY, Kalamazoo, Mich.

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We have what you want in BULL CALVES, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

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Offers the 10 mos. old bull, Cluny Maplecrest Colantha Si ver No. 326204, Born Mar. 22, 1920 Sire—Maplecrest Application Pontiac Sire's dam, 35 lb. butter 7 days, 1344 lbs. butter, 23421.2 lbs. milk in year. Maplecrest's 24 A. R. O. daughters average 20.2 lbs. butter, average 420.3 lbs. milk at 2 y. 11 m. 8 s. b. daughters average 14136.8 lbs. milk and 630.44 lbs. butter at 2 y. 7 m. 6 of these 10 months records. Dam—a 22 lb. Jr. 4 yr. old granddaughter of Colantha Johanna Lad. Dam's Dam—milked over 145,000 lbs. in 14 milking periods. He means increased production for the herd he heads. Price \$150.00 R. B. McPHERSON, Howell, Mich.

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On the 1921 Show Circuit For Sale at a low price. Out of an A. R. O. granddaughter of Pontiac Korndyke. Sired by our SENIOR SHOW BULL, Model King Segis G124 32.37 lbs. GRAND RIVER STOCK FARMS, Corey J. Spencer, Owner 111 E. Main Street, Jackson, Michigan. Herd Under State and Federal Supervision

Reg. Holstein Friesian bulls sired by a gdson of King of the Pontiacs, ages from six months to one year old, nicely marked and good individuals priced to move them to make room for winter calves. Herd under Federal and State supervision, haven't had a reactor in the herd. Henry S. Rohlf, R-1, Akron, Mich.

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

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Few cows and bull calves. Best breeding line. Guaranteed. Tuberculin tested twice a year. If you have no money will take bankable note. E. W. Vasvary, 411 Free Press Building, Detroit, Mich., Main 1267.

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Jersey Cattle, Majesty strain, Herd on State accredited list, R. of M. testing constantly done. Bulls for sale. ALVIN BALDEN, Phone 148-5, Capac, Mich.

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Now offering—Three bulls ready for service. Mastodon, Olanman, Emancipator blood in its brood for spring farrow. See them. POPE BROS. CO., Mt. Pleasant, Mich.

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that will put weight on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. We guarantee every animal to be a breeder. Federal Test. One hour from Toledo, Ohio, N. Y. C. R. R.

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Choice boars. Sows bred or open. Satisfaction guaranteed. W. H. EVERY, Manchester, Mich.

Duroc Jerseys A few extra good fall boars, and a choice lot of spring boars of the heavy boned type popular blood lines at reasonable prices. DRODT & BERNS, Monroe, Mich.

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SPRING BOARS sired by Panama Special 55th, Big Bone Giant Sensation and Brookwater Demonstrator. The best of the breed. Order one by mail or come to the farm. You will like them when you see them. Prices reasonable.

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spring boars that will improve your hogs, of Orion Cherry King, Col. and Pathfinder breeding, at reasonable prices. Write us your wants. Bred sows and gilts all sold. W. C. TAYLOR, Ilan, Mich.

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PUREBRED DUROC sows at farm prices. C. M. BAKER, Wooster, Ohio

Pure-Bred Duroc Jersey Hogs: we usually have good boars and sows of all ages for sale. Reasonable prices. Larro Research Farm, Box A, North End, Detroit, Mich.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscribers. Letters should state fully the history and symptoms of each case and give name and address of the writer. Initials only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

Roup—Gapes.—Is there any cure for roup or gapes? Have a lot of chickens and a number of them have it, and so far have been unable to get anything to cure them, or do them any good. Can you give me a remedy that will cure this disease? Friends have advised me to kill the chickens as soon as they get the roup, in order to save the rest. R. W. C., Chicago, Ill.—Doubtless your neighbor gave you good advice, as it will seldom pay to treat a case of diphtheric roup. Cleaning of the yards and houses and keeping them clean, as well as frequently disinfecting them has the effect of checking the spread of this disease. The disease assumes various forms, affecting different parts of the head. The gapes is a parasitic disease of birds, caused by the presence in the trachea, or windpipe, of a worm called Syngamus trachealis. In treating this ailment you should separate the sick birds from the well ones as far as possible, clean up the coops, pens and houses where they have been. By careful manipulation the worms may often be removed from the windpipe and the chicken quickly cured in that way. Use either a feather or a long hair from the horse's tail. The feather should be stripped up to near the point and moistened with either kerosene or turpentine. Depend more upon prevention than effecting cures.

Unhealthy Condition of the Skin.—I have a six-year-old mare that has skin eruption all over shoulders, back and part way down sides. The coat is greasy, grooming fails to clean the skin and hair. She is very fleshy but not itchy. She was in this condition when four years of age, since then has been pretty free from it. W. A. D., St. Clair, Mich.—Clip her, occasionally wash with soap and water, and apply one part coal tar disinfectant and thirty parts water to itchy parts of body daily.

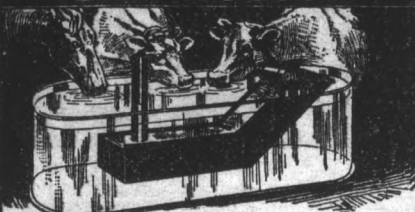
Small Tumors.—We have a heifer that is troubled with bunches on udder and different parts of the body, but they do not appear to cause much pain or discomfort. They contain no pus and I am inclined to believe they are not warts, nor abscesses, but tumors; the general condition of the cow is good. A. L., Detroit, Mich.—It is considered good practice to cut out nearly all such tumor growths and apply tincture of iodine to the smaller ones every day or two. Give her a teaspoonful of sulphur and a teaspoonful of Fowler's solution of arsenic at a dose in feed once a day.

Indigestion.—We have a young cow that had three different attacks of bloating last spring, seemed all right through the summer but a short time after freshening she began to bloat and has lost flesh ever since. C. L. G., Port Huron, Mich.—Give her two drams of ginger, four drams of powdered gentian and one ounce of bicarbonate of soda at a dose in feed two or three times a day. Change her feed and keep her bowels open.

Teat Stricture.—A short time ago I bought a four-year-old Holstein cow which freshened a few days later. When I milked her I found it impossible to draw milk from either hind teats, the front ones were all right. I called the veterinarian, who inserted tubes and drew the milk. He said she had strictures in both teats and recommended drying both blocked quarters. When tubes are used I get one quart from hind quarters and three quarts from forequarters. Can she be cured? The man from whom I got her made affidavit that she was right when he dried her off in October, but it don't seem possible. She is a perfect specimen of a good cow. W. E. H., Battle Creek, Mich.—If the whole trouble is stricture of teat canal, why don't you have the canal slit on four sides, then dilate it? The writer has found satisfactory results to follow this operation, but of course if the udder is blocked and semi-functionless then leave her alone.

Heifer Gives Bloody Milk.—My heifer occasionally gives bloody milk and I would like to know what to give her. C. L., Sand Lake, Mich.—Give her a teaspoonful of nitrate of potash at a dose twice daily.

