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VOLUME CLXI

NUMBER TWENTY ONE

DETROIT, NOVEMBER 24, 1923

CURRENT COMMENT

Never leave until next spring what can be done this fall.

Michigan exhibitors have entered 333 head of live stock at the International this year.

The tag ends of this season's work should interlock with preparations for next year:

We see that our five per cent politician has come down one and a half per cent to the summer beer stage. Tapering off seems to be a politician's method of trying to get in right after he has been in wrong.

The Illinois Agricultural Association offers awards for the apprehension and conviction of tuberculosis bootleggers who violate the state law prohibiting the importation into the state of tubercular affected cattle.

Lowering Production Costs

IT is not our purpose to enter into technical phases of the important and complicated subject of production costs,

but merely to give the results of a few observations, the value of which the average person will be quick to recognize.

Years ago, it became apparent that milk is produced upon the general farm cheaper than it is on the special dairy farm. This is true because much of the feed, and a good deal of the labor used in the dairy branch of the general farm work is otherwise partly or wholly wasted. And further, the good feed used is charged, not at market, but at farm values

The same is true of poultry production. This line also fits into the labor and feed economy of the general farmer's program. By feeding the lower grades of grain and taking advantage of the labor of the household and of the children it is possible to cut the per unit cost far below what the poultry specialist must get for his product in order to break even. The latter, like the dairyman who produces milk as his only marketable product, must charge full prices for both feed and labor.

Now comes the potato grower. In particular cases covering a fairly wide territory, we find that the men who grow potatoes in connection with other lines of farming are producing larger crops at less cost per bushel than those who are making the growing of potatoes their sole farming program. This, too, is due to the opportunity of using labor to better advan-

MICHIGAN SECTION THE CAPPER FARM PRESS tage, to the greater ease and econ-jollity and of rejoicing. We make it falfa, and many other varieties have omy of keeping the soil in condition for heavy production, and to the better service secured from equipment.

> This last advantage is sometimes questioned, the opponent holding that the specialist saves by extra laborsaving equipment. But the heaviest investment on most farms outside of buildings, is usually in farm power, whether horses, tractor, electricity, or all together. By the very nature of things, the diversified farmer, as compared with the specialist, can keep this farm power operating to productive advantage over a far greater portion of the year and not be obliged to have seen our little fortunessupplement with as much extra power.

With a labor, fertility and equipment advantage much in his favor, it becomes easier to understand why the farmer following a diversified program has suffered less than the farming specialist or the one-crop man. The suggestion is, that those who have unfilled spaces in their year's program look about to see what other farm line or lines may be found to better occupy the year's supply of both man and team labor.

The Day of Youth

A FEW years ago youth was not in good standing in world activities. The young doctor, preacher, lawyer, or what

not, did his best to coax a real fullgrown mustache and beard. Unfortunate was the man who failed in this, for he could not present the appearance of age thought necessary for well-ripened wisdom.

But now things are different. The wielding of the razor is a daily duty of all men, except those who are following the dictates of King Ben. Practically all of us, including the ladies, are seeking everlasting youth until the day we die, for the day of youth is here and the visions and constructive activities of youth are recognized.

Nor is agriculture free from the influence of youth. The club activities and the winnings of the boys and girls in competition with older and more experienced farmers, show that the young folks are making themselves

It is well that this is so. The future belongs to the young, not to us. So it is our duty to help them shape the present in order that they may come to a happy and helpful realization in the future. To give them our cooperation instead of our dictation, will help them just that much more toward getting themselves established in work which will be a credit to themselves and their community.

Again We Give Thanks

Since the days of our pilgrim fathers it has been a custom with us to ob-Thanksgiving serve Day. We had to take

a bitter dose of privation, hunger and cold before we learned what it meant to be truly thankful for the comforts of life. After a long New England winter, with insufficient food, clothing or shelter, buffeted by the storms without, and sickness and death within, those of our forefathers who survived truly had occasion to be thankful for the bountiful harvests that the following season had brought. After all had been garnered and safely stored away, one whole day was devoted to giving grateful thanks to the Almighty for the prospects of security and comfort that the season's harvest furnished.

With the years of plenty that have followed succeeding generations all through this prosperous land of ours, the spirit of Thanksgiving Day has grown. Mixed with the thankful attitude for the things that bring comfort in life, there is now a keen sense of

a day, not only of thanks for newly garnered wealth, but of celebration for the good things of past years and generations. So we gather with our churches, our communities, friends, or our families; we praise God for the wonderful scheme of nature that assures us each year a seed time and a harvest; we feast and make merry because of the gladness in our hearts for the good days in which we

There have been many discouragements in the recent past for those of us who farm for a living. Most of us measured by dollars-greatly reduced; many have seen them swept away entirely, yet throughout the rural sections there is an appearance of plen-The fields are checked with great shocks of golden corn; the potato bins are full; the mows bulge with feed for the stock; the pork barrel is far from empty.

The past is gone. It can not be recalled. The future is before us. Let us look that way. After all, is it not goods instead of dollars that represent real wealth. Goods without dollars, and we continue to live in physical comfort. Dollars without goods, and we die. Once more there is abundant occasion, at the waning of the harvest moon in 1923, for making a thankful celebration of our nation-wide Thanksgiving Day.

Good Team

FOR some years at fairs in Denmark, prizes have been awarded for bulls upon the basis of the milk tests of the

The idea in establishbull's progeny. ing such a class was to encourage dairymen to keep in mind the ability of the sires to father profitable daugh-

But the Danish farmer, like the American farmer, has gotten into a habit which makes it difficult to enter stock in such a class. He is disinclined to keep the bulls longer than two or three years, which does not give opportunity to test out the progeny.

We here have some hope, however, that through the combined work of bull associations and cow-testing associations, we may be able to learn in the future more about the value of good bulls. To this end, it will be to our advantage if the plan being tried out in Livingston county, of combining the two organizations, is followed by progressive dairymen in other parts of the state.

Get in Step

In the exhibit that Michigan is preparfor the great International Hay and Grain Show at Chicago next month, alfalfa will be featured. Our plant breeders have

been doing real work with this crop and have made progress which offers hope of prizes on alfalfa as we have abundantly won them on rye, wheat, hay and other crops entered at previous sessions of this show.

The instance reminds us that the greatest contribution made to practical agriculture during the past decade, has been received from the hands of the plant breeders. Their efforts have resulted in the production of varieties which produce larger yields, have qualities better suited to their purposes, or are more resistant to plant

Probably no other state has fared better along this line than has Michigan. The constructive plant breeding work done at the Agricultural College grounds has added millions of dollars to the crop capacity of the state. Rosen rye, Red Rock wheat, Robust beans, Wolverine oats, Hardigan alreduced production costs on thousands of farms

In another respect, Michigan farmers are to be congratulated in that her efficient plant breeders are given the support of a large group of progressive farmers through the Michigan Crop Improvement Association. This organization has made it possible, not only to demonstrate the advantages of new varieties to the various districts of the state, but also to give a volume of production which enables all ordinary seed requirements to be satisfied after a comparatively short period of time.

In spite of these advantages there are still a large per cent of our farmers who are going along year after year with inferior seed. It should not be so. No farmer can afford not to investigate without delay the advantages of the improved varieties of crops which he grows. Out of self-interest, he should get in step with rural progress and take advantage of the work the plant breeder offers him.

Thank Fullness

WELL, I see the last Thursday of November is comin', like it always does, in the last week of the month. It is likewise Thanksgivin', which I am writin' about.

This day is the one what we are ast by the President to offichully feel thankful. So we just do feel mighty fine that the turkey crop is good and cranberries is not so high so the city folks kin eat them. And seein' as we ain't got no turkeys, we'll eat pig, the same as we do when we eat meat on Sundays. And after eatin' a extra. piece o' pie, or two, most o' us feel we have filfulled our duty when we have



filfulled our stomachs, and therefore sleep in peace the rest of the day.

Now, Thanksgivin' is supposed to be the day of appreciashun o f the fulfillmunt of the season's har-

vest. But most of us folks is strong on filfullmunt and forget about appreciashun.

They's lots o' things to be thankful for. For inst., the dollar what is worth only sixty-five cents; we should feel thankful for that dollar, 'cause it is teachin' us how to do what the perfessor calls economize. This economizin' is great stuff, 'cause it learns a fellow how to do without what he don't need.

For inst., there's Seff Jones, what has learnt by economy that he don't need to wear a tie, 'cause his whiskers is a article of adornment, and what you call a personal accomplishment. and there ain't no need o' wearin' a tie when nobody don't see it.

Cal Mason says the only thing about this economizin' stuff is, when you get so you kin save, you've got money to spend, and then you keep it, 'cause you don't know how to spend it. So, maybe some day we farmers will have some money, and we oughta be thankful for these economizin' days.

If we kin just get the spirut of the occasion, there's lot o' things we kin feel thankful for. The whole trouble is, so many think the spirit of the oc-The other casion comes in bottles. day Jed Smith bought a pint and now he says he's glad it was cold tea instead o' wood alcohol. Jet got left on the spiruts, but he's got the right spirut.

We kin find lots o' blessin's in disgust if we will only look for them. If we will just figure a little we'll find that the Lord goes more'n fifty fifty with us. So, instead of blamin' the Lord for what we don't do ourselves, we oughta be thankful to Him.

Even clouds has silver linings, and I think Thanksgiving is a nice day to consider the silver linings.

HY SYCKLE

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Attend Michigan's Big Farm Poultry Show at Grand Rapids Nov. 27-Dec. 1

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Dollars Buried In Muck

With Some Suggestions on How to Get Them Out

OW many there are of us, who, in season, like a good, thick layer of whipped cream spread over a quarter, or more, of pumpkin pie. For me, though, it would be acceptable at any time of the year; in fact, every day.

By C. L. Bolander

can't haul lime ten miles and break even."

But listen again, friends, this is what How come, we don't have it every happened. After a search, a marl deday? Because cream is the market- posit was discovered in a worthless

just as well give him my farm. You illustration. This runway was made portable so it could be moved when desired, which was a rather important factor in making the operation more

To start with, a plot about twelve feet wide and thirty feet long was uncovered and then the runway was laid. To eliminate lifting the marl too high, this twelve-foot covering was divided in two parts and only one side worked at a time. When one side was dug out a couple of feet below the runway, the runway was placed in the deepest half, and loading was then continued from the other side.

This system was followed to a depth of eight feet. Even deeper excavation could be done if desired. The end toward the dry land is excavated less each move, to make a gradual slope, thus letting the wagon down at the deepest point without any difficulty. sideration.

This also made it easy for the team standing on dry land to move the loads to the stock pile.

The getting out of more than 250 loads has proven to Mr. Crouse and his helpers that it was a worth while job. Figuring 200 tons of ground limestone in sacks at approximately \$5.00 f. o. b. cars, plus \$2.00 per ton for hauling twelve miles, makes the total cost of lime \$7.00 per ton down on the farm. Two hundred tons would cost approximately \$1,400. Two hundred and fifty loads of marl will no doubt make 200 tons of dry marl, as they were large ones.

Three men and a team working for eight hours per day have gotten out approximately twenty-three loads a day, at a total cost of less than seventy-five cents per ton, thus on 200 tons of marl would mean a total outlay of \$150 instead of \$1,400, a difference of only \$1,250 which, to a farmer, is worthy of some twentieth century con-



ous Farmer on his way.

"But listen, what is the basic foundation of cream, Mr. Prosperous

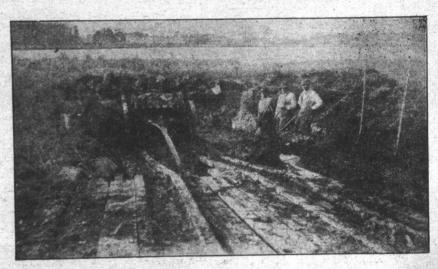
He answers, "A good source of raw material, preferably alfalfa hay."

Mr. Loser Farmer says: "Get that out of your system! You know I have tried to raise alfalfa and sweet clover for the past five years and haven't any more now than when I started, plus the fact that some of my cows have starved to death waiting for it. And here just this week, the county agent was out and said I would never raise alfalfa on my land. He said it was sour. It reacted so bad, I think, his jaws were cramped. He told me lime or marl to the extent of from two to two and one-half tons to the acre was the cream covering I needed.

able product which helps Mr. Prosper- marsh near by. It was a regular layer of whipped cream, but it was not on the field. Oh, some more work! You can't get it out anyway, with a pie crust of muck eighteen inches thick all over the cream." can be done and he did it.

> Such was the grit of J. R. Crouse, a Livingston county farmer, living twelve miles from a railroad. On the shores of the lake adjoining his farm was a good deposit of marl. A little mechanical ingenuity, inherited from his sixteenth century ancestors, helped solve the problem that was most difficult under his conditions, as you may note from the picture.

Too often the soil, where marl is found, is so marshy that the horses will mire or be unable to pull a load after it is on the wagon. Mr. Crouse "By the Pink Toed Prophet, I might used a plank runway, as shown in the



A Very Economical Method of "Mining" Marl.

Taxes In Michigan

The First of a Series of Articles Giving Some Interesting Facts on State Taxation

By John R. Rood

T this season of the year we are all reminded of taxation and sometimes wonder why such taxes; and it is believed some facts concerning assessment and distribution will be of general interest.

The state constitution of Michigan,

Article 10, provides:

Article 10, provides:

"Section 7. All assessments hereafter authorized shall be on property at its cash value."

"Section 8. In the year nineteen hundred eleven, every fifth year thereafter and at such other times as the legislature may direct, the legislature shall provide by law for an equalization of assessments by a state board, on all taxable property, except that taxed under laws passed pursuant to sections four and five of this article."

By Compiled Laws 1015—Section 4144, it is made the duty of the gov-

4144, it is made the duty of the governor to appoint three freeholders of the state who are qualified electors, as a state board of tax commissioners; and by Public Acts 119, No. 330, a state board of equalization is created, consisting of the auditor-general, president of the live stock sanitary commission, and the members of the state commission. The present members of the state tax commission under the above provisions are, William S. Linton, Saginaw; Nathan Simpson, Hartford, and George Lord, of Detroit; and they, with auditor-general Oramel B. Fuller and L. Whitney Watkins, State Commissioner of Agriculture, constitute the state board of equalization, whose apportionment and equalization of the taxes for 1923 was published as required by law last August.

press that the assessment of Crawford, Huron, Iosco, Manistee and Roscommon counties was reduced \$50,000 each; that Luce was reduced \$95,000; Delta \$109,000; Newaygo \$150,000, and Schoolcraft \$94,000. The facts are that the assessment in all of these counties was very largely increased as indicated below, but not so much in proportion as in other parts of the state:

Roscommon ... 1,752,000 · 2,250,000 The increase in the assessed valuation has been stated to have no effect at all on the amount of taxes levied. The statement is not true. By law a fixed tax of six-tenths of a mill on each dollar of the assessed valuation of the property of the state (not exceeding \$3,000,000 in any year), is levied for the use of the University of Michigan, and in like manner one-fifth of a mill on the assessed valuation of all property in the state is required by law to be levied for the benefit of the Agricultural College, the Upper Peninsula Experiment Station, other experiment stations and college extencle 8 of the constitution, the amount

At the time this apportionment was purposes by counties shall not exceed made, it was announced through the in any one year \$5.00 upon each \$1,000 assessed valuation for the preceding year; and in numerous other respects the increase in the assessed valuation produces an actual increase in the amount of taxes levied. In fact, the only object and purpose of a general increase of assessed valuation is to increase the taxes and taxing power.

> The state tax commission operates continuously; but the state board of equalization has made new equalizations since 1910, only in 1911, 1914, 1916, 1919, 1921, 1922 and 1923. The distribution of state taxes in intermediate years have been based on these equalizations; and for the purpose of comparison with the United States Census of 1910 and 1920, the assessments for those years are used is taken from the auditor-general's re-1920 is taken is taken from the report of the state tax commission for 1922.

The equalization of taxes between the counties by the state board of equalization does not necessarily affect the amount of local taxes otherwise than above indicated; but it does affect the proportion of the burden of state taxes to be borne by each county, since every dollar of taxes paid sion work; and by Section 26 of Arti-throughout the state, about twenty cents is for state taxes, or \$1.00 in of taxes that can be levied for road \$5.00. For example, in 1921, of the

taxes raised in the state, \$20,452,380 were state taxes; \$16,909,979 were county taxes; \$2,512,802 were township taxes; \$45,633,328 were school taxes, and \$10,872,863 were highway taxes. The state taxes assessed on property for 1923 are \$16,000,000.

From the foregoing it appears that the taxes in any community are mostly local; and that no adjustment of the burdens of state taxes could entirely relieve the poorest communities. But the state taxes do amount to about a fifth of the total burden; and it would seem the part of statesmanship and justice, so to adjust the load as not to cast an excessive weight on those least able to bear it. But the most casual glance at the accompanying tables will demonstrate that the very opposite of this course has been pursued by our state board of equalization. Those most able to pay are as subject as anyone to the temptain this table. The assessment for 1910 tion to shift as much as possible of the burden onto someone else, and port for 1911. The assessment for have been on hand with argument and political influence at the meetings of the board to get all that is coming to them, and more if possible; while the poorer communities being less actively represented, and having less of these means of persuasion have fared as indicated in the accompanying

Any reader may, from these tables, draw the comparisons most interesting to himself; but for the sake of concrete example, and not because the (Continued on page 536).

Some Facts on Taxation in Michigan

instance is more striking than many others that might be named, look at Wayne and Iosco counties. In 1910 the property in Iosco county was assessed at \$1,845,516; in 1920 it was placed at \$9,145,145. In the decade between 1910 and 1920 the population of the county, as indicated by the United States census, decreased nearly sixteen per cent, and the assessment was increased nearly 400 per cent. The actual values decreased during the period. Now, turning to Wayne county, we find that in the same decade its population increased 121 per cent and its assessment was increased less than that of Iosco county. Nor do these figures tell the whole truth. Many persons who still retained residence in the upper counties, were actually present at work in the city factories.

Now, if we turn from the tax records and look at the two localities, we find that no developments of any consequence occurred in Iosco county during the decade, and the sound of the hammer was heard only on the auction block, whereas in Wayne county, during that period, Detroit burst its girth, spilling out all over the country for miles around, and what was vacant land in 1910 became, in 1920, boulevards lined with expensive houses; and in the downtown section, block after block of old shacks disappeared to make way for steel and reinforced concrete buildings stretching up where the air is thin.

As concrete evidence of this change, the building permits issued in the city of Detroit from 1910 to 1920 and since, are printed below:

Number New	
Buildings and Year. Alterations.	Estimated Cost,
1910 5,498 1911 6,667 1912 7,992 1913 9,326 1914 7,844 1915 8,966 1916 16,489 1917 12,109 1918 7,011 1919 21,473 1920 19,423 Total	\$17,415,950 19,012,670 25,588,470 30,434,380 28,207,395 32,235,550 51,068,310 39,666,800 18,226,832 82,995,071 77,737,165 \$422,588,593
1921 17,615 1922 5,460 1923 to Nov. 1 27,736	\$58,086,081 94,615,093 95,163,609

Total, Nov. 1st, 1910, to Nov. 1st, 1923.... \$670,453,376 These figures do not include the villages of Wayne, Dearborn, Redford, Oakwood, Ecorse, River Rouge, Wyandotte, Trenton, Plymouth, nor any of the wide fringe outside of the corporate limits of Detroit in the year the permits were given. It will be noted that in the decade the number of permits per year increased about 350 per cent, and the total in dollars increased over 500 per cent. Part of this is accounted for by the extension of the

As a check upon the business activity of the Detroit community, it may not be amiss to compare her bank clearings of 1910 and 1920, which are as follows:

corporate limits.

1910\$ 910.835,006 19206.104,323,703 1923, to Nov. 15,564,066,197

It will be noted from these clearings that the growth of the Detroit community is considerably in excess of increase in assessment and is very much in excess of what would be indicated by the growth of population. One dollar spent on buildings usually adds three dollars to the community property; but the biggest item affecting values in any community is always increase or decrease of population. Increase in population increases demand for land, decrease throws a surplus on the market with no one to take it.

As a sample of the methods of assessment in these upper counties, a leaf from the writer's experience

(Continued from Page 535)

might not be amiss. He purchased would bring a very much higher price. some property from the state in Octostate tax commission at just two and a half times the price paid for the it is doubtful whether there is a single county north of Bay City in which it mense tracts of land from numerous owners at a small fraction of their assessed valuation, notwithstanding the other hand, it is believed that ty that could not be sold for cash at its assessed valuation. Much of it

The reader may think this article is ber and the following May it was ap- merely the out-spoken expression of praised for taxation by the Michigan the writer's resentment. Not so. He is commorant and in business in Wayne county, and by far the larger property the preceding October; and part of his taxes are paid there. The continued imposition of an excessive share of the tax burden on the comwould not be possible to purchase im- munities least able to bear it, can in the end but bring disaster to the whole state. These undeveloped communities should be encouraged by assistthe constitutional requirement and ance rather than strangled by oppressworn duty of the tax commission to sion; and their development would reassess property at its cash value. On flect and produce prosperity for the whole commonwealth; whereas, their there is little property in Wayne coundestruction means that eventually, and very soon, an increased burden must be carried by the older communities.

It has happened before, and, if the present course is persisted in, will happen again, that the major portion of these properties will entirely disappear from the tax rolls, and the state will receive from them no support at all.

It is suggested that each reader examine the accompanying table, and from it draw such comparisons as his knowledge of his own and other communities will enable him to make.

Handyman's Corner

VENTILATING THE CELLAR.

SOME of our readers have taken occasion to admonish us for discontinuing this department for the past two weeks. Two reasons moved us to do this: One, an unusual rush of duties, and the other a desire to know whether the department was just what the readers hoped it should be.

From the reaction we have come to believe that the Handy Man's Corner was getting hold of experiences by and for readers in a way that was being more fully appreciated than we

Increasing Winter Profits

H ERE we are with another contest. We want every reader who has a profitable winter job to tell us briefly what it is. Many farmers could make things go along much better financially if they knew how to use the winter months to better advantage. Besides the various outside jobs, we should also like to hear from those who use the winter months in preparing the products of the farm for the markets and in getting ready materials for the coming season's farming.

To each of the writers of the five best letters mailed to me, The Handy Man, care Michigan Farmer, Detroit, not later than November 28, a high-grade flashlight with batteries, will be sent postpaid.

had been led to know. This much we have said, then, on the ventilation of our own "cellar." Now, I am going to direct you to a little idea which may be of value to you in ventilating the cellar under your house.

The idea is not mine. It comes from the farm mechanic's department of the M. A. C. And anyone who desires full details 'should write to that department at East Lansing and get working drawings of the portable ventilating flue which is built to attach over a window to bring cold air in at the floor of the basement to force the warm air out at some higher opening.

This flue is made with an opening which will fit tightly over one of the more exposed cellar windows. The flue turns directly downward far enough to reach the floor, having the bottom opening facing toward the center of the cellar. It is made of matched material and built tight to secure the maximum movement of air. It is fastened to the window by means of hooks and can be removed at will.

Such a flue does not provide an ideal means of ventilation. It does give, however, a means of reducing temperatures in a basement cellar where potatoes or other roots are being stored in quantities, costs very little, and can be adapted to a great variety of cellar conditions.

