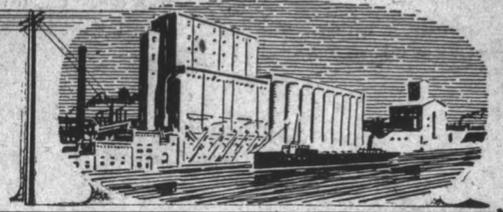


*The Michigan*  
**BUSINESS FARMER**



**An Independent  
Farmer's Weekly Owned and  
Edited in Michigan**



VOL. X, NO. 4

MT. CLEMENS, SATURDAY, OCTOBER 14, 1922

\$1 PER YEAR



*"Yum, Yum!—My pop grew this!"*

*Have you joined the friendly object contest?—See page 16*

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# Current Agricultural News

## FARMERS TO OWN FIRE FIGHTING EQUIPMENT

UNTIL recently when there was a fire in the rural district about Owosso the farmers would phone the fire department of that city and the fire fighting apparatus would be rushed out to extinguish the blaze but now the city fathers say this can be done no more. They say they pay everything and the farmers nothing and what would become of their property if a fire should break out in town while the trucks were out in the country. This has caused an agitation among the farmers for the purchase by township, of fire trucks, equipped with chemical tanks and small pumps. Efforts are being made by prominent farm leaders to have placed on the ballots at the spring election in the townships, proposals to raise by tax the funds with which to buy three trucks.

Vernon township of this county has had a fire truck of its own for several months. Continued objection on the part of Durand people to the sending of the Durand truck into the country, and a final threat of injunction proceedings, caused the Vernon township voters to authorize the township board to buy a

truck. It is kept in the fire station at Durand, and Durand firemen man it. The truck is equipped with several hundred gallons of chemical, hose, roof ladders, and other standard equipment. It has responded to numerous calls and done effective work.

The city commission at Owosso has stated that if the farmers, within a radius of eight miles of Owosso, want to buy a fire truck, it may be kept at Central station there and in case of fire two men from the local department will be sent out.

## LIVING COSTS SOAR IN GERMANY

"If winter comes," has taken on a new significance for the average German workingman with a family. Not a single day passes without the newspaper announcing new increases in the price of bread, potatoes, coal, and other necessities. Street car fares, newspaper subscriptions, smokes and beer are going up every other day, while shoes and clothing costs are almost "out of sight."

In addition to the cost of living there also is beginning to be noticeable a shortage of potatoes, sugar, and other staples. The mayor of

Berlin posted signs throughout the city advising the people to buy their own supplies of potatoes as the city, which heretofore has bought them in large quantities and retailed them at cost price to the residents, can do so no longer as the treasury is empty. The prices of food have gone up so that now they average 343 times the pre-war standard.

## 1922 ROAD PROGRAM ONLY HALF FINISHED

BECAUSE of a shortage of cement for which the coal strike and the car shortage are responsible about 50 per cent of the road construction mileage for which the State Highway Department awarded contracts since Jan. 1, and which it was expected would be completed before Dec. 31, will have to go over to 1923. This is the report of department officials.

Work on some of the 1922 contracts which can not be completed until next year are in the 16 counties of Calhoun, Clinton, Lenawee, Bay, St. Clair, St. Joseph, Charlevoix, Saginaw, Genesee, Monroe, Sanilac, Macomb, Lapeer, Huron and Tuscola.

Since construction started this year on department contracts, there had been completed in the state, up to Sept. 1, 98 miles of cement roads and 317 miles of all classes of roads.

## MARION CO-OPERATIVE CREAMERY SUCCESSFUL

PATRONS of the Marion co-operative creamery are well satisfied with the business done by that concern. It has increased so rapidly of late that it has been found necessary to get an expert accountant to systematize the work and make it possible to operate without increasing the number of employees. This is a home business and has routes leading in all directions from town.—Ewart Review.

## CHESTER WHITE BREEDERS HAVE STATE ASSOCIATION

A NUMBER of breeders of Chester White Swine held a meeting on the State Fair grounds September 7th and organized a State Association to be known as the Michigan Chester White Swine Breeders Association and elected officers as follows: A. J. Hawkins of Coldwater, president; Fred L. Bodime of Reese, vice-president; F. W. Alexander of Vassar, secretary, treasurer; Andy Adams of Litchfield, Lucian Hill of Tekonsha and Norman Weber of Royal Oak, executive committee.

It is the purpose of the organization to promote the interests of the breed through holding public sales, also in giving support to Boys and Girls pig club work throughout the state. Membership is open to all breeders of Chester Whites in the state and the dues is only \$1.00 per year; all money after paying the small office expenses will be used to promote the breed in this state. It is requested that all breeders of the Chesters who believe in boosting the breed, communicate with the secretary at once.

## AMERICAN PIGS POPULAR IN CZECHOSLOVAKIA

THE current year will show a record volume of purchases of American lard and fat pork by Czechoslovakia, says Special Agent Dennis, in a cable to the Department of Commerce. The recent rapid trade expansion is due to the scarcity of butter and to the export embargo on Yugoslavian fat hogs, also to the strength of the currency of Czechoslovakia. Whereas before the war little or no fat pork, and less than 2,000 tons of lard were imported annually, the estimated purchases for the present year will exceed 100,000 tons of combined lard and fat pork. American fat pork is being used in increasingly large quantities by laborers in the iron and coal mines, and by the loggers in the Slavian forests. The American lard is underselling that from Hungary, Rumania, and Yugoslavia, and is actually being imported into the latter countries which have heretofore been strong competitors as exporters of this product. Prague importers report difficulty in filling orders for lard. The country's hog industry is unorganized and the native sides deficient in fat. Barring the approaching let up in demand incident to the killing season, traders should work for continued expansion in the American pork products trade.

## INDIA NOW THIRD WHEAT PRODUCING COUNTRY

Next to the United States and Canada, this year's wheat crop of India amounting to 9,815,000 tons, places that British Colony as the greatest wheat grower in the world for 1922. Karachi, the leading wheat port of India, is also the chief wheat port of the British empire, says Consul A. M. Warren, Karachi, in a dispatch to the Department of Commerce.

An embargo on the exportation of wheat now exists in India and unless this is removed it is feared that the inevitable surplus on hand will tend to greatly decrease planting next year, thereby risking a country-wide shortage should there be insufficient monsoon.

## NORWEGIAN FRUIT FAILURE MAY MEAN BIG IMPORTS

The failure of the Norwegian fruit crop this year will necessitate heavy foreign imports and it is estimated by American Consul George Nicholas Ifft, Bergen, Norway, in a dispatch to the Department of Commerce that double the usual quantity of American apples and other fruits will be required.



## What Are YOU Getting Out of Life?

A mere living—or a better standard every year?

Success comes from saving; but how much you get out of life is dependent not on how much you save, but how much your savings earn for you.

You can double the interest your money is making you—safely, easily and surely.

Let us show you how. We'll give you the facts—you be the judge.

Tear this advertisement out, write your name and address on the margin; then send it to us. It does not obligate you and it may be the means of doubling your income.

## The Standard Mortgage & Investment Company

Detroit  
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Penobscot  
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**The STANDARD MORTGAGE & INVESTMENT COMPANY**  
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Standard Mortgage & Investment Co.  
Without obligating me to anything, I'd like to know more about your proposition.

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## Successful County Fair Minus Races and Midway

By L. D. TUCKER

YOU'VE seen them both—no doubt. But the fact remains that there exists among the communities today two distinct types of county fairs—one of money-making, with its shows, its aeroplanes and its horse-racing, and the other the agricultural fair, with its wealth of fruits, grains, dairy products and live stock. And after all, it is the latter type which really conveys the purpose of a county agricultural fair.

Not that the agricultural phase is entirely over-looked in the fair which features horse-racing, and hair-raisers on its hand-bills and posters. It can be found, in varying quantities, scattered throughout the grounds, some in this building and some in that, but, as a rule, one has to break away from the amusement-seeking crowd to find it, for, where thrillers and other entertainment are emphasized the mass of ticket buyers are not interested in the pumpkins, watermelons, apples, peaches, pears, cattle, chickens, etc.

Which brings us back to our contention that, after all, will do a more constructive service to that community than any other type. One hundred farmers visiting the fair in search of new ideas, better methods and bigger results, must surely mean more than one thousand so-called city folk seeking amusement and entertainment only.

And that is what impressed us about the fair held over in Ontonagon county recently. It was a real county fair. There wasn't an aeroplane on the grounds, and in fact the only really disturbing element was a powerful tractor which was showing the farmers new ways and methods of plowing and stump pulling, in an adjoining field. There wasn't a show on the ground. You weren't barked at to "Come and see Nemo, the smallest dwarf in the World." There were no games of chance. You couldn't lose your money trying to ring a cane with a ring that wouldn't slide over any one of the canes anyway.

There were no horse races, tight rope walkers, dog and pony shows or, in fact, not a single feature, with the possible exception of a lunch counter or two and, perhaps, a band, which would tend to detract from the big business of the day—the agricultural exhibit.

It is doubtful if many, or any, county fairs throughout the peninsula improved on that agricultural exhibit. It was the result of hours of pains-taking effort on the part of those who had arranged it. In the fruit section alone, 160 plates were neatly arranged, each bearing its burden of some record-breaking specimen of the farmer's art. There were apples, peaches, plums and pears of the finest texture, shape and color and widest variety.

The apples particularly—all grown in Ontonagon county, (considered the most fertile in the upper peninsula of Michigan) showed up strikingly. There were the Duchess and Wealthies, and a half a dozen or more varieties of seedings, with the great, red Wolf Rivers standing out prominently along the top row. Plums rivalling in size and taste the product of California itself, were there in abundance.

In another section, but within the same building, were the root and grain crops. Everything from the humble bean to the huge, golden pumpkin was neatly arranged in rows, where all might see and admire.

Here was the handiwork, exhibited by the women of that community—needle work and cooking. There was the work of the girls' garment clubs, and, in one corner, samples of the progress achieved by the school boys and girls in penman-

ship, history and other allied subjects.

In fact it seemed that everyone in the community—from the youngest school child to the oldest individual in the county—was in some way represented in that display. It was, indeed, a real, old-time county fair, and I doubt if any county in the peninsula this fall could boast of an agricultural display which could equal that shown at the Ontonagon fair.

Two days were devoted to Ontonagon's fair. During the time practically every farmer in the community visited the display, and it was not difficult to observe that the majority, and they carefully examined the various specimens, were reaping the maximum of benefit from the things they saw. They came, not to be amused or entertained, entirely, but to learn what their neighbors were doing and how they were doing it.

Other communities could profit by adopting Ontonagon's example. They had a real, honest-to-gosh fair over there.

### M. A. C. ANNOUNCES ATTRACTIVE WINTER COURSES

THE Michigan Agricultural College has announced its regular winter short courses to begin this year on October 30th. The advantages of these courses to those who cannot take the full four year course are many, and it is surprising the amount of practical instruction which students receive during the two, four, eight, twelve, or sixteen weeks, depending upon the course selected.

One of the advantages which will appeal to many farm parents this year is that of economy. The full four-year course involves the expenditure of several hundred dollars, while the eight weeks' course can be secured at a total expense of from \$80 to \$100. Many farm boys who have planned on taking up the regular courses at the M. A. C. this year have been disappointed because of the low farming returns. To such the short courses afford an excellent opportunity for adding materially to their fund of knowledge and giving them the contact with college life and college people which is so helpful in broadening the viewpoint.

The fall term which begins October 30th consists of the following required subjects: Animal feeding, types of livestock, farm crops A, farm engineering, agricultural chemistry, gymnasium. The winter term beginning January 2nd, includes such subjects as: Soils A, study of breeds, drainage, gymnasium. Elective subjects are: Farm dairying and testing, parliamentary law and speaking, farm management, farm accounting, dairy barn and herd man-

agement, potato production, horticulture A, shop work, swine breeding and management, bee-keeping.

Special courses are given in dairying, dairy manufactures, marketing milk, ice cream making, horticulture, poultry, truck and tractor manufacture and operation.

All students completing the first year in the 16 weeks' course are required to elect one of 15 different projects which can be carried out during the summer following. These projects include almost every activity on the average farm.

In discussing the short courses, president Friday of the M. A. C., recently said:

"There are twenty thousand farmers in Michigan who should take these short courses during the next five years. There is one vital difference between a large-scale industry like manufacture and agriculture which is still carried on in establishments owned by a single man and employing on the average only one additional worker. Manufacturing in Michigan is conducted by 8,300 establishments, employing 550,000 people. The average manager in this industry supervises almost seventy men.

"The volume of output is great enough in most of these establishments to enable the owner to employ the services of skilled engineers, chemists, accountants and salesmen. These professional men solve the difficult problems which present themselves for the manufacturer.

"The agriculture of Michigan is carried on by 196,000 farms. On the average there are two workers to the farm and one of these is the farmer himself. It is manifest that each of these farmers must decide what he will produce, what methods of production will be followed and how his product shall be marketed. Clearly, in an establishment the size of the average farm it is not economical to hire the service of a technical expert who should analyze and criticize the methods employed, and who shall devise new and improved methods for the conduct of the business. The farmer therefore needs an all-round training in the technical problems relating to his business; for he must solve most of these problems himself when they arise. This is one of the reasons why every wide-awake young farmer should come to the Agriculture College for training in the Short Course. Unless he acquires this technical skill for himself his farm will lose a large portion of the benefit which would result from the utilization of the scientific knowledge concerning agriculture.

There is another reason why the progressive young farmer should spend at least one winter at the Agriculture College. There are many

problems of agriculture which are so difficult for anyone but a professional expert to handle. The Agricultural College employs such a corps of experts constantly. Those who are aware of their existence can avail themselves of this special training when it is needed on any particular farm. The man who has taken a short course at the Agricultural College knows exactly what help he may obtain from the institution when he has need for it. It is the function of the Michigan Agricultural College to furnish to its 196,000 farmers just that skilled training which the large manufacturing establishments buys for itself on a commercial basis."

Mr. E. B. Hill assistant to Dean Shaw, is director of the short courses and Mr. A. M. Berridge, former member of the State Farm Bureau Board and a successful farmer in Montcalm county, is associate director. Complete information on the courses can be obtained by addressing Mr. Hill, care of the College at East Lansing.

### PROVES VALUE OF PURE-BRED SIRE IN GRADE HERDS

THE LEER Guernsey Breeders Association of Alpena County, promoted by the American Guernsey Cattle Club are exhibiting at the National Dairy Show held at St. Paul, Minn., October 7-14th.

In the short period of time this Association has made remarkable strides in the work of improvement of dairy cattle by the use of Pure-bred Guernsey sires. One of the outstanding features are that prior to the year 1909 little or no effort had been made to improve the livestock in Leer Community. As a common practice sires were selected from their own herds and by that process of inbreeding of scrub cattle the herds were constantly degenerating, producing as a result a very inferior type of scrub cattle.

Finally on May 22nd, 1909, as a result of the untiring efforts of Mr. W. T. Raven, Dairy Extension Specialist, M. A. C., the Leer Guernsey Breeders Ass'n was organized with twenty charter members who subscribed a total of 130 scrub cows.

A sufficient sum was raised to purchase three registered pure-bred Guernsey sires. Each of the three sires were placed at the head of herds giving a total of not less than forty cows for each group. A breeding fee of \$1.00 per head was charged by the association. The funds obtained in that manner were used to defray the expenses of maintaining the sires and to assist in replacing sires as it became necessary to do so. To date the association is gratified of the fact that, small sum so obtained has been found to be sufficient to meet the needs.

The herds of the association members being divided up into groups, each sire is used two years in each group. When the circuit of the group has been made by each sire he is then replaced by another registered pure-bred sire. During the life of the Association to date eleven different sires have been used. Furthermore, each time a new sire was secured for the association only the best obtainable would do.

The good effects of that practice is clearly shown by the desirable confirmation of the offsprings and the attractive prices that have been received for the surplus stock which were sold. As a matter of fact the temptation to sell has been so great—as to threaten the financial affairs of the association, because of the reduced number of cows in the present association.

Moreover, as another influential factor, each year the association has an assembly of their Guernseys, this occasion is known as the Leer Guern-

(Continued on page 23)



Dr. C. L. Wendt, originator of the modern farm partnership agreement.

SEVERAL years ago an account was published of what was then called "A Partnership Lease" that had been originated and worked out by Dr. C. L. Wendt. The idea has grown since that time, and now promises to revolutionize the vexatious problem of land tenantry in this country where nearly half of the farming land is now operated by renters. Many of these move every year, and on the average all of them move every two and a half years according to statistics of the Census Bureau.

This fifty-fifty idea is so vital to the welfare of the entire Nation, that the writer recently took a little journey to the home of Dr. Wendt at Canton, S. D., and spent some time with him going over his latest experiences and plans, and visiting two of his farms—and incidentally seeing a lot of the fine farming country in Lincoln county. We feel that this modern and wholly American plan of farm partnership is so valuable, that we call special attention to the general scope and details of the plan as worked out by Dr. Wendt in his own experience.

And first, let us state that the Wendt farming agreement is not a lease but a business partnership. The landlord and tenant system has not changed in a thousand years, and this ancient "Master and Servant" relation does not adapt itself to American ideals. A "landlord" is a lord of the land, and we do not have any such in our country. "Tenant" means a temporary occupant and we all know what happens to a rolling stone. As the fifty-fifty plan is based on the idea of permanence, the words "landlord" and "tenant" are considered out of date, and we think our readers will agree that "landowner" and "landworker" more accurately define the relations between farm partners, and that these terms have a more truly American ring.

All great movements and worthwhile ideas require a good deal of time in which to ripen or prove themselves. Dr. Wendt began to think about better ways of farm tenantry a score of years ago. About fourteen years ago he put his partnership plan into effect by entering into an agreement with a young man in his employ—Frank Painter, by name. That original agreement stands today on the same footing and promises to remain indefinitely. Young Painter has prospered in the meantime—and is not this fact an eloquent variant on the usual experience of renters? He has now bought a fine farm of his own—but does he live on his own farm? No, he prefers to retain his business connection with Dr. Wendt, for he has learned precisely what this means to him in cold dollars and cents. But he does manage his own farm on the fifty-fifty plan with another man who is also getting along in the world, and who doubtless will invest his accumulated earnings in South Dakota land that he will operate as owner while still another ambitious man takes the part of land worker.

But the idea does not await such slow methods of spreading. In Lincoln county, where all the people can see for themselves just how it works, the farmers are practically all sold on the fifty-fifty plan. No

# The Fifty-Fifty Farming Agreement

Not a Lease, But An Ideal Partnership Plan for Land Owner and Land Worker

accurate count could be made at the time of our visit, but there are probably more than a score of farms now being operated on the identical contract that Dr. Wendt has developed with so much thought and foresight. You can almost pick out these places in driving about the country in Lincoln county, for they are usually a little more prosperous looking; just a little neater as to farmsteads; just a bit pleasanter and more home-like in the character of the improvements.

One land worker made a net profit of \$21,000 in seven years on the partnership plan, and then bought and moved to a farm of his own. That would seem to be about 100 per cent ideal from the standpoint of most farmers. But it is interesting to note that this man would now like to get back to the old system, for he made more money that way than he has since. You can write your own explanation of this appar-

By H. A. BEREMAN, Farmer and Breeder

owner invests his land and the worker invests his labor. The title to the land remains in the name of the original owner as a matter of course, until such time as the worker may wish to make other arrangements.

As a matter of history—covering all those cases investigated by the writer of this article—the partnership plan almost invariably results in more profit to worker and owner than is usually enjoyed by farms operated by their owners. The value of "two heads;" the advantage of consultation between the man on the land and the man in town; the benefits from having a permanent interest in making the land productive instead of robbing the soil or speculating in real estate; the immense value of feeding grain and roughage to high class live stock that are owned equally by both parties—

sales, dates of planting, balance sheets, etc. This puts the process of tiling the soil on a business basis; it makes of it a commercial operation that must of necessity develop on the same plane as other industries.

Perhaps the most serious fault with the renter system is that it makes no provision for keeping up the soil's productive power. The renter has no inducements to enrich the land belonging to another, for he may move next year; the owner expects to sell on a rising market—he should worry about soil fertility! The result is that all over this broad domain of ours the soil is steadily growing less productive; acre yields are not increasing although population continues to grow; farming is still a process of soil exploitation and will continue so until land values are measured by productive capacity, and farms are made to pay legitimate dividends on capital and labor invested.

With this serious problem staring the American people in the face; with lands constantly rising in price; and with more farms operated every year by shifting renters, it is high time that farmers adopted a plan that will build up the integrity of our soils and put agriculture on its feet. A study of the partnership plan will show that it is destined to accomplish the desired end, and we urge the co-operation of all earnest people to spread the doctrine of mutuality in farm tenures.

As an illustration of what naturally follows, the Wendt & Painter farm of 160 acres has been greatly improved in the fourteen years it has been operated on the fifty-fifty plan. In that time the average yield of corn has climbed from 30 to 60 bushels an acre, and other crops show similar increases. This fact alone spells profit in the place of loss, for it is one of the corner

(Continued on page 16.)



Partial view of the hog house on the Wendt and Painter farm.

ent inconsistency in human nature, but we suggest that the basis of it is the old adage, "Two heads are better than one."

The curse of peasantry as it is known in Europe can not be over-emphasized. For many years it has hung over our own free land with its republican form of government, and its absence of titles, landed gentry and the like. Many thoughtful students of history and political economy have foreseen the trend of the times—the rapidly advancing prices of lands; the drift to the cities; the increasing number of farms operated by renters who cared only to make a living; and the growing army of absentee farm owners awaiting buyers at fancy prices. Much time and thought has been put into the devising of better forms of leases—especially leases for long periods—as one solution of the growing tenantry evil of this country.

But we think it can be laid down as a law of human nature and economics that all leases are bad and some are worse. To illustrate this point, we ask any reader whether after signing up a lease—either as "landlord" or "tenant"—he got up from the table feeling the same towards the party of the other part? We never have found a man yet who has not admitted that he didn't feel quite the same; most of them say that each party was trying to get just a little advantage over his opponent.

And that's exactly what we mean when we say that all leases are bad. They nearly always bring men together on terms of mutual hostility. The owner tries to make the tenant pay another half dollar an acre, while the tenant tries also to drive a sharp bargain and to induce the land owner to throw in something over and above the customary usage. The product of the old landlord and tenant system is a feeling of antagonism. There is no deep underlying sentiment of friendliness—and Dr. Wendt states that the element of friendship is the very heart of his form of agreement. Unless men are genuinely friends—trusting each other and co-operating in harmony—neither of them can prosper no matter how much legal talent they employ in writing the lease.

The Wendt system is a business partnership between two men, each of whom puts into the venture the capital he has at hand. The land

these are the levers whereby profit is pruned loose from soils that otherwise might not pay the taxes.

One of the important features of the partnership plan is that accurate books must be kept in which to record operations—purchases,

## Treatment of Stinking Smut of Wheat

I would like to know how to disinfect smutty wheat so that it will make satisfactory seed. Will you please be so kind as to advise if this can be done, and if it can, will you state how I can go about it?—W. E. H., Fowler, Mich.

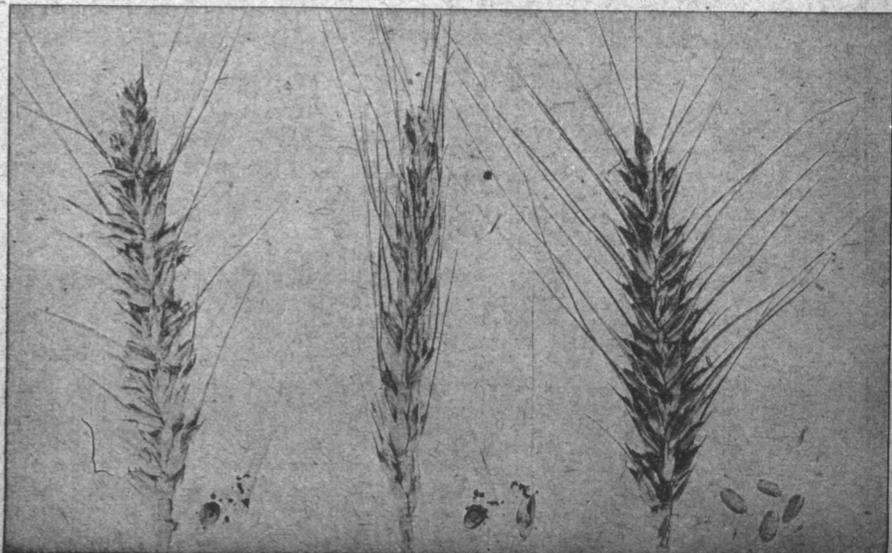
WHEAT in many sections of Michigan has been injured by Stinking Smut. This disease may make a field of fine promise produce only a low grade, ill-smelling crop, which without expensive washing and scrubbing is unfit for human food. From an investigation into actual condition in every county in the state, it is found that Stinking Smut wastes at least 5 per cent of the wheat crop of Michigan. Fields with 10, 25, 30, and even 70 per cent of the heads smutted are not uncommon.