Empire Oil-Burning Tank Heater

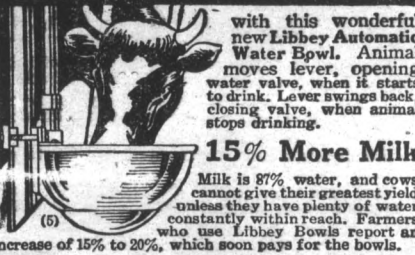


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Heavy galvanized iron—70 gal. capacity. Oil burner directly under trough—guaranteed not to freeze. Keeps water warm at a small cost. Keeps hogs healthy—fatten faster on the same feed.

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We also manufactured in every locality. Special factors desirable. Write for prospectus and price list. Buy direct from factory.
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Cow Waters Herself



with this wonderful new Libbey Automatic Water Bowl. Animal moves lever, opening water valve, when it starts to drink. Lever swings back, closing valve, when animal stops drinking.
15% More Milk
Milk is 87% water, and cows cannot give their greatest yield unless they have plenty of water constantly within reach. Farmers who use Libbey Bowls report an increase of 15% to 20%, which soon pays for the bowls.
Libbey Automatic Water Bowls
are the most sanitary and successful ever invented. Each bowl controls its own water supply, operated entirely by cow, and may be put at any height, or in any stall or pen. No float tank. Cannot overflow; cannot get out of order. Almost no water left in bowl to become stagnant. They save labor and feed and increase milk. Prevent spread of contagious diseases, as each cow has her own bowl and no water can pass from one to another, as with old-style bowls. Very simple and easy to install. Write for circulars and prices, also FREE DAILY MILK AND FEED RECORD.
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Burns coals, straw, wood or coal. Heats twice as fast as others. No welded seams to leak or rust. No fire danger. Ashes easily removed.

Keeps Water at 70°
Stock drink more, gain faster. Soon pays for itself in greater gains and bigger milk yields. Agents wanted.
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\$450 PUTS THIS NEW MILL ON YOUR OLD TOWER

ALBION
Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main frame bearing subject to wear. This is oilless, and easily replaceable. Governed by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your churning hours now with a good Windmill? This is your chance—F. O. B. Albion. Erect it yourself. Ask your dealer, or write direct to
Union Steel Products Co. Ltd.
No. 525 N. Berrien Street, ALBION, MICHIGAN, U. S. A.

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60 Days' Trial, 10-Year Guarantee.
Has many new patented features. Easy starting 4 H.P. electric governor, specially designed engine with magnetic Safety Friction Clutch starts and stops saw. Built right throughout by old reliable firm—result of 25 years' engine and log saw experience. Write today for latest FREE Catalog of LONG Log Saws—a card will do. GEO. E. LONG, Pres., LONG MFG. CO., Dept. 205, Cherryvale, Kan.



MINERAL COMPOUND
FOR SYMPTOMS OF HEAVES
In use over 50 yrs.
Booklet Free
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MINERAL REMEDY CO. 463 Fourth Ave., Pittsburgh, Pa.

THE CHAMPIONSHIP AWARDS AT THE INTERNATIONAL.

Following is a list of the awards in the various classes of live stock at the recent International:

Cattle—Breeding Classes.
Shorthorns.—Senior and grand champion bull, Cloverleaf Royal, W. C. Rosenberger & Sons, Tiffin, Ohio; junior champion bull, Bloomdale Leader, Carr Bros., Bad Axe, Mich.; junior and grand champion female, Countess Vesta, W. J. and B. A. Thomas, Shelbyville, Ky.; senior champion female, Lovely Thaxton, Maryvale Farms, Youngstown, Ohio.

Herefords.—Senior and grand champion bull, Harlequin, W. A. Pickering, Kansas City, Mo.; junior champion bull, E. H. Taylor, Jr., Frankfort, Ky.; junior and grand champion female, Lady Woodford, J. N. Camden, Versailles, Ky.; senior champion cow, Donna Wood, N. E. Parish, Reading, Pa.

Aberdeen-Angus.—Senior and grand champion bull, Prince Marshall, E. E. Blandford, Hayward, Okla.; junior champion bull, Brevault, Julius Tudor & Son, Iowa City, Ia.; senior and grand champion cow, Ensign's Eline of Page, Hartly Stock Farm, Page, N. D.; junior champion cow, Katinka 3rd of Page, Hartly Stock Farm.

Galloways.—Senior and grand champion cow, James Frantz & Sons, Bluffton, Ohio; junior champion bull, Frantz; senior and grand champion cow, H. L. Fluke, Bath, S. D.; junior champion heifer, Fluke.

Milking Shorthorns.—Senior and grand champion bull, Bonvue Farms Co., Denver, Colo.; junior champion bull, The Otis Herd, Willoughby, O.; senior and grand champion female, Peter Traynor & Son, Koshkonong, Wis.; junior champion cow, The Otis Herd.

Polled Shorthorns.—Senior and grand champion bull, Leemon Stock Farm, Hoopeston, Ill., on Ceremonious Sultan; junior champion bull, Gallup and Biloins, Athol, S. D., on Sultan of Riverview; senior and grand champion female, W. W. Rose & Sons, Rossville, Ind., on Marshall's Rosemary; junior champion female, Leemon Stock Farm.

Red Polled.—Senior and grand champion bull, J. W. Larabee, Earlville, Ill., on Antone Charmer; junior champion bull, Larabee on Teddy's Boy; senior and grand champion cow, Larabee on Lady Nectar; junior champion cow, George Haussler & Sons, Holbrook, Neb., on U Ruby Rose 3rd.

Fat Cattle Classes.
Shorthorns.—Champion steer, Chas. and Walter Denby, Carlville, Ill., on Larchmont Stamp; herds, 1, Minnesota; 2, Iowa; 3, Haylands Farm, Sharpsburg, Ill.; 4, Kansas.

Herefords.—Champion steer, E. H. Taylor, Jr., on Woodford Marvel; herds, 1, E. M. Cassaday & Sons, Whiting, Iowa; 2, James Price, Onalaska, Wis.; 3, Pickering; 4, Missouri; 5, Oklahoma.

Aberdeen-Angus.—Champion steer, California on California Standard; herds, 1, Iowa; 2, Minnesota; 3, J. C. Simpson, Muskogee, Okla.; 4, Kansas.

Red Polls.—Champion steer, Adolph Arp, Eldridge, Iowa, on Easy C. Marham.

Galloways.—Champion steer, Nebraska on Peter the Great.

Grades and Crossbreds.—Champion spayed heifer, California on Lulu Mayflower; herds, 1, California; 2, J. Tudor & Sons, Iowa City, Ia.; 3, Carl Rosenfeld, Keely, Ia.; 4, Missouri.

Champion yearling, California, on Lulu Mayflower; champion calf, Californian Bystanders; grand champion, California on Lulu Mayflower.

