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WITH the installation in country homes of the modern conveniences of bath and toilet, it has become necessary to provide some effective and inexpensive means of disposing of sewage. The most simple and, under right conditions, the most practical method for the disposal of sewage from the country home in a safe and sanitary manner is the septic tank, so-called.

This device was described in the Michigan Farmer some years ago, when it was first introduced by sanitary engineers, and a more simple type has since been illustrated and described in these columns. These previous articles apparently arrested the attention of many readers who were not at that time ready to install such a device, but who have since requested a repetition of the description in considerable numbers. For the benefit of these inquirers and others who may be interested, a simple form of septic tank is described and illustrated below in such a plain manner as to enable any handy farmer to construct one with the labor available upon the farm.

But in deciding upon the installation of any system of sewage disposal for the country home one should be sure that the conditions are right for the use of that system, else satisfactory results may not be secured. For this reason it may be well to describe briefly the nature, purposes and limitations of the septic tank.

This is simply a water tight cistern or settling basin through which the sewage passes slowly and evenly. Located underground, its temperature is fairly constant, while light and air are excluded to a degree which promotes the multiplication of certain species of bacteria which attack and purify the sewage, much as certain other species of bacteria cause cider to ferment or milk to sour. This process of purification in a simple form of septic tank is not entirely completed, but sufficiently so for all practical purposes where the location and topography of the surroundings are such as to permit the overflow from the septic tank to be discharged into a drain tile with a suitable outlet.

Where these conditions do not obtain the simple septic tank, such as is below described, is not entirely suitable for the disposal of sewage from country homes, without the addition of a system of til-

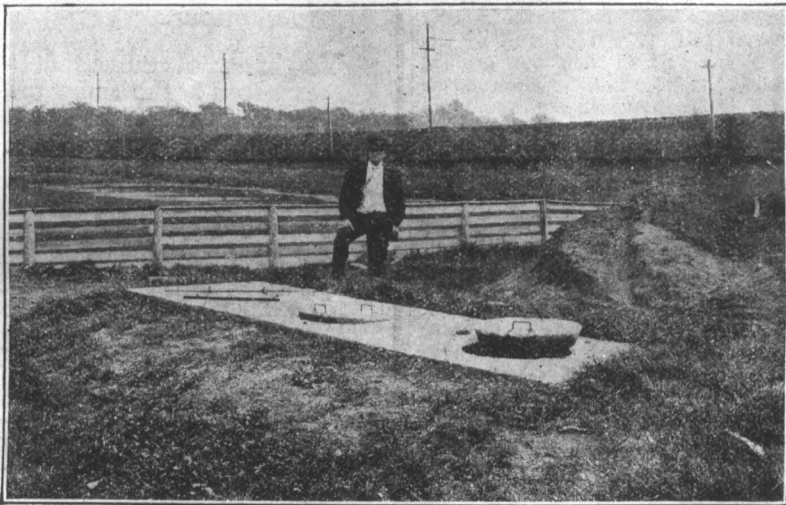
SEWAGE DISPOSAL FOR COUNTRY HOMES.

ing by which the purified sewage may be distributed through the soil by means of a small sub-irrigation plant or discharged into surface filter beds, where the active soil bacteria will wholly complete the process of purification and final disposal of the sewage.

Thus, where the conditions do not permit the overflow from the septic tank to be discharged into a drain with a suitable outlet at some distance from the farm buildings, a further study of the proper methods of sewage disposal should be made before a tank of this kind is in-

4x4x5 feet long. Since the top and bottom are each four inches thick and the division and sidewalls eight inches, dig the pit four feet eight inches deep, five feet four inches wide and 12 feet long.

If the ground stands firm, only inside forms will be needed. Make two, each 4x4x5 feet long. Old one-inch lumber will do for the siding. The compartment into which the sewage first enters is called the "charge tank." In each end of the wooden form for this tank cut openings for a five-inch tile with the lower edge of the hole 16 inches above



A Septic Tank for the Disposal of Sewage from a Country Home.

stalled. But, on the other hand, where these conditions obtain the septic tank as herein described will prove entirely adequate and satisfactory.

In installing a septic tank it is best to locate it at least 150 feet from the house, although if properly constructed the odor from the device will be practically unnoticeable. Choose a spot where it can be sunk to ground level and will be out of danger of flood waters. The tank should be large enough to hold the entire sewage for one day. For a family of eight to ten, plan a concrete tank of two compartments each

the bottom of the form. Through each of the sidewalls of this same form, 18 inches from the inlet end and one and a half to two feet above bottom, bore one-inch holes and insert in them greased wooden pegs extending four inches into the future sidewalls. Likewise, in the other form for the discharge tank, cut openings for a five-inch tile, this time with the lower edge of the hole two feet above the bottom.

Mix the concrete one part Portland cement to two parts sand to four parts crushed rock, or one part cement to four parts pit gravel. Place the four inches

of concrete in the bottom and trowel to an even surface. Immediately set the forms in place so as to leave room for eight-inch division and sidewalls. Fill the forms with mushy wet concrete. At the proper heights insert the five-inch drain tile through the holes in the forms. Be careful that the outside end of the inlet tile to the charge tank is two feet and its other end 16 inches above tank bottom. The pipe leading from the charge tank is also set at the same sharp slope. The outlet tile from the discharge tank is two feet above bottom and with both ends level. By this arrangement of pipes, the sewage is kept in the tank to the depth of two feet and the ends of tile in charge tank are trapped or air-sealed, which aids the activity of a certain kind of bacteria. Likewise, other bacteria are developed in the discharge tank by means of the free circulation of air through the discharge drain tile and holes in the manhole cover.

After the sidewalls are three days old, floor over the top of the forms and prepare to lay the four-inch concrete top. As molds for the manhole covers, have the tinner make two round bottomless dishpans, 18 inches in diameter at the bottom and 24 inches at the top. Grease these tin molds and set one on the wooden floor over each compartment. Bore six one-inch holes in the floor inside the one manhole mold over the discharge tank and insert in them greased pegs projecting upward six inches.

Place one inch of concrete over the entire floor and at once lay on it, crosswise the tank, strips of heavy woven-wire fencing five feet two inches long, or 3/4-inch rods running in both directions and spaced one foot. Likewise reinforce the manhole covers. Immediately place the remaining three inches of concrete and do not stop until the tank top and manhole covers are finished. Provide two lifting-rings for each cover by setting in them halves of old bridle-bits, or hitching-post rings, fitted with knobs of wire or with nuts and large washers. If a square wooden manhole mold is used, the concrete cover cannot be cast at once. In such case, carefully remove the wooden manhole form five hours after the top has been finished. Three days later mold the cover the same as for the tin form with this important exception—place heavy paper or cardboard around the edges of the opening to prevent the



Boys Participating in the Boys' State Fair School at the Recent State Fair. For Descriptive Article and List of Names See Page 279.

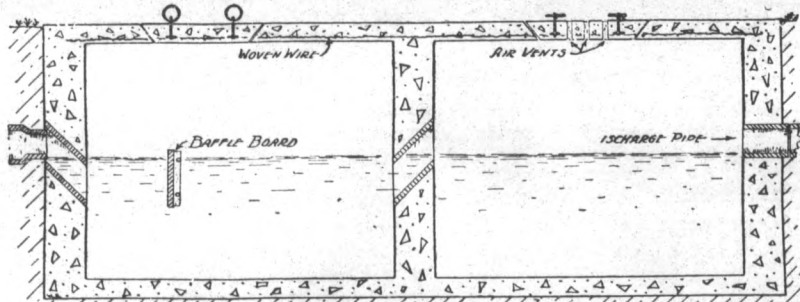
fresh concrete of the cover from setting to the old concrete.

When the top of the tank is ten days old, lift off the manhole covers, saw openings in the wooden top and remove the forms. In the holes made in the sidewall by the greased wooden pegs, insert half-inch bolts and set them with mortar. To these bolts fasten the one by 12-inch wooden baffle board which extends across the tank and breaks up the current of the inflowing sewage. To carry the sewage from the house to the tank, use four-inch sewer pipe laid with

on land once too wet for alfalfa to grow at all."

Later on in his work in discussing the subject of drainage Mr. Wing emphasizes the desirability of laying the tile as deep as possible where it is known alfalfa will be grown, although he states that the tiles on his farm, as a rule, are at least 36 inches under ground, while under conditions where the soil is right and the outlet favorable, they are laid as deep as 48 inches.

So far as the matter of fitting the land is concerned, there is no question but



Lengthwise Section of Septic Tank Showing Essential Details of Construction.

tight mortar joints. Connect the discharge end of the tank with a string of drain tile.

Inexpensive Bill of Materials.

The materials required for the tank described above are 5½ cubic yards of coarse, screened gravel or crushed rock, 2½ cubic yards of sand and nine barrels of Portland cement. If good pit gravel is used, no additional sand will be required.

When the septic tank is two weeks old it may be put to use. It will need cleaning at intervals of two to three years.

FARM NOTES.

Clipping New Seedlings of Alfalfa.

I have a small field of alfalfa seeded in the oats last spring. It looks good. The stubble is about six inches high with some weeds on the low ground. Would it be advisable to cut this and leave it as a mulch or take it off or leave the stubble as it is?

Mason Co.

H. O.

Alfalfa should not be cut at any time except when the new shoots have started from the crowns. Clipping at any other time will tend to destroy the vitality of the plant, as same will necessarily lay dormant until the new buds have started. New seedlings of alfalfa are sometimes ruined in this way. Even if there are considerable weeds it would not in the writer's opinion, pay to clip the seedling unless it has reached a stage of growth as above described.

Sowing Alfalfa on Creek Bottom Land.

I have a field of black creek bottom land, which last year raised over 100 bu. of ear corn to the acre. This year the field is covered with a promising crop of sugar beets. I am thinking of putting in alfalfa in the spring and would like your opinion as to sowing without plowing. The surface of this soil is very mellow in the spring following a cultivated crop, we seldom plowing for oats or barley after corn. It is probably only three or four feet to water, but the surface drains readily; would you consider this ground too low for raising alfalfa?

Washtenaw Co.

W. J. R.

Because of the fact that alfalfa prefers a rather dry soil with good aeration, there is a general impression that it will not grow well upon land such as is described in this inquiry. However, creek bottom land only a few feet above the water level may be much better drained, in fact, than a heavy, wet, upland soil that has not been thoroughly tilled. As touching upon this point we quote as follows from Joseph E. Wing's book on Alfalfa in America, since there is probably no better authority upon alfalfa growing than Mr. Wing. In reply to the question, "What are the requirements of the alfalfa plant as regards soil?" he says:

"First, it likes soil to be dry, dry even in a wet time. That is, it ought to be a soil that will not fill up with water and remain waterlogged for many days. Alfalfa loves moisture, too, but it must have moisture and air in the soil at the same time. Thus it likes well drained loams, alluvial soils along rivers or creeks, (such lands are usually the best drained), or even gravelly soils, so they have also fertility. If naturally well-drained lands are not on your farm then you can make the land dry with tiles. It is entirely practicable to drain land naturally wet and 'crawfishy' with tiles so that it will grow alfalfa well. The writer has tested this on Woodland Farm where, with his brother he has laid many miles of tile underdrains. In truth, not much of Woodland Farm would grow alfalfa before it was underdrained. Now about the heaviest and surest crops grow

that would be better not to plow it, since where the surface works up finely without plowing, a better seed bed could be prepared for a crop like alfalfa than would be possible were the ground plowed before seeding.

Orchard Grass.

Will you kindly tell me if orchard grass would be profitable on a hemlock ridge where the soil is light? Also what do you know about billion dollar grass?

Osceola Co.

F. McC.

Orchard grass grows best in deep, rich, moist clay loam soils, possessed of a sufficiency of lime, but it will also do well on sandy loam soils with a clay subsoil. In fact, it will do well on almost any soil that is rich, well drained and porous. It does not, however, do as well on a thin sandy soil and would not in the writer's opinion, produce an abundance of forage upon a light hemlock ridge, such as is mentioned in this inquiry. This grass is most commonly sown in early spring, but it may also be sown with success at various seasons of the year. It should not, however, be sown late in the autumn as the young plants would not get of sufficient size and vigor to endure a hard winter. It may be sown either alone or with a nurse crop, or seeded in grain, as desired. On this kind of soil it would be better to experiment with it in a small way than to sow it as a main dependence. This advice would also apply to billion dollar grass and other new forage plants which had always better be grown in an experimental way until one gets information at first hand as to what they will do on his soil and under his local conditions.

HOW TO PREPARE SOD GROUND FOR WHEAT.

In answer to L. W. A., Van Buren county, Mich., would say that to prepare sod ground for wheat, plow the sod under, go over with the roller and harrow a couple of times. Leave it lay until next year for wheat then plow it again to get sod back on top and drill in the wheat and follow with clover and red-top and no timothy. I have already a good catch this way.

Pennsylvania.

READER.

I am sure that I am very glad indeed to get D. H. R.'s opinion about preparing sod ground for wheat and I have no doubt that many readers of The Farmer will also be pleased. There isn't any question but what he is perfectly right, that if you will take the sod ground this year and plow it and roll it down well and leave it until next year, then plow it again, that he will get it in good shape to seed to wheat a year from this fall. But it is pretty costly. The inquirer in a previous issue of The Farmer wanted to know how to prepare the sod ground for wheat this fall. He didn't want to wait a year. He wanted a crop next year, when D. H. R. is putting in his wheat, and I think it would have been perfectly proper to do as I said; to plow the ground as soon after haying as possible, roll it down, work it up, get it well packed down and seed to wheat in September. Thus handled, it makes a pretty good seed bed. I would not hesitate at all about putting in a piece of sod into wheat if I could get it plowed in August. I should want to use a good application of commercial fertilizer to give the wheat a good start until the roots get down to this sod and the sod gets rotted. In this way you wouldn't have to wait a year, which would be too expensive.

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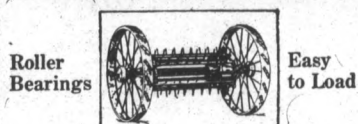
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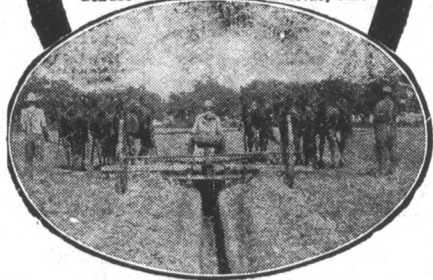
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THE BOYS' STATE FAIR SCHOOL.

The best attraction on the fair grounds was the Boys' State Fair School. The school was organized this year for the first time, for the mutual benefit of the boys and the fair. The school was in charge of a committee of three State Fair directors—N. P. Hull, Frank Coward, and Thos. M. Sattler. After the place was decided on the work was given over to Thos. M. Sattler, of Jackson, Mich., to carry out the plans of the committee.

The school was to consist of one boy from each county in Michigan, and 71 out of the 83 counties sent their representative to the school. The boy in each county was chosen by a committee of three, (County School Commissioner, Master of Pomona Grange, and President of County Farmers' Institute Society), after all the applicants had taken the regular county eighth grade examination and an agricultural examination. These examinations were taken on the 16th and 17th of May in each county of the state. The county committee of three was to meet on the 4th of June and choose the boy to represent their county, from the best average in these two examinations.

Mr. Sattler was in close touch with the boys all summer and will be glad to correspond with anyone interested in the Boys' State Fair school.

The boys were a fine lot of fellows and every boy behaved like a man the entire week. The boys were housed in 28 tents provided for them. They were given the best "feed" on the grounds. They were divided into eight squads in charge of eight squad masters. The squad masters were all young men from the Y. M. C. A. The boys were given work from 5:30 until 7:30 a. m. and then breakfast, and the forenoon was given to the judging of live stock. The afternoon was given to miscellaneous work and amusement.

These boys' expenses were all taken care of by the State Fair. Every boy seemed to have a fine time and expressed the wish: "I wish I could come next year."

A list of the boys participating in the school follows:

Elmer Carlson, Alcona county.
Francis Friedly, Alger county.
Roy C. Masters, Allegan county.
Manley E. Irwin, Alpena county.
Faye Morrison, Antrim county.
Paul Otis, Barry county.
Otton Lund, Baraga county.
Maurice Heriter, Bay county.
Samuel Morris, Berrien county.
Rowland Bell, Branch county.
Robert Carnes, Calhoun county.
George Waldow, Cass county.
Harry Schneider, Charlevoix county.
Wm. F. Ownes, Cheboygan county.
Wallace Burchill, Chippewa county.
Andrew Whaley, Clare county.
Victor Daley, Clinton county.
Arthur Cameron, Crawford county.
Horace Phillips, Dickinson county.
Charles Kikendahl, Eaton county.
William Shurtleff, Emmet county.
Clifford Powell, Genesee county.
Paul F. Wagoner, Gladwin county.
Homer Willobee, Gd. Traverse county.
Chester Duvant, Gratiot county.
Charlie Southern, Hillsdale county.
John A. McMillan, Huron county.
Ivan Swift, Ingham county.
Don M. Waldron, Ionia county.
Donald Carpenter, Isoc county.
Seer Pike, Isabella county.
Ward Andrews, Jackson county.
Otis Gage, Kalamazoo county.
Paul Hayward, Kalkaska county.
Herman Speetra, Kent county.
Eldon L. Ford, Lenawee county.
Lester Sharp, Livingston county.
Lester Richards, Luce county.
John Erskine, Mackinac county.
Reuben Ballor, Macomb county.
Wm. Schreur, Manistee county.
Ross Ewing, Marquette county.
Clarence Rhinehart, Mason county.
Harry Sherman, Mecosta county.
Joseph Bezdeck, Menominee county.
Ira Sly, Midland county.
Wm. Fox, Monroe county.
Alonzo Snyder, Montmorency county.
Floyd W. Robison, Montcalm county.
Lester Benson, Muskegon county.
Ned Achison, Newaygo county.
Bert Beachum, Oceana county.
Frank Renshaw, Oakland county.
Mack Sheldon, Ogemaw county.
Forest Thacker, Osceola county.
Harry Park, Oscoda county.
Clare Hustable, Otsego county.
Christie Hehl, Ottawa county.
Griffin Heslip, Presque Isle county.
Stanley Johnson, Roscommon county.
Emanuel Trinklein, Saginaw county.
Bryan Stephenson, St. Clair county.
Harold Van Sickle, Sanilac county.
Herbert Strasler, Schoolcraft county.
Samuel Troutman, Van Buren county.
Frank Runski, Washtenaw county.
Wm. Ramsey, Wayne county.
Glen Coming, Wexford county.
Lee Patterson, Ontonagon county.
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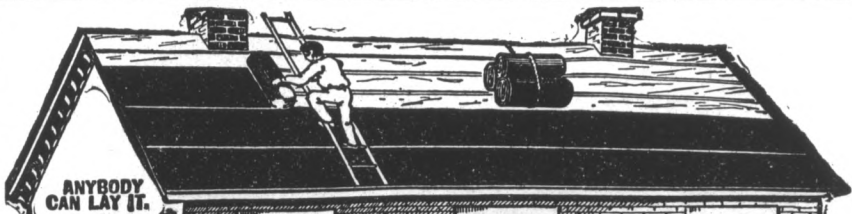
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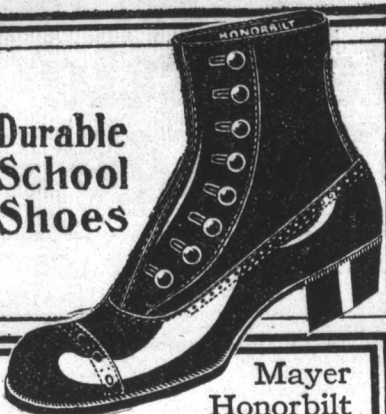
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When writing to advertisers please mention the Michigan Farmer.

Durable School Shoes



Mayer Honorbilt are the only school shoes made with double leather toes. The seams are sewed with two extra rows of stitching. The upper leather is extra strong, and the sole leather is the toughest obtainable. They wear like iron—give double the wear of average school shoes.

Mayer HONORBIT SCHOOL SHOES

are made with special regard to the fit and comfort of growing children—fit perfectly and are handsome looking. Your school shoe money will last longer if you buy Mayer Honorbilt Shoes.

If your dealer cannot supply you, write to us.

WARNING—Be sure and look for the Mayer name and trade mark on the sole.

We make Mayer Honorbilt Shoes in all styles for men, women and children; Dry-sox, Yerma Cushion Shoes, and Martha Washington Comfort Shoes.

FREE—Send name of dealer who does not handle Mayer Honorbilt Shoes—we will send you free, postpaid, beautiful 15x20 picture of Martha or George Washington.

F. Mayer Boot & Shoe Co. Milwaukee.



SAVE-THE-HORSE

(Trade Mark Registered.)

SPAVIN REMEDY



A retail druggist in a "live horse town" within 30 minutes ride from New York City, writes: "I am selling three times more Save-the-Horse than any other one Veterinary remedy; when they want the GOODS that cures they come back for Save-the-Horse."

Whether on Spavin, Ringbone (except Low), Curb, Thoroughpin, Splint, Shoe Boil, Windpuff, Injured Tendons or other disease, a perfect and permanent cure is guaranteed, no wear or loss of hair. Horse works as usual. 16 YEARS A SUCCESS.

WE Originated the Plan of—Treating Horses—Under Signed Contract to Return Money if Remedy Fails. But write, describing your case, and we will send our—BOOK—sample contract, letters from breeders and business men the world over, on every kind of case, and advice—all free (to horse owners and managers).

TROY CHEMICAL CO., 20 Commerce St., Binghamton, N. Y. Druggists everywhere sell Save-the-Horse WITH CONTRACT or sent by us Express Prepaid.

MINERAL HEAVE REMEDY

Use Over 50 Years

CURES HEAVES

NEGLECT Will Ruin Your Horse

Send today for only PERMANENT CURE

\$3 Package will cure any case or money refunded

\$1 Package cures ordinary cases. Postpaid on receipt of price. Agents Wanted Write for descriptive booklet

Safe—Certain

Mineral Heave Remedy Co., 463 Fourth Ave., Pittsburgh, Pa.

CEDAR FENCE POSTS.
GEORGE M. CHANDLER, Onaway, Michigan.

LIVE STOCK

ADDITIONAL STATE FAIR AWARDS.

CATTLE.

Herefords.

Bull three years or over—First, J. H. & J. W. Van Natta, Lafayette, Ind.; 2d, W. T. McCray, Kentland, Ind.; 3d, Louis Norton, Quincy, Mich.