As his wheat ripens, the farmer notices certain heads which are of dark-green or slate-green color and which have a shape different from

the normal. The kernels in these heads are light and puffy and are filled with a brown black powder. Such diseased stalks are not so tall as the healthy ones and they may be markedly dwarfed. "Low Stinking Smut." The smutted kernels have a vile odor, like that of rotted fish. Sometimes such a field is so smutty that one can smell it from the road. Threshing such a field is a job no one wants. Smut arises from the thresher in clouds endangering fields—for smut can persist in the soil until seeding time if not longer. It is evident that the thresher having handled smutty grain carries smut with it to the next batch of grain. Similarly the cleaner once loaded with smut becomes a source of contamination.

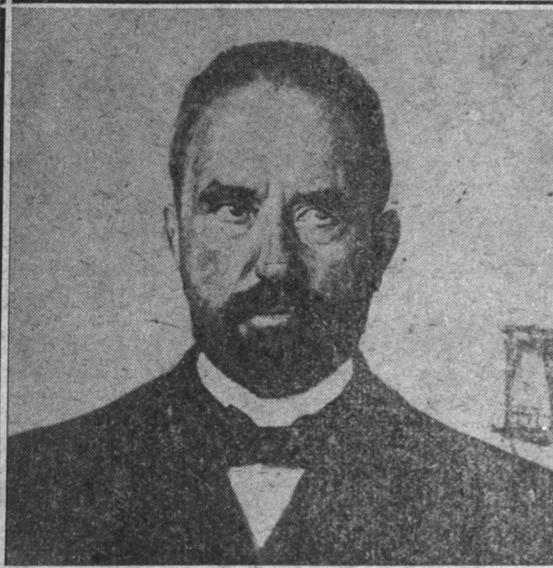
Although most of the smut balls which are formed in the heads in place of the kernels break in threshing, thus dusting the grain with the

(Continued on page 20.)



Stinking Smut of winter wheat showing effect on the wheat head and the puffy smut balls filled with smut powder. Healthy head and kernels for comparison.

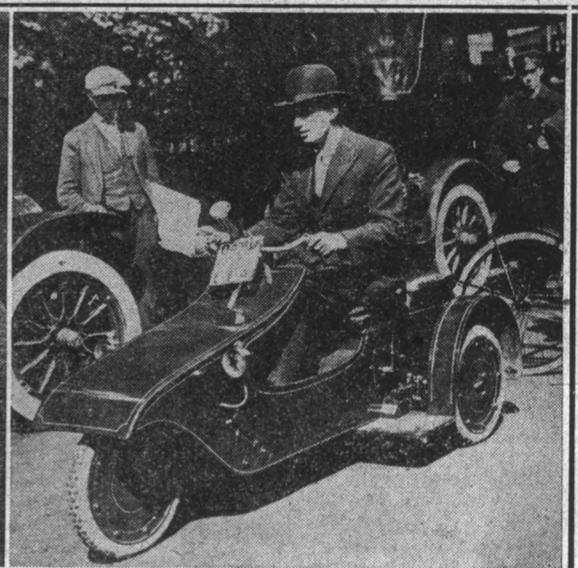
# PICTURES FROM FAR AND NEAR



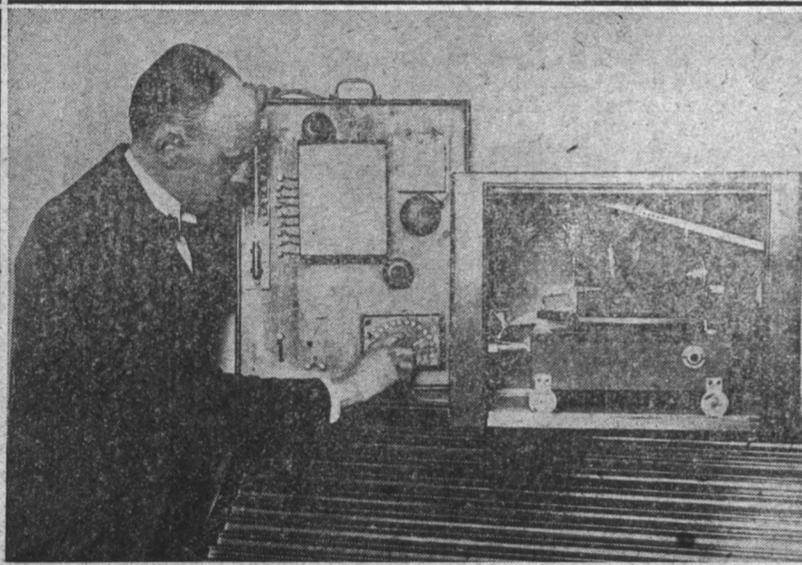
**STINNES PLANS STRATEGIC COUP TO AID GERMANY**—Hugo Stinnes, Germany's industrial leader, who according to developments in the negotiations between the German government and the Belgian financial delegates over the question of reparation guarantees, may again step in and show himself master of the situation by taking over a large part of the guarantee demanded by Belgium. It is Stinnes' idea to give French and Belgian industries a large share in German industry, thus making it a matter of necessity for those two nations to help rather than hinder the Teutons.



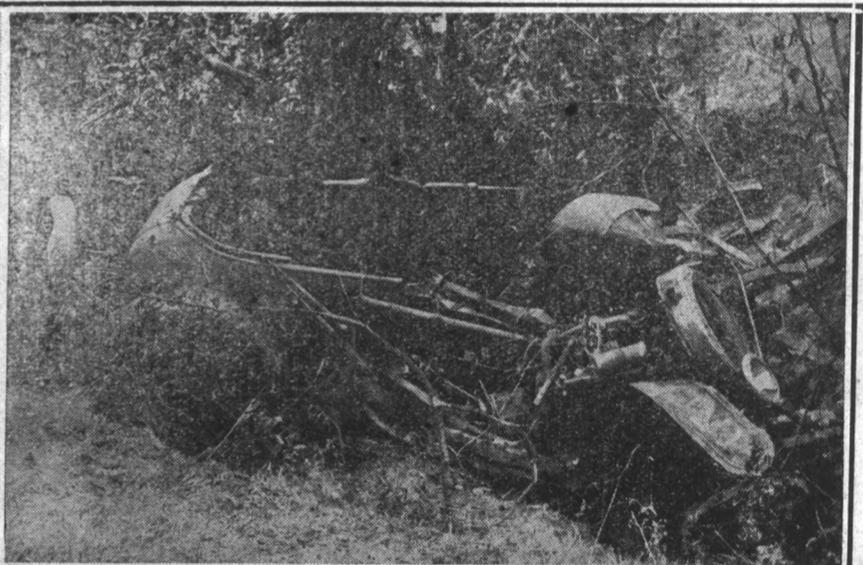
**BEAUTY CAPTURES TWO CUPS AT THE PAGEANT**—Miss Thelma Blossom, or "Miss Indianapolis" as she was known, snapped while in her roller chair at Atlantic City holding the two cups she won at a pageant recently held there. She received one of the cups for being adjudged winner of the roller chair parade and won the other as "America's most beautiful girl in evening dress." Miss Blossom was chosen from 57 beauties represented as many different cities in America. "Miss Detroit," representing Michigan's metropolis was second.



**ONE PASSENGER RUNABOUT APPEARS ON STREETS OF LONDON**—Traffic jams were to be found on every hand but even the "bobbies" forgot their troubles and smiled when this "automobile" passed down the streets of London, England, recently. Reports have it that these small autos are becoming quite popular in England. Prices range from \$300 to \$400. It would be dangerous business trying to drive one on the streets of Detroit, or other large American cities, owing to the heavy traffic but one would be handy on the farm—son John could use it to go after the cows.



**NO PLACE FOR A BURGLAR**—The "Telealarm," invented by J. R. Colman of London, will catch a burglar as well as give alarm at the outbreak of a fire. It consists of a box containing a telephone and a graphophone. The latter is connected with electric wires placed across all doors and windows and when one of the wires is touched it starts the graphophone. At the same time the voice gives the alarm over the telephone which is connected with the exchange. The open circuit on the same record gives warning when fire breaks out. The alarm continues for twenty minutes.



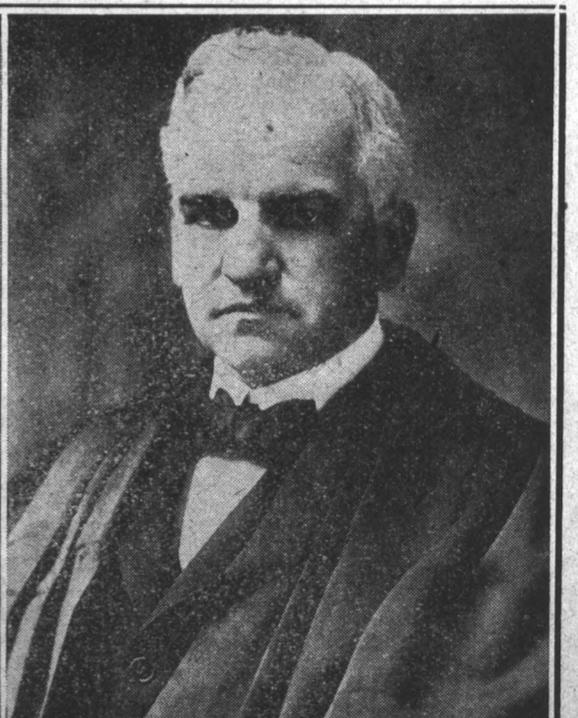
**JUST LIKE A MOVIE THRILLER**—After this automobile struck a telephone pole, crashed through a wooden fence and plunged down a 200 foot embankment into a deep ravine, the gasoline tank exploding enroute, enveloping the machine in flames, its occupants Mr. and Mrs. George Halland of Cincinnati, Ohio, were extricated from the wreckage without being seriously injured. Policemen who rescued them, say they have a charmed life. We are of the same opinion, what is yours?



**NOW, ALL TOGETHER**—Bandmaster Ape, a trained ape of Berlin, Germany, in his best conductor's manner, baton raised, hair wildly waving, a la Genius, and eyes concentrated, is endeavoring to get the best results from his band. His imitation is declared by all who have seen him as "wonderful"—so natural and so life-like.



**SHOVELING SALT IN A MICHIGAN REFINERY**—It looks as though there has been a big snow storm, now doesn't it? But you would find it a bit briny to your taste for it is salt that you see. The above was taken in one of the great salt refineries located at St. Clair, Michigan.



**BELIEVES IN LEAGUE OF NATIONS**—Former Associated Justice John H. Clarke who retired from the U. S. Supreme Court bench last month at the age of 65 says that it is his ambition to see America enter the League of Nations. It has been rumored Ex-justice Clarke may be the Democratic candidate for President at the next election.

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Unless you see the name "Bayer" on package or on tablets you are not getting the genuine Bayer product prescribed by physicians over twenty-two years and proved safe by millions for

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- Pain, Pain

Accept "Bayer Tablets of Aspirin" only. Each unbroken package contains proper directions. Handy boxes of twelve tablets cost few cents. Druggists also sell bottles of 24 and 100. Aspirin is the trade mark of Bayer Manufacture of Monoacetic-acidester of Salicylicacid. (1)

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Make \$2,000 to \$10,000 Yearly

Our graduates are able to step into good jobs as soon as Course is completed. Many go in business for themselves. Edwards, (Mich.) was offered \$40.00 per week a few days after completing our course; Nelson (N. Y.) took our Course when 17, now has five men working for him; Tibb (Mich.) gets \$50.00 per week; Wolf (Iowa) making about \$75.00 weekly in business of his own; Anderson (Minn.) made \$300 per month in garage of his own. Hundreds more like these in our files. Complete Course—Endorsed by Big Auto Factories

Every branch of the auto business is taught: construction, operation, tuneup, and repair of autos, tractors, trucks, farm lighting plants, and gas engines. We teach by actual experience on each machine. No guess work. Students visit auto factories, meet executives and service men, and learn factory methods right where 70% of automobiles are made. In fact the big auto factories helped outline our Courses and heartily endorse our school.

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Our Balanced Corrugated Anchor Plate makes every post drive straight—keeps post in four directions instead of two—prevents leaning. Four Earth Locks cling to soil with bull dog grip. Send for FREE Post Folder describing six exclusive Can't-Sag features.

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MICHIGAN BUSINESS FARMER  
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# The Hunted Woman

By James Oliver Curwood

Michigan's Own and America's Formost Author of the Great Northwest

### THE SYNOPSIS

A WOMAN with a pearl-gray veil drawn closely about her face is one of the many passengers on the train that connects "The Horde" with the civilized world. For eighteen hours she has been riding steadily bound for Tete Jaune Cache, the land of "The Horde," where she has no friends and all will be strange to her. The train stops at a town composed of several tents and she inquires how long the train will stop and is advised that it will not move for at least two hours. Desiring food and a bath she asks where she can secure them and is directed to "Bill's Shack". Bill's Shack is owned and operated by Bill Quade, leader of the lawless band of the town. When she steps inside the doorway she recognizes him as a brute but as she has entered and is very hungry and dusty she decides to go through with her plan. Quade says he has a room she can rent and asks her to follow him. As they pass out of the room there appears a newcomer in the doorway opening off the street. The newcomer is not of the kind of men lounging about the room but shows in face and in actions that he is of the wholesome living type. He has seen the girl enter this place and believes she has made a mistake and as he stands in the doorway his eyes rest upon the curtain-covered doorway through which the girl and Quade has just passed. In but a moment the girl steps out, her face flaming like fire and eyes filled with the flash of lightning. Quade follows her apologetically. He starts to offer the girl a roll of money but before he can do so the newcomer steps to the girl's side and strikes Quade with terrific force. The Brute goes down in a heap and the newcomer hurries the girl outside and away from the scene. The newcomer, who is John Aldous a novelist and known as a woman hater, learns from the girl that her name is Joanne Gray. He takes her to the home of a friend and returns to Bill's Shack warning Quade to leave the girl alone. He returns to the girl and asks her to be his guest at supper in his cabin. She accepts.

(Continued From Last Issue)

"YES," said Aldous, deliberately. "You are that Joanne. But you possess what I could not give her. Joanne of 'Fair Play' was splendid without a soul. You have what she lacked. You may not understand, but you have come to perfect what I only partly created."

The colour had slowly ebbed from Joanne's face. There was a mysterious darkness in her eyes.

"If you were not John Aldous I would strike you," she said. "As it is—yes—I want you as a friend."

She held out her hand. For a moment he felt its warmth again in his own. He bowed over it. Her eyes rested steadily on his blond head, and again she noted the sprinkle of premature gray in his hair. For a second time she felt almost overwhelmingly the mysterious strength of this man. Perhaps each took three breaths before John Aldous raised his head. In that time something wonderful and complete passed between them. Neither could have told the other what it was. When their eyes met again, it was in their faces.

"I have planned to have supper in my cabin to-night," said Aldous, breaking the tension of that first moment. "Won't you be my guest, Ladygray?"

"Mrs. Otto—" she began. "I will go to her at once and explain that you are going to eat partridges with me," he interrupted. "Come—let me show you into my workshop and home."

He led her to the cabin and into its one big room.

"You will make yourself at home while I am gone, won't you?" he invited. "If it will give you any pleasure you may peel a few potatoes. I won't be gone ten minutes."

Not waiting for any protest she might have, Aldous slipped back through the door and took the path up to the Ottos'.

### CHAPTER V

AS soon as he had passed from the view of the cabin door Aldous shortened his pace. He knew that never in his life had he needed to readjust himself more than at the present moment. A quarter of an hour had seen a complete and miraculous revolution within him. It was a change so unusual and apparently so impossible that he could not grasp the situation and the fact all at once. But the truth of it swept over him more and more swiftly as he made his way along the dark, narrow trail that led up to the Niette Plain. It was something that not only amazed and thrilled him. First—as in all things—he saw the humour of it. He, John Aldous of all men, had even gone so far as to offer the sacrifice of his most important work. Frankly he had told Joanne that she interested him more just now than his book. Again he repeated to himself that it had not been a surrender—but an obliteration. With a pair of lovely eyes looking quietly into him, he had wiped the slate clean of the things he had preached for ten years and

the laws he had made for himself. And as he came in sight of the big Otto tent, he found himself smiling, his breath coming quickly, strange voices singing within him.

He stopped to load and light his pipe before he faced Mrs. Otto, and he clouded himself in as much smoke as possible while he explained to her that he had almost forced Joanne to stop at his cabin and eat partridges with him. He learned that the Tete Jaune train could not go on until the next day, and after Mrs. Otto had made him take a loaf of fresh bread and a can of home-made marmalade as a contribution to their feast, he turned back toward the cabin, trying to whistle in his old careless way.

The questions he had first asked himself about Joanne forced themselves back upon him now with deeper import. Almost unconsciously he had revealed himself to her. He had spread open for her eyes and understanding the page which he had so long hidden. He had as much as confessed to her that she had come to change him—to complete what he had only half created. It had been an almost inconceivable and daring confession, and he believed that she understood him. More than that, she had learned about him. She had read his books. She knew John Aldous—the man.

But what did he know about her beyond the fact that her name was Joanne Gray, and that the on-sweeping Horde had brought her into his life as mysteriously as a storm might have flung him a bit of down from a swan's breast? Where had she come from? And why was she going to Tete Jaune? It must be some important motive was taking her to a place like Tete Jaune, the rail-end, a place of several thousand men, with its crude muscle and brawn and the seven passions of man. It was an impossible place for a young and beautiful woman unprotected. If Joanne had known any one among the engineers or center of introduction to them, the tense tractors, or had she possessed a let-lines would not have gathered so deeply about the corners of Aldous' mouth. But these men whose brains were behind the Horde—the engineers and the contractors—knew what women alone and unprotected meant at Tete Jaune. Such women floated in with the Horde. And Joanne was going in with the Horde. There lay the peril—and the mystery of it.

So engrossed was Aldous in his thoughts that he had come very quietly to the cabin door. It was Joanne's voice that roused him. Sweet and low she was singing a few lines from a song which he had never heard.

She stopped when Aldous appeared at the door. It seemed to him that her eyes were a deeper, more wonderful blue as she looked up at him, and smiled. She had found a towel for an apron, and was peeling potatoes.

"You will have some unusual excuses to make very soon," she greeted him. "We had a visitor while you were gone. I was washing the potatoes when I looked up to find a

pair of the fiercest, reddest moustaches I have ever seen, ornamenting the doorway. The man had two eyes that seemed about to fall out when he saw me. He popped away like a rabbit—and—and—there's something he left behind in his haste!"

Joanne's eyes were flooded with laughter as she nodded at the door. On the sill was a huge quid of tobacco.

"Stevens!" Aldous chuckled. "God bless my soul, if you frightened him into giving up a quid of tobacco like that you sure did startle him some!" He kicked Stevens' lost property out with the toe of his boot and turned to Joanne, showing her the fresh bread and marmalade. "Mrs. Otto sent these to you," he said. "And the train won't leave until tomorrow."

In her silence he pulled a chair in front of her, sat down close, and thrust the point of his hunting knife into one of the two remaining potatoes.

"And when it does go I'm going with you," he added.

He expected this announcement would have some effect on her. As she jumped up with the pan of potatoes, leaving the one still speared on the end of his knife, he caught only the corner of a bewitching smile.

"You still believe that I will be unable to take care of myself up at this terrible Tete Jaune?" she asked, bending for a moment over the table. "Do you?"

"No. You can care for yourself anywhere, Ladygray," he repeated. "But I am quite sure that it will be less troublesome for me to see that no insults are offered you than for you to resent those insults when they come. Tete Jaune is full of Quades," he added.

The smile was gone from her face when she turned to him. Her blue eyes were filled with a tense anxiety.

"I had almost forgotten that man," she whispered. "And you mean that you would fight for me—again?"

"A thousand times."

The colour grew deeper in her cheeks. "I read something about you once that I have never forgotten, John Aldous," she said. "It was after you returned from Thibet. It said that you were largely made up of two emotions—your contempt for woman and your love of adventure; that it would be impossible for you not to see a flaw in one, and that for the other—physical excitement—you would go to the ends of the earth. Perhaps it is this—your desire for adventure—that makes you want to go with me to Tete Jaune?"

"I am beginning to believe that it will be the greatest adventure of my life," he replied, and something in his quiet voice held her silent. He rose to his feet, and stood before her. "It is already the Great Adventure," he went on. "I feel it. And I am the one to judge. Until to-day I would have asked my life that no power could have wrung from me the confession I am going to make to you voluntarily I have laughed at the opinion the world has held of me. To me it has all been a colossal joke. I have enjoyed the hundreds of columns aimed at me by excited women through the press. They have all asked the same question: Why do you not write of the good things in women instead of always the bad? I have never given them an answer. But I answer you now—here. I have not picked upon the weaknesses of women because I despise them. Those weaknesses—the destroying frailties of womankind—I have driven over roughshod through the pages of my books because I have always believed that Woman was the one thing which God came nearest to creating perfect. I believe they should be perfect. And because they have not quite that perfection which should be theirs I have driven the cold facts home as hard as I could. I have been a fool and an inconoclast instead of a builder. This confession to you is proof that you have brought me face to face with the greatest adventure of all."

The colour in her cheeks had centred in two bright spots. Her lips formed words which came slowly, strangely.

"I guess—I understand," she said. "Perhaps I, too, would have been that kind of an inconoclast—if I could have put the things I have thought into written words." She

(Continued on page 15.)



Interesting stories from three of our oldest customers



"I received my first Montgomery Ward price list in 1872, and I became a customer almost immediately. The catalogue has been coming regularly ever since, and I have been doing business with Montgomery Ward & Co. practically all of that time.

"I wish to state, that in all of those years there has never been any occasion to make a complaint or to return any goods we have ordered from Montgomery Ward & Co."

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A Customer Since 1872

For fifty years, ever since Montgomery Ward & Co. was started, Mrs. Merrick has taken a keen interest in its development.

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"I have always had the most courteous treatment from you," she said. "I believe that much of your success has been due to your unflinching policy of fair dealing."



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"I have traded with Montgomery Ward & Co. for 45 years," he said, "and I have never found anything wrong that has not been satisfactorily settled. If you continue to deal as fairly with your customers as you have in the past you will surely prosper."

Mr. George Beatty, Winston, Montana  
A Customer Since 1877

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This book is saving many millions of dollars for the American people.

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This book—our Golden Jubilee Catalogue—celebrates our 50th Anniversary by offering you the lowest prices possible on everything for the Home, the Farm and the Family.

It is filled with bargains—with merchandise of high quality. And every price is a Money Saving price for you.

For Fifty Years Montgomery Ward & Co. have earnestly worked to serve the American people.

Today millions of people are buying from this book on faith in the name "Montgomery Ward."

And it is our policy to keep faith with our customers. It is our policy to sell only serviceable goods, to serve you promptly—always to offer you a saving—and to deal with you always in the full spirit of the Golden Rule.

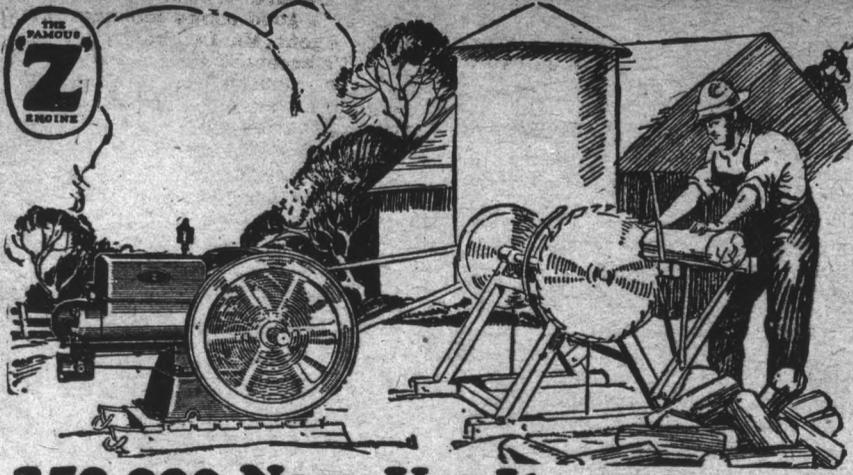
Montgomery Ward & Co. begins its second half-century of business existence. Yet today it is filled with the spirit of youth; alert, looking ahead, improving its service, filling orders quicker, and offering lower and lower prices.

To buy from this Golden Jubilee Catalogue is to be guaranteed a definite saving and entire satisfaction—and back of this guarantee is the reputation of Fifty Years of fair dealing.