Carcass Class.—Grand champion by Michigan Agricultural College on College Erin.

Sheep—Breeding Classes.
Shropshire.—Champion ram, George McKerrow & Sons, Pewaukee, Wis.; champion ewe, John D. Larkin, Buffalo, N. Y.

Hampshire.—Champion ram, J. N. Camden, Versailles, Ky.; champion ewe, Mrs. Minnie Miller, Wendell, Ida.

Oxford.—Champion ram, R. J. Stone's Sons, Stonington, Ill.; champion ewe, George McKerrow & Sons.

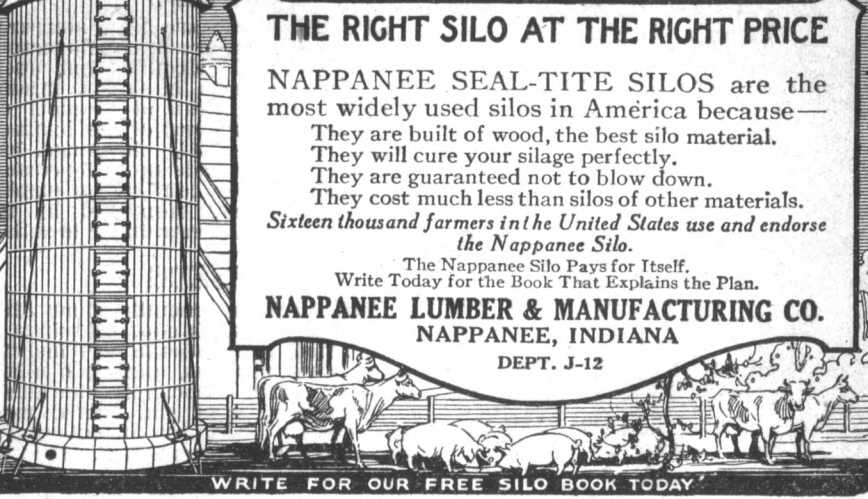
Lincolns.—Champion ram and ewe, J. H. Patrick, Ilderton, Ont.
Cotswolds.—Champion ram and ewe, Anoka Farms, Waukesha, Wis.

Dorsets.—Champion ram and ewe, Heart's Delight Farm, Chazy, N. Y.
Cheviots.—Champion ram and ewe, Glimmerglan Farms, Cooperstown, New York.

Southdowns.—Champion ram, John D. Larkin; champion ewe, Iowa.
Rambouillets.—Champion ram, Orth & Mathews, McGuffey, O.; champion ewe, King Bros Co., Laramie, Wyo.

Fat Sheep Division.
Shropshires.—Champion wether, Jess C. Andrew, West Point, Ind.
(Continued on page 591).

NAPPANEE SEAL-TITE SILOS



THE RIGHT SILO AT THE RIGHT PRICE

NAPPANEE SEAL-TITE SILOS are the most widely used silos in America because—
They are built of wood, the best silo material.
They will cure your silage perfectly.
They are guaranteed not to blow down.
They cost much less than silos of other materials.

Sixteen thousand farmers in the United States use and endorse the Nappanee Silo.

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all ages sired by Callaway Edd 1918 world's grand champ. boar and C. C. Schoolmaster 1919 world's grand champion also Wonder Big Type and Giant Buster. Write your wants, all stock shipped on approval.
CRANDELL'S PRIZE HOGS, Cass City, Mich.

HOGS
Chester Whites quality March boars and fall pigs at a very low price, satisfaction guaranteed. F. W. Alexander, Vassar, Mich.
CHESTER Whites—Fall pigs only, for sale. A combination of Wildwood Prince and Big Sensation blood lines. G. D. Springer, R. 6, Grand Rapids, Mich.

HOGS
Like This
the original big producers
RAISE CHESTER WHITES
I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at six months old. Write for my plan—More Money from Hogs.
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O. I. C. BOARS
shipped C. O. D.
J. CARL JEWETT, Mason, Mich.

O. I. C.'s.
April and May boars at reasonable prices. Weber Bros., 10 Mi. and Ridge Rds., Royal Oak, Mich.
O. I. C.'s. one yearling boar and last spring pigs, either sex not akin. Big growly stock, 1/2 mile west of Depot City, Mich. OTOB SCHULZE, Nashville, Mich.
O. I. C. Spring boars and gilts not akin. We breed and sell the Grand Champion Boar at West Mich. State Fair. We ship C. O. D. and Reg. free. GEO. M. WELTON & SON, Alto, Mich.

For Sale O. I. C. Serviceable Boars
H. W. MANN, Dansville, Mich.

O. I. C. & Chester White Swine
STRICTLY BIG TYPE WITH QUALITY. Have a few good service boars left that I will sell CHEAP. Also a fine lot of Gilts, bred for spring farrow. They are of our Prize winning blood lines and priced to sell. Newman's Stock Farm, R. 4, Marlette, Mich.

O. I. C's, Boars and Gilts May farrow. Size and quality guaranteed. Ship C. O. D. Elm Front Stock Farm, WILL THORMAN, Dryden, Mich.
O. I. C's. Aug. and Sept. pigs and bred gilts for Mar. farrow. CLOVER LEAF STOCK FARM, Monroe, Mich.
O. I. C's Choice April boar from a grand daughter of Wildwood Prince and from a son of Petroleum Giant. A. J. Barker & Son, Belmont, Mich.

O. I. C's April boars all sold, one April gilt left and Aug. pigs. MILO H. PETERSON, R. 2, Ionia, Mich., "Elmhurst Farm"

Gilts All Sold
Could have sold many more, and have only five more boars left for sale. Order Early. Remember the Spotted Poland China is the coming farm breed for Michigan. Address W. I. BEARCE, or CHAS. BABCOCK, Ovid, Michigan

LARGE TYPE POLAND CHINAS
Spring pigs of either sex. Sired by F's Clansman Grand Champion Boar 1920 and by Smooth Buster 1st. Jr. yearling 1920. Priced to sell. Write or see them. A. A. Feldkamp, R. 2, Manchester, Mich.
LEONARD'S Big Type P. C. Herd headed by Leonard's Liberator 488,255, the tallest, longest and heaviest boned pig for his age in Mich. Call or write, stock in season. Fall pigs at Bargain Prices. E. R. LEONARD, St. Louis, Mich.

Big Type Poland China
fall pigs either sex, sired by Clansman Buster and by Hove's Giant. Also gilts bred for spring farrow to Hove's Liberator. Priced to sell, satisfaction guaranteed. DORIS HOVER, Akron, Mich.
Big Type P. C. some very choice boars double Im-Burne, out 100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

The Thumb Herd Big Type Poland Chinas. For 30 days I am offering bargains in Poland Chinas. My herd boar which won five firsts grand champion at Bay City, 2nd at State Fair in 1920. Spring boars, gilts and pigs, all ages by him. Peace and Plenty and Tuscola Lad. Out of Miss Smooth Jumbo, Model Magnet, Orange Maid and others. Largest herd of prizewinners in the thumb, sold on approval. Write your wants. E. M. ORDWAY, Millington, Mich.