Population and Taxation in Michigan Counties

County.					-			
Alcona \$1,135,186 \$4,343,895 \$29.446 \$3.000 \$7.765 \$9.983 \$1.0000 \$1.0000 \$1.0000 \$1.0000 \$1.0000 \$1.0000 \$1.0000 \$1.0000		t al		t al.	nt se ess'	. reet		
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Allpena 23,150,342			P					
Alpena 7,716,766						5.723	39,819	
Arenac 2,065,707 7,479,775 263,842 *1,867 9,640 9,460 Barraga 3,445,550 7,78,091 106,06 2,5053 6,127 7,662 Barry 14,288,735 24,332,915 70,294 *5,523 22,633 21,338 Bary 27,938,855 81,818,037 192,131 1,929 68,238 99,548 Benzie 3,244,330 5,132,908 58,211 *94,696 16,262 5,632 29	Alpena							
Barrger 3,435,539 7,078,091 106,026 25,053 6,127 7,662 Barry 14,228,735 24,323,915 70,294 *5,523 22,633 21,338 Bay 27,938,835 81,618,087 192,131 1,920 6,228 65,548 Berrien 27,429,561 65,360,472 134,019 16,842 5,622 62,636 Calmoun 43,817,548 85,573,249 104,862 *21,110 20,624 20,841 20,8								
Barry 11,288,735 24,332,915 70,234 5,528 22,633 6,542 Benzie 3,244,330 5,132,918 58,211 31,426 66,236 6,542 Benzie 3,244,330 5,132,918 58,211 31,426 66,236 6,542 Bernien 27,525,610 65,360,420 44,434 28,744 56,638 72,918 Calhour 4,375,648 89,578,204 104,434 28,744 56,638 72,918 Calhour 4,378,250 25,110,319 76,002 1,110 20,624 20,395 Charlevoix 6,471,106 12,542,837 38,828 17,7586 19,157 15,788 Cheboygan 6,681,915 85,578,79 28,075 21,716 17,872 13,991 Chippewa 11,690,889 28,466,703 143,409 1,414 24,472 24,318 Clare 3,013,502 7,746,166 13,701 17,747 14,324 22,129 Crawford 1,829,197 4,256,285 34,901 22,23 3,948 60,000 Dickinson 10,464,615 42,542,835 24,901 5,204 20,524 Delta 9,381,000 21,085,985 24,901 5,204 20,524 Delta 9,381,000 21,085,985 24,901 5,204 20,524 Delta 9,384,645 34,240,655 60,381 3,679 30,949 29,377 Cemesee 3,864,366 71,149,353 349,353 46,68 64,555 125,668 Gladwin 1,992,369 9,318,877 367,728 4921 8,413 8,827 Gogebic 12,352,804 68,61,841 485,225 23,958 23,958 Cratiot 1,486,1600 55,612,982 27,0163 7,675 23,823 33,333 33,225 Gratiot 1,486,1600 55,612,982 27,0163 7,675 23,823 33,333 33,225 Gratiot 1,486,1600 55,612,982 27,0163 7,675 23,823 33,333 33,225 Gratiot 1,486,1600 55,612,982 27,0163 7,675 23,823 33,935 Huron 14,740,199 163,722,135 423,19 52,281 53,310 31,554 Huron 14,740,199 163,722,135 423,19 52,281 53,310 31,554 Huron 14,740,199 163,722,135 423,19 52,281 53,310 31,554 Huron 14,866,600 50,600,200 3,400 3	Baraga					25.053	6,127	7,662
Benrie				24,332,915				
Berriche 27,929,561 66,360,472 134.019 16.842 55.622 62.680							10.638	
Dranch				65,360,472		16.842	53,622	62,653
Cass	Branch							
Charlevoix 6.471,106 125,42,837 93.828 *17.586 19.157 15.788 Cheboygan 6.681,915 8.575,879 28.075 *21.716 17.872 13.991 Chippewa 11.690,889 28.466,703 143.409 1.414 24.472 24.818 Charley 11.690,889 28.466,703 143.409 1.414 24.472 24.818 Charley 11.690,889 28.466,703 143.409 1.414 24.472 24.818 Charley 11.690,889 28.466,703 143.409 1.223 3.934 4.048 25.000 1.000 19.871,885 33.968,060 70.935 *0.82 23.129 23.110 Crawford 1.820,197 4.269,285 124.912 2.660 30.108 30.909 Dickinson 10.775,756 15.653,941 1.51.40 *5.204 20.525 19.456 Eaton 22.648.615 36.324,066 60.381 *3.670 30.489 30.499 21.680 21.088,381 36.324,066 60.381 *3.670 30.489 30.499 21.680 21.088,381 36.324,066 60.381 *3.670 30.489 30.499 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.680 21.480 21.280 21.280 21.281 2								20.395
Cheboygan 11,690,889 22,466,703 134,409 1.414 24,472 24,815 Clare 3,013,503 7,745,166 157,015 1.714 9,240 8,250 Crawford 1,820,187 4,259,285 134,001 2.923 3,934 4,049 Delta 9,381,000 12,088,955 124,912 2.666 3,012 3,934 4,049 Dickinson 10,775,756 15,639,941 45,140 1.2,263 3,934 4,049 Dickinson 10,775,756 15,639,941 45,140 1.2,266 3,052 2,05	Charlevoix				93.828	*17.586	19,157	15,788
Clane	Cheboygan	6,681,915						
Clinton 19.871.885 33,968.060 70.935 0.82 23,129 23,1100 Crawford 1.820.197 4.259.285 134.001 2.923 3,934 4.006 Delta 9.381.000 21.098.958 124.912 2.660 30,108 30,909 Dickinson 10.775.756 16.639.941 45.140 5.204 20.524 19.466 Eaton 22.648.615 36,324.065 60.381 3.679 30,499 29.377 Genesee 39.864.336 179.149.353 349.353 94.668 64.555 125.688 Gladwin 1.992.369 9.318.877 367.728 4.921 8.413 8.826 Gogebic 12.352.804 66.961.841 458.266 42.395 23.333 -33.255 Gratiot 14.861.600 55.012.082 270.163 17.675 28.820 33.914 Hillsdale 22.017.388 35.533.015 61.386 5.095 28.826 33.914 Hullsdale 22.017.388 35.330.91 51.878.050 1.248 818.352 88.068 71.936 Ingham 30.989.229 163.722.135 428.319 52.816 53.600 1.001a 21.062.100 55.052.235 428.319 52.816 53.500 1.001a 21.062.504 40.297.158 50.464 38.051 15.164 20.934 Iron 6.022.554 40.297.158 50.464 38.051 15.164 20.934 Isabella 9.718.779 24.765.245 199.437 35.775 53.426 72.539 Kemt 1.129.289 4.871.840 35.410 831.28 80.79 5.577 Kalmanzoo 37.715,930 48.561.745 199.437 35.775 53.426 72.539 Kent 1.129.289 2.751.460 32.285.676 32.281 10.668 20.944 Lavingston 15.705.975 2.751.840 31.284 4.16.55 7.166 6.322 Laving 2.833.080 10.105.565 26.705 53.571 4.004 2.939 4.571.840 2.939								
Crawford 1,830,190 4,259,285 134,001 2.92,3 3,934 4,099 Dickinson 10,775,756 15,639,941 45,140 *5,204 20,524 19,466 Eaton 22,648,615 36,324,065 60,381 3,679 30,499 29,218 Emmett 8,026,739 14,911,777 85,776 *15,742 18,561 15,639 Genesee 39,8438 13,911,777 85,776 *15,742 18,561 15,639 Gogebic 12,352,804 68,961,841 458,266 42,355 23,333 32,271 Gratlot 14,861,600 55,012,982 210,163 71,761 23,773 31,341 Hullisdale 22,017,388 35,533,015 61,388 *5,692 23,673 31,414 Huvon 14,740,199 37,342,575 153,344 5,684 33,518 31,554 Iosco 1,845,166 36,722,135 163,344 8,687 33,518 31,554 Iosco 1,847,792 34,740,235						* .082	23,129	
Dickimson	Crawford							
Eatlon								
Emmett 8,026,729 14,911,777 85,476 *10,442 15,061 15,668 Genesee 39,864,336 179,149,353 349,553 349,553 342,553 94,668 64,555 125,668 Gogebic 12,352,804 68,961,841 458,265 42,395 23,333 -32,255 Grad Trav 12,026,483 15,511,235 22,876 *17,836 23,834 19,233 Gradiot 14,861,600 55,012,082 270,163 17,675 28,820 33,314 Hillsdale 22,017,388 35,533,015 61,386 *5,096 29,673 28,161 Houghton 14,740,199 37,342,870 12,48 *18,352 28,808 37,161 Ingham 30,989,229 163,722,135 428,819 52,813 33,550 33,087 Ioseo 1,845,516 9,145,145 395,523 15,341 38,542 9,753 33,087 Iron 6,022,554 40,297,158 395,663 42,814 39,792 39,773 35,					60.381	* 3.679	30,499	
Gladwh	Emmett			14,911,777				
Gogebie 12,352,804 68,961,841 458,265 42,395 23,333 —33,225 Gnd. Trav. 12,028,483 15,511,235 28,976 *17,936 23,784 19,518 Gradiot 14,861,600 55,012,082 270,163 17,675 28,820 33,914 Hillsdale 22,017,388 35,533,015 61,386 *5,096 29,673 28,161 Hillsdale 22,017,388 35,533,015 61,386 *5,096 29,673 34,758 27,861 Hillsdale 22,017,388 35,533,015 61,384 *5,674 34,758 27,861 Hillsdale 31,761,761 29,781 21,782								8,827
Gradiot 14,861,600 55,012,982 270,168 17,935 23,784 19,5018 (Tratiot 14,861,600 55,012,982 270,168 17,7935 23,784 19,5018 (Hillsdale 22,017,388 35,533,015 61,386 5,096 29,673 28,161 Hillsdale 22,017,388 35,533,015 61,386 5,096 29,673 28,161 Hillsdale 32,047,388 35,533,015 61,386 5,096 29,673 28,161 Hillsdale 32,048,109 18,78,050 1,248 *18,352 88,098 71,930 Huron 14,740,199 87,342,870 153,340 *5,674 34,758 32,786 Ingham 30,989,229 163,722,135 428,319 52,981 53,310 81,554 Ingham 21,062,100 35,663,224 69,324 *1,380 33,550 33,087 losco 1,845,516 9,145,15 395,522 *15,934 9,753 33,650 losco 1,845,516 9,145,15 395,522 *15,934 9,753 3,987 losco 3,848,555 114,953,445 199,487 35,775 53,664 22,610 34,640 297,158 669,104 38,051 15,164 20,934 lsabella 9,718,779 24,740,235 154,561 *1,819 23,029 22,610 34,648,648 35,718,99 487,184,64 1,984 37,169,99 96,255,770 155,232 *19,145 60,427 72,539 13,648,648 35,578,839 4,871,840 35,410 *31,122 8,079 5,577 kent 111,192,989 253,374,953 127,870 10,515 159,145 60,427 48,858 48,868 48,8				68,961,841	458.265	42.395		
Hillsdale	Gnd. Trav							
Houghton 14,740,199 91,878,050 1.248 *18,352 88,098 71,930 fluren 1.4740,199 97,342,870 153,340 *5,674 34,758 22,786 fligham 30,989,229 163,722,135 428,319 52,981 53,310 81,554 floria 21,062,100 25,663,224 69,324 *1,380 33,550 33,087 losco 1.845,516 91,145 395,532 *15,934 9,753 8,199 lron 6,022,554 40,297,155 569,104 38,051 15,164 20,934 lron 6,022,574 40,297,155 569,104 38,051 15,164 20,934 lron 6,022,574 40,297,155 154,165 *1,819 23,029 22,610 Jackson 38,389,855 114,953,445 199,437 35,775 53,775 55,775 57,768,975 52,75 15,223 *19,145 60,427 48,858 Kalkaska 3,597,839 4,871,840 35,410 *31,122 80,79 5,577 57,768,770 15,515 159,145 183,041 Keweenaw 7,639,253 21,995,233 187,924 *11,655 7,156 6,322 Lake 1,256,055 2,751,640 119,069 *10,162 4,939 4,487 Lapeer 16,144,090 32,065,676 98,622 *9,64 26,033 25,782 Lapeer 3,005,172 6,696,937 122,847 *14,583 10,608 9,061 Lenawee 39,782,425 75,078,058 88,674 *472 47,907 47,681 Luce 2,833,030 10,105,565 256,705 53,571 4,004 6,149 lron 6,140 l								28,161
Huron				91,878,050	1.248	*18.352		
Ionia								
10800						* 1.380	33,550	33,087
Sabella 9,718,779 24,740,235 154,561 *1,819 23,029 22,610 Jackson 38,389,855 114,953,445 199,437 35,775 53,426 72,539 54,818mazoo 37,716,900 96,285,770 155,232 *19,145 60,427 48,858 Kalkaska 3,597,839 4,871,840 35,410 *31,123 8,079 5,677 Kent 111,192,989 253,374,953 127,870 10,515 159,145 183,041 Keweenaw 7,639,253 21,995,233 187,924 *11,655 7,156 6,322 Lake 1,256,055 2,751,640 119,069 *10,162 4,939 4,437 Lapeer 16,144,090 32,065,676 98,622 *9,64 26,033 25,782 Leelenaw 3,005,172 6,686,937 122,847 *14,583 10,608 9,661 Leelenaw 3,005,172 6,686,937 122,847 *14,583 10,608 9,661 Livingston 15,705,975 22,205,783 41,384 *1,207 17,736 47,681 Livingston 15,705,975 22,205,783 41,384 *1,207 17,736 47,681 Livingston 15,705,975 22,205,783 41,384 *1,207 17,736 47,681 Livingston 16,064,300 19,072,420 89,506 *21,691 26,688 20,899 Marquette 26,481,846 64,104,096 142,068 *2,039 46,739 47,786 Masom 7,094,170 19,092,365 169,128 9,165 21,832 19,831 Mecosta 5,170,030 16,403,326 217,277 *8,738 19,466 17,665 Menominee 10,386,138 20,590,615 98,250 *7,291 25,648 23,778 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Missaukee 2,104,400 5,344,404 153,963 *15,105 10,606 9,004 Monroe 20,225,405 46,668,816 130,249 12,753 32,917 37,115 Montcalm 11,461,035 36,533,180 218,759 *5,077 32,089 30,441 Montmincy 1,032,940 3,726,660 26,0782 8,895 30,481 10,000 4		1,845,516						
Jackson 38,389,855 114,952,445 199,437 35,775 53,426 72,539 Kalamazoo 37,716,900 96,265,770 155,232 *19,145 60,427 48,858 Kalkaska 3,597,839 4,871,840 35,410 *31,123 8,079 5,577 Kent 111,192,989 253,374,953 127,870 10,515 159,145 183,041 Keweenaw 7,639,253 21,995,233 187,924 *11,655 7,756 6,822 Lake 1,256,055 2,751,640 119,069 *10,162 4,939 4,437 Lapeer 16,144,090 32,065,676 98,622 *964 26,033 25,782 Laelenaw 3,005,172 6,696,937 122,847 *14,583 10,608 9,061 Livingston 15,705,975 22,205,783 41,384 *1,207 17,736 17,524 Luce 2,833,030 10,105,565 256,705 53,571 4,004 6,149 Mackinac 3,394,720 8,629,770 154,212 *13,223 9,249 8,026 Macomb 26,938,755 57,951,290 115,122 16,859 32,606 38,103 Manistee 10,064,300 19,072,420 89,506 *21,691 26,688 20,899 Marquette 26,481,846 64,104,096 142,068 *2,039 46,739 45,786 Mecosta 5,170,030 16,403,326 217,277 *8,738 19,466 17,765 Mecominee 10,386,138 20,590,615 98,250 *7,291 25,648 23,778 Missaukee 2,104,400 45,344,404 153,963 *15,105 10,606 9,004 Monroe 20,225,405 46,568,816 130,249 12,753 22,947 37,115 Montcalm 11,461,035 36,533,180 218,759 *5,077 32,069 30,441 Monroe 20,225,405 46,568,816 130,249 12,753 22,947 37,115 Monkalm 39,528,980 135,672,409 243,223 48,674 49,677 48,680 Montmincy 1,032,940 6,7344,404 153,963 *15,105 10,606 9,004 Monroe 20,225,405 46,568,816 130,249 12,753 32,917 37,115 Monkalm 39,528,980 135,672,409 243,223 48,644 49,576 9,005 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 30,441 Noncalm 11,461,035 36,533,180 218,759 *5,077 32,069 30,441 Montcalm 11,461,035 36,533,180 249 12,753 32,917 37,115 Noscoda 1,709,409 6,76,259 27,1035,080 249,224 9,844 19,220 17,328 Noscoda 1,709,409 6,876,705 200,043 *12,258 8,907 7,786 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,641 22,820 Oceola 4,472,010 36,683,435 126,690 24,424 9,844 19,220 17,328 Schoolcraft 2,990,331 +2,047,801 302,892 44,592 44,593 100,886 31,440,440 12,448 10,440 12,448 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,444 11,44								22,610
Kalamazoo 37,716,900 96,265,770 15b,232 *19,145 50,722 †2,505 Kent 111,192,989 253,374,953 127,870 10,515 159,145 183,041 Keweenaw 7,639,253 21,995,233 187,924 *11,655 7,156 6,322 Lake 1,256,055 2,751,640 119,069 *10,162 4,939 4,437 Lapeer 16,144,090 32,065,676 98,622 *9,42 26,033 25,782 Leelenaw 3,005,172 6,68,937 75,078,058 88,674 *4,72 47,907 47,681 Livingston 15,705,975 22,205,783 41,384 1,207 17,736 17,522 Livingston 15,705,975 22,205,783 41,384 1,207 74,681 1,412 47,907 47,681 Livingston 15,705,975 22,205,783 41,384 1,207 47,907 47,681 Livingston 15,765,975 22,205,782 13,322 19,241 1,522 Macomb </td <td></td> <td></td> <td></td> <td>114,953,445</td> <td>199.437</td> <td>35.775</td> <td>53,426</td> <td>72,539</td>				114,953,445	199.437	35.775	53,426	72,539
Rent 111,192,989 253,374,553 127,870 10,515 159,145 183,041 Keweenaw 7,639,253 21,995,233 187,924 *11,655 7,156 6,322 Lake 1,256,055 2,751,640 19,069 *10,162 4,939 4,437 Lapeer 16,144,090 32,065,676 98,622 *9,042 26,033 25,782 Leelenaw 3,005,172 6,686,937 122,847 *14,583 10,089 9,061 Leelenaw 3,075,172 6,686,937 122,847 *14,583 10,608 9,061 Livingston 15,705,975 22,205,783 41,384 1,207 17,736 17,522 Luce 2,833,030 10,105,565 256,6705 53,571 4,004 6,149 Mackinac 3,394,720 8,629,770 154,212 *13,223 9,249 8,066 Maasistee 10,064,300 19,072,420 89,506 *21,691 26,688 20,899 Marquette 26,481,846 64,104,096 <td>Kalamazoo</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Kalamazoo							
Keweenaw 7,639,253 21,995,233 187,924 *11,655 7,156 6,322 Lake 1,256,055 2,751,640 119,069 *10,162 4,939 4,437 Lapeer 16,144,090 32,065,676 98,622 *9,64 26,033 25,782 Leelenawe 3,079,2425 75,078,058 88,674 *14,583 10,608 9,061 Lenawee 39,792,425 75,078,058 88,674 *12,207 17,736 17,522 Livingston 15,705,975 22,205,783 41,384 *1,207 17,736 17,522 Luce 2,833,030 10,105,565 266,705 53,571 4,004 6,149 Mackinac 3,394,720 8,629,770 154,212 *13,223 9,249 8,066 Mackinac 2,083,755 57,951,290 115,122 16,859 32,606 38,103 Manistee 10,064,300 19,072,420 89,506 *21,691 45,786 Marquette 26,481,846 64,104,096 142,068<								
Lapeer 16,144,090 32,065,676 98,622 * 964 26,033 25,782 Leelenaw 3,005,172 6,696,937 122,847 * 144,583 10,608 9,061 Lenawee 39,792,425 75,078,058 88,674 * 472 47,907 47,681 Livingston 15,705,975 22,205,783 41,384 * 1,207 17,736 17,522 Luce 2,833,030 10,105,565 256,705 53,571 4,004 6,149 Mackinac 3,394,720 8,629,770 154,212 *13,223 9,249 8,026 Macomb 26,938,755 57,951,290 115,122 16,859 32,606 38,103 Manistee 10,064,300 19,072,420 88,506 *21,691 26,688 20,899 Manquette 26,481,846 64,104,096 142,068 * 2,039 46,739 45,786 Mason 7,094,170 19,092,365 169,128 * 9,165 21,832 19,831 Mecosta 5,170,030 16,403,326 217,277 * 8,738 19,466 17,765 Missaukee 10,386,138 20,590,615 98,250 * 7,291 25,648 23,778 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Missaukee 2,104,400 5,344,404 153,963 *15,105 10,606 9,004 Monroe 20,225,405 46,568,816 130,249 12,753 32,917 37,115 Montcalm 11,461,035 36,533,180 218,759 * 5,077 32,069 30,441 Montm'ncy 1,032,940 3,726,660 260,782 8,895 3,755 4,089 Muskegon 18,139,285 76,289,877 320,578 58,688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Muskegon 18,139,285 76,289,877 320,578 58,688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Osceola 4,472,010 13,666,270 20,504 * 11,124 17,889 15,221 Osceola 4,472,010 13,666,270 20,559 * 11,17,839 15,601 Oscoda 1,020,960 2,260,540 121,413 *12,037 2,027 1,783 Otsego 2,781,435 6,856,435 146,576 7,769 6,552 6,043 Ottawa 24,944,590 53,152,798 113,083 5,170 44,301 31,237 Presque 1sle 3,025,390 7,949,694 162,766 7,841 11,249 12,131 Roscommon 1,503,407 2,372,716 57,822 *10,642 2,274 2,032 Saginaw 42,066,055 137,101,475 255,919 12,315 89,290 100,286 Scholoccaft 2,990,331 +2,047,801 302,892 44,299 8,681 9,977 Schoolcraft 2,990,331 +2,047,801 302,892 44,499 52,449 52,449 52,449 52,449 52,449 52,449 52,449 52,449 52,449 52,449 52		7,639,253		21,995,233				
Leelenaw 3,005,172 6,696,937 122,847 *14.583 10,608 9,061 Lenawee 39,792,425 75,078,058 88,674 *472 47,907 47,681 Livingston 15,705,975 22,205,783 41.384 *1.207 17,736 17,522 Luce 2,833,080 10,105,565 256,705 53,571 4,004 6,149 Mackinac 3,394,720 8,629,770 154,212 *13,223 9,249 8.026 Macomb 26,938,755 57,951,290 115,122 16,859 32,606 38,103 Manistee 10,064,300 19,072,420 89,506 *21,691 26,688 20,899 Marquette 26,481,846 64,104,096 142,068 *2,039 46,739 45,786 Mason 7,094,170 19,092,365 169,128 *9,165 21,832 19,831 Mecosta 5,170,030 16,403,326 217,277 *8,738 19,466 17,765 Menominee 10,386,138 20,590,615 98,250 *7,291 25,648 23,778 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Montcalm 11,461,035 36,533,180 218,759 *5,077 32,069 30,441 Montmincy 1,032,940 3,726,660 260,782 8,895 3,755 4,089 Muskegon 18,139,285 76,289,877 32,0578 5,688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Oakland 39,528,980 135,672,409 243,223 81,640 49,576 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Oakland 39,528,980 135,672,409 243,223 81,640 49,576 62,660 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,601 Ogemaw 2,291,909 6,876,705 200,043 *12,558 68,907 7,786 Ontonagon 5,262,060 19,064,038 262,292 43,676 8,650 12,428 Osceola 4,472,010 13,666,270 205,594 *11,419,4 17,889 15,221 Oscoda 1,020,960 2,260,540 121,413 *12,037 2,027 1,783 Oscoda 1,020,960 2,260,540 121,413 *12,037 2,027 1,783 Coscoda 1,020,960 2,367,767 161,238 10,894 52,344 58,943 Coscoda 1,477,918 37,469,395								
Lenawee 39,792,425 75,078,058 88,674 47,472 47,907 47,081 Livingston 15,705,975 22,205,783 41,384 * 1,207 17,736 17,522 Luce 2,833,030 10,105,565 256,705 53,571 4,004 6,149 Mackinac 3,394,720 8,629,770 154,212 * 13,223 9,249 8,026 Macomb 26,938,755 57,951,290 115,122 16,859 32,606 38,103 Manistee 10,064,300 19,072,420 89,506 * 21,691 26,688 20,899 Marquette 26,481,846 64,104,096 142,068 * 2.039 46,739 45,786 Mecosta 5,170,030 16,403,326 217,277 * 8,738 19,466 17,765 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Missaukee 2,104,400 5,344,404 153,963 * 15,105 10,606 9,044 Monroe 20,225,405 46						*14.583	10,608	9,061
Luce	Lenawee	39,792,425						
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Marquette 26,481,846 64,104,096 142,068 * 2,039 46,739 45,786 Mason 7,094,170 19,092,365 169,128 * 9,165 21,832 19,831 Mecosta 5,170,030 16,403,326 217,277 * 8,738 19,466 17,766 Menominee 10,386,138 20,590,615 98,250 * 7,291 25,648 23,778 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Missaukee 2,104,400 5,344,404 153,963 * 15,105 10,606 9,004 Missaukee 20,225,405 46,568,816 130,249 12,753 32,917 37,115 Montcalm 11,461,035 36,533,180 218,759 * 5,077 32,069 30,441 Muskegon 18,139,285 76,289,877 320,578 53,688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Oakland 39,528,980								
Mason 7,094,170 19,092,365 169,128 * 9,165 21,832 19,831 Mecosta 5,170,030 16,403,326 217,277 * 8,738 19,466 17,765 Menominee 10,386,138 20,590,615 98,250 * 7,291 25,648 23,778 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Missaukee 2,104,400 5,344,404 153,963 * 15,105 10,606 9,004 Monrealm 11,461,035 36,533,180 218,759 * 5,077 32,069 30,441 Montmomory 1,032,940 3,726,660 260,782 8,895 3,755 4,089 Muskegon 18,139,285 76,289,877 320,578 53,688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Oakland 39,528,980 135,672,409 243,223 81,640 49,576 90,050 Oceana 5,783,205 12						* 2.039		45,786
Mecosta 3,170,300 10,386,138 20,590,615 98,250 * 7,291 25,648 23,778 Midland 5,362,339 17,034,350 217,666 23,077 14,005 17,237 Missaukee 2,104,400 5,344,404 153,963 *15,105 10,606 9,004 Monroe 20,225,405 46,568,816 130,249 12,753 32,917 37,115 Montcalm 11,461,035 36,533,180 218,759 *5,077 32,069 30,441 Montmory 1,032,940 3,726,660 26,0782 8,895 3,755 4,089 Muskegon 18,139,285 76,289,877 320,578 53,688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Oakland 39,528,980 135,672,409 243,223 8,640 49,576 90,050 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,601 Ogemaw 2,291,909		7,094,170		19,092,365				
Midland 5,362,339 17,034,350 217,666 23.077 14,005 17,237 Missaukee 2,104,400 5,344,404 153.963 *15.105 10,606 9,004 Monroe 20,225,405 46,568,816 130.249 12.753 32,917 37,115 Montcalm 11,461,035 36,533,180 218,759 *5.077 32,069 30,441 Montmincy 1,032,940 3,726,660 260.782 8.895 3,755 4,089 Muskegon 18,139,285 76,289,877 320.578 53.688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9.844 19,220 17,328 Oakland 39,528,980 135,672,409 243,223 81,640 49,576 90,050 Oceana 5,783,205 12,829,724 121,844 *15.115 18,379 15,601 Ogemaw 2,291,909 6,876,705 200.043 *12.586 8,907 7,786 Oscoda 1,020,960 2,260,540 </td <td></td> <td>5,170,030</td> <td></td> <td></td> <td>98.250</td> <td></td> <td></td> <td></td>		5,170,030			98.250			
Missaukee 2,104,400 5,344,404 153,963 *15.105 10,006 3,004 Monroe 20,225,405 46,568,816 130,249 12.753 32,917 37,115 Montealm 11,461,035 36,533,180 218.759 *5.077 32,069 30,441 Montmincy 1,032,940 3,726,660 260,782 8.895 3,755 4,089 Muskegon 18,139,285 76,289,877 320,578 53,688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Oakland 39,528,980 135,672,409 243,223 81,640 49,576 90,050 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,601 Ogemaw 2,291,909 6,876,705 200.043 *12,586 8,907 7,786 Oscoda 1,020,960 2,260,540 121,413 *12,037 2,027 1,783 Otsego 2,781,435 6,858,435				17,034,350	217.666			
Montealm 11,461,035 36,533,180 218.759 * 5.077 32,069 30,441 Montmincy 1,032,940 3,726,660 260.782 8.895 3,755 4,089 Muskegon 18,139,285 76,289,877 320.578 53,688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Oakland 39,528,980 135,672,409 243,223 81,640 49,576 90,050 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,601 Ogemaw 2,291,909 6,876,705 200,043 *12,586 8,907 7,786 Ontonagon 5,262,060 19,064,038 262,292 43,676 8,650 12,428 Oscoda 1,020,960 2,260,540 121,413 *12,037 2,027 1,783 Otsego 2,781,435 6,858,435 146,576 *7,769 6,552 6,043 Ottawa 24,944,590 53,152,798	Missaukee	2,104,400						
Montminey 1,032,940 3,726,660 260.782 8.895 3,755 4,089 Muskegon 18,139,285 76,289,877 320.578 53.688 40,577 62,362 Newaygo 6,023,372 21,035,080 249,224 9,844 19,220 17,328 Oakland 39,528,980 135,672,409 243,223 81,640 49,576 90,050 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,601 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,601 Oceana 5,762,060 19,064,038 262,292 43,676 8,650 12,428 Osceola 4,472,010 13,666,270 205,594 *14,914 17,889 15,221 Oscoda 1,020,960 2,260,540 121,413 *12,037 2,027 1,783 Otsego 2,781,435 6,858,435 146,576 *7,769 6,552 6,043 Ottawa 24,944,590 53,152,798 113,083 5,170 45,301 47,643 Presque Isle 3,025,390 7,949,694 162,766 7,841 11,249 12,131 Roscommon 1,503,407 2,372,716 57,822 *10,642 2,274 2,032 Saginaw 42,066,055 137,101,475 225,919 12,315 89,290 100,286 Sanilac 14,177,798 37,469,395 164,282 7,937 33,930 31,237 Schoolcraft 2,990,331 12,047,801 302,892 14,929 8,681 9,977 Shiawassee 21,310,290 39,106,420 83,510 8,055 33,246 35,924 St. Clair 30,833,093 80,547,677 161,238 10,894 52,341 58,043 St. Joseph 17,462,678 32,891,655 88,354 5,173 25,499 26,818 Tuscola 14,932,690 33,355,870 123,375 *4,563 34,913 33,320 Van Buren 16,191,586 32,323,340 99,631 7,443 33,185 30,715 Washtenaw 40,024,831 79,583,655 98,836 10,748 44,714 49,520 Wayne 431,440,046 2,131,955,282 394,149 121,544 531,590 1,77,706 Wayne 431,440,046 2,131,955,282 394,149 121,544 530,550 1,77,706							32,069	30,441
Muskegon 18,139,285 76,289,877 320,578 33,085 40,517 23,020 17,328 Oakland 39,528,980 135,672,409 243,223 81,640 49,576 90,050 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,601 Ogemaw 2,291,909 6,876,705 200.043 *12,586 8,907 7,786 Ontonagon 5,262,060 19,064,038 262,292 43,676 8,650 12,428 Oscoda 1,020,960 2,260,540 121,413 *12,037 2,027 1,783 Otsego 2,781,435 6,858,435 146,576 *7,769 6,552 6,043 Ottawa 24,944,590 53,152,798 113,083 5,170 45,301 47,643 Presque Isle 3,025,390 7,949,694 162,766 7,841 11,249 12,131 Roscommon 1,503,407 2,372,716 57,822 *10,642 2,274 2,032 Saginaw 42,066,055		1,032,940		3,726,660	260.782			
Newaysb 39,523,980 135,672,409 243,223 81,640 49,576 90,050 Oceana 5,783,205 12,829,724 121,844 *15,115 18,379 15,601 Ogemaw 2,291,909 6,876,705 200.043 *12,586 8,907 7,786 Ontonagon 5,262,060 19,064,038 262,292 43,676 8,650 12,428 Oscoda 1,020,960 2,260,540 121,413 *12,037 2,027 1,783 Otsego 2,781,435 6,858,435 146,576 *7,769 6,552 6,043 Ottawa 24,944,590 53,152,798 113,083 5,170 45,301 47,643 Presque Isle 3,025,390 7,949,694 162,766 7,841 11,249 12,131 Roscommon 1,503,407 2,372,716 57,822 *10,642 2,274 2,032 Saginaw 42,066,055 137,101,475 225,919 12,315 89,290 100,286 Sanilac 14,177,798 37,469,395 <td>Muskegon</td> <td>18,139,285</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Muskegon	18,139,285						
Oceana 5,783,205 12,829,724 121,844 *15.115 18,379 15,601 Ogemaw 2,291,909 6,876,705 200.043 *12.586 8,907 7,786 Ontonagon 5,262,060 19,064,038 262.292 43.676 8,650 12,428 Oscoda 1,020,960 2,260,540 121,413 *12.037 2,027 1,783 Otsego 2,781,435 6,858,435 146.576 *7,769 6,552 6,043 Ottawa 24,944,590 53,152,798 113.083 5.170 45,301 47,643 Presque Isle 3,025,390 7,949,694 162,766 7,841 11,249 12,131 Roscommon 1,503,407 2,372,716 57,822 *10.642 2,274 2,032 Saginaw 42,066,055 137,101,475 225,919 12,315 89,290 100,286 Sanilac 14,177,798 37,469,395 164,282 7,937 33,930 31,237 Schoolcraft 2,990,331 12,047,801 </td <td></td> <td>39.528.980</td> <td></td> <td></td> <td></td> <td></td> <td>49,576</td> <td>90,050</td>		39.528.980					49,576	90,050
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		5,783,205		12,829,724			18,379	
Oscoola 4,472,010 13,666,270 205.594 *14.914 17,889 15,221 Oscoda 1,020,960 2,260,540 121.413 *12.037 2,027 1,783 Otsego 2,781,435 6,858,435 146.576 *7.769 6,552 6,043 Ottawa 24,944,590 53,152,798 113.083 5.170 45,301 47,643 Presque Isle 3,025,390 7,949,694 162,766 7,841 11,249 12,131 Roscommon 1,503,407 2,372,716 57,822 *10.642 2,274 2,032 Saginaw 42,066,055 137,101,475 225,919 12,315 89,290 100,286 Sanilac 14,177,798 37,469,395 164,282 7,937 33,930 31,237 Schoolcraft 2,990,331 12,047,801 302,892 14,929 8,681 9,977 Shi awassee 21,310,290 39,106,420 83,510 8.055 33,246 35,924 St. Clair 30,833,093 80,54	Ogemaw							
$\begin{array}{cccccccccccccccccccccccccccccccccccc$						*14.914	17,889	15,221
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1,020,960						
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								
$\begin{array}{llllllllllllllllllllllllllllllllllll$				7,949,694	162.766	7.841	11,249	
Sagillaw 14,177,798 37,469,395 164,282 7,937 33,930 31,237 Schoolcraft 2,990,331 12,047,801 302,892 14,929 8,681 9,977 Shiawassee 21,310,290 39,106,420 83,510 80,55 33,246 35,924 St. Clair 30,833,093 80,547,677 161,238 10.894 52,341 58,043 St. Joseph 17,462,678 32,891,655 88,354 5,173 25,499 26,818 Tuscola 14,932,690 33,355,870 123,375 4,563 34,913 33,332 Van Buren 16,191,586 32,323,340 99,631 7,443 33,185 30,715 Washtenaw 40,024,831 79,583,655 98,836 10,748 44,714 49,520 Wayne 431,440,046 2,131,955,282 394,149 121,544 531,590 1,177,706	Roscommon	1,503,407						
Schoolcraft 2,990,331 12,047,801 302,892 14,929 8,681 9,977 Shiawassee 21,310,290 39,106,420 83,510 80,555 33,246 35,924 St. Clair 30,833,093 80,547,677 161,238 10.894 52,341 58,043 St. Joseph 17,462,678 32,891,655 88,354 5,173 25,499 26,818 Tuscola 14,932,690 33,355,870 123,375 * 4,563 34,913 33,320 Van Buren 16,191,586 32,323,340 99.631 7,443 33,185 30,715 Washtenaw 40,024,831 79,583,655 98,836 10,748 44,714 49,520 Wayne 431,440,046 2,131,955,282 394,149 121,544 531,590 1,177,706				37,469,395		7.937		31,237
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		2,990,331	1	12,047,801	302.892	14,929	8,681	9,977
St. Joseph 17,462,678 32,891,655 88.354 5.173 25,499 26,818 Tuscola 14,932,690 33,355,870 123,375 * 4,563 34,913 33,320 Yan Buren 16,191,586 32,323,340 99.631 7.443 33,185 30,715 Washtenaw 40,024,831 79,583,655 98.836 10,748 44,714 49,520 Wayne 431,440,046 2,131,955,282 394,149 121,544 531,590 1,177,706	Shiawassee							
Tuscola 14,932,690 33,355,870 123.375 * 4.563 34,913 33,320 Van Buren 16,191,586 32,323,340 99.631 7.443 33,185 30,715 Washtenaw 40,024,831 79,583,655 98.836 10.748 44,714 49,520 Wayne 431,440,046 2,131,955,282 394,149 121,544 531,590 1,177,706					88.354	5.173	25,499	26,818
Van Buren 16,191,586 32,323,340 99,631 7,443 35,155 30,715 Washtenaw 40,024,831 79,583,655 98.836 10,748 44,714 49,520 Wayne 431,440,046 2,131,955,282 394,149 121,544 531,590 1,177,706	Tuscola	14,932,690		33,355,870	123.375			
Wayne 431,440,046 2,131,955,282 394.149 121.544 531,590 1,177,706	Van Buren							
			2	,131,955,282	394.149	121.544	531,590	1,177,706
				16,717,320	131.149	12.336	20,769	18,207