Buy from this book. Fill all your needs from this book. Consult it daily to find the right price, the lowest price for dependable, reliable goods of standard quality.

The Oldest Mail Order House is Today the Most Progressive  
**Montgomery Ward & Co.**

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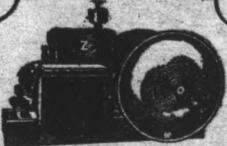


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## Farmers Service Bureau

(A Clearing Department for farmers' every day troubles. Prompt, careful attention given to all complaints or requests for information addressed to this department. We are here to serve you. All inquiries must be accompanied by full name and address. Name not used if so requested.)

### CLEAR OUT SWALE

Can you thru your Farmers Service Bureau tell me how I can clear out a swale covering one acre, it is covered at present with willow and other small brush, as it is at present it only dries out for about six weeks of the year and then not sufficiently that I can get a horse in to pull them. It is my opinion that if this can be cleared permanently I would be able to get a little pasture, or in some other way use it.—R. F. P., Hastings, Michigan.

—I believe the simplest plan, if the ground is solid enough to hold up a team around the swale, is to use a long rope with the team on solid ground for pulling the willows. Perhaps this will require two men to do the work in addition to the team, but it is a very inexpensive way of handling the proposition.

Another suggestion which might be made is that the possibility of draining this hole should be investigated, if possible to drain it would, of course, be possible to use a team on it at practically any time.—H. H. Musselman, Professor of Farm Mechanics, M. A. C.

### CANNOT RECOVER TAX

If a party didn't know whether he had to pay tax on cut-over land or not and had already paid his tax before he found out, would the tax collector be obliged to give it back to the landowner?—Mrs. F. D. A., Edmore, Mich.

—No. The property owners who believe himself entitled to exemption from taxes is supposed to make application for such exemption. If through ignorance of the law or oversight he fails to do so and the tax is levied and paid he cannot recover.—Editor.

### MIDLAND MUTUAL INSURANCE COMPANY

An agent of the Midland Mutual Insurance Co., of Columbus, Ohio, states that they have deposited \$75,000.00 at Lansing to do business in the state of Michigan. Is this true?—W. R., Hoxeyville, Mich.

The Midland Mutual Life Insurance Company of Columbus, Ohio, has on deposit with the Superintendent of Insurance of the State of Ohio \$100,000.00 for the protection of its policyholders. The company is not required to maintain a deposit in Michigan in order to receive license to transact business herein.—H. B. Corell, State Dept. Insurance, Lansing.

### LIQUID IN BATTERY MUDDY

We have a 32-volt electric lighting plant that we have had about a year. The batteries consist of 16 glass jars with rubber plates fastened together by bands. At first when fully charged the liquid would foam and become almost milky. Lately after becoming milky the fluid becomes dark and almost muddy, when fully charged. Would overcharging the batteries cause this or is the fluid or acid worn out?—Subscriber, Mich.

—The dark color of the electrolyte would indicate that active material from the plates has been dislodged somewhat, due to the battery being charged at too high a rate. The plates in the cells may have deteriorated, somewhat, so that the battery cannot now be charged at as high a rate as when it was new. You may use lights or other equipment while charging the battery making it charge at a lower rate or have your agent adjust the plant to charge at a lower rate.—F. E. Fogle, Ass't Professor of Farm Mechanics, M. A. C.

### RATS GET IN CELLAR

I have trouble with rats getting in my cellar and digging holes. What can I do to kill them? I got a trap set and put rat biscuits in it but they don't touch the biscuits.—Mrs. I. E., Grand Junction, Mich.

—It is difficult to rid any place of rats, it will be very hard to rid this place. We have no printed matter but you can get a bulletin entitled, "How to Destroy Rats", by writing the Biological Survey, U. S. Department

of Agriculture, Washington, D. C. All we can say is to use any poison which you can make the rats take. There are a dozen kinds on the market most of them contain either arsenic, strychnine or phosphorous. One of the less harmful poisons is Barium Carbonate which kills rats promptly but in small doses is not harmful to most domestic animals. I am giving directions below as given by the Washington Bureau mentioned above. In dealing with rats the main thing is to cut off the food supply. Either make the premises rat-proof or keep the food in rat-proof containers. Rats will not stay where they cannot get food. No one kind of trap will be satisfactory under all conditions, sometimes ten different kinds must be tried in order to catch the last and wisest rat.—Walter B. Barrows, Professor of Zoology, M. A. C.

One of the cheapest and most effective poisons for rats and mice is barium carbonate. This mineral has the advantage of being without taste or smell. It has a corrosive action on the mucous lining of the stomach and is dangerous to larger animals if taken in sufficient quantity. In the small doses fed to rats and mice it would be harmless to domestic animals. Its action upon rats is slow, and if exit is possible they usually leave the premises in search of water. For this reason the poison may frequently, though not always, be used in houses without disagreeable consequences.

Barium carbonate may be fed in the form of dough composed of four parts of meal or flour and one part of the mineral. A more convenient plan is ordinary oatmeal with about one-eighth of its bulk of the mineral, mixed with water into a stiff dough. A third plan is to spread the barium carbonate upon fish, toasted bread (moistened), or ordinary bread and butter. The prepared bait should be placed in rat runs, about a teaspoonful at a place. If a single application of the poison fails to kill or drive away all rats from the premises, it should be repeated with a change of bait.—Farmers Bulletin, No. 369, U. S. Department of Agriculture.

### FALLEN TELEPHONE POLES

We have received some complaints from subscribers against telephone companies which have not yet removed poles which were felled by the ice storm last spring, or renewed service on their lines. These complaints have been referred to the Public Utilities Commission which has jurisdiction in the matter. The Commission is now seeking information on such cases in order that it may compel telephone companies to remove their poles and renew service. Subscribers who know of any such condition existing are requested to report the full facts to the Commission at Lansing, stating the name and address of the company, township or townships in which the lines are still unrepaired and subscribers inconvenienced as a result and the extent of such inconvenience.—Editor.

### NEED NOT DONATE LAND FOR HIGHWAY

I own a farm that is located on a corner. Three years ago the township had the highway surveyed out and I then built my fence allowing two rods and five inches for the road. Now the township wants me to move my fence back two rods more and threaten to sue me if I do not. The fence has stood there for nearly three years. Can they compel me to move it back? I would much appreciate your opinion upon this matter.—A. L. T., Presque Isle County, Mich.

—You are not obliged to donate any land whatever for highway purposes. If you have enclosed your premises by a fence and the public has never been in possession the township cannot obtain such land except by condemnation proceedings and pay you the full value of the land for farm purposes.—Legal Editor

### THE FOUNDATION OF GOOD CROPS

"As ye sow"—Solvay Pulverized Limestone—"so shall ye reap"—bigger, better, more profitable crops. Solvay brings crops to quick, complete maturity by making soil sweet; releasing all plant-food to the growing crops. Guaranteed high test 95% carbonates—ground fine, furnace dried, easily spread. Crop improvement shows first harvest.

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- They are made especially for use on Coleman Quick-Lite Lamps and Lanterns—Work perfectly with the Quick-Lite gas tip and air intake in producing 300 candle power of pure-white brilliance.
- They are full size, correctly shaped, knit to proper mesh, saturated with purest chemicals by special Coleman Process, thus insuring plenty of clear, natural, steady light.
- Coleman Mantles are made of long-fibre Egyptian cotton and have reinforced patented bottoms, giving double strength where gas pressure is greatest.
- Easy to attach. Best for use on all makes of gasoline lighting devices.
- Use only the genuine. Look for the name "Coleman" on the mantles you buy. Get them by the box—12 to a package.

If your dealer can't supply you, order direct. Price, \$1.20 per dozen, postpaid. Address, Dept. MB 65

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Do you know that the manure produced by one cow in twelve months contains fertilizing elements valued at \$39? And do you know that one-third, or \$13 of this amount is lost in the course of a year through improper handling? By providing a simple easy-to-build pit outside the barn, this loss can be prevented.

Write for this Free Book, "Concrete on the Dairy Farm" and see the many money-saving suggestions it gives on the use of concrete in making permanent improvements. Properly housed dairy cattle return greatest profit on the investment. This free book is recognized as a simple guide to 100% efficiency and economy in building on the dairy farm. Fully illustrated with diagrams and pictures. Shows how to build barns, milk-houses, silos, icehouses, cooling tanks, paved barnyards, manure pits, water supply systems, etc.

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If you have poultry for sale put an ad in **The MICHIGAN BUSINESS FARMER** You'll get Results!



## Rains Improve Crop Outlook in Europe

**ALFRED P. DENNIS**, special representative of the Department of Commerce, now in Berlin, reports that August weather conditions were favorable to the French wheat harvest, and though the yield will be about 20 per cent short of that of last year, the quality of the new grain is good, being rich in gluten and above the average. Excessive rains affected adversely the harvests in England, Sweden, Denmark, and Germany. The quality of the wheat, however, is much improved.

The protracted hot, rainless spell seriously reduced the corn crop prospects in Italy and Jugoslavia; the deterioration in the latter country being estimated at 30 per cent. The Rumanian corn crop is now estimated at 129,000,000 bushels instead of 184,000,000 bushels as previously reported, based on an average yield of not over 15 bushels per acre, with the surplus for export estimated at 48,000,000 bushels. It is estimated that the new wheat crop of Rumania will furnish 7,000,000 bushels for exports, all of which will likely be absorbed in the commitments already made to France and Switzerland.

The estimated total yield for Rumania of all cereal crops is 9,000,000 tons, as compared with 6,993,487 tons in 1921. Aside from Rumania, Poland is the only other European country which shows marked gains in the bread-grain crops over last year with official estimates given at 6,558,000 tons this season as compared with 5,412,000 tons in 1921.

### Italy Needs 110,000,000 Bu. Wheat

With a poor potato and corn crop and a wheat yield 20 per cent under that of last year, Italy will need to import approximately 110,000,000 bushels of wheat during this cereal year. The French wheat crop is considerably below the crop of 1921, but probable imports are now figured down to 35,000,000 bushels, owing to compulsory long milling, the dilution of flour and the falling off in the per capita consumption of bread.

Germany is reported as carrying 600,000 tons of government stocks of wheat and rye, leaving the total necessary imports of cereals by the state at 1,400,000 tons during the current cereal year. Rye is making a better showing than wheat in all the principal grain producing countries, giving about an average return per acre, but with the exception of Poland the acreage planted in rye this year was less than last season.

Private importations into Germany are dominated by the money stringency, with the stocks of grain in the millers hands running low, and importers are hesitant about making commitments owing to the violent fluctuations of the mark. To see the country through the coming winter heavy private importations will be required. American sales might be increased through more liberal credit arrangements on this side, to the effect that grain might be shipped to the big responsible milling associations, such as exist in the lower Rhine region, at a stipulated price in dollars, with payment deferred until the grain actually arrives and has been converted into flour. Knowing the dollar exchange value of the mark on the date the flour is sold a price to the bakers could be made which would be sufficient to cover the cost of the grain and afford secure profits to the importing millers. In general it would not seem advisable for American grains to be pressed for sale on the European markets at this precise time.

### Beet and Potato Crops

The population in Northern Europe are assured heavier crops of beet root and potatoes. This increase production of potatoes will be a great help toward meeting the cereal deficiencies. Owing to the big yield of potatoes in England the market is being glutted.

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and Czechoslovakia are luxuriant, but unless warm, sunshiny weather sets in, the roots will be deficient in sugar content. The French beets have prospered under ideal growing conditions. Sweden will show a big drop in sugar production, and the Italian beet yield has been seriously hurt by the drouth.

### MUSINGS OF A PLAIN FARMER

Sanilac Co. seat is active today. Is it the primaries or the Farm Bureau? Both I believe.

There are groups of F. B. delegates scattered about the streets.

Where do we eat? Seems to be the big question.

That's the fifteenth candidate that has presented himself for my inspection.

Ah! Dinner is ready. Every man for himself here. Our table manners are limited to the length of our arm.

A short smoke for the smokers and then to business.

Order, Credentials. Resolutions, motions, amendments steam-rollers and what not.

Points more than all the lawyers in Bohemia could handle.

The secretary of the different locals are giving some long figures. They all report a balance on the right side of the ledger. Press forward boys! And may the angels and ministers of grace defend you.

County Agent Irving of Huron is presenting some facts and figures that's getting under my peit. He is emphasizing the importance of the farmers' support in the coming membership drive. I am going to sign up. Though hades itself should gap and threaten to engulf me.

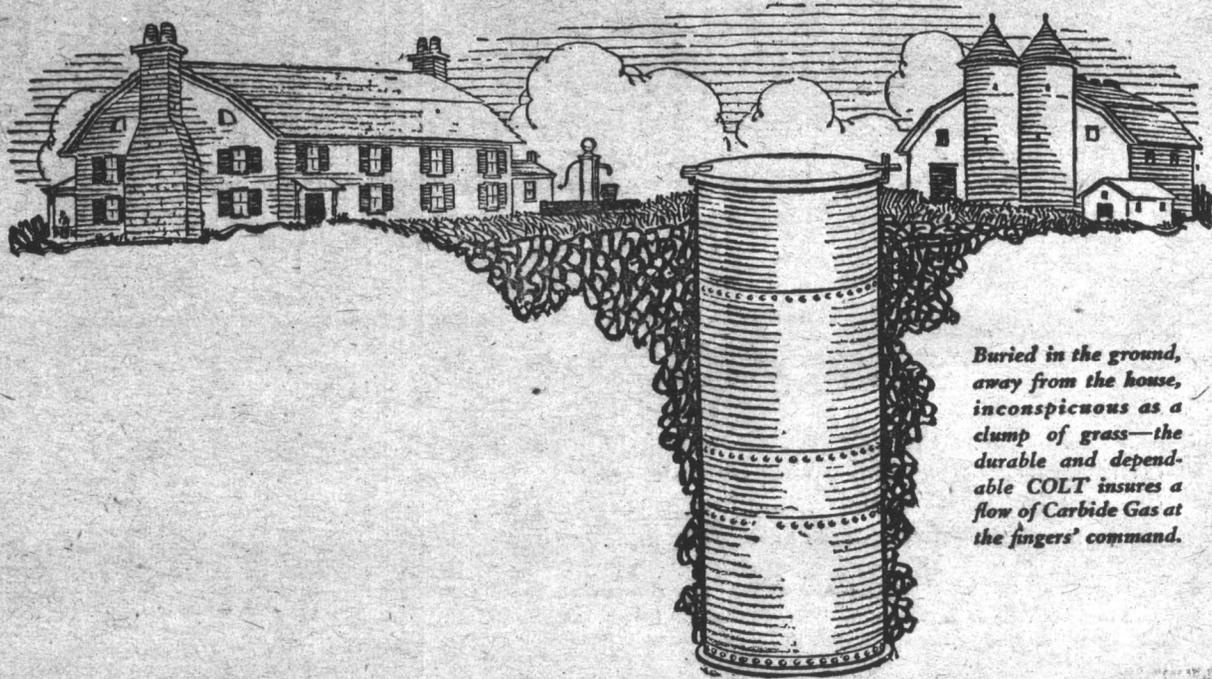
C. V. Ballard of the M. A. C. is giving us a good sound business talk. County Agent Martin makes his report. It's accepted with thanks. He forgot to mention the six million questions he answered during the year, and that he helped me get some seed potatoes.

Election of officers. A good lineup from the president down to the janitor.

Adjournment until the picnic when we will meet again.

She was a good meeting. Where O where are those bachelor delegates that came with me? I want to go home.

It will be their business to explain to Mrs. B. when they drop me off at the gate. I must trace up some young ladies that would be willing to co-operate with them.—A. P. Ballard.



Buried in the ground, away from the house, inconspicuous as a clump of grass—the durable and dependable COLT insures a flow of Carbide Gas at the fingers' command.

## Plant a COLT "Gas Well" on your farm NOW!

The months of short days and long nights are on their way.

Six months of evenings to be passed indoors await you!

Will they be lighted by the dim, eye-straining flame of a lamp—or the soft, friendly brilliance of real light—CARBIDE GAS LIGHT?

Act NOW for real light! Get a COLT Lighting and Cooking Plant—generate this wonderful Carbide Gas.

Hundreds of farmers are preparing this month for bright, cheery evenings by installing COLTS. This is the great planting season for COLTS. More are being installed this Autumn than in any other season. Don't risk disappointment—order your COLT now, before Winter closes in.

### The Health Light for Reading

Carbide Gas Light is pure white in color—not yellow. Looks exactly like sunlight—restful and soothing to the eyes. Read or sew under it for hours—no eye weariness. The most beautiful as well as the most healthful of artificial lights.

Comes to you at the twist of fingers. Turn a little igniter. . . . on goes the light! You use no matches.

Carbide Gas for cooking, too—an added feature of the COLT. Your wife will certainly appreciate this.

How is the gas made? The COLT does this automatically—mixes Carbide with water.

### Study Lighting Plant Costs. Result: You'll Install a Colt

Easy to install—within reach of all. No continual replacement of parts, no adjusting or tinkering necessary, no service required—simplicity itself. The most economical system all the way thru. Comes from Factory to Farm. Sold direct by COLT solicitors—no distributors or dealers to take a profit.

### Send Postcard for Full Story

You want good light—you want it installed now. Write for full particulars—then act for BETTER LIGHT!

## J. B. COLT COMPANY

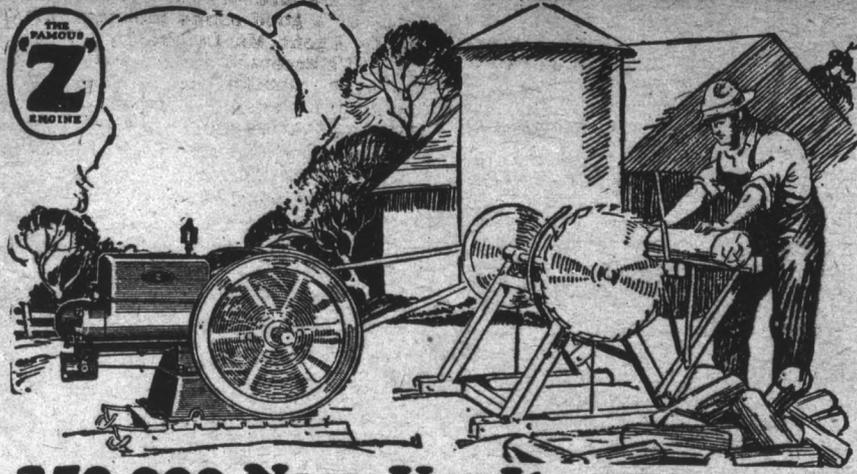
30 East 42nd St., New York

8th and Brannan, San Francisco



Oldest and largest manufacturers of Carbide Lighting-and-Cooking Plants in the World

31ST SUCCESSFUL YEAR



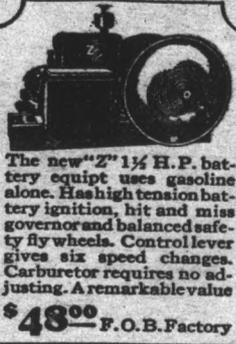
### 350,000 Now Use It

The simple, dependable Fairbanks-Morse "Z" Engine has taken much of the drudgery out of the work on more than 350,000 farms. Don't waste your own time and strength on blistering, back-breaking jobs that this engine can do quicker and easier. At present low prices, it is the cheapest "hired help" you can get. The magneto equipt 1 1/2 H.P., 3 H.P., and 6 H.P. are real kerosene engines, but operate equally well on gasoline. Simple, high tension oscillating magneto produces hot spark, starting engine quickly. Throttling governor assures steady speed. Prices, F. O. B. factory:

1 1/2 H.P. - \$71.00 3 H.P. - \$105.00 6 H.P. - \$168.00

Other "Z" Engines up to 20 H.P.  
Write us for complete details.  
See the engines at your dealer's.

**FAIRBANKS, MORSE & CO.**  
Manufacturers Chicago



The new "Z" 1 1/2 H.P. battery equipt uses gasoline alone. Has high tension battery ignition, hit and miss governor and balanced safety fly wheels. Control lever gives six speed changes. Carburetor requires no adjusting. A remarkable value \$48.00 F.O.B. Factory

### THE FOUNDATION OF GOOD CROPS

"As ye sow"—Solvay Pulverized Limestone—"so shall ye reap"—bigger, better, more profitable crops. Solvay brings crops to quick, complete maturity by making soil sweet; releasing all plant-food to the growing crops. Guaranteed high test 95% carbonates—ground fine, furnace dried, easily spread. Crop improvement shows first harvest.

**SOLVAY PULVERIZED LIMESTONE**

Keep posted on lime and its use. Write for Booklet—sent FREE.  
**THE SOLVAY PROCESS CO.**  
Sales Agent, WING & EVANS, Inc. 625 Book Building, Detroit, Mich.

Licensed Under Patent No. 1,377,513

### Use Only Genuine Coleman Mantles

They Give Better Light and Last Longer

- They are made especially for use on Coleman Quick-Lite Lamps and Lanterns—Work perfectly with the Quick-Lite gas tip and air intake in producing 300 candle power of pure-white brilliance.
- They are full size, correctly shaped, knit to proper mesh, saturated with purest chemicals by special Coleman Process, thus insuring plenty of clear, natural, steady light.
- Coleman Mantles are made of long-fibre Egyptian cotton and have reinforced patented bottoms, giving double strength where gas pressure is greatest.
- Easy to attach. Best for use on all makes of gasoline lighting devices.
- Use only the genuine. Look for the name "Coleman" on the mantles you buy. Get them by the box—12 to a package.

If your dealer can't supply you, order direct. Price, \$1.20 per dozen, postpaid. Address, Dept. MB 68

**THE COLEMAN LAMP CO.**  
Wichita, Kansas  
Philadelphia Chicago Los Angeles  
Canadian Factory: Toronto

### Saws 15 Cords a Day!

Mechanically more easily with this new saw than 1 Operated man can saw 2 cords by hand. Best coal value, shortage—make Big Money with new

**1925 MODEL OTTAWA**

One Man Log Saw

2 and 4 H.P. LOW PRICES. Shipped from Factory or Branch Houses. Burns kerosene. Cash, Easy Terms. Free Book—write. OTTAWA MFG. CO. 1451 N. Wood St. OTTAWA, KANSAS

### Make \$13 More Per Cow

Free Book for Dairy Farmers Tells How to Cut Out Waste; Gives Valuable Building Hints

Do you know that the manure produced by one cow in twelve months contains fertilizing elements valued at \$39? And do you know that one-third, or \$13 of this amount is lost in the course of a year through improper handling? By providing a simple easy-to-build pit outside the barn, this loss can be prevented.

Write for this Free Book, "Concrete on the Dairy Farm" and see the many money-saving suggestions it gives on the use of concrete in making permanent improvements. Properly housed dairy cattle return greatest profit on the investment. This free book is recognized as a simple guide to 100% efficiency and economy in building on the dairy farm. Fully illustrated with diagrams and pictures. Shows how to build barns, milk-houses, silos, icehouses, cooling tanks, paved barnyards, manure pits, water supply systems, etc.

**Concrete on the Dairy Farm**

**PORTLAND CEMENT ASSOCIATION**  
Dime Bank Building  
DETROIT, MICH.  
A National Organization to Improve and Extend the Uses of Concrete  
Offices in 23 Other Cities

If you have poultry for sale put an ad in **The MICHIGAN BUSINESS FARMER** You'll get Results!

## Farmers Service Bureau

(A Clearing Department for farmers' every day troubles. Prompt, careful attention given to all complaints or requests for information addressed to this department. We are here to serve you. All inquiries must be accompanied by full name and address. Name not used if so requested.)

### CLEAR OUT SWALE

Can you thru your Farmers Service Bureau tell me how I can clear out a swale covering one acre, it is covered at present with willow and other small brush, as it is at present it only dries out for about six weeks of the year and then not sufficiently that I can get a horse in to pull them. It is my opinion that if this can be cleared permanently I would be able to get a little pasture, or in some other way use it.—R. F. P., Hastings, Michigan.

—I believe the simplest plan, if the ground is solid enough to hold up a team around the swale, is to use a long rope with the team on solid ground for pulling the willows. Perhaps this will require two men to do the work in addition to the team, but it is a very inexpensive way of handling the proposition.

Another suggestion which might be made is that the possibility of draining this hole should be investigated, if possible to drain it would, of course, be possible to use a team on it at practically any time.—H. H. Musselman, Professor of Farm Mechanics, M. A. C.

### CANNOT RECOVER TAX

If a party didn't know whether he had to pay tax on cut-over land or not and had already paid his tax before he found out, would the tax collector be obliged to give it back to the landowner?—Mrs. F. D. A., Edmore, Mich.