L.T.P.C. \$15, \$20 & \$25
We have a fine lot of fall pigs sired by Harts Black Price and Right Kind Clan. HART, FULCHER and CLINE, address F. T. Hart, St. Louis, Mich.

Fire Sale is a place for bargains. We can undersell any fire sale on earth. We are making a special price on Big Type Poland China Boars Sired in the purple. We can furnish just what you want. Over 100 head on hand. Bell Phone. JNO. C. BUTLER, Portland, Mich.

L. S. P. C.
1 yearling herd boar as good as you ever saw, spring boars by Nov. 1st. You can't beat the price nor the breeding. H. O. SWARTZ, Schoolcraft, Mich.

LARGE TYPE P. C.
Home of the largest herd of individuals in Michigan. Come and see. Compare and be convinced, expenses paid if not as represented; priced in keeping with the times. Young boars ready to ship, that grow into winners, also sows. W. E. Livingston, Parma, Mich.

Big type Poland China boars and gilts of April farrow. Also one yearling boar that is hard to beat. Prices right. CLYDE FISHER, R. 3, St. Louis, Mich.

BIG TYPE Poland Chinas, leading strains, all ages, and bred sows and gilts. G. A. BAUMGARDNER, R. 2, Middleville, Mich.

L.T.P.C. Model spring boars and gilts now ready to ship. Something good at a right price. W. J. HAGELSHAW, Augusta, Mich.

Big type P. C. Spring boars and choice fall pigs, either sex. Sired by Big Bob Mastodon. Priced low guaranteed. C. E. Garnant, Eaton Rapids, Mich.

Poland China gilts sired by a 900 lb. two years old and bred to a son of Mich. 1921 Grand Champion. ROBERT MARTIN, R. 3, Woodland, Mich.

Hampshires place your order for bred gilts, and fall pigs at a bargain. 9th year. JOHN W. SNYDER, R. 4, St. Johns, Mich.

SHEEP
Shropshires 7 yearling rams also ram and ewe lambs. Buttar and Senator Bibby breeding. C. J. Thompson, Rockford, Mich.

A Real Bargain at Kope Kon Farms
We offer 40 big healthy yearling Shropshire and Hampshire Rams all registered at \$25.00 each. Come or write while the picking is good. S. L. WING, Coldwater, Mich.

The Maple's Shropshires
Rams all sold. Will sell a few ewes from 1 to 4 yrs. old, bred to Michigan's Champion Ram. Priced \$25.
C. R. LELAND, Ann Arbor, Mich.

Registered Shropshire Rams
Priced to sell. Dan Booher, R. 4, Ewart, Mich.
Reg. Shropshire Rams and ewes all ages. Quality and price are right. Will ship on approval. H. F. Mouser, R. 6, Ithaca, Mich.
Shropshires—Yearling and lamb rams with quality, sired by an imported Winton ram. Write for prices and description. W. B. McQuillan, Howell, Mich.
Registered Hampshire ewes at bargain prices. Also have some good ram lambs left. W. W. CASLER, Ovid, Mich.



GRAIN QUOTATIONS

Tuesday, December 13.

Wheat.
 Detroit.—Cash No. 2 red \$1.19; No. 2 mixed and No. 2 white \$1.16.
 Chicago.—No. 3 hard \$1.06½; December \$1.11¾.
 Toledo.—Cash No. 2 red \$1.16¾; May \$1.24.

Corn.
 Detroit.—Old Cash No. 2 yellow at 58c; No. 3 yellow 57c; new yellow Cash No. 3, 55c; No. 4, 53c.
 Chicago.—No. 2 mixed 47½@48¼c; No. 2 yellow 47¼@48¼c.

Oats.
 Detroit.—Cash No. 2 white 38½c; No. 3 white 35½@36½c; No. 4, 31@34c.
 Chicago.—No. 2 white 35½@36c; No. 3 white 33¼@35c.

Beans.
 Detroit.—Immediate and prompt shipment \$4.30 per cwt.
 Chicago.—Choice to fancy hand-picked Michigan beans at \$4.75@5; red kidney beans \$7@7.50.
 New York.—The market is steady. Choice pea \$5.15@5.25; do medium at \$4.75@5; red kidney \$7.50@7.75.

Rye.
 Detroit.—Cash No. 2, 88c.
 Chicago.—84c.
 Toledo.—Cash 88c.

Seeds.
 Detroit.—Prime red clover, cash at \$12.75; alsike \$11; timothy \$3.15.
 Toledo.—Prime red clover at \$12.80; alsike \$11; timothy \$3.10.

Hay.
 Detroit.—No. 1 timothy at \$19@20; standard and light mixed at \$18@19; No. 2 timothy \$17@18; No. 1 clover mixed \$16@17; rye straw \$13.50@14; wheat and oat straw \$12.50@13 per ton in carlots.

Feeds.
 Detroit.—Bran \$28.50; standard middlings at \$28; fine middlings at \$28; cracked corn \$28; coarse cornmeal at \$25; chop \$22.50 per ton in 100-pound sacks.

WHEAT

Prices for wheat averaged slightly lower during the past week but the net loss was small. On the decline foreigners bought wheat freely. The market was stimulated also by prospects of a loan to Germany and a moratorium so far as payment of reparations is concerned. Domestic purchases of flour are only moderate although an increase was noted on the recent break. The southwest has had only partial relief from drouth. Private reports suggest a condition for the winter wheat crop of less than 80 per cent for the entire country, by far the lowest ever seen. The official report will not be available until December 29. Some of the wheat bought recently in America and Australia by Japan is to be shipped into Russia.

CORN

The shortage in European feed crops and the cheapness of corn have resulted in large export sales which have featured the cash demand recently. Country offerings of corn increase on the advances in prices. Husking started unusually early this year but the movement thus far has not been large in comparison with the crop. It is possible that the high value of corn for feeding, especially to hogs, may curtail shipments to primary markets but it is quite certain that reasonably heavy sales will be made by producers during the winter. The War Finance Corporation is expected to give substantial aid to those wishing to hold or to feed corn, but thus far no special plan for the purpose has been announced.

OATS

The supply of oats, based on the crop estimate and the carryover, is about as large as the average amount consumed on farms in the last few years. Usually more than 300,000,000 bushels have reached primary markets each year. Thus far the price has not responded to the apparent shortage to any marked extent. Since Canada has a liberal supply, exports from this country evidently will not be large this year, a fact which must be considered in comparison with the average of recent years during which rather large quantities of oats were sent abroad.

SEEDS

Although prices are high compared with other farm products, cloverseed prices advanced slightly last week. Timothy seed also is slowly gaining ground. The bureau of markets reports that 55 per cent of the commercial surplus of 1921 cloverseed had been sold by growers up to November 26. About 70 per cent of the surplus alsike clover had been sold by the same date but the remainder is rather strongly held.