Bull two years old—First, W. T. McCray; 2nd, J. H. & J. W. Van Natta. Senior Yearling Bull—First, J. H. & J. W. Van Natta; 2nd and 3rd, W. T. McCray; 4th, Louis Norton.

Junior Yearling Bull—First, J. H. & J. W. Van Natta; 2nd and 3rd, W. T. McCray.

Senior Bull Calf—First, J. H. & J. W. Van Natta; 2nd, W. T. McCray. Junior Bull Calf—First and 2nd, W. T. McCray; 3rd, Louis Norton.

Cow three years or over—First, J. H. & J. W. Van Natta; 2nd and 3rd, W. T. McCray; 4th, Louis Norton.

Heifer two years old—First, J. H. & J. W. Van Natta; 2nd and 3rd, W. T. McCray; 4th and 5th, Louis Norton.

Senior Yearling Heifer—First, W. T. McCray. Junior Yearling Heifer—First and 2nd, J. H. & J. W. Van Natta; 3rd, W. T. McCray; 4th, Louis Norton; 5th, W. T. McCray.

Senior Heifer Calf—First, W. T. McCray; 2nd, J. H. & J. W. Van Natta; 3d, W. T. McCray; 4th, J. H. & J. W. Van Natta.

Junior Heifer Calf—First and 2nd, W. T. McCray; 3rd J. H. & J. W. Van Natta; 4th and 5th, Louis Norton.

Exhibitor's Herd—First, J. H. & J. W. Van Natta; 2nd, W. T. McCray; 3rd, Louis Norton.

Breeder's Herd—First, J. H. & J. W. Van Natta; 2nd, W. T. McCray; 3rd, L. Norton.

Calf Herd—First, W. T. McCray; 2nd, J. H. & J. W. Van Natta; 3rd, Louis Norton.

Four get of sire—First, W. T. McCray; 2nd, J. H. & J. W. Van Natta; 3rd, Louis Norton.

Two produce of cow—First, W. T. McCray; 2nd, J. H. & J. W. Van Natta; 3rd, Louis Norton.

Senior Champion Bull—W. T. McCray. Junior Champion Bull—J. H. & J. W. Van Natta; Senior Champion Female—J. H. & J. W. Van Natta.

Junior Champion Female—W. T. McCray.

Grand Champion Bull—J. H. & J. W. Van Natta.

Grand Champion Female—J. H. & J. W. Van Natta.

Ayrshires.

Bull three years old or over—First, W. P. Schanck, Avon, N. Y.; 2nd, W. T. Shuttleworth, Leamington, Ont.

Bull two years old—First, W. P. Schanck; 2nd, W. T. Shuttleworth.

Yearling Bull—W. P. Schanck.

Senior Bull Calf—W. T. Shuttleworth.

Junior Bull Calf—First, W. P. Schanck; 2nd, W. T. Shuttleworth.

Cow four years or over—First, W. P. Schanck; 2nd, W. T. Shuttleworth.

Cow three years or over—First, W. P. Schanck; 2nd, W. T. Shuttleworth.

Heifer two years old—First, W. T. Shuttleworth; 2nd, W. P. Schanck.

Yearling Heifer—First and 2nd, W. P. Schanck.

Senior Heifer Calf—First and 2nd, W. P. Schanck; 3rd, W. T. Shuttleworth.

Junior Heifer Calf—First W. T. Shuttleworth; 2nd and 3rd, W. P. Schanck.

Exhibitor's Herd—First, W. P. Schanck; 2nd, W. T. Shuttleworth.

Breeder's Herd—W. P. Schanck.

Calf Herd—First, W. P. Schanck; 2nd, W. T. Shuttleworth.

Four get of sire—First, W. P. Schanck; 2nd, W. T. Shuttleworth.

Two produce of cow—First, W. T. Shuttleworth; 2nd, W. P. Schanck.

Champion ribbons won by W. P. Schanck.

Brown Swiss.

Bull three years old or over—First, H. W. Ayers, Honey Creek, Wis.; 2nd, Hull Bros., Painesville, Ohio.

Bull two years old—First, H. W. Ayers; 2nd, E. L. Page, Pontiac, Mich.; 3rd, Hull Bros.

Yearling bull—First H. W. Ayers, 2nd and 3rd, Hull Bros.; 4th, H. W. Ayers.

Senior Bull Calf—First, H. W. Ayers; 2nd, Hull Bros.

Junior Bull Calf—First, H. W. Ayers; 2nd and 3rd, Hull Bros.

Cow three years or over—First, H. W. Ayers; 2nd and 3rd, Hull Bros.

Heifer two years old—First, Hull Bros.; 2nd, H. W. Ayers; 3rd, E. L. Page; 4th, H. W. Ayers.

Yearling Heifer—First, H. W. Ayers; 2nd and 3rd, Hull Bros.; 4th, H. W. Ayers; 5th, E. L. Page.

Senior Heifer Calf—First, H. W. Ayers; 2nd, Hull Bros.; 3rd, H. W. Ayers; 4th, Hull Bros.

Junior Heifer Calf—First, Hull Bros.; 2nd and 3rd, H. W. Ayers; 4th and 5th, E. L. Page.

Exhibitor's Herd—First, H. W. Ayers; 2nd, Hull Bros.; 3rd, E. L. Page.

Breeder's Herd—First, H. W. Ayers; 2nd, Hull Bros.

Calf Herd—First, H. W. Ayers; 2nd, Hull Bros.

Four get of sire—First, Hull Bros.; 2d, H. W. Ayers.

Two produce of cow—First, Hull Bros.; 2nd, H. W. Ayers.

Senior Champion Bull—H. W. Ayers.

Junior Champion Bull—H. W. Ayers.

Senior Champ. Female—H. W. Ayers.

Junior Champ. Female—H. W. Ayers.

Grand Champion Bull—H. W. Ayers.

SWINE.

Berkshires.

Boar two years or over—First, James Riley & Son, Thornton, Ind.; 2nd, J. N. Clapp, Northville, Mich.; 3rd, E. L. Salisbury, Shepherd, Mich.

Boar 18 months and under two years—First and 2nd, J. Riley & Son.

Boar 12 months and under 18 months—First, Hibbard & Baldwin, Bennington, Mich.; 2nd, Jas. Riley & Son.

Boar six months and under 12 months—First, E. L. Salisbury; 2nd, Hibbard & Baldwin; 3rd, Jas. Riley & Son; 4th, Hibbard & Baldwin.

Boar under six months—First, James Riley & Son; 2nd, E. L. Salisbury; 3rd, Hibbard & Baldwin; 4th, E. L. Salisbury.

Sow two years or over—First, J. N. Clapp; 2nd, Hibbard & Baldwin; 3rd and 4th, W. T. McCray; 5th, J. H. & J. W. Van Natta.

Sow 12 months and under 18—First, 2nd, 3rd and 4th, Jas. Riley & Son.

Sow six months and under 12—First, 2nd and 3rd, Jas. Riley & Son; 4th, Hibbard & Baldwin.

Sow six months and under 12—First, 2nd and 3rd, Jas. Riley & Son; 4th, Hibbard & Baldwin.

Sow under six months—First, E. L. Salisbury; 2nd, Hibbard & Baldwin; 3rd, E. L. Salisbury.

Exhibitor's Herd—First, Jas. Riley & Son; 2nd, Hibbard & Baldwin; 3rd, J. N. Clapp; 4th, E. L. Salisbury.

Breeder's Herd—First, Jas. Riley & Son; 2nd, Hibbard & Baldwin; 3rd, E. L. Salisbury.

Four of either sex, get of same boar bred by exhibitor—First, Jas. Riley & Son; 2nd, Hibbard & Baldwin; 3rd, E. L. Salisbury.

Four either sex, under six months, produce of same sow—First, Hibbard & Baldwin; 2nd, E. L. Salisbury; 3rd, Jas. Riley & Son.

Champion boar one year or over—Jas. Riley & Son.

Champion boar under one year—Jas. Riley & Son.

Champion sow one year or over—Hibbard & Baldwin.

Champion sow under one year—Jas. Riley & Son.

Grand Champion Boar—Jas. Riley & Son.

Grand Champion Sow—Jas. Riley & Son.

Premier Champion for Exhibitor—Jas. Riley & Son.

Premier Champion for Breeder—Jas. Riley & Son.

Poland Chinas.

Boar two years or over—First, N. W. Wagner, Fremont, O.; 2nd, N. W. Wagner; 3rd, J. M. Chase & Sons, Ionia, Mich.

Boar 18 months and under two years—First, J. M. Chase & Sons; 2nd, C. C. Beaty, Van Wert, O.

Boar 12 months and under 22—A. E. Simois, Van Wert, O.

Boar six months and under 12—First, N. W. Wagner; 2nd, C. C. Beaty.

Boar under six months—First, 2nd and 3rd, C. C. Beaty; 4th, C. E. Simois.

Sow two years or over—First, C. E. Simois; 2nd, N. W. Wagner; 3rd, J. M. Chase & Son; 4th, N. W. Wagner.

Sow 18 months and under two years—First, C. C. Beaty; 2nd and 3rd, N. W. Wagner; 4th, C. E. Simois.

Sow 12 months and under 22 months—First, C. E. Simois; 2nd and 3rd, N. W. Wagner; 4th, J. M. Chase & Son.

Sow six months and under 12—First, C. E. Simois; 2nd, C. C. Beaty; 3rd, N. W. Wagner; 4th, C. C. Beaty.

Sow under six months—First and 2nd, C. C. Beaty; 3rd, N. W. Wagner; 4th, J. M. Chase & Son.

Exhibitor's Herd—First, C. E. Simois; 2nd, N. W. Wagner; 3rd, J. M. Chase & Son.

Breeder's Herd—First, C. E. Simois; 2nd, C. C. Beaty; 3rd, N. W. Wagner; 4th, J. M. Chase & Sons.

Shropshires.

Ram two years old or over—First, J. W. Harding, Waukesha, Wis.; 2nd, H. E. Powell, Ionia, Mich.; 3rd, J. L. Jones, Burford, Ont.; 4th, Kope-Kon Farm, S. L. Wing; 5th, H. E. Powell.

Ram one year old—First and 2nd, E. E. Leland, Ann Arbor, Mich.; 3rd, H. E. Powell, 4th and 5th, Kope-Kon Farm, Kuderhook, Mich.

Ram Lamb—First, F. W. Harding; 2d, H. E. Powell, 3rd, J. L. Jones; 4th, E. E. Leland & Sons; 5th, F. W. Harding.

Ewe two years—First, F. W. Harding; 2nd, J. L. Jones; 3rd, F. W. Harding; 4th, J. L. Jones; 5th, Kope-Kon Farm.

Ewe one year old—First, F. W. Harding; 2nd, J. L. Jones; 3rd and 4th, E. E. Leland & Sons; 5th, H. E. Powell.

Ewe Lamb—First, F. W. Harding; 2nd and 3rd, J. L. Jones; 4th and 5th, H. E. Powell.

Flock—First, F. W. Harding; 2nd, J. L. Jones; 3rd, H. E. Powell; 4th, E. E. Leland & Sons; 5th, Kope-Kon Farm.

Grand Champion Ram—F. W. Harding.

Grand Champion Ewe—F. W. Harding.

Oxfords.

Ram one year old—First, Kope-Kon Farm, Kuderhook, Mich.; 2nd, Wm. Newton, Pontiac, Mich.

Ewe two years old or over—First, Kope-Kon Farm; 2nd, Wm. Newton.

Ewe one year old—First and 2nd, Kope-Kon Farm.

Ewe Lamb—First, Kope-Kon Farm; 2nd, Wm. Newton.

Flock—First, Kope-Kon Farm; 2nd, W. Newton.

Gd. Champion Ram—Kope-Kon Farm.

Gd. Champion Ewe—Kope-Kon Farm.

(Continued on page 283).

Careful inquiry at the Iowa State Fair failed to discover a great many good horses, and big horses were really scarce. A visitor at the fair said: "One exhibitor at the fair, showing in the grade classes, had forward four mares, one four-year-old and three three-year-olds. He priced them to a shipper on the grounds at \$1,200 for the four head and declined to sell the four-year-old at \$300 unless the younger fillies went with her at the same price. The oldest of the lot weighed only 1,650 lbs."

HARD TO SEE

Even When the Facts About Coffee are Plain.

It is curious how people will refuse to believe what one can clearly see.

Tell the average man or woman that the slow but cumulative poisonous effect of caffeine—the alkaloid in tea and coffee—tends to weaken the heart, upset the nervous system and cause indigestion, and they may laugh at you if they don't know the facts.

Prove it by science or by practical demonstration in the recovery of coffee drinkers from the above conditions, and a large per cent of the human family will shrug their shoulders, take some drugs and—keep on drinking coffee or tea.

"Coffee never agreed with me nor with several members of our household," writes a lady. "It enervates, depresses and creates a feeling of languor and heaviness. It was only by leaving off coffee and using Postum that we discovered the cause and way out of these ills."

"The only reason, I am sure, why Postum is not used altogether to the exclusion of ordinary coffee is, many persons do not know and do not seem willing to learn the facts and how to prepare this nutritious beverage. There's only one way—according to directions—boil it fully 15 minutes. Then it is delicious." Name given by Postum Co., Battle Creek, Mich. Read the little book, "The Road to Wellville," in pkgs. "There's a reason."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

Keep Hogs Healthy



A DIPPING TANK OR A HOG WALLOW WITH

KRESO DIP NO. 1

WILL DO THE WORK

THERE IS NO EXCUSE FOR LOUSY MANY UNTHRIFTY PIGS. IF YOU HAVE SOME OF THIS KIND YOU WILL FIND IT WORTH WHILE TO GET OUR CIRCULAR ON TANKS AND WALLOWS. IT TELLS HOW TO MAKE THEM OF CEMENT

KRESO DIP NO. 1

IS A REAL NECESSITY

ABOUT ALL LIVE STOCK

FOR KILLING LICE, TICKS, MITES, FLEAS. FOR TREATING SCAB, MANGE, RINGWORM, AND OTHER SKIN DISEASES.

TO DISINFECT, DEODORIZE, CLEANSE & PURIFY.

ALL OF THESE USES FULLY DESCRIBED IN OUR BOOKLETS. WRITE FOR COPIES. ASK YOUR DRUGGIST FOR KRESO DIP NO. 1

PARKE, DAVIS & CO.,

DEPARTMENT OF ANIMAL INDUSTRY.

DETROIT,

MICH.



DON'T CUT OUT

a SHOE BOIL, CAPPED HOCK or BURSITIS, for

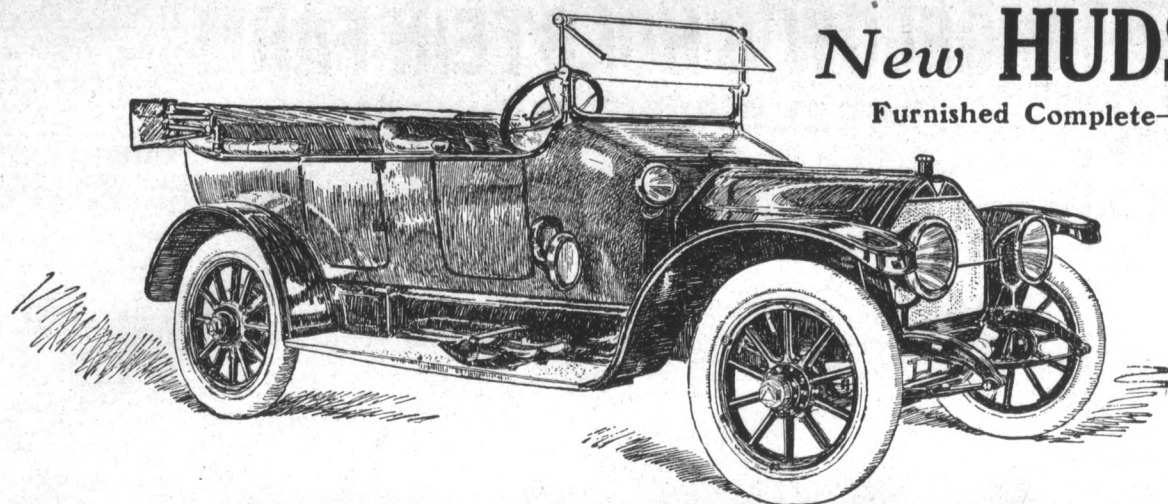
ABSORBINE



will remove them and leave no blemishes. Cures any puff or swelling. Does not blister or remove the hair. Horse can be worked. \$2.00 per bottle delivered. Book 6 K free.

the antiseptic liniment for mankind. For Boils, Bruises, Old Sores, Swellings, Goitre, Varicose Veins, Varicosities, Allays Pain. Price \$1 and \$2 a bottle at druggists or delivered. Will tell more if you write. Manufactured only by

W. F. YOUNG, P. O. F., 268 Temple St., Springfield, Mass.



New HUDSON "37"

Furnished Complete—No Extras to Buy.

Not Even Howard E. Coffin Could Build Such A Car As This

Everyone knows that Howard E. Coffin is the Master Automobile Designer of America. He has built more successful four-cylinder cars than has any other man.

But working alone, he is not capable of building an automobile equal to the New HUDSON "37."

A New Idea.

For more than two years Mr. Coffin has been organizing this staff of engineers. There are 48 now. They have been gathered from all the automobile building nations—from France, Germany, England, Belgium and Austria. They came from 97 different factories. Combined they have had a hand in building more than 200,000 cars.

It is carrying out the idea of team work which is the foundation upon which all successful concerns are now built.

Experts specially fitted to do certain kinds of work combined their knowledge. Therefore the HUDSON "37" represents more than that which any one man could do. Even Mr. Coffin, with his wide knowledge and recognized ability in creating new ideas, would fall short in an endeavor to build a car equal to the HUDSON "37."

Automobiles have heretofore been designed usually by one man, just as Mr. Coffin, in all his previous cars has

depended principally upon his now ability.

Into the cars of any one man is combined the experience and ability of the individual. There also is incorporated into such cars all the errors and hobbies, some of them impracticable, that any individual is very apt to overlook.

Are Mistakes Probable Under Such Conditions?

We fortify ourselves against error by focusing upon every detail the combined skill and experience of as many experts as we can obtain.

We do not limit ourselves. Whenever a man was found who could do work better than any one else and we have need for such work, that man was induced to join this organization.

That is why there are 48 engineers in this company—the largest number employed by any automobile manufacturer in the industry, and that is why HUDSON cars go out without mistakes. That is why there has been

no error in judgment. Experience is not bought at the expense of the buyer after the car is in his hands. It is paid for out of the combined experience of the men who build the car. We pay it in salaries and not in replacements. Yet many of these men are substantially interested in the Hudson Motor Car Company.

The Hudson Motor Car Company is not owned by individuals who do not contribute to the success of the business. With the exception of one holder of a small amount of stock, everyone interested in this company is actively engaged in its operation. Consequently no earnings must be made for brains that are not responsible for those earnings.

There is no large overhead—no water. That accounts, in addition to the value of brains in the engineering—in addition to the elimination of error, for the fact that in the HUDSON "37" is given a quality not obtainable in any other car and never possible under any other conditions.

Electric Self-Cranking—Electrically Lighted

Some Will Advise You to Wait

Some may say to you "The HUDSON '37' is a new car. Wait and see what it does during its first year. Get some older car—one that has been developed slowly, that has been improved year after year but which is a radical change from the leading engineering practices."

That was sound advice when no builder had had experience. It is sound advice as applied to any car built by any one man. It does not apply to the HUDSON "37" which is the result of the experience of these 48 men gained in 97 factories in building over 200,000 cars.

What These 48 Men Have Done

The HUDSON "37" is electrically self-cranking and electrically lighted. It is fully equipped; has 12-inch upholstery, top, rain vision windshield, a motor which develops 37-43 horsepower, speedometer, clock, 36x4 inch wheels, 118-inch wheel base, tools and other equipment.

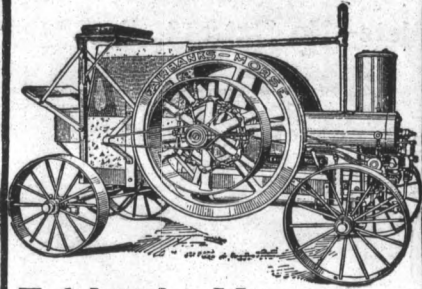
Therefore it has the best quality we know how to produce. Every detail of luxury is developed to the highest degree. The car is entirely operated from the driver's seat. Lights are controlled from the dash. All oiling places are conveniently located.

The price of either the Five-Passenger Touring Car, the Torpedo or Roadster models is \$1875 f. o. b. Detroit.

See the Triangle on the Radiator.

HUDSON MOTOR CAR COMPANY
7510 Jefferson Ave., Detroit, Michigan

Take the Power to the Job



Fairbanks-Morse Portable Oil Engine

A Great Machine for
 Threshing, Pumping, Ensilage Cutting, Hay Baling, Ginning, Shredding, Clover Hulling, Corn Shelling, Wood Sawing, Feed Grinding.
 Kerosene, Gasoline or Low Grade Distillate
 Buy one yourself or in partnership with neighbors. In many cases the engine will save its cost in a year.
 10 to 25 H. P. Other types, 2, 4, 5, 6 and 8 H. P.
 Write for prices and catalog No. AR 601
Fairbanks-Morse & Co.
 Chicago Detroit
 Wagon and Portable Scales, Gasoline Engines, Pumps, Water Systems, Electric Light Plants, Windmills, Feed Grinders.

THE BEST LINIMENT

OR PAIN KILLER FOR THE HUMAN BODY

Gombault's

Caustic Balsam

IT HAS NO EQUAL

For the Human Body
 —It is penetrating, soothing and healing, and for all Old Sores, Bruises, Wounds, Cancers, Boils, Corns and Bunions. CAUSTIC BALSAM has no equal as a Liniment.

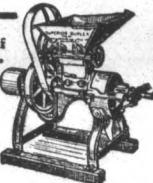
We would say to all who buy it that it does not contain a particle of poisonous substance and therefore no harm can result from its external use. Persistent, thorough use will cure many old chronic ailments and it can be used on any case that requires an outward application with perfect safety.

Perfectly Safe and Reliable Remedy for
 Sore Throat, Chest Cold, Backache, Neuralgia, Sprains, Strains, Lumbago, Diphtheria, Sore Lungs, Rheumatism and all Stiff Joints.

REMOVES THE SORENESS—STRENGTHENS MUSCLES
 Cornhill, Tex.—"One bottle Caustic Balsam did my rheumatism more good than \$120.00 paid in doctor's bills."
 Price \$1.50 per bottle. Sold by druggists, or sent by us express prepaid. Write for Booklet R.
THE LAWRENCE-WILLIAMS COMPANY, Cleveland, O.