^{*} The figures marked with star indicate per cent of decrease in population.

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Silver Blacks and Silver Medals

A Michigan Farm Corporation Idea that is Working Out Successfully

By Frank A. Wilken

With a respect to law, and with a regard for our own safety, we were rambling, or rather rattling, along at thirty-five miles per hour, on about the nicest piece of road you ever saw, when we came to a detour sign. That stopped us, and gave our old bus a breathing spell. Incidentally, it also gave us a chance to see what the surrounding country was like, and right there where we stopped we saw a real business-like looking farm. As we were looking for farm stories, we went in and found one.

All this happened on the Dixie Highway, just north of Hart, Michigan. The farm at which our spurt of speed ended was the Corwin Silver Fox Farm. As we discovered later, the name is incomplete; it should be The Corwin Silver Fox and Silver Medal Jersey Farm, because the Jerseys are as important on this farm as are the

As soon as we made ourselves the business man. But when we were known, we were taken right in by Mr. Thomas P. Corwin, the general manager of the farm, with a real welcome. We were only going to stay a short time, but a greater part of a morning was spent in looking over what this farm company was doing.

There has been considerable interest shown by our readers in the idea of incorporating farms for the purposes of carrying out agricultural activities in a larger and more business-like way. Here, we learned, the corporation farm idea was being worked successfully by combining one man's business ability with another's agricultural knowledge and experience. That fact increased our interest in the farm and what it contained.

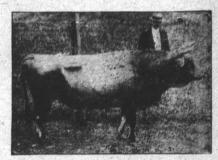
As stated before, we were warmly welcomed by Mr. Thomas P. Corwin, ready to inspect the agricultural activities of the farm, in keeping with the practices of corporations, he introduced us to the man in charge of these activities. This man was Mr. Alfred Henrickson, who is well known by the Jersey enthusiasts of the state as Secretary of the Michigan State Jersey Cattle Club. His major interests being Jerseys, he naturally took us first to the barns to show us the herd which is conceded to be one of the best Jersey herds in the state.

This herd is headed by Noble Sensational Lad, the only silver medal sire in Michigan. He has fifteen Register of Merit daughters with an average of 508 pounds of butter-fat at the average age of three years. His first mature daughter, Sensational Iris, was being tested and was expected to qualify for a gold medal. Two other daughters are also on test, one of which will make close to 800 pounds of butter-fat from present indications.

The junior herd sire is Fauvic's Golden Prince, a double grandson of Fauvic's Prince, a Register of Merit silver and gold medal bull, one of the two bulls in the world to win this distinction. The dam of the junior herd sire is a full sister to Fauvic's Xenia, a Register of Merit silver and gold medal cow with a record of 951 pounds of butter-fat. She is also a half sister to Fauvic's Star, world's champion milk producer of the Jersey breed, who also has a record of 1,006 pounds of but-

This herd also includes the state

champion three-year-old Jersey cow, McKay's Sweet Dream, who has produced 6,989 pounds of fat at two years and nine days, also the three highest butter-fat producers in the United States in the two-year-old class, and the sire and dam of the bull heading the M. A. C. Jersey herd. Mr. Henrickson showed us numerous other an-

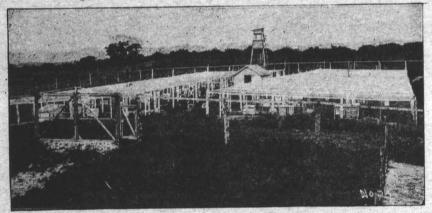


Noble Sensational Lad, the Silver Medal Bull.

imals of high breeding, and the calves in the model and sanitary dairy barn, which certainly show promise of good future production. Mr. Henrickson gave us the names, records, and heritage of all these animals, just as if it was an every-day affair. To us, part of it sounded like a foreign language, so we were only able to assimilate the outstanding parts of it. However, we got the decided general impression that if one wishes to find Jersey quality in Michigan, the Corwin farm is a mighty good place to go.

We had hard work tearing ourselves away from those deer-like beauties of Jerseys, but were repaid when we went over to the fox department to look at those glossy, black denizens

(Continued on page 541).



The Home of the Corwin Silver Blacks.

Can We Grow Sugar Beet Seed?

This Story Suggests Possibilities Which May Work to the Advantage of Growers

By L. A. Chase

T is characteristic of conditions in the Upper Peninsula that rootcrops, such as beets and turnips, and also potatoes, do not usually freeze in the ground, if left out during the winter, because of the heavy blanket of snow, and will start growing again with the resumption of warm weather in the following spring.

This circumstance suggested that it should be possible to grow sugar-beet seed simply by leaving the beet roots in the ground through the winter, without the necessity of raising the beets and re-setting the stocklings the following spring.

In accordance with this opinion, several experimental plots were tried out the past season with interesting results. What these results are have been set forth for me by Mr. Milo J. Slagg, formerly principal of the John a. Doelle Agricultural School, and now in charge of the flour-mill at Houghton.

The beet seed for these experiments was obtained from the Michigan Sugar Company and three plots were planted: One at the Michigan Agricultural College Experiment Station at Chatham, Alger county; one at Otter Lake, Houghton county, and the third on the site of the village waterworks at Houghton, where other experimental undertakings already noted in The Michigan Farmer, have been tried out.

Mr. Slagg and Mr. Charles Jenkins were in charge of the Houghton plot, which consisted of very sandy loam previously used for garden purposes. The land was thoroughly cleaned and cultivated before the beet seed was sown, on August 5. The rows were made two feet apart, the beets being thinned later after growth had started. The beets were intentionally started

1

ones to hill up for winter.

Early in November the plot was divided into three portions. In Section 1 the beets were covered entirely with two or three inches of earth. In Section 2 there was used a garden cultivator equipped with hillers to draw the earth about the beets just enough to cover the crowns. Section 3 was left uncovered save by the snow throughout the winter.

When spring arrived and the beets had just started to grow, the beets that had been buried with earth were uncovered. Those beets that were

late in order that there might be small slightly hilled were untouched, as were also those that had been uncovered through the winter. The beets were then thinned so as to leave one hardy plant each sixteen inches. They were kept free from weeds during the grow-

> Those beets that were slightly hilled produced the most vigorous plants. Those covered with earth were not as vigorous and were slower to start after being uncovered. Those that were unmulched exhibited more winter-killing than beets in Section 2.

> The plants grew high—as much as five and one-half feet in some cases,

the field average being about three and one-half feet. The spread was not as great as in the case of seed beets produced by large stecklings which have been silved through the winter. The estimated rate of production was 2,400 pounds per acre.

On advice of a representative of the Michigan Sugar Company, the beets were harvested August 20. The stecks were stacked loosely in small piles and cured thoroughly before threshing. Hand-threshing was here necessary, although an ordinary thresher could have done it.

The chief chemist of the Michigan Sugar Company, who examined the seed, is reported to have stated that the Houghton seed here produced was in quality far superior to that commonly shipped in from Europe and that it was even finer than that from farther south. The Houghton experiment is thus regarded as successful, although further trials must determine the ultimate commercial possibilities of beet seed production in the manner here described.

The experimental plantings at Chatham and Otter Lake were a failure, due, Mr. Slagg thinks, to wet soil in the winter. It is expected that Mr. L. M. Geismar, county agricultural agent, will assist farmers in making their own experimental plantings in Houghton county during the ensuing season, in order that they may ascertain for themselves what can be accomplished in this direction.

Undoubtedly there is ground for hope that northern agriculture has something to gain from this new endeavor. Market conditions will have to be considered in determining the practicability of beet-seed growing.



From Seed to Sugar, Beet, Growing May Soon be Entirely Michigan.

LATE AGRICULTURAL NEWS

LEAST.

THE effects of the deflation of farm products on certain industrial lines used largely by farmers, during 1920 and 1921, are graphically brought out in the Federal Trade Commission's report on prices and profits of stove manufacturers.

It is shown in an investigation made by the commission that an average profit of about seventeen per cent was made by the stove manufacturing industry in 1920, but the manufacturers made practically no profit in 1921. In December, 1922, stove prices were 120 per cent above pre-war level, whereas all commodities were fifty-six per cent above, and farm products forty-five per cent above their pre-war

STATE FARMERS' CLUBS TO MEET.

THE annual meeting of Michigan State Association of Farmers' Clubs will be held at The Michigan Agricultural College, in Agricultural Building, Room 402, on Tuesday and Wednesday, December 4-5, 1923.

All clubs in the state are invited and urged to send delegates to this meeting as matters of vital importance are to be discussed.

Plans are being made for the accommodation of all that attend. Let this be the greatest meeting the association has ever held.

THE FARMER AND THE MER-CHANT MARINE.

C HAIRMAN FARLEY, of the United States Shipping Board, was on the Leviathan when the American Farm Bureau Federation representatives went abroad, and in conference with them discussed the interests of the American farmers in the maintenance of an American merchant marine. Mr. Farley held that the farmers could not safely entrust their interests solely to foreign ships, and should therefore, support ship subsidy legis-

The farm bureau men told Mr. Farley that the farmers were united in favoring the merchant marine, but had not authorized anyone to speak for them as to ways and means of promoting it. Mr. Farley was informed that the farm bureau would soon take a referendum vote.

"Our country is producing a surplus of agricultural products which must be marketed abroad," said Mr., Farley. "The foreign service of our steamship companies will prove of the greatest assistance in locating purchasers of our agricultural products. It is the business of the steamship company to obtain cargoes. Its representatives can be relied upon to use their utmost endeavors to place American products in the hands of the consumers of other nations."

"NO SUCH ANIMAL."

SPEAKING of the wheat surplus, Representative Edward C. Little, of Kansas, says there "ain't no such animal." Instead of there being an oversupply of wheat in the United States and in the world, it is questionable whether this country actually has enough to supply the mills and for feed and seed.

"Representative Anderson says we should cut down ten per cent of our wheat production. Secretary Wallace figures that we will consume this year 537,000,000 bushels, which, according to the figures of his department, presented on past consumption, would leave us many millions behind ordinary consumption, but if we should

compare it with Representative Anderson's statement that we ought to cut our wheat production down from 781,-000,000 bushels to ten per cent less, Mr. Anderson would not leave the people of this country enough wheat for seed and feed, and we would make it impossible for our farmers to sell wheat to Europe."

"Since July 1 wheat has gone up in and all sorts of blocs in congress. the west from seventy cents to over a dollar, simply because the speculators recognized the fact that there is no oversupply anywhere. If the facts can be given to the public, wheat will soon bring \$1.25 and the farmer will begin to help the rest of the country to good business."

LOWER INCOME TAXES.

A GENERAL reduction of federal income taxes, aggregating \$323,000,-000 next year, is proposed by Secretary of the Treasury Mellon in a statement of recommendations he will present to congress. His plan provides for a twenty-five per cent reduction in the taxes on earned incomes; reduction of the normal taxes on incomes from four and eight per cent to three and six per cent, application of surtaxes at \$10,000 instead of \$6,000, and scaling them upward progressively to twenty-five per cent on incomes of

The secretary of the treasury would have the tax law strengthened so as to better enforce the tax collection provisions. He maintains that his proposition would favor the man with small income, but such revision would be impracticable if the soldiers' bonus legislation should be enacted.

MORE BLOCS ...

THE organization of the farm bloc in congress has given rise to a numerous variety of blocs. The progressive bloc is now much in the public eye, and there is forming a cotton planters' bloc which proposes to look after the interests of the cotton farmers. This bloc, according to state- in the "Better Sires-Better Stock"

more and cheaper fertilizer, poison for rolled, with 96,832 animals and 274,144 the boll weevil, and lighter taxes for poultry. the planters.

The cotton bloc will hold a conference November 30 to lay plans for congressional action.

If this bloc idea continues to develop we may expect soon to have a wheat bloc, a cattle bloc, a potato bloc

THE IMMIGRATION PROBLEM.

THE inferior class of European immigrants that are coming to this country is giving alarm to business men who formerly were favorable to letting down the immigration bars. They see a lowering of our standards of civilization if the present conditions continue. This information is given out by Secretary of Labor Davis, who is advocating a selective immigration bill, including a provision for enrollment of aliens.

Secretary Davis has been informed by leaders in congress that his bill will not receive consideration during the coming session, but he is assured that the present three per cent immigration law, which expires next July, will be extended until a more effective law can be enacted.

BETTER SIRES MOVEMENT.

THE "Better Sires-Better Stock" campaign being conducted by the Federal Bureau of Animal Industry, is making very satisfactory progress. Up to date 12,002 persons have enrolled in the movement, with 446,881 animals and 921,852 poultry listed.

Three new counties qualified for the honor list of counties having 100 or more enrollments during the quarter ending September 30, namely, Windsor, Vermont; Henry, Ohio, and Lewis, West Virginia. This increases the total in the whole country to twentyeight, of which ten are in Ohio. Pulaski county, Virginia, stands at the head.

Ohio, which is the foremost state

FARM PRODUCTS ADVANCE THE accept his minimum estimate and ments by its members, will demand movement, now has 2,758 persons en-

THE CIDER VINEGAR MATTER.

THE department of agriculture has been severely criticized because of its alleged unsatisfactory administration of the Stock Yards and Packer act, and the wheat growers hold the department in part responsible, through its crop reporting service, for their troubles.

These complaints may be unmerited, but the apple growers and cider vinegar manufacturers feel that they have well-founded grounds for their charge that the department's action, or lack of action in the matter of misbranding of eider vinegar is causing them the loss of this year's market for both apples suitable for vinegar, and also for cider vinegar.

The department has refused to use its authority to seize alleged misbranded vinegar in states not affected by the decision in the sixth circuit court, on the grounds that it might be accused of attempted persecution. It has apparently taken little interest in bringing the matter to a decision in the supreme court. It is alleged by the apple growers and cider vinegar manufacturers that it has given the waste vinegar manufacturers the advantage of every doubt, and made it extremely difficult to secure a decision favorable to the apple growers.

The case has a preferred position on the supreme court calendar, but its progress will undoubtedly be slow. Meanwhile the apple growers and cider vinegar manufacturers will continue to pocket their losses.

M. A. C. TO BROADCAST FARM NEWS.

THE Agricultural College extension service is making plans to use the radio as part of its educational service this winter. The plans are to use the college station WKAR, at East Lansing, to send out talks by college specialists on subjects of interest to Michigan farmers.

On certain nights talks on agricultural matters will be sent out, on others engineering subjects will predominate. The college also plans to offer the use of the radio to the state departments of health, education and ag-

At present all the WKAR station is being used for is to send out weather and market news at noon. The plan is to improve the equipment so that the station's sending radius will be extended to 2000 miles.

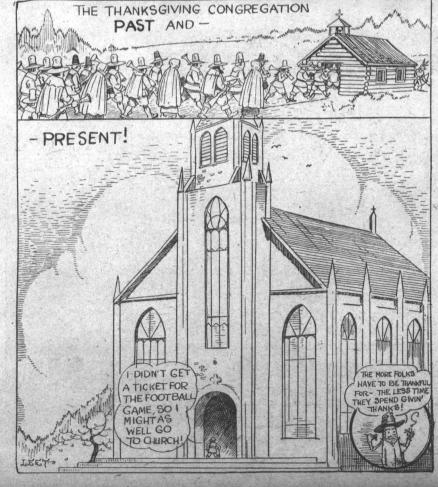
CO-OPS. HAVE DEALER LIABILITY.

I T has been decided by the internal revenue bureau that an association composed of growers of leaf tobacco which "contracts with its members to handle cooperatively as principal the purchase and sale of leaf tobacco" is subject to the liability of a dealer in leaf tobacco under present laws.

The bureau ruled that associa of this character are in no sense farmers or growers of leaf tobacco, and therefore, can claim no exemption from the liability.

Officials of farm should at once have an examination made of their respective state laws and if they find them deficient, should secure amendments at the first meeting of the state legislature. This is the advice of Secretary of Agriculture Wallace, who says that in some states the laws are already broad enough, but in others special action will be necessary.

Kernel Kob's Thanksgiving Sermon



Even as a Grain of Mustard Seed-

Long ago it was written that faith, even tho small as a grain of mustard seed, could remove mountains.

Henry Ford, with unbounded confidence, has labored for more than twenty years to remove the mountain of difficulty standing in the way of modern transportation. He has sought always to give the world practical transportation at low cost.

Many have wondered why Ford products, whose remarkable value time and use have proved, can be produced, sold and serviced for so little.

It is because from forest and mine to finished product there exists a marvelous coordination of every phase of manufacture. From scores of widely scattered Ford-owned sources the raw materials are brought by Ford transportation units to Ford plants, moulded, machined and assembled into cars, trucks and tractors.

At no time is the high quality of manufacture or workmanship beyond the supervision of the builders. Unhindered by changing market conditions, Ford products are built uniformly sturdy and dependable year after year.

This unusual development of industrial economy delivers your Ford car, truck or tractor at the lowest possible cost.

Ford Motor Company
CARS TRUCKS TRACTORS

Ask Any Ford Dealer



"NOT A KICK IN A MILLION FEET"



MULE-HIDE **Roll Roofing** and Shingles

Give more years of protection because of toughness and wearing qualities. It stands every test.

THE LEHON COMPANY Chicago



Buy "Galvannealed" Square Deal Fence. We guarantee it to last 2 to 3 times longer than ordinary galvanized wire in any standard test. Its triple thick zinc coating does not flake or peel off. Rust and corrosion can not get in to destroy the steel. It should last 2 to 3 times longer than the fence you now own, therefore, cost ½ to ½ as much.

Square Deal Fence

SQUARI-DEAL

is trim looking, long lasting—economical. Fullgauge wires. Stiff, picket-like stay wires. Well crimped line wires. Small, compact knot guaranteed not to slip.







A WIFE'S ESTATE.

A wife dies, leaving a husband and four children, all of age. One-half the property was sold just before she died and the other half shortly after. Husband and wife held a joint deed. The wife left no will. Can the children claim any share in the money? If so, how much, and how should they proceed to get it? The husband is getting ready to marry again.—L. J.

The land not sold during the life of

The land not sold during the life of both survived to the husband and the wife's estate has no interest in it. Onehalf of the proceeds of the land sold during the life of both belongs to the estate of the wife. Have an administrator appointed, and recover it .- R.

ALFALFA ON LIGHT SAND.

I am located at Muskegon. Soll is light sand. Wish to arrive at alfalfa as soon as possible. Would like some light sand. Wish to arrive at alfalfa as soon as possible. Would like some information on fertilizer, lime, land plaster, etc. Of course, I realize you cannot give me much, without details, but believe you know that region and general conditions well enough to give me some general ideas along this line.

—S. O. D.

In order to make sure of success with alfalfa on light sandy soil, the soil ought to be improved by plowing down green manurial crops, or apply a good application of stable manure. This sandy land needs more vegetable matter and especially to get a good start of alfalfa if the land is in quite bad shape. You could seed this land to peas and oats early, when they get fairly matured plow them down or

disc them up, then seed to soy-beans and do the same with these and the land would be in a much better shape to seed to alfalfa next spring. However, you could seed to alfalfa this spring and use a good supply of commercial fertilizer and if the season is at all favorable so far as moisture is concerned, you will probably get a good stand of alfalfa. In either case, the soil should be well limed. As much as two tons of ground limestone per acre is none too much for alfalfa. I don't think it would pay to use land plaster on this soil. What you want is ground pulverized limestone and any good commercial fertilizer, one containing three per cent nitrogen, eight to ten per cent phosphoric acid and three to four per cent potash will be very helpful in getting alfalfa started.