FEEDS

Feed markets generally show little change from a week ago. Offerings of wheat feeds from storage have increased in some sections, causing a slight loss in values. Domestic consumers of cottonseed meal and linseed meal are buying little, but exporters are taking moderate quantities. Demand for corn feeds is limited.

HAY

Although cold weather has increased shipping demand for hay at western distributing markets, it remains below normal for this season of the year. Receipts are not large but the market has weakened again in the last few days.

POULTRY AND EGGS

Cold storage holdings of eggs for the entire country are about two and one-half per cent below the average. If the decrease in holdings during December is as high as during November, the carryover of eggs on January 1 will be small. Receipts as measured by the four leading cities are still running considerably higher than at this time last year but consumptive demand is equal, apparently, to the supply. Values are almost 100 per cent higher than at the low point of the season last spring and in a few cities boycott movements have been started

which may tend to check the rapidity of further advances.

Latest quotations were as follows: Detroit.—Fresh candied 50@60c per dozen. Poultry, hens 21@23c; roosters 13c; turkeys 30@38c; ducks 24@25c; geese 20@21c.

BUTTER

The tone of the butter market was unsettled most of the week, declining early only to advance sharply later on. The abnormal relationship between Chicago and the eastern markets was partly, but not entirely, corrected. The wide discount on storage butter eventually turned consumptive demand in that direction and withdrawals from storage thus far in December have been very heavy. Reports by creameries upon production and receipts at the four leading cities show a smaller increase compared with the corresponding period of 1920 than they were showing a few weeks ago. Prices for 92-score fresh butter were:

Chicago 45½c; New York 46c. In Detroit fresh creamery in tubs is quoted at 38@38½c.

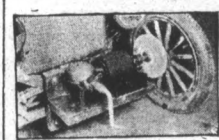
POTATOES

Although the movement of potatoes from producing sections has increased slightly, the total number of cars rolling is not large. Demand is rather slow but prices have advanced with eastern city markets quoted at \$2@2.20 per hundred pounds for eastern round whites. The Chicago wholesale market is quoted at \$1.65@1.75 per hundred pounds sacked, for northern round whites. At Michigan shipping points f. o. b. prices for round whites are \$1.50@1.60; at Wisconsin points \$1.50, and at Minnesota points \$1.35@1.45.

WOOL

It is believed that consumption during November and thus far in December has been at about the same rate

as during the preceding month or two so that the total for 1921 will be substantially greater than for the previous year. Exports from the woolen goods trade are rather discouraging but the operation of mills has not been materially affected thus far. The bureau of markets recently issued an analysis of the world's wool situation in which the conclusion was drawn that the total stocks are ample. They are not so large, however, as they were a year and a half ago. It is evident that price



JACK The Little GIANT

Farmers, you can now use your Ford to fill silos, cut wood, grind feed, grind sickle, and so forth.

Jack can be attached to engine in ten minutes, and car moved from place to place without detaching.

No changing wheels, wearing out differentials, or acking car.

One man filled 10x30 silo, ¾ full in 5 hours. Agents wanted. For price and particulars, write

V. G. BIGELOW,

847 Ionia Ave., So., Grand Rapids, Mich.

Tobacco Natural Leaf. Sweet, mellow hand-picked. Chew 5 lbs. \$1.50; 10 lbs. \$2.50. Smoking, 20 lbs. \$4.00. Furnish free receipt for preparing. Quality, del. guar. Farmers Tobacco Exchange, Sedalia, Ky.

CURE That Vicious, Balking, Biting, Kicking, Run-away Horse; subdue him completely. Failure impossible. Easy when you know how. Send a dollar bill to H. G. POLLOCK, Sta., O. Cincinnati, O.

ICE PLOWS PLOWS \$18.70 UP
TOOLS Wm. H. PRAY, Mfg.
 LaGrangeville, N. Y.

FOR SALE: 8 ft. Cedar Grape Posts, 15c. Picked up at our yard.
 Barnes Wire Fence Company, Detroit, Michigan

Equipment for manufacturing auto trailers, worth investigating. 2325 Grand River Ave. opp. Case School, Detroit, Mich., Phone Cherry 4157.

Farms and Farm Lands

110-Acre Farm; Modern House With Bath; 3 Horses, 8 Cattle

Sow, season's crops, fodder, manure spreader, gas engine, cream separator, machinery, vehicles, tools included; on improved road, motor bus passes; close live RR town, convenient large city markets; fertile, loamy tillage; river-watered pasture; wood, timber; fruit, berries; practically new 6-room and bath, cement block house, furnace, piazza, good basement barn, silo, hog and poultry houses. Other interests force sacrifice only \$8800 part cash, easy terms. Investigate. Catalog free. B. B. Burlington, Lawton, Mich.

144-Acre Farm; \$5000 Barn With 4 Horses, 27 Cows and

Young stock, reg. bull, poultry, hay, fodder, cream separator, drill, full machinery, tools included; splendid farming district; near village, city; 120 acres loamy tillage; pasture, woodland; fruit, sugar grove; good 8-room house; 98-ft. basement barn valued \$5000, large silo, granary, shop, poultry house. Owner retiring sacrifices \$7500, less than half cash, easy terms. Full details page 23 Illus. Catalog 1100. Bargains. FREE. STROUT FARM AGENCY, 814 BQ. Ford Bldg., Detroit, Mich.

Michigan Dairy Farm

300 acres in Gladwin Co. Flowing well, spring stream, no waste land, two dwellings, plenty of buildings, farm implements included for quick sale. \$15,000 long time to pay, 6% int. send for description.
 U. G. REYNOLDS, owner, Gladwin, Mich.

Wanted 160 A. Farm, equipped, re- from Detroit, in exchange for \$8,000 equity in 4-flat in good residential section of Detroit, (well rented, income \$3,000 per year) and 8-room house in Strathmoor, one of best Grand River suburbs, with extra lot and 2-car garage. Address Box K1217, Michigan Farmer, Detroit, Mich.

WANTED To hear from owner of land for sale.
 O. K. HAWLEY, Baldwin, Wis.

FARM HELP

Wanted: Position as manager on general or dairy farm. Have had wide experience in feeding and keeping records for M. A. C. Also in remodeling buildings. Best of references. C. N. KING, 25 Stout Place, Pontiac, Mich.

FERRETS

Ferrets My strain extra fast on rats and rabbits. Quick safe delivery in healthy condition guaranteed. Price males \$5.00, females \$5.50. Order from Advt. J. G. Sutton, Decatur, Mich.

500 Ferrets For Sale

C. J. DIMICK, Rochester, Ohio

1000 Ferrets they hustle RATS and rabbits, price list free.
 N. A. KNAPP & SON, R. 2, New London, Ohio

FERRETS for killing rats also hunting rabbits. Instruction book and price list free.
 LEVI FARNSWORTH, New London, Ohio

DOGS

Beautiful Registered Puppies Farmers prices. Write us.
 Meadowland Collie Kennels, Edmore, Mich.