—No. The property owners who believes himself entitled to exemption from taxes is supposed to make application for such exemption. If through ignorance of the law or oversight he fails to do so and the tax is levied and paid he cannot recover.—Editor.

### MIDLAND MUTUAL INSURANCE COMPANY

An agent of the Midland Mutual Insurance Co., of Columbus, Ohio, states that they have deposited \$75,000.00 at Lansing to do business in the state of Michigan. Is this true?—W. R., Hoxeyville, Mich.

The Midland Mutual Life Insurance Company of Columbus, Ohio, has on deposit with the Superintendent of Insurance of the State of Ohio \$100,000.00 for the protection of its policyholders. The company is not required to maintain a deposit in Michigan in order to receive license to transact business herein.—H. B. Corell, State Dept. Insurance, Lansing.

### LIQUID IN BATTERY MUDDY

We have a 32-volt electric lighting plant that we have had about a year. The batteries consist of 16 glass jars with rubber plates fastened together by bands. At first when fully charged the liquid would foam and become almost milky. Lately after becoming milky the fluid becomes dark and almost muddy, when fully charged. Would overcharging the batteries cause this or is the fluid or acid worn out?—Subscriber, Mich.

—The dark color of the electrolyte would indicate that active material from the plates has been dislodged somewhat, due to the battery being charged at too high a rate. The plates in the cells may have deteriorated, somewhat, so that the battery cannot now be charged at as high a rate as when it was new. You may use lights or other equipment while charging the battery making it charge at a lower rate or have your agent adjust the plant to charge at a lower rate.—F. E. Fogle, Ass't Professor of Farm Mechanics, M. A. C.

### RATS GET IN CELLAR

I have trouble with rats getting in my cellar and digging holes. What can I do to kill them? I got a trap set and put rat biscuits in it but they don't touch the biscuits.—Mrs. I. E., Grand Junction, Mich.

—It is difficult to rid any place of rats, it will be very hard to rid this place. We have no printed matter but you can get a bulletin entitled, "How to Destroy Rats", by writing the Biological Survey, U. S. Department of Agriculture, Washington, D. C.

All we can say is to use any poison which you can make the rats take. There are a dozen kinds on the market most of them contain either arsenic, strychnine or phosphorus. One of the less harmful poisons is Barium Carbonate which kills rats promptly but in small doses is not harmful to most domestic animals. I am giving directions below as given by the Washington Bureau mentioned above. In dealing with rats the main thing is to cut off the food supply. Either make the premises rat-proof or keep the food in rat-proof containers. Rats will not stay where they cannot get food. No one kind of trap will be satisfactory under all conditions, sometimes ten different kinds must be tried in order to catch the last and wisest rat.—Walter B. Barrows, Professor of Zoology, M. A. C.

One of the cheapest and most effective poisons for rats and mice is barium carbonate. This mineral has the advantage of being without taste or smell. It has a corrosive action on the mucous lining of the stomach and is dangerous to larger animals if taken in sufficient quantity. In the small doses fed to rats and mice it would be harmless to domestic animals. Its action upon rats is slow, and if exit is possible they usually leave the premises in search of water. For this reason the poison may frequently, though not always, be used in houses without disagreeable consequences.

Barium carbonate may be fed in the form of dough composed of four parts of meal or flour and one part of the mineral. A more convenient plan is ordinary oatmeal with about one-eighth of its bulk of the mineral, mixed with water into a stiff dough. A third plan is to spread the barium carbonate upon fish, toasted bread (moistened), or ordinary bread and butter. The prepared bait should be placed in rat runs, about a teaspoonful at a place. If a single application of the poison fails to kill or drive away all rats from the premises, it should be repeated with a change of bait.—Farmers Bulletin, No. 369, U. S. Department of Agriculture.

### FALLEN TELEPHONE POLES

We have received some complaints from subscribers against telephone companies which have not yet removed poles which were felled by the ice storm last spring, or renewed service on their lines. These complaints have been referred to the Public Utilities Commission which has jurisdiction in the matter. The Commission is now seeking information on such cases in order that it may compel telephone companies to remove their poles and renew service. Subscribers who know of any such condition existing are requested to report the full facts to the Commission at Lansing, stating the name and address of the company, township or townships in which the lines are still unrepaired and subscribers inconvenienced as a result and the extent of such inconvenience.—Editor.

### NEED NOT DONATE LAND FOR HIGHWAY

I own a farm that is located on a corner. Three years ago the township had the highway surveyed out and I then built my fence allowing two rods and five inches for the road. Now the township wants me to move my fence back two rods more and threaten to sue me if I do not. The fence has stood there for nearly three years. Can they compel me to move it back? I would much appreciate your opinion upon this matter.—A. L. T., Presque Isle County, Mich.

—You are not obliged to donate any land whatever for highway purposes. If you have enclosed your premises by a fence and the public has never been in possession the township cannot obtain such land except by condemnation proceedings and pay you the full value of the land for farm purposes.—Legal Editor

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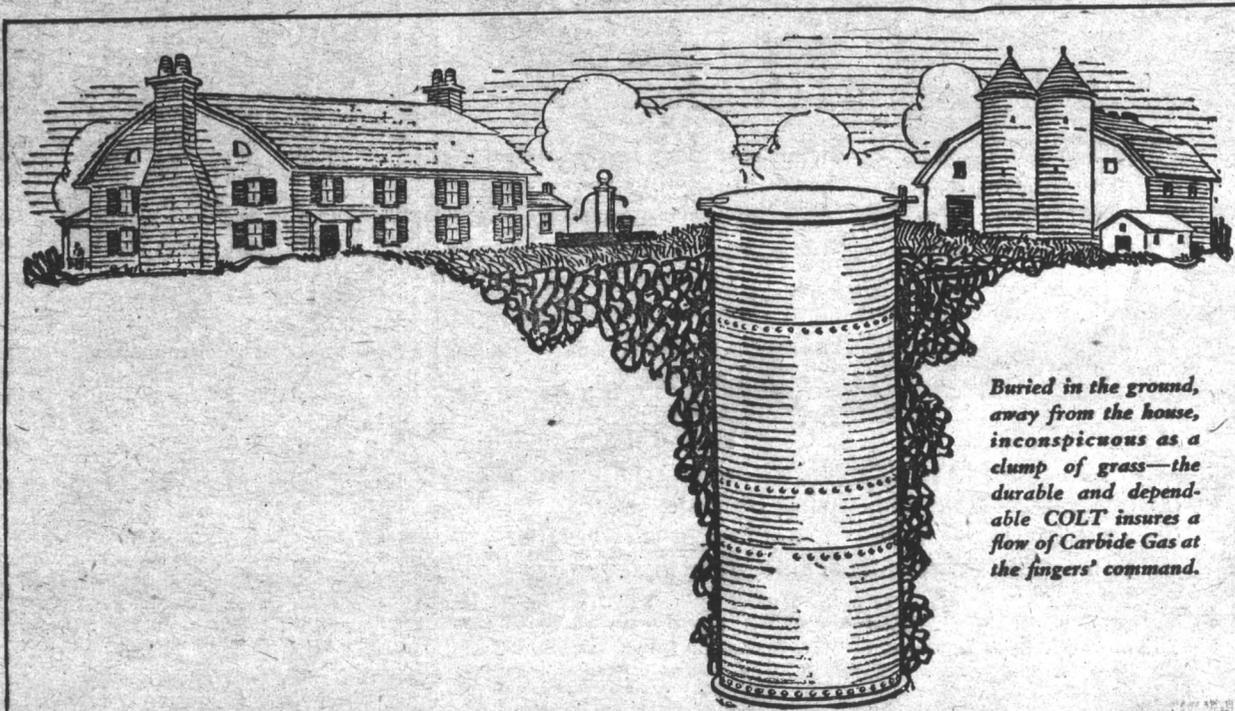
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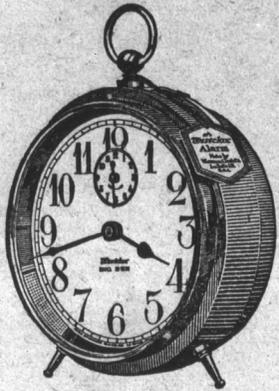
8th and Brannan, San Francisco



Oldest and largest manufacturers of Carbide Lighting and Cooking Plants in the World

31ST SUCCESSFUL YEAR

# Westclox



## The household timekeeper

FOLKS who used to set their minds now set Big Ben and sleep soundly, restfully, confidently. They know that any Westclox alarm will call them on the dot; whether it's at 2 A.M. for the dairyman, or later for 'tween season chores. After it starts the day on time, it sees the children off to school, times the trip to town, meals or

whatever else is needed. It is surprising how often Big Ben gets an inquiring look, and satisfying the way he answers it, day in and day out, demanding almost no attention. That's characteristic of any timepiece with Westclox on its dial. They must be able to run on time and ring on time before they are allowed to wear the name Westclox.

WESTERN CLOCK CO., LA SALLE, ILLINOIS, U. S. A.  
Factory: Peru, Illinois. In Canada: Western Clock Co., Limited, Peterborough, Ont.

Big Ben	Baby Ben	America	Sleep-Meter	Jack o' Lantern	Pocket Ben	Gl-Ben
\$3.50	\$3.50	\$1.50	\$2.00	\$3.00	\$1.50	\$2.50

## One of Our Customers Saved \$120.00 On His Windsor Pipeless Furnace

Read this letter from one of the thousands of customers who now have Windsor Pipeless Furnaces in their homes:

June 11, 1922. Improved WINDSOR 69.00 as illustrated. The Windsor Pipeless furnace that I bought of you last December is certainly all you claim for it. In the first place, I saved \$120 in price. Second, it gives you all the heat there is in coal. Third, anyone can install it. If I were buying another furnace it would be a Windsor Pipeless. None better that I know of.

I. J. AUGUSTINE,  
615 North 17th Street East,  
Cedar Rapids, Iowa.



### Send for this FREE Book

Describes and illustrates our complete line of Pipeless Furnaces, Stoves, and other Heating Equipment. High-grade Pipeless Furnaces—only \$52.00 and up. Read about our easy-payment plan. Write for this Book Today.

Montgomery Ward & Co., Dept. P-12  
Chicago Kansas City St. Paul

# Montgomery Ward & Co.

The Oldest Mail Order House is Today the Most Progressive

## Lifetime Buildings that Cost Less

Before you plan your next building, write us for estimates on Kalamazoo Tile construction. The first cost is the only cost—need no paint; will not burn or decay; warm in winter; cool in summer; storm and vermin proof.



**Kalamazoo** GLAZED TILE SILOS AND BUILDINGS make beautiful, modern structures, easily erected, increase the value and appearance of your farm and solve your building problems permanently. Write for interesting booklet on Kalamazoo Glazed Building Tile. Kalamazoo Tank & Silo Co., Dept. 444 Kalamazoo, Mich.

# FRUIT AND ORCHARD

Edited by FRANK D. WELLS

### THE STORY OF A PEACH TREE

Would you advise planting three-year-old peach trees? One of my neighbors planted three-year-old trees in 1918, but I can't see that they are any better than an orchard of two-year-old trees planted at the same time.—R. L. A., Oakland County.

—As an answer to this question, let us look up the history of these trees.

In the fall 1919 there was a peach ripening on a tree, somewhere in the mountains of the Carolinas. It was small and white, but when full ripe had a good flavor. A wild tree produced it, consequently it was "natural" fruit.

The peach, like thousands of others was gathered by the mountaineers to dry for winter. The pit was saved and sold to a dealer who shipped it to a northern nursery.

At some time during fall of 1915 that pit was planted. In the spring of 1916 it grew and that summer it was budded. During the next summer it grew into a tree and in the fall it was dug and stored in a nursery cellar, to be sent out for planting in 1918.

The trees were graded and designated according to size as X, XX or XXX. The difference in the growth of peaches is remarkable. A tree may be less than two feet high or more than seven, the growth of a single season.

Such a difference in the size makes it is easy for an agent to claim a difference in the age of his stock. However, the peach trees sent out by nurseries are of one age, regardless of the inequality in size.

In regard to the size for planting, most orchardists prefer a medium grade, claiming that they are more thrifty than larger trees. Some successful growers, however, prefer large stock and have good orchards to prove their claim. Perhaps there is less in the tree itself than in the way it is cared for.

### GROWING SEEDLINGS

How are apple, quince, cherry, pear and swamp huckleberries started from seed? How are grape cuttings made and when should they be planted?—W. E. S.

—Apple seeds are mostly obtained from cider pomace by washing. In early spring they are planted like seeds generally in rows far enough apart to admit cultivating. Pear and quince seeds are similar to the apple.

Cherry pits, like other stone fruits are planted in the fall. Planting is similar to that of the apple.

The growing of huckleberries from seed is not a simple matter. It is really something which should be done in a greenhouse, or a hotbed. The seeds are freed from pulp by soaking thoroughly, then kept by mixing in fine moist sand and storing in a cool place. The seeds in a greenhouse may be sown the latter part of winter in boxes containing a mixture of sand and loam, covering slightly. Cover with sphagnum and keep in a temperature between 60 and 65 degrees. The seed is slow to germinate, but if kept moist some of them should show signs of life in a month, though others may remain dormant much longer, even a year. Through the spring and summer they are transplanted three times. By the first of September they should be ready to harden off for winter. Give little water, but protect from frost as late as convenient. Protect through winter with some covering over the cold frame. Air the frames once or twice a month, a few hours at a time as a protection from fungus. The following spring they are planted out in beds of sandy soil and kept well watered. Protection is needed the second winter. After that they are planted out and grown as ordinary nursery stock. This is enough to scare anybody but a hardened hot-house man.

Grape cuttings are made from the hard wood, during the winter or early spring, using the trimmings from the vines. The cuttings are made long enough to include at least two, better three, buds. The butt end is cut straight across. The butt bundles, the cutting are buried in

moist sand in a cool cellar. By spring they will have calloused and may be planted out when the weather permits. They should be deep enough so the top bud only is above the surface.

### SPRING OR FALL PLANTING?

Would you plant fruit trees in the fall or spring? This is the question that comes up for an answer every year.

In the fall there is time for preparing the ground and planting the trees. The soil becomes settled around the roots. In the spring the trees will be ready to grow with the first warm weather. Nurserymen are not rushed with orders, so that shipping and delivery are subject to less delay than in spring.

But if the winter is severe the trees may be injured seriously, in which case they would fare much better in the storage cellar of the nursery. Fall orders are looked upon with disfavor by nurserymen and some of them charge an extra price for shipping at that season. There is an extra expense attached to handling in the fall, besides the results are liable to be unsatisfactory.

In the spring the weather may be bad, so as to cause delay, the trees may arrive too soon, necessitating extra work in handling. They may be too long on the way, so be injured. But all things considered the spring gives better results than the fall, at least in the latitude of lower Michigan. Farther south, where the winters are less severe, fall planting is in favor.

The objections to fall planting do not hold good in case of forest and ornamental trees generally. They are usually older and can endure the winter better. Fall planting is usually preferred for them. Shrubs are planted in the spring, unless they can be protected when they are set.

### NOTES

The Gideon apple has been in disfavor, but that is not so much the fault of the fruit as a misunderstanding of its real character. It has been described by some prominent nurserymen as a winter apple, but those who plant it in Southern Michigan with that in view, will be disappointed. Here it ripens in autumn just about early enough to prevent rotting on the tree. Farther north it ripens later. It originated in Minnesota and is a cold-climate apple.

But the Gideon has much in its favor. The fruit is not of the highest quality, but it is ready for green apple pie about the middle of July and furnishes a supply for this purpose during two months or more. The tree grows vigorously, bears early and often. For tap-working with weaker varieties it is one of the best. But it should be planted for what it is and not for a winter apple.

## MICHIGAN CROPS

### INCREASING RUST RESISTANCE OF WHEAT

EACH year the disease known as "wheat rust" takes its toll of the crop. Some years the damage is comparatively small but it is always serious enough to be a constant menace.

Wheat rust comes in two stages—first, the summer stage as yellow spots and then the winter stage as black spots. It has long been known that the common barberry bush is an important factor in the propagation of the disease but it is only of late that anything approaching an efficient campaign from its eradication has been attempted.

The spores of the black rust can infect only the common barberry. They cannot, directly infect wheat. In the spring, the spores produce small spots on the barberry leaves. These spots are full of tiny orange cups containing another crop of spores. If black rust cannot find barberry leaves it is rendered quite harmless and the loss of many bushels of wheat per acre prevented.

It has been obvious that much damage could be avoided by hastening the maturity of the crop, for rust is most virulent at the latter end of the growing period. Fertilizers have been used successfully to accomplish that end. They not only nourish the plant so that it is better able to withstand rust, but also ripen the crop earlier.

While phosphoric acid is very effective in this connection, it is probably true that potash and ammonia both have their place. Lack of pot-

ash delays the maturity of nearly all crops. Lack of ammonia may delay maturity or may result in an abnormally early ripening and loss of the crop. A well nourished wheat plant will suffer much less from rust and other injury than will an un-nourished one.

USE FERTILIZER WITH WHEAT

I have a 5-acre field of some light land and some is mixed with clay and sand. I have had hay in the field for two years and now I want to put wheat in this field. Would it be best to put lime or fertilizer, and what kind of fertilizer would I use? I can get lime at \$18 a ton. A. S., Bad Axe, Mich.

Under the conditions you mention would suggest using a fertilizer with the wheat. It is likely that the use of two hundred pounds of 16% acid phosphate, when the wheat is sown, and a top dressing of from fifty to seventy-five pounds of sodium nitrate in the spring just as growth starts, would give the best results. On light land potash oftentimes pays if a seeding is to be made in the wheat. Light soil is quite likely to be acid and an application of two tons of ground limestone would be found much more economical than hydrated lime at \$18 a ton.—C. R. Megee, Research Associate in Farm Crops, M. A. C.

FUR DEPARTMENT

TEMPERING STEEL TRAPS

Would you please inform me as to whether steel traps can be tempered after going thru a fire. We have some blacksmiths here that say the springs cannot be tempered. If they can be please tell me how.—F. C., Swan Creek, Mich.

If the steel traps springs have been overheated (or "burned" as the blacksmith says) then they are useless, but, if they have not been overheated but have just had their temper drawn through heating, they can be tempered again.

Owing to the springs being likely heated and cooled un-uniformly it is best to anneal them first to relieve all strains and stresses in the steel. The annealing can be done from a heat slightly over the hardening heat. After heating for annealing the springs should be packed in lime, hot sand or ashes and allowed to cool off slowly.

The lowest heat which will give the desired results should always be used in hardening. A simple method for finding the hardening point of to use a magnet. When the magnet "lets go" of the heated steel, you have reached the hardening heat for that particular steel, if it is straight carbon steel.

To harden the steel springs, heat the entire spring in flame of a clear fire until there is just enough heat to harden, on reaching the hardening point, cool off "dead cold" in clean water. Polish the steel bright.

Hold the spring edgewise about two inches high over the fire, do not blow the fire but heat the spring very slowly, moving it back and forth, turning it over to insure even temper. Watch the spring very closely until the color turns to a very pale blue (almost grey color.) Do not cool off in water but lay the spring down where it will be free from draughts of cold air and allow springs to cool off.

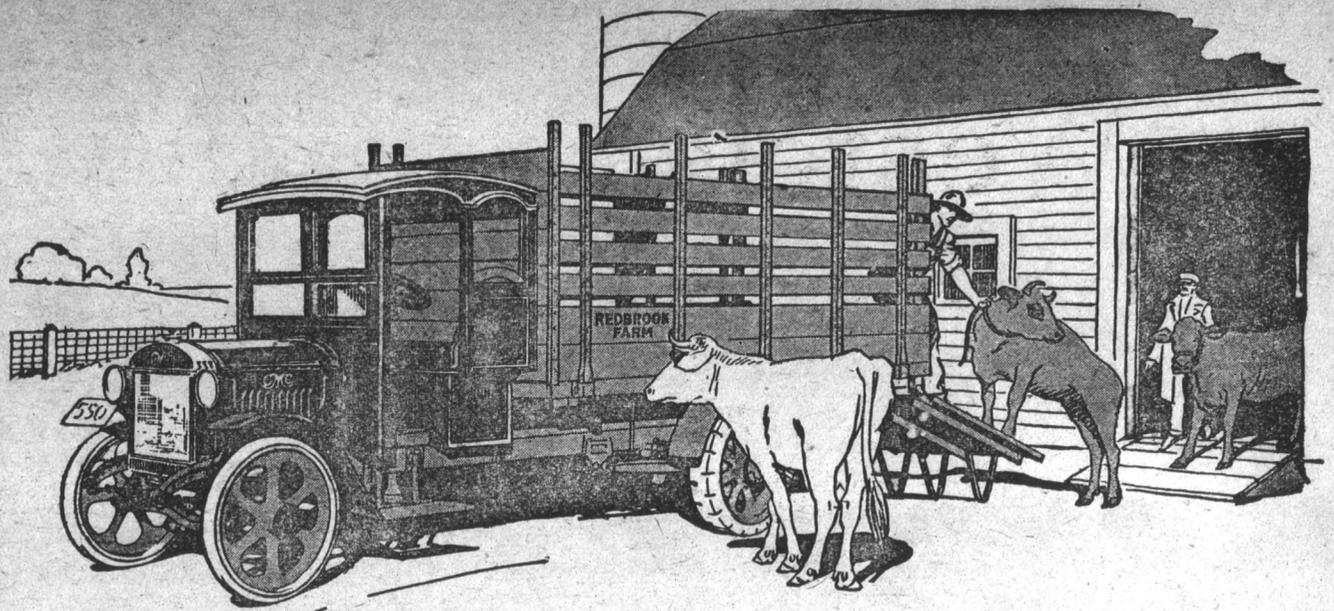
When heating springs hold them at the end. If they are held in the center the center will be soft.

Another Method

Anneal and harden as above. but to temper, hold spring over fire placing spring in a very dark place, now and again until it shows a very dark red, just visible to the eye, then lay down where it will be free from cold draughts and allow to cool off.—Bert Daugster.

BAD COMPANY

A negro who had an injured head entered a doctor's office. "Hello Sam! Got cut again, I see." "Yes, sah. I done got carved up wid a razor." "Why don't you keep out of bad company?" said the physician, after he had dressed the wound. "Deed I'd like to; but ain't got 'nuff money to get a divorce."—Everybody's.



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# The Michigan BUSINESS FARMER

An Independent Farmer's Weekly Owned and Edited in Michigan

SATURDAY, OCTOBER 14, 1922

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"The Farm Paper of Service"

### Fall Housecleaning

If you happen to know of anyone who has had trouble getting the Business Farmer regularly, as issued, or whose name has dropped from the list or who has any other complaint regarding our mailing, now is the time to send it in. We are having a fall housecleaning in our mailing department.—Publisher.

### So this is Fall

WHAT canvas can portray, what silver-tongued orator can describe, what imagination can picture the glories of the woods which the hand of fall has painted with a thousand colors?

If you would find peace, lose yourself in the woods one of these bright October days. Just lay aside the cares of the farm or household and go down in the woodlot and spend a few hours with the gaily-colored maples, with the birds and chipmunks, and with God who smiles from every sun-lit leaf and twig.

Here for a few brief hours, "the world forgot and by the world forgotten," you can get acquainted with your better self. You can see your faults and your virtues and the faults and virtues of your children and friends and neighbors in their proper light. And that will be a good thing for you and for them. An occasional communion with one's own self works wonders in the forming of noble character. The place to talk things over with your self is in the solitude of the woods and the time is the glorious fall.

### Be on Thy Guard

FARMERS and farmer legislators who have fought for the primary and believe in the primary as a means of keeping the government in the hands of the people should be on their guard. For it is in danger.

The primary robbed the political boss of his power. No longer does he control elections or sell offices to the highest bidder. He is a king without a crown, a Kaiser dethroned and disgraced. But, unless signs fail, he is staging a come-back. So watch out.

Only four hundred thousand out of a million voters cast their ballots in Michigan in the recent primary election. The political bosses say that's an indication that the primary is a failure as a means of interesting people in their government and in the men who are chosen to run their government. They never used that argument when nominations were controlled by conventions. Because in those "good old days," the town hall couldn't accommodate more than one out of ten of the registered voters, and it took a mighty spirited contest to induce more than one out of twenty to participate in the election of delegates to the county conventions.

But this fact is easily overlooked by those

who want to restore the convention system to power. What they are looking for now are excuses to destroy the primary. And they can find plenty of evidence that the primary isn't as popular as it ought to be, and plenty of good men who will help to lay it tenderly on the shelf.

The next legislature will undoubtedly be asked to "amend" the primary law, and there are those who are willing to wager that any amendment which will be satisfactory to the political bosses will in effect be a complete emasculation. If you are against the primary law your fondest hopes may soon be realized. But if you revere it as one of the instruments of representative government be on the alert to save it from its enemies.