COWPEAS.

I would like, if you could advise me as to sowing cowpeas, if they will do well in this part, of the state. What kind to sow, if there are different kinds, the time to sow, and how many to sow per acre, and if there is a market for them as hay?—A. L. D.

Cowpeas will grow almost anywhere in Michigan, and they are splendid to improve the soil. The concensus of opinion, however, is that soy-beans are more practical and more adapted to our soil and climate than cowpeas. Many times cowpeas will not ripen. They are more difficult to harvest because they do not stand up like soy-

beans, in fact, cowpeas have been tried in Michigan and practically discarded, and soy-beans are increasing in popularity every year. You can get seed that is Michigan-grown that you are sure will ripen, and if you raise soy-beans you will have no trouble in finding a market for them, because they are in great demand for seed. Very many people are planting them with corn for ensilage, and soy-bean seed is very high at the present time. If you plant soy-beans in drill, twentyeight inches apart, it will take about one bushel of seed per acre. It will pay you to inoculate the seed with proper bacteria. You can sow soybeans broadcast as you would cowpeas or field peas, but they grow better and yield better if sown in drills and given inter-tillage.

QUACK GRASS.

Will you please give me some suggestions on the eradication of quack grass?—A. B.

Soy-beans make a quick and somewhat rank growth, but will not be successful in smothering out quack grass unless the eradication was started several months before planting. Mid-summer is the best time of the year to start eradication since at this time of year the root stalks are at their lowest state of vitality. The quack grass sod should be plowed, cutting just under the turf and in about ten days thoroughly disked. Repeat every week or ten days until fall, and disk again during the spring. If the weather conditions have been favorable the quack should be well subdued so that soy-beans, field beans or other cultivated crops may be planted. -C. R. Megee.

SALE OF COWS.

Has Michigan a law prohibiting the sale of dairy cows or any other cattle from one county to another without the cows being tuberculosis tested?

Compiled Laws 1915, Sec. 7310, empowers the state live stock sanitary commission to establish such quarantine as it may deem necessary to protect against malignant diseases of stock.-Rood.

GARNISHMENT.

I bought a second-hand clutch and rim, but did not have the ready cash. But as the car was out of commission, I put it in the barn and it stood there. My crops were a failure, and still I could not pay the \$10. The man told me to either return the parts or pay at once so I returned the parts, which he again sold. But now he claims that I still owe him the money. I did chores for a man who had a farm in Michigan and resided in Chicago. He paid a few dollars and then quit. I wrote him twice asking for money, and then gave the account to a lawyer who got \$25 and a bank draft for \$30 for me. The auto dealer garnisheed the draft. As draft was for personal labor, can I hold sixty per cent? Does the draft being in the bank change in any way my getting sixty per cent?

—W. F. M.

When the seller demanded and re-

When the seller demanded and received the return of the parts he rescinded the contract and there is no further liability by the purchaser. The garnishment exemption extends to the wages until they are received into the hand of the person entitled to the exemption in cash.—Rood.

MANURE AS PROPERTY.

A. rented a building and barn of B. A. procures straw of C. to use as bedding for horse, with agreement to let C. have manure made, to pay for the straw. D. buys buildings of B., and claims the manure as real estate, and threatens A. for disposing of it.—B. E. Y.

Manure produced at a boarding stable is personal property. Manure produced in the course of agriculture is real property and belongs to the land. If any part of the feed is produced in farming the adjoining land with which the building is used, it belongs to the owner of the property.-Rood.



NOTHER season comes nigh to its close, and in spite of very difficult times we find we have lots to be thankful for. This great American dollar of ours, that we commonly use as a guage to measure our accomplishments, has not recently been very ardent in its courtship of us farmers. Nevertheless, there is an abundance of wholesome food to keep the wolf from the door, and plenty of feed for the stock. The comfortable and secure position of most Michigan farmers may well be envied by those of many other lands and climes.

The fields on Francisco Farm have each yielded their harvest for the year. For the most part, their production has been quite satisfactory. The crops have been converted into cash or are securely stowed away in the silo, the mows, the bins or the cribs. The hog crop, which is annually a leading feature, has come, grown to hoghood, and gone into the channels of trade. Only the breeding herd and a few young ones remain. The beef breeding herd has given a 100 per cent increase, each one of the mature females now raising a big lusty calf. Even the big brood mares have raised us a pair of fine foals this year, in addition to doing steady hard work in the fields. The good wife reports from the "Greenwood Stock Farm," our Ohio home, that the beets are all hauland potatoes in the cellar, and most everything ready for winter. The little school girl gathering walnuts, the hired man shucking corn, and "149 gallons of cider yesterday, come on over." Turning the Sod.

No sooner do we close up the work for the season of 1923 than we start operations for 1924. That is ever the way of the farm and it is well. Looking and planning ahead, with only enough backward reflection to profit by our mistakes, and ever keeping

busy. That is what helps to make the farm a good place to be. Our theory is that contentment comes, not so much from the dollars we accumulate, as from steady work that we like to do, from thinking and planning ahead for that work, and from a realization of having done it well.

So, now that we can look backward to the fields of '23, we pause only long enough to appreciate what they have meant to us, and to reverently give thanks to the Great Creator for the fulfillment of another season's promise, then we get out the plows and proceed to turn the sod for next year's corn. As we have stated before in these columns, our chief appreciation of fall plowing is in making use of time when the work can be done to best advantage. A day saved in the fall is a day gained in the spring. I know of no time quite so suitable for sod plowing as the late fall of the year. The soil works nicely, the weather is cool, the teams are hardened in to heavy work and are not badly needed for other field operations.

Some years there is a disadvantage due to soil erosion on our farms that are more or less rolling, but heavy sods will turn over loose and friable, and will absorb a great deal of moisture before the waters begin to flow off on the surface. We feel that on ed, the apples all picked, the cabbage the whole, the saving in time, which gives greater assurance of getting the crops planted in good season next spring, is more than enough to counterbalance the risk of soil washing. So we will, if possible, finish turning the sod field-which is to go to corn in the spring-before the ground freezes up for winter. A few good days with the tractor will do the job, and then but a few more days with tandem disc and spring-tooth when the warm days come next spring will put the soil in perfect shape to receive the seeds of

Silver Blacks and Silver Medals

(Continued from page 537).

looked at us inquiringly and playfully, while their mothers and dads showed the fox's native caution and fear of strangers.

Here, too, we found high quality of We were introduced to breeding. David Arthur, who grand-parents are Sir Arthur and Lady Evelyn, who have produced more wealth for their owners than any known living pair of

Sir Arthur and Lady Evelyn are at the Willow Hill Ranch, on Prince Edward Island, which was started with this pair of foxes in 1910. Up to March, 1921, this ranch increased to eighty-six high-grade breeding foxes, and, besides, from the single pair \$286,405 worth of foxes and furs have

of the woods. Here, coal black pups business man who has big interests in Columbus, Ohio, where most of his time is spent. His hobby in the farm line, however, is foxes. He believes there is greater opportunity with the silver blacks than any other line of live stock endeavor, and he is backing his thoughts with a substantial investment in high-quality animals.

Mr. Alfred Henrickson is vice-president and treasurer of the company, as well as its Jersey specialist.

Mr. C. W. Corwin, a brother of Thomas P., is secretary, and also active manager of the fox department. Mr. C. W. left business activities because the memory of his boyhood days on the farm gave him the urge to get back to the land. Besides the breeding stock referred to before, he has seventy-six pups under his care. But to get back to the Corwin The increase of 126 per cent during



Where Mr. Henrickson Keeps the Jerseys.

Ranch; it is also the home of Lady the past year is an indication of his Hilda, the first prize silver female at good management. the Montreal Fox Show in 1920. Besides, it contains several other prominent winners at that show, including sons, daughters and sisters of the grand champion pair. Adelaide's Princess and Hilda's Prince, bred and grown on the Corwin Ranch, each won the blue ribbon at the 1922 Muskegon show in competition with the best foxes in the country.

Every precaution is used here to keep the foxes in good condition. As you enter the ranch enclosure, you are requested to step into a shallow pan seen and heard. of disinfectant. This is to prevent the carrying in of rabbies and other diseases which may come from dogs, cats and other domestic animals

The feed for these foxes is produced almost entirely on the farm. It consists chiefly of sweet milk, fruit, cereals, vegetables, rabbits, horse meat, poultry and eggs. The principal addition to this farm-produced ration is the tripe and other meat obtained from the local butchers.

The kitchen of the ranch is perfection itself, for it is "as neat as wax." All the utensils are cleansed by live steam and the stock of meat, etc., is kept fresh in a refrigerator. The equipment includes meat and bone grinders and a large number of China bowls which are used to feed the foxes in. Occasionally a feed of cow or calf hide is given the foxes to exterminate worms and to prevent the habit of chewing the ends of their

The Corwin farm corporation idea is comparatively new. Thus far, most to the farmers there. The price is of the time has been spent in develhog hous tains a fine modern which a few high-bred Hampshires are quartered. The poultry house is also very modern, and is the home of the nucleus of a real quality flock of White Wyandottes. The hog and poultry activities will be increased as soon as opportunity permits. The Corwin farm consists of 295 acres, part of which is in orchard. About 155 acres are under cultivation for general farm cropping swamps. purposes, such as growing alfalfa, rye, vetch, corn, beans and potatoes.

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dent of the corporation, is a successful If not, why not now?

The Corwin fox activities have been recognized by the National Silver Fox Breeders' of America by electing Mr. Thomas P. Corwin its third vice-president.

When we left, we were filled full of the fulfillment of our expectations to see something. The only thing was that the detour upheld the reputation detours have for roughness and crookedness. However, we took the bumps with greater apparent ease, because our minds were on what we had just

MOST M. A. C. GRADUATES ARE FARMERS.

RECENT survey of the occupa-A tion of graduates of the Michigan Agricultural College shows that 20.3 per cent are farmers, while fifty-four per cent follow other agricultural pursuits, while only seventeen per cent are engaged in non-agricultural occupations.

At present, three presidents and five deans of other agricultural colleges are counted among the alumni of M.

CHEAP MARL IN MANISTEE.

N Manistee county, the county farm I bureau has purchased a marl extractor to mine marl from James Lake. This marl will be sold to local farmers at sixty cents a yard. As the soil in the surrounding country is very acid, this presents a real opportunity also very low, when one considers that oping the Jersey and fox departments last year marl was offered at \$1.10 a of the farm. However, the farm con- yard and pulverized limestone costs \$4 20 on at the trackside

> Incidentally the digging of this marl will help the reclamation of thousands of acres in Manistee county. Similar propositions could be worked in other counties, as the supply of marl, like the need for it, is practically unlimited. Most every lake or stream has a marl bed in it, and many farmers have their own private marl beds in

Did you give the sprayer a thor-Mr. Thomas P. Corwin, the presi- ough cleaning when you last used it?

Test This Out for Yourself-

ANY people who drink coffee regularly are troubled with insomnia; or they feel nervous, "headachy," or suffer from indigestion.

It may be hard for such men and women to believe that coffee is responsible for the way they feel. Because they have always drunk coffee, it hardly seems possible that this old habit could cause trouble.

But there is one sure way to find out whether coffee is harming you. Just stop its use for a week or so, and drink Postum.

Postum is a pure cereal beverage—absolutely free from caffeine, the drug in coffee, which disturbs the health and comfort of many.

After a week or two on Postum, you will sleep better and feel better; then your own good judgment should decide whether you go back to coffee or continue on the Road to Wellville with Postum.

Sold by grocers everywhere!

Postum

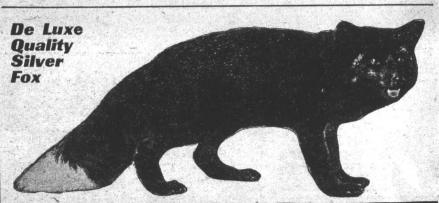
for Health

"There's a Reason"

Your grocer sells Postum in two forms: Instant Postum [in tins] prepared instantly in the cup by the addition of boiling water. Postum Cereal [in packages] for those who prefer the flavor brought out by boiling fully 20 minutes. The cost of either form is about one-half cent a cup.



RY a Michigan Farmer Classified Liner-They cost little and bring big results.



We Show You How—We Start You Right

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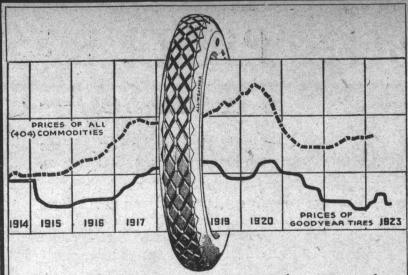
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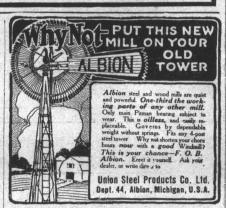
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Dangerous People

Our Weekly Sermon-By N. A. McCune

DANGEROUS person is one who is inimical to your interests. Thus the members of the W. C. T. U. for years were regarded by the saloon owners and the breweries as the most dangerous citizens in the nation. The anti-saloon league workers also were dangerous people. To the smuggler, the revenue officer is the least desirable of humans, and the thief looks upon the judge and the prosecutor as worse than unnecessary.

Now, missionaries are certainly dangerous folk. If you don't believe it, ask the devil and his angels. And the worst of it is, that all church members are supposed to be missionaries. That is what the lesson for this week says, and the New Testament is its

authority. If a church is not a missionary church, the question may well be asked what that particular church exists for. Christians are supposed to be prolific.

They were intended to "be fruitful, and multiply, and replenish the earth." There seems to be a secret to it, some way, for there are churches that grow and grow, even in communities where the population is stationary. And there are other churches that do not grow, even in the most favorable human environment. Again, there are churches that send out young people to become messionaries, while others have never seen any of their boys in Sunday School become ministers or missionaries. They are not successful, seemingly, in reproducing themselves.

It is natural to increase. A breed of swine that loses its vitality so that the litters are small does not sell readily. Something must be done to build up its vigor. An apple orchard is supposed to produce enough fruit to start a million orchards.

C HRISTIANITY is a religion intend-ed to grow and multiply. The book of Acts contains many statements showing how the early church grew. "And the number of men came to be about five thousand." "But the word of the Lord grew and multiplied." "So mightily grew the word of the Lord and prevailed." "And the word of God increased and the number of disciples multiplied in Jerusalem exceedingly; and a great company of the priests were obedient to the faith." It sometimes looks nowadays as though the church had gone out of the multiplying business. Why is this? For one thing, we do not spend enough money. We invest the price of an ice cream cone on each child, in our Sunday School work, each year. That won't buy a good cigar, smokers tell me. The number of children and youth in America who do not enter any church or church school is something like twenty-six millions, and that includes all faiths, Protestant and Roman Catholic.- Has the church lost the secret of increasing? Has something fallen out of our machinery, our prayers, our teaching and preaching? No, the secret has not been lost. System and devotion will still achieve the impossible. Look at this: In the eighteenth century missionary efforts were prosecuted spasmodically and fitfully. The results for one hundred years were something like seventy thousand converts. This is speaking only of foreign missions. in the nineteenth century, leaders in the church were aroused. Missionaries were trained and sent to the most strategic centers. Results? Eleven million. You see, it can still be done, when the church really wants to do it; which means, of course, when you and I want to do it.

To quote a line or two from Doctor R. F. Horton: "In a little island in the southern seas, Aneitum, there is the grave of a missionary, John Geddes, and an epitaph: 'When he came in 1848 there was not a Christian; when he left in 1872 there was not a single heathen'." Have we the courage to believe that the time will come when there will not be a heathen in America? In the world? "He shall not fail nor be discouraged till he have set judgment in the earth."

Not long ago I was reading about the work of boys' and girls' clubs. A few years since, this was an experiment in rural work. In 1920, 216,000 boys and girls were engaged in club work. These were influencing 14,000 communities. Farmers in some places are raising better pigs because their boys have taught them how. The corn crop is larger and of better grade in other localities because the boys began to study corn judging. The finances of these clubs three years ago amounted to \$4,600,000. That is growth, of a very useful and beautiful kind.

And what reasons we have, for spreading Christianity! Did anything ever rest on a broader foundation than the Christian message? What men have espoused its cause. What giants have given of their might to sow its seeds! What heroes have fallen, face to the foe!

WHEN one gets dyspeptic or acid-

ulated he needs to turn to some such record and refresh his soul. For instance, listen to this: John Smith was a missionary on the island of Demerara almost a hundred years ago. The planters did not resent so much the preaching as the teaching. They dreaded the hour when the slaves would learn to read. There are some uncomfortable things for slave owners in the New Testament. Native risings gave them their occasion to deal with Smith. He was accused and tried before a court martial and on the most flimsy and contradictory evidence was condemned to be hanged for participating in the rebellion. The execution was deferred, for even the court martial did not dare to flout the home government so scornfully as to hang a British missionary off-hand. But before any answer came, Smith died in prison, a martyr to the cause of the education of the slaves. The death of a delicate man in prison was the signal for an outburst of indignation in England. Wilberforce made his last speech on the subject. A young man, Macaulay, made his first public speech, and a fine piece of rhetoric it was, on the same subject. Lord Brougham pulled to pieces the illegal methods of the court martial, and in general it may be said that the death of Smith marked a landmark in the progress of slave emancipation. This humble man, dying, did much to set free his dark friends in the West Indies." This man, Smith, was another of these dangerous folk.

HERE are many missionary forces in the church. Take the organized Sunday School class, for instance. Not long ago I sat in a convention and listened to the reports of these organized classes from all over Michigan. Many had had conversions of young people during the year. Others had formed other classes in other churches. They did big things.

SUNDAY SCHOOL LESSON FOR NOVEMBER 25.

SUBJECT:—Christians called to be missionaries. John 17.18; Matt. 28. 16-20, and Acts 1.6-8.
GOLDEN TEXT:—Go ye therefore and make disciples of all the nations.—Matt. 28.19.

WORLD EVENTS IN PICTURES



No living creature has ever before attained the speed of Lieut. H. J. Brown, U. S. air service, who flew 265.21 miles per hour.



Governor Trapp holds reins of Oklahoma government, pending outcome of Gov. Walton's trial.



American sculptor, Oronio Ruotolo, is making the first bust of the late Charles Steinmetz, wizard of mathematics and electricity.



After having been brought up together, this houn' dawg and Sir Reynard will eat out of the same dish, frolic together, and act like sweethearts.



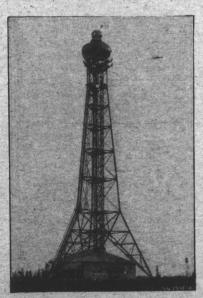
United States Navy submarine O-5 sunk in collision with the S. S. Abangarez. Two men were rescued from the sunken submarine after being imprisoned for thirty-one hours.



When time hangs heavy on the hands of women jurors at Cleveland, Ohio, gossip being tabooed, they resort to "horseshoes" between arguments, using a set of soft rubber quoits.



Dan Beard, National Commissioner of Boy Scouts, and other "buckskin men," headed a delegation of 1,500 scouts to the grave of Theodore Roosevelt to pay homage on Roosevelt Day.



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Some hitching post this, which anchors the giant navy dirigible, Shenandoah, at Lake Hurst, N. J.



About 100,000 Masons watched President Coolidge spread the first mortar for the corner-stone of the National Masonic Memorial to George Washington at Mt. Vernon, Va.



Mustapha Kemal Pasha and wife, recently elected first president and "first lady" of Turkey.

HE bass voice of the man referred to as Ba'tiste gave the answer, and Barry listened with interest. Evidently he had struggled to his feet during the night-though he could not remember it-and striven to find his way down the mountain side in the darkness, for the story of Ba'tiste told Barry that he had found him just at dawn, a full five hundred yards from the machine.

"I see heem move," the big voice was saying, "just' as I go to look at my trap. Then Golemar come beside me and raise his hair along his neck and growl--r-r-r-r-u-u-f-f-f-like that. I look again-it is jus' at the dawn. I cannot see clearly. I raise my gun to shoot, and Golemar, he growl again. Then I think eet strange that the bear or whatever he is do not move. I say to Golemar, 'We will closer go, ne c'est pas?' A step or two-then three but he do not move—then pretty soon I look again, close. Eet is a man. I pick heem up, like this—and I bring heem home. Ne c'est pas, Medaine?"

Her name was Medaine then. Not bad. Barry thought. It rather matched her hair and the tilt of her nose and the tone of her laugh as she answered:

"I would say you carried him more like a sack of meal, Ba'tiste. I'm glad I happened along when I did; you might have thrown him over your shoulder!"

A booming laugh answered her and the sound of a light scuffle, as though the man were striving to catch the girl in his big embrace. But the cold voice of Thayer cut in:

"And he hasn't regained consciousness?

"Not yet. That is, I think he's recovered his senses, all right, and, fallen immediately into a heavy sleep."

"Guess I'll go in and stay with him until he wakes up. He's my boss, you know-since the old man died. We've got a lot of important things to discuss. So if you don't mind-

"Certainly not." It was the girl again. "We'll go in with you."

"No, thanks. I want to see him alone

Within the bedroom, Barry Houston gritted his teeth. Then, with a sudden resolve, he rested his head again on the pillow and closed his eyes as the sound of steps approached. Closer they came to the bed, and closer. Barry could feel that the man was bending over him, studying him. There came a murmur, almost whispered:

Wonder what the damn fool came out here about? Wonder if he's wise?"

CHAPTER III.

IT was with an effort that Houston gave no indication that he had heard. Before, there had been only suspicions, one flimsy clue leading to another, a building block process, which, in its culmination, had determined Barry to take a trip into the west to see for himself. He had believed that it would be a long process, the finding of a certain telegram and the possibilities which might ensue if this bit of evidence should turn out to be the thing he had suspected, He

The White Desert

By Courtney Ryley Cooper

sion that conditions were not right at the window and turned toward the the lumber mill of which Barry Houston now formed the executive head; into the narrow, sunken face, it was to receive the certain statement that somewhere, somehow, something was wrong, something which was working against the best interests of himself and the stern necessities of the future. But now-

had not, however, hoped to have from tall, angular form of Fred Thayer as the lips of the man himself a confes- that person crossed the brightness of bed. And when at last he did look up with eyes which carried in them no light of friendship, nor even the faintest air of recognition. Thayer put forth a gnarled, frost-twisted hand,

> "Hello, kid," he announced, his thin lips twisting into a cynical smile that

THANKSGIVING!

By James E. Hungerford

When the turks have ceased to gobble, When the air is full o' spices, An' are bein' stuffed to eat,

An' the ducks no longer wobble On their pigeon-toey feet; When the odors from the oven Come to tempt the sons o' men,

It's a sign that that ol' lovin' Day-Thanksgivin's here again!

When the pumpkin, fat an' juicy, Is transformed into a pie, An' your Ma an' Aunt Jerushy Keep the kitchen stove "on high;" When the cellar's store o' cider, Pickles, jellies an' preserves, Makes you let your belt out wider, To accommodate the curves;

An 'the scent o' things a-bake, An' the freezer's freezin' ices, An' there's frostin' on the cake; When the folks-both kin an' neigh-

Start appearin' on the scene, Lookin' hungry-like, b'jabers!-You can guess what it may mean!

When the guests have all foregathered, 'Round the moanin', groanin' board, An' their smilin' lips are lathered. An' their appetites have soared; When the gobbler's stuffed with dressin'.

To be gobbled up by men, You can thank God for the blessin' O' Thanksgivin' Day, again!

dently sought a chair at the other side of the room. Barry remained perfectly still. Five minues passed. Ten. There came no sound from the chair; instinctively the man on the bed knew that Thayer was watching him, waiting for the first flicker of an eyelid, the first evidence of returning consciousness. Five minutes more and Barry rewarded the vigil. He drew his breath in a shivering sigh. He turned and groaned-quite naturally with the pain from his splintered arm. His eyes opened slowly, and he stared about him, as though in non-understanding wonderment, finally to center upon the window ahead and retain his gaze there, oblivious of the sudden tensity of the thin-faced Thayer. Barry Houston was playing for time, playing a game of identities. In the same room was a man he felt sure to be an enemy, a man who had in his care everything Barry Houston possessed in the world, every hope, every dream, every chance for the wiping out of a thing that had formed a black blot in the life of the young man for two grim years, and a man who, Barry Houston now felt certain, had not held true to his trust. Still steadily staring, he pretended not to notice the

Thayer had turned away and evi- in days gone by had passed as an affectation. Barry looked blankly at

"Hello."

"How'd you get hart?"

"I don't know."

"Old Man Renaud here says you fell over the side of Two Mile Hill. He picked you up about six o'clock this morning. Don't you remember?"

"Remember what?" The blank look still remained. Thayer moved closer to the bed and bending, stared at him.

"Why, the accident. I'm Thayer, you know-Thayer, your manager at the Empire Lake mill."

'Have I a manager?'

THE thin man drew back and stood for a moment staring down at Houston. Then he laughed and rubbed his gnarled hands.

"I hope you've got a manager. You -you haven't fired me, have you?" Barry turned his head wearily, as

though the conversation were ended. Houston, aren't you?" Barry

"I? Am I?"

"Well, then, who are you?" The man on the bed smiled.

"I'd like to have you tell me. don't know myself."

"Don't you know your name?" "Have I one?"

Thayer, wondering now, drew a hand across his forehead and stood for a moment in disconcerted silence. Again he started to frame a question, only to desist. Then, hesitatingly, he turned and walked to the door.

"Ba'tiste "

"Ah, oui!"

"Come in here, will you? I'm up against a funny proposition. Mr. Houston doesn't seem to be able to remember who he is."

"Ah!" Then came the sound of heavy steps, and Barry glanced toward the door, to see framed there the gigantic form of a grinning, bearded man, his long arms hanging with the looseness of tremendous strength, his gray eyes gleaming with twinkling interest, his whole being and build that of a great, good-humored, eccentric giant. His beard was splotched with gray, as was the hair which hung in short, unbarbered strands about his ears. But the hint of age was nullified by the cocky angle of the blueknit cap upon his head, the blazing red of his double-breasted pearl-buttoned shirt, the flexible freedom of his muscles as he strode within. Beside, him trotted a great gray cross-breed dog, which betokened collie and timber wolf, and which progressed step by step at his master's knee. Close to the bed they came, the great form bending, the twinkling, sharp eyes boring into those of Houston, until the younger man gave up the contest and turned his head-to look once more upon the form of the girl, waiting wonderingly in the doorway. Then the voice came, rumbling, yet pleasant:

"He no remember, eh?"

I know him all right. It's Barry Houston-I've been expecting him to drop in most any day. Of course, I haven't seen him since he was a kid out here with his fatherbut that doesn't make any difference. The family resemblance is there-he's got his father's eyes and mouth and nose, and his voice. But I can't get him to remember it. He can't recall anything about his fall, or his name

or business. I guess the accident—"
"Eet is the—" Ba'tiste was waving one hand vaguely, then placing a finger to his forehead, in a vain struggle for a word. "Eet is the-what-you-

"Amnesia." The answer had come quietly from the girl. Ba'tiste turned excitedly.