FREE CATALOG—

Tells how to grind twice the amount of corn on cobs or in shucks, shell corn, sheaf oats, kafir corn, alfalfa, oats, rye, wheat, barley, cotton seed and small grains, coarse or fine, in half the time and with less power by using the



SUPERIOR DUPLEX MILL

Its double grinding rings with saw tooth grooves do the work the way you want it done. Force feed never chokes. Self-sharpening, simple and built to last. Extra grinding rings free with mill. Complete line. Capacity 5 to 120 bu. an hour and operates on from 1 1/2 to 25 H. P. For gasoline or steam engines. Fully guaranteed. Write today for free illustrated catalogue.
SUPERIOR MANUFACTURING & MILL CO.
 20 East Street Springfield, Ohio

BOWSER

(Sold with or without elevator)

CRUSH ear corn (with or without shucks) **GRIND** all kinds of small grain. Have Conical Shape Grinders. Different from all others.

LIGHTEST RUNNING

(Our Circular Tells Why)

Handy to Operate. 10 Sizes—2 to 25 h.p. Capacity 6 to 200 bushels.

We Also Make Sweep Grinders.

FREE Booklet on "Values of Feeds and Manures."

D.N.P. Bowser Co., South Bend, Ind.

FEED MILLS

\$10,000 Backs

this portable wood saw. Guaranteed 1 year—money refunded and freight paid both ways if unsatisfactory. You can easily earn \$10 a day with a

HERTZLER & ZOOK
 Portable Wood Saw
 As low as \$10

sawing all kinds of neighbors' lumber. Strictly factory prices—save jobber's profits. Operates easily. Stick sits low—saw draws it on immediately machine starts. Only \$10 saw to which ripping table can be added. Write for catalogue.
HERTZLER & ZOOK CO.
 Box 23, Belleville, Pa.

BIGELOW'S HOLSTEIN FARM

BREEDSVILLE, MICHIGAN.

Have for sale a five months old bull, 7/8 white. His dam has an official record of 25.50 lbs. butter and is a granddaughter of Hengerveld DeKol. His sire's dam has an official record of 26.73 lbs. butter, and is a grandson of De Kol Burke. First check for \$125 takes this fine youngster.

Another—same sire from a 22.83 lb. dam, 6 months old—\$90.

Another—same sire from a 20.27 lb. dam, 9 months old—\$85.

Another—same sire from a 20.41 lb. dam, 7 months old—\$80.

And two 4 and 5 months old by same sire \$35 and \$45, out of good milking dams.



All that Darlings' Digester Tankage has done for others in increasing Hog Profits—it will do for you.

By mixing it into your hog feed—you can positively increase the weight of your hogs from 30 to 40 pounds and add to your profits accordingly.

Darling's Digester Tankage
 contains all the elements of scientific hog feed—is rich in protein, better than milk or oil meal, and results considered, actually costs less than any other feed obtainable.

If you want bigger profits in hogs—This free booklet on Hog Feeding tells how to get them.

gives you facts and figures which you as a hog raiser ought to know about. It tells how and why Darling's Digester Tankage has won the endorsement of experts and State Experiment stations. Write today. Get the facts and you'll make more money on hogs this year than you ever made. Tell us to mail you a copy of this helpful booklet today.

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HOG CENTS

HARNESS

Hand made of Special "A" Selected Oak Leather. Absolute Guarantee to Purchaser. If your dealer will not supply you with our harness, write direct to us.
SHERWOOD HALL CO., Ltd.,
 Louis and Ionia Sts. Grand Rapids, Mich.

PERCHERONS

bred for utility as well as show quality. Stable includes several international winners. Three 2-year-old stallion colts of quality for sale. Come, or write B. F. ANDERSON, R. No. 3, Adrian, Mich.

I WANT ABOUT 40 common or grade Angora Goats for my Michigan farm. W. S. FLEMING, 1849 W. 22 Place, Chicago.

For Sale—Horses, cattle, sheep, swine, poultry and dogs, nearly all breeds. Sires exchanged. South West Michigan Pedigreed Stock Ass'n., David Woodman, Sec'y., Paw Paw, Mich.

HOUNDS
 for Coon, Fox and Deer, sent on ten days' trial, pedigree and eligible to registry, trained and untrained.
R. F. JOHNSON, Assumption, Ill.

BREEDERS' DIRECTORY.

CATTLE.

ABERDEEN-ANGUS.
 Herd, consisting of Trojan Erectas, Blackbirds and Prides, only, is headed by Egerton W. a Trojan Erecta, by Black Woodlawn, sire of the Grand Champion steer and bull at the International in Chicago, Dec., 1910. A few choice bred young bulls for sale.
WOODCOTE STOCK FARM, Ionia, Mich.

AYRSHIRES—One of foremost dairy breeds; young bulls and bull calves for sale. Berkshire swine. All pure bred.
 Michigan School for Deaf, Flint, Mich.

GUERNSEYS—Two nicely marked bull calves dropped in March, at farmers prices. **ALLAN KELSEY,** Lakeview, Mich.

For Sale—Registered Ayrshire Bull Calves at farmers' prices. Also a few cows and heifers. **E. A. BLACK,** R. No. 6, Lakeview, Mich.

GUERNSEY BULL CALVES at prices you can afford to pay. (Reg.) **W. W. BURDICK,** Wayland, Mich.

GUERNSEY BULL CALVES, YORKSHIRE PIGS. Good Stock.
HICKS GUERNSEY FARM, Saginaw, W. S., Mich.

For Sale—Registered GUERNSEY BULLS. Large Yorkshire hogs, either sex, best breeding. **JOHN EBBELS,** R. 10, Holland, Mich.

Reg. Guernseys—Both sexes. Sired by Grand-son Masher Sequel. Prices right. **F. G. LAMSON,** R. 41, Sinclairville, N. Y.

Johanna Concordia Prilly De Kol,
 The best bred yearling Bull in the State, is for Sale.

also cows and heifers bred to his sire, Johanna Concordia Champion, whose dam, sires dam and dams dam average 29.57 lbs. butter in 7 days.

L. E. CONNELL, - Fayette, Ohio.

HOLSTEIN FEMALES—all ages. **HOBERT W. FAY,** Mason, Mich.

gan. Farm right in the City, only a few minutes from Jackson and Lansing. Interurban cars every hour.

Holstein-Friesian Cattle—The kind that make good.
GREGORY & BORDEN, Howell, Michigan.

"Top-Notch" Holsteins.

Choice bull calves from 7 to 10 mos. old, of fashionable breeding and from dams with official milk and butter records for sale at reasonable prices. Also a few choice females.
McPHERSON FARMS CO., Howell, Michigan.

HOLSTEIN BULLS

From 3 to 12 months old, \$60 to \$250 each.

You can't buy better.

LONG BEACH FARM, Augusta, Mich.

HOLSTEIN MILK
 FOR SALE—6 yearling Holstein Friesian Bulls, 2 A. R. O. bred. Some cows. Also bull calves. 34 years a breeder. Photos and pedigrees on application. **W. C. JACKSON,** South Bend, Ind., 119 Rex St.

Holstein Bull Calf—dropped Feb. 17, 1912, nearly white, 37 1/2 blood Hengerveld De Kol dams; record Senior 2-year-old, 15.37 lbs. butter. **GEORGE E. LAPHAM,** R. 8, St. Johns, Mich.

Purebred Registered HOLSTEIN CATTLE
 The Greatest Dairy Breed
 Send for FREE Illustrated Booklets
Holstein-Friesian, Assn., Box 164, Brattleboro, Vt.

HIGH GRADE HOLSTEINS FOR SALE

Two cows six and seven years, one heifer two years, one heifer eighteen months, heifer calf six months. The two last sired by a son of the King of the Pontiacs, the others bred to him.
ED. S. LEWIS, Marshall, Mich.

REGISTERED Holstein Cattle—Two good bull calves. R. Herd headed by Hengerveld Coin Pieterje. **FLOYD F. JONES,** R. F. D. 3, Oak Grove, Mich.

Big Bull Bargain—Choice registered HOLSTEIN ready for service. Hatch Herd, Ypsilanti, Mich.

NOTICE—I offer for sale a fine three-year-old Jersey cow. Also two young bull calves at bargain prices. **C. A. TAGGETT,** R. No. 1, Caro, Mich.

Lillie Farmstead Jerseys
 (Tuberculin tested. Guaranteed free from Tuberculosis.) Several good bulls and bull calves out of good dairy cows for sale. No females for sale at present. Satisfaction guaranteed.
COLON C. LILLIE, Coopersville, Mich.

Jersey Cattle For Sale.
C. A. BRISTOL Fenton, Michigan.

Jerseys—Bulls ready for service, bred for production. Also cows and heifers. Brookwater Farm, R. F. D. No. 7, Ann Arbor, Mich.

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

RED POLLED—Choice lot of females any age, also some bull calves.
J. M. CHASE & SONS, Ionia, Michigan.

RED POLLED BULLS FOR SALE—from good strains. **JOHN BERNER & SON, Grand Lodge, Mich.**

Dairy Shorthorns—Large Cattle—Heavy Milkers. Milk Records Furnished. Two young bulls for sale. Prices right. A square deal to all. **W. W. KNAPP,** R. No. 4, Watervliet, Mich.

SHEEP.

Delaine Merino Rams—flock headers, large size, long staple, heavy shearers, at bargain prices. Write, **S. H. SANDERS,** Ashtabula, O.

RAMS FOR SALE—Leicester and Hampshire. C. I. SOUTHWICK, R. No. 4 Grand Rapids, Mich.

For Sale, Oxford Down rams, yearlings, different ages. **S. E. GILLET,** Ravenna, Ohio.

FOR SALE—A few choice registered Oxford Down yearling Rams. **H. B. PETERS,** R. No. 1, Burton, Michigan.

Reg. Rambouillets—12 ewes, 35 rams all in perfect health. Come and see me or write for circular of breeding—none better. 2 1/2 miles E. Morris, on G. T. R. R. and M. U. R. J. Q. A. COOK.

Oxford Down Sheep—Good Yearling Field for sale. **I. R. WATERBURY,** Highland, Michigan.

Superb Von Homeyer Rambouillets for sale. Rams absolutely the best. **Dr. L. Breisacher,** Detroit, Mich.

IMPORTED B. T. D. M. RAMS FOR SALE.
C. F. KALMBACH, Grass Lake, Michigan.

RAMBOUILLET RAMS Heavy fleeced ones weighing 25 pounds and upward. **A. E. GREEN,** Orchard Lake, Mich.

Choice Registered RAMBOUILLETS—Both sexes and sold right. **Ira B. Baldwin,** Hastings, Mich.

SHROPSHIRE YEARLING—and 2-year old rams of the best wool and mutton type. **Geo. P. Andrews,** Dansville, Ingham Co., Mich.

FOR SALE—Choice Shropshire Yearling Rams in lots of one to twenty. Prices right. **JONES & MORRIS,** Flushing, Mich.

Shropshires—Ten good ewes. Yearling rams and ram lambs. One aged Imp. Minton ram. **WILLIS S. MEADE,** R. No. 3, Lapeer, Mich.

Shropshires—One and two year old rams and ewes for sale from imported sires. We invite inspection. **O. W. PERRY,** Clare, Mich.

INGLESIDE SHROPSHIRE.—One and ewes; also yearling and lamb rams for sale at reasonable prices. **HERBERT E. POWELL,** Ionia, Mich.

Shropshire Rams and Ewes for Sale
DAN BOOHER, R. No. 1, Marlon, Mich.

Shropshire Rams and Ewes at farmers' prices. **HARRY POTTER,** Davison, Mich.

Shropshires—Yearling rams at \$12 and \$15. Two extra fine rams at \$25 each. **O. J. THOMPSON,** Rockford, Mich.

HOGS.

Durocs and Victorias—Young sows due Mar. & April. Bred to 1st prize and champion boar. Priced to move them. **M. T. STORY,** Lowell, Mich.

BERKSHIRES for Sale—March farrowed boars and gilts, sired by Handsome Prince 3d, out Weyneth Lady Francis. **A. A. PATTULLO,** Deckerville, Mich.

BERKSHIRES—Choice individuals, either sex, from the Champion Herd of the Thumb of Mich. **ELMHURST STOCK FARM,** Almont, Mich.

Quick Maturing Berkshires—Best breeding; best type. Satisfaction guaranteed or money refunded. **O. S. BARTLETT,** Pontiac, Mich.

BERKSHIRES—Weaned pigs either sex \$15 two for \$25; bred gilts \$35; bred sows \$50, registered and transferred. Excellent breeding. Choice individuals. **C. C. COREY,** New Haven, Michigan.

Improved Chesters—Spring pigs, either sex. Also have a choice young boar and a few sows bred for early fall farrow. **W. O. WILSON,** Okemos, Mich. Both phones.

Reg. Chester Whites—Both sexes and bred gilts, also serviceable registered Holstein bulls. Bargains. **RAY PARHAM,** Bronson, Mich.

O. I. C.—Extra choice bred gilts, service boars and spring pigs, not akin from State Fair winners. **Avondale Stock Farm, Wayne, Mich.**

O. I. C's—All ages, growthy and large, sows bred. Males ready, 100 to select from. Attractive prices on young stock. **H. H. JUMP,** Munith, Mich.

O. I. C's—I have some very fine and growthy last fall pigs, either sex, males ready for service now, pairs not akin. **OTTO B. SCHULZE,** Nashville, Mich., half mile west of depot.

O. I. C's of superior quality. 17 choice young gilts and 11 topy young boars. Pairs no akin. **FRED NICKEL,** Monroe, Michigan.

OUR Imp. Chester Whites and Tamworth swine won 245 1st at Fairs in 1911. Service boars, also sows bred for spring farrow of either breed that will please you in quality and price. **Adams Bros., Litchfield, Mich.**

O. I. C's with size & quality, the kind I can positively guarantee to give satisfaction or will refund money. **Newman's Stock Farm, R. No. 1, Marlette, Mich.**

O. I. C. SWINE Write me for price on Spring Pigs, pairs and trios, not akin. Have a number of service males of good type. Write me describing of your wants. **A. J. GORDEN,** R. No. 2, Dor, Mich.

O. I. C. Hogs of all ages, bred sows and gilts, service males and May and June farrowed pigs. **Rolling View Stock Farm, Cass City, Mich.**

O. I. C's of March and April farrow, shipped on approval or c. o. d. **OTIS GREENMAN,** R. 4, Bellevue, Eaton Co., Mich.

DUROC JERSEY SWINE—Thirty spring pigs, brood sows. Breeding the best, prices right. Come and see them. **ORLO L. DOBSON,** Quincy, Mich.

DUROC-JERSEYS—Fall and Spring boars from all ages. SPECIAL BARGAIN in summer pigs. Brookwater Farm, R. F. D. No. 7, Ann Arbor, Mich.

DUROC JERSEYS—A few heavy boned boars and gilts for sale. Also fall pigs of either sex. Pairs not akin. **M. A. BRAY,** Okemos, Mich.

DUROC JERSEYS—One service boar; two bred gilts; spring pigs (either sex). Choice breeding. Prices reasonable. Write or come and see. **R. G. VIVIAN,** R. No. 4, Monroe, Mich.

DUROC + JERSEY SWINE—THE BIG KIND Write for it. **F. A. LAMB & SON,** Cassopolis, Mich.

Duroc Jerseys—for sale: 20 fine service boars of fancy breeding and individual quality. Prices reasonable. **John McNeill,** North Star, Mich.

DUROC JERSEYS, HERD IMMUNE TO CHOLERA.
CAREY U. EDMONDS, Hastings, Michigan.

Duroc Jersey SWINE. Spring and summer pigs for sale both sexes. I pay express. 25 years experience. **J. H. BANGHART,** Lansing, Mich.

DUROC JERSEYS—10 Fall and 10 Winter Boars, ready for service. Prices right for 10 days. Write or come and see **J. C. BARNEY,** Coldwater, Mich.

Big Smooth Poland China Hogs from large sires, either sex, at reasonable prices. **ALLEN BROS.,** Paw Paw, Mich.

Poland Chinas—Bred from large type. Stock all ages, both sexes, at Farmers prices. **W. J. HAGELSHAW,** Augusta, Michigan.

POLAND CHINAS—Big type spring pigs, either sex, also Shorthorn Bull calves and Oxford bucks. Prices right. **ROBERT NEVE,** Pierston, Mich.

POLAND CHINAS—Gilts and yearling sows bred for first of Sept. farrow, a few big types. **E. D. BISHOP,** Route 38, Lake Odessa, Mich.

POLAND CHINAS—Either sex, all ages. Something good at a low price. **P. D. LONG,** R. No. 8, Grand Rapids, Mich.

POLAND CHINAS—Young sows bred for April farrow. Extra good fall pigs, either sex. **L. W. BARNES & SON,** Byron, Shiawassee Co., Mich.

POLAND CHINAS—Home of Michigan's Grand Champion Boar, Sows, Gilts, and Boars. Priced to sell. **E. J. MATHEWSON,** Nottawa, Mich.

P. C. BOARS—Large type—sired by Expression 80439 and E. M. F. 83857. Satisfaction guaranteed. **R. W. MILLS,** Saline, Mich.

Butler's Big Type Poland Chinas.
 We have a few big-boned, long-bodied P. C. boars yet in herd. Two big yearlings at \$30. Early spring pigs \$20 to \$25. Summer pigs \$10 to \$15. Fall pigs \$5 each. Pedigree with every pig.
J. C. BUTLER, Portland, Michigan.

FOR SALE—Spring boars and sows sired by Expansion at right prices.
A. A. WOOD & SON, Saline, Michigan.

MICHIGAN'S Great Big Type P. C. Herd—Boars weigh 225 lbs. at 5 1/2 mo. old, net fat. Sold one to head Agricultural College herd. Seeing is believing. Come and be convinced. Expenses paid if not as represented. Free livery. **W. E. LIVINGSTON,** Parma, Mich.

TWO YOUNG TAMWORTH BOARS FOR SALE
T. F. MARSTON, Bay City, Michigan.

Mulefoot Hogs—30 SOWS and GILTS bred. Also pigs not akin. Boars all ages. **G. C. KREGLOW,** Ada, Ohio.

For Sale, Yorkshire Gilts—Bred to farrow of August. Also pigs, both sexes. **WATERMAN & WATERMAN,** Meadow Land Farm, Ann Arbor, Mich.

CHOLERA PROOF HOGS.

I have more than 5700 swine on my farm and am selling grade Yorkshire, Tamworth, Poland China and Duroc brood sows, boars and shoats in any quantity at best Buffalo market price for fat yorkers on day of sale. Sows to farrow soon included. These hogs are not fat, are cholera proof and prolific breeders. Pigs that are 6 to 10 weeks old at \$3 to \$4.

ALVAN BROWN'S PIG FARM, Grand Rapids, Mich.

Large Yorkshires—Gilts bred for September farrow; boars for service; also pigs of either sex, not akin. **W. C. COOK,** R. 42, Box 22, Ada, Mich.

Lillie Farmstead YORKSHIRES.
 A few choice Gilts bred for September farrow, good ones. Spring pigs, either sex, pairs and trios not akin. Satisfaction guaranteed.
COLON C. LILLIE, Coopersville, Mich.

ADDITIONAL STATE FAIR AWARDS.

(Continued from page 280).

Cheviots.

Interlaken Farms first on all Cheviot Sheep, Edd. Norton.

Lincolns.

Ram two years old or over—First, J. G. Lethbridge & Son, Alliance, Ont.; 2nd, Robt. Knight & Son, Marlette, Mich.; 3rd, Lethbridge & Son; 4th, Knight & Son; 5th, S. L. Meny, Hendeshod, Mich.

Ram one year old—First, Lethbridge & Son; 2nd, Waite Bros., Kerrwood, Ont.; 3rd Lethbridge & Son; 4th and 5th, Robt. Knight & Son.

Ram lamb—First, Waite Bros.; 2nd, Lethbridge & Son; 3rd, Waite Bros.; 4th, Knight & Son; 5th, Lethbridge & Son.

Ewe two years old—First, Kope-Kon Farm, S. L. Meny; 2nd, Waite Bros.; 3d, Kope-Kon Farm; 4th, Waite Bros.; 5th, Lethbridge & Son.

Ewe one year old—First, Lethbridge & Son; 2nd, Waite Bros.; 3rd and 4th, Robt. Knight & Son; 5th, Kope-Kon Farm.

Ewe lamb—First, Waite Bros.; 2nd, Knight & Son; 3rd and 4th, Lethbridge & Son; 5th, Knight & Son.

Flock—First—Lethbridge & Son; 2nd, Waite Bros.; 3rd, Knight & Son; 4th, Kope-Kon Farm.

Four lambs, two of each sex—First, Waite Bros.; 2nd, Lethbridge & Son; 3d, Knight & Son; 4th, Kope-Kon Farm.

Grand Champion Ram—Lethbridge & Son.

Grand Champion Ewe—Lethbridge & Son.

Cotswolds.

Ram two years old or over—First, J. W. Harding, Waukesha, Wis.; 2nd, J. P. Ficht, Oriel, Ont.; 3rd, F. W. Harding; 4th, George Allen, Burford, Ont.; 5th, Wm. Newton, Pontiac.

Ram one year old—First, F. W. Harding; 2nd, George Allen; 3rd, J. P. Ficht; 4th, F. W. Harding; 5th, J. P. Ficht.

Ram lamb—First and 2nd, F. W. Harding; 3rd and 4th, George Allen; 5th, J. P. Ficht.

Ewe two years old—First, F. W. Harding; 2nd, J. P. Ficht; 3rd and 4th, George Allen; 5th, F. W. Harding.

Ewe one year old—First and 2nd, F. W. Harding; 3rd and 4th, J. P. Ficht; 5th, George Allen.

Ewe lamb—First, F. W. Harding; 2nd and 3rd, J. P. Ficht; 4th, George Allen; 5th, Wm. Newton.

Flock—First, F. W. Harding; 2nd, J. P. Ficht; 3rd, George Allen; 4th, Wm. Newton.

Four lambs two of each sex—First, J. P. Ficht; 2nd, George Allen; 3rd, F. W. Harding; 4th, Wm. Newton.

Grand Champion Ram—F. W. Harding.

Grand Champion Ewe—F. W. Harding.

HORSES.

American Carriage Horses.

Stallion four years or over—First, J. R. Peake & Son, Winchester, Ill.; 2nd, C. J. Mooers, Columbus, Ohio; 3rd, W. W. Collier, Pontiac, Mich.; 4th, W. M. Ritter, Pontiac, Mich.