### Dr. Friday and the Middleman

"This is the first time that I have availed myself of telling you that I am a subscriber and a real reader of your paper. It is said that every man owes a part of his time to the upbuilding of the industry to which he belongs.

"On the fourth page of the September 16th issue I read what President Friday of M. A. C. had to say at the State Fair in regard to the middleman. If he continues such lines of talk in further addresses the farmers of the State of Michigan should petition to have him removed at once. He has already impeached himself.

"It can't be possible that he has read what the Philadelphia bank has to say about the need and value of farm organizations in the same issue. I wonder if he does not think that the producer is entitled to at least fifty per cent of the consumers' dollar? We would be very much pleased to read an editorial in your paper as to what you think of his address at the Fair. You have always appeared to me to be fearless and it is certain the Professor needs information. He furthermore should be closeted with Baruch for a time.—Marvin C. Haight, Van Buren County, Michigan.

IT may as well be confessed, now that you have brought up the subject, that many of President David Friday's best friends were surprised and disappointed with his State Fair address. It was a distinctly un-Friday-like speech. It bristled with the "two blades of grass" theory, and contained no encouragement for the co-operator. It rankled his farmer audience even to the point of heckling, which is bad for any speaker and particularly for the president of an agricultural college.

If Pres. Friday really believes that few if any economies can be effected in the marketing of crops, we must admire him for the courage of his admission even though we do not agree with him. It would be bad for progress if our educators should preach a doctrine which they did not believe merely to satisfy the whims of their hearers.

But does Dr. Friday really want us to believe that he sees no hope for bringing producer and consumer closer together? We doubt it. Or is he temporarily disheartened by the failure of the co-operative movement to cope with the problems of co-operation, and prefers to rest his reputation as an educator upon the more popular theory of profits by efficiency in production rather than upon the yet-to-be-proven theory of profits by efficiency in marketing? This sounds more likely.

Men assume a tremendous responsibility when they strike out from the trodden paths and seek to find a better way to market. If they encounter unforeseen obstacles, as they often do, and the way proves more difficult and costly than the old-travelled road, they must humbly accept the censure which is so often heaped upon them. Even the most ardent believers in co-operative organization are beginning to shrink from the role of leadership in untried marketing experiments.

Shall the President of the Michigan Agricultural College risk his brilliant reputation

### NOTICE TO SUBSCRIBERS.

Rather than curtail departments and print incomplete issues, as some farm papers have been forced to do, we have preferred to issue The Michigan Business Farmer, every-other-week temporarily.

Each issue missed has been credited to the subscriber, so that in the end no one will lose a single issue for which he has paid. We respectfully ask your patience and thank you for your loyalty to

"The Only Farm Weekly Owned and Edited in Michigan!"

as an economist by preaching doctrines which he may not be able to prove when there are other theories which he can embrace with perfect safety?

### Cutting State Expenses

TAXPAYERS who have been clamoring about the cost of running the state government and demanding a reduction in state taxes will find a crumb or two of comfort in the comparative tax levies for the years 1921 and 1922.

The 1921 expenditures called for total taxes of \$20,441,333.79, while the 1922 but \$17,300,943.94. Lest someone may think there is a "nigger in the woodpile" somewhere, it is interesting to compare the principal items in the budgets. There is no special significance to the saving in the state office building expenditure which last year was \$1,107,500 and this year is nothing. But there is some significance in a comparison of the regular running expenses of the state as shown by the following table:

Functional Division	August 1921	August 1922	Decrease
Executive .....	\$ 33,550.00	\$ 33,550.00	
Administrative .....	1,064,227.50	855,236.00	208,991.50
Legislative .....	62,000.00	225,000.00	*\$163,000.00
Judicial .....	404,575.00	402,575.00	2,000.00
Regulative .....	1,115,965.80	945,866.00	170,099.80
Educational .....	2,170,246.74	1,546,730.96	623,515.78
Agricultural .....	585,209.00	445,332.00	139,877.00
Defensive .....	345,000.00	270,000.00	75,000.00
Penal .....	685,351.00	677,951.00	7,400.00
Curative .....	2,765,608.50	2,622,103.98	143,504.52
Correctional and Charitable ..	1,291,474.80	1,216,262.00	75,212.80
Protective .....	743,641.00	646,677.00	46,964.00
Constructive General .....	160,643.45	1,000.00	159,643.45
<b>TOTAL</b> .....	<b>\$11,427,583.79</b>	<b>\$9,938,343.94</b>	<b>\$1,489,239.85</b>
Special:—			
University of Mich.			
Mill Tax .....	\$3,000,000.00	\$3,000,000.00	
Mich. Agr'l Coll.			
Mill Tax .....	1,000,000.00	1,000,000.00	
Highway Bond			
Sinking Fund ..	1,200,000.00	1,500,000.00	*300,000.00
Soldier's Bonus			
Sinking Fund ..	2,456,250.00	1,612,500.00	843,750.00
War Loan 1917			
Sinking Fund ..	250,000.00	250,000.00	
State Office Building .....	1,107,500.00		1,107,500.00
<b>TOTAL</b> ..	<b>\$9,013,750.00</b>	<b>\$7,362,500.00</b>	<b>\$1,651,250.00</b>
<b>Gd Total</b> ..	<b>\$20,441,333.79</b>	<b>\$17,300,843.94</b>	<b>\$3,140,489.85</b>

\*Increase.  
After you have digested these figures and secured what comfort you can from them, you might dwell for a moment upon the insignificant sums that have been set aside both years for paying interest on the bonded indebtedness. The taxpayers themselves voted to bond the state for \$60,000,000 to build roads and pay the soldier boys a bonus. Most of the money has been spent, but very few of the bonds have been retired. We have here an item of over \$3,000,000 or one-fifth of the total tax levy for interest alone, with not a nickel laid aside to retire the principal itself.

If the reduction in expenditures for the maintenance of the various state departments and institutions represents an actual economy in management it offers cause for congratulation, but common sense tells us that little if any additional saving can be effected in this direction. At the same time it is short-sighted economy to fail to make provision for the annual retirement of a certain number of the state's bonds. This provision must be made soon, and when it is made all ye who look for lower state taxes for the next ten years may as well abandon hope.

### Higher Prices for Reactors

THROUGH the offices of the Department of Agriculture the meat packers have been induced to pay higher prices for cattle which react to the tuberculin test. Every farmer who has had his herd tested and his reactors killed knows that the meat buyers have a prejudice against such animals and offer only a third to a half of what they are actually worth. In the large majority of cases reacting cattle are as fit for food as the non-reactor, but cattle buyers are either ignorant of the fact or deliberately take advantage of the owners. If the department has really succeeded in improving the market and price for reactors, it has removed one of the most difficult obstacles in the way of tuberculosis eradication.

Dodge it as he may for a time, sooner or later Pres. Friday is bound to run headlong into the marketing proposition, and when he does, he'll take off his coat, roll up his sleeves and tackle it with his characteristic energy.

**WHAT THE NEIGHBORS SAY**

**BEANS AND SPUDS**

WHEN I wrote you last in regard to the future of spuds and beans I had no idea the weather man was coming at "double quick" to help me out in my forecasting. Western Michigan has had more than two weeks of almost constant rain. In the past thirty years we have never had such a rainfall at this time of the year (Sept. 15) more than twice before.

Beans are pulled and have lain out in all this rain. They will run from 50 per cent to total loss. One man had 40 acres just ready to haul in when it commenced to rain. Now part of them lay in water. One man has 20 acres of corn to cut by hand and has got to wear rubber boots and every time he steps he will go into the mud six inches. Part of his beans stand in water and part of his spuds are rotten. I know of several fields which will not be dug.

Spuds that are planted around the tenth of June will not dig over 60 per cent of what they have been estimated on account of being hit with blight. One year ago bean buyers paid the girls 8 cents per pound for picking, the same rate is paid this year. Farmers will get nothing at all for their beans.—A. A. Lambertson, Kent County, Mich.

—Since you wrote the above the bean market has scored a substantial advance and potatoes have taken a further drop. No doubt lots of potatoes were ruined in this and other states by the September rains, blight killing frosts which hit many of the northern counties about the 22nd of the month. On the other hand, many sections report a fine crop and weather the very last of September and the first week of October was ideal for digging. All northern Michigan reports a good crop of excellent quality.—Editor.

**WHY INQUIRY HAS BEEN IGNORED**

THERE is in our vicinity an exceedingly dangerous electric crossing, the fault lying in the fact that the highway makes a steep descent onto the track with view obstructed on either side by banks; also, to the fact that a short drive parallel with the track which might be used in case of emergency was closed a year ago when the Covert Road was built. This road was accepted by the Road Commissioners not withstanding the hazardous condition of said crossing. Already one fatal accident has occurred at this crossing and others have been narrowly averted. Many people in the community feel that the condition should be remedied but do not know how to go about getting it accomplished.

About the middle of July I addressed a letter to the Attorney General stating the conditions and asking for information as to how to proceed. I received a letter from him bearing the postmark of July 21, stating that he had referred my letter to the Public Utilities Commission and that I would doubtless hear from them in a few days.

Days have lengthened into weeks, and weeks into months and more without any word from the Grosbeck-appointed, Michigan Public Utilities Commission. Let us hope they are busy with more important (?) matters than serving the people who are working and scrimping to secure money with which to pay their salaries.

I am only a woman but my vote counts as much as a man's and I think I voice the sentiment of the other farm women when I say I intend to use it to help secure better returns for the money invested. We farm women know what "strict economy" is and when we use the term we do not mean the Grosbeck nor Harding kind of "economy," but our own peculiar brand with the home-made label.

Any help you may be able to give thru the "Farmers Service Bureau" or "What the Neighbors Say" will be greatly appreciated. Yours for a better commonwealth.—Mrs. Chas. Voorhees, Calhoun County, Mich.

—Of course, we cannot say why your inquiry has been ignored. It may have never reached the hands

(Continued on page 17.)

**Now — BALL BEARINGS in the larger PRIMROSES!**

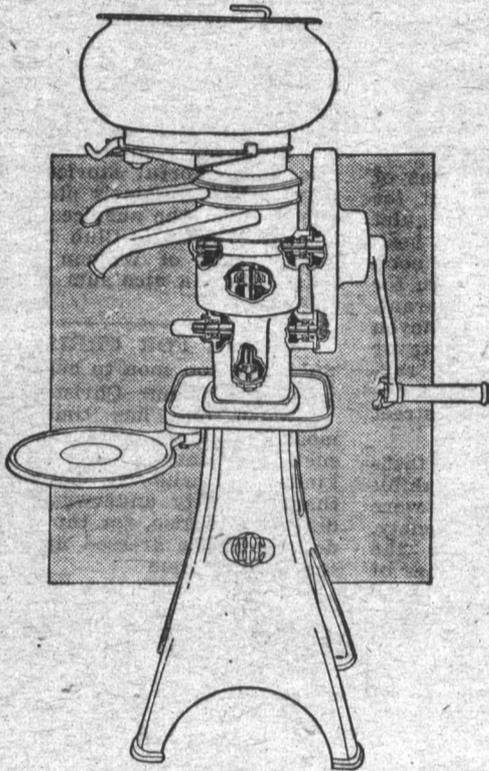
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The International Harvester Company's broad and liberal guarantee stands solidly behind this product. Primrose deserves its high reputation, not only for its recovery of the greatest amount of butter fat when operated as instructed, but for its ability to do so with less labor.

The Ball-Bearing Primrose is one of the products in the McCormick-Deering line of farm operating equipment. It may be seen and studied at the store of your McCormick-Deering dealer. Write us for catalog if you prefer.

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**NATURAL LEAF TOBACCO—CHEWING, 5 pounds, \$1.75; 15 pounds, \$4.00. Smoking, 5 pounds, \$1.25; 15 pounds, \$3.00. Send no money, pay when received. FARMERS' TOBACCO ASSOCIATION, Paducah, Ky.**

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**TOBACCO—KENTUCKY'S PRIDE, EXTRA fine chewing 10 lb., \$3.00; smoking 10 lb., \$2.00; 20 lb., \$3.50. FARMERS' CLUB, Mayfield, Ky.**

**FREE TOBACCO—WRITE FOR SAMPLE OF Kentucky's best smoking tobacco. HAWESVILLE TOBACCO CO., Hawesville, Ky.**

PLEASE MENTION THE MICHIGAN BUSINESS FARMER WHEN WRITING TO ITS ADVERTISERS

**THE EYES OF SCHOOL CHILDREN**

**M**ORE attention is being paid today to the health of our children than ever before. Throats, teeth, ears and eyes are looked after with more care in both homes and schools. A child can not do good work in school nor be a good, happy child anywhere unless he or she is in good physical condition.

It was recently said by a prominent educator that of the 24,000,000 school children in the United States not more than one third have received eye tests and that many whose eyes have been tested have been found to have been fitted incorrectly. This statement if true is most discouraging for it is doubtless true that 80% of the so-called dull or backward children have defective vision not defective brains and can not be held responsible for their dullness.

The manner in which a room is lighted has some effect upon the eyesight of those living in it. Low shaded lights are not only more artistic but are much easier for the eyes than a high bright light which gives a most unpleasant effect. It is true that a light falling on the book from behind the left shoulder is the best direction for the light to come from altho why it is left instead of right has never to my knowledge been told. Perhaps for the same reason that we must throw salt in that direction to avoid a quarrel.

**Cross-Eyed Mary**

"With golden curls and rosy cheeks she skipped joyfully to school. It was her first day, the very first that she had ever been away from home. She was six years old now and was going to be a little lady. The rapture she felt as she thought of the other girls she would meet and play with. Her cup of joy was full and overflowing.

"Reaching the school she formed in line with the other girls who stared at her—some grinned, some smiled, some laughed at her and said "hello, cross eyes". For the first time in her little life she suffered a pang of pain such as she had ever suffered before, for she realized that she was different from the others—she was cross-eyed.

"The day at school dragged on and on. It was so long. It seemed that she would never get away from it. But, when the day ended she hurried home amid the jeers of the boys and girls calling after her—"Cross-eyed Maary". Her dear little heart was broken and all the joy she felt in the morning was turned to tears.

"She persevered at school day after day until she could stand it no longer. Then she went to her mother with big tears in her eyes and told her all her troubles. She begged her mother not to send her back to school because she wasn't the same as other girls.

"And, it was not until those chubby little arms were clasped about her mother's neck, with the big tears rolling thick and fast down her cheeks, that the mother realized the injustice she had done.

"**MORAL:** Many heart-aches and sorrows can be kept from the dear little ones we love, and many hours of regret from parents, if they watch carefully over their children. Little Mary's eyes should have had attention when the first tendency of trouble became apparent. Many of these cases merely require lenses to correct the defect which causes the eye to cross.—The Eye Sight Conservation Council of America.

**CANNING BAKED BEANS**

**I** WONDER how many readers have ever tried canning baked beans?

We are very fond of baked beans but during hot weather when the oil stove is used for cooking, it is too expensive to cook them as I like to bake them for two or three hours. When we have a reasonably cool day I bake a couple of pans full and fill three quart cans with the baked pork and beans. Then adjust the rubbers and tighten the tops with the thumb and third finger as for cold pack canning. I then place them in the pressure cooker, process for about 20 minutes. If one has not a pressure cooker I think they would need to be steamed for an hour or more. I have never had



**The Farm Home**  
A Department for the Women

Edited by MRS. GRACE NELLIS JENY

the slightest trouble about their keeping when processed 20 minutes altho this was original as there was no recipe given in cook book that comes with the cooker. They are one of the best things we keep on our emergency shelf. I always add about a spoonfull of brown sugar or molasses to a panful of beans, not enough so they will taste sweet but it adds a great deal to their flavor.—Mrs. Claudia Betts.

**A SHORT SUMMARY**

**S**KIRTS are coming down, a short distance anyway and if your skirts are too short put a yoke around the top, wear an over blouse to cover the short yoke and no one will be the wiser.

Over blouses are much worn—in shades to match and contrasting colors also.

The white shirt-waist with colored skirts seems to be tabooed this season.

However, women in business will wear what seems to them suitable and useful. Soft clinging materials are again favorites although many taffetas are worn.

Odd and striking combinations of colors are seen everywhere but for the woman of moderate means quiet colors and combinations are best. One does not tire of them as soon and the fact that a dress is worn for several seasons is not so apparent.

I do not believe that the uneven skirt at the bottom will hold in favor very long it has a little untidy, ragged appearance that some hold objectionable, especially for street wear.

It is certainly an extreme of fashion. A recent fashion exhibit clothes for different purposes were shown. For the women of society, for the business women, for the home women and many extremes of style for the young girl, who in all

reason should be dressed most inconspicuously and simply.

It all goes to show that if we dress moderately following the general trend of the fashions we will not feel out-of-date nor unusual in almost anything we want to put on.

The sport clothes are very attractive, plain as to line and most comfortable as to cut; made of soft wooly materials that stand hard usage and look well. For dress shoes, patent leather comes first, then satin and suede.

**LEAGUE ILLUSTRATES CITIZENSHIP BY PLAYS**

**T**HE Massachusetts League of Women Voters is preparing a series of plays for citizenship education. Mrs. Frederick P. Bagley, first Vice-President of the Massachusetts League, has written the first play to be produced—"How Maggie Mac Taggart Became a Citizen." Mrs. Bagley is former chairman of the National League's committee on American Citizenship, and her long experience in this work, both in the League and in the State has given her a great fund of dramatic and colorful stories for these plays. Mrs. Bagley's play was produced under the auspices of the Citizenship Dramatic Club by the Duxbury League of Women Voters and netted them a nice sum for door receipts.

**GIFTS FOR CHRISTMAS**

**I**T is not too soon to begin to make plans for our Christmas giving. When one has time to spare most acceptable gifts can be made such as dainty aprons, bags of all kinds, and whoever has enough of them? Pretty underwear, caps and doll dresses also, for the new or old dolly must be dressed up freshly at the holiday time.

Then there are the cunning stuff-

ed animals that all children love so so well.

We have patterns for all these articles pictured in our new catalog.

I can choose them for you if you wish me to but it is really better to have the catalog and make your own choice.

**BOILED CHRISTMAS PUDDING**

**O**NE quart seeded raisins, pint currants, half pint citron cut up, quart of apples peeled and chopped, quart of fresh and nicely chopped suet, a heaping quart of stale bread crumbs, 8 eggs beaten, nutmeg, teaspoonfull salt, flour fruit thoroughly from a quart of flour, then mix remainder as follows, in a large bowl or tray, put the eggs with sugar, nutmeg and a cup of milk, stir in the fruit, crumbs and suet one after the other until all are used, adding enough flour to make the fruit stick together which will take about all the quart. Dip pudding cloth in boiling water, dredge on inside a thick coating of flour, put in the pudding and tie tightly, allowing room to swell, and boil from two to three hours in a good sized pot with plenty of water, replenishing as needed from tea-kettle. When done turn in a large flat dish and send to table with a sprig of holly, or any bit of evergreen with bright berries stuck in the top. Serve with any pudding sauce. This recipe furnishes enough for twenty people but if the family is small, one-half the quantity may be prepared, or it is equally good warmed over by steaming. For sauce, cream a halfpound sweet butter, stir in three quarters of a pound of brown sugar, and one beaten yoke of an egg, simmer a few minutes over a slow fire, stirring almost constantly. When near boiling add a half pint bottled grape juice, and serve after grating a little nutmeg on the surface.—Mrs. J

**COLD PACK CANNING OUTFIT**

**I** NOTICED in a recent issue of M. B. F. a request for information in regard to a cold pack canning outfit. I purchased the "Hall Cold Pack Canner" made in Grand Rapids and I gave it the preference over all others, for the reason that one may can 2 quarts; 1 quart or pint cans all at the same time if one so desires. It is made of heavy galvanized iron and is about two feet high and 12 inches in diameter.

One can can 12 quarts over one burner of an oil stove.

I have canned meat, vegetables, and fruit and never lost a can.

I will give the readers of this page my recipe for making hard soap: To one can of lye add 2 1/2 pints of soft water (cold), and cool to 80 degrees F. by your thermometer. Melt 5 1/2 lbs. of cleansed grease and cool to 120 degrees. When ready to mix add 1 cup of ammonia and 4 tablespoons full of borax to the lye, pour grease into the lye stirring constantly until the mixture drops from the paddle as thick as honey, and pour into a wooden box lined with heavy paper, and when it sets cut into bars.

The secret of success is not to stir the mixture too long, as it will separate. I have never had a failure and the soap is as white as any you buy when cured.—Mrs. M. M. H.

**CANNED FRUIT SPOILS**

I am interested in your paper. I am a young girl of seventeen and have kept house for my father for two years.

I have trouble with my fruit spoiling. I use new tops and rubbers some new cans, my daddy turns them tight and I seal them with wax but yet they spoil.

My cellar is very damp, would that cause fruit to spoil? Do cans have to be hot when the fruit is put in? I read in a magazine that if you put a silver knife in the cans, they would not need to be hot. I never break a can that way. I wonder if that would make them spoil. I would like house plant slips if some.—Emily Randall, Brown City, Mich., R 2.

—Wash your cans well with hot soap-suds then scald them with boiling water and turn them upside down to exclude germs from the air which often lodge in the cans and cause perfectly well canned fruit to spoil—then wash in soap suds your tops and rubbers, put them in a pan

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A word for our patterns from one of our readers.

We enjoy the M. B. F. in our home very much, and hope it may continue in its good work. I have used the patterns with good success, and am sending for another, Also the Fashion Book. Please send me the 1922-23 Book of Fashions.—Mrs. George Douglas.



**A Pleasing Separate Waist and Skirt Style**

4109-4014. Plaided ratine was used for the skirt, and crepe de chine for the waist here illustrated. One could have both waist and skirt of either material. The surplice closing is becoming to slender and stout figures. The skirt is a two piece model, with plait inserts at the left side, where also the closing is affected.

The Waist Pattern 4109 is cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It will require 3 yards of 32 inch material for a medium size. The Skirt 4014 is cut in 7 Sizes: 25, 27, 29, 31, 33, 35 and 37 inches waist measure, and will require 2 5/8 yards of 40 inch material for a 29 inch size. The width at the foot is about 2 1/4 yards with plaits extended.



**A Serviceable Garment**

4029. This is a popular model it is good for muslin, cambric, flannelette, soisette, madras and silk. The neck may be finished with a standing or a turn-back collar.

The Pattern is cut in 5 Sizes: 32, 36, 40, 44 and 48 inches breast measure. A 40 inch size requires 7 3/8 yards of 27 inch material.

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**A Unique and Pretty Negligee**

4129. This model is attractive in crepe, satin, corduroy, printed crepe de shine, and georgette. Beacon cloth, flannel and eiderdown may also be used for it.

The Pattern is cut in 4 Sizes: Small, 34-36; Medium, 38-40; Large, 42-44 Extra Large, 46-48 inches bust measure. A Medium size requires 6 1/4 yards of 27 inch material.



**A Popular Style for the Growing Girl**

4084. This makes a fine costume for school. Plain suiting could be used for the blouse and plain serge for the skirt. One may have the sleeve in wrist or elbow length.

The Pattern is cut in 4 Sizes: 8, 10, 12 and 14 years. To make the model illustrated for a 10 year size will require 2 1/8 yards of 32 inch material for the blouse and 2 5/8 yards for the skirt.

Pattern mailed to any address on receipt of 12c in silver or stamps.





and cover with boiling water, leave them in the water until you are ready to use them. When you are ready to fill a jar set it on a plate on which is spread a wet cloth, put one cup of fruit in and let it warm the can then fill the can first having adjusted the rubber and fitted your top so that there is no delay when the can is full. Fill the can to overflowing and put on the top, screwing it down tightly. Boiling fruit can have no germs, if your cans, tops and rubbers are sterile then it looks as if the mischievous germs came from the air.

Of course if you process your fruit the method is a little different but the same general rules hold good. Perhaps you know Emily that soap-suds themselves are a disinfectant and I believe in using plenty of soap whenever it is required. I love to see dishes come out of nice, white, foaming suds, clothes also and last but not least soap-suds is fine for our skins. I take it for granted that you know all this but there are some much older housekeepers than you who do not.

Now in the end do not put any food products in a damp place. I would say better have it a little too warm than damp. You know canned fruit is kept in stores that are always warm without trouble, that is because it was put up sterile (without any germs.) Will be glad to help in any way.—Mrs. J.

**SEEDLING GERANIUMS**

I saw in your paper recently a request for some one to write their experience with seedling geraniums. In the spring of 1921, I procured a packet of geranium seed from a seed house and planted out of doors. I guess they all grew as they came up very thick and grew fast, but I had to put them in pots as the cut worms began taking them. I kept them all summer and not one of them blossomed though. They grew to be fine specimens. I had something like fifty of them and I kept them around all winter and only two blossomed. They were both single scarlet. This spring I set the whole lot out of doors and they have been full of blooms all summer. Everyone was single but there were several shades of pink and one variegated pink and white but more scarlet than any other color.