Trained American Fox Hounds Rabbit and Skunk dogs all ages. Send stamp.
 W. R. LECKY, Holmesville, Ohio

For Sale. 5 thoroughly broken beagle and rabbit hounds, good hunters and not gun shy.
 AMBROSE S. TAYLOR, West Chester, Pa.

Live Stock Market Service

Wednesday, December 14.

DETROIT

Cattle.

Receipts 404. Heavy steers are very dull; others steady.
 Best heavy steers \$ 6.50@ 7.00
 Best handy wt bu steers 6.50@ 7.60
 Mixed steers and heifers 5.50@ 6.25
 Handy light butchers.... 5.00@ 5.25
 Light butchers 4.50@ 5.00
 Best cows 4.50@ 5.25
 Butcher cows 3.50@ 4.00
 Common cows 2.50@ 2.75
 Canners 1.75@ 2.25
 Best light weight bulls... 4.50@ 5.00
 Bologna bulls 3.50@ 4.25
 Stock bulls 3.00@ 3.25
 Feeders 5.50@ 6.00
 Stockers 5.00@ 5.50
 Milkers and springers.... 40@ 95

Veal Calves.

Receipts 652. Market steady.
 Best \$11.00@12.00
 Others 3.00@ 9.00

Sheep and Lambs.

Receipts 1,813. Market strong.
 Best lambs \$11.50@12.00
 Fair lambs 9.00@10.50
 Light to common 7.50@ 8.50
 Fair to good sheep..... 4.00@ 4.50
 Culls and common 1.50@ 2.50

Hogs.

Receipts 2,065. Market is 10@25c higher.
 Mixed hogs \$ 7.40@ 7.50
 Pigs, light 8.00
 Roughs 5.85

CHICAGO

Hogs.

Estimated receipts today are 20,000; holdover 14,282. Market fairly active and 10@15c higher. Bulk of sales at \$6.95@7.25; tops \$7.60; heavy 250 lbs up medium, good and choice \$6.85@7; Medium 200 to 250 lbs medium, good and choice \$6.95@7.20; light 150 to 200 lbs common, medium, good and choice \$7.10@7.50; light lights 130 to 150 lbs common, medium, good and choice at \$7.35@7.60; heavy packing sows 250 lbs up smooth at \$5.50@6.50; packing sows 200 lbs up rough at \$5.25@5.75; pigs 130 lbs down medium, good and choice \$7.35@7.60.

Cattle.

Estimated receipts today are 8,000. Market steady to 25c higher; calves 25@50c higher. Beef steers medium and heavy weight 1100 lbs up choice and prime \$9@11.25; do medium and good \$6.85@9.75; do common \$5.50@6.85; light weight 1100 lbs down good and choice \$8.50@11.50; do common and medium \$5.35@8.50; butcher cattle heifers common, medium, good and choice \$3.50@8.75; cows common, medium, good and choice at \$3.25@6.60; bulls bologna and beef \$3.50@6; canners and cutters cows and heifers at \$1.75@3.25; do canner steers \$2.75@3.75; veal calves light and handy weight medium, good and choice \$7.75@10.25; feeder steers common, medium, good and choice \$5@7; stocker steers common, medium, good and choice \$4.25@6.60; stocker cows and heifers common, medium, good and choice \$3@5.

Sheep and Lambs.

Estimated receipts today are 16,000. Market steady. Lambs 84 lbs down medium, good and choice at \$10.25@11.50; do culls and common \$7.75@10; spring lambs medium, good, choice and prime \$7.25@10; ewes medium, good and choice \$3.50@5.75; ewes cull and common \$2@2.50; yearling wethers, medium, good and choice \$8.75@10.25.

BUFFALO

Cattle.

Receipts 5 cars; steady; butchers 15 @25c higher; fancy strong; shipping steers \$7.75@9; few fancy \$10; butchers \$7.50@8.25; yearlings \$9@11.75; higher \$4.50@7.50; cows \$2@5.75; few at \$6; bulls \$2.50@5.25; stockers and feeders \$5.50@6.50; fresh cows and springers \$4@135.

Hogs.

Receipts 20 cars; market is steady; heavy at \$7.50@7.75; mixed \$7.75@8; yorkers \$8.25; light do and pigs \$8.50@8.75; roughs \$6@6.25.

Sheep and Lambs.

Receipts five cars; strong and lower; lambs \$12.60; yearlings \$8@10; wethers \$6@6.50; ewes \$5@5.50; mixed sheep \$5.50@6.

Always Plenty of Stretch

-no rubber to rot in Nu-Way



EXCELLO RUBBERLESS SUSPENDERS

Guaranteed One Year-Price 75¢ Ask your dealer for Nu-Way or Excello

Guaranteed Suspenders, Garters and Hose Supporters

Accept no substitutes—Look for name on buckles.

Nu-Way Stretch Suspender Co., Mfrs., Adrian, Mich.

\$24.95 American CREAM SEPARATOR

On trial. Easy running, easily cleaned. Skims warm or cold milk. Different from picture which shows larger capacity machines.

MONTHLY PAYMENTS and handsome free catalog. Whether dairy is large or small, write today.

AMERICAN SEPARATOR CO. Box 7461 Bainbridge, N. Y.

DISPERSAL SALE

of Pure Bred Holstein Cattle Wednesday, Dec. 21, 1921

I will sell at public auction on my farm, 4 miles south east of Morris; or 6 miles south east of Perry; 7 miles south west of Bancroft; on the old Fred Burnette farm, commencing at 10 A. M.

27 HEAD REGISTERED HOLSTEIN CATTLE 2 grade cows new milk; 3 grade heifers, 4 pure bred large type Poland China sows. 50 head of breeding ewes, 1/2 blood Oxford. Sobers & Murray, Auc. R. C. Dart, Clerk. F. Fishbeck, Pedigree Reader.

TERMS:—12 months time will be given on bankable notes with interest at 7%. Tabulated Pedigrees will be here for inspection the day of the sale.

JOHN PROCTOR, Prop.

Auction Sale

of Reg. Shorthorn Cattle

AT MY FARM Dec. 20 1921, at 1 o'clock

13 head of females and 2 young roan bulls. Nine months old, time will be given.

Auctioneer Col. Couch James A. Mead, Prop., Sunfield, Mich.

P. O. 1131, Indianapolis, Indiana. Write me how to buy a standard, high quality tractor, small payment down, balance on easy terms. Tell me about your exclusive agency contract.

Clip this coupon and mail today.

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Describes cause, effects and treatment; tells how farmers in all parts of U. S. are stopping the ravages of this costly malady.

Write for free copy today. ABORNO LABORATORY 44 Jeff Street, Lancaster, Wis.

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Send us your hides and furs, and have them tanned and made up into coats, robes, scarfs, muffs, etc. We also tan hides into glove, mitten, sole and harness leather. Write for our samples and price list.