Stallion three years or under—First, J. R. Peake & Son; 2nd, O. J. Mooers; 3rd, W. W. Collier.

Stallion two years and under three—First and 2nd, W. W. Collier; 3rd, C. E. Judy; 4th, W. W. Collier.

Stallion one year and under two—First, C. E. Judy; 2nd, Peake & Son; 3rd, W. W. Collier.

Stallion Colt—Peake & Son.

Mare four years or over—First, O. J. Mooers; 2nd, Peake & Son; 3rd, O. J. Mooers; 4th, G. W. Slaughter, Birmingham.

Mare three years and under four—First, C. E. Judy; 2nd, Peake & Son; 3d, Frederick Kerby, Detroit, Mich.

Mare two years and under three—First, Peake & Son; 2nd, C. E. Judy; 3rd, W. W. Collier.

Mare one year and under two—First 2nd and 3rd, W. W. Collier; 4th, Peake & Son.

Stallion and four of get—First, Peake & Son; 2nd, W. W. Collier; 3rd, C. E. Judy.

Mare and two of her produce—Peake & Son.

Champion Stallion—Peake & Son.

Champion Mare—O. J. Mooers.

Standard Bred Horses.

Stallion four years or over—First, J. R. Peake & Son, Winchester, Ill.; 2nd, W. W. Collier, Pontiac, Mich.; 3rd, G. W. Slaughter, Birmingham, Deep Run Stock Farm; 4th, David Chapel, Jackson, Mich.

Stallion three years old—First, W. W. Collier; 2nd and 3rd, Peake & Son.

Stallion two years old—First, 2nd, 3rd and 4th, W. W. Collier.

Stallion one year old—First, F. C. Kerby, Detroit; 2nd, Peake & Son; 3rd and 4th, W. W. Collier.

Stallion Colt—Peake & Son.

Brood mare with colt at foot—Peake & Son.

Mare four years or over without colt—First, W. W. Collier; 2nd G. W. Slaughter; 3rd, C. E. Judy; 4th, Peake & Son.

Mare three years old—First, F. C. Kerby; 2nd, Peake & Son.

Mare two years old—First, W. W. Collier; 2nd, C. E. Judy; 3rd, Peake & Son; 4th, E. M. Starkweather, Northville, Mich.

Mare one year old—First, 2nd and 3rd, W. W. Collier; 4th, Peake & Son.

Stallion and four of his get—First, W. W. Collier; 2nd, Peake & Son.

Champion Stallion—First, Peake & Son; 2nd, W. W. Collier.

Clydesdales.

Stallion four years or over—First, W. T. Shuttleworth, Leamington, Ont.; 2nd, G. Ackerman & Sons, Elkton, Mich.

Stallion two years old—J. C. Ross, Jarvis, Ont.

Stallion one years old—First, R. B. Pinkerton, Essex, Ont.; 2nd, R. B. Pinkerton.

Stallion Colt—First, R. B. Pinkerton; 2nd, G. Ackerman & Sons; 3rd, R. B. Pinkerton.

Mare four years or over—First, R. B.

Pinkerton; 2nd and 3rd, G. Ackerman & Sons; 4th, R. B. Pinkerton.

Mare three years old—First and 2nd, G. Ackerman & Sons.

Mare two years old—First and 2nd, G. Ackerman & Sons.

Mare one year old—First, R. B. Pinkerton; 2nd and 3rd, G. Ackerman & Sons.

Mare Colt—First and 2nd, R. B. Pinkerton.

Stallion and four of his get—G. Ackerman & Sons.

Mare with two of her produce—First, R. B. Pinkerton; 2nd and 3rd, G. Ackerman & Sons.

Champion Stallion—J. C. Ross.

Champion Mare—R. B. Pinkerton.

English Shires.

Stallion three years old or over—Finch Bros.; Joliet, Ill.

Stallion one year old—Finch Bros.

Mare two years old—Finch Bros.

Mare one year old—Finch Bros.

Champion Stallion—Finch Bros.

Champion Mare—Finch Bros.

Jacks and Mules.

Pair mules in harness—C. C. Judy, Talula, Ill.

Percherons.

Stallion four years old or over—First, G. W. Slaughter, Birmingham, Mich.; 2d, Finch Bros., Joliet, Ill.

Stallion three years old—First, Bell Bros., Wooster, Ohio; 2nd, Finch Bros.

Stallion two years old—First, 2nd and 3rd, Bell Bros.

Mare four years or over—Finch Bros.

Mare three years or over—Bell Bros.

Mare two years old—First, Bell Bros.; 2nd, Finch Bros.; 3rd, Henry Ford, Dearborn, Mich.; 4th, Finch Bros.

Mare one year old—Finch Bros.

Heavy Draft Mares.

Mare or Gelding four years or over—First, R. B. Pinkerton, Essex, Ont.; 2nd and 3rd, G. Ackerman & Sons, Elkton, Mich.; 4th, R. B. Pinkerton.

Mare or Gelding three years old, shown in harness—First and 2nd, G. Ackerman & Sons.

Mare or Gelding two years old—First, 2nd and 3rd, G. Ackerman & Sons.

Mare or Gelding one year old—First, R. B. Pinkerton; 2nd and 3rd, G. Ackerman & Sons.

Filly or Stallion Colt—First and 2nd, R. B. Pinkerton.

Brood Mare with colt under two years—First, 2nd and 3rd, R. B. Pinkerton; 4th, George Beuch, Greenfield, Mich.

Four grade colts—G. Ackerman & Sons.

Pair Heavy Draft Horses—First, R. B. Pinkerton; 2nd and 3rd, G. Ackerman & Sons; 4th, C. H. Warren & Sons; Bancroft, Mich.

Shetland Ponies.

Stallion three years old—First, 2nd and 3rd, C. E. Bunn, Peoria, Ill.; 4th, S. R. Klingman, Birmingham, Mich.

Stallion two years old—First, 2nd and 3rd, C. E. Bunn.

Stallion one year old—First, C. E. Bunn; 2nd, S. R. Klingman.

Stallion Colt—S. R. Klingman.

Mare three years old or over with colt under two—First, 2nd and 3rd, C. E. Bunn; 4th, S. R. Klingman.

Mare two years old—First, C. E. Bunn; 2nd, S. R. Klingman.

Mare one year old—First, C. E. Bunn; 2nd, S. R. Klingman.

Mare Colt—First, 2nd and 3rd, S. R. Klingman.

Mare three years old—Bell Bros.

Mare two years old—First, Bell Bros.; 2nd, Finch Bros.; 3rd, Henry Ford; 4th, Finch Bros.

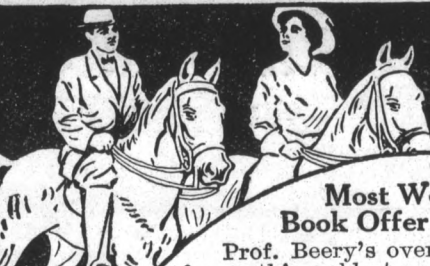
Mare one year old—Finch Bros.

Champion Stallion—Bell Bros.

Champion Mare—Bell Bros.

The market for cattle in the Chicago and other western markets has been variable for some time past, sales depending on a good deal on the quality of the offerings. The choicest beeves have touchers still further high records, this applying to western rangers, as well as to prime natives, but the undesirable offerings, while selling at much higher figures than in former years, have displayed frequent dullness and weakness, with declines on several occasions. Cattle buyers have complained of a slack demand for beef, prime kinds excepted, and this has been especially the case at times when the weather was warmer than usual, but the time for extremely hot weather is now past, and a more even trade may reasonably be expected. As to the high-class beeves, whether native or range cattle, there are known to be so comparatively few in the country that no danger of oversupplied markets exists, and high prices are assured for a long time to come. Certainly the prospective prices for fat cattle for the approaching winter feeding season are so high that owners should not sacrifice them by premature marketing. It is folly to send to market plain grass cattle at prices far below their prospective value in a period of such dear beef. Generally the quality of the range cattle marketed this season has been so good that the plain native cattle are neglected, causing them to sell at a large discount. A bad feature of the cattle trade is the increased offerings of inferior beef in the retail markets at prices that at first stimulate sales, but subsequently cause them to be avoided, for the average family prefers good pork or mutton to poor beef.

Because of the relatively high prices asked for feeder cattle of strong weight in western markets, numerous country buyers have been purchasing numerous lots of the lighter weights of stockers and feeders. This is a time when nearly everything in the feeder line is given close attention by prospective buyers, and sales of cows, heifers and bulls have been unusually large of late. In short, farmers are ready to buy anything in the cattle line that gives any promise of making fair gains on their big crops of grain and hay. To a considerable extent the offerings of cattle of the feeder type have increased of late through the marketing at Kansas City of thin cattle from the burned pastures of Kansas.



PROF. BEERY'S

STIRRING NEW NOVEL

OF HORSE LIFE

Most Wonderful Book Offer Ever Made

Prof. Beery's over-mastering love for earth's noblest animal has persuaded him to give a copy of his thrilling new 200 page book at cost to every horse owner in the world.

The "Thoroughbreds" is Prof. Beery's latest and most brilliant contribution to horse literature and is destined to go down in history as a masterpiece. His "Kate and Queen", pronounced by many to equal "Black Beauty" in interest, and to surpass it in practicability, has been read with keen delight the world over.

The World's Greatest Horse Tamer.

Prof. Beery has long been acknowledged the world's greatest and most successful horse trainer. His feats of skill and daring in the arena have thrilled and awed vast audiences from one end of the country to the other. His matchless skill and power have never failed to bring into subjection any horse brought to him. Since he was a mere boy, the wildest, most vicious and ungovernable horses have bowed to him as master when all others have failed to subdue them.

Prof. Beery, by His Marvelous Method, Now Teaches Others How to Train and Conquer Horses

Some time ago Prof. Beery retired from public work and established his world famous correspondence school of horse training; the only one of its kind in the world, and probably the only one there ever will be, because there is only one Prof. Beery. As Edison is the wizard of electricity, so is Prof. Beery the wizard of horse flesh.

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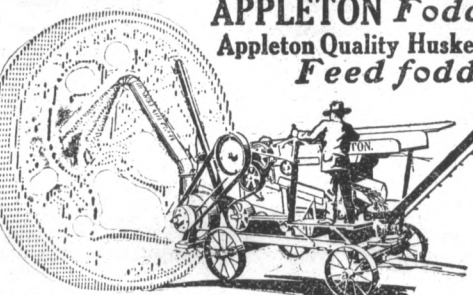
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THE DAIRY

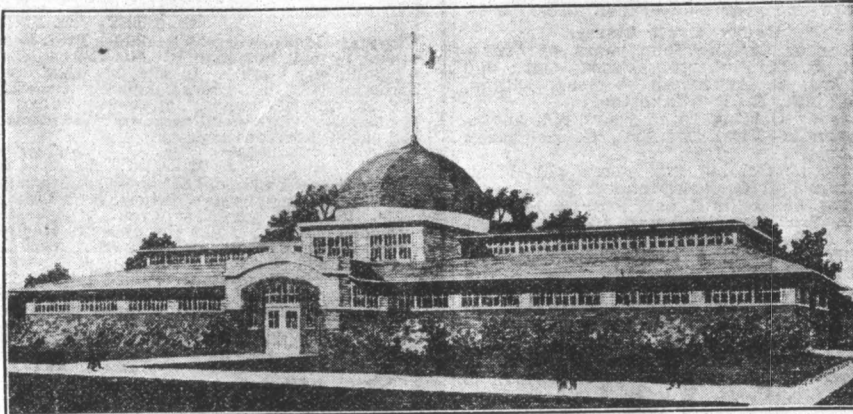
CONDUCTED BY COLON C. LILLIE.

SOILING CROPS VS. THE SUMMER SILO.

To my mind the system of soiling or cutting green crops and drawing them into the barn and feeding them to the dairy herd from day to day is not to be compared with the summer silo, neither from a labor standpoint nor from a standpoint of general efficiency. I have tried both systems and there is not any question in my mind as to the economy and the convenience of the summer silo. The present season has been an extreme season so far as moisture is concerned. Now just imagine a man who had depended on carrying a good large herd of dairy cows through the summer on soiling crops. The crops would grow this year no doubt, there is plenty of moisture. But the difficulty would come in harvesting them. There has not been two weeks at a time this summer but what it would be extremely difficult to cut these soiling crops and haul them off

have decent weather. Sometimes, of course, we have to, like last fall, cut the corn by hand, but it is no worse to cut it by hand when it is mature than in the summer time in the mud. But at any rate, you leave the entire crop until it is mature, so it contains the largest percent of digestible nutrients, and then you cut it and put it into the silo. It is done in a businesslike way and at much less expense. Next summer you have your succulent food under cover in close proximity to the stable and a man can readily feed it with the least expenditure of time and labor.

A great deal is lost in this soiling system of feeding cattle by feeding crops that are either immature or that are too ripe. You take a crop of rye, which is the earliest green food that you can get. Now you begin to feed this before it is properly developed. Before green clover comes in, or alfalfa perhaps, the rye is getting too ripe. You feed it when it becomes woody and save the rest of it for hay, waiting for the next crop. And so when the clover comes, or any other crop. You are liable to begin feeding it just before you ought and to continue feeding it after it is past its best, waiting for the next crop. In this way not



View of the New Dairy Building at the State Fair Grounds.

from the land without great expense and without injury to the land. The ground has been saturated with moisture part of the time, in fact, a great deal of the time, where it would have been extremely difficult to get on with a wagon to draw off a crop, and if a man wants to do this sort of business for a commercial herd of dairy cows he has got to cut his crops with a mowing machine, he has got to rake them up with a horse rake, and perhaps he ought to load them with a hay loader. If he doesn't it is going to take a vast amount of human labor to do the work. Now when he figures on this in a wet season he will find out that it is not only very inconvenient but it will injure the land and will be well nigh impossible many times to get the crops and get them into the barn at the proper time to feed the herd.

Now last year was another extreme year. It was very dry most of the time. After the middle of June we had no rain at all until nearly the middle of September. One could have harvested soiling crops with the least expenditure of effort last year than for almost any year within my remembrance. It would have been no trouble to have run a mowing machine at any time during the summer, it could have been raked up with a side delivery rake, and loaded with a loader. One man could have performed the whole labor, and day after day and week after week he could have gone out and got his soiling crop and hauled it in. But this last year would have been a year when it would have been extremely difficult to get a succession of crops for soiling. Why? Because there was a lack of moisture. Because, if you plowed the ground during the middle of the summer and attempted to grow another crop of peas and oats or get in a late crop of corn there wasn't moisture enough so it could germinate, and it would not grow. That would be another extreme. But those kind of years come more often than one thinks for unless he is depending upon something of this sort where he has to take notice of the weather. I tried the soiling system for two years. I struck two bad years, just such years as last year and just such a year as this year. One year it was so dry that we couldn't get a succession of soiling crops that amounted to anything and the next year was so wet that we had to harvest them in the mud.

Now take into consideration the summer silo. You raise a good crop of corn, put it in on time, take good care of it and raise a good crop. Ordinarily when this corn is ready to put into the silo we

only much of the feed is wasted by being used out of season, but the cows are unable to give a maximum flow of milk when their rations are improperly provided.

THE BEST GRAIN RATION.

What would be the cheapest for me to feed to grade dairy cows with clover and timothy mixed hay, with feeds at the following prices: Oil cake, \$2 per cwt.; cottonseed meal, \$2 per cwt.; flour middlings, \$1.75 per cwt.; wheat bran, \$1.60 per cwt.; corn meal, \$1.75 per cwt. Baraga Co. R. C. K.

With mixed clover and timothy hay I would feed for a grain ration wheat bran, corn meal, and cottonseed meal, taking into consideration the prices named. I would mix wheat bran and corn meal equal parts by weight, not by measure, and I would make this the bulk of the grain ration. However, to the new milch cows I would feed a little cottonseed meal, I don't think more than a pound a day. I used to advise two pounds per day, but I am cutting down on the amount of cottonseed meal to feed dairy cows, especially a breeding herd, and I don't think I would recommend to anyone to feed over a pound of cottonseed meal a day. The cottonseed meal, of course, might be mixed with the wheat bran and the corn meal at the same time these two foods are mixed but I don't like to advise this on account of the fact that it is difficult to get an even distribution of cottonseed meal with wheat bran and corn meal, and then it doesn't stay mixed very well after it is mixed. The cottonseed meal is so fine that it tends to separate, and I think cottonseed meal ought to be handled with extreme caution. You ought to know just how much you are feeding. If a careless man mixes cottonseed meal with wheat bran and corn meal and then feeds a good liberal grain ration there might be half of it cottonseed meal, which I do not think would be safe at all. One can figure out a way that won't be very much trouble to feed the cottonseed meal separate.

If you believe in a good liberal grain ration you can feed a pound of grain per day for every pound of butter-fat that the cow produces in a week, or you can get good results by a little lighter grain ration, but once a day you can feed the cows a pound of cottonseed meal, or you can give them a half pound of cottonseed meal twice a day, which would be better. This will have to be fed separate from the other feed but it will not take so very much time, it will be safer, and you will get better results.

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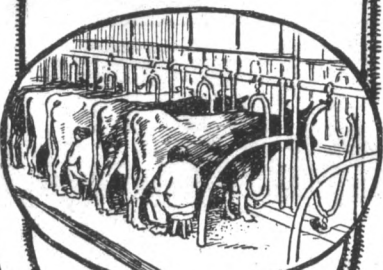
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HOW TO PRESERVE BEET TOPS FOR WINTER FEED WITHOUT A SILO.

What is the best method of caring for beet tops for winter feed when one lacks a silo? Would it do to pile in a barn and cover with marsh grass?

Washtenaw Co. W. I. R.
A loosened pile of tops in a barn covered with marsh hay would rot down in a short time. You could not preserve them in this way at all. If you had a pit in the ground of a sandy nature and well drained, you could fill this full of beet tops, tramp them down as much as possible, and then cover with dirt and preserve them as you would the beets themselves, or potatoes. That is the way I understand, that many of the beet tops are preserved at the present time in Germany for winter feeding. You could make a pit five or six feet wide and as long as desired. Dig it down say two feet deep in the ground if you have a sandy place that the water won't soak into. Then drive right through this pit in filling the beet tops, and drive over it with the next load. In that way you will get them packed down. Then put on some straw and cover the dirt that was thrown out over the beet tops. Then in the winter, begin at one of this long pit to take the tops out and feed them. If you have a place near the barn where you can store them in this way, you can handle them very well. The only other way I know of is to leave them in small piles about the size of a bushel basket. There isn't enough of them together in these piles to spoil so they will keep a long time in this way—until after the holidays.

BEST BREED OF DAIRY COWS.

I want to get better started in dairying and would like to know what breed of cows is best adapted for that purpose in your experience. I have no kind in mind but think I would like the Ayrshire or Guernseys or Holsteins. I want to raise pigs also on the skim-milk as far as it would go. Please tell me just what you think about it. I have just finished a 12x30-ft. stave silo. Would like to ask how many cows I can winter as dairy cows should be. Is silage very apt to spoil in warm weather? M. W. B.

This question of the best breed of dairy cows is one that must be settled by every individual farmer himself. Nobody can settle it for him. Personally, I don't think there is any best breed. I believe that one breed is just about as good as another when you take everything into consideration. There is no breed where you can get a bunch of cows together and breed them to perpetuate your herd and get everyone of them to be A No. 1 animals. Man must be master of the situation and must by rigid selection and proper breeding keep bettering or attempting to better his herd. He will have to do this no matter whether he gets one breed or another. I don't think that M. W. B. would make any mistake in selecting Ayrshires if he likes these cattle, that is, admires them better than he does the other dairy breeds. There is no question as to their quality as dairy animals. Some of them are splendid cows and they can be made better by careful selection and proper care. On the other hand, the Guernseys have made records which would warrant us in saying that there are no better cows than Guernsey cows, and the same with the Holsteins, and also with the Jerseys. As a matter of fact, there are four distinct breeds of dairy cows now, the Jerseys, the Guernseys, the Holsteins, and the Ayrshires. They have all been bred for generations for the sole purpose of taking the food which is produced upon the farm and manufacturing it into milk, into greatest profits, and one can use his own good taste and judgment in selecting his breed and make sure that he makes no mistake.

The question of skim-milk for calves and pigs need have no bearing on the question. One man seems to think because the Holstein gives more milk than the Guernsey that he will have more skim-milk for his pigs, and he will so far as volume is concerned, but he won't have any more food. While the Holstein cow gives more milk than the Guernsey, that milk is not as rich in butter-fat and other solids, and consequently the skim-milk is not as rich and you can raise more calves on 100 lbs. of Guernsey skim-milk than you can on 100 lbs. of Holstein skim-milk simply because it doesn't contain as much water. This, of course, is figuring that you have got equally as good a Guernsey cow, whose value is determined not alone by the amount of milk she gives, but by the quality of the milk as well.

A 12x30 ft. silo will hold about 60 to 65

tons of ensilage, or it contains about 6,500 cubic feet. Now if you get large Holstein cows you can figure on a Holstein cow eating a cubic foot of ensilage per day. If you get the other breeds they won't eat quite so much. An ordinary sized Jersey cow ought not to have over 25 or 30 lbs. of corn silage per day. In fact, that is about all they will eat, with clover hay and grain in the ration. They, not being as large we must figure the ration in proportion to their size. A large cow, other things being equal, will give more milk and produce more butter-fat than a small cow, but it costs more to feed her and this must be taken into consideration. Of the larger cows, a silo of the above size would provide silage sufficient to feed sixteen for about 200 days.

MORE ECONOMICALLY PRODUCING COWS NEEDED.

Interesting comparisons and information were gathered in the recent contests held by the dairy authorities of Wisconsin. While most of the work covers ground already investigated the conclusions are suggestive to the progressive dairymen.

The average yearly production of the dairy cows of the state of Wisconsin is estimated to be worth but little more than the annual cost of the feed eaten by these cows. A compilation of averages and a wide acquaintance with dairymen and dairy conditions has led the authorities to the conclusion that the cows of that great dairy state which annually produces more butter and cheese than any of the other states of the Union do not average more than 170 pounds of butter-fat a year, which is equivalent to about 200 pounds of butter. This amount of butter at 25c per pound on the farm would give a return of \$50 per year for each cow, for the butter-fat. If to this is added \$20 to cover value of calf and skim-milk a total gross receipt of \$70 is reached. The value of the feed consumed annually by the average cow has been estimated to come within a rather wide range of prices, but there is a sort of concurrence in the estimate of \$50 per cow; on an average the cows in the test were fed over \$70 worth of feed each. At a cost of \$50 we have but \$20 and the value of the manure to cover cost of labor, interest on the additional equipment and the value of the cows and allowances for depreciation. Even recognizing the fact that dairying saves to the farm fertility and dairymen are willing to work for little or no pay, the showing is not a flattering one.