"Ah, oui! Eet is the amnesia. Many time I have seen it-" he waved a hand-"across the way, ne c'est pas? Eet is when the mind he will no work what you say—he will not stick on the job. See-" he gesticulated now with both hands-"eet is like a wall. I see eet with the shell shock. Eet is all the same. The wall is knock down -eet will not hold together. Blooey "he waved his hands-"the man he no longer remember!"

This time the stare in Barry Houston's eyes was genuine. To hear a girl of the mountains name a particular form of mental ailment, and then

AL ACRES-Slim Is Retiring-But Not From The Field

By. Frank R. Leet MISS SWEET THE NEW SCHOOL SHUCKS! THOPE SHE ISN'T TOO I JUST LOVE OH THANK YOU, MR ACRES! TEACHER IS GOING TO I HOPE HE SOMEONE'S TAKEN EAT TURKEY WITH US! PROUD TO RIDE IN I'M GLAD YOU CAME ALONG LOSES A BUGGY RIDING THE CAR OUT! I WAS BEGINNING TO BE AFRAID. I'D MISS THAT NICE DINNER! MR ACRES! I'LL BEAT SLIM TO IT AND THIS! WHEEL! I'LL BET IT GO AFTER HER! WAS SLIM!

scribed in its symptoms by a grinning, bearded giant of the woods was a bit past the comprehension of the injured man. He had half expected the girl to say "them" and "that there," though the trimness of her dress, the smoothness of her small, well-shod feet, the air of refinement which spoke even before her lips had uttered a word should have told him differently. As for the giant, Ba'tiste, with his outlandish clothing, his corduroy trousers and high-laced, hob-nailed boots, his fawning, half-breed dog, his blazing shirt and kippy little knit cap, the surprise was all the greater. But that surprise, it seemed, did not extend to the other listener. Thayer had bobbed his head as though in deference to an authority. When he spoke, Barry thought that he discerned a tone of enthusiasm, of hope:

"Do they ever get over it?"

"Sometimes, yes. Sometime—no. Eet all depend."

"Then there isn't any time limit on a thing like this."

"No. Sometimes a year-sometime a week-sometime never. It all depend. Sometime he get a shocksomething happen quick, sudden—blooey—he come back, he say 'where am I,' and he be back again, same like he was before!" Ba'tiste gesticulated vigorously. Thayer moved toward the door.

"Then I guess there's nothing more for me to do, except to drop in every few days and see how he's getting along. You'll take good care of him?' "Ah, oui."

"Good. Want to walk a piece down the road with me, Medaine?"

"Of course. It's too bad, isn't it-"

THEN they faded through the doorway, and Barry could hear no But he found himself looking more. after them, wondering about many things-about the girl and her interest. in Fred Thayer, and whether she too might be a part of the machinery which he felt had been set up against him; about the big-grinning Ba'tiste, who still remained in the room; who now was fumbling about with the bedclothes at the foot of the bed and-

'Ouch! Don't-don't do that!" Barry suddenly had ceased his thoughts to jerk his feet far up under the covers, laughing and choking and striving to talk at the same time. At the foot of the bed, Ba'tiste, his eyes twinkling more than ever, had calmly rolled back the covering and just as calmly tickled the injured man's feet. More, one long arm had outstretched again, as the giant once more reached for the sole of a foot, to tickle it, then to stand back and boom with laughteras Barry involuntarily sought to jerk the point of attack out of the way. For a fourth time he repeated the performance, followed by a fourth outburst of mirth at the recoil from the injured man. Barry frowned.

"Pardon me," he said rather caustically. "But I don't get the joke."

"Ho, ho!" and Ba'tiste turned to talk to the shaggy dog at his side. 'fant feels it! L'enfant feels it!"

"Feel it," grunted Houston. "Of course I feel it! I'm ticklish."

"You hear, Golemar?" Ba'tiste contorted with merriment, pointed vaguely in the direction of the bed, "M'sieu l' Nobody, heem is sticklish!"

"Of course I'm ticklish. Who isn't, on the bottom of his feet?"

The statement only brought a new outburst from the giant. It nettled Houston; further, it caused him pain to be jerking constantly about the bed in an effort to evade the tickling touch of the trapper's big fingers. Once more Ba'tiste leaned forward and wiggled his fingers as if in preparation for a new assault, and once more Barry withdrew his pedal extremities to

a place of safety.
"Please don't," he begged. "I—I don't know what kind of a game you are playing-and I'm perfectly willing to join in on it when I feel better-

to further listen to that ailment de- but now it hurts my arm to be bouncing around this way. Maybe this afternoon-if you've got to play these fool games-I'll feel better-

The thunder of the other man's laugh cut him off. Ba'tiste was now, it seemed, in a perfect orgy of merriment. As though weakened by his laughter, he reeled to the wall and leaned there, his big arms hanging loosely, the tears rolling down his cheeks and disappearing in the gray beard, his face reddened, his whole form shaking with series after series of chuckles.

"You hear heem?" he gasped at the wolf-dog. "M'sieu l' Nobody, he will play with us this afternoon! M'sieu I' Ticklefoot! That is heem, my Golemar, M'sieu l' Ticklefoot! Oh, ho-

"What in thunder is the big idea?" Barry Houston had lost his reserve "I want to be a good fellowbut for the love of Mike let me in on the joke. I can't get it. I don't see anything funny in lying here with a broken arm and having my feet tickled. Of course, I'm grateful to you for picking me up and all that sort of thing, but-'

Choking back the laughter, Ba'tiste returned to the foot of the bed and stood wiping the tears from his eyes.

'Pardon, mon ami," came seriously "Old Ba'tiste must have his at last. joke. Listen, Ba'tiste tell you something. You see people here today, oui, You see, the petite Medaine? Ah, oui!" He clustered his fingers to his lips and blew a kiss toward the ceiling. "She is the, what-you-say, fine li'l keed. She is the-bon bebe! You no nev' see her before?"

Barry shook his head. Ba'tiste

"You see M'sieu Thayer? Oui? Youknow heem?"

"No."

"You sure?"

"Never saw him before."

"So?" Batiste grinned and wagged a finger. "Ba'teese he like the truth, yes, oui. Ba'teese he don't get the truth, he tickle M'sieu's feet.'

"Now listen! Please-"

"No-no!" The giant waved a hand in dismissal of threat. "Old Ba'teese, he still joke. Ba'teese say he tell you something. Eet is this. You see those people? All right. Bon-good. You don' know one. You know the other. Yes? Oui? Ba'teese not know why you do it. Ba'teese not care. Ba'teese is right—in here." He patted his heart with a big hand. "But you you not tell the truth. I know." "But youtickle your feet."

"You're crazy!"

"So, mebbe. Ba'teese have his trou-Sometime Ba'teese wish he go crazy-like you say."

The face suddenly aged. The twinklight left the eyes. The big hands knitted, and the man was silent for a long moment. Then, "But Ba'teese he know—see?"- He pointed to his head, then twisting, ran his finger down his spine. "When eet is thewhat-you-say, amnesia—the nerve eet no work in the foot. I could tickle, tickle, tickle, and you would not know. But with you-blooey-right away, you feel. So, for some reason, you are, what-you-say?-shamming. But you are Ba'teese' gues'. You sleep in Ba'teese' bed. You eat Ba'teese' food. So long as that, you are Ba'teese friend. he looked with quiet, fatherly eyes toward the young man on the bed-"shall ask no questionand Ba'teese shall tell no tales!'

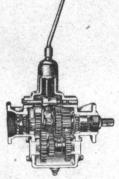
(Continued next week).

Uncle James Cooley has a wonderful disposition. His cow, Betsey, stepped on his foot. Then she stepped on his other foot. She switched him with her tail, which is like a bundle of wire. She wrapped it around his neck and pulled it back fast. Then she stepped in the pail and he had to dump out that part of the milk. Next she planted her right foot in his lap. Uncle James just got up and said, "My, my, I never did see such a cow in all my life."--Sunshine Hollow.

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Fixin's for the Harvest Feast

That Will Suit Both the Pocketbook and the Appetite

7 HEN our colonial ancestors four tablespoons of lemon juice, two ture hides it, or make it the color of your floors are unpainted, it is a simwished to make a thank offering to God for their new country and home, they set aside a day in November to be devoted to prayer and thanksgiving. Families gathered at grandmother's house to participate in a real harvest feast, and the day was called Thanksgiving Day.

This delightful custom has been handed down from generation to generation with a few changes, but the original spirit of htankfulness and festivity still prevails.

The big question of the hostess preparing for this festive occasion is, "What will I serve for Thanksgiving dinner?" There are heaps of things



When Trussed Like This There Are No Marks on the Breast.

of course, that one may prepare at this bountiful season of the year. But to arrange a menu to suit both the pocketbook and the appetite is rather puzzling.

The menu and recipes appearing herewith may contain some suggestions for you.

Bisque of oyster Toasted bread sticks Roast fowl Cranberry sauce

Mashed potato Squash on half shell Stuffed celery Fruit salad Pumpkin pie Olives Cheese balls Orange ice Coffee

Bisque of Oyster.

Boil one quart of oysters in their own liquor with a pint of white stock. After cooking one-half hour, add one quart of milk, one-half pint of cream. Thicken until smooth and velvety.

Squash on the Half Shell.

Cut squash into convenient pieces for serving, without peeling, the shape depending upon the ingenuity of the hostess. Bake in a moderate oven until well done. Just before serving, add a bit of butter and a dash of paprika to each piece.

Stuffed Celery.

Select small crisp stalks of celery. To one cup of creamed pimento cheese add two tablespoonfuls of mayonnaise and one tablespoon of minced olives. Blend well and fill the stalks with this

To two cups of diced apples, add one cup halved white grapes, one-half cup chopped nut meats. Blend with mayonnaise and serve individually on a lettuce leaf garnished with cranber-

cupfuls of water, two cupfuls of syrup. Mix these ingredients and freeze.

CLEVER TRICK IN DECORATING.

HERE are tricks in every trade and the home decorator sometimes has to use a good many to make interiors and furnishings appear what they ought to instead of what they are. We rarely see things just as they are and it's a fortunate trick that will make things look better, a thrice fortunate trick that will hide a defect and give a feeling of comfort and pleasure.

Many a decorating problem may be solved easily if you know the underlying principles or requirements of good decorating.

Two of our chief requirements are spaciousness and repose. These go together and bring satisfaction. How can we overcome the too small rooms that seem crowded and lack repose?

Lines and forms and colors all have their own meanings in decoration. Long horizontal lines, the lying-down position, express tranquility. Vertical lines express spiritual exaltation, striving, inquietude. Broken lines and slanting lines express motion, activity.

Too many objects and too many contrasts take away space and the feeling of repose.

How are the pictures hung? By two slanting cords that show plainly in contrast to the background? Two yertical cords will be better, and a hanging that doesn't show will be best.

the wall.

Too many pictures make a room appear crowded. Pictures long horizontally are more reposeful than narrow up and down ones. Small pictures hung in groups that follow an oblique line and arithmetical progression lead the eye up and insist on activity.

Pictures should be hung with their centers of interest on a line at about ey height. H. H.

OPINIONS ON THE MOP WRINGER.

HAT the mop wringer is a convenience in which Friend Husband should invest immediately, if he has not already done so, was manifest in the letters in response to Mrs. G. K.'s request for opinions as to the practicability of this labor-saver.

The following is a portion of the opinions of housewives who have given the mop wringer a thorough test.

The mop wringer certainly does pay, not only in labor but in time. It avoids that dirty soaking that your hands so dislike. I prefer the small hand-lever kind that fits any substantial pail. If you haven't a mop wringer, get one.-Mrs. C. D. H.

The mop wringer saves your hands and your back, also much time in doing the wringing. The one I use fits the tub, boiler, or mop pail equally well. You can use boiling water or lye if necessary in mopping, and your hands need not touch the water .-Mrs. M. D.

I would most enthusiastically advise Either make the cord so short the pic- Mrs. G. K. to get a mop wringer. If

ple task to keep them white with no bad effects on the hands. I bought mine twelve years ago at the State Fair, and wouldn't do without it .-Mrs. L. W.

Have used my mop wringer for several years. I like it for two reasons, I can use much hotter water and don't need to bend nearly as far to wring out the mop—a boon to a tall person like myself.-Mrs. N. F. B.

With my mop wringer, it takes less than ten minutes for me to keep the linoleum in my kitchen spick and span. I paid \$3.50 for mine, which



Vouching for the Mop Wringer.

fits on an ordinary pail, and am delighted with it.-Mrs. E. J. P.

TASTY VEGETABLE RECIPES.

THAT the housewives of the state believe in vegetables for vitamines was shown in their contributions in this week's contest. Of a large number of varied recipes, the following were chosen as the prize winners:

Scalloped Corn. In the bottom of a baking dish place a layer of cracker crumbs, a layer of corn (the dried corn may be soaked), then salt, pepper and a sprinkle of sugar. Then repeat the layer of crumbs, corn and seasoning, finishing with a layer of cracker crumbs. Add enough milk to sufficiently moisten the crumbs, and dot with butter. Bake three-quarters of an hour. Tomatoes and onions may also be served this way.-Mrs., C. B., Litchfield, Mich.

Creamed Turnips and Celery.
To two cups of diced cooked turnips, and one cup of diced cooked celery, add salt, pepper and a heaping tablespoonful of butter. Serve with a whitesauce made of one tablespoonful of butter blended with one tablespoonful of flour and one cup of hot milk.-Mrs. W. P., Caro, Mich.

alloped Cabbage. Cut a medium-sized cabbage into small pieces and cook in salted water until tender. Place a layer of the cabbage in a baking dish and cover well with white sauce, then a sprinkling of grated cheese, and repeat until the cabbage is used. Cover the top with buttered bread crumbs and bake fifteen minutes.-Mrs. N. F. B., Parma,

The two remaining prize winners were Mrs. E. A., of Lyons, Michigan, and Mrs. C. M. C., of Reed City, Mich. Their recipes will appear next week

How to Can Meat at Home

In order of greatest consumption of meats on the farm, comes pork, beef, mutton, chicken and veal. The greater consumption of pork is due primarily to the fact that the home-curing of pork is an old practice and beef, in the past, either had to be corned or eaten fresh. Recent scientific discoveries in canning methods have proven that beef and other meats can be canned satisfactorily, giving the farm family the privitege of enjoying their own home supply of fresh meat during the spring and summer months instead of depending upon the butcher. instead of depending upon the butcher.

Meat is ready to be canned as soon as the animal heat is out of it, and cut up in pieces favorable for handling. It should be handled in a clean manner and may be packed in the cans raw or cooked. Many people prefer having it cooked first, forcing the argument that it adds to the flavor of the meat. This cooking process may be either by boiling, roasting, stewing, frying or broiling, using the process most suited to the cut of meat.

frying or broiling, using the process most suited to the cut of meat.

It is not necessary to make this cooking process complete. The meat may be cooked only until the seasoning is thoroughly cooked into the meat. Searing steak on both sides will tend to hold the juices in the meat and will give a better flavor than when canned raw. If meat is only partially cooked, it should be in the hot water bath the same length of time as the uncooked meat, but if thoroughly cooked the processing period may be shortened.

Wipe the meat with a damp cloth and slice and cut in pieces convenient for serving, removing gristle, bone and surplus fat. Pack closely in thoroughly sterilized jars to within one inch of the top. Add a small piece of fat to the top, fill the jar with liquor in which the meat was cooked. If there is not a sufficient amount of this liquor to fill all the jars, boiling water may be added. When raw meat is being canned, the jars are filled with boiling water and a teaspoonful of salt to each quart is added. Adjust the rubbers and lids, screw the lids down into position and take half turn back. Place the jars in a hot water bath prepared as follows:

In a wash boiler or large kettle place a wire or wooden rack so the jars will not rest directly on the bottom. Fill the boiler with warm water until the water level is within two inches of the ten of the ten of the same water until the water level is within two inches of the ten of the ten of the same water until

In a wash boiler or large kettle place a wire or wooden rack so the jars will not rest directly on the bottom. Fill the boiler with warm water until the water level is within two inches of the top of the jars. Cover the boiler or kettle closely and heat gradually to the boiling point, and boil for three hours. Remove the jars and finish sealing at once, store in a dry cool place. For those who possess a steam pressure cooker, the packing process is the same, but the jars are completely sealed and placed in the cooker according to the time designated on the meat canning table, a pressure of fifteen pounds for forty minutes. The cooker is then removed from the stove and the pressure allowed to drop gradually. This is necessary so that the contents of the jars gradually cool and will not break when cold air strikes them.

Any kind of meat scraps, stews, roasts, steaks, sausage or soup may be canned after this method and the housewife can always feel certain of a supply of delicious home-canned meat that is quickly prepared for serving. All that is necessary is to re-heat it, or it may be served cold. It makes an excellent dish for hot weather, requiring only a small amount of heat to prepare for serving.

(Further information regarding the swing and the proper for serving the proper for serving the prepare for serving the prepare for serving.

Orange Ice.

Orange Ice.

Orange Ice.

(Further information regarding the curing and canning of the home meat supply will be found on this page next week).

Why you should UNDERWEAR

Knit Underwear Protects Your Health

DECAUSE, being knitted of softspun yarns, it is porous and keeps a thin layer of warm air next your body, so protects you from sudden chilling.

Because you can select a weight that suits your needs-medium for early fall -heavy for winter. And when you do perspire, the moisture is quickly absorbed and evaporated; your body stays dry and you are less likely to catch cold.

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Use this department to help solve your household problems. Address your letters to Martha Cole, Michi-gan Farmer, Detroit, Mich.

SAUERKRAUT SEASON!

Could you send me a recipe for making sauerkraut?—Mrs. L. D.

For making sauerkraut, remove the outside leaves and hard core of cabbage. Shred and pack in layers, three or four inches deep, in a crock or keg. Sprinkle every layer with salt, repeating the process until the cabbage is within a few inches of the top. For every 100 pounds of shredded cabbage use ten cups of salt. Press the cabbage down until the brine covers it, Place a few leaves over the top, arrange a clean board or plate over the leaves and weight it down with a heavy block. Limestones should not be used for weights, because of the acid in the brine. Remove the scum which forms on top, and see that the kraut is kept covered with brine. Keep

in cool place for two or three weeks and it is ready to use.

TO MAKE BOLOGNA SAUSAGE.

Would you please send me a recipe for making bologna sausage?—Reader. This recipe for making bologna sau-

sage has excellent keeping qualities.

2 oz. black pepper 1 oz. maze ½ coriander

Grind the beef and let stand thirtysix hours in a cool place. Then grind the pork and mix with the seasoning and water. Work the mixtime thoroughly until it becomes sticky and of a dull color. Stuff into beef casings or hog casings, dividing into links about a foot long. Hang in a cool place twenty-four hours. Smoke well and then place in water of a temperature of about 175 degrees (far below boiling point) for about forty-five min-Then plunge into cold water



Doings In Woodland

Rolly Helps Those In Need

BRUIN stayed as Rolly's guest for ried. Hastily preparing supper, he some time after Rolly had helped sat down to eat alone. him when the bees became so

saucy. Whenever Bruin mentioned leaving to go on his trip to the other side of the mountain, Rolly Rabbit he could. would say: "Just stay with me a little longer and some day I will go with you."

And so Bruin stayed. Rolly had made a good strong bed for him, as well as a big comfortable chair just his size. These two odd friends were very happy together.

Each had his own work to do. It was agreed between them that Rolly would do the housework, while Bruin brought the food and cut the wood.

One day after Bruin had been out hunting food all day, he came home very tired and hungry. As he stepped inside the door of their little house, he was surprised to find no one there.



Rolly Spent the Afternoon Cutting Wood.

"Yo! Ho! Rolly Rabbit, Yc! Ho!" called Bruin. His voice only echoed through the

empty house, and out into the Big

At the door he called, "Roll-e-ey, Roll-e-ey," But no answer came.

Where could his friend be? He wondered what he should do. Perhaps Rolly was only calling at a neighbor's and did not realize it was getting late.

He would go and see. When he called at Sammy Squirrel's, he was not there. At Willie Woodchuck's house, Mrs. Willie Woodchuck said she had been away all day visiting so had not seen him at all. At other neighbors where Bruin called, they could tell him nothing of Rolly's whereabouts.

Bruin, went home very much wor- porridge."

Suddenly he heard a noise outside Running to the window he saw Rolly Rabbit skipping home as fast as ever

"Why, Rolly, where have you been?" asked Bruin as he came in. "I have been so worried about you."

Dear Little Folks:

Thanksgiving is almost here, and you are all planning on what a big time you will have that day, when you won't have to go to school. I wonder who can tell me why we have Thanksgiving Day and what the people did on the first Thanksgiving Day

Here is another riddle that was sent in for you to guess. One-half of twelve, divide by one-fifth of seven, and you'll soon decide that the answer is eleven. That is a regular arithmetic problem for you to think out. It was sent to me by Raymond Huntwork. Perhaps his name accounts for its being a hard one

The postman brought me some nice drawings, this week, too, and I will try to print some soon.

With Thanksgiving greetings, AUNT MARTHA.

"I was just over to Frankie Fox's house," answered Rolly. "I heard today that Frankie Fox was sick and I went over to see if I might help him. I found Mrs. Frank with very little wood, and so I spent the afternoon am sorry to have caused you so much worry."

"As long as you were doing such a kindness, we won't think about that," smiled Bruin. "It just proves to me that it doesn't ever pay to worry. Let's finish supper now. You must be hungry, after chopping so much wood.'

"Right you are," said Rolly sitting down to the table. "Please pass the



murumamamamamamamamamama Color Your Butter

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"Dandelion Butter Color" Gives That Golden June Shade and Costs Really Nothing. Read!

Before churning add one-half teaspoonwood, and so I spent the afternoon cutting some for her. Before I finished the pile it was growing dark. I am sorry to have caused you so much Butter Color" costs nothing because each Butter Color" costs nothing because each ounce used adds ounce of weight to butter. Large bottles cost only 35 cents at drug or grocery stores. Purely vegetable, harmless, meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless.

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Found in Our Letter Box

Some Interesting Merry Circle Letters

Dear Uncle Frank:

I wrote to the Letter Box once before but did not see my letter in print, so thought I would try again.

I hope to be a Merry Circler soon. It makes me out of patience when I read all the nice letters other boys and girls write, and to fhink I can't write one.

write one.
Well, my letter is getting pretty long, so I think I will quit.—Your loving niece, Esther Hickmott, 526 Pine Street, Rochester, Michigan.

Why should you be out of patience? You may write letters even though you are not a Merry Circler. However, writing letters will never make you an M. C. You will have to work the contests to become one.

Dear Uncle Frank:

How are you and your best friend,
W. B., coming along? I hope you are

There is a club down here in Standish but I didn't join it. Do you think I should?

I am eleven years old and in the

I should?

I am eleven years old and in the seventh grade at school. My average last term was one that no one could beat, because it was 100. Was not that good?—Your niece, Anna E. Smela, M. C., R. 1, Standish, Mich.

Yes, I would join the club if I were you. Congratulations on your school standing.

Dear Uncle Frank:

I received my card and pin some time ago, but could not find time to thank you for it.

While I was on a vacation this summer I fell sick with diphtheria. I was quarantined for eleven days. I found it rather long. After I got well again I went home. I had no thought of writing then.

I am going to school and I like it.

I am going to school and I like it very much. I am in the tenth grade. My subjects are algebra, physical geography, modern history, and English.

Thomas Hurd said you would like to hear from someone that likes algebra. I do.

Many thanks for the card and pin.—
Your niece, Doris Desormeau, M. C., Schaffer, Mich.

I am glad to know that quite a few Merry Circlers like algebra. You certainly had hard luck on your vacation.

Dear Uncle Frank:
I would like to become a niece and
Merry Circler. I am a city girl, but

have been a reader of the Michigan Farmer for some time, and am espe-cially interested in the girls' and boys'

page.

I read in last week's issue, a letter written by Thomas Hurd, M. C., who would like to hear from somebody who finds algebra easy. Well, that's myself. I certainly do like algebra, and equations are the easiest things to work out. Algebra doesn't get me in the neck. I got ninety-three in it last month.

I would like to have some of the boys and girls write to me, as it really does cure the blues.

I have often thought of writing to

I have often thought of writing to you, but never got around to it, but the incident about algebra just whispered into my ear, "Here's your chance," and I got my paper ready and wrote to you.—Your would-like-to-be niece, Kathryn Kurry, Hancock, Michigan.

I am glad the algebra incident got you started. It's nice for young folks to write to each other. I know from experience that letters help the blues. A good way to start a correspondence is to take part in the correspondence scramble.

Dear Uncle Frank:

Just to let you know that going to high school hasn't killed me yet, I am writing this letter.

Well, uncle, how many windows have you soaped? None? Well, isn't that fine? Neither have I. There isn't much fun in making other people work, is there?

Do you remember the time I won

work, is there?

Do you remember the time I won that pencil? Well, anyway, I have used it almost continually since I got it. Although it has given me, if one, at least ten scares. I wouldn't want to part with it.

I hope to remain your freshie niece, Lucille, Stuckey, R. 3, Redford, Mich.

No, I behaved on Hallowe'en night.

You have the right attitude regarding pranks. The way some of the M. C.'s have written me, it is apparent they think I am a sort of pranky Frank, but I am not. Sometimes I am as sober as a deacon.

Dear Uncle Frank:
This is my first letter and I am answering the riddle contest. Uncle Frank, do you have a vivid imagination? I have. My English teacher tells me that I write excellent stories. I started to write a continued story for our school paper, called the "Aw-

gowan." Do you catch on to what it means?
You asked to know who liked algebra. I loved it. Geometry is hard, but very interesting. Every time I say something I have to prove it!
I think I should love to be an author in the future! What dost thou thinketh of the idea?
Gee, I hope I win. I've tried my very best.—A-soon-to-be-niece, Mamie Balich, R. 1, Benton Harbor, Mich.
A proper mixture of perspiration

A proper mixture of perspiration and inspiration make a good author, provided you have patience enough to hold out until the public recognizes you as one. Perhaps you will say, "Ah! go on," to that. You must be unusual to like the necessity of proving everything you say.

Dear Uncle Frank:

Dear Uncle Frank:

I have answered contests before but have never won. It is a lot of fun to answer contests whether you win or not. Do the other cousins thing so? I used to live in Michigan but am now living in Columbus, Ohio. While we were in Michigan my father ordered the Michigan Farmer. We still get it and enjoy it very much.

I wondered if I could enter in contests if I do not live in Michigan? I have received a Merry Circle card and pin, and enjoy wearing it a great deal.

I will close, hoping to be accepted as a niece.—Elizabeth Szalcy, M. C., 1349 Parsons Avenue, Columbus, Ohio. Yes, you can take part in all the

Yes, you can take part in all the activities of the Merry Circle, whether you live in Michigan or not. I am pleased to know you are so interested.

Dear Uncle Frank:

Dear Uncle Frank:

I was pleased that I got the membership card and pin.

Last week we had a social at our schoolhouse. It was a pie social. I had a good time. I took a pie.