Stevens Point Tannery, Established 1895, Stevens Point, Wisconsin

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Salesmen, Agents, Dealers with faith in their own ability to sell HIGH CLASS SILOS at a LOW PRICE

Quality Manufacturing Co., Hagerstown, Md.

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Commission Merchants. Dressed Beef, Hogs, calves, Poultry, Live & Dressed, Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank. Bradstreet, Detroit, Mich. Cherry 7654

HAY SHIPPERS

for highest prices bill all cars to The E. L. RICHMOND CO., Detroit.

A SQUINT AT THE PRESENT FEED MARKETS.

(Continued from page 575).

sharp premiums commanded by both linseed and cottonseed cake and meal over corn and other coarse grains and feeds, there is doubt as to whether the recent advances will hold. It is quite apparent that most cattle feeders are refusing to make purchases at the advanced levels.

Bran has had a remarkable advance in the past month when one considers the advances in other feedstuffs and the trend of the coarse grain markets. The net gain in bran prices during the last month has been equal to almost \$8.00 a ton, southwestern markets showing the sharpest rise. Bran is now double the price of the lowest level on the present crop. Much bran went into store at St. Louis, Kansas City, Chicago, Minneapolis, as well as the lake ports at about equal to a \$10 a ton basis mills. Some was stored as high as \$14 at mills. Bran is now worth \$20 a ton and more at the same points. Kansas City quotes around \$19 a ton, in carlots, St. Louis is asking around \$20 to \$22 a ton, Minneapolis is asking \$20 to \$21, with Chicago asking up to \$25 a ton.

There is a wide variation of opinion as to the future trend of bran prices. However, my opinion is that \$20 per ton is a good basis for the entire winter, and I do not believe that bran will show much strength over this figure at either Minneapolis or Kansas City, the two base markets. New factors may enter into the situation, of course. Mills may obtain large export orders for flour and domestic demand for mill products show a big gain. This will increase the output and perhaps cause a slight recession in the mill offal market, but the fluctuations from the \$20 level will not be sharp, either up or down.

Shorts and middlings did not have the advance scored in the bran market, which is explained by the fact that the heavier feeds rose sharply earlier in the fall season at a time when bran was seeking new low levels. The normal relationship is again being restored, as has been forecasted. Shorts are in larger supply than bran, and the demand is not so active, although the market is showing a good tone and all offerings are being absorbed. Gray shorts or flour middlings can be bought at Minneapolis around \$23 to \$25 a ton, around \$22 to \$23 in Kansas City, and up to \$26 in St. Louis. Declines in hogs have had a restricting influence on the demand. It is probable that the bran and shorts differential may narrow even further.

Price movements in corn and oats have been narrow and unimportant on the whole, though tending slightly upward. A further small advance is to be expected as the winter months may witness a falling-off in the flow of grain from farms. On the other hand, the marketing may increase before March 1, the time for renters' corn to be moved. Farm demand is better. There is too much corn in the country to permit of any sharp advances in prices.

Fancy dairy alfalfa is selling at fancy prices at local points, but the consuming trade in Michigan and surrounding states are poor buyers. It is interesting to note that Kansas City, while making sales to dairymen at nearby points up to \$26 a ton, is unable to successfully quote the northern trade at \$22 a ton delivered. A larger movement of alfalfa is expected from the west, but this is dependent upon an improved demand from the east and south.—SANDERS SOSLAND.

INTERNATIONAL AWARDS.

(Continued from page 589).

Hampshires.—Champ. wether, Kentucky. Oxfords.—Champion wether, Iowa. Lincolns.—Champ wether, Heart's Delight Farm, Chazy, N. U. Cotswolds.—Champion wether, Anoka Farms, Wheaton, Ill.; Waukesha, Wis.

Dorsets.—Champion wether, Heart's Delight Farm. Southdowns.—Champ. wether, Glimmergen Farms, Cooperstown, N. Y. Cheviots.—Champion wether, Kansas.

Leicester.—Champion wether, J. D. Brien, Ridgetown, Ont., Canada. Rambouillets.—Champ. wether, Wisconsin.

Grades and Crossbreds.—California in medium wool or down types; J. F. Linden, Denfield, Ont., in long wool types.

Grand champion wether, J. C. Andrew; reserve, California.

(Concluded next week).

Better Service Quick Returns

Ship your veal, hogs, lambs and poultry to Gunsberg Packing Co., Eastern Market, Detroit, Mich., check mailed same day goods arrive. Highest price always. Write for shipping tags. References—Peoples State Bank.

Gunsberg Packing Co. 2460 Riopelle, Detroit, Mich.

WIDE-A-WAKE FARMERS

Between now and Spring plowing, you will have a chance to make and bank a nice wad of money, selling Lubricating Oils, Greases, House Paints, etc.—the best an honest man ever recommended to a good neighbor. If you have a car, you're just the man to cover your section and get our frequent, fat checks for your "50-50" share of the profits. Let us tell you of our interesting plan. Address

THE STETSON OIL CO., Desk M-17, Station E, Cleveland, Ohio

GET MORE EGGS

Make more money from your poultry. Let us prove to you that Lay or Buser Poultry Tonic will make them lay. Keep them free from disease and working overtime to fill the egg basket. Get eggs regardless of the weather. Satisfied users everywhere. Write today. Send 66c for package on our guarantee—money back if not satisfied.

THE CONN PRODUCTS CO., Dept. N, Waterloo, Iowa

A Quality Hatcher At The Lowest Price "Successful" INCUBATORS & BROODERS

Mail a postal—Get our offer. Poultry lessons free to every buyer. Booklet, "How to Raise 48 Out of 50 Chicks," 10c. Catalog FREE. Make green, egg-making feed in "SUCCESSFUL" Grain Sprouters. Des Moines Incubator Co. 368 Second St., Des Moines, Ia. 29 Years of Big Successes

AVOID ROUP

Learn how to prevent this disease. Get winter eggs. New treatment. Send for our free circular.

Ohio Vaccine Co., Sta. B., Columbus, O.

Keep Chickens? Send for Free Sample of our 30-year-old Poultry Paper, tells how to select, breed, house and feed SUCCESSFULLY. 40-84 pages monthly, 4 mos. trial 25c. Yr. \$1.00 American Poultry Advocate, Box 21, Syracuse, N.Y.

OLD Trusty Incubators, slightly used, 150 egg size \$20 each, freight paid. Cost \$26 new. GORET BROS., Corunna, Mich.

Wanted; at least six dozen strictly fresh eggs weekly, will furnish 12 or 6 dozen size crates, Box W-1217 care of Michigan Farmer, Detroit, Mich.