The range of net profits from the different herds is wide. The average net returns from the best ten cows was \$124.29 which was 52 per cent of the average gross value of each cow's products, the cost of feed per cow being \$114.86; while the average net returns of the poorest ten was \$14.89, or 20 per cent of the gross value of each cow's products, the average cost of feed in this instance being \$61.10. That is to say, one of the best ten cows would make \$2.08 worth of products from \$1.00 worth of feed consumed, while one of the poorest ten cows would make only \$1.24 worth of products from each dollar's worth of feed used.

The dairy farmers of Wisconsin are losing money upon probably 30 per cent of the cows kept. Exact proof of this statement cannot be made. If the farmers knew the cows of their herds that were not returning as much in milk value as they were eating in feed value then "boarders" would be sent to the shambles at once. But they do not know and it is, therefore, impossible to give absolute evidence that 30 per cent of the cows are kept at a loss. Nevertheless, the work done among the common herds shows that, as a general rule, about that per cent are non-productive of net profit. Not only have the authorities learned this appalling condition but the use of the tester and scales is bringing the facts home to many dairymen themselves. By eliminating these animals from the herds of the state the net returns from the remaining cows will be actually more than is the present net income.

A careful examination into the work indicates that the individual merit of the cow is of more importance to her owner than is the fact of her belonging to any particular dairy breed. It matters not whether a man favors Jerseys, Guernseys, Holsteins or any of the other dairy breeds, he will not prove a successful dairyman until he acquaints himself with the use of the tester and scales and otherwise becomes skillful in the selecting of good individuals.

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discusses DAIRY COW DISEASES AND THEIR PROPER TREATMENT.

Prof. Hugh G. Van Pelt, the Iowa State Dairy Expert, and one of the Editors of Kimball's Dairy Farmer, has contributed a most interesting discussion on PROPER DAIRY FEEDING AND BALANCED RATIONS.

Dr. Burkett, Editor of the American Agriculturist, tells about the Most Suitable Dairy Crops, and other widely known authorities discuss SOIL FERTILITY, DAIRYING FOR PROFIT, FARM BUTTER MAKING, SILOS AND SILAGE, etc., etc.

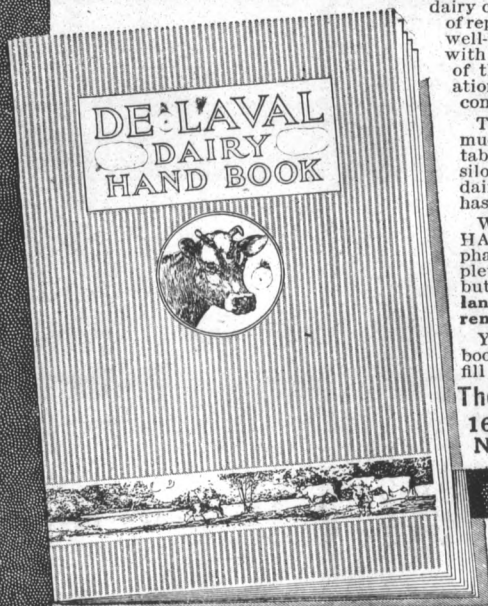
A series of photographs illustrating the desirable points in selecting a dairy cow are shown, and also photos of representative cows of the various well-known dairy breeds, together with statements from the secretaries of the various dairy cattle associations setting forth the claims for consideration of each breed.

The HANDBOOK also contains much general information such as tables of weights and measures, silo capacities, etc., that every dairyman at some time or other has occasion to refer to.

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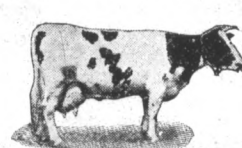
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PRACTICAL SCIENCE

SPECIAL ARTICLES ON MILK.

BY FLOYD W. ROBISON.

Milk as a Food.

Among dieticians and physiological chemists milk is usually spoken of as the one example of a perfect food. By this term, "Perfect Food," is meant that it has constituents which meet every demand made upon the human body. This statement we shall soon see is not entirely correct although in a general way it does hold true. Especially is this statement an apt one when milk is considered as a food for infants, in especially the first few months of life. Among mammals milk is the only food which the young have for a period varying from a few days to several months. While milk is a perfect food for infants it lacks several characteristics which are required in the food of human beings who have passed the infant stage. Physiologists state that the appearance of firm teeth in infants is one of the signs which nature has provided to indicate the period when milk should be supplemented by some other food. We think the best scientific data on this point, as to the length of time a child should be fed milk, has been furnished by Bunge, a celebrated German chemist, who has maintained, as a result of his experimental data, that it is absolutely essential, in order to preserve the health and vigor of childhood, that infants should be taken from an exclusive diet of milk alone after ten months. Of course, it is impossible to set any exact definite time or period as the time limit beyond which milk should not serve as an exclusive diet. The method by which Bunge arrived at his results is a very interesting one, indeed, and we think will be of interest here.

Iron is the Key.

It is well known among scientists that the content of iron in milk is very low, indeed, compared with that present in some vegetable food stuffs. Just exactly why this is true is difficult to say, except that it is apparent that iron is so necessary to the maintaining of the various physiological functions of the human body that nature has with difficulty provided for the bodily needs, to say nothing of permitting any of it to be elaborated in the various secretive products such as milk. Bunge's results were obtained by experimenting on dogs. He found by an analysis at the time of birth that the young had stored up in their systems a considerable quantity of iron which was used as a reservoir for the supply of iron to the body during the early stages of the animal life and when he found upon analysis of the milk that it carried indeed, a very small quantity of iron, it became at once apparent that nature, realizing the tremendous drain on the animal system, through an elaboration of iron in the mother's milk, provided this supply in the young animal's body to last it through the first short period of its existence. Knowing, by analysis, that the iron content of the mother's milk was practically the same at the birth of the young as later in the period of lactation, it also became apparent that when this reserve supply of iron had become exhausted, that naturally marked the end of the period when milk alone should be the food of the young animal. Therefore, he suggested as a result of this laboratory finding that when the infant reached the age of about ten months its reserve store of iron would theoretically be exhausted and this point should mark the time when milk should cease to serve to be the exclusive food for the infant. Naturally, if milk should now be supplemented by some other food for the infant the kind of food to use should of necessity be one which contained a greater content of iron than did milk.

Milk Deficient in Mineral Matter.

In support of this theory it has been known for some time that an exclusive milk diet, if prolonged as it frequently is in some families, is very apt to cause a deficiency of mineral matter in the bones of the young with the accompanying rickets, which at times are quite prevalent in children. Anaemia is one of the very prevalent diseases of human beings who live, usually, in cities, and it is a condition encouraged at least by the consumption in large quantities of foods which contain a low content of iron. Therefore, we say that milk is not a perfect food except when we apply the term to infant feeding and then only during the first few months of the child's life.



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POULTRY AND BEES

GETTING READY FOR WINTER.

Wide-awake poultrymen are now busy getting things in shape for winter. There are many things to do before cold weather sets in if we are to make the fowls comfortable and profit producing throughout the winter months. On most farms the poultry house will need a general overhauling to put it in condition to withstand the rigors of winter. The interior should be whitewashed thoroughly before the young stock is put into it. Lice have been very prolific during the hot weather, but if the house is thoroughly cleaned and disinfected now the flock will be reasonably free from these pests during the winter.

Does the roof leak? If so, look after it now. It should be put in good condition before the fall rains set in. A leaky roof is a source of danger, especially in winter. The floor and litter will become wet and filthy and stock compelled to work on such a floor cannot be kept healthy and productive.

The windows will also need a little attention at this time. No doubt some of the panes have been broken and need replacing; others are loose and need new putty. This should all be attended to now and not put off until the last moment when the press of other work will interfere. Sagging doors and gates will need straightening. Broken hinges should be replaced, and there are probably a half dozen other things that should claim attention at this time.

If the floor is an earth one it will be best to remove several inches of surface silo and replace it with fresh dirt. The droppings have fouled the surface but removing this and replacing with fresh soil or gravel renders it pure and fresh again. Clean litter must also be provided, putting under cover a supply that will last through the winter. Have this litter of as coarse and as light material as you can get. It should be coarse in order to allow the grains to fall through to the bottom, and light so that the fowls can easily scratch it about. Have it amply deep so that the whole grains will not be picked up readily. From six to eight inches is about the proper depth.

Clean out the old nesting material and burn it. Then whitewash the interior of the nest boxes thoroughly and put in clean straw or hay. If you are short of nests, make extra ones now. There should be one nest for every four hens in the house. An insufficient number of nests causes crowding, which results in broken eggs and often establishes the egg-eating habit.

Indiana. O. E. HACHMAN.

FURTHER SUGGESTIONS ON EXTRACTING HONEY.

I think it quite important that extracting combs and unfinished sections that have been extracted should be thoroughly cleaned if they are to be used again next year. I do not know of any way in which they can be thoroughly cleaned except by the bees. If there is no honey in the fields at the time of extracting, I wait until evening to return the extracting supers, so that the bees may not be incited to rob. About sunset is a good time, and if any excitement prevails it dies out before any damage is done. The next morning all is quiet. In a good season, when the bees are still at work, the combs may be returned at once; that is, the combs of one hive, which have just been extracted, are exchanged for those of the next, and so on, through the day.

I have tried keeping the combs over, from one year to another, without giving them back to be cleansed but I do not like it. They are sticky, and leak more or less; they attract mice and robber bees, and the liquid honey that sticks to them is likely to sour. Then when spring comes, if we happen to put them on the hive during a time of short yield, we have some risks again from the excitement caused, and some danger of robbing.

I have often kept extracted honey one, two, three, and even four years, without loss, while with comb honey the leakage and the danger of invasion by the moth make it very inadvisable to hold it beyond the season of its production.

In putting extracted honey on the retail market, use small packages. A glass container, neatly labeled, is preferable to all others.

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Potassium Nitrate. An Eliminant.
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It starts the young pullets to laying, gets the old hens ready for winter duty. Pan-a-ce-a reminds Miss Hen that growing feathers and getting fat and lazy is not her only business. It compels every hen to put her share of eggs in the market basket, by toning up the dormant egg organs. The panel tells just what Pan-a-ce-a consists of and what the U. S. dispensatory says every ingredient is for.

Our proposition. You buy Dr. Hess Poultry Pan-a-ce-a of your dealer. If it fails to make your hens lay more eggs right now, when eggs are high, and to keep your poultry healthy; also to start the pullets to early laying, he is authorized by us to refund your money. 1½ lbs. 25c (mail or express 40c); 5 lbs. 60c; 12 lbs. \$1.25; 25-lb. pail \$2.50 (except in Canada and extreme West). If your dealer cannot supply you, we will. Send 2c for Dr. Hess 48-page Poultry Book, free.

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He helps you wind with his big easy-turning keys. He wears an inner jacket of steel, which keeps him strong and makes him last for years. He rings just when you want and either way you want *five straight minutes* or *every other half minute during ten minutes* unless you flag him off. Get him now. And get him *Christmas* for some friend or relative.

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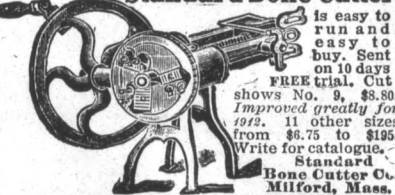
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DETROIT, OCT. 5, 1912.

A WORD OF EXPLANATION.

The unusual curtailment of reading matter in this issue is due to our inability to get delivery of a shipment of roll paper of the proper width for a 32-page paper, thus necessitating the elimination of the Magazine Section and the Grange and Farmers' Clubs departments from this issue. This abridgement will, however, be compensated for by an additional number of large papers as soon as the delivery of the stock for them can be secured.

CURRENT COMMENT.

The fact that a gulf of considerable magnitude lies between the producer and the consumer, into which a relatively large proportion of the consumer's dollar finds its way, is well illustrated by the present situation in the milk trade of the city of Detroit. During the past year an organization of milk producers contributing to Detroit's milk supply has been formed. The primary object of this organization, as stated in these columns at the time, was mutual protection against the alleged inspection methods of the city department of health. Due, apparently, to the counsel of the more progressive element among milk producers, however, the efforts of this organization were later devoted to the object of securing a better price for the farmer's product due to the fact that the high cost of production, to which the inspection requirements added a still further burden, made it impossible for the dairymen to make any profit in producing milk at the price which they were receiving from Detroit distributors.

As an apparent result of this movement, the larger distributors of milk in the city of Detroit have announced an advance in the retail price of one cent per quart, beginning the first of October. In a published interview regarding this advance the statement is made by one of the larger distributors that the price of milk to the producer, where it had formerly ranged from \$1.55 to \$1.65 per cwt. would be advanced to \$1.80 and \$1.90 per cwt. As a result of this advance of approximately 25 cents per cwt. to the producer the price of milk to the consumer has been raised from eight to nine cents per quart, which means an increase in price to the consumer of 45 to 50 cents per cwt., of which the producer is to be given about half in the new scale of prices. In other words, at the proposed scale of prices the farmer gets considerably less for producing the milk than the middleman gets for collecting and distributing it.

There is room for an organization of this kind to do effective work in increasing

the proportion of the consumer's dollar which goes to the producer and the effort on the part of the distributors to make the reasonable demand of the producer a basis for an advance of prices which will further increase their own profits will but hasten the day when an effective remedy will be found in the co-operative marketing of this product.

The Value of Demonstration Work.

For some years co-operative demonstration work has been conducted on the farms of the southern states by the Bureau of Plant Industry of the United States Department of Agriculture. In view of the fact that a similar line of work will be undertaken in the northern states through the study of farm management by special agents of the Department of Agriculture, in Michigan, in co-operation with the State Board of Agriculture, through funds made available at the recent session of congress, a brief study of the results attained in the farm demonstration work of the south will be of interest to Michigan readers.

A recent compilation of the crop reports under this demonstration work shows a very materially increased production in many sections of the south due to the demonstration methods practiced. In eastern Texas, for instance, in 1911 151 demonstrators with cotton grown on 1,023 acres, or an average of 8.4 acres for each demonstrator, secured a yield of 1074.5 lbs. of seed cotton per acre, while the average yield of cotton in eastern Texas, as estimated by the Bureau of Statistics for 1911, was 8,576 lbs. per acre. Thus it appears that the demonstration methods produced an increase of 86.5 per cent or 598.5 lbs. per acre above the state average, which at the current price of \$3 per cwt, amounted to \$14.90 per acre.

With corn 545 demonstrators reported on 3,539 acres, an average of 6.5 acres for each demonstrator, with an average yield of 21.4 bushels of shelled corn per acre, as compared with an average yield in eastern Texas as reported by the Bureau of Statistics of 9.5 bushels per acre. This shows an increase under demonstration methods of 125.2 per cent, or 11.9 bushels per acre, or an estimated increase in value of \$9.52.

This perhaps has been an exceptional comparison due to the fact that a severe drought prevailed in this section last season, thus making the demonstration methods more instrumental in increasing yields than would have been the case in a normal season. If one follows through the report, however, an improvement in crop yields will uniformly be noted. In some instances the increase is even greater. In Alabama, for instance, the increased yield of corn under demonstration methods as secured by the demonstrators was 160.6, or 28.9 bushels per acre, or an estimated increased value of \$22.54.

This general benefit to the southern farmers which has been directly due to demonstration work carried on by the government would appear to indicate that there would be like benefit ultimately derived from the work which is contemplated in the northern states, including Michigan, which will assume a broader plane, including various details of farm management which will be studied at first hand by men especially selected for the work. The counties and municipalities of the state should readily lend the assistance which is expected of them in the establishment of this work along broad, general lines which will bear early and generous fruit in better results from Michigan farms and consequent increased prosperity of the state at large.

HAPPENINGS OF THE WEEK.

National.

The trial of 50 persons believed to be connected with the structural iron workers' dynamiting conspiracy has begun in Indianapolis. The government will attempt to show that the labor union leaders were in the conspiracy.

The Detroit Shipbuilding Co.'s plant at Wyandotte was destroyed by fire last Saturday. The company will immediately begin to rebuild of steel.

The world's base ball series between the two big leagues of this country will be contested by the Boston American league team and the New York national league team.

The world's automobile record for a circular dirt track was broken on the state fair grounds' course at Detroit, September 29, by Louis Disbrow, who traveled 50 miles in 45 minutes and 32 seconds.

Last Saturday Lieut. Rockwell and Corporal Scott, of the signal corps aviation school at College Park, Md., were killed when the biplane in which they were flying struck headlong into the ground. The total aviation victims to date number 208. The French army leads



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Please bear in mind that we buy hides direct from your town butcher, convert them into leather and then into shoes in our Rockford plant, and through your dealer the shoes may be returned to and worn by the very farmer who raised the calf from whose hide the shoe was made.

If you have never worn Rouge Rex Shoes, try them. If you have worn them, we need not urge you, for you will just naturally ask for them again.

Write us if your dealer does not have them.



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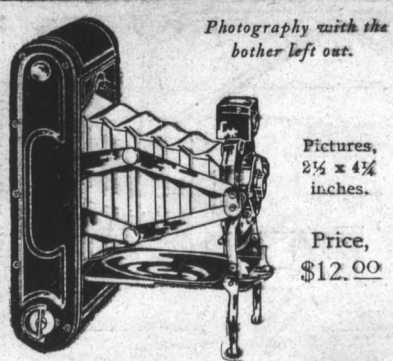
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with more than 50. Germany is second. England third and the United States fourth.

It is reported that a second vein of oil was struck at Saginaw the past week. The oil comes from a depth of 2,400 feet.

It is stated that 750 marines have been ordered to San Domingo to protect the American custom houses against revolutionists of the island. The marines will be held there as long as their presence may be needed.

A seven-story building of the Christy Co., of Cleveland, Ohio, and contents, were destroyed by fire Sunday night. The loss is \$500,000. The origin of the fire is unknown.

The Selley House, of Midland, Mich., burned last Monday morning, entailing a loss of about \$7,000. The fire also damaged an adjoining drug store.

The Michigan convention of the progressive party will be held at Lansing on Tuesday of this week.

The democratic state convention convened at Grand Rapids, September 26, and made the following nominations for state offices: For secretary of state, J. B. Balch, Kalamazoo; for auditor-general, Peter Primeau, Marquette; attorney-general, Louis E. Howlett, Howell; state treasurer, John P. Robson, Ovid; justice of the supreme court, long term, George L. Yaple, Mendon; justice of the supreme court, short term, Rollin Person, Lansing; state land commissioner, Orlando F. Barnes, Roscommon.

The republican state convention which convened at Detroit on September 24, placed in nomination the following persons: For secretary of state, Fred C. Martindale, Detroit; auditor-general, Oramel B. Fuller, Ford City; attorney-general, Grant Fellows, Hudson; state treasurer, John W. Harrier, Ann Arbor; justice of the supreme court, long term, Franz Kuhn, Mt. Clemens; justice of the supreme court, short term, Joseph S. Stere, Sault Ste. Marie.

Foreign.

The international congress of chambers of commerce and industrial bodies will hold a session in Detroit this week.

Both the Serbian and Bulgarian governments are mobilizing their armies. The overthrow of Turkish control appears to be the objective point. Each army is gaining enthusiasm from the fact that the other is organizing. News of army movements is being suppressed.

It is now reported in Washington that because of the intervention of the United States into the affairs of Nicaragua that the Latin American countries have moved to form a boycott against goods from this country.

Five members of one family were drowned at Pigeon River, Ont., when the small boat in which they were riding was overturned while attempting to "land" a muscalonge weighing 14 pounds. The fish was afterwards captured by the rescuing party.

CROP AND MARKET NOTES.

Ottawa Co., Sept. 30.—There have been three frosts to date, but there was but little damage done except on the night of the 28th, when ice formed on standing water. Only a small amount of corn has been cut up yet, but silo filling will now begin with a rush, and corn that is to be husked will be cut and shocked as soon as possible in order to save the fodder. There will be much soft or immature corn in many fields. Quite a few acres of lima beans are yet to be harvested for the canning factory, and the heavy frost will damage them considerably. Owing to so much rain during the summer, the lima bean crop was rather poor. The canning factory at this place, (Coopersville), had a good run on sweet corn, which was nearly all harvested before the last frost. More second crop clover has been cut for hay this season, than ever before, and the growth was so heavy that it has been difficult to cure it, on account of unfavorable weather. Not as much clover seed will be harvested this season as last year, and it is not as well filled.

Livingston Co., Sept. 30.—The weather this fall has been one rain after another it being almost impossible to secure the bean crop in anything like good condition. Beans will be far below normal in yield and also in quality. A heavy frost has already caught corn and late beans and but very few fields of corn were in fit condition to harvest. Wheat has been sown later this season than usual on account of the wet weather. A small acreage of wheat will be sown this fall on account of the wet weather having prevented farmers getting their beans off in time to sow to wheat. Pastures are good and feed will be more plentiful this winter on account of clover seed not filling well and being cut for hay.

Emmet Co., Sept. 30.—First killing frost came the 28th. But little if any corn has been cut, nor had any reached the proper degree of ripeness. Late potatoes, too, except where affected with blight, were luxuriantly green. Rains for the month, while not over copious, have been continuous and there has been little sunshine. The attendance at our county fair was large and the exhibit good. The exhibit by the state, demonstrating the injury wrought by insect pests and fungous diseases, with an expert in attendance to give instruction regarding the best means of combating them, was an interesting and instructive feature. August and September have been ideal months for the growth of new seedlings and pastures. Hay, \$16@17; straw, \$7@8; wheat, 95c; rye, 58c; oats, 35c; beans, \$1.75@1.88; potatoes, 35c.

Indiana.

LaPorte Co., Sept. 27.—Forty degrees this morning makes the farmer feel chilly, because the crops are not matured for cutting. Corn is green and soft in low spots in many fields and late planting very green, but is ripening fast. Cow peas still growing and yield will be good, but need two weeks yet to ripen. A general frost predicted October 7 to 8.

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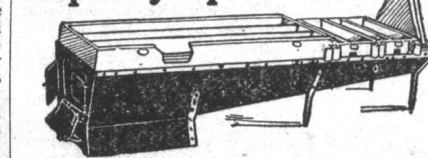
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HORTICULTURE

SUGGESTIONS ON PACKING APPLES.