Last summer I hand fertilized some of my double geraniums and this spring sowed the seed. Only one grew and is now about a foot high but I expect to have to keep it over winter to see it blossom.

This summer I saved the seed from my seedlings out of doors and will try it again next summer. If "Subscriber" will send her name I will divide with her.

Can anyone tell me how to keep geraniums in the cellar over winter? Will they live if the cellar is dark? Also how much if any moisture do they require.

Does anyone know if a flowering maple should be kept down in the cellar or not in the winter.—"Another Subscriber."

**SOUP RECIPES WANTED**

I would again like to come to your page for help. I find so many good recipes there, I would like some good recipes for soup, especially one using green and red sweet peppers, also some vegetable soups, am sending my recipe for chowder, those not caring much for ketchup or chili sauce will find this excellent to serve with meats.

**Recipe for Chowder**

I gallon green tomatoes, measure after chopping fine, 12 onions, 12 sweet peppers, 6 green and 6 red, (remove all seeds.), 1 cup of salt, chop all fine, I use a food chopper, then mix these ingredients together, let stand two hours; then drain off juice; 2 quarts of vinegar, 3 pounds of brown sugar, or half brown and half white, 1 teaspoonful of whole cloves, 1 teaspoonful of whole allspice, 1 teaspoonful of coriander seed, 2 teaspoonful tumeric, 2 teaspoonful of celery seed and 2 teaspoonful of mustard seed, tie all the spices in a piece of cheese cloth, put in vinegar, add sugar, let boil well, then add drained vegetables and boil 1-1/2 to 2 hours until tender.

Ingredients of this chowder will

keep their original fresh colors not turning into a dark dirty color that by some recipes chowder seems to. Thanking you all for past favors, I am, Sincerely, Mrs. John Volmer, Jasper, Michigan, R. 4.

**HONEY CAKE**

One pound strained honey, one egg, one cup sour cream, one-half teaspoon soda, any kind of seasoning that is desired, and enough flour to make a good stiff batter. Miss Inez Ruth Foutch.

**CORRESPONDENCE COLUMN**

I will send the name of the company making the pressure cooker to any one sending me a stamped and addressed envelope.

A subscriber asks for information in regard to the Auto Knitter. All some of our readers who have used the machine write and tell us what success you have had with it and whether the investment paid financially?

**Egg Tester Wanted**

Would like to know where I could get an egg tester with magnifying glass. I would like to hear thru the Home Department. I know a number of people who would be glad to know where to get one.—Mrs D. C. M.

**HOME SPUN**

Brown or gray crockery bowls of medium size are very nice for putting away leftovers. They may be put in the oven when you wish to re-heat the food.

Disinfect drains with a solution of 2 oz. of chloride of lime to 1 gal. of water.

Use a strong solution of washing soda in boiling water in the kitchen sink two or three times a week, this keeps it sweet.

Plenty of pulverized borax in the water in which daintily colored dress goods are washed will keep them from fading.

Cayenne pepper is very offensive to mice.

Keep potatoes under water when peeling them this will leave very little stain on the fingers. It applies also to onions.

Use wooden tooth-picks for testing cakes. They are much cleaner than broom straws.

**ERRORS!**

Two typographical errors in the last issue should be corrected. Dr. Coue' is the name of the French doctor.

The prescription for colds should read—Acitanilide 10 grains not 10 drahms.

**THE HUNTED WOMAN**

(Continued from page 6)

drew a deep breath, and went on, her eyes full upon him, speaking as if out of a dream. "The Great Adventure—for you. Yes and perhaps for both."

Her hands were drawn tightly to her breast. Something about her as she stood there, her back to the table, drew John Aldous to her side, forced the question from his lips: "Tell me, Ladygray—why are you going to Tete Jaune?"

In that same strange way, as if her lips were framing words beyond their power to control, she answered:

"I am going—to find—my husband."

(To be continued)

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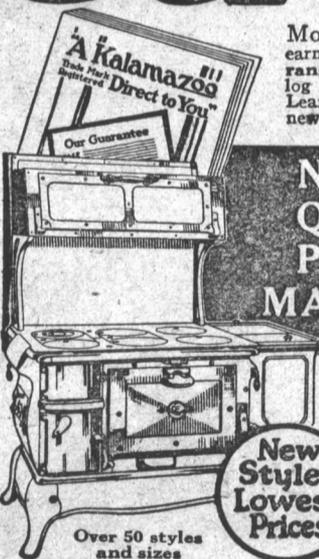
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**What Have You to Offer?**

# The Children's Hour

**DEAR** Neices and Nephews: As I am writing this two days before our bird contest closes I cannot decide who is the winner but to date a boy is leading and he has written such an interesting letter that it will be hard to beat. The boys seem to be showing more interest than usual in the contest. I have received nearly as many letters from the boys as I have from the girls. Next issue we will know who is the lucky one and I will announce it.

How many of you are out to win some of the prize money M. B. F. is giving away in its picture contest, which I told you about last issue? If you have not entered yet there is still plenty of time. It is just like getting paid for playing so you better enter by using the picture printed at the bottom of this page, or if you want another picture just write to the Contest Manager, Michigan Business Farmer, Mt. Clemens, Mich., and he will send you one by return mail. At the same time ask him any questions you desire answered regarding the contest. I hope some of you win.—UNCLE NED.

## OUR BOYS AND GIRLS

Dear Uncle Ned:—How are you these fine days? I hope lovely the same as I. I go to school. We have a nice teacher. I am somewhere in my teens. It might be thirteen, fourteen, fifteen or sixteen. The one who guesses my right age first will receive a good long letter from me, about my pony, kitten and I for we have some great times. I am going to tell you about my trip to Lake Michigan.

One lovely Sunday morning at five o'clock we started for Lake Michigan. We went in two cars. And did not have any car trouble going or coming back. We stopped at two places and got a drink and rested for we got very tired riding. We had thirty miles of paved roads. It was certainly a nice road. But just the same we got tired of riding on it. We reached Muskegon at eleven o'clock and then we went all through a big boat that was anchored to the shore. The boat was two hundred feet long and was just

as nice as any house. We took our dinner with us and ate our dinner on the shore. They had a merry-go-round, many other things for children to have fun with. In the afternoon I went in bathing awhile and then rode on the merry-go-round. The shores of Lake Michigan are nothing but pure white sand with some beautiful buildings built upon it. The sand is nothing like the sand around here. There were great big sand hills quite a ways out in the lake which looked beautiful. We walked out on a dock for about a half a mile. The light houses were built on it. We walked along the shore for about a half a mile. Then we started for home and when we were coming through Muskegon we saw an auto accident. The auto turned over two or three times. We did not stop to see if anyone was killed. We stopped at a little place coming home and ate our supper and then came home. We reached home at eight o'clock that night. And were tired and sleepy.—Bernice Lee, Barryton, Mich., R. 2, Box 76.

Dear Uncle Ned:—I was quite interested in this contest, so I thought I would try to win a prize. My birds names are:

Robin, sparrow, wild dove, barn owl, screech owl, wren, woodpecker, swallow, blackbird, raven, nuthatch, crane, stork, vulture, sea gull, eagle, ground bird, quail, oriole, canary, bob-o-link, whip-poor-will, chicken hawk, snowbird, lark, bluebird, bluejay yellowhammer, goldfinch, martin, bat, thrush, magpie, cowbird, catbird, crow, chickadee, hummingbird, pigeon, ostrich, snipe, night-gale, warbler, sapsucker, partridge, peacock, pheobe, cuckoo, kingfisher, mourning dove, condor, flycatcher, and kingbird.

The bird which I like best is the robin, he has a pretty red breast and is quite a tame little fellow. He always lets you know when he is in danger by his song. This summer a father and mother robin decided to build their home in our wagon shed. They were busy every day from early morning until dusk, gathering sticks, straw and clay, with which they built their home,

at last their interesting work was completed, and the next time I looked into the nest what do you think I saw? Three little baby robins with wide open mouths calling to their parents for food. My sisters and I sat about five feet away from the nest and watched the proud robins feed their children.—Your loving neice, Jennie Falk, Manistee, Mich., R. No. 1, Box 58.

Dear Uncle Ned:—Here are the birds I know: Sparrow, bluebird, canary, bluejay, catbird, thrush, hummingbird, quail, bob-o-link, black bird, stork, killdeer, robin, wren, meadowlark, mudhen, swal, low, chickadee, snowbird, pheobe, woodpecker, hawk, owl, bat, whip-poor-will, mockingbird, kingfisher crane, eagle, oriole, lark, peacock and magpie.

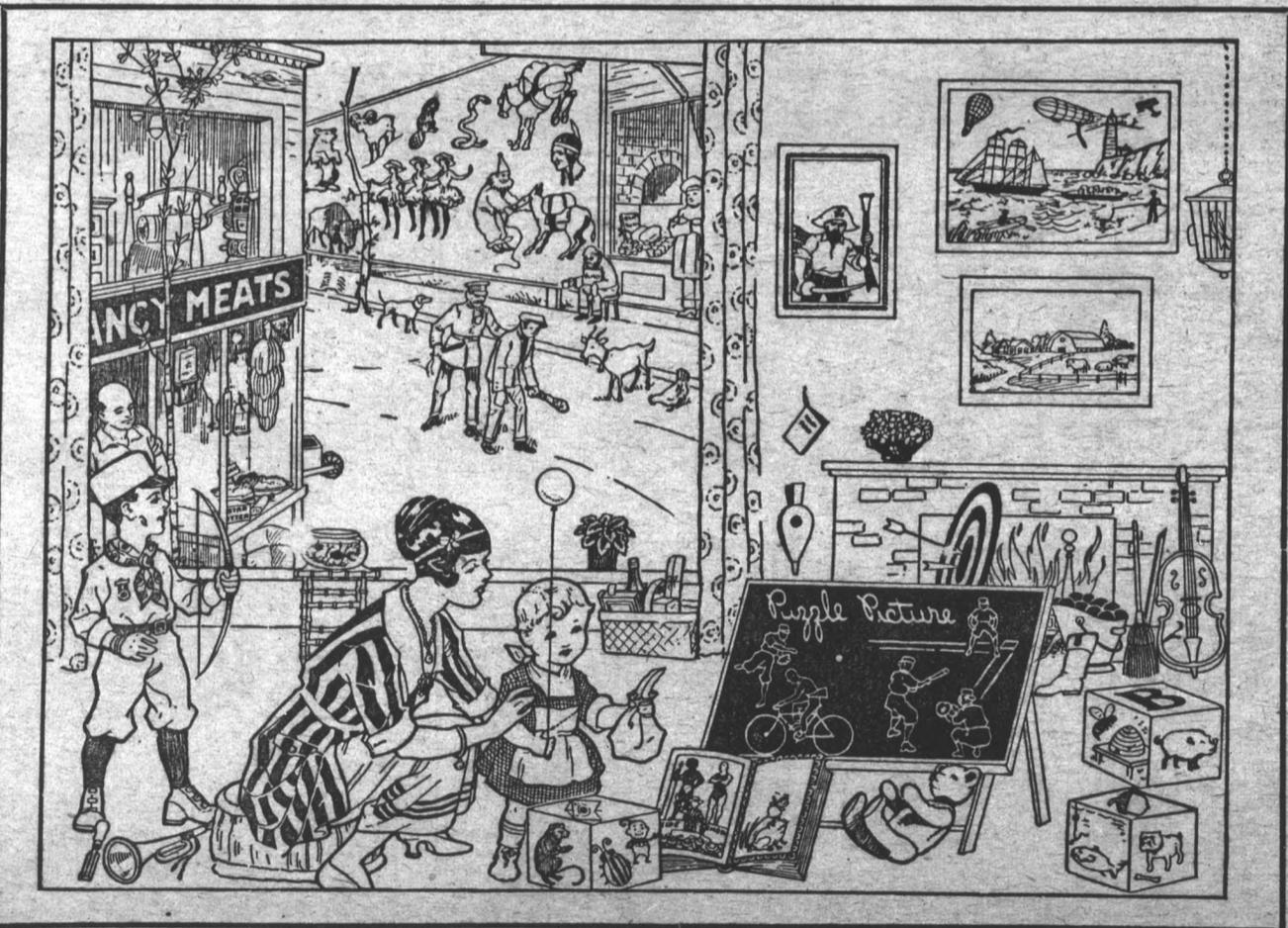
I like a canary best because you can have it for a pet. It is yellow and has black stripes on its wings, it sings very nice. They eat seed and drink water.—Edith Sharpe, Clare, Michigan, R. No. 4.

Dear Uncle Ned—I want to join your merry circle. I like to read the letters in the M. B. F. My father owns 160 acres of land but we aren't living on it. He is working out building roads for the county. My mother cooks for the men that work for him. My occupation is running errands and helping mother wash dishes. We are going to farm next summer, and I'm going to help. I am 15 years old. I have brown hair and brown eyes. My name is Leslie. Now guess which I am, a boy or a girl. Who guesses correctly will receive a long letter.—Leslie Hillard, Cadillac, Mich., R. No. 2.

Dear Uncle Ned:—Here are the names of the birds which I saw to and from school, and the one I like best:

Bluebird, lark, wren, sparrow, partridge, thrush, crow, pigeon, crane, killdeer, quail, catbird, woodpecker, chickadee.

The most beautiful birds I think are the canaries. They are such pretty singers and nice colors, black and yellow. We have some weeping willow trees by our house and the canaries make their nests in them. Early in the morning they flutter about, and look so pretty. Your neice, Beatrice Meyette, Pinconing, Mich., R. 3, Box 108.



HOW MANY OBJECTS CAN YOU FIND IN THIS PICTURE THAT BEGIN WITH "B"?

Look up the September 30th issue of the Michigan Business Farmer and see the full announcement of the great \$500 puzzle contest, open to anyone who is not an employee of this paper. If you haven't one handy, make up a list of all the objects in the above picture which begin with "B" for instance "book, bear, ball," etc. SEND IN YOUR LIST AT ONCE and we will mail you at once complete list of prizes and names of judges, etc. Anyone, anywhere or all the folks in your family can help make up the list. Address: CONTEST MANAGER, THE MICHIGAN BUSINESS FARMER, Mount Clemens, Michigan.

**THE FIFTY-FIFTY FARMING AGREEMENT**

(Continued from page 4.)

stones of farm economics—that profit lies in raising bumper crops—or at least crops whose yields per acre are much above the average.

With no community of interest landlord and renter are not concerned in raising pure bred live stock. For this is a process of long years of continuous improvement, and only comes as a rule, where men of vision work for a definite pattern of perfection.

On the Wendt & Painter farm—and on the other farms owned by Dr. Wendt—will be found pure bred animals. Frank Painter gives his attention to high class Durocs. On another farm Poland China swine unite with Holstein cows to turn feed into food. With good breeding stock selling at substantial advances above market quotations for common stock, it is easy to see how Mr. Painter made a good living for himself and family and bought a good farm with his profits; and how the other land worker we referred to, actually put away \$3,000 a year clear profit for seven years—an almost unheard of procedure—for it must be remembered that the land owner shared equally with his partner in the profits.

The general policy of all the partnership farms we know of, is to sell nothing but live stock—pure bred and market hogs and cattle, dairy and poultry products, etc. When this policy is consistently followed for a number of years, it is easy to see how profits for both partners are likely to exceed those of the average grain farmer.

The Wendt farming agreement is short and simple in form but it represents the most painstaking care in the wording thereof. It is not likely that the lawyer called upon to write a partnership agreement, could or would give to the task as much thought or as much actual experience.

Some have attempted to improve upon the terms of this contract, but nearly always such experiments result in disaster. For the agreement as it stands is based upon absolute justice to land owner and land worker, with the idea of cementing their friendly co-operation for a common purpose. It has been studied from every angle for more than fourteen years and where it has been tried by men willingly to play the game fairly and honestly, it has brought prosperity to the combination.

This suggests that no agreement will succeed where the principal factors there to are not of the right kind; which is the same as saying that partnerships, corporations, government, family life—any form of co-operative effort will fail where all the parties are not in harmony with the central idea of service to the institution.

Dr. Wendt himself is a man of broad human sympathy. His work in his home town is an example of what a man of vision and power can do to make Sinclair Lewis' picture of "Main Street" look ridiculous. He is a substantial member of the community where he has spent his life as a physician. His natural caution is combined with a dream of high ideals of life. His work in that community in building for permanent progress in everything that is worth while, deserves a story all by itself.

It is only natural that a man of this calibre understands the technique of co-operation. He has an instinct for getting along happily with those around him, and this is simply due to his readiness to live by the Golden Rule. He isn't always trying to get the best of the deal. He is willing to make a profit but he knows that he can do so only where his co-laborer also makes a profit.

On the other hand, it takes a man rather above the average in skill, intelligence, and general decency to make a success as the "party of the first part"—the worker who perhaps brings to the partnership only his two strong hands and his thinking brain—an invincible combination, by the way, in any situation in life. The ordinary renter, who merely wishes to strike a shrewd bargain with some one who happens to hold the title to a piece of land, might as well pack up his goods and move on; for that is what he would do any-

way—no matter how well-considered the contract that legally bound him to another.

An example of the right kind of man for the job is Frank Painter, who has some original ideas in addition to his training in the details of running a farm. He is smart enough to breed high class Durocs, for instance, and has now a herd of extra good ones that are steadily improving from year to year.

On the very day we were there, Frank said to the doctor, "Don't you think we should sow some rape in that ten-acre corn field? We can always use more pasture."

"Sure," replied the doctor after a moment's thought. "How much seed do you need and when?"

And right there a little detail in good farm management was disposed of in less than half a minute's time. That's the way it works; two heads are better than one.

Another forward-looking farmer, Mr. B. L. Pruett, is also making good on one of the fine farms in Lincoln County. He added an extra twenty pounds of pork per head to a bunch of hogs by shifting them from field to field as they grew in weight. When they were young and active he pastured them in a distant field; when they got a bit lazy he put them into a field close to the barn; and finally he gave them a three weeks finish in the feed lot where they got practically no exercise. This is a simple matter—but how many hog men have thought of it?

The Wendt farming agreement provides in effect that the land owner is to furnish the land and keep a good set of buildings in proper condition to do business. The worker gives his labor and furnishes his own teams and implements. All the live stock—other than work animals—are bought and owned jointly by the partners and each has an equal share in the increase. No sales or purchases can be made without mutual consent.

Where a few milk cows are kept, the product is divided equally, but Dr. Wendt is now working on a provision that will permit the worker to own as many cows as he is willing to milk, the feed to be furnished by the partnership, and all of the cream to be sold for the account of the worker—the skim milk to be fed on the farm.

**WHY INQUIRY HAS BEEN IGNORED**

(Continued from page 13.)

of the Public Utilities Commission, the majority of members of which, by the way, were appointed by Gov. Sleeper and not by Mr. Grosbeck. On the other hand the inquiry may have been referred to a clerk who paid no further attention to it. I have some times thought myself—that men in public positions, especially ones, who consider it beneath the dignity of their office to be bothered with complaints from the ordinary citizen, and the fact that the Business Farmer receives scores of complaints which have been referred to such officials without results, is evidence of the fact. A more active interest in politics by both men and women will help, no doubt to secure greater efficiency and courtesy in public office.—Editor.

A rare opportunity to buy a bargain in a skunk stole from a lady going South. Apt. 4, 1354 Monroe St. (after 6 p. m.)—Washington Evening Star.

**STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, of the Michigan Business Farmer, published weekly at Mount Clemens, Michigan, for October 1, 1922.**

1. That the names and addresses of the publisher, editor, managing editor and the business managers are: Publisher, George M. Slocum, Mt. Clemens, R. F. D. No. 4, Mich.; Editor, Forrest A. Lord, Mt. Clemens, Mich.; Managing Editor, Milton Grinnell, Mt. Clemens, Mich.; Business Manager, W. W. Slocum, Farmington, Mich. That the owners are: Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock. The Rural Publishing Company, Incorporated, George M. Slocum, Mabel H. Slocum, Forrest A. Lord, Mt. Clemens; William W. Slocum, Farmington; Cecil Allen, Lake, Aug. H. & Emma Ames, Okosco; L. Edna Ellsworth, Oden; Nellie G. Powell, Oden; Chas. J. Pratt, Charlevoix; Jos. Ritzler, Rogers; F. B. Schack, Chicago; Walter Schriener, Marine City; Andrew Ycas, Luther; Ben Wolf, Bigsbyville; Fred Yost, Bridgeport, Michigan.

2. That the known bonded liabilities, mortgages and other securities held by or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none so state.) Citizens Savings Bank, Mt. Clemens; R. R. Olds, Detroit, Mich.; George M. Slocum, Publisher, Brown to and subscribed before me this 2nd day of October, 1922. Robert A. Donaldson. My commission expires March 5, 1926.



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Advertisements inserted under this heading for reputable breeders of Live Stock at special low rates to encourage the growing of pure-breds on the farms of our readers. Our advertising rate is Thirty Cents (30c) per agate line per insertion. Fourteen agate lines to the column inch or \$4.20 per inch, less 2% for cash if sent with order or paid on or before the 10th of month following date of insertion. **SEND IN YOUR AD AND WE WILL PUT IT IN TYPE FREE, so you can see how many lines it will fill.** Address all letters, **BREEDERS DIRECTORY, MICHIGAN BUSINESS FARMER, MT. CLEMENS, MICH.**

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To avoid conflicting dates we will without cost, list the date of any live stock sale in Michigan. If you are considering a sale advise us at once and we will claim the date for you. Address, Live Stock Editor, M. B. F., Mt. Clemens.

- Oct. 18—Holsteins, Alexander W. Copland, Birmingham, Mich.
- Oct. 18—Shortorns, Southern Michigan Shortorn Breeders' Ass'n, Hillsdale, Mich.
- Oct. 18—Holsteins, West Michigan Holstein Breeders' Ass'n, Grand Rapids, Mich.
- Oct. 19—Holsteins, Howell Sales Co., of Livingston County, Howell, Mich.
- Oct. 19—Poland Chinas, F. E. Haynes, Hillsdale, Mich.
- Oct. 19—Poland Chinas, W. Brewbaker & Sons, Elsie, Mich.
- Oct. 20—Holsteins, Shiawassee County Holstein Breeders' Ass'n, Orono, Mich.
- Oct. 28—Holsteins, Corey J. Spencer, Eaton Rapids, Mich.
- Nov. 15—Shortorns and Poland Chinas, Sonley Bros., St. Louis, Mich.

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## DAIRY and LIVESTOCK

### FEEDING THE DAIRY COW

**T**OO many cows are underfed. A cow weighing 1000 pounds needs each day for the maintenance of her body, an amount of food equivalent to that supplied in 8 pounds of clover hay and 20 pounds of good corn silage. She must have that food regardless of whether she produces any milk. Food used for milk production must be in addition to that required to keep the cow's body. A 1000-pound cow producing 20 pounds of 4 per cent milk a day, if properly fed, devotes about half of her feed to maintenance and half to milk production. Obviously when a dairyman has gone to the expense of supplying that half of the food required for maintaining the cow's body, it is poor economy to withhold any of the other half, all of which goes to produce milk. A cow then requires feed in accordance to the amount of milk she is able to produce. The heavy producer needs the most feed.

Farm grown roughages (silage, hay, etc.) furnish the cheapest food nutrients. However, a good dairy cow cannot eat enough roughage to supply her needs for milk production. She must have some grain. Therefore, to feed with the most economy the following rules must be observed, says the University of Missouri College of Agriculture.

1. Feed all the roughage a cow will eat. She will eat more if fed three times a day instead of twice.
  2. Feed grain in proportion to the pounds of milk produced. To a Jersey or Guernsey cow feed one pound of grain for each 3 to 3½ pounds of milk produced.
- To a Holstein, Ayrshire, or Shorthorn feed one pound of grain for each 4 to 4½ pounds of milk produced.

### THE LIVESTOCK SITUATION IN EUROPE

**T**HE following summary of livestock conditions in Europe has just been received by cable from Alfred P. Dennis, special representative of the Department of Commerce, now in Berlin. Mr. Dennis explains that owing to the lack of official census returns there is liability of error in making too high an estimate of the number of European livestock at this time. Though the figures for some countries are lacking and for others are not reliable, estimates for twenty-three countries in Europe have been made based upon the best available returns.

**Cattle**

There have been heavy losses in the cattle herds of Belgium, Austria, Hungary, and Germany, but those of Great Britain, France, Italy, and Poland are approaching normal. The drought of 1921 has halted the recovery from the low point of the year 1918, but the industry has recently been revived by the past wet spring and summer which has resulted in abundant pasturage. The present stock of cattle is probably not more than 3 per cent under that of 1913, but the ratio of young, thin, and undersized animals is much higher than in the period prior to the war.