We had some Hallowe'en plays and I was a ghost. We had some good cider, too. There were thirty-one pies and we got \$41 out of just pies.

They sold candy and cider for \$52.

—Your niece, Grace Silvis, M. C., Petnwater, Mich., R. 1.

I bet your pie was good Lam work.

I bet your pie was good. I am won-

dering what kind of a ghost you would make. Were you the spooky kind?

Dear Uncle Frank:

I think it would be an excellent plan to have smaller branches of the Merry Circle distributed around in the different localities where there are Merry Circlers. I know we could get quite a few members in this neighborhood and I am willing to do my part. I think it is lots better than electing certain officers and have it all in one. We could have you as the headquarters, and have meetings and everything and have lots of fun. I also believe that this may start club work of some kind, as we haven't any around here. Hoping this will meet with your approval, I remain an interested M. C.—Lucille Gilbert, M. C., Portland, Mich. I am glad to get your viewpoint on

I am glad to get your viewpoint on local circles. We do not want our circle to compete with any other boys' and girls' club activities which are now going on. We want something different, but still useful.

Dear Uncle Frank:

I would like to join your Merry Circle. I have been reading the letters of the other boys and girls, so thought I would write, too. I hope I receive a pin and card.

I wonder how many hove and cirls.

a pin and card.

I wonder how many boys and girls are interested in rabbit raising. I have nine rabbits. Two are old ones, one is a Belgian and the other is the same color, but is an Angora. Seven are about a month old. I am raising them to sell.

It would be impossible to have a local circle here, as I have never seen a letter from this part of the country. I think the circle is all right just as

Hope the waste paper basket and this letter doesn't become friends.—Yours truly, Charles Lester, Mayville, Mich., R. 1.

Apparently you are rapidly getting into the rabbit business. Because you have not seen letters from your section in the Letter Box does not indicate there are not many M. C.'s in your section.

State Champion Dairy Judging Team



T HESE three boys from Wash von the state championship in judging dairy cattle at the State Fair. They won out in competition with fifteen other teams in the state. The one to the left is Roland Stein, of Ann Arbor township; in the center is David Mayer, of Northfield township, and on the right is Walter Maier, also of Northfield township.

As individuals these boys ranked first, ninth and seventh respectively among forty-five competitors, and as a team they were fifty-three points ahead of the team winning second place.

Roland Stein, with James Galluo, of the Upper Peninsula, and Starr Northrup, of Wayne county, (the two boys ranking as second and third individuals at the State Fair), represented the Michigan Boys' and Girls' Clubs in the Dairy Judging Contest of the National Dairy Show at Syracuse, New York. They won third place in competition with twenty teams, Stein stood ninth among sixty competitors.

WASTE BASKET CONTEST.

M OST all of you know the waste basket pretty well, or, at least, your letters do. Also, most of us think we can write poetry, and the peculiar thing is that often the younger poets are the best ones. So, with good acquaintance with the waste basket, and poetic ability, it seems to me that I ought to get some good poems on the Waste Basket. For that reason, this week we will have a Waste Basket poetry contest.

The two best poems will bring their writers handy tubular flashlights; the next three, handsome nickled fountain pens, and the next five, cute little boxes of candy. All good poems will bring their writers Merry Circle buttons and cards if they are not now M. C.'s.

The poems must be in on or before November 30, as the contest closes then. Perhaps you had better write your poem before Thanksgiving, as it is hard to write a poem on a full stomach-or, I should say, write a poem when the stomach is full.

M. C.'s, please don't forget the title after your name.

Send your letters to Uncle Frank, Michigan Farmer, Detroit, Michigan.

THE CORRECT ANSWERS.

The following are the correct answers to the Read-and-Win questions of November 10:
1. 12,000—13-485.
2. Twenty-eight inches—6-478.

3. I will lift up mine eyes unto the hills 482-10.

Seventy-three—19-491.
By rubbing spots with lard and washing in hot suds—15-487.
No—3-475.
Yes, practically—492-20.
Now, or in fall—9-491.
R. B. Reber—7-479.
With each succeeding rest pe-490-18.

THE READ AND WINNERS.

WE had an excellent response to VV the last Read-and-Win Contest. Quite a few had all the answers right so we had to make neatness the prime consideration. Those who failed mostly had question number two as the cause of their stumbling block.

The following are the prize win-

Flashlights.

Martha Ferron, Powers, Mich., R. 1. Maydah A. Neddermeyer, Fair Haven, Mich.

Georgia Brown, of Hastings, Mich.

Clara Lyons, Elsie, Mich., R. 1. Victor Sisson, Freeport, Mich.

Candy.

Dorothy McGinn, Brutus, Mich.
Thelma Corey, Litchfield, Mich.
Bernice Wright, Saranac, Mich.
Lillian Olsen, Fron River, Mich.
Dorothy Gittins, South Lyons, Mich.

Several have asked if the Rex Ellis who wrote the memories poem which appeared in the magazine section, is th M. C. Rex Ellis. Yes, he is the same fellow.

Some Trapping Secrets

By Isaac Motes

O catch coons dig a perpendicular hole in the ground four or five feet deep and some three feet square, in a part of the woods which you know is frequented by them, and near a stream of water. Into this hole throw a quantity of crawfish and other small fish. Coons are very fond of fish, and when they find them here they get into the hole after them and cannot get out again. The sides should be smooth and perpendicular, and it will be better if the soil is loose and loamy rather than hard clay, so the coons cannot get a foothold in it and climb out. If the soil is loose it will crumble when they attempt to climb up the sides.

A trap of this kind may catch a mink, as they are also water-loving animals, and fond of fish, but are a good deal more suspicious of anything to which human scent attaches. To catch a mink the pit should be five feet deep, as a mink has a longer body than a coon, and can jump higher.

Muskrats can also be caught in this manner if near the water, though if you don't visit the place soon they may dig out and get away. A better way to catch muskrats is to sink a barrel into the ground near the water, with the top just level with the surface of the ground, and put some green vegetables, parsnips or turnips, in the bottom. The inside of the barrel should be smooth, otherwise the muskrats may get out, though they are not very good climbers.

Another way to catch muskrats is to take a thick, heavy, water-tight barrel and sink it into the water out in some shallow pond or lake where you know there are muskrats, and where where the water comes up to within two or three inches of the top of the barrel. Put sufficient rocks inside the barrel to weight it down. Throw in a quantity of vegetables or fruits, such leaves and the like. Visit the barrel in your boat early every morning, and you are apt to find anywhere from one to a dozen muskrats in it. They get in after the fruits and vegetables, and cannot get out again. In very cold thin around the outside of the barrel.

-4

Remember that muskrat pelts are worth real money nowadays. A friend in Iowa wrote me not long since that a prime muskrat pelt would buy ten bushels of good Iowa corn.

To catch wolves, foxes, wildcats, opossums or coons in a steel trap take a barrel and knock out both ends. Drive a staple on the inside, about midway from the ends, and tie a live rabbit or chicken by the legs close down to the staple. Then take the barrel out some distance from the house into the field or woods, or wherever you have seen signs of any of these animals, locate it in a smooth place and prop it with rocks or pieces of wood, with the side to which the chicken or rabbit is tied resting on the ground. Then set four good No. 11/2 or No. 2 steel traps, two at each end of the barrel, so that an animal cannot reach the chicken or rabbit in side without getting caught.

In winter, when timber wolves, coyotes and foxes are hungry, and inclined to prowl around farmhouses, this is a good way to catch them, for when the animal in the barrel sees them approaching it begins to flutter or jump, and in the case of a chicken it will doubtless squall, and this will excite the night prowler, and in its eagerness to seize its prey it will rush up to it regardless of human scent about the place, which it might not do if the chicken or rabbit were not there fluttering or jerking.

Try this scheme this winter, and you may have better luck than you think. If you cannot get a live rabbit, don't hesitate to bait with a chicken, for if the four traps are set properly an animal will be almost sure to get height all the time. Select a place a foot into one of them before it gets

It will be best to fasten the chain to a rock or a good-sized piece of timber, father than to a stake, so the animal can drag it away slowly. If fastas apples, parsnips, turnips, cabbage ened to a stake they may gnaw or twist a foot off and escape, but if fastened to something they can drag a little way they will delude themselves into believing they are escaping, and will drag the weight until tired out, and you can easily follow them next weather keep the ice broken up and morning and shoot them in the head with your twenty-two caliber rifle.



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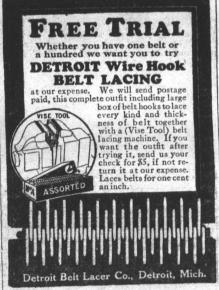
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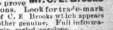
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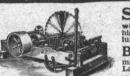


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"Barly in November, I started giving Don Sung to 36 barred rocks which had been laying only 3 or 4 eggs a day. The first month showed a big gain. Yesterday, Jan. 16th, with the temperature five degrees above zero, I got 34 eggs from these same 36 hens. In the first 20 days of January, I got 596 eggs, or an average of about 30 a day. I wouldn't think of keeping chickens without Don Sung."—H. G. Casper, Orrville, Ohio.

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36 Hens Lay Preparing Turkeys for Market

Turkey Killing Requires Care

T URKEYS should first be deprive Number one turkeys should be well ed of all feed for twenty-four hours, but given plenty of fresh clean water which helps to clean the crop of all feed. When ready to kill, hang the-bird up by the feet, lock the wings over the back, then holding the head in one hand, with a sharp, narrow-bladed knife cut across the veins in the throat by making a short cut inside the mouth at the right side of the throat, about three-quarters of an inch back of the groove in the roof of the mouth. After making this cut, thrust the knife blade up through the groove in the roof of the mouth and into the brain at the back part of the skull.

When the brain is reached, the bird will quiver. This loosens the feathers and death is instantaneous. Commence picking at once. If the bird has been properly stuck the feathers pluck easily. Remove the main tail body feathers. A twist removes the tail feathers while a straight pull will

grown, in good flesh and well dressed. A torn skin, crooked breast bone or a poor dress may mean a number two or a cull. Number one turkeys are in demand. Be sure you do not lower the grade in dressing or handling.

PREVENTION OF COLDS.

THINK that plenty of new hard THINK that pickey of the pullets helps to prevent fall colds. It helps indirectly by fattening the pullets and the fat plump pullet seems the most resistant to colds. The birds that sneeze the quickest are apt to be thin, late-hatched pullets that lack a pad of fat to keep them warm on the chilly damp fall days.

One of the bad features of intensive poultry keeping is that fact that nature does not seem to have constructed the nostrils of fowls to live where and large wing feathers first, then the there is any dust, dirt or respiratory germs. The wild birds live in the open where the ventilation is wonderful and



Last Spring's Chicks Should Now be in Permanent Quarters.

set them. To avoid tearing the skin they do not catch cold. The hen remove all feathers with a pull in a straight line with the growth of the feathers. Some markets prefer the small feathers on the wing tip left on, while others desire a clean wing and clean pick throughout. Dressing directions should be secured from the company to whom you expect to ship. The dry-picked turkey always sells better than the scalded one, except perhaps on a local market for quick home consumption.

As soon as picking is finished the turkeys should be cooled for at least twelve hours to a temperature just above freezing, but should not be frozen. If the air is not cold enough they may be cooled in ice water. If they are not properly cooled before packing, they may be in bad condition when they reach the market.

Use only clean barrels or boxes for shipping. Do not pack in pasteboard containers. Secure shipping tags from the company to whom you expect to ship, and place two on each container with your name and address on the reverse side, and also name and address, together with the weight, the number of birds, grade of turkeys and the name of the company on the inside of each container.

Line the barrel with clean manilla or straw wrapping paper. Do not use old newspapers. Wrap the head of each bird before packing, either with a folded strip of clean paper or by slipping a small paper sack over it and tieing it on. Be sure the bird is absolutely clean, particularly the feet.

the wall of the barrel and leaving the body and legs well straightened out. Follow around the barrel until a layer is complete, then place a layer of clean paper and another layer of turkeys until the barrel is filled. Pack them tight so as to permit as little moving about as possible. Do not head the barrel, but nail in cross cleats and pad well with clean paper and cover with burlap. Only one grade of turkeys should be packed in a single container. Barrels should hold from 200

catches cold and her nostrils immediately close. The accumulations of mucous begin to gather and the bird has to breathe through its mouth. This increases the danger from bronchitis and pneumonia. The gathering inflammation soon closes one or both eyes and the bird is usually said to have roup. If you give birds the best of care they seem to thrive, but the construction of the nostrils seems to give them a handicap in keeping well unless the living conditions are right. Many failures with large flocks may be due to the constant inroads due to colds and various respiratory infections.

On the sunny fall days use the time to advantage in cleaning the dropping boards, filling mash hoppers, and refilling the nests with straw. Then a day or two of bad weather will cause no trouble in the management of the flock. The poultry keepers who neglect the birds on sunny days because the birds don't need the care, are apt to fail. They are also the same ones who neglect the birds in bad weather because the work is then very unpleasant.-G.

LIGHTS IN POULTRY HOUSE.

A RTIFICIAL lights seem to advance the date of heavy production to the months when fresh eggs are scarce and high in price. Poultrymen with large flocks of mature pullets seem to find the lights profitable. Pack tightly, placing the back to try owned and they are all to be used breeding stock, I think little is gained by using lights. Increased winter egg receipts are often cancelled in lowered production at the time for early hatching and the chicks may be lacking in vigor.-K.

POULTRY MEETING AND SHOW.

THE Michigan Poultry Producers' Association will hold the annual. to 250 pounds, and boxes 200 pounds. auspices at Grand Rapids, from No- ifications in the breeding pens.

vember 27 to December 1. This show is without doubt the largest practical poultry show in the state. It will contain many features of great value to those who are in commercial poultry raising.

The association will also hold a meeting to discuss cooperative marketing and the standardization of marketing grades of eggs. Mr. Harry R. Lewis, of the International Baby Chick Association, will be one of the principal speakers, and on Wednesday, November 28, Mr. Hale Temant, of the markets division at the College, will give the results of his investigation in the needs and possibilities of cooperative egg marketing and will suggest a plan for this state.

This will be the poultrymen's great get-together, so don't fail to attend.

WHEN MALE BIRDS MOULT.

Some poultry keepers have won-dered if the moulting period of male birds has any relation to the laying ability of the hens they will produce. I can find no experimental data on that subject, but do not believe the moulting period of a cockerel has much relation to its value as a breeder during the following year. Moulting of hens has been considered a point in culling because of the relation of the moulting to continuous egg production. The late moulter has had a longer period of production throughout the fall season when eggs are bringing good prices.

Some poultrymen believe that hens which moult very early and those that moult very late are the best layers. The hens that moult in between are not so good. The early moulter sometimes finishes the moult and lays throughout the fall. The late moulter continues to lay in the fall before her moulting period. But the hens that moult in late summer and very early fall often fall down on their autumn egg records. The value of the moulting test for layers seems more under fire than other points in culling.-R.

BUYING BIRDS IN FALL.

WHEN buying pullets without seeing them first, it is well to remember that the word pullets is a very broad term. They may be properly matured birds, just about ready to lay. Sometimes they are late hatched birds which have been underfed and trampled by older stock. Such birds may not lay until nearly spring in spite of the best management. Then their original cost plus the winter feed bill often cancels the chances for profit. I think pullets should be sold according to their weight rather than according to the hatching date. I do not mean at the market price per pound. Birds hatched in May weighing four or five pounds in the fall might be better winter egg producers than March hatched birds which were victims of bad brooding conditions and insufficient feed. When you can see the birds you buy or have them shipped on approval, you are safest. A hundred mile auto trip to inspect stock that is purchased is often a profitable method. The express you save helps with the gas bill.-G.

WRY TAILS.

One of the cocks and a number of the pullets that I had intended to use for breeding this spring have wry tails. Will this fault be transmitted to the chicks?—H. A. H.

Wry tails are a disqualification for exhibition stock, and birds with that defect would probably not be used in mating for show stock. Some of the chicks might have a tendency to wry tails. In breeding only for heavy egg production a bird of good laying type might be used in spite of the wry tail, but even then it is best to combine beauty and utility as much as possible Michigan Poultry Exposition under its and not use birds with serious disqual-



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WATCH THE RAM.

MAKE it a point to see that the ram is thrifty, vigorous, and not over-fat at mating time. If the ram is too fat, he will be clumsy, slow, and likely to prove impotent.

The mating season is strenuous for the ram, and he must be in the best physical condition. This requires that he have plenty of exercise; a regular supply of salt and fresh water; a suitable grain feed, such as equal parts of corn, oats and wheat bran.

We often find that a ram which did excellent service one year will not always render the same quality of service the following year. Nor can one depend upon a young, strong-appearing ram lamb. The good sheep breeder must have first-hand knowledge of the condition of the head of the flock through frequent examinations.-Rey-

DISCRIMINATE AGAINST BUCK LAMBS.

THERE is a tendency in the mar-kets to discriminate against the meat of buck lambs. After the first of August these lambs develop a strong taste and odor. Whenever a consumer gets the meat of these buck lambs served, he, right away, begins to lose his appetite for lamb, with the result that consumption is reduced. This, in a general way, reduces the price that might otherwise be received for the lamb crop. Farmers alone can remedy this situation by seeing that the ram lambs which are not to be retained for breeding purposes are castrated at the proper time.

FEED TO MAKE MEAT.

E XPERTS of the United States Department of Agriculture have been studying the amount of food required to make a pound of meat. Their investigations so far have indicated that it takes six pounds of grain and six pounds of hay to produce one pound of lamb live weight. Ten pounds of hay and ten pounds of corn will make one pound of beef, while five and sixtenths pounds of corn will make one pound of pork.

THE TON LITTER CONTEST.

A T present, a Poland China litter of ten pigs is leading the Michigan ton litter contest. These ten pigs weighed 2,840 pounds on the day when they were 180 days old. The litter is owned by B. J. Brown & Son, of Jonesville.

There are fourteen ton litters in the contest at present, five of them are Chester Whites, one is Berkshire, and the rest is split evenly between Poland Chinas and Duroc Jerseys.

The leading litter has made remarkable growth, especially in the last two months when the porkers were putting on weight at the rate of 2.32 pounds per head per day.

There were four litters which gained the ton mark in this contest at six months. One litter of nine pigs weighed 2,060 pounds within that time, while a litter of twelve half-blood Duroc Jersey-Poland Chinas weighed 2,630 pounds within six months. This litter led the contest for a short time, but dropped back because of insufficient mineral matter in the ration.

TON LITTERS IN EATON COUNTY.

mer When Writing to Advertiser litter in 180 days. The time limit is 2,149 pounds.

up and it has been found that but two of the original eighteen were able to make the mark, and one of these was

The girl is Helen Strange, a pig club girl of Oneida township, whose nine pigs at the age of 180 days weighed 2,014 pounds. Her pigs were of the Duroc breed.

Ivan Bursley also made the ton litter with his ten pigs from a Poland China sow and a Duroc sire weighing 2,055 pounds. Mr. Bursley is declared winner of the contest, receiving a free trip to the International at Chicago.

EAT SCRUB BULL.

HE farmers of Ogemaw county fittingly celebrated the passing of the last scrub bull owned by members of the Ogemaw Cow-testing Association. This bull was fittingly honored by being barbecued last month. Over 500 people enjoyed a mammoth feast of bull meat on the farm of Enos Rosebrugh, near West Branch. About 300 pounds of meat, 114 loaves or bread, and a lot of other trimmings, were consumed, the business men of West Branch cooperating in furnishing the supply.

WITT BROTHERS' FOURTH AN-NUAL SALE.

THE Witt Brothers, Felix and Joe, live down in that rich section of Lenawee county, near the state line. They are good farmers, good hog men, and good fellows. There was a jolly crowd present at their late sale of Big Poland Chinas, and everyone seemed to have a good time.

The offering had been well cared for, was very growthy, and for the most part showed a type known to good hog men as up-to-date. The get of their herd boar, "Rainbow Giant," the sire of many of the State Fair winners, was in strong demand. A junior boar pig sired by him that stood second in a strong class at the State Fair, was the sensation of the sale. He was finally declared the property of F. E. Haynes, of Hillsdale, at \$275, and will no doubt continue to create a sensation in future swine shows. The prices all through the rest of the sale ran quite uniform, and can best be described as conservative but satis-Thirty-two head, mostly factory. spring pigs, sold, for \$1,112, an average of \$34.75 each. The names of the buyers are as follows:

L. W. Seigle, West Unity, Ohio; F. E. Haynes, Osseo; W. O. Hackman, Napoleon, Ohio; Elmer Mellen, Adrian; Sherman Charles, Radnor, Ohio; C. A. Close, Morenci; W. E. Livingston, Parma; George Tompkins, Cement City; and W. L. Ayres, Kuney Iffland, Paul Bury, John Bury, Paul Iffland, Fred King, R. C. Rickard, Irvin Reed, Claud, Kinnamon, Gus Van Fernetti, all local people.-Pope.

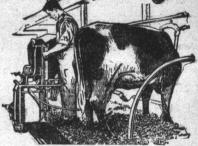
OHIO LITTER CONTEST.

TN the Ohio ton litter contest, forty I litters qualified by coming within the ton limit. In one county, there were seven such litters raising by five men, two of the men raising two ton litters each.

These finals show that more than forty-five tons of pork were raising by forty sows within six months from the day the litters were farrowed.

Some of the high marks in this contest were twelve pure-bred Duroc-Jer-N Eaton county, there has been seys, weighing 2,651 pounds; eleven quite a little activity in a ton litter pure-bred Poland Chinas weighing contest. Eighteen young people enter- 2,600 pounds. Nine half-bred Poland ed to produce a ton of pork in one Chinas and Duroc Jerseys, weighing

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10 Reg. Guernsey cows, some A. R. Record May Rose breeding, \$2,600 for all; herd bull \$100. John Ebels, Holland, Mich., R. 2.

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Six or 8 Good Young Cows, soon to freshen. Also
Several Young Bulls of Excellent Breeding, from
7 to 10 mos. of age, at Reasonable Prices. Would
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Rag Apple No. 330126, 3½ yrs. old. Sire, Echo
Sylvia King Model, the best proven son of Champlon Echo Sylvia Pontiac. Dam, a Great 28-lb. 4yr.-old daughter of Admiral Colantha Walker. If
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Sire has 7 tested daughters all with 17 to 20 pounds at 2 years, and is from same dam as former world's record 4-year-old.

Dam was second prize 2-year-old in Michigan in 1920-21. Good individual, \$150. Send for pedigree and particulars.

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BULL, PURE BRED HOLSTEIN ready for service, reasonable prices. LARRO RESEARCH FARM, BOX A. North End Station, Detroit.

\$100 a yr. gets granddaughter of Maplecrest Korn. Heng. and 42.58-lb. cow. Bred to 858-lb. bull. Federal tested. M. McLaulin, Redford, Mich.

Registered Holstein bulls about ready for service. Extra well bred and choice individuals. Priced ht. Merle H. Green, Ashley, Mich.

Brookwater Jerseys

Bull calves for sale. Majesty breeding. Herd tuber-culosis free. Come or write. Brookwater Farm, Ann Arbor, Mich.

FOR SALE: Jersey bulls ready for service. All cows Register of Merit. Accredited herd. SMITH AND PARKER, R. 4, Howell, Mich.

Registered Jersey cattle, young bulls, for sale, Tuberculin tested Lake Odessa, Mibh.

15 Cows, 4 bulls from R. of M. Cows. Chance to select from herd of 70. Some fresh, others bred for fall freshening. Colon C. Lillie, Coopersville, Mich.

Thumb Hereford Breeders' Association can supply your needs with outstanding, well-bred registered Herefords, either sexes, polled or horned at reasonable prices. Inquire of E. E. TWING, Sectreas., Bad Axe, Huron Co., Mich.

Registered Purebred Herefords



Registered Herefodrs For sale; 12 cows and heifers, 7 bulls. RALPH

Reg. Herefords, cows, heifers and yearling bulls for write sale at about beef price. Write your wants.

BIDWELL SHORTHORNS Revolution Jr. 573938 heads accredited here 29917. Now offering 2 January roan bull calves of exceptional merit, reasonably priced. BIDWELL STOCK FARM, Box D, Tecumseh, Mich

Branch County Farm Breeders of High-class Polled Shorthorn Cattle. For Sale, 6 fine bulls nearing service age. Also a few cows and heifers. Quality and price will suit. GEO. E. BURDICK, Mgr., Celdwater, Michigan.

M ILKING Shorthorn Bull, Calved Sept. 25, 1923, Dark Roan from 1,500-lb. good roan Clay bred Cow, and Sired by Countryman's King, a great son of Glenside Dairy King and out of Bessie Thorndale 3d, Record 12,759 lbs. Also one red with little white, same age and breeding, Price \$75. Herd tested, Irvin Doan & Sons, Croswell, Mich.

For Sale: Reg. Milking Shorthorn helfers. One year-old, two, one-year-old, both roans. Write M. B. Hallsted, Orion, Mich.

For Sale, Dual-purpose Shorthorns, either sex, any age. Write M. E. Miller, Sec'y, Central Michigan Shorthorn Breeders' Association, Greenville, Mich.

WANT to buy 3 or 4 Brown Swiss cows. Must be near fresh, and of good quality. Address G. J. Goosin, R. R. 1, Washington, Mich.

OR SALE-Brown Swiss 19 Registered Cows and heifers, and 5 young bulls, priced for quick e. T. H. Love, Howell, Mich., R. 3.

HOGS

DUROCS For Sale, Yearling Gilts and Brood Sows, bred to litter mate of the Champion Junior Gilt, also in 'free-for-all' class at State Fair, and Sired by GREAT ORION. The SensArTION, two years champion at the International, for April farrow. Double immuned. Write at once for prices and breeding. Satisfaction, or money back. B. E. Kies, Hillsdale, Mich.

DUROC JERSEY GILTS
Especially long in body and well developed in form:
a valuable, practical type, Send for photos and full
description and price of this exceptional practical
stock. STATE FARMS ASSOCIATION, 307 North
Rose Street, Kalamazoo, Michigan.

The Largest and most complete herd of pure-bred Duroes in Michigan must be sold. This is your opportunity. Good boars, sows and pags. We guarantee satisfaction. Everything immunized. Michigana Farm, Pavilion, Mich.

DUROC Spring boars sired by Brookwater Satisfaction 8th, Greater Duration and Prices reasonable. Write us your wants. Norris Stock Farm, Casnovia, Mich.

DUROC JERSEYS Spring pigs either sex of March DApril and May farrow, sired by three outstanding hard boars, If you want sizetype and quality combined come and see or write us. F. J. Drodt, Monroe. Mich. R. 1

FORSALE Big Husky Durec Jersey spring boars from large prolific stock. Cholera immune. Satisfaction guaranteed. Jesse Bliss & Son. Henderson, Mich.

D UROC fall and spring boars of the best breeding and quality, at prices to sell. Fall pigs at bargain prices. W. C. Taylor, Milan, Mich.

DUROC JERSEYS AND DELAINE MERINOS CAREY U. EDMONDS. Hastings, Mich.