Apple packing, like other species of work, has about it a number of little things that are of importance. The manner of nailing up the barrel, for instance, has its significance. Packers have a certain way of doing this, with good and sufficient reasons, and if any material departure from this way is found the natural inference is that other important matters in connection with the work is not understood and adhered to, careful grading in particular. Many barrels go to market, too, loosely packed, and there is so much complaint about this from dealers.

Before the barrel is filled one end and the side hoops are nailed. That end is to be the "face" end of the barrel and that head is later to be removed to inspect and display the fruit. So while it should be made sufficiently secure to carry the contents safely without the head falling out, it should be so prepared that the head may be taken out with as little difficulty as possible. Not long ago the writer saw in a Chicago commission house a barrel of apples with the head nailed with ordinary shingle nails driven two or three inches apart through the hoop and staves all around the barrel instead of being secured with head liners as is usually done. It was the work of an expert to take out that head without destroying the hoop. When the barrel was finally opened there was a printed slip found on the face with the name and address of the packer, saying, "Guaranteed Hand Picked." The fruit was evidently put up by an inexperienced grower who thought he was making a fine package, but it was evident that the man had little appreciation of what really fine fruit is, for in the face were scabby and wormy apples with but few specimens that should have been put in a barrel of nice fruit.

Usually the coopers place a mark on the head that should be taken out, but sometimes they are heedless in this respect, and it is easier to press in a head that is strong and with few pieces, so if the marked head is not the best it is well to take out the other. First turn the head that is to be used as the face end up and nail it in by placing two head liners, one on either side, across the end of the grain in the head. Four nails are plenty to hold a head liner in place. One nail on either side driven through the hoop into the side of the head will make this end of the barrel sufficiently strong. Fastened in this way the head liners can be easily taken off and the head loosened. The side hoops should be driven tight and a nail driven on either side to hold them in place. The hoops at the other end are now to be raised and the head removed, when the hoops are to be again driven down and the points of the nails on the inside broken over. This last should on no account be neglected, as the nails will, if left sticking out, break the skin of some of the fruit and start it to rotting. The barrel is now ready for filling.

Even the manner of driving the nails is a matter of some moment. A rather heavy hatchet is most convenient for this work as the tool must also be used for driving the hoops, and a light tool is poorly adapted to this, and the flat side of a hatchet will drive the hoops without bruising or injuring them as the smaller head of a hammer would do. In driving the nails it is well to start them with one stroke and drive them home with the next. It seems difficult for some men to form this habit, but they must tap, tap, tap the nail four or five times in driving it. Now, this may appear to be a very small matter, but we put 24 nails in each barrel, and if a man is to hit each nail four or five extra taps it takes just about 100 unnecessary blows for every barrel. Where a man is nailing barrels right along it takes considerable extra time to strike each barrel 100 times unnecessarily, and wages are high during apple harvest.

In selecting the "facers" several points should be observed: First, practically perfect specimens are to be taken; they should be of average size—not the largest—and, of course, nobody would pick the smallest. Then they should be well colored. They should be uniform in size, large and small apples together do not present the attractive appearance that those do of an even size. In placing the facers in barrel it is, of course, under-

stood that the stem end goes next to the head, and a row is placed around the outside, another inside of this and so on until the face is complete. In bringing a row together careful packers are particular when the row does not come out even, not to put in a large or small apple, but remove three or four and put in as many more that are the right size, just a little larger or smaller as may be required, and so keep the size even. Nor do those packers place an apple on its side in this tier. In putting up nice fruit another tier may be placed on this first one with the side down showing a good color.

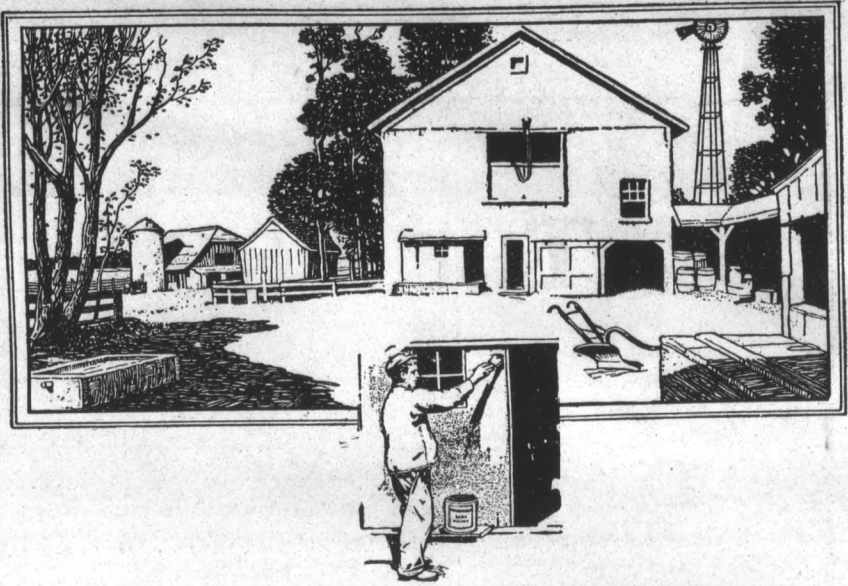
In filling up the barrel as each deposit is made the barrel should be well shaken. Here is the secret, if there is any, about tight packing. If the fruit is not well shaken together no amount of pressing will keep it tight.

In finishing the barrel ready for the for the head the apples should be evened off so that the head shall rest on every apple as far as possible. A little practice enables one to do this without much trouble, and much is depending on it in different ways. In the first place the fruit should not be filled too high above the chime of the barrel—an inch is enough. Then an even pressure is obtained and some of the apples are not smashed while others are hardly touched. Again, this end of the barrel is frequently opened for inspection rather than the other, as it is expected that the face end will contain the proper grade of fruit, and if there is any fault in grading it is more likely to appear at the opposite end of the barrel. If care appears in the finishing of this end the presumption is that the work of filling and grading has been properly and carefully done.

The head is now placed on the apples and with a screw press forced well down before the hoops are raised. If the hoops are raised first the staves are forced out by the pressure and frequently the hoops are broken in drawing them back. The top hoops are next loosened but not removed from the staves. The head should not be forced clear into the chime with the screw, but the edge should be driven into place as much as possible, turning the screw down only as much as is necessary and driving the head and then the hoops until the head is safely in place. The reason for this is that there is only a certain amount of elasticity in the apples and when they are bruised they do not spring back. If the head is forced clear to its place with the screw the middle of it is carried lower than the rim and the apples are bruised to that extent, while if the rim is drawn down with the hatchet the middle of the head is left slightly crowning and the apples will remain tight. Apples shrink after being barreled a while, and if the elasticity is all taken out of them with the press they soon become loosened and then as the barrels are rolled about they bruise each other and increase the looseness and give the fruit an unattractive appearance when opened. This end of the barrel is then head lined the same as the other and the barrel turned down on its side. The pressure on the lower layers is not so great when the barrel is on its side as when on end.

Nothing has been said about grading. This is a matter of which, I am convinced, a man can only escape suspicion through organization or complying with the provisions of the Sulzer law. If a man has a special market, or if he has large orchards and markets through a certain channel he may work up a reputation for his fruit, but where it goes through the general market or through commission houses his products must suffer from the general reputation that barreled apples has gained from the uncertain methods of the inexperienced, the careless and the men who employ the stove pipe. The Sulzer law recently enacted by congress will, we trust, prove a boon to those who put up straight fruit. It provides a special mark which may be put on fruit which conforms to its provisions, and it becomes hazardous for men to use that mark on dishonestly packed apples. Three grades are provided for, differing only in size, but all must be perfect fruit of good color for the variety. When men come to understand that the quality of poor fruit cannot be improved by mixing it with good fruit, but rather the value of the good is impaired thereby they will be more particular about keeping the two separate. The Sulzer law does not go into effect until next July, but some are preparing to grade and mark this season according to its specifications.

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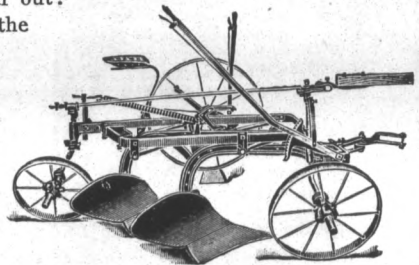
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In the Genesee Valley, New York, one man owns some fifty farms—over 10,000 acres in all. They are rented—many of them have been for a century. The rental is \$2 to \$4 an acre, according to the crop. Much of this land fifteen years ago returned only seventy-five cents an acre—some of it, nothing at all. Now it is all on a paying basis. How this master farmer manages this enormous estate, and aids fifty tenants in making a profit, is told in one article of our series on successful farmers. It's the story, not of a fad, but of a money-maker. So with all this series. The articles deal with big and little farms in various parts of the country.

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In New York State alone there were 5800 farm fires last year. They caused a loss of \$1,500,000. Most of them could have been prevented. Lightning caused 1800—many of these were preventable. We shall print a series of articles on fire prevention and protection, covering (1) What farm fire losses represent and how they threaten the average farmer; (2) How to guard against fire; (3) How to put it out if it starts—up-to-date home fire-fighting apparatus; (4) The best kinds of insurance on buildings, crops and livestock impartially compared; (5) Actual facts about farmers' mutual insurance companies that have worked. These articles will show you in a practical way how to strengthen your protection against the possible loss of your property or profits.

What Can Your Boy Earn?

Six graduates of different agricultural colleges went back to the farm, as thousands of others are doing. They farmed by the help of what they had been taught in college. Some did brilliantly from the first; others just held their own; all are now what you would call successful. They have consented to write what they did and how they did it. In particular, they will say just how their training panned out when actually put to test. Is your boy going to an agricultural college? Get a line on the possibilities that await him, the salary he may expect to earn, the capital he may need in future.

Good Marketing By Advertising

Six years ago a farm hand in a Western State rented some land and grew a crop of fine seed grain. Last year he sold over \$15,000 worth of pure-breed seed grains, and is known as one of the seed experts of the world. Judicious advertising did it.

A student in a leading agricultural college heard a lecture on advertising. He went home and prepared some small ads. for produce. In six weeks he sold for nearly \$1000 goods which might otherwise have brought less than \$400. The methods of these men and a dozen others will be told in our series on "Farm Advertising." It covers advertising of pure-bred livestock, seed grains, produce, dairy products and fruit. Several stockmen of national standing will contribute. All details explained.

What is Your Money Crop?

If your farm were big enough, and the soil, climate and market conditions varied enough for 30 crops, you would like to have 30 experts—one for each. But the cost would be too great. Most successful farming communities center attention upon a single crop adapted to the locality. To diversify or combine crops offers greater returns from year to year, but it is necessary to have one crop that you may promptly convert into cash to meet running expenses.

We are printing a series on "The Money Crop." The articles will be written by 30 experts—on wheat, corn, tobacco, cotton, hay, potatoes, pork, beef, milk, wool, and so forth. Each article will show the essentials in business management, soil, climate and capital, and the returns which may be expected. They will include personal experiences.

Besides these, we have frequent practical articles on poultry, livestock, the dairy, farm machinery, road building, the rural school, the church, the grange, farmers' clubs and other aspects of country community life; coöperative marketing; building and furnishing the house; a regular department on the scientific advance of agriculture and new inventions; wholesome fiction of country life, stories and verse; a letter-box and a strong editorial page that stands always for the interests of the farmer.

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Woman and Her Needs

At Home and Elsewhere.

FACTS ABOUT JELLY MAKING.

By Maria Chipman Topping.

In your Farmer of recent date there occurred an article on the chemistry of jelly making. Not having any particular knowledge of chemistry, I have some decided knowledge of how to make jelly, and I take exceptions to a great many things in the aforesaid article. The title is not at all misleading, for, although the action of the chemists may not have been a dabble, the article certainly is.

The article starts with the sentence, "One would not expect men to know much about jelly making," and, the sentence is not at all misleading after perusing the rest of the article. Men can eat jelly out of sight, literally, but if they had it made after their own suggestions I am afraid it would go to the pigs.

Perhaps the attitude of the article is better explained in the sentence opening the second paragraph: "Of all domestic processes, cooking is known to be the most stubborn about conforming to scientific principles." If the writer actually made jelly by the so-called scientific recipe therein attached, I am afraid the meaning of that sentence would be horribly confirmed in his mind.

It is a mighty careless jelly maker who lets the fruit juice pass the jelly point, and it has been my experience that after it does so it becomes leather instead of syrup. If fruit juice becomes syrup, it never would reach the jelly point if it were cooked a week.

The first point of direction, as given in the article would spoil any jelly that the most thorough housekeeper would ever attempt: "Cover it with water." Perhaps it has been the writer's experience that fruit covered with water can cook long enough to cook the water out of it, a process which must be accomplished before there is any danger of the concoction reaching the jelly point, yet, if he had ever eaten real jelly he would not recognize the strong burnt sugar concoction resulting from such a conglomeration as jelly.

The first requisite of good jelly is: do not cover with water. Do not drown in water, and do not use any water at all if there is juice enough to keep the fruit from burning without it. Jelly is fruit juice and sugar, equal parts, and what water is added must inevitably be subtracted before you have any jelly.

Grapes, small berries, anything that is real juicy can be pressed down in the kettle to produce juice in sufficient quantities to keep the fruit from burning. This is the only object of the water. After your fruit is in the kettle run a silver knife down the side of the kettle. You can see there what accumulation of juice you have. If it is enough to raise the fruit from the bottom of the kettle, as you value your success as a jelly maker, do not pour in any water. If the juice does not come up to your expectation, turn in just enough to cover the bottom of the kettle, about half an inch, and prepare to boil the juice long enough after it has been extracted, to steam out this water, and the longer it takes, the worse your jelly will taste. If you want jelly that will taste of the fruit leave the water out. If you want boiled down cider, pour it in to cover your fruit.

Boil the fruit slowly. If it is apple jelly you are making, you will have to use water, but not enough to cover. Pour in water until it stands as deep in the kettle as the juice of soft fruits should, perhaps a half or three-quarters of an inch deep. Cook slowly, on the back of the stove, letting the fruit rather melt than boil. Boiling doesn't do a bit of good, and generally does harm. The fruit must be softened with the heat just enough to let out its juices. The more water you have in your fruit, the longer it must cook before straining. Cooking before the sugar is added does not hurt, if the fruit pulp does not burn. Look out for that, especially after it has been cooked long. Sometimes you can cook all the water out of the juice before straining.

Another thing, make your jelly, as far as possible, on a bright day, for the ob-

vious reason that water evaporates faster on such days, and the jelly will be lighter color, and taste better.

It does not matter how you strain the juice. Sometimes I use a bag and sometimes I use a sieve, but I always squeeze the pulp after it becomes cold enough. What pulp, if any, comes through will rise in the scum of the jelly when it is cooking. You can let your bag drip over night, or you can pour it in a fine sieve and make your jelly while you are getting a meal. It's all pulp and juice, and it never knows how it got there.

Measure your juice in a cup or a bowl and put in exactly as many cups of sugar, if you want jelly. If you want boiled cider, vary it according to acid of the fruit. Last summer I made jelly with strawberries this way, and the jelly was hard and firm. You know the cook books say you cannot make strawberry jelly without gelatin. If you want to explode this theory, come to my house and see my strawberry jelly. I made also three or four cups of huckleberry jelly the same way, and there is nothing sweeter than huckleberries. I used the green ones along with the ripe, and that is the way to make good jelly of any description. If your fruit is too ripe, your juice will boil to syrup, and never reach the jelly point.

Good jelly of a juicy fruit on a bright day, if the water is left out, will jell almost before you have the time to skim it. A cloudy, moist day will give you more time, but your jelly will be darker.

How to tell when it has boiled enough is a great art, but easily learned. Take out a small spoonful of the juice. Let it cool for a few minutes, or blow it cool, then apply a dry finger tip to the surface. If it has reached the jelly point it will adhere to the finger in a firm paste-like mass, and when you pull up your finger there will be a string of bright jelly adhering to it. If it does not do this, no matter what time you put it over, or how hard it has boiled, let it alone. This is the only absolutely correct way to test jelly. You cannot tell about the time of boiling any more than you can tell how long Jonah was in the whale. I have had jelly coagulate before it had come to a boil at all. That is the word to describe its appearance, when it is ready to pour out, coagulation. Then, I have cooked juice a half a day and had to go out and pick a cup full of green fruit, strain it, and add it to the juice, when it would jell up in 15 minutes.

Before you are ready to pour it into the glasses, get a clean flannel cloth and make a bag, pouring the juice through this bag. Whatever pulp or scum remains in the juice will come out and your jelly will be clear as a ruby. As to boiling the pulp over again, I never tried that, but I have made marmalade of the pulp of fruit after the juice was extracted, and it was generally pretty poor truck.

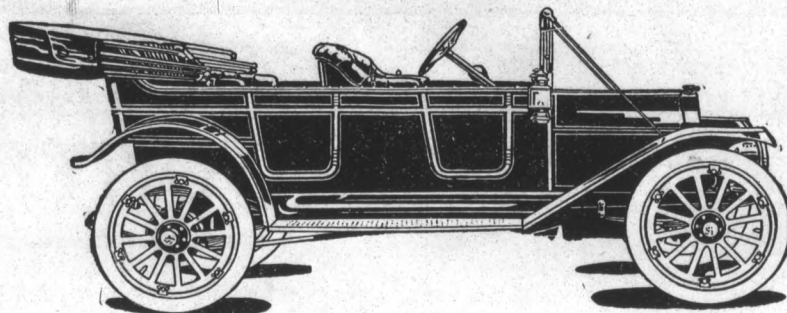
(In justice to the writer of the previous article, "Chemists Dabble in Jelly-Making," it must be said that Mrs. Mella Russell McCallum is an unusually bright and efficient housekeeper. She spent the entire summer of 1911 in trying out the chemist's suggestions and wrote exactly what she had done and her results at the request of the editor of this department.—Ed.)

THE SCIENCE OF RIGHT LIVING.

THE concerted attack on the present school curriculum made by educators and magazines brings forcibly to my mind a book which is being compiled by a prominent doctor, and which he hopes to introduce into the course of study of every school in the country.

The book has not been named yet, but it has to do with the science of right living. Right eating, right drinking, right sleeping, right exercising, right dealing with one's neighbors, in fact, the right way to do everything which enters into the scheme of living is the theme of this new book. As it covers the observa-

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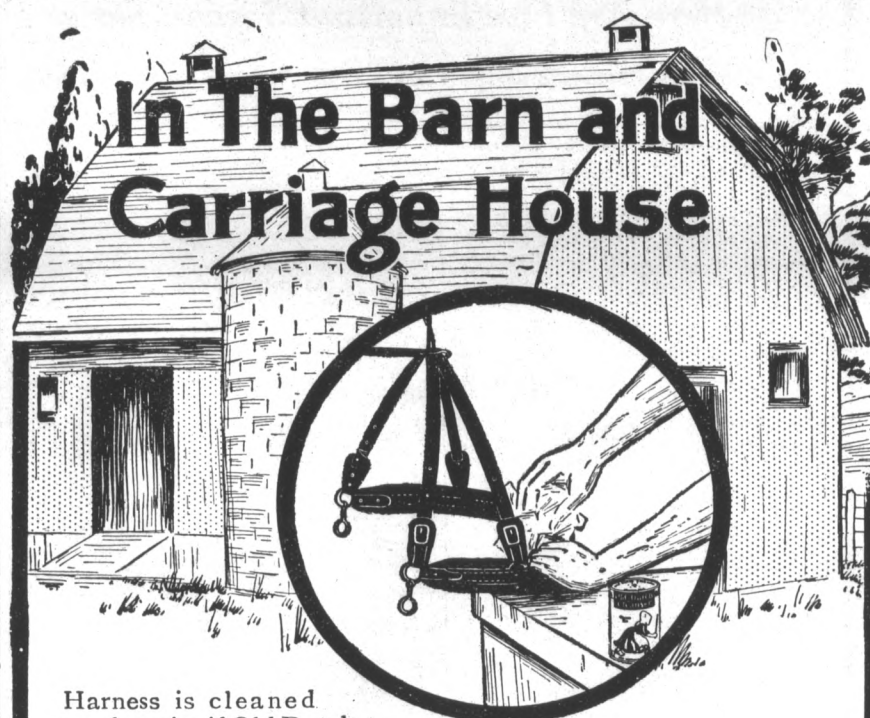
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tions of a half century of one of Michigan's foremost physicians and specialists, a man with a nation-wide reputation based on other books, this new volume is being awaited with interest by the few educators who have seen a few of the chapters.

And when you think of it, could anything be more important than a book which really tells us how to live right? To be sure, there are thousands of tomes filled with good advice, but how few there are which are really practical. Most are simply theories which don't work out at all in practice, and the major part are only treatises on morals. How many of us there are who go through life just trying to learn how to live, and only get the secret at last when we are ready to pass on, or have wrecked our health, and consequent happiness, by wrong conduct in early years?

Just the matter of eating alone. How few of us know how to eat right. How few of us realize that good temper and self control may be secured by temperance in eating. Half the unkind words uttered, it is safe to say, might be traced back to a bit of undigested food which generates a poison in the system, which in turn upsets the nerves and leads to an explosion of temper. If we could know from childhood the immense advantage of eating simple, plain foods, of eating just enough and of eating regularly, of eating slowly and thoroughly masticating our food, what a difference it would make in the health and temper of the nation.

And from knowing how to eat right ourselves it is but a step to knowing how to feed our children right. The absolute ignorance of the young mother who for the first time is faced with the problem of feeding a baby is appalling. And that she is hopelessly ignorant of this most important subject is borne out by the appalling number of infants who die from malnutrition.

Right sleeping. Balance the number who sleep eight hours in a room with the windows wide open or out on a sleeping-porch, against those who toss restlessly in rooms with one window open two inches, or worse still, practically hermetically sealed. Could we learn how to sleep right and eat right the great white plague would be all but vanquished, and the need for anti-tuberculosis societies done away with.

The farmer's wife and daughter need little advice as to right exercise. With the multitudinous duties of the house and the garden calling them into the outdoors they get all the exercise they need in the summer. But even they need to be reminded to get out in winter, when garden and small chicks no longer call them. No matter what the weather, every person should breathe out door air summer and winter for, a while each day, and the women and children who are physically able to stand the exertion should take a brisk walk.

Master these three Rights and the rest will take care of themselves, our doctor believes. For right eating, sleeping and exercising mean health, and health, he believes, means good temper, and good temper means good character and good character means a clean moral life. In other words, if our physical being is right it must follow as the night the day that our mental and moral being will be right. Such is the belief of this doctor, a belief that not only doctors but thinking people everywhere are beginning to adopt. And when you look over the list of your acquaintances aren't the men and the women who are perfectly healthy also perfectly happy and perfectly fair and square in their dealings with you? As a rule, you will find this is so, that the man who is hale and hearty is also just. Occasionally you find one with a moral twist who, while in normal health, shows sub-normal moral tendencies. But as a general thing it is the pindling, undersized, anaemic person who is querulous, suspicious and hard to get along with.