**Hogs**

The hog industry has suffered acutely more than any other branch of animal husbandry, but the recovery since 1919 has been rapid, except in the case of countries such as Germany, France, Belgium, Austria, and Italy, which are dependent upon imported feed. In Great Britain, Denmark, Sweden, and Poland the production is approaching normal, and the number of hogs in Spain, Rumania, Yugoslavia, Holland, and Switzerland is greater than before the war. The total number of hogs in European countries is now estimated at 12 per cent below normal.

**Sheep and Goats**

Sheep depending upon natural pasturage rather than upon arable farming suffered less than cattle and hogs. There is a wide variation in recovery in this industry. In Poland the sheep resources are off 41 per cent compared with the pre-war figures, and in France there is a reduction of 35 per cent. Spain

has increased the number of sheep by 50 per cent, and the flocks are well maintained in Switzerland, Italy, and Rumania. An accurate census of the total number of sheep in all European countries would probably show the number has approached to within 6 or 7 per cent of the pre-war figures.

In all the important countries the stocks of goats are reported as showing gains over pre-war stocks except in France. These animals, except where commandered for military purpose and for breeding, are being used in increasing numbers for milk supply in the place of cows. The total number of goats in the countries of Europe is estimated at 18 per cent above the pre-war totals.

### Consumption and Trade

Compared with pre-war years the national meat consumption in Europe shows a rise in France, Italy, Rumania, Spain, and Poland. It is fairly well maintained in Great Britain, Holland, and Switzerland. There is a sharp decline in both gross and per capita consumption in Belgium, Austria, and Germany. The European demand for American hog products reached the proportions of a boom during the war and has since receded somewhat, but it is still in excess of the pre-war volume in France, Belgium, Italy, and Great Britain. The needs of Germany for American bacon and animal fats are urgent, but the difficulties attendant upon financial arrangements curtail purchases. There will undoubtedly be a further expansion in the European demand for American lard as the general economic conditions improve.

### POWDERY MILDEW ON CLOVER

Please tell me if the mold on Mammoth clover is harmful to cattle or horses. Almost all clover in this section is in the same way—A. S., Bad Axe, Mich.

—The white substance found on the clover is known as powdery mildew. This is a fungus disease and is not known to be poisonous. The hay should be well cured before feeding, or in case partially cured hay is fed, it should be fed in comparatively small amounts. Large quantities of partially cured hay, when fed to livestock that has not been getting hay for sometime, is likely to cause trouble.—C. R. Megee, Research Associate in Farm Crops, M. A. C.

### VETERINARY DEPARTMENT

#### REQUIRES SKILLED VETERINARIAN

I have a cow 6 or 7 years old that was fresh last December and was not once in heat since. Otherwise she is the best cow. What must I feed her to get her in heat?—H. R., Lathrop, Mich.

It is my opinion that the trouble in this case is due to a persistent corpus luteum. This could be dislodged by a veterinarian who is skilled in such work, and the cow then in all probability would come in heat within two or three days.—Edw. K. Sales, Asst. Prof. of Surg. and Med., M. A. C.

#### PIGS CAN NOT USE HIND LEGS

What ails my pigs? They were all right when I fed them last night, this morning some of them can't walk on their hind legs. They have good quarters to sleep in and a large yard for exercise.—C. M., Charlevoix, Mich.

One of several conditions might ail your pigs. The paralytic condition may be due to infection with the Botulinus organism, or it may be due to lack of minerals or vitamins in the feed they have been getting. Occasionally it seems to be a result of constipation. You ought to make sure that the condition is not Cholera as pigs often become very weak and unable to walk during outbreaks.—Edw. K. Sales, Division of Veterinary Medicine, Dept. of Surgery and Clinic, M. A. C.

A bullet from a .38-caliber revolver passed through one of Seller's right hips and entered his abdomen.—Knoxville, Tenn., Journal-Tribune

## CONSIGNMENT SALE

### OF Registered Holstein Cattle

WEDNESDAY, OCTOBER 18, 1922 AT THE WEST MICHIGAN STATE FAIR GROUNDS, GRAND RAPIDS, MICHIGAN

This is the Annual October Consignment Sale of The West Michigan Holstein Breeders Association and 69 head of good Registered Holstein Cattle will be sold in this sale.

There will be four thirty pound bulls sold in the sale, several good A. R. O. cows, including a 23.57 lb. four-year-old; fresh cows, and cows and heifers soon due to freshen; yearling daughters and heifer calves out of some of the very best bred Holstein bulls in West Michigan, and several young bulls and bull calves of excellent breeding. Here are a few of our choice offerings:

The 31.72 lb. 3 yr. old bull, Goldmine Korndyke Fayne, sold to avoid in-breeding. A 31.26 lb. yearling bull out of a Junior 4 yr. old dam. A 30.80 lb. yearling bull. A 30.50 lb. 6 months old bull calf. Good A. R. O. cows, fresh cows, and springers. Choice yearlings and two year old heifers out of bulls from dams with A. R. O. records from 30 lbs. up to 34.71 lbs. and bred to high class bulls.

A number of very desirable heifer calves out of 30 lb. bulls, including 9 good heifer calves out of the 32.52 lb. bull, Lenawee Pontiac Calamity King.

Some very desirable heifer calves for foundation stock, for Calf Clubs and for starting new herds.

Remember the time and place, Wednesday, October 18, 1922, at the West Michigan State Fair Grounds, Grand Rapids, Michigan.

If interested, write for a Sale Catalog.

**W. B. HARPER, Sale Manager, Middleville, Michigan**

# SHORTHORN SALE---OCT. 18TH

## 30---HEAD---30

Good, High Class Registered Cows, Heifers and Bulls

Including a few cows of the dual purpose or milking strain.

This sale will be held under the auspices of the

### SOUTHERN MICHIGAN SHORTHORN BREEDERS ASSOCIATION

All stock is sold on consignment from members of this Association and is of quality which commands attention.

## HILLSDALE, MICH.

FAIR GROUNDS,

Wednesday, Oct. 18, 1922

For particulars and catalog, address W. C. OSIUS, Sec'y, Hillsdale, Mich.

ANDY ADAMS, Sale Manager.

## Complete Dispersion Sale

Birmingham, Mich., Oct. 18, 1922

50	Purebred Holstein Friesian Females	50
21	Daughters of King Korndyke Echo Sylvia	21
5	Daughters of Hardy Pontiac Segis	5
3	Daughters of Aristocratic Pontiac	3
3	Daughters of Segis Cynthia	3

Most of the females bred to a son of a 31.8 lb. cow that milked 742 lbs. Several bred to a son of Sadie Gerben Hengerveld DeKol (First 40 lb. cow under the new rules).

Several bred to King Korndyke Echo Sylvia, who is a son of Avon Pontiac Echo from a 29.11 lb. jr. three year old daughter of Pontiac Korndyke Het Loo.

Sold with usual breeder's guarantee and subject to 60 to 90 day retest. Terms can be arranged but must be done before the sale.

Alexander W. Copland, Owner,  
Birmingham, Mich.

For catalog address,  
Albert E. Jenkins, Sale Mgr.  
Oscoda, Mich.

THE CHOICEST COLLECTION OF BULLS IN MICHIGAN  
THE GET OF

Model King Segis Glista

FAMOUS FOR SHOW TYPE AND MILK PRODUCTION

Grand River Stock Farms

EATON RAPIDS MICHIGAN

Sale, Saturday, October 28th

39 Select Registered Holsteins

COMPOSED OF 21 YOUNG BULLS AND 18 FRESH FEMALES  
Also 30 Choice Grade Females Bred to Registered Holstein Bulls. All Animals are Tuberculin Tested and Sold Subject to 60-day Retest. Approved Bankable Paper of Nine Months Will be Accepted.

J. E. MACK  
Auctioneer

COREY J. SPENCER  
111 East Main Street  
Jackson, Michigan

S. T. WOOD  
In the Box

## Friday, Oct. 20, 1922

AT 12 O'CLOCK (NOON)

### Shiawassee County Holstein Breeders Ass'n

WILL HOLD THEIR

2nd Annual Consignment Sale  
of 75 Head of

## Reg. Holstein Cattle

AT THE FAIR GROUNDS AT

### OWOSSO, MICHIGAN

This sale consists of heifers and young cows, either fresh or due soon, sired by and bred to 30-lb. bulls of show ring type. Among the offerings are a few extra good young bulls, among them a prize-winning son of King Ona. All herds tested and most of them fully accredited. All animals sold under 60-90 day retest privilege.

COL. D. L. PERRY, Auctioneer.

SALE COMMITTEE

R. AUSTIN BACKUS, in the box.

Earl Vanderkan, Owosso.

J. R. Monroe, Owosso.

C. S. Baldwin, Bennington.

Write to C. S. BALDWIN, Bennington, Michigan, for catalogue.

OCT.  
19th

Thursday, Oct. 19th,

OCT.  
19th

At Ten O'clock

Howell Sales Company of Livingston County

Will hold their

## 9th Annual Sale

of

### 85 Head of Registered Holstein Cattle

at the

Sales Pavilion on the Fair Grounds at

Howell, Michigan

This sale consists of young cows and heifers due to freshen this fall and early winter. Sired by and bred to bulls from dams with records from 30 to 45 pounds also a few open heifers and several good bulls, including a 31-lbs, 4-year-old, son of Rosie Mercedes Butter Boy, 210357, with a yearly record of nearly 1,000 lbs. of butter; also three sons of King Ona Champion, 257513, from 29-30-32-lbs. dams, mostly from accredited herd with 60-day retest guarantee.

Catalogs October 10th

Auctioneer, J. E. Mack

S. T. Wood in the box

Wm. Griffin, Sec'y, Howell, Mich.

**JERSEYS**

**FOR SALE—JERSEY BULL 3 YEARS OLD** Eligible to registration in the American Jersey Cattle Club. E. O. Showerman, Sunfield, Mich.

**FOR SALE—YEARLING JERSEY BULLS** Shopie 19th Tormentor breeding. J. E. MORRIS, Farmington, Mich.

**FOR SALE—JERSEYS, REGISTERED, MAJESTY** heifers. Six months to year old. No. T. B. H. J. & P. H. WALKER, R. 8, Kalamazoo, Mich.

**SWINE**

**DUROCS**

**REG. DUROC-JERSEY SWINE**

Spring and Fall Boars of quality sired by 1921 Mich. Grand Champion and grandson of Scissors, world's 1917 Grand Champion. Spring, Fall and yearling sows sired by above boars open or breeding privilege to the undefeated boar pig at 1922 Fairs, a son of Unique Sensation, world's 1921 Junior Champion. Personal inspection invited. F. HEINES & SON, Davison, Mich.

**DUROC JERSEYS**

**REGISTERED SPRING GILTS** A nice assortment to select from at Farm Prices  
**TWIN BROOK FARM**  
GEO. DOHM, Mgr. WASHINGTON, MICH.

**PURE BRED DUROC-JERSEY BOAR** Pigs of April and May farrow, sired by Brookwater Sensation and Model of Orion's Masterpiece. Place your order now, prices right. DETROIT CREAMERY HOG FARM, Route 7, Mt. Clemens, Mich.

**7 FINE SPRING BOARS**

Sired by Schabros Top Col. (1st prize spring pig 1921 at Springfield Fair). All our stock double treated for Cholera. \$20.00 each, registered in your name. Schaffer Bros., Oxford, Mich., R. 4.

**DUROC YEARLING AND FEBRUARY AND** Spring gilts and boars, sired by Pathfinder Chief son of old Pathfinder; dams are Defender and Fancy Joe Orion 7th. Prices right; get the best. E. McBAIN, Moscow, Mich.

**BOAR PIGS BY FANNIE'S JOE ORION AND** Pathfinder Orion. Priced to sell. Satisfaction guaranteed. Write, H. E. LIVERMORE & SON, Romeo, Mich.

**HILL CREST DUROCS; SOWS AND GILTS,** both bred and open, also service boars. **NEWTON & BLANK**, Four miles straight south of Middleton, Gratiot Co., Mich.

**DUROC JERSEY—WE HAVE A CHOICE LOT** of extra good spring boars ready for service; shipped on approval, satisfaction guaranteed. F. J. DROTT, Monroe, Mich., R. 1.

**A FINE BUNCH OF DUROC BOARS, THE BIG** kind, \$10.00 and up with pedigree. T. A. LAMB & SON, Cassopolis, Mich.

**DUROCS—POPULAR BLOOD LINES—SEND** your wants to OCEANA CO. DUROC JERSEY HOG ASS'N. V. Lidgard Sec., Hesperia, Michigan.

**POLAND CHINA**

**ANNUAL SALE**

Large Type Poland China Swine

New Stock Pavilion,  
Hillsdale County Fair Grounds  
Thursday, Oct. 19, 1922

**50 Head Spring Boars and Gilts**

Better than ever.  
"There's a reason."

**F. E. HAYNES**  
Hillsdale Michigan

"Pigs is Pigs"  
But Haynes' Pigs is Hogs.

**ANNUAL SALE**

—BIG TYPE—  
**Poland Chinas**

Several tried sows, some with litters of pigs

**25 SPRING 10 SPRING**  
**GILTS BOARS**

All Cholera immune with double treatment.  
On farm 5 miles west of Elsie

Write for catalogue  
**W. BREWBAKER & SONS**  
Elsie Michigan

**FRANCISCO FARM POLAND CHINAS**

Big stretchy spring boars as good as grow. Pairs and trios not akin. Can spare two or three of our good herd sows bred for September.

**P. P. POPE**  
Mt. Pleasant Michigan

**L. T. P. C. \$15-\$20-\$25**  
spring pigs at above prices. Top fall gilts bred for summer farrow, priced right.  
**HART & CLINE**  
Address F. T. Hart, St. Louis, Mich

**LARGE TYPE POLAND CHINA SPRING PIGS** sired by C's Clansman, now ready to ship. Write for particulars. **W. CALDWELL & SON**, Springport, Mich.

**BERKSHIRES**

**FOR SALE—REGISTERED BERKSHIRE** boar two years old, \$35; also a few open gilts, \$2. **E. R. WILSON**, Elsworth, Mich.

**HAMPSHIRE**

**A CHANCE TO GET SOME REAL HAMP-**shires. Boar pigs, sired by Gen. Pershing Again, Gilt Ecce Tipton, Messenger All Over 10th, Gen. Pershing 2nd., and other great boars. Write for list and prices. **DETROIT CREAMERY HOG FARM**, Route 7, Mt. Clemens, Mich.

**HAMPSHIRE AND SHORTHORNS—MARCH** and April pigs weighing 100 to 150. Price: \$20 to \$25 each. One red and one white bull 4 months old. Price: \$40. Each registered. Write or call **GUS THOMAS**, New Lathrop, Mich.

**Hampshires—A few choice Bred Gilts** with boar pig no kin to gilts. John W. Snyder, St. Johns, Mich.

**O. I. C.**

**O I C'S 25 LAST SPRING BOARS, GILTS** not akin; fine big growthy stock. Recorded free. One-half mile west of depot. Citizen Phone. **OTTO B. SCHULZE**, Nashville, Mich.

**O I C'S SPECIAL PRICES ON FALL PIGS** for Oct. 15th delivery; also spring boars for immediate shipment. I can save you money. Write **CLARE V. DORMAN**, Snover, Mich.

**O. I. C. TRUE TO NAME, PROLIFIC STRAIN.** open gilts bred gilts, booking orders for September boar and sow pigs; we ship C. O. D. Ask for description and weight, the price will be right. **Maple Valley Stock Farm**, North Adams, Mich.

**BIG TYPE O I C PIGS 8 WEEKS OLD** Guaranteed. **E. V. BILYEU**, Powhatan, Ohio

**REGISTERED O. I. C. SERVICE BOARS AND** Bred Gilts, priced to sell. **J. R. VAN ETEN**, Clifford, Mich.

**SHEEP**

**HAMPSHIRE**

**REGISTERED** Hampshire. Rams all ages. Also some good ewes. Best of breeding. Prices right. **W. W. CASLER**, Ovid, Mich.

**REGISTERED HAMPSHIRE AND DELAINE** Rams; also some good grade rams for sale cheap. Write **A. F. LONGPRE**, Hardy, Mich.

**SHROPSHIRE**

**SHROPSHIRE RAMS—CHOICE YEARLINGS** Ram and Ewe lambs. Write **DAN BOOHER**, Ewell, Mich., R. 4.

**FOR SALE—SHROPSHIRE, TUNIS, COTSWOLD** and Lincoln Rams. Also ewes. All breeds. All recorded. **L. R. KUNEY**, Adrian, Mich.

**COTSWOLD**

**COTSWOLDS RAMS AND EWES, ALL AGES,** priced to sell. Come and see them. Also 1 collie pup. **A. M. BORTEL**, Britton, Mich.

**OXFORDS**

**REGISTERED OXFORDS FOR SALE—ENTIRE** Flocks (50 head) Rams, Ewe lambs. Also registered Hereford cattle any age. **EARL C. McCARTY**, Bad Axe, Huron Co., Mich.

**DELAINE**

**FOR SALE—IMPROVED BLACK TOP DELAINE** Merino Rams. **FRANK ROHRBACKER**, Laingsburg, Mich.

**LARGE WELL COVERED DELAINE SHEEP** for sale, both sexes. Rams, Poll or Horned. **F. H. OONLEY & SON**, Maple Rapids, Mich.

**RAMBOUILLET**

**Rambouillet Rams** registered yearlings and two year olds, good ones, heavy shearers, best of breeding, priced right. **H. W. Hart**, R. 2, Greenville, Mich., Gratiot Phone.

**FOR SALE—PURE BRED RAMBOUILLET** rams. Good stuff. At farmers' prices. **J. M. EAGER**, Howell, Mich., R. F. D. 6.

**Auction Sale**

**OCTOBER 25th AT 9 O'CLOCK**  
3 1/2 MILES SOUTH OF BEAVERTON,  
GLADWIN CO.

**Power Farm Machinery**

Wallace Tractor 15-25 H. P., International Tractor 10-20 H. P., Peerless Grain Separator 30 inch with Garden City Feeder, Wind Stack and Bagger, Milwaukee 4 roll Husker and Shredder, Buckey Sawmill and Port Huron Edger, Planing Mill, Two-ton Reo truck. Also a full line of farm implements including power potato machinery, John Deere 24-inch Grub Breaking Plow.

**P. F. HINES, Proprietor**

**BREEDERS' ATTENTION**

If you are planning on a sale this year, write us **CLAIM THE DATE!** now and This service is free to the live stock industry in Michigan to avoid conflicting sale dates.

**LET "THE BUSINESS FARMER" CLAIM YOUR DATE!**



**POULTRY**

**THE FARM HEN PAYS WELL**

**T**hat a farm poultry flock is one of the best paying parts of a farm business is shown by cost and production figures on 39 farms in Lenawee, Jackson and Shiawassee Counties for the twelve months ending March 31, 1922. The figures are taken from records carefully kept by the farmers and supervised and summarized by the Farm Management Section of the Experiment Station, M. A. C.

The flocks on these farms averaged a return of \$200.23 above feed and other direct costs. That the figures apply to the ordinary farm flock is shown by the fact that these flocks averaged 118 hens. The average return per hen was \$1.70. Thirteen of the flocks show returns below \$1.50 per hen, seven above \$2.25 per hen, and nineteen fell between the figures.

One of the striking facts of poultry management brought out by the study of these flocks was the effect of protein feeds upon both egg production and net returns per hen.

The average egg production per hen on eleven farms feeding either tankage or skimmed milk was 96.8 eggs per year. The net return per hen in the first case was \$2.59 and in the second \$1.28.

The accompanying table gives the direct costs and returns in summary form.

**Enterprise Record on Poultry**

Thirty-nine farms in Lenawee, Jackson, and Shiawassee counties. Year endings March 31, 1922.

Total number chickens 4,595, raised, 4,528.\*

Average number laying hens, 118; raised, 116.

**Direct Costs**

Items	Amount	Cost
Corn	2,568 lbs.	\$24.83
Oats	1,056 lbs.	10.50
Wheat	1,064 lbs.	11.96
Barley	354 lbs.	4.51
Misc. Feeds	815 lbs.	11.91
Silage	151 lbs.	.29
Skim Milk	1,132 lbs.	3.00
Poultry, net decrease		11.10
Equipment, net decrease		1.23
Special Labor		1.98
Miscellaneous		2.06
<b>Total Direct Costs</b>		<b>\$83.37</b>

\*"Poultry raised" means the number of chicks hatched that lived. It does not mean that they were all raised to maturity, for some were sold at early stages for broilers, etc.

Egg-Sales	453 doz.	\$125.80
Eggs for home use	213 doz.	56.42
Meat for home use	100 lbs.	22.04
Poultry, net increase		71.47
Manure	3.93 ton	7.86
Miscellaneous		.06
<b>Total Money Yield</b>		<b>\$283.65</b>

—H. M. Eliot, Farm Management, M. A. C.

**SICILIAN BUTTERCUP CHICKENS**

Can you tell me the original markings for the Sicilian Buttercup chickens? Some of ours are light yellow with a few black spots on their backs, and black tail, they are quite pretty. The others are darker in color and all black from the neck down. My husband thinks those are truest in color, but I think the lighter ones the prettiest. The roosters are quite dark. I would like to know which ones are the best type for I want to take them to the fair as they are a new breed in our neighborhood.—Mrs. T. F., Howell, Mich.

—I might say that the Sicilian Buttercups are not a standard variety and therefore a description of the color pattern of this breed has been omitted. The darker colored birds are the ones that are usually preferred by the professional judges of exhibition poultry. They are almost an orange yellow color rather than a light yellow. By directing a communication directly to the Reliable Poultry Journal, Quincy, Illinois, care the Question Box Editor, undoubtedly you could secure an expression from one of the judges who

specializes in Mediterranean varieties. Although this breed is not described in the Standard of Poultry this judge could give his opinion as to type and color to use for either show purposes or in the breeding pens.—E. C. Foreman, Associate Professor of Poultry Husbandry, M. A. C.

**GET PULLETS OFF RANGE EARLY**

**E**arly fall is the time of year above all others when pullets must be nursed carefully along, because winter egg production is largely dependent on the condition of the young stock when it is placed in permanent laying quarters. Too often poultry keepers allow their birds to run on range until cold weather comes. Nature's chicken house is not the right place for a pullet to be roosting on a late October night. Delay in bringing the pullets off the range was the cause of an unusual amount of roup last fall, according to G. W. Hervey of the University of Missouri College of Agriculture. Allowing them to run on range late means added expense to the feed bill. The birds consume more grain and an insufficient amount of dry mash. Feed that is consumed, instead of rounding the pullets in to laying condition, is used simply to maintain energy requirements against exposure. There is no surplus to devote to the building up of tissue for the formation of eggs.

**TREATMENT OF STINKING SMUT OF WHEAT**

(Continued from page 4.)

sooty, black powder, some persist and can be found in the threshed grain. The amount may vary from a trace to 1, 2, or 5 per cent. The characteristic fishy odor can be detected in such grain. Badly smutted wheat is not bright red or golden color, but dull and oft-times sooty, especially at the "brush" end.

This is Stinking Smut or Bunt which every farmer rightly fears.

Stinking Smut of wheat is caused by a parasitic fungus which enters the grain at sprouting time and grows inside the young plant, keeping pace with its growth, unseen and unsuspected until the wheat begins to head. Then the smut fungus enters the developing kernel and produces in place of the normal grain its own kind of fruit, the black smut powder already mentioned. Under the microscope this powder is seen to be made of minute, spherical grains, so small that one smutted kernel may contain 5,000,000 of them. These are the "seed" of the smut, which, dusted upon the wheat grow when the wheat germinates, bore into the tender sprout and thus start the smut of the next year's crop. This life story is repeated year after year and it is evident that with each crop the smut gets worse. A field with little smut one year may be heavily smutted the next, great is the power of this fungus to increase. It is also clear that the sprouting time is the danger time for the wheat. Poor growing conditions, cold, wet seasons—which cause the wheat to start slowly, give the smut a greater chance to get in the wheat sprouts.

**The Control of Stink Smut**

Stinking Smut control is based upon the fact, that the smut enters the wheat at sprouting time. In fighting smut, the attempt is made to kill the smut "seed" on the wheat before it gets into the sprout. For this purpose, a chemical treatment is employed, which when properly applied does not injure the grain but kills the smut bodies. For years, plant pathologists have recommended soaking the grain in tubs of dilute Formaldehyde, 1 pint to 40 gallons of water, skimming off the floating smut balls, covering the grain for 2 hours, drying and planting. This is undoubtedly the best method of ridding wheat of smut. Many farmers have taken advantage of this method and have protected their wheat crop. But we can not deny that the great majority of farmers have felt that this process took too much time and have neglected the treatment. Millers and elevator men have stated that only a few men in a community were treating their grain.