O. I. C's and Chester Whites Gilts sired by Mich. State Fair Gr. Champion 1921, and bred for March and April farrow to Mich. State Fair Jr. Champion 1922, the common

Litchfield, Mich. ANDY ADAMS,

Chesters Spring boars from prize winning stock, will ship on approval. Cholera Immuned. Fred L. Bodimer, Reese, Mich.

Chester Whit's Fall pigs Sired by "The pigt Mich. State Fair, '23. Measuring 62 inches long 33 inches high at 11 mos. Special offer to Mich. buyers during Nov. Write Clare V. Dorman, Snover. Mich.

Chester White Boars \$10 to \$15 each. C. O. anteed, W. H. Bentley, Lenox, Mich.

Chester White Service boars at attractive prices, also fall pigs. F. W.

O.I.C's March boars, and Sept. pigs. Sired by Giant All milk is sold in a graded pool. Fair, 1923. Mile H. Peterson, Ionia, R. 2. Mich. How Milk Consumption Was Boo

O. I. C. Big Type. Will sell cheap. Spring pigs sired by Lenghty Monster. Wt. 665 lbs. at 10 mo. 8 days old. We bred and showed more first prize winners at Mich. State Fair-this year than any two breeders in state. Newman's Stock Farm, Marlette, Mich.

O. I C. Spring boars of prize winning free. J. W. Howell, Ovid, Mich.

O. I. C's. 25 choice young boars for fall service. Clover Leaf Stock Farm,

O. I. C.'s 75 spring pigs, pairs not akin, from free. Otto Schulze & Sons, Nashville, Mich.

Registered O. I. C. Service Boars and Bred soon, four Beagle bounds.—Joseph R. Vanetten, Clifford, Mich.



Milk Producers Convene

General Progress is Indicated by Reports Made at Annual Meeting of National Federation

of the National Milk Producers' Pittsburgh, November 8-9, and this asizations of cheese-makers and cooper- war figures. ative creameries.

Cooperative marketing of milk has made rapid progress within the last few years, particularly the last three years. The reports of these various associations, of which there are twenty-seven in the national federation, were presented at this annual convention; and every one from the Pacific Coast to the New England states shows that the producers- are now coming to have an equal voice with the milk distributors; that the dealers almost universally are recognizing the strength of the cooperatives; and

raverse Inka Johanna 2d, Owned by State Hospital at Traverse City, is the State's Champion Holstein But-ter Cow, Giving 980.7 Pounds in Ten Months.

that the dairy farmers, the last two or three years, have felt the pinch of

low prices less than any other large group of farmers. What Milk Producers Are Doing.

Only a few organizations have developed to such an extent that they are distributing milk, although several associations have taken the intermediate step and handle their surplus, making ice cream, cheese or butter. The Dairymen's League is the largest member of the federation, made up of 957 locals, embracing 74,000 members. The League now owns about eighty of the 130 plants it operates. The expense for administration, advertising, etc., runs about eight or nine cents per hundred pounds.

One of the outstanding reports was that from Harry Hartke, from Pure Milk Company, of Cincinnati, Ohio. Today, this corporative owns four plants and thirty-five distributing wagons. This week they are to vote on taking over the largest independent distributor in the city, with a plant worth around \$3,000,000. In this territory producers signed notes for \$20 per cow to finance their organization.

How a cooperative can help in increasing consumption was told by C. E. Hough, of Hartford, Connecticut, where the price of milk is the highest and the consumption per capita is the greatest in the United States. The average consumption is more than a pint of milk per person daily. Producers' cooperatives tries to stabilize the supply, improve the quality and advertise their product.

Figures compiled by the New England Milk Producers' Association, and presented at this convention, show pitchfork is in your hands.

P LANS for enlarging the activities that this fall, milk prices were sixtyof the National Milk Producers' five room five per cent above the price for pre-Federation were taken at the an- war years (1910-1914) while the prices Federation were taken at the an-war years (1910-1914) while the prices nual meeting of the organization at for all commodities are fifty-seven per cent above the pre-war level, butter sociation now plans to be the national fifty-six per cent; grain forty-eight per voice of American dairymen especially cent, and hay twenty-seven per cent concerned in legislative activities. The above pre-war levels, while farm wagby-laws were revised to include organ- es are eighty-three per cent above pre-

Michigan is Heard From.

N. P. Hull, speaking for the Michigan Milk Producers, urged the federation to come to Detroit for their convention in 1924. He pointed out, in his talk on the growth of the Michigan organization, that there had been developed a better class understanding between producers and dealers by their price conferences. The Michigan Association is a non-profit organization, with nine directors who choose its officers. It has been able to conduct its business on the low figure of two cents per hundred pounds commission for operating expense, and has now built up a reserve of \$88,000. One of the outstanding features contributing to the success of the organization is the care exercised in choice of dealers, and before any dealer can buy from the association he must open his books to their auditors and furnish evidence of good financial standing.

Some Legislative Matters.

Passage of the Voigt anti-filled milk bill was the biggest item put over by the National Milk Producers last year. The federation also aided in establishing the tariff of eight cents a pound on butter, aided in the passage of some state laws regulating milk and butter substitutes, and constantly guarded against the importation of vegetable oils. Charles W. Holman,

BRAN.

Bran, bran, bran!
It's higher than the wheat;
The shuck has beat the kernel
And the bone has beat the meat.

Bran, bran, bran!
Our hats are off to you—
We bare our heads in honor
To the straw on which you grew.

Bran, bran, bran!
The system is complete
That gives the place of honor
To the shavings from the wheat.

Bran, bran, bran!
A relish for the kings,
While wheat is but a ration
For the cows, the pigs and things. Bran, bran, bran!
Gee-Whillikens and Whizz!
A quart of milk is cheaper
Than a bottleful of "fizz."

Bran, bran, bran!
The wheat is "out o' luck"
When ev'ry juicy kernel,
It is cheaper than the shuck.

the secretary, in his annual report, All milk is sold in a graded pool. mentioned that the greatest menace to How Milk Consumption Was Boosted. the dairy industry today is this group at Washington who are trying to break down the restrictions to allow free importation of vegetable oils and fats.

John D. Miller was re-elected president; F. P. Willits, treasurer, and Charles W. Holman, secretary, while Richard Pattee and Harry Hartke were elected vice-presidents. N. P. Hull, of Michigan, succeeds W. F. Schilling on the executive committee. -L. L. R.

Never argue with a bull unless the

HOGS

R EG. O. I. C. Yearling Boars. Extra Yearling and Spring Sows. Satisfaction or no Pay. Shipped on approval. Fred W. Kennedy, R. 2, Plymouth, Mich.

O. I. C. Choice young boars for fall service and Red Polled bulls. Jacob Berner & Sons, Grand Ledge, Mich.

O.I.C's a few good spring boars at farmers' Registered free. Satisfaction guaranteed. Lee E. Gale, Mecosta, Michigan.

L ARGE Type Poland China Spring Boars, Sired by Hover's Liberator 4th, prize age boar at Detroit, and out of Gertsdate Lady 5th. Fifth prize age sow at Detroit and champion sow at Saginaw. Fall pigs not akin. Writeforprices. Dorus Hover, Akron. Mich.

P.C. 50 head choice Boars and Gilts, Sired by a con World Champion Big Bob. Peter a Pan son 1.075 Peter Pan and Model Clansman. C. E. Garnant, Eaton, Rapids, Mich.

BOARS at half price. Big Type Poland the kind that pay a profit on high-priced feed. Our pig, in the Pig Club, gained 70 lbs. in '30 days on 98 lbs. of grain. Jno. C. Butler, Portland, Mich.

WESLEY HILE POLANDS

For Sale—30 gilts and sows; 10 young boars. Includes Nos. 1-2-3-4-8 & 9 of our Sale offering of Oct. 17. 46 head were cataloged but darkness caught us with but 33 head sold. Rhey averaged \$49.65—a very satisfactory sale. Rather than put on another sale at this time we are selling at pri-

will sell 8 of our choice, young herd sows with breeding privilege to Emancipator 2d or our Liberator boar. Includes both Glover sows, Buster Maid and the Reserve Grand Champion Sow at Detroit 1922. Some fine boar prospects for sale; priced at \$20 up. Every Animal Immuned and Guaranteed a Breeder.

Wesley Hile, Ionia, Mich.

Old Fashioned Spotted Poland Chinas

"The Hog of the Hour The Feeder's Type"
Prize winners of both sexes for safe

Spring Brook Farms, Three Oaks, Mich.

Spotted Poland Chinas
Michigan's Largest Herd. State Fair winnings include
Premier Champion Exhibitor's Herd. Premier Champion Breeder's Herd. Over 201 head to select from.

G. S. COFFMAN, 1/4 miles East of Coldwater, Mich.

100 Pure-bred Spotted Poland China pigs, either sex, Ashley, Mich.

L. I. P. C. Boars and Gilts all go at private treaty. Service to Foxy Clansman, \$40. Michigan Champion herd for 2 years. A. A. Feldkamp, Manchester, Mich.

L ARGE TYPE POLANDS—Boars and Gilts, Sired by Michigan Liberator, a Son of Liberator, the King of Sires; and Giant John, a great son of the noted Checkers. Geo. F. Aldrich, R. 6, Ionia, Mich.

Polands, Holsteins—March boars and sows, 1 crack yearling boar. Bull calves 1 to 6 mos. old. Chas. Metz. Evart. Michigan.

P.C. Boars and Gilts go at private sale. Price with times: Write for plan of selling. M. M. Patrick, Grand Ledge, Mich.

HAMPSHIRE SPRING BOAR Here's a real smooth, growthy and well-marked boat by the Cyclone. Will sell reasonable. Ed. Faulman, R. 7. Mt. Clemens, Mich.

Fifty Hampshire Hogs, for sale at bargain prices. All sorts, from a two-year-old boar, peer to any of the bred, to pigs six weeks old. All registered or eligible. Best blood lines, thrifty condition, perfect belts. Montgomery Company, Coloma, Michigan.

Hampshires Spring Boars and Gilts, and fall pigs. Pairs not akain; 11th year. 150 to select from. John W. Snyder, St. Johns, Mich., R. 4.

SHEEP

OXFORDS For the best. Write Wm. Van Sickle, Deckerville, Mich.,

For Sale Oxford Rams & Ewes good quality. Geo. T. Abbott, Palms, Mich.

Registered Hampshire Rams and ewes. Size, type, quality and breeding. W. W. CASLER, OVID, MICH.

Sheep For Sale Kuney, Adrian, Mich. Cotswolds, Lincolns and Tun-is Rams, Lambs, Ewes, L. B.

Shropshire Rams For Sale W. E. Morrish Flint, Mich. R. .5

EWES For sale in car lots, 2 yrs. old, faced. In good condition. A. B. CHAPMAN & SON, So. Rockwood, Mich. 'Phone Newport.

Shropshires A few rams and ewes of Buttar C: J. Thompson, Rockford, Mich.

Shropshires Yearling rams with quality, and ewes of various ages. Write your wants. W. B. McQuillan, Howell, Mich.

Shropshire Rams and Ewes write of call on Dan Booher, R. 4, Evart. Mich

HORSES

AR

We Offer For Sale Some fine mares in foal by our Grand Champion Stallion "Garibaldi." No better Belgian Draft Horses can be found in the world than we are offering. If you know what we have done in the show ring you can make up your mind that we can start you out right and sell you the best of foundation stock at a reasonable price. Ask for catalog and come and see us any day in the week except Sunday. Owosso Sugar Company; Prairie Farm, Alicia, Saginaw Co., Michigan.

Black PERCHERON STALLION FOR SAIR-Mt. Pleasant Boy No. 137794, Sired by General No. 67406. Foaled June 16, 1918. Ben Carpenter, Caro, Mich., R. F. D. No. 7.

a promise tirel at one

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

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

Malignant Sore.—I have a twelve-year-old mare that got cut on wire fence about a year ago. The wound is on front part of hock. She has not been lame until lately. She is too lame for use, but would like to put her in driving condition and have her ready to use when roads are unfit for auto driving. J. F. C., Whitmore Lake, Mich.—Apply equal parts oxide of zinc and boric acid twice daily. Give her a teaspoonful of acetate of potash at a dose in drinking water three times a day.

Stiffness.—I have a sow due to far-

Stiffness.—I have a sow due to farrow in December. She is stiff in all four legs, is growing thin, has very irregular appetite. B. F. H., Monroe, Mich.—Feed less corn, more oats, bran, tankage, clover, alfalfa and green feed. Give her 15 grains of sodium salicylate in feed three times a day. Her bowels should be kept open.

Worms.—For some time my horses have been troubled with worms. The remedies I have given to these horses has failed to do them much good. W. H. F., Bailey, Mich.—Mix equal parts of powdered sulphate of iron, powdered gentian, flowers of sulphur, fenugreek, salt together and give each horse a tablespoonful at a dose in soft feed twice daily. The best vermicide for horses is santonin and the dose for a horse is from one to four drams, but this is an expensive drug.

Coffin Joint Lameness (Navicular

but this is an expensive drug.

Coffin Joint Lameness (Navicular Disease).—About twelve months ago I purchased a mare, seemingly sound, except slightly sore and lame in one front leg. The man who sold her to me said it was caused by going without shoes. She seldom stands with full weight of body on both front feet. I am told she is sweenied. G. L., Hermansville, Mich.—A chronic allment of this kind is usually incurable; however, by standing her in wet clay two hours daily it might palliate her lameness. It is good practice to apply a blister to coronet twice a month.

Umbilical Ailment.—The navel of

Umbilical Ailment.—The navel of my three-weeks-old heifer calf has not healed. There is a skin grown down which is an inch and a half to two inches long, and about an inch in diameter. The cord inside is hard. Is there any help for this? Mrs. A. B., Rives Junction, Mich.—Some surgical work should be done on calf, for cord should be shortened, and it is possible there is a rupture; if so, your veterinarian can easily effect a cure. Painting the bunch with tincture of iodine might have a good effect and cause absorption of swelling and close abdominal opening.

Corneal Opacity.—What can be done for young cow that is almost blind? Local veterinary said it was caused by poison ivy. F. V. W., Port Huron, Mich.—Blow one part calomel and five parts boric acid into eyes once a day. A bright light always irritates sore eyes, keep her in a shaded place.

eyes, keep her in a shaded place.

Contagious Abortion.—Every one of our cows have lost their calves, except two head. The first one aborted during the month of February. Can I prevent the remaining two from losing their calves? What is the cause? Will it do to breed them? H. C., Hillman, Mich.—Breed your cows, clean and disinfect your cow stable. Leave the two that are with calf alone. If any of your cows have vaginal discharge, flush with one part lysol in fifty parts clean tepid water, daily. If your cows are pedigreed stock and deep milkers, don't beef them, but keep them.

Teat Infection.—I have a valuable

Teat Infection.—I have a valuable cow that has made me lots of trouble all summer. She has the teat infection, a sore appears in center of end of teat, which closes teat opening, but I draw milk through milking tube. If I don't use milking tube, opening closes, then it bothers me to pass milking tube. C. E. J., Fremont, Mich.—In treating this kind of case, either burn sore with red hot wire, or apply carbolic acid, full strength—cautiously. This treatment kills the infection, but the milker must treat this case last, if not he may innocently spread the infection to other cows he milks. Dissolve a teaspoonful of boric acid in a quarter pint of water, immerse teat in this solution for fifteen minutes, two or three times daily. It is good practice to occasionally paint the sore with tincture of iodine. Don't forget to sterilize milking tube each time before it is used.



—to the stall and manger, the feed lot and self-feeder, the barnyard and fodder rack.

Include

DR. HESS STOCK TONIC

in the ration

You have often noticed stocking of the legs, roughness in the hair, highly colored urine—all on account of the change from grass to dry feed.

grass to dry feed.
Not so where Dr. Hess Stock Tonic is fed.
The Tonics, the Laxatives, the Diuretics,
take care of all that. No worms; the Vermifuges settle them.

fuges settle them.

Then you are all set for heavy feeding, a good yield of flesh and milk throughout the winter.

Tell your dealer what stock you have. He has a package to suit. GUARANTEED.

25 lb. Pail \$2.25

Except in the far West, South and Canada.

Honest goods—honest price—why pay more?

DR. HESS & CLARK Ashland, O.

Dr. Hess Dip and Disinfectant Kills Hog Lice



LASTS A LIFETIME

I spent 30 years in perfecting this Tonic.

Convert grain and hay into butter and meat and save freight charges by heating the water for your stock with cobs, wood, or coal in a

COW BOY TANK HEATER

Which outlasts several others of greater cost. Quickest to heat;strongest draft;adjustable grates;ashes removed without disturbing fire; keeps fire 24 hrs., pays for Absolutely Safe, itself in 2 months with 4 cows; or Concrete Tanks of any size. Most reliable, practical, efficient. Highest grade material throughout. SAVE Mosney Every Month "Purchased 3 of your Tank Heaters last winter, worked very satisfactivity and are well worth their cost. Every stockman should use one;" W. H. PEW, Prof. of Animal Husbandry, Iowa State Gollego, Ames, Ia.

THE MUNDIE MANUFACTURING COMPANY 519 Brunner Street, Peru, Illinois

MICHIGAN JERSEY BREEDERS ATTENTION

COMPLETE DISPERSAL

OF

25 HEAD 25 Owner JESSE A. KLINE, Coleman, Mich.

DECEMBER 6, 1923

7 cows with R. of M. records up to 7361 lbs. 3 sired by OXFORD DAISY FLYING FOX. 3 by GOLDEN GOSSOON and LISY FOX SUPERB EMINENT. 8 daughters of GOLD MEDAL TORMENTOR sold for \$1000 at auction. This choice herd carries the blood of CH'FLYING FOX, EMINENT, LASS 64, POGIS 99 of H. F. and other great sires. Write for catalogue, it tells the rest.

M. E. Bloss, Sales Mgr., Swartz Creek, Mich. J. E. Ruppert, Auct. Perry, Mich.

IF you have a Farm or Farm Land for sale, let the Michigan Farmer find you a buyer through an advertisement in its columns.



GRAIN QUOTATIONS

Wednesday, November 21. Wheat.

Detroit.—No. 1 red \$1.08; No. 2 red \$1.07; No. 3 red \$1.04; No. 2 white \$1.08; No. 2 mixed \$1.07.

Chicago—December \$1.0254@1.0234; May \$1.0834@1.0836; July \$1.0656.

Toledo.—Cash \$1.07@1.08.

Corn.

Detroit.—Cash No. 3 yellow at 88c;
o. 4 yellow, 84c; No. 5, 78c; No. 6,

Chicago.—December 73c; May 73% @78%c; July 78%c. Oats.

Detroit.—Cash No. 2 white at 46c; No. 3, 44c. Chicago.—December 42½c; May at 44½c; July 43% @43¾c.
Rye.

Detroit.—Cash No. 2, 71½c. Chicago:—December at 68½c; May 73%c; July 72½c. Toledo.—72c.

Barley. Barley, malting 75c; feeding 71c. Buckwheat.

Buckwheat.—New milling \$2.20 cwt. Beans.

Detroit.—Immediate and prompt shipments \$5.10@5.15 per cwt. Chicago.—Choice \$6; red kidneys at

New York.—Choice pea, 1923, \$6.50 @6.75; red kidneys, 1923, \$7.90@8. Seads.

Detroit.—Prime red clover cash at \$13; alsike \$9.75; timothy \$3.60.

Hay. New Hay.—No. 1 timothy \$22.50@ 23; standard and light mixed \$21.50@ 22; No. 2 timothy \$20@21; No. 1 clover mixed \$19@20; No. 1 clover \$19@20; wheat and oat straw \$11.50@12; rye straw \$12.50@13.

Feeds.
Bran \$34; standard middlings \$33; fine do \$35; cracked corn \$41; coarse cornneal \$39; chop \$36 per ton in 1004b sacks 100-lb. sacks.

Apples. Chicago.—Barrels, "A" grade Greenings \$4.50@5; Jonathans at \$5@5.50; Grimes \$4; Spies \$5@6; Kings \$4@4.50; Baldwins \$3.50; Spitzenberg \$4.

WHEAT

WHEAT

In spite of the initiation of a tariff inquiry on wheat, prices have declined moderately to the lowest point in nearly two months and the undertone is weak with the market apparently set for a further setback before stability returns. Stocks at terminal points have continued to accumulate until they total 71,445,000 bushels and they are still gaining. Exports of wheat during the last two weeks have been the smallest for any like interval since April. Clearances of flour, however, remain rather high, although it is suspected that part of these represent Canadian wheat ground in our mills. Flour trade in this country is dull and a significant drop in premiums on high-grade wheat has taken place during the last two weeks. The mills have been chiefly responsible for these premiums which placed such wheat beyond the reach of exporters. World conditions are bearish on wheat but prices are moderately above the world level and may hold there owing to certain factors of strength in the domestic situation.

CORN

CORN

Corn prices moved downward last week. Primary receipts increased and buyers are delaying purchases for lower prices. But arrivals are lighter than usual at this time of year as the new crop is slow in drying out, and producers believe that corn prices will remain high. Stocks at terminals increased slightly last week but are too light to create an easy situation. The trend of prices during the next two months is likely to be downward.

OATS

Sales of oats by producers and the shipments from country points show further falling off. The visible supply declined last week for the first time since the heavy after-harvest movement started. It is probably near its peak for the fall, the present total of 20.272,000 bushels comparing with 33, 827,000 bushels last year.

SEEDS

The cloverseed market has been irregular, the principal influence being large purchases of foreign seed to come in during the fall and winter. Since foreign seed does not thrive so

well as domestic, the latter should command a big premium. Growers of cloverseed are selling more slowly selling more slowly than last year.

FEEDS

Wheat feeds were weak in eastern markets but western points are not pressing offerings so that quotations have held. Country demand remains dull and transit feeds are offered at discounts. Linseed meal and tankage markets are weak and gluten feed prices were reduced about \$2 per ton, reflecting the decline in cash corn.

HAY

The better grades of hay are in good demand while receipts are light and prices advanced last week. The lower grades are moving sluggishly. The alfalfa hay crop was further reduced by wet weather during the final cutting in the southwest.

RYE

The rye market is trailing wheat. Primary receipts are too heavy for the limited export movement which has been much lighter during the last six weeks than at any previous time this calendar year. The visible supply has mounted to 17,392,000 bushels, equal to more than twenty-five percent of the 1923 crop. The light exports from this country in spite of the unusual cheapness of rye show the indifference of the foreign buyer.

POULTRY AND EGGS

Receipts of fresh eggs are steadily declining as is usual during November and December, the low months in production, and prices advanced last week. With fresh eggs higher up the price ladder, storage eggs are proving more desirable and are moving into distributive channels at a more rapid rate. During the first half of the month the movement out of storage at the four leading cities was greater than during the same period last year, which shows decided improvement. Poultry prices are lower as receipts are in excess of consumptive demand, with the flush season of receipts still to be encountered. Storage holdings for the entire United States on November 1 were more than thirty per cent heavier than at the same time last year. st year. Chicago.

last year.

Chicago.—Eggs, checks at 20@23c; fresh firsts 45@51c; ordinary firsts 34 @40. Live poultry, hens 13@20½c; roosters 13c; ducks 19c; geese 19c; turkeys 28c.

Detroit.—Eggs, fresh candled and graded at 48@55c; storage 26½@30c. Live poultry, heavy springers 20@21c;

light springers 12@13c; heavy hens 21@22c; light hens 16@17c; roosters at 14@15c; geese 20@21c; ducks 22@23c; turkeys 33@35c.

BUTTER

BUTTER

Butter prices were practically unchanged last week, receipts of the butter scores were light and the tone of the market was firm. Production reports indicate that the falling off in the make is growing smaller from week to week, which may mean that the production barometer will begin to rise soon and the anticipated heavy winter make will augment receipts. Withdrawals of storage holdings at the four markets since the first of November have been heavy, compared with a year ago, and are likely to continue to show such favorable comparison. With rising prices for butter in the United States, there is renewed interest in foreign goods. Good-sized lots of Canadian butter arrived last week as well as 1,000 casks of Danish and 602 casks of Siberian butter.

Prices on 92-score were: Chicago 51½c; New York 54c. In Detroit fresh creamery in tubs selts for 45@48c.

POTATOES

Receipts of potatoes at the leading consuming markets remain liberal and shipments from producing sections increased slightly last week. Prices declined slightly, especially on northern round whites which are quoted at 90c @\$1.05 per 100 pounds for bulk U. S. No. 1 at Chicago. Eastern markets are quoted at \$1.35@1.50:

APPLES

The apple markets were practically steady last week, with middlewestern Jonathans and Northern Spies A-2½-inch quoted at \$5.50@6 per barrel in consuming markets. Baldwins and Grimes are bringing \$4@4.50. Shipments of apples from producing sections are falling off rapidly. Stocks of apples in storage on November 1 comprised 4,121,000 barrels, 5,358,000 boxes and 1,101,000 bushel baskets, compared with 4,133,000 barrels and 4,-164,000 boxes last year.

BEANS

Bean markets declined last week as a result of liberal offerings with a light demand. Choice hand-picked whites are quoted at \$5.40 per 100 pounds for immediate shipment f. o. b. Michigan points, \$5.35 for ten days and \$5.25 for December shipment. Earlier in the fall Michigan growers sold sparingly whenever the price to them dropped below \$5, but that point has been passed, present prices being

around \$4.50@4.60. It is believed that \$4.50 will be a resistance level, however. Pintos also are lower and are quoted at \$4.75 for November, \$4.75 for December shipment f. g. b. Colorado points.

WOOL

The wool market strengthened materially last week. Mills are buying tather freely and some speculative purchases are reported showing the change in sentiment which has taken place during the last few weeks. The foreign markets still show an upward tendency in Great Britain, Australia and South America and American buyers are said to be operating more freely although prices are above an import level. The goods market is rather unsettled but mills are operating on a fair scale and the heavyweight manufacturing season which requires a larger poundage of wool is not far ahead.

Ohio and Boston prices follow: Pennsylvania, fine combing 53@55c; fine clothing 48c; ½-blood combing 52@54c; ½-blood clothing 47@48c; ½-blood clothing 47@48c; ½-blood clothing 47@48c; ½-blood clothing 42@44c; common and braid 36@37c.

Michigan, New York, Wisconsin and Missouri wools one to two cents less than above.

GRAND RAPIDS

GRAND RAPIDS

Dissatisfied with prices now being paid for turkeys many farmers in western Michigan have decided to hold their birds for the Christmas market in hopes that prices will move to higher levels by that time. Many of the birds are rather thin anyway, and feeding for another month would greatly improve their value. Buyers are bearish on turkeys as they claim holdings in cold storage are excessive. Most of the produce houses early this week were bidding 27@30c a pound, live weight. The market was steady on other poultry at the following prices: Heavy hens and springers 16@18c; light hens and springers 10@14c; ducks 18@19c; geose 16@17c. Potatoes were weak at 50 cents a bushel, and onions were slow at \$1.25 a bushel. Other vegetables were steady. Hothouse lettuce was steady at 7@8c per pound. Beans were weak at \$4.65 @4.75 per cwt. Apples were in heavy supply and weak on all except fancy grades.