I hope that book will come out soon and that the schools will adopt it. Think of teaching our girls how to cook and to eat and to feed their families, as well as how to do cube root! I know the girls would welcome the change, for there is not a girl who could honestly rise up and say she enjoyed raising X+Y to the third power and then doing it backwards.

To live right. The one thing in life we need to know, and the one thing we seldom learn until we are through with living.

DEBORAH.



A Simple Farm House Machine That Works For The Women Folks

Why Not Put This One Small Machine In the Farm Home — To Make Mother's Work Easy? = When Father Has a Dozen Or More Bigger Ones to Lighten His Labors.

Why not present Mother with a "Pilot Country Home Carbide Machine?" A machine that will cut the good woman's work in half and make the old farm house a better place to live in.

Father has his riding plows, cultivators, binders, mowers, corn cutters and manure spreaders—he needs them all to make the farm pay—incidentally they make farm work twice as easy as it was a generation ago.

In the meantime the woman's end of it—the house work—is every bit as hard as it ever was. It is certainly mother's turn. She is clearly entitled to anything in the way of machine help to lighten her labors as much as one of these little gas plants will.

With less than fifteen minutes' attention once a month one of these Pilot machines will provide all the gas necessary for light and fuel in a big house. And in every such home the housewife will be forever relieved from the trouble and labor of handling coal, fire-wood, ashes, kerosene and greasy, smelly oil lamps.

Already over two hundred thousand farmers' wives are enjoying this wonderful convenience. For fully that many Carbide machines have been sold and installed in farm homes to date.

We ship with these Pilot light and fuel plants, the light chandeliers and the gas cooking range, all ready to set up. And this outfit can be installed in three days without injuring walls or floors.

The Pilot machine will set in your basement or an out-building. The iron pipes will run inside your walls just as in all city houses. The chandeliers, in brass or bronze, you can select from a catalogue of a hundred beautiful designs.

The lights you can have fixed to light up without matches—by simply pulling a chain that hangs from the burners in every room, barn, shed and out-building.

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The cooking range will be just like the "Gas Ranges" used in millions of city kitchens. The ever-ready fire can be turned on or off with a thumb screw. Like the city gas range this Carbide Gas Range insures a cool kitchen in hot weather and cuts the work of cooking meals in half at all seasons of the year.

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It tells about the magical gas producing stone, "Union Carbide"—how the Pilot machine releases the gas from this stone automatically—just the amount you use, no more, no less. It tells why the Union Carbide can't burn or explode. It tells why it can be kept for years. It tells how the light can be used in barns and other farm buildings. It tells why it is better than electricity and cheaper than kerosene. It tells why it is not poisonous to breathe. It tells why insurance authorities pronounce it the safest of all available illuminants for country homes. It tells what sized and priced machines different sized farms use.

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HOME AND YOUTH

AN OCTOBER DAY.

BY ALICE P. STEERE.

A misty light and a scudding cloud,
And the slow rain dropping down;
While somber trees reach out their hands
O'er the pathway drear and brown.

A passing cloud and the sun shines thro',
And the rain retreats in pain;
The somber trees grow golden now,
And the pathway a fairy lane—

A lane that leads to enchanted ground,
Where the scarlet leaves and gold
Have stained the light that filters thro'
Like cathedral windows old.

The day grows old, and the night comes
down
Thro' a twilight all purple mist;
And the hunter's moon swings low in
the sky.
Still flushed from her woodland tryst.

A MORNING CALL.

BY JOHN A. SIMPSON.

Regarding the profound and fateful etiquette of ceremonious calls, I must announce, like the New England minister during the famous eclipse, that I am as much in the dark as anybody. Especially is the philosophy of the morning call ahead of me. It may be all right for people who like that sort of thing to get up at midnight and make morning calls from one to five, but if I were going to call from one to five in the forenoon I should try to get there the day before.

About three weeks ago I determined to become fashionable and make a morning call myself. I concluded to call on a young lady of my acquaintance who lives on a farm about three miles out of town. On account of its being a ceremonious call I didn't send word of my coming. Living in a rural district she is not especially stylish herself, and naturally wouldn't be looking for callers. It seemed to me that this would be a fine opportunity to give an exhibition of the ways of society.

So I got up some time after midnight and dressed in haste and some clothes, and, wrapped in solitude and goose flesh, sallied forth. I must say that morning calls lose their glamour when viewed by the flickering illumination of the pole star. A morning call just before breakfast may be all right, but to hit the boundary line of the township before two in the forenoon, with nothing for company but a wish that you hadn't and the regular footfalls of the bogeyman, is no picnic.

On reaching the young lady's home I made my way to the front porch, and sat on the steps while collecting my wits and trying to remember all I had ever read of morning calls, in an endeavor to determine what to do next. I was beginning to have doubts—I mean more of them as to whether the young woman would really be glad to see me.

Suddenly the deep and tranquil night was filled to overflowing with the resounding voice of the watch dog. I made a wild rush for safety and the paling fence. As the bulldog was bringing up the rear with all the energy of his race, I wasn't long in making my way to the roof of the henhouse, which, fortunately, backed up against the garden fence. Upon the sloping roof the bulldog followed with a bound that, to my startled nerves, appeared to shake the universe. I leaped and fell over the end of the building. Scrambling to my feet in front of the half-open door, I rushed into the henhouse and pulled the door close after me.

It may have been rude in me to thrust my unbidden presence into the midst of those timid and unprotected hens, most of whom I had never met, but if I had waited to introduce myself, and to inquire whether they took lodgers, my remains would have been strewn over the premises.

Coming into the henhouse hastily and without stopping to bow, I accidentally knocked down some roosts and about twenty-five of the inhabitants who were suffering from nervous prostration and feeble mindedness. The way those irresponsible fowls squalled was disconcerting. The bulldog, and every cur within three miles, joined in, and I could hear about fifty worthless brutes yelping their way to the scene of the excitement.

By this time every member of the family was up. You might say, from the way they yelled, that they were making

morning calls. The young lady herself was ringing the dinner bell and howling "murder" with every jerk; her little brother was rushing for the neighbors and screeching like a steam calliope; her mother was screaming "fire!" and ringing the telephone; her father was shouting for someone to bring him the rifle, and the hired hand was shooting off his mouth and the shotgun in an effort to frighten the robbers into a state of wholesome fear. There most certainly were doings in that neighborhood along about three-thirty in the forenoon.

When the neighbors arrived the women folks stood on the back porch and screamed for the men not to shoot each other. The latter formed into a sort of half circle I judged, for I couldn't see through the door, and inside it was as dark as the cave of Monte Cristo, and bore down gradually upon the enemy, while an advance guard of rattle-brained pups tried to tear the defenses into kindling wood.

As I didn't dare open the door, and the army of assault was afraid to, there was a truce for about an hour and a half. I couldn't make them hear, for whenever I yelled the dogs howled and the hens kept up a tremendous cackle.

Finally, becoming convinced that I was proposing terms of capitulation, the attacking forces beat off the dogs and, aiming their guns against a possible surprise, awaited overtures for peace.

At last, when the first faint streaks of coming day was reddening the glad east, I cautiously opened the door, stepped out into the dim light and, blinking like a barn owl, surrendered.

I draw a veil over the final scene. It concerns only myself and one dearer than all else. I made up as plausible a story as I could about trying to play a little joke on the hired man, who slept in a room on the ground floor. And it is all right now. I am making my morning calls the day previous.

PARTNERS.

BY EDGAR, WHITE.

"My first case?" said an old gentleman with iron gray hair and a military mustache and imperial, a man whom all the people about the court room reverently addressed as "Major," and who smiled thoughtfully when one of the lawyers asked the question. "I remember it well. I expect most all old attorneys remember their first case better than any which have followed. In my experience, however, it was not the case so much as a little thing that occurred a year afterward—a matter growing out of the case—that makes it a little—ah—unique, I guess you'd call it."

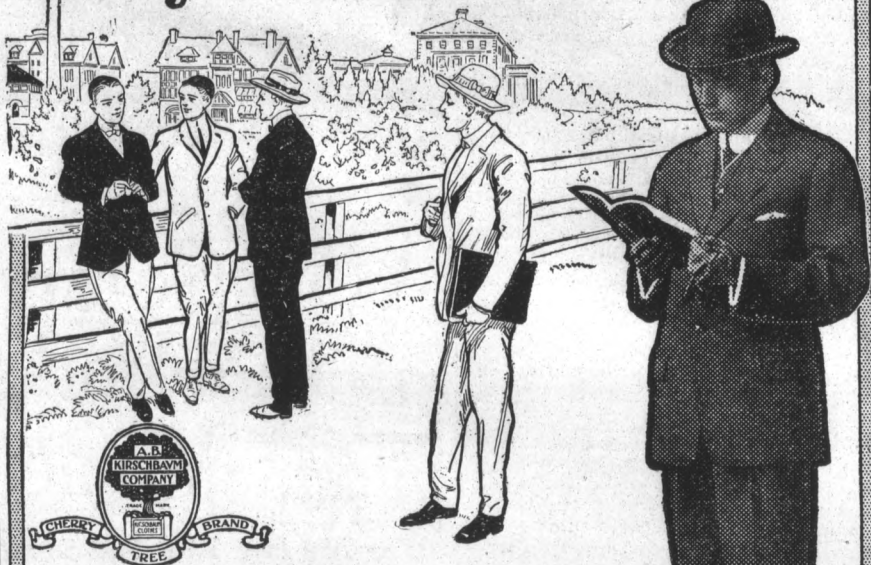
Major Hawkins took the cigar the Judge handed him, delicately struck a match on the sole of his shoe, and said:

"A medicine show outfit had been levied on by the constable at Lancaster, the charge being conducting a business for money without paying the fees demanded under the ordinance. The show had been in town all week, and it attracted large crowds. There was no place to go during the long summer evenings, and the free performance on the square was a heaven-sent blessing. The entire population of the town turned out every night, and there were some liberal spenders for the cure-all medicine, as there always are. Doctor Tuscarora—I don't recall his name exactly—was a tall, swarthy gentleman, who wore his hair long and a piratical mustache. He was the star of the outfit, one of the smoothest and most persuasive talkers I ever heard. It was fully as much of an entertainment to hear him explain his medicine as it was to listen to the jokes and songs of his minstrel crew.

"Before Saturday night the Doctor had succeeded in convincing the unanimous population of the town that they had some sort of ailment which nothing short of his medicine would cure, and had their money in his pocket.

"Understanding the popularity of the show, and the pleasure it was giving the people, the officer wisely refrained from making the arrest until the conclusion of the last Saturday night's performance. I don't recall just how much the town's bill against the Doctor was, but it wasn't very large. He could have easily paid it out of his haul, and have had half a barrel of money left. But, no, sir! It was a matter of principle, he told me, when he sought my legal services, and he declared he would spend a thousand dollars to test the matter; not that he cared for the few paltry dollars involved, but he didn't want a precedent established dangerous to his interests. His mission was

"Have You the Right Kind of Clothes?"



WHEN a young man gets out into the wide world, and in competition with other men, it is a big advantage to have clothes that set him ahead of the average in appearance.

The clothes that do so most effectively, yet economically, are the "Yungfelo" models in Kirschbaum clothes—the most highly specialized young men's garments made in America.

You can mingle with the well-dressed men of any place and be perfectly at ease, when attired in—

Kirschbaum Clothes

\$15, \$20 and \$25

Not only of authoritative cut and exceptional fineness of fabric, but finished with exacting care as to detail. Needed by hand into a shape that gives a sense of sureness and individuality.

Kirschbaum Clothes are strictly hand-tailored "All-Wool." Not a thread of cotton! We test every bolt of fabric. Then, we shrink the fabric between blankets in clean, cold water till there is no shrink left.

That means, when you wear Kirschbaum Clothes, a stylish, neat appearance as long as the garments are worn.

Every Kirschbaum Suit and Overcoat is sold under a strict guarantee. If you should not be entirely satisfied—if you do not find absolute perfec-

tion in fabric, fit and finish, the guarantee assures the return of your money.

Seek out the store with the Kirschbaum Guaranteed "All-Wool" Hand-tailored Clothes. We will send dealer's name, if you drop a postal.

Art Calendar Free

Exquisite color reproductions from oil paintings of scenes in Russia, showing men's correct styles. Write for your calendar.

A. B. KIRSCHBAUM CO.
1002 S. Broad St., Philadelphia
"The House With the All-Wool Policy"

LOCAL OFFICES:

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LOS ANGELES SAN FRANCISCO

All Wool Black or Blue Serge Suit Only \$12.00



Why pay your local clothier \$15 to \$18 for no better suit? The cloth in these garments is all wool serge, medium weight for year round wear, has a fine diagonal weave surface and will not easily wear shiny. Are lined with a very fine black serge and interlined with heavy canvas and hair cloth.

We guarantee every suit for one year, and agree to save you from 20 to 40 per cent on what you would pay at the regular retail prices. The Lansing State Savings Bank will tell you we are reliable.

Remember, we absolutely guarantee you a fit and perfect satisfaction or your money refunded. As we specialize on blue and black serge suits at \$12, you get the greatest clothing value ever offered for the money. Be sure and write today, waist measure for trousers and inseam from close up in the crotch to the top of your shoe heel. Send postoffice or express money order. We prepay all express charges. Further information and samples furnished upon request.

NATIONAL MENSWEAR CO.
Station A. - Lansing, Michigan.

This Beautiful 20 Year Watch \$3.75

Elegantly engraved THIN MODEL, GOLD FINISHED double Hunting case, Jewel American lever movement, stem wind and stem set. 20 year guarantee sent with each watch. Long gold finished chain for Ladies, fob or vest chain for Gents Free.



20 Year Guarantee EXAMINATION FREE. Let us send it C.O.D. to your express office, after you examine it. If you think it's a bargain and equal to any \$15.00 watch, pay the express agent our Special price \$3.75. Mention Ladies' Men's or Boys' size. HUNTER WATCH CO., DEPT. 1008, CHICAGO, ILL.

Roof Your Building With Edwards "REO"

STEEL Shingles



No Freight! No Repairs! No Painting!
No Labor Cost! No Extras of Any Kind!
Write for Low Prices!

A genuine "REO" Steel Shingle roof at the bare cost of factory making, plus one small profit!

Send roof dimensions and get low price on completed job. You will be amazed at how cheaply, easily and quickly you can have a No. 1 roof.

Outwear Four Ordinary Roofs

Edwards "REO" Steel Shingles far outwear best cedar shingles, corrugated iron or composition paper roofing. The Edwards "Tightcote" process of galvanizing and the Edwards Interlocking Device do the trick. They multiply the life of a roof by four. And remember, no freight to pay, no extra materials to buy, no workmen to hire, no tools to borrow. Just nail "REO" Shingles on yourself with a hammer—right over sheathing or old roof.

Our \$10,000 Guarantee Against Lightning

Edwards "REO" Steel Shingles are not only rust-proof, rot-proof and weather-proof, but are also fire-proof. You get a signed guarantee against loss by lightning backed by \$10,000 bond. We also guarantee safe, prompt deliveries any place in the U.S.

Postal Brings Catalog and Factory Prices

Don't buy roofing material of ANY kind till you've had our Factory Prices and Catalog, which explains our famous "Tightcote" Process. A postal brings all. Give roof dimensions if you can. But if you can't, send postal anyway for Prices and Catalog 1067 (84)

THE EDWARDS MANUFACTURING CO.
1017-1067 Lock Street, CINCINNATI, OHIO

WANTED—Immediately, men and women for Government Positions. Full examinations everywhere. Prepare now. Trial examination Free. Write Osment, 17 R. St. Louis.

to cure people, to yank them out of the grave, and to restore them to their families, sound in body and mind, and if the town, county or state would dare to put a valuation on such services to humanity it would be nothing less than demanding blood money, sir! Any community that put the almighty dollar above the lives of its inhabitants would go down, even as Sodom and Gomorrah, by gad!

"He elocuted in my little office pretty much as he did to the crowds on the street, and I imbibed a considerable amount of his righteous indignation. When I found quite a lot of the townspeople were on the medicine man's side it made me all the more confident. The Doctor gave me a list of some 20 persons who he said would testify that they had 'one foot in the grave' when he came along with his matchless medicine and cured 'em. That looked good to me, but I was young, you remember.

"I had all these witnesses summoned to appear in my office, and spent two days in having their statements taken down. The stenographer's bill was \$30. I think—possibly \$35. But I regarded those statements as necessary, for fear the judge might rule out the evidence, and then I intended to make my tender of proof, backed by the absolute statements of the witnesses who had escaped death. My client heartily approved the course. He said if the decision went against him in the court below he'd carry it through every court until he landed in the Supreme Court of the United States! He was that much in earnest.

"Every midnight found me at my books until the day of the trial, when the forces were lined up in battle array. I had discovered half a dozen big holes in the town ordinance, and brought an armload of yellow-backed books in order to walk through 'em. The city attorney, who was young like myself, had an older attorney to help him. My client offered to hire any lawyer I might name to help me, no matter what he cost—money was no object. But as this was to be my debut as a lawyer I decided to play a lone hand. I wanted to inspire confidence in the place, so I might reap a practice.

"Well, we rolled up our sleeves and went at it good and hard. When I put the Doctor on the stand, he insisted on making a stump speech in answer to every question I asked. I never saw a man with such a burning desire to talk on any and all occasions. He was like a phonograph set to run eight days. His answers invariably embraced an attempt to impress the jury with the wonderful curative powers of his medicine. When the city attorney began to cross-examine him it was just like a prize fight. The Doctor bristled like an angry bear, and as he could outroar the attorney he had the best of the legal debate.

"The 20-odd witnesses snatched from the grave were rejected by the court as having no bearing on the issue. The Doctor promptly rose to shout an indignant protest to the court, but I pulled him down in time to save him from a fine for contempt.

"After the evidence was all in I put in my demurrer, and we scrapped over it till far into the night. At the end the court sustained me, and the defendant was discharged, with the costs taxed against the city.

"The big medicine man was effusive in his gratitude; tried to hug me, and called me 'brother.'

"I'll never forget you, my brother,' he said. 'You are the best lawyer this or any other state has ever produced. This will be the making of you; your name will be written high upon the roll of fame. You have established a worldwide precedent, and you will have clients from everywhere. Come around to my hotel in the morning. I will have something for you, sir.'

"That night I slept with air castles and enchanted gardens hovering over my cheap pine bed. I felt that I had done good work; that I had earned my fee. Besides, the trial had been observed by large crowds of people, and I noticed the reporters were present. Yes, it was good to be a lawyer; I had struck the right vocation and had made good.

"In the morning I called at the hotel as directed. Jim Murphy, the clerk, was on duty.

"Dr. Tuscarora in, Jim?" I asked carelessly.

"Jim smiled as he reached for something under the counter.

"He pulled up stakes at midnight, but he left something for you," he said.

"With this he handed me a package and an envelope. The package contained half a dozen bottles of Dr. Tuscarora's sure cure for rheumatism, etc., and in

No. 4130—Ready for You to Wear—at \$18.50

WHILE it is not our highest-priced suit, nor our best, 4130 is our masterpiece because it contains the greatest value at the price.

This is the third season we've advertised the Clothcraft Blue Serge Special. Last fall we sold three times as many 4130's as we had ever before sold in any suit at the price—and even then there were not enough for all the men who were anxious to get them.

This fall's 4130, in the correct styles illustrated below, is even more exceptional in quality. Gaining confidence by the earlier successes of the new idea in

CLOTHCRAFT Blue Serge Special No. 4130 GUARANTEED ALL-WOOL \$18.50 AND FAST COLOR

clothes-making, we have tremendously increased our output. This has lowered making-costs to such an extent that we have used a much better serge than

would otherwise be possible. By telling these facts in our advertising we assure the sale of the greater output.

Before you decide on your fall suit, investigate 4130. Compare it with any blue serge suit you ever saw sold regularly at \$25. Give it rigid scrutiny, inside and out—fashion, fit, finish and fabric.

But investigate early. Get your suit before there's a possibility of such a shortage as occurred last fall with a trebled production.

There's No Guesswork When You Buy Clothcraft Clothes

The One Guaranteed All-Wool Line at Medium Prices—\$10 to \$25

INSTEAD of placing your order and then taking what you get, you can see what you're getting—before you spend a cent. You can try on several different models, to see which looks best on you—instead of finding out too late that cloth selected from a sample didn't look well in your suit.

And instead of the delay and annoyance of several try-ons, you can be sure of the correct fit of collar and shoulders and the proper hang of the coat at the time of purchase.

Moreover, you can be sure that your satisfaction will be lasting. The Clothcraft Guarantee, backed by maker and dealer, assures absolutely pure wool cloth, first-class trimmings and workmanship, lasting shape, satisfactory wear and service.

Those things are as true of any Clothcraft suits or overcoats at \$10 to \$25 as they are of 4130. They are due to Clothcraft Scientific Tailoring—our term for the waste-saving methods that improve quality without increasing cost.

BESIDES the splendid blue serge used in 4130, Clothcraft Clothes are made up in a great variety of all-wool fabrics—staple blacks and colors, and many fancy patterns. There are many models of suits and overcoats.

Their high quality and style have converted many men to ready-to-wear clothes. To such men they offer substantial savings or a large wardrobe. A dress-up overcoat and a big warm ulster together cost no more than many a man pays for one general-purpose overcoat.

Go to the nearest Clothcraft store. Notice the array of good models and fabrics. Subject the clothes to the closest scrutiny—but be sure to see that the Clothcraft label is inside the coat-collar, and the guarantee in the inside pocket.

If you don't know a Clothcraft store, write us direct. We'll gladly send you the address of the nearest one, together with the Clothcraft Style-Book for fall and a sample of the 4130 serge.

THE JOSEPH & FEISS COMPANY
Founded 1846—Oldest American
Manufacturers of Men's Clothes
623 St. Clair Avenue, N. W. *Cleveland*



4130-AA



4130-C



Overcoat-GU



4130-CC



Look for this label inside the collar of the coat



4130-E



3041-BB



Overcoat-Y



4130-DD

The right idea in underwear

—which is the Wright idea—is to let the pores breathe and carry off all perspiration and excretions from the skin.

Wright's Health Underwear is fleeced on the inside so it will be soft and comforting to the skin—so it can absorb all perspiration—so it will hold a layer of air between the garment and the skin, protecting it from sudden chills.