It was found that fairly clean grain, carefully fanned, if sprinkled with Formaldehyde, diluted 1 pint



# MARKET FLASHES

## WEEKLY TRADE AND MARKET REVIEW

**T**HE industrial outlook has changed but little since our last issue. If anything it shows improvement. For the first time in a long time there are actually more jobs than men to fill them in certain lines. A few months ago the want columns of the daily newspapers were full of "situation wanted" ads. Now the "help wanted" ads predominate.

Railroad employees are rapidly returning to work under wage agreements with the rail operators, and in most cases without the reduction in wages which was at first threatened. With the assistance of the high freights and a volume of business very close to the maximum ever recorded, the railroads are gradually getting on their feet and their books begin to show some heavy balances for distribution to stockholders. Railroads having bond issues to dispose of are quite extravagant with their claims of large earnings, which seem hardly consistent with the hard luck stories they have been telling the Commerce Commission and the public.

Stocks and bonds are experiencing the usual fall demand and prices are generally upward. There is plenty of money available for investment and speculation at 4 per cent interest in New York and slightly higher rates westward.

Two weeks ago we expressed our conviction that there would be no war between England and Turkey, and that those who were looking for increased prices as a result of the disturbances over there would probably be disappointed. Recent developments seem to substantiate our belief.

The two discouraging factors are the coal shortage and the low price of farm products, both of which bid fair to exert an overshadowing influence before the winter is far advanced. It seems quite possible that we can have a winter of even average prosperity and employment with coal prices so high and farm prices so low. Gov. Groesbeck has called the legislature in special session to consider legislation to regulate the coal supply and keep prices down. Now if he will only exert himself to regulate the flow of farm products and keep their prices up we shall all be very grateful.

### WHEAT

The wheat market has shown quite unexpected strength during the past fortnight, due, say the market dopsters to the war clouds across the water. Personally we don't believe that the possibility of war has had very much to do with the changed trend in wheat, but it suffices as an excuse for those who are in control of the market and think the time ripe for higher prices. But no matter what the reason or excuse if the farmers are to secure any benefit from advancing prices let them mount. The higher the better. We still maintain, however, in case war does not actually develop, that prices will react somewhat from their present level and rule steady for a considerable period of time. The past week has not only seen some slowing up in the marketing movement, but also some clearing in the supplies in primary markets, and the general tone of the market is very much better than it has been for some time.

### Prices

Detroit—No. 2 red, \$1.16; No. 2 white and No. 2 mixed, \$1.14.  
Chicago—No. 2 hard, \$1.09.  
Prices one year ago—Detroit, No. 2 red, \$1.28; No. 2 white and No. 2 mixed, \$1.25.

### CORN

The healthy tone the corn market enjoyed during the middle of last month again prevails in the corn market after several interruptions by news from the war zone of Europe. As a result prices after declining came back and gained over the opening two weeks before. Total gains at Detroit last week aggregated 4 cents. Demand dealers report that

## MARKET SUMMARY

Wheat steady. Corn and oats in demand and firm. Rye and beans show no change. Butter and eggs in demand. Poultry steady. Demand for dressed calves. Potatoes active. Apples easy. Cattle range from active to dull and lower. Hogs and sheep show advance.

(Note: The above summarized information was received AFTER the balance of the market page was set in type. It contains last minute information up to within one-half hour of going to press—Editor.)

they have bids from eastern points but are unable to secure the grain to make the sales. This would indicate that farmers are not anxious to unload their corn on the market at prevailing prices which will go far in establishing higher prices if farmers will continue to hold. By orderly marketing is the only way that farmers can expect to get anywhere near what their products are worth and the sooner they realize it and put it into practice the better it will be for them.

### Prices

Detroit—No. 2 yellow, 73c; No. 3 yellow, 72c; No. 4 yellow, 70c.  
Chicago—No. 2 yellow, 66½ @ 67½c; No. 3 yellow, 66½ @ 67½c.  
Prices one year ago—Detroit, No. 2 yellow, 51½c; No. 3 yellow, 50½c; No. 4 yellow, 47½c.

### OATS

Oats continue to gain in strength with wheat, advancing to 46 cents on the Detroit market. At present prices oats look like a good buy. Supplies are very close to demand and there are reasons for believing in substantially higher prices before another crop.

### Prices

Detroit—No. 2 white, 47c; No. 3 white, 45½c; No. 4 white 42c.  
Chicago—No. 2 white, 40½c @ 42½c; No. 2 white, 40½c @ 42½c.

Prices one year ago—Detroit, No. 2 white, 38½c; No. 3 white, 36c; No. 4 white, 32c.

### RYE

After a spell of weakness the early part of the last two weeks the rye market firmed up and prices turned upward along with those of other grains. At the close of last weeks the price at Detroit was 2 cents above that of two weeks ago.

### Prices

Detroit—Cash, No. 2, 77c.  
Chicago—Cash, No. 2, 72½c.  
Prices one year ago—Detroit, 90c.

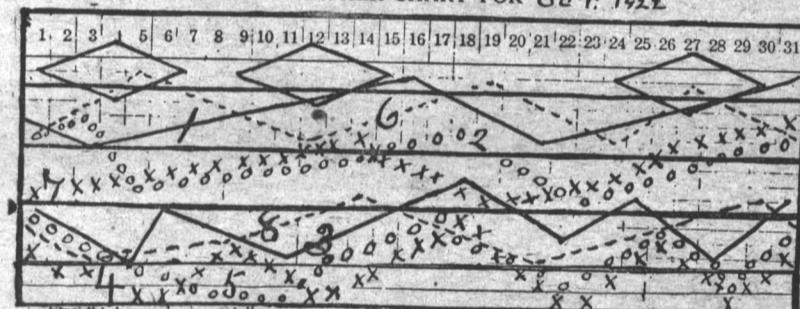
### POTATOES

The potato outlook is very discouraging. Prices have taken a pronounced slump the entire country over. This has had the effect of checking the enormous marketing movement which followed immediately in the wake of digging in the principal potato sections. Only such farmers as absolutely need the cash will sell potatoes at prices ruling the past few days. We look for an abrupt drop in potatoes offerings which should have the effect of taking the slack out of the market and encouraging better prices. Within another fortnight when potato digging will be pretty well completed we shall know considerable more about the size and quality of the crop

## THE WEATHER FOR NEXT WEEK

As forecasted by W. T. Foster for The Michigan Business Farmer

### FOSTER'S WEATHER CHART FOR OCT. 1922



Straight, heavy, horizontal lines represent normal temperatures, which is the average of same days of the year for forty years. Crooked lines above normal lines mean warmer; below, cooler; that marked 1 is for section 1, north of latitude 47, between meridian 90 and Rockies crest—2 for section 2 on my section map is for east of meridian 90, north of latitude 47—3, between latitudes 39 and 47 and between meridian 90 and Rockies crest—4, east of meridian 90, between latitudes 39 and 47—5, south of latitude 39, between meridian 90 and Rockies crest—6, east of meridian 90, south of latitude 39—7, north of latitude 43½, west of Rockies crest—8, south of latitude 43½ to Mexican line and west of Rockies crest.

Washington, October 14, 1922—The moisture will continue to come from the Caribbean Sea, but it and precipitation will be in decreased amounts in America and Canada, particularly immediately north of Boston and Ozark Mountains and north of the high lands that extend eastward through Tennessee and North Carolina. Further north rain will gradually increase. September rain shortage, north of the high lands of Tennessee and North Carolina, is a good lesson on the effects of high ridges on crop-weather. In other sections much improvement favorable to winter grain for pasture, is expected by the end of October. But I am not now publicly advising about crops for 1923. But I reply to all inquiries from subscribers of this paper. Always address Foster's Weather Bureau, care of Michigan Business Farmer. My public advices about selling grain and cotton have been good. Severe storms are expected to cross continent October 14 to 18, and during that period an increase of moisture.

Forecast for Michigan: Temperatures below on 14, above on 18, normal on 20; average warmer than usual; more rain than average of past month.

The word electricity, when used alone, includes magnetism; they constitute a pair that can never be separated. Electricity, in all cases, passes from the sun to each of the planets. The electricity is matter in motion, does not carry other matter, when static, or not moving, is the same kind of matter but is called the electrosphere and is composed of electrons, the same as electricity, which is electrons in motion. In all cases in which electricity comes from the sun, magnetism, a finer grade of matter than electricity, passes, in a spiral, around the electric current to the sun. That magnetic spiral carries a fine grade of matter—sun food—to the sun. The electric current from sun to Earth enters at our magnetic north pole, spiral around that incoming electric current that carries matter from the Earth to sun. The same is true of all the planets.

and prospects for better prices, but at the present stage of the game no one but the most daring speculator would gamble on the future of potatoes.

### Prices

Detroit—\$1.30 per cwt.  
Chicago—90c per cwt.  
New York—\$1.00 per cwt.  
rices one year ago—Detroit, \$2.61 per cwt.

### BEANS

The trend of the bean market indicates that the farmers are using their heads this year and marketing their product slowly. As stated before it is most unusual for a market to advance as the bean market has during the very height of the normal marketing season. This should be highly encouraging to bean growers, as it indicates still better prices as the season advances.

### Prices

Detroit—C. H. P., \$5.50 per cwt.  
Prices one year ago—Detroit, C. H. P., \$4.45 per cwt.

### HAY

Market in general are showing a firmer tone. Receipts have been not large during the past couple of week and owing to shortage of cars at loading points they are expected to be still smaller this week. Good hay is in steady demand and a shortage in the supplies of this grade is causing a cleanup of the poor grades which have accumulated on many of the larger markets.

### Prices

Detroit—Standard timothy and light clover, \$15.50 @ \$16; No 1 clover, \$14 @ \$14.50 per ton.  
Chicago—No. 2 Timothy, \$20 @ \$21; No. 1 clover, \$14 @ \$16 per ton.

Prices one year ago—Stanardd timothy, and No. 1 light clover mixed, \$19 @ \$20; No. 1 clover, \$14 @ \$15 per ton.

### CHICAGO LIVE STOCK MARKET

Liberal daily runs of cattle met a set of uneven and weak to lower market last week at Chicago. Best long-fed steers and yearlings enjoyed good action most days and top cattle advanced 25@45c during the first four days. Medium grades, which comprised the bulk of receipts, declined almost daily, and, with Thursday's sharp break, values stood unevenly 50c@\$1.50 below last week's close. Extreme declines were noticed on pretty good steers and yearlings, the latter particularly being hit hard, and some of the \$10.50 yearlings late looked like \$11.50 or higher yearlings week before.

Receipts of cattle for the week at Chicago total 76,600, or around 1,400 more than arrived week before last and largest for any week since the third week in January, 1921, when 77,601 cattle were marketed.

Recent warm weather tended to slacken demand for dressed beef, and with an accumulation of medium grade beef on hand, prices broke after mid-week and suffered sharp declines. Weak to lower dressed markets were evident locally, as well as in eastern centers. Orders were mostly for finished steers, and on late sessions not many orders for anything were present.

An oversupply of light and light butchers resulted in a 25c lower top price last week, with best at \$10.45, being \$1.75 above a year ago, \$5.80 below two years ago and within \$1.70 for the eleven-year average.

Indifferent outside demand served as an outstanding weakening factor on the local trade, with the week's total shipments being smallest in two years. Shipments at 13,300 show a decrease of 4,900 as compared with a year ago and 7,500 as compared with corresponding week two years ago.

Daily top prices last week in the hog market fluctuated within a 55c "spread," ranging from \$9.20 at the extreme close to -10.45 initial day last week, when most classes sold at the highest time of the week. However, the liberal supply of light weights and active buying by local packers of the latter class raised the



general average cost on Thursday to \$9.15, showing 5c advance over the receipts of the week, due to smaller receipts of heavy packing sows and an uneven gain in this class.

Mid-week prices proved the lowest of the week, when average cost dropped to \$8.75. The liberal supply of light weights after mid-week forced top kinds off 55c as compared with a week ago, but served to uphold the general average cost, which closed at \$9.05, as against \$9.15 previous Saturday.

The second largest week's offerings over two months answered a comparatively indifferent demand, resulting a sharp price reactions, with the week's top and average showing 25c and 30c decline, respectively. Total receipts at 129,600 stand only 1,800 larger than a week ago, but show an increase of 10,500 as compared with a year ago, being 12,300 above the eleven-year average.

Offerings in last week's sheep market totaling about 95,200 head broke values sharply, forcing fat lambs price to the lowest level in over two weeks, while feeders slumped unevenly 50c to \$1.00. Although receipts were larger than trade requirements at the present high price level, they show enormous decreases comparing with corresponding periods in recent years, being among the smallest on record for this season of the year.

The improved aged and yearling sheep quality upheld prices in face of several sharp lower sessions, to both packers and country buyers. The latter were large interests of the trade during the fore part of the week, securing several bands of feeding yearlings at 25@50c discount, but neglected practically all classes after midweek. Native and range states contributed more liberally to the sheep trade throughout the week.

Choice aged wethers sold within a range of \$6.00@7.75, with country buyers securing several strings of feeders at \$6.75@7.00, paying upward to \$12.00 for best yearlings. Range yearlings carrying desirable killing flesh moved at \$10.60@11.50, with inside prices taking best, at the close. Native ewes cashed downward from \$6.75 for local slaughter, with 2 and 3 year old breeding stock selling at \$6.00@8.00. Fancy yearling breeding ewes brought \$11.50 initial day last week.

**MAINE SPUD GROWERS LOOK FOR BETTER PRICES**

Bangor, Me., Oct. 7th—The potato situation in Aroostook county as a whole looks brighter and farmers are hopeful for a steady advance in price as the season rolls along. It is estimated by expert authority that the average will be about one-half a crop or a little better than one-half of last season's crop; yet when one realizes that last year's crop was estimated as a crop and half compared with a normal crop it would show that with an estimate of one-half a crop compared with last year, it should tally about three-fourth's crop compared with a normal one.

Some farmers are disappointed over their yield per acre which is far below what they expected. In no place, with possibly a few exceptions, has the yield gone 100 barrels per acre. With the height of the digging season here farmers are busy in getting their tubers out of the soil and well housed. The climatic conditions have been excellent during the past two months and with the digging season here the conditions could not be any better than at the present time. Farmers are housing their crop freely and there is no congestion in the storehouses. On an average from 70 to 80 cars are being shipped out of the state and the price is quoted at \$1.00 per barrel. Several days ago the price was 80 cents per barrel and as time goes on farmers are in hopes to have a fair price for what they have to offer. It is said by potato experts that the darkest days have been past they think, and a steady market at a fairly good price will be maintained.

**CHICAGO BUTTER MARKET**

A firm feeling prevails in the butter market so far this week although business is not active. Offerings are firmly held. Best and medium grades are quickly taken at present prices.

**MISCELLANEOUS MARKET QUOTATIONS**

Detroit, Tuesday, Oct. 10th.  
**BUTTER**—Best creamery, in tubs, 36@37c per lb.  
**EGGS**—Fresh current receipts, 32@35c; fresh candled and graded, 35@40c; refrigerator firsts, 26½@28½c per dozen.  
**CABBAGE**—Home grown, 50@75c per bushel.  
**Popcorn**—4½@5c; Little Buster, 7½@8c per lb.  
**ONIONS**—\$1.75@2 per sack of 100 lbs.  
**TOMATOES**—Home grown, \$1@1.50 per bu.  
**DRESSED CALVES**—Choice, 17@18c; medium, 12@14c; large coarse, 5@10c per lb.  
**LIVE POULTRY**—Best springs, 22@23c; leghorns, 18@19c; large fat hens, 25c; medium hens, 22@23c; small hens, 17@18c; old roosters, 15c; geese, 16@17; large ducks, 23@42c; small ducks, 18@20c; turkeys, 25c per lb.  
**GRAPES**—Michigan, 32@35c per 4-quart basket and \$2.50@3 per bu.  
**APPLES**—New, \$1@1.50 per bu.  
**PEACHES**—Utah, \$2@2.25 per bu; New York, \$1.50@1.75 per bu.  
**PEARS**—Bartletts, \$2.25@2.75 per bu.  
**CELERY**—Michigan, 20@30c per doz.  
**HONEY**—Comb, 23@25c per lb.

**CROP REPORT**

The semi-monthly crop notes issued October 4th by John A. Doelle, Commissioner of Agriculture and Verne H. Church, Agricultural Statistician, U. S. Bureau of Agricultural Economics, states that the latter half of September was generally favorable for harvesting crops and the fall seeding of grain.

The greater part of the corn crop has been cut and most of the silos have been filled. Very little damage has been done by frost, except in a few northeastern counties, and the crop is generally good. The yield was shortened somewhat on the lighter soils by dry weather in August.

There has been a tendency in some sections to decrease the acreage of wheat and rye seeded this fall, owing to unsatisfactory prices for these grains. However, the greater part of the large bean acreage has been or will be sown to these crops. The greater part of the seeding has been completed and many fields are showing above ground.

Much damage has been caused by rains during the harvest season in the Saginaw valley, reducing the yield and lowering the quality. Elsewhere the damage has been only local and the crop was secured in good condition. Yields vary widely but will average slightly below normal.

Digging of the late crop of potatoes has commenced. Yields are less than expected in many sections. The tubers are of good size but the set was lessened by dry weather at the critical time. There has been some frost damage, blight and rot in northeastern counties. In other sections the quality is mostly good.

**PROVES VALUE OF PURE-BRED SIRES IN GRADE HERDS**

(Continued from page 2)

sey Breeders Association Fair. At this time the individuals shown are classified according to age and placed by an expert judge, who likewise gives his reasons for the placings. By this measure the members of the association are constantly up to date and guided in the selection of their breeding stock.

Special effort is now being made and fortunately the plans are nearly completed whereby each of the members is going to be the proud owner of at least one pure-bred Guernsey instead of all high-grades.

Furthermore, the organization of a cow testing association is likewise nearly completed so that production records of each individual may be made.

Unfortunately the only Sixty-third Sixty-fourth blood born to date proved to be a male.

A constant improvement in the cattle is shown by the succeeding generations, and as a result of the efforts of the Leer Guernsey Breeders Association there are now approximately twelve hundred grade Guernseys distributed throughout Alpena county and neighboring counties.—C. O. T. Scheetz, County Agr'l Agent.



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**MISCELLANEOUS**

**GENERAL**

BARREL LOTS SLIGHTLY DAMAGED crockery, hotel chinaware, cookingware, aluminumware, etc. Shipped direct from factory to consumer. Write for particulars. E. SWASEY & CO., Portland, Maine.

LET US TAN YOUR HIDE—COW AND Horse hides for fur coats and Robes. Cow and Steer hides into Harness or Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISLIAN FUR CO., Rochester, N. Y.

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WANTED—TO GET IN CORRESPONDENCE with party dealing in farm and city property in Illinois, Ohio, Indiana, and Michigan. Write or telegraph FRANK B. RAY, Merrill, Mich.

500 30x3½ NON-SKID TIRES. OUR AKRON-De-Luxe. Guaranteed Heavy Tube Free. \$6.65. Cash with order. SLADE RUBBER CO., Ithaca, Michigan.

ALL MEN, WOMEN, BOYS, GIRLS 17 TO 60, will rise to accept Government Positions, \$117 to \$190, traveling or stationary. Write MR. OZMENT, 355 St. Louis, Immediately.

FOR SALE—7,200 EGG CANDEE INCUBATOR Good condition, \$800. FYRONE POULTRY FARM, Fenton, Mich.

ONE KALAJAZOO SILO FILLER NEARLY new, size 14. Only filled 18 silos, price \$200.00. HAROLD JORS, Fife Lake, Mich.

HOUNDS, ALL KINDS, BEAGLES, AIREDALES, Rat dogs. Trained dogs on trial. Pups on approval. PETE SLATER, Oconee, Ill.

FOR SALE—SAW DUST BLOWER—USED. JOHN ELLSWORTH, 1520 Fairbanks St., Kalamazoo, Mich.

FOR SALE—KIRSTIN HORSE-POWER stump puller, half price. Turning lathe, saw-table, tools. Milch goats. HUDGINS, Birch Run, Mich.

HIDES TANNED OR EXCHANGED, LEATHER sold direct to farmers. COCHRAN TANNING, Greenville, Michigan.

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EARN \$110 TO \$250 MONTHLY, Expenses paid, as Railway Traffic Inspector. Position guaranteed after 3 months' spare time study of money refunded. Excellent opportunities. Write for Free Booklet G-165, STANDARD BUSINESS TRAINING INST., Buffalo, N. Y.

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There isn't a woman anywhere that doesn't want and need a handsome fur scarf. And Sharood offers an unusual value at a price within the reach of everyone. This scarf is about 46 inches long and 12 inches wide. It is stylish as well as warm. The lining is good quality satin, and there is an extra ruching laid around the neck inside, so as to protect the fur from wearing. Only the most expensive fur scarfs have the features which we offer you at this bargain price. Order black Manchurian wolf scarf by No. 96E5193. Order brown by No. 96E5194. Send no money. Pay only \$4.49 and postage on arrival. If not satisfied your money will be refunded. Be sure to state color wanted.

**Fine Fur Trimmed COAT For Girls Only \$3.98**

A sensational bargain—a handsome coat of Pressed Velour in Navy Blue or Brown. Regular \$7 value. Has collar of genuine Kit Coney, which buttons snugly around throat. Belt all around, two novelty pockets and two buttons at back. Sizes to 14 years. Order Brown by No. 96E5595. Order Navy by No. 96E5596. Send no money. Pay \$3.98 and postage on arrival. Order similar style with handsome plush collar, sizes 2 to 6. Black No. 96E5581. Brown No. 96E5582. Price either color, \$2.98. Send bargain and postage. Send no money with order.



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Wait—just wait till you see this snappy coat for misses. Wait till you can actually see and feel the splendid warm texture of its rich heather brown Polo Cloth body—the wonderful warmth of its large deep Coney fur shawl collar. We positively guarantee that—quality for quality—there is not the equal of this garment under \$12.00 anywhere else in the country. Note the snappy lines—the self-material belt, the side patch pockets and two muff pockets besides. Misses sizes, 14 to 20 only. Order No. 96E5657. Send no money. Pay \$9.98 and postage on arrival. State size.



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They are the best bargains you'll find at anything near this sale price. Heavy weight flat knit union suits of select long fibre cotton in popular Jaeger or grey in Random color. Heavily brushed fleece lining on inside. Wrists and ankles are elastic knit. Sizes, 32 to 46 chest. Buy a year's supply right now—today. Jaeger color No. 96C1279. Grey Random No. 96C1280. Send no money. Pay 99c and postage on arrival. State size.

Be sure to State Size

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Just the shirt that men need in large numbers, and offered at absolutely the lowest price in America! In Khaki or grey cotton flannel. One pocket, faced sleeves, reinforced yoke, double stitched seams throughout. Will give the very best kind of wear. Order a year's supply while you can get them at this bargain price. Sizes 14 1/2 to 17 neckband. Order grey shirt by No. 96B2475. Order khaki color shirt by No. 96B2476. Send no money. Pay 89c and postage for either color on arrival.

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In black patent leather—a stunning one-strap model with imitation shield tip and medallion, effectively perforated. Has medium rubber heel. Order Patent leather by No. 96A72. \$1.98. Order Mahogany by No. 96A73. Send no money. Pay \$1.98 and postage on arrival.

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Splendid brown leather work shoes. Heavy durable uppers, extra strong solid oak leather soles; leather insoles; low broad leather heels and reinforced leather back stay. Roomy last. Sizes 6 to 12. Order by No. 96A758. Send no money. Pay \$1.98 and postage on arrival. Order boys sizes 4 to 5 1/2 by No. 96A554. Price \$1.89. Order little boys sizes 9 to 13 1/2 by No. 96A555. Price \$1.79 and postage on arrival. Mention size.

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**\$1.98 UP**



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**Hip Boots**

Men's pure gum hip boots, friction lined, heavy corrugated sole and heel; guaranteed first quality. Made of the very best rubber. Usually sells at \$5. Be sure to order your pair while this great saving offer lasts. Sizes 7 to 12. Wide widths. No half sizes. Order by No. 97A949. Send no money. Pay \$2.79 and postage on arrival. State size.

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Ideal weight for nightgowns and undergarments. In fancy stripes, checks and plaids, white grounds with pink, blue or tan designs. 26-inch width. State pattern and color. Order by No. 96E3425. Send no money. Pay \$1.49 for 10 yards and postage on arrival.

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Unbleached muslin of excellent wearing quality—unequaled for domestic uses. 36-inch width. Order medium weight by No. 96F3630. Send no money. Pay 89c and postage for 10 yards on arrival.

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