DETROIT CITY MARKET

DETROIT CITY MARKET

An average of nine cars of potatoes are received daily on track, with the market dull at \$1.55@1.65 per 150-lb. sack. On the farmers' market, supplies are abundant and selling at 75@85c per bushel. Apples are plentiful; track receipts about 14 cars per day; Michigan and Washington receipts predominate. Michigan apples in baskets at \$1.25@1.50 per bushel. On farmers' market \$1.25@2 for No. 1 stock. Keifer pears are slow, jobbing at 90c@\$1 per bushel, on farmers' market at \$1@1.25. Cabbage market well supplied and lower at \$20@22 per ton for Danish. Buyers pay 75@90c per bushel on the farmers' market. Large onions at \$2.75@3 per cwt., and on farmers' market at \$1.75@2 per bushel. Poultry is offered freely, with springers at 21@23c wholesale, and 23@28c retail, Old hens 22@25c in wholesale lots, and retailing at 24@25c. Eggs are scarce and retailing at 75@90c. Ducks and geese retailing at 24@28c; turkeys at 40c; veal 15@17c; light hogs 11@14c; live roast pigs \$3.50@5 each.

The movement from the leading stockyards to the country during the last two months has fallen slightly behind that of last year, which is another symptom of a fairly healthy market later on. Demand for thin steers has developed more breadth but buyers resisted all attempts to advance prices, showing a prevailing mood of caution.

COMING LIVE STOCK SALES.

Holsteins. Dec. 5.-M. A. Sams, Coleman, Mich.

6.—Jesse A. Kline, Coleman, Dec. 6.—Jesso Mich., Poland Chinas.

Nov. 24.—Clark & Rings.
Mich.
Feb. 5.—Detroit Creamery Farm, Mt.
Clemens, Mich.

Durocs.

Farm, Mt.

Feb. 20.—Detroit Creamery Farm, Mt. Clemens, Mich.

Live Stock Market Service

Wednesday, November 21.

DETROIT

Cattle. Market steady to strong

Good to choice yearlings.\$ Best heavy steers	9.25@ 8.50@ 6.75@	9.25 7.25 5.75 5.25 4.25 5.50 4.25
Bologna bulls Stock bulls Feeders	2.00@ 4.50@ 3.25@ 3.00@ 4.25@ 3.75@	4.25 6.50
Milkers\$	45@	85

Veal Calves.

Market steady.

.....\$12.00@12.5 Others 3.50@11.00

Sheep and Lambs.

Lambs are 15@25c higher; sheep steady.

 Best lambs
 \$11.75@12.25

 Fair lambs
 10.50@11.25

 Fair to good sheep
 5.25@ 6.00

 Culls
 1.50@ 3.00

 Light to common
 7.00@10.00

Hogs.

Market steady and 10c higher; pigs 25c higher.

CHICAGO

Hogs.

Receipts 27,000. Market mostly 10 @20c higher. Big packers inactive. Bulk good and choice 200 to 325-lb. butchers \$7.20@7.45; tops \$7.50; better grades 160 to 190-lb. average \$6.75 @7.10; killing pigs 25c higher; bulk good strong weight \$5.25@6.

good strong weight \$5.25@6.

Cattle.

Receipts 11,000. Market on fed steers and yearlings sluggish. Early trade steady to weak, with yesterday's extreme decline. Early top yearlings \$11.75; some held at about \$12; best handyweight \$11.50; heavy steers and westerns, stockers and feeders strong; stots higher; other classes are about steady. steady

Sheep and Lambs.

Receipts 9,000. Market slow. Better grades of fat lambs are steady to strong; others and feeders generally steady; most fat lambs early at \$12.00. 12.40; tops to city butchers at \$12.50. 12.40; tops to city butchers at \$12.50; few choice lambs \$11.35; good feeding lambs \$12@12.25; few 150-lb. ewes at

BUFFALO Cattle.

Receipts 10 cars. Market steady. Calves at \$12.

Hogs. Receipts 40 cars. Market is strong. Heavy \$7.40@7.50; yorkers and mixed \$7.25@7.35; pigs \$6.50@7.

Sheep and Lambs.

Receipts 25 cars. Market is lower. Top lambs \$12.50@12.75; yearlings \$8 @10; wethers \$7.50@8; ewes \$6@7.

fallen below thirty bushels per acre. For the five-year period, 1918 to 1922, inclusive, the average has been 31.1 bushels, as compared with 35.1 in Illi-For the above five-year period, the av- year. erage annual value of the crop per Missouri. \$27.65.

These figures place Michigan corn in a very favorable light, and the 1923 yield, as shown by the November report issued by L. Whitney Watkins, ed at 59,010,000 bushels. Of this sugar companies become available. amount, thirty-two per cent has gone into silos, leaving a net grain produc- production of seventy-two per cent of tion of 40,127,000 bushels, of which it a full crop. The quality is rated at is estimated nine per cent was hogged eighty-nine per cent as compared with down. The average yield of silage is a ten-year average of eighty-seven. 7.5 tons per acre. An inquiry con- The pear crop yielded better than excerning the amount of old corn car- pected and reached sixty per cent of ried over indicates that only 5.5 per -a full crop. Michigan ranks third in cent of last year's crop still remained the number of bearing grape vines on farms on November 1.

Michigan ranks fourth in the production of buckwheat, the estimated duction of buckwheat, the estimated crop being 852,000 bushels, with an A Golden Opportunity average yield of 14.2 bushels per acre. A little was frosted in some northern For Men of Middle Age counties, but the greater part of the crop matured well and is of good quality. The production for the country as a whole is estimated at 14,511,000 bushels, as compared with 15,050,000 last year.

As a potato state, Michigan holds third place with a prospective crop of 34,980,000 bushels. A very rapid growth took place after the fall rains and resulted in an average yield of 110 bushels per acre. The crop is unusually free from disease but many of the large potatoes are hollow as a result of the rapid growth. The prospective yield in a number of other states has also increased since last report, and the total United States' crop is now estimated at 416,722,000 bushels, or about 34,000,000 bushels less than the 1922 production. Reports from competing states received by telegraph are as follows: Maine, 33,480,000; New York, 39,406,000; Wisconsin, 26,112,000; Minnesota, 38,304,-000000; North Dakota, 12,284,000; Colorado, 13,440,000; Montana, 4,070,000; Idaho, 11,725,000, and California, 7,950,-000 bushels.

Michigan also has an enviable record in the production of apples, ranking third among the states this year. The crop averaged seventy-seven per cent of a full one and the commercial production amounted to 2,118,000 barrels, as against 1,699,000 barrels in 1922. The size of the fruit was below normal in the heavy-laden orchards, but very little scab or other disease was prevalent. The nation's crop is placed at 33,522,000 barrels as compared with 31,090,000 barrels in 1922. Washington leads with 9,075,000 barrels, and New York is second in rank with 4,512,000 barrels. Other important apples states report as follows: Pennsylvania, 1,266,000; Virginia, 1,-797,000; Colorado, 803,000; Idaho, 1,-318,000; Oregon, 1,680,000, and California 1,602,000 barrels.

A later inquiry on beans raises the average yield from 11.0 to 11.5 bushels per acre. This increases the Michigan production to 6,532,000 bushels, and probably a larger quantity of white beans than ever produced in any state in a single season, and more than grown in all other states combined

MICHIGAN HAS GOOD CORN REC- this year. The average pick is eight per cent which leaves about 6,000,000 bushels of merchantable beans. The As many have advocated, Michigan average price per bushel paid to grow-should plant a larger acreage of ers on October 15 in the leading states corn in the light of the records of the is as follows: New York, \$3.90; Michlast few years. Only twice in the last igan, \$3.20; Wisconsin, \$4.00; Coloreighteen years has the average yield ado, \$4.20; California, \$4.15; Idaho, \$3.55; New Mexico, \$4.60, and for the United States, \$3.73.

Another important crop in Michigan is clover seed, in which the state usunois, 42.1 in Iowa, and 27.5 in Mis- ally ranks about fifth. This year the souri. When account is taken of the crop is estimated at 147,000 bushels as higher prices that prevail in Michi- compared with 240,000 bushels in 1922. gan, the returns per acre exceed those The early crop was light, but the secin any of the big surplus producing ond cuttings filled well and produced states where corn is lauded as king, the major portion of the seed this

Michigan also continues to maintain acre in Michigan was \$35.98; in Illi- its reputation as a sugar beet state, nois, \$32.91; in Iowa, \$33.60, and in ranking third in that product. The crop is estimated at 952,000 tons, as compared with 593,000 tons last year. It is outranked by Colorado with 1,-863,000 tons to its credit, and by Utah with 978,000 tons. Other leading states commissioner of agriculture, and reported as follows: California, 553, Verne H. Church, agricultural satisti- 000; Idaho, 380,000; Nebraska, 5/1, cian, is thirty-five bushels per acre, 000; Wisconsin, 138,000; Ohio, 387,making the fifth good crop in succes- 000 tons. These figures will be revission. The total production is estimated later when the reports of the beet

The final report on grapes shows a and of bearing pear trees.

Write for particulars of our spare time proposition. It will pay you big returns. You need no experience, we ask no investment. Outfit free. A tried and true proposition, one that has stood the test of years, Write today. P. O. 80x 206. Rochester, N. Y.

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Highest Prices Paid for Hay and Grain.

UNITED FEED CO. Detroit, Mich.

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I Will Condition a Horse or

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Put flesh on its bones. Give it life
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BRYN MAWR, PA.

· TOBACCO

TO INTRODUCE our star brand Green River Leaf Tobacco will self ten pounds mild smoking for \$1.75. Ten pounds Green River and Burley smoking for \$2.55. Ten pounds chewing for \$3.45. and give you a genuine \$1.00 Wellington French Briar pipe free with each order for ten pounds. Postage extra: Satisfaction guaranteed or money refunded. Fifteen pounds. Common Smoking Tobacco for only \$1.45 and postage. Kentucky Tobacco Company. Dept. 15. Owensbore, Ky.

TOBACCO Select Smoking, 10 lbs. \$2.50; Good Smoking 5 lbs. \$1.00; 10 lbs. \$1.50; 20 lbs. \$2.75; Select Chewing 5 lbs. \$2.00; 10 lbs. \$3.50. Quality Guaranteed. Co-operative Tobacco Growers, C133, Mayfield.

TOBACCO—Extra Fancy Smoking, 10 pounds \$2.50 Good Smoking, 5 pounds \$1; 10 pounds \$1.50; 26 pounds \$2.75; Chewing, 5 pounds \$1.50; 10 pounds \$2.75, Quality Guaranteed. O'Connor Smokehouse, \$133, Mayfield, Ky.

HOMESPUN TOBACCO—Five pounds chewing, \$1.75; ten, \$3.00; twenty, \$5.25. Smoking, five pounds, \$1.25; ten, \$2.00; twenty, \$3.50. Pipe and recipe free. Send no money. Pay when received. Kentucky Tobacco Company, Paducah, Ky.

KENTUCKY Natural Leaf Tobacco, Smoking, mild, 10 lbs., \$2.50; medium, 10 lbs., \$3.00; 15 lbs., \$4.50. Chewing, 5 lbs., \$2.00; 12 lbs., \$4.50. This is best grade Tobacco, We ship no lugs or trash. Valley Farmers' Tobacco Association, Murray, Ky. Box 292.

LEAF TOBACCO.—Five pounds chewing \$1.75; Ten \$3.90. Five pounds smoking \$1.25; Ten \$2.00; pay when received, pipe and recipe free. Cooperative Farmers, Paducah, Kentucky.

PET STOCK

GERMAN Shepherd, Airedates Collies: Old English Shepherd dogs; Pupples: 10c illustrated instructive list, W. R. Watson, Box 35, Macon, Mo.

REGISTERED COLLIE PUPPIES—Natural heelers both sexes. Silvererest Kennels, Gladwin, Mich.

HUNDRED HUNTING HOUNDS Cheap C. O. D. Trigh, Kaskennels, MIFA, Herrick, Ills.

The Real Estate Market Place

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Only 4 miles to good live town with all advantages, milk and cream collected, 60 acres elvel, productive tillage, 20 acres wood and pasture, several thousand feet saw timber, fuel for lifetime, variety fruit home use, well built 2-story house, painted, good cellar, excellent well at door, large porch, pleasant shade, near neighbors, 50-ft, basement barn in good condition, stable cemented, granary, tool shed, inchouse, cornerib. Owner retiring, includes 3 horses, 2 cows, 2 hogs, 200 poutry, 45 turkeys, full line farming smachinery and tools, all corn fodder cornotatoes, hay, straw, etc. Price, \$5.500-\$1,500 cash town, balance easy terms, Write or see L. Lott, 528 Ford Bidg, Detroit.

60 Acre Michigan Farm Furniture, 100 Poultry, Horses

Cows, pies, machinery, tools, implements, etc., in-cluded, to settle immediately; on improved road; splendid district; stores, schools, churches; near lake and depot; 40 acres loamy tillage, pasture, woodland; 200 apples, pear, cherry trees, berries; comfortable 6-room house, 80-ft, basement barn, hog, poultry houses, sheds, etc. Owner unable operate, \$5,000 gets all, part cash. Details page 152 Illus, Catalog Bargains—many states. Copy free. STBOUT FARM AGENCY, 427KH, Marquette Bidg., Chicago, III.

Wonderfully Prodductive Farms

Near El Paso; \$75 to \$350 per acre; good terms Average production last year more than \$50 per acre. Cheapest irrigation water in U. S.— Good climate, schools and churches. Ask for booklet, "FARMING THAT PAYS." Address Dept, 70-C. GATEWAY CLUB, EL PASO, TEXAS,

ON state road, 60 acres 3 miles southwest of Lansing, \$9,000, all cleared level black loam where buyer can quadruple price, sub-dividing quarter acres, \$150 quarter. Has 7-room house, barn. 2 wells, fruits, wire-fenced, \$1,500 cash, balance 50-year mortgage, \$150 privilege more with annual interest, bitto equipped, highly imp. 118-A rent or cash sale on M. A. C. Int. Ry. P. O. Box 5, Lansing, Mich.

Farm Bargains Central Ark. Particulars and book-

\$500 Secures My 80 Acre Farm 70 A. Rich Dark Level Tillage, 10 A. Fine Timber. 25 A. Alfalfa Meadow. 4 Mi. Town. Excellent 9room House. Large Basement Barn, Tie up 50 Cows; Silo, Granary, etc. Low Price, \$3,000, \$50 Cash, Balance Easy. Carrie Oatman, Holton, Mich.

For Sale Farms in Valley of Virginia Near State University, Fine climate, schools, water, great fruit growing section. Bargains in grain, grass, fruit, poultry farms, near large Eastern cities. Wright for list. H. K. Hawthorne, Charlottesville, Virginia.

\$1000 down buys 80 Acres, Faulkner Co., 30 miles lot furniture, potatoes and fruit, 45 A. cult. God improvements, Widow must sacrifice for \$2,600, Worth double. Large Farm Catalog free. Fuller Land Co., Wichita, Kans.

Sell your property qu ckly for cash, no matter where located. Particulars free. Real Estate Salesman Co., 515 Brownell, Lincoin Neb

Would you Buy a Home? With our liberal terms.

White people only, good land, healthy progressive country. Write for list. Mills Land Co., Booneville, Ark.

IF YOU WANT TO LIVE in California write Kings merce, Hanford, California, for free booklet.

F ARMS WANTED—We have buyers for Michigan Farms. Give description and lowest cash price. Warren McRae Farm Agency, Logansport, Ind.

Cash Buyers want farms—various localities, Describe fully and give best price. U. S. Agency, Box 43, North Topeka, Kans.

A-1 Bottom Farm for trade, highly improved \$18,-

Farm Wanted immediately, direct from owner, J.

Florida Orange ground tracts \$5.00 per month

Farm Wanted Send particulars. Mrs. W. Roberts, 320 E. Tray, Roodhouse, Illinois. Wanted to hear from owner of land for sale.

Farm Wanted Near school; at spot cash price Mean business Fuller. Wichita, Ks 110 Acres well imp. 55 acres bottom, well located.

BEST 435 ACRES in Indiana. 73 A. oil belt, Ohio. Box 47, Toledo, Ohio.

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates.

Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order.

Real estate and live stock advertising have separate departments and are not accepted as classified. Minimum charge, 10 words.

Rates in Effect October 7, 1922 Words 10.... Words

Special Notice

All advertising 2009 discontinuance orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

MISCELLANEOUS

NAMES WANTED.—Tell three of your neighbors that we trade phonograph records and player rolls. Send us their names and 12c in stamps and we will mail you, prepaid, a fine four-piece set of miniature furniture. National Record Exchange, Wichita, Kans.

CHOICE Silver Black Foxes from Registered parents, for sale at farmer's prices. W. H. Wilbur, Route 6. Pontiac, Mich.

HOW TO TAN all kinds of Furs at home, chea easy. The secret of tanning sent to any addres One Dollar, Address L. E. Davison, Mecosta, Mich. RAILWAY POSTAL CLERKS—Start \$123 month; railway pass, expenses paid. Questions free. Colum-bia Institute, R. 6, Columbus, Ohio.

FREE CATALOG, Carpenter's Auction School. Largest in world. Hall Bldg., Kansas City, Mo.

BUSINESS OPPORTUNITIES

FOR SALE—To close an estate, 40-acre farm and country store. J. G. McClure, Merrill, Mich.

INFORMATION on incubation. Circular free, Tur-key booklets 25c. Poultry Plant for sale, 1,000 lay-ers, Silverlake Farm, Tilton, N. H.

MICHIGAN'S BEST Giant Bronze Turkeys, Another excellent flock ready for sale. We place 100 breeders in Michigan each year. Furnish unrelated stock, Save by buying early, N. Evalyn Ramsdell, Ionia, Mich.

Ionia, Mich.

SINGLE COMB REDS—Cockerels and pullets. March
and April hatched. Reduced prices for quick sale.
They win, lay, weigh and pay. Harry J. Theis, 283
Hunter St., Battle Creek, Mich.

FINE ROSE COMB R. I. Red Cockerels \$2 each. Giant Bronze Turkeys, Toms \$9, Hens \$7. Mrs. Albert Harwood, R. 4, Charlevoix, Mich.

FOR SALE—Superior Ringlet Barred Rock Cockerels, Cocks, Hens and Pullets, Show Birds and Breeders. J. L. Wyndham, Tiffin, Ohio. BARGAINS Muscovey Ducks, \$7 trio; 20 breeds of Ducks, Geese, Turkeys. All leading breeds chickens. Chas. Smiley, Judson, Ind.

LIGHT BRAHMA COCKERELS—White Holland turkey Toms, and Toulouse Ganders. A. W. Chase, R. F. D. No. 5. Plymouth, Mich.

BARRED ROCK COCKERELS—From high egg-producing prize winners, \$2.50 to \$3.50. Dawson Farm, Muskegon, Mich.

MAMMOTH Bronze Turkeys, Tom Barron and King George strain, large, healthy, grown on range. Toms \$15, Hens \$12.50. Remit with order. Mrs. Wm. C. Ryno, Edwardsburg, Mich. APRIL COCKERELS—English Strain White Leg-horns, M. A. C. stock. Choice Birds, \$2.50 and \$3.00 each. John R. Brinks, R. 3, Zeeland, Mich.

10 Breeds Chickens, Turkeys, Ducks, Geese, Bantams, Guineas, English Bulls, Fox Terrier Pups; 300 Pekin Ducks. Jesse Burnside, Judson, Mich.

PURE-BRED Giant Bronze turkeys, unrelated. Hens, \$7; Toms. \$8; until Nov. 24. Mrs. Ida Davey, Ellsworth, Mich.

PURE-BRED Mammoth Bronze Turkeys. For breeding only. Write Johnson Turkey Farm, Six Lakes,

PURE-BRED Mammoth Bronze Turkeys, large, vig-orous birds, reasonably priced. Mrs. Ralph Sherk, Caledonia, Michigan.

FOR SALE—Bourbon Red Turkeys, Toms \$10, Hens \$8, Unrelated; also African Geese, \$10 a pair. Rudolph Hassler, Sandusky, Mich.

PURE-BRED MAMMOTH BRONZE TURKEYS—Champion Strain, Large and Vigorous, Unrelated Stock, Mrs. B. Smatts, R. 1, East Jordan, Mich.

ANCONA COCKERELS \$2.00 each. W. E. West & Son, R. 1, East Lansing, Mich.

FOR SALE—Large White Holland Turkeys, very tame. Mrs. D. E. Dean, R. 2, Milford, Mich. BOURBON RED TURKEYS-Hens \$8; Toms \$12. H. O. Ruggles, Milford, Mich.

WHITE HOLLAND TURKEYS-Toms \$7; hens \$6.

MAMMOTH bronze turkeys from best breeding stock. Mrs. Eugene Ramsdell, Hanover, Mich. BOURBON RED TOMS—From best breeding stock. Munson Robinson, Cedar Springs, Mich.

S. C. BUFF LEGHORN cockerels. Write for prices and description. Willard Webster, Bath, Mich.

NARRAGANSETTE TURKEYS—The Big Kind. Tom \$12, hen \$8. Mrs. Wm. B. Newell, Onsted, Mich.

HELP WANTED

WANTED—FRUIT TREE SALESMAN—Profitable, pleasant, steady work. Good side line for farmers, teachers and others. Permanent job for good workers, write for terms. I. E. ligenfritz Sons' Co., The Monroe Nursery, Monroe, Mich. Established 1847.

SITUATIONS WANTED

FARM MANAGER—experienced in general farming and dairying wants position. Apply Box 24. Mi higan Farmer.

COMMISSION FIRMS

SHIP your live and dressed poultry, veal, cabbit direct to John R. Tyler & Company, 954 Fuitz Market. Chicago, in the very heart of the big joi bing district.

GAS ON THE STOMACH.

VERY common and unpopular ailment is that generally designated as "gas on the stomach." victims usually think of it as a disease in itself, rather than a mere symptom, and are inclined to the belief that it can be disposed of by taking "something to break up the gas."

In their desire for relief they are willing to take soda, charcoal, dyspepsia tablets, or any medicine that any person may suggest to them, but seldom indeed do they seek the real foundation of the trouble and show themselves willing to correct their errors in diet or to seek for the other physical errors that lie at the real seat of the trouble.

Gas on the stomach is not always a trivial matter. It always causes distress that is quite out of proportion to its apparent importance and makes the patient willing to do anything to get relief. Sometimes there is a feeling of pressure upon the heart that terrifies the patient exceedingly, and this terror is not always without foundation, for the poor digestion and sluggishness of the alimentary tract that allow the condition to exist may be dependent upon a genuine heart lesion.

Temporary relief can usually be obtained by taking a glass of hot water containing from half to one level teaspoonful of bicarbonate of soda. But the person who has this warning symptom and is content with something to take in order to get immediate relief is very short of vision. The symptom, if of frequent recurrence, is a warning of more serious things. The patient should at once find out the cause of the trouble. If dietetic errors exist, they should be corrected with promptness and severity, no matter how much denial of appetite is demanded. The heart action and blood pressure should be carefully examined to make sure that all is safe in that direction. The trouble generally calls for an all-round examination and it should be made by a doctor who is not inclined to wave the matter away with talk of "a trifling indigestion," but is willing to go to the bottom of

The best treatment for "gas on the stomach," therefore, is:

a. Careful selection of foods, avoiding those that tend to fermentation; thorough mastication, slow eating.

b. Drink half a pint of hot water, just before each meal, thereby stimulating the action of the stomach.

c. Determine if condition of prolapsed stomach exists, and correct it.

d. Ascertain if any disturbance of heart action or blood pressure, and correct it.

e. Maintain regular, daily bowel habit.

HOW TO REMOVE WARTS.

Can you give me a remedy for small warts on children's hands? My child has several on both hands.—Mrs. A.R. Such warts may be safely removed

by the application of glacial acetic acid. This agent is quite mild and several applications may be required before the warts are entirely removed.

WHY NOT USE A RAZOR?

Is there any safe way of removing superfluous hair from the face other than the electric needle?—Reader.

A few prominent hairs may be removed to good advantage by the electric needle, but it is no good to attempt this where there is a pronounced growth. There are many depilatories on the market. Most of them are harmless but disappointing, because the hair soon comes back, perhaps a little coarser. I can see no reason why a woman should not use a safety razor to remove objectionable hair. There is no foundation for the idea that it will produce a heavy growth. The renewed growth is a little coarse, just as after using depilatories, but the razor is convenient, safe, and can be used as required.

POSTULES ON NECK AND FACE.

Please let me know what to do for acne on the face and neck. Is there any cure for it? And what does it come from? Has the blood anything to do with it?—D. R.

Acne is a local disease of the skin dependent upon the condition of the sebaceous glands, and is not a blood disease. Excellent treatment is a brisk bath and rub all over the body every morning, using as cold water as can be borne with comfort. A diet that excludes sweets and fats, and includes a good amount of fruit and green vegetables is helpful. In severe cases physicians often prepare an autogeonous vaccine, using matter expressed from some of the acne postules. This has cured some very obstinate cases.

BAD AFTER EFFECTS OF OPERA-TION.

Give me your advice of my case. I was operated on for appendicitis more than a year ago and my side seems to get no better. Am nineteen years old and would like to regain my health if possible. My doctor says I ought to have the side reopened and examined.—Subscriber Subscriber.

Your doctor should tell you what he expects to gain by reopening the wound. Your description of symptoms is too vague to give me much of an idea of the trouble, but if the appendix is safely removed I fail to see what is to be gained by a second incision, and if the trouble is not appendicitis but some disturbance of the pelvic organs there are methods of examination not nearly so radical.

OUTDOOR SLEEPING.

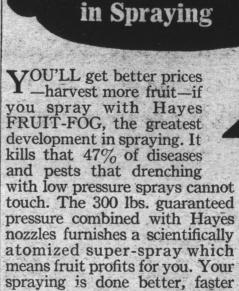
A patient with tuberculosis who has been sleeping on an outdoor porch for almost a year feels the cold very much, and wonders if it would not be as well to sleep indoors during the severe weather.—K. P.

Not if any provision can be made to make sleeping on the porch com-Many outdoor sleepers forget to protect the bed sufficiently from below. The first thing to go on the springs should be a pad of several thicknesses of wrapping paper, then a substantial mattress, and then blankets and comforters, so prepared that they form a sleeping bag. The patient should wear a warm suit of underwear, woolen stockings, an arctic suit with hood, and also should have some artificial heat. With such provision for his comfort he will get along very well, even in the coldest weather.

ROARING NOISES.

Every night just before I go to sleep my left ear has a roaring noise. It has been roaring for a short time only. What shall I do?—R. P.

Any attack of middle ear catarrh may cause roaring in the ears. Usually the first attacks are of short duration so it is probable that your trouble will be over before you read this. Do not slight the warning, however. It is an indication that your hearing is threatened. Avoid colds. Cure catarrh by outdoor living and sleeping. If you have enlarged tonsils or adenoids have them removed. Get the throat and nasal passages in good condition and the cure of the ears will follow.



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