POULTRY

Chicks Baby Chicks

Order your baby chicks now from Michigan's largest practical Single Comb White Leghorn egg farm. We are not running a hatchery buying our eggs all over the community, but we are running an egg, pullet and broiler farm; and supply all the eggs that go into the incubator from our own strain of bred-to-lay Single Comb White Leghorn hens, and have a few thousand surplus chicks to sell at certain periods of the season. We turned away orders for thousands of chicks last spring, as our supply is limited and we absolutely refuse to sell anything but our own stock. So order early and avoid disappointment. We guarantee satisfaction in every way. Prices reasonable and on application.

Macatawa White Leghorn Co., Inc. R. F. D. 1, Holland, Mich.

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We are issuing a Bulletin that describes the kind of fowl the farmer now days wants. Send for this description of our Pure Bred Practical Poultry.

The highest class practical stock in Michigan; stock that each year is also now being shipped to poultry farmers of other states.

You will like particularly the White, Brown and Buff Leghorns of this breeding; they give the eggs. Also Barred and White Rocks; Reds; Wyandottes; Orpingtons; Anconas.

STATE FARMS ASSOCIATION Desk 1, Kalamazoo, Mich.

Whittaker's R.I. Reds

Both combs. Greatest Color and Egg Strain. Free, by blood test, from bacillary white diarrhea. If you are interested in Breeding Stock, Day Old Chicks or Hatching Eggs write for our Twelfth Annual Catalog. It is free. INTERLAKES FARM, Box 39, Lawrence, Mich

BARRED ROCKS Surplus breeding stock all sold. More hatching eggs next spring. More cockerels next summer and fall. From stock from Parks best pedigreed pens R. G. KIRBY, Route 1, East Lansing, Mich.

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CRESCENT EGG COMPANY Allegan Michigan

Barred Rocks egg contest winners, eggs from strain with records to 280 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich

Barred Plymouth Rock Cockerels, large birds from price-winning heavy-laying strain \$5.00 each. J. A. Barnum, Union City, Mich.

Barred Rock Cockerels Bred from great layers Bargain prices now. W. C. COFFMAN, R. 3, Benton Harbor, Mich.

Barred Plymouth Rock cockerels, pullets, and yearling hens. 200 egg laying strain. Prices reasonable. Mrs. H. P. Schulte, Laingsburg, Mich.

BARRED Rock Cockerels, Hill's heavy laying strain. Deep, narrow barring. Large birds \$4 and \$5 each. Lucian Hill, R. 3, Tekonsha, Mich.

Cockerels and pullets for sale from M. A. O. Round-up champions, vigor, fine range raised. \$5.00. Chas. H. Wright, Jones, Mich.

Choice White Wyandottes cockerels and pullets for sale, cockerels at \$4 each. M. L. MOATS, Prescott, Mich.

Top Quality Cockerels Minorcas, Houdans, Spanish. Tyron Poultry Farm, Fenton, Mich.

Northrup or Papes Strain. 100 S. C. Giant Black Minorca cockerels 6 mo. old \$2.25 each. M. SCHAEFER, R. 1, Essexville, Mich.

RHODE ISLAND WHITES win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this ad. Some chicks. H. H. JUMP, R. 5, Jackson, Mich.

Original Dr. Heasley S. C. Buff Leghorn flock. Egg Basket strain. Officially certified Egg bred. Winners at Chicago, Cincinnati, etc. Cockerels breeding hens and chicks, at bargain prices. Also bred to lay English Strain S. C. White Leghorn chicks for 1922. Discount on Early Orders. Hillside Hatchery Farm, R. 3, Holland, Mich. Successor to Henry DePree

Pullets and Breeding Stock 8 varieties, also ducks and geese. Send for prices BECKMAN, 26 E. Lyon, Grand Rapids, Mich.

WHITE WYANDOTTES 207 egg average; cockerels \$5 each. 3 for \$14, 6 for \$25. FRANK DELONG, R. 3, Three Rivers, Mich.

Ringlet Barred Rock Cockerels—bred from birds that lay, weigh and win. Robert Martin, R. 3, Woodland, Michigan

Rhode Island Reds R. C. Large fancy cockerels at \$3 each. BURT SISSON, Imlay City, Mich.

Rhode Island Reds S. C. cockerels April and May hatch \$3.00 each. E. C. FOWLER, Horton, Mich.

Single Comb Buff Leghorn cockerels, April and May hatched. Large lively fellows. Noted laying strain. Willard Webster, Bath, Mich.

Silver Wyandottes that win, lay and pay. 75 cockerels \$2 to \$5 each. C. W. Browning, Portland, Mich.

S. C. B. Minorca A few choice Minorca Cockerels, great big fellows, sired by our 12 lb. cock. R. W. MILLS, Saline, Mich.

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BEAUTIFUL White Wyandotte cockerels for sale, Lawyer Cobb strain. MRS. J. H. THOMPSON, R. 2, Gaines, Mich.

Mammoth Bronze Turkeys

Foundation stock from Bird Bros. Have hens weighing 20 1/2 lbs. Flock headed by \$50.00 Bird Bros. Tom. Not related to other Mich. flocks. Selling cockerels and hens from this flock, for a short time, at \$15.00 and \$10.00 respectively. Come over, or write us.

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Mammoth Pekin Ducks The kind that lay, weigh white Embden Geese, and pay, \$3.00 each. Large White Embden Geese, Strong Producers. Brown China Geese heavy laying strain, \$4.00 each. W. B. BROREIN, Wapakoneta, O.

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The Belgium Melotte is the only single-bearing-bowl separator made. This patented bowl hangs from one frictionless ball bearing and spins like a top. It is self-balancing. It skims as perfectly after 15 years' use as when new. Positively can not ever get out of balance—can not vibrate and thus cause cross currents which waste cream by re-mixing with the milk. The 600 lb. Melotte turns as easily as the 300 lb. machine of other makes. Spins for 25 minutes unless brake is applied. No other separator has or needs a brake. The Melotte bowl has solved the problem of perfect skimming.

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We will send an Imported Melotte Cream Separator direct to your farm on a 30 days' absolutely Free Trial—no deposits—no papers to sign—use it as if it were your own separator. Satisfy yourself that the porcelain bowl is as easy to clean as a china plate. Compare it—test it in every way.

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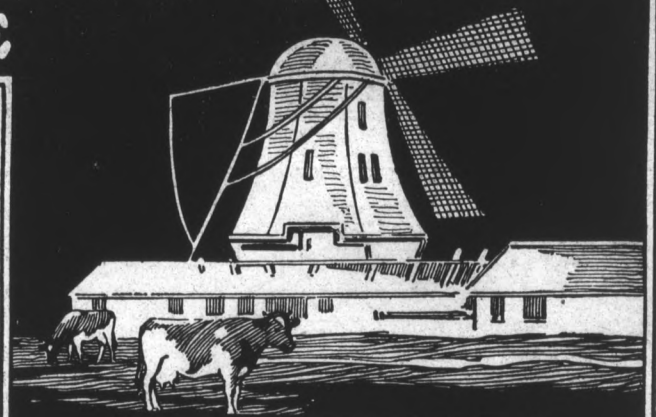
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