Wright's Health Underwear is knitted so the fabric is elastic, fitting the body perfectly and holding its shape permanently. The garments are knitted so the pores can breathe through it. Everyone will find comfort and good wear in Wright's Health Underwear—those who are susceptible to colds, grippe or rheumatism, will find the protection their conditions demand.

Ask your dealer to show you Wright's Health Underwear—in union suits and separate garments—in wool, wool-and-cotton and pure wool.

Fleeced inside for comfort and health



Wright's
Health Underwear

Wright's Spring Needle Ribbed Underwear fits the body all over. The fabric is so springy it stretches comfortably with every motion of the body—it goes through many trips to the laundry without losing its perfect shape. Made in all materials and weights to suit all preferences.

Ask your dealer to show you Wright's Spring Needle Ribbed Underwear and know it by this label:



Wright's Health Underwear Co.
75 Franklin Street, New York

When writing to advertisers please mention the Michigan Farmer.

Get Pretty Hands With BUBBLY JAP ROSE SOAP



Let this hard water softening soap soften and purify your skin as well. Let the vegetable oils that cause the abundant bubbly lather, keep the skin of your hands, face and body free of blemishes and roughness.

JAP ROSE Soap is both pleasant and saving because the lather forms so easily that each cake lasts longer than ordinary soap. A single trial is convincing.

All Dealers Sell Jap Rose **KIRK** A Large Transparent Cake 10c

Special Trial Offer: Send a 2c stamp and your dealer's name for a Free trial cake of JAP ROSE Soap.

JAMES S. KIRK & CO., 213 Michigan St., Chicago

Harvey Bolster Springs

prevent damage to eggs, garden truck, fruits, live stock on road to market. Make any wagon a spring wagon. Soon save cost—produce brings bigger prices—wagon lasts longer—horses benefited—thousands in use—"my wagon rides like auto" says one. Get a pair at dealers. If not at dealer's write us. Insist on Harvey's. 40 sizes—fit any wagon—sustain any load to 10,000 lbs. Catalog and list of proofs free.



GUARANTEED

the envelope was a dollar in real money. Also a note conveying undying thanks. Jim smiled some more.

"The great physician," he murmured; "did he cure your pocketbook?"

"Jim," I said, "if you ever tell anybody about this I'll—I'll make you swallow one of these bottles of medicine!"

"I took my fee over to the office and threw it into the lumber room. In a few days I got over my mad spell and joked with the others who laughed at me about it. One day I picked up a law magazine, printed in Boston, and noticed the editor was inviting contributions about interesting cases in court. While the inspiration was on I sketched out my experience with the medicine doctor, and sent it in. Within two weeks I received a check for \$12. This was going some, I thought. It would pay nearly half of the stenographer's bill. Feeling a little proud of the accomplishment I told one of the local editors and he wrote a piece about it in his paper. It seemed that for a country lawyer to pull down \$12 for a court story was quite an achievement, for the papers copied it far and near. Then some literary fellow down east got hold of it, and put in a whole lot of side events, added human interest, I believe they call it, and printed it in a popular magazine. This sent it around the country again, and many big metropolitan papers printed extracts from the story, with the magazine's permission, for the thing was copyrighted. One newspaper man wrote for my photograph, which I declined to send, because the last edition of the yarn was ten miles from the truth.

"A twelve-month slid into yesterday. The matter had passed along with other events of history, when one day my office door was darkened by a familiar figure, none other than that of Dr. Tuscarora, not quite as big and aggressive, but full of life, life that had run along the ragged edges. His clothes were seedy and he was somewhat shrunken about the cheeks. He looked like he might have been overindulging in his own medicine.

"My brave, good friend," he cried, advancing with big paws extended. "It warms my old heart to see you again, and to shake your noble hand. How have you been faring?"

"He sat down, cocked his heels up on the window sill and talked for an hour. Suddenly he turned towards me with a serious expression.

"I never thought to tell my secret to a living soul," he said impressively, "but from you, my more than brother, I will hide nothing. I have been playing in hard luck. My people have been false to me. They took my money, my medicine and all my valuable books and ran off. I know not where. I did not know what to do. For days I had nothing to eat. I was thinking of jumping into the lake at Chicago—yes, I was—when by some providential chance I ran across a magazine, which told how beautifully you had written up our trial. Ah! That was a glorious occasion!"

"Yes," I observed, "it was quite a fight."

"Indeed it was! And we beat 'em horse, foot and dragons!" Then he turned on me in his old ingratiating manner. "My heart thrilled as I read of your magnificent work on the case, and then I thought—you know the story said you got \$500 for it—I thought as we were partners in the case—you and me—that maybe—ah—knowing how generous and noble you were—that you'd divide up."

"Well, Doctor," I said, "I hate to disappoint you, but I never got any \$500 for the story. The fellow who wrote that lied. I didn't get but \$12."

"So?" he said. "Well, give me my six and we'll call it square."

SMILE PROVOKERS.

Rube—Where's yer boy naow?

Josh—He's in New York.

Rube—Which side's he on this time?

Josh—What d'yer mean?

Rube—Is he sellin' gold bricks a'ready or buyin' 'em yet?

"How do you know when your husband forgets to mail the letters you give him?"

"I always put a card addressed to myself among 'em. If I don't get it the next day I know. And it only costs a cent."

Teacher—Sammy, in the sentence, "I have a book," what is the case of the pronoun I?

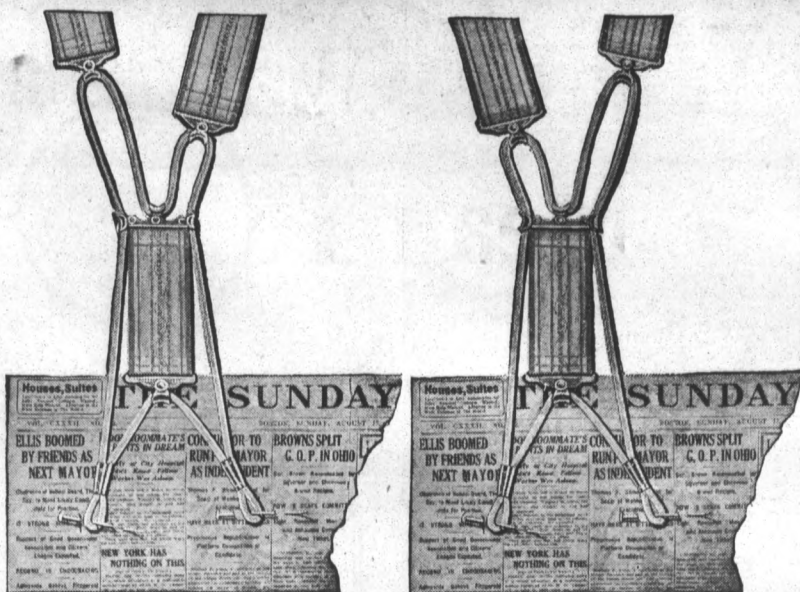
Sammy (promptly)—Nominative case.

Teacher—Next boy, tell me in what case to put the noun "book."

Next Boy (thoughtfully)—The book-case.

Not enough friction in the sliding back to tear the paper

In this illustration (taken from an actual test) the back button holes of a pair of Shirley President Suspenders were pinned to a daily paper.



First one shoulder strap was raised. Then the other (that's the way your shoulders rise and fall). The sliding cords moved so freely that the shift did not tear the paper.

This shows that if you wear Shirley President Suspenders, your shoulders are under no pressure nor restraint. Your movements are as free as if you had no suspenders on.

The sliding back makes Shirley Presidents the most practical and comfortable suspender for the farmer because the variety of work that he does about the farm keeps his body constantly on the move. It also makes them wear longer, for the strain caused by stooping or lifting does not all come on one part. The restraint of the ordinary suspender hinders the farmer at his work.

Wear a pair of Shirley Presidents for a month. We will buy them back at price you paid if they do not give you more comfort and satisfaction than any other suspender you ever wore.

SHIRLEY PRESIDENT SUSPENDERS

Ask for Extra Heavy Presidents for work or Medium Weight for ordinary wear. Extra lengths for tall men. Signed guarantee on every pair.

Price 50 cents Everywhere

The C.A. Edgarton Mfg. Co.
SHIRLEY GUARANTEED SUSPENDERS

5 Main Street Shirley, Mass.

"There's a GOOD Job! I Used Amatite ROOFING"

"NOW I have the best roof in this township. One that will last—one that's waterproof—one that will resist the hardest storms—and I didn't have a bit of trouble laying it."

That's about what every Amatite owner says. Its superiority over all other ready roofing is apparent to anyone who uses it. Amatite does away with all roofing troubles and unnecessary expenses because it is made with a real mineral surface that needs no painting. It is durable, fire retardant, practical, economical.

Don't buy any other roofing till you look up Amatite. Write to nearest office for samples.

Everjet Elastic Paint
Save money by using this black paint wherever the color is no objection. Elastic, heat-proof, durable. Use it for "rubber" roofings and all exposed iron and wood.

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Cleveland Pittsburgh Cincinnati Kansas City
Minneapolis New Orleans Seattle London, England

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Dr. E. H. Baldwin writes: "I took the course for my own benefit on the farm, but the success I had started me in practice and now I am going night and day. Your course has been worth thousands to me, and will be to any man."

\$1500 A YEAR and upwards can be made by taking our Veterinary course at home during spare time. Taught in simplest English. Diploma granted. Graduates assisted in getting locations or positions. Cost within reach of all. Satisfaction guaranteed.

WRITE FOR PARTICULARS
The London Veterinary Correspondence School
London, Ontario, Canada

DON'T PAY TWO PRICES
Save \$8.00 to \$22.00 on
Hoosier Heaters and Ranges

Why not buy the Best when you can buy them at such low unheard-of Factory Prices. Our new improvements absolutely surpass anything ever produced. Save enough on a single stove to buy your winter's fuel. Thirty Days Free Trial in your own home before you buy. Send postal today for large free catalog and prices.

Base Burner Hoosier Stove Co., 130 State St., Marion, Ind.

The "BEST" LIGHT
Makes and burns its own gas. No grease, odor nor dirt. Brighter than acetylene. Over 200 styles. Every lamp warranted. Write for catalog.

Agents Wanted.
THE BEST LIGHT CO.
280 E. 6th St., Canton, O.
300 CANDLE POWER

HARTSHORN SHADE ROLLERS

Bear the script name of Stewart Hartshorn on label. Get "Improved," no tacks required.

Wood Rollers Tin Rollers

WANTED FOR U. S. ARMY—Able-bodied, unmarried men, between ages of 18 and 35; citizens of United States, of good character and temperate habits, who can speak, read and write the English language. For information apply to Recruiting Officer, 212 Griswold Street, Detroit, Mich., Heavenrich Block, Saginaw, Mich., 1st and Saginaw Streets, Flint, Mich., 144 West Main Street, Jackson, Mich., Huron & Quay Streets, Port Huron, Michigan.

WODWALBOARD **SAVE ONE HALF BUILDING EXPENSE**
WRITE US FOR SAMPLES. PRICES—NAME OF NEAREST DEALER

Mc HENRY-MILLHOUSE MFG. CO.
SOUTH BEND, INDIANA

SAVE YOUR BACK
High lifting tires and wears you out. Avoid it by using an **Electric Handy Wagon**. Thousands have proved it the easiest and best wagon for farm work. Low down, broad tires, steel wheels—the complete wagon. Strength for all work, no breakdowns and no repairs.

10,000 High Lifts Saved
We will fit your old running gears with **Electric Steel Wheels** and make your wagon into a low down handy wagon. We fit any axle. A set of wheels at little cost gives you a wagon good as new. Write for catalog and particulars.

ELECTRIC WHEEL CO., Box 35, Quincy, Ill.

What a Change at Washington Would Mean To The American Farmer

TO begin with, the farmer isn't a weather-vane.

He finds out what is wise and good—and he sticks to it.

That's what makes him a successful farmer—because he decides upon a plan of farming that is definite, profitable and right.

And he adopts it permanently.

He's not to be turned aside by passing fancies or unproved theories.

He wisely looks at the bread-and-butter side of things.

And if the bread is sweet, the butter is rich and thick—he is not pining for a "change."

Practically in every part of the country, farmers are now rejoicing over bumper crops.

Nature has been mighty good to them this year.

Their granaries are fat—their bins distended.

But that alone isn't their chief cause for rejoicing.

* * *

Big crops—enormous yields—are simply assets waiting to be cashed.

And it's the cashing that interests the farmer.

That's where he is doubly blessed this year. For the values of farm products are up and soaring.

Think of the astounding farm wealth production—nearly nine billion dollars for 1912!

—Conservatively estimated by the U. S. Agricultural Department.

Then remember back to 1900 when the total figures were something over four billion.

And note, please, that this percentage of increase is vastly in excess of the increased acreage brought under cultivation during that period.

Is it any wonder that the farmer is sitting tight and contented?

And is it likely that he will consider risking his present bountiful Prosperity—turning his back upon Plenty—

And taking a step in the dark!

* * *

Land values have doubled within the last ten years.

Intelligent Government assistance—representing an enormous investment on Uncle Sam's part—has led to better use of the soil.

But, most of all the farmer has made more money on his crops, because of a thriving home market—right at his door.

You know that commercial and agricultural prosperity link close together.

When the smoke is coming from every factory chimney, when every wheel is turning, when labor troubles are reduced to a minimum, when contented workmen in mills from Maine to the Pacific Coast are bringing home well-filled pay envelopes every Saturday night—

—The farmer is going to get his big liberal share.

We have people enough, with appetites enough, and money enough, to consume practically every bushel of grain, or vegetable product, and every pound of beef, pork or mutton the farmer produces.

And the demand is at hand. It's a short haul.

Every mile consumed in shipping farm products from one country to another means that much delay and that much money loss to the producer.

* * *

But the export problem sends no cloud across the farmer's sunshiny horizon these days.

Figures are dull, but there is a mighty keen edge to these that show the actual exports of the three leading grain crops, according to the latest available figures. They are official.

In the last year, out of the total production of corn in America, a little over 2 per cent was shipped abroad; of oats less than 1 per cent; of wheat 4 per cent.

Just remember that when someone quotes to you the bit of Democratic doctrine, taken from the party's 1912 platform, which reads:

"The farmer sells largely in the free market"—meaning the foreign markets of the world.

* * *

Now let's get back to the cause of this Prosperity.

A mighty large percent of it is due to the wise and consistent Tariff policies of President Taft.

The Republican Party has stood first, last and all the time, for the home market.

Mr. Taft's broad-gauge policies mean the protection and development of the National Home Market.

His sane, judicial methods have inspired industrial confidence.

It was known, that whatever Taft did would be calm, dispassionate, reasonable—for the best good of the entire population—that it would build up rather than overthrow.

* * *

Men at the head of things—while they realize that Taft is an enemy to Monopoly—that he has 45 indictments against trusts to his credit in three years of administration, compared with 25 indictments during the first and second terms of his predecessor—

—Still recognize in him and his policies the real safety and continued Prosperity of the country.

That is, to a great extent, why all the mills, factories, are running full time, why wages are high—

—Why the farmer's home market today awaits his most bountiful crops.

* * *

Mr. Taft is an exponent of simple Americanism.

Not a sensationalist of stage-acting methods.

Not an impractical dreamer with his head in the clouds.

Taft did a heretofore unheard-of thing when he appointed a non-partisan tariff board.

—When he fought for three years for the permanent establishment of this Commission.

—When he absolutely refused to "play politics," but chose the competent men to make this extensive investigation, and set them at work, at home and abroad to find out what conditions were—to glean the absolute facts on which an equitable tariff revision could be founded.

One that would be just, alike to the producer, the manufacturer and the consumer.

And remember that this represents the first and only move to regulate the tariff on a truly scientific basis.

Taft has this record of performance. Other candidates have none.

His actions are more eloquent than the words of his opponents.

* * *

He stood firmly against the Democratic wool bill because it was notoriously defective in vital essentials, and its passage was utterly inexcusable.

The Tariff Board's report was in and the long-looked for downward revision of that Schedule based upon facts instead of theories, was offered by the Republicans and voted down by Democrats who had made no effort to ascertain what damage they were inflicting upon American farmers, wool-combers and manufacturers.

Under the *ad valorem* method of levying the duties provided by the Democrats, importers would have defrauded the Government, and American sheep owners would have failed to receive the protection ostensibly extended.

The Republican bill eliminated an excess protection, reformed the entire Schedule on the scientific basis of levying a specific duty upon the scoured pound of wool and would have corrected the admitted evils of the Schedule without "killing the patient."

The President therefore awaits patiently the judgment of the American people as to his action.

* * *

Another case was the Free Sugar Bill.

If Mr. Taft had supported this bill it would have spelled certain trouble for the thousands of farmers raising Sugar Beets in Michigan, Colorado, Nebraska and other States, and to raisers of Sugar Cane in the South.

President Taft opposed it—and these important home industries were protected and preserved.

* * *

That is the real Taft.

An optimist—a worker—a just judge.

A man who plays the game fair—who puts right above politics, and the people's prosperity above personal glory

Under his administration times have grown better and better.

The outlook is for still brighter things.

We don't believe that there's a single thinking farmer reader of this paper, who—when he gives real consideration to the men and to the issues—will vote to bring about a "change."

REPUBLICAN NATIONAL COMMITTEE
Charles D. Hilles, Chairman,
James B. Reynolds, Secretary.

MARKETS

Realizing the importance to our readers of reliable market quotations we spare no trouble or expense to insure the correctness of the quotations in our columns. Special representatives at all leading market centers insure the subscriber accurate market reports, uninfluenced by any factor of trade. All quotations are correct for the dates on which they are made.

DETROIT WHOLESALE MARKETS.

October 2, 1912.

Grains and Seeds.

Wheat.—Fluctuations characterized the wheat market the past week. Up until Saturday declines followed each other due to increased receipts in the north-west, resumption of threshing after long continued rain spells and the lower values ruling at Liverpool. Beginning Monday a bullish tone took hold of the trade which was largely due to rumors of war in the Balkan regions where Europe expects much of her wheat supply from. Prices advanced nearly a cent Monday and more than that amount on Tuesday. The visible supply shows an increase of about one and a half million bushels. The price for No. 2 red wheat a year ago was 93½¢ per bu. Quotations are as follows:

	No. 2	No. 1	Dec.	July.
Thursday	1.05½	1.04	1.07½	1.11½
Friday	1.04½	1.03½	1.07½	1.11½
Saturday	1.04½	1.03½	1.07½	1.11½
Monday	1.05½	1.04½	1.08	1.12
Tuesday	1.06½	1.05½	1.09	1.13
Wednesday	1.07½	1.06½	1.09½	1.13½

Corn.—With reports indicating the maturity of a large percentage of the corn crop, prices for the past week have gradually gone to a lower basis, the decline up until Tuesday amounting to over 4c. Some of the leading corn states will harvest the largest crop ever grown. The visible supply shows an increase of three-quarters of a million bushels. A year ago at this time No. 3 corn was quoted at 71c per bu. Quotations for the week are:

	No. 3	No. 3
	Corn.	Yellow.
Thursday	73½	76
Friday	72½	75
Saturday	71½	74
Monday	70½	73
Tuesday	69½	72
Wednesday	68½	71

Oats.—Substantial declines were made in the oat deal, losing practically all of the gain made the previous week. There is fairly active trading in this grain with a general belief that prices will not go far from the present basis for some time. The visible supply increased less than a half million bushels. A year ago the price was 49½¢ for standard oats. Quotations are as follows:

	Standard.	Oct.
Thursday	38	37
Friday	37½	37½
Saturday	37	35½
Monday	35½	34
Tuesday	35½	34
Wednesday	35½	34½

Beans.—The quotations are 10c higher than those given out for the previous week. Weather conditions have improved a little for this crop which will enable farmers to recover many acres that would have been doomed, so far as marketable beans are concerned, had rains continued longer. The ruling quotations are as follows:

	Cash	Oct.
Thursday	\$2.60	\$2.40
Friday	2.60	2.40
Saturday	2.60	2.40
Monday	2.60	2.40
Tuesday	2.60	2.40
Wednesday	2.55	2.40

Clover Seed.—June clover seed rules a little lower than the highest price of the previous week, while alsike is 25c higher. There is moderate activity in the trade. The outlook for the crop is discouraging. Quotations are as follows:

	Oct.	Alsike.
Thursday	\$11.50	\$12.25
Friday	11.25	12.25
Saturday	11.25	12.25
Monday	11.25	12.25
Tuesday	11.25	12.25
Wednesday	11.25	12.25

Rye.—Rye values have declined 1c. No. 2 rye now being quoted at 74c per bushel.

Timothy Seed.—This product is quiet with no change in prices, prime spot now being quoted at \$2.10 per bu.

Flour, Feed, Potatoes, Etc.

Flour.—The market shows less activity than a few weeks ago.

Straight	\$5.20
Patent Michigan	5.80
Clear	4.90
Rye	5.00

Feed.—All grades are lower except both grades of middlings. Carlot prices on track are: Bran, \$25 per ton; coarse middlings, \$28; fine middlings, \$31; cracked corn and coarse corn meal, \$32.50; corn and oat chop, \$30 per ton.

Hay and Straw.—Timothy higher. Other kinds steady. Quotations are: No. 1 timothy, \$17@17.50; No. 2 timothy, \$15.50@16; clover, mixed, \$13@16; rye straw, \$10@10.50; wheat and oat straw, \$8@9 per ton.

Potatoes.—Market is steady with a week ago. Local prices are steady at 40@45¢ for car lots on track.

Provisions.—Family pork, \$20; mess pork, \$22.50@23; clear backs, \$21@24; hams, 15@16c; briskets, 12½@13c; shoul-

ders, 13c; picnic hams, 13c; bacon, 17@18½c; pure lard in tierces, 12½c; kettled rendered lard, 13½c per lb.

Dairy and Poultry Products.

Butter.—A general advance in butter values took place in most large markets of the country early this week. The local trade is paying a cent more for both creamery and dairy offerings. Quotations are: Extra creamery, 31c; first creamery, 29½c; dairy, 22c; packing stock 19c per lb.

Eggs.—Last week's advanced quotation has been exceeded by a further advance of 1c this week, current receipts, candled, cases included, now being quoted at 26c per dozen.

Poultry.—The only change apparent in poultry values is a decline of 1c for broilers, other grades and kinds remaining steady. There is a fairly good supply of chickens and hens. Following are quotations: Broilers, 15c per lb.; hens, 13@13½c; No. 2 hens, 9@10c; old roosters, 9@10c; turkeys, 15@16c; geese, 8@9c; ducks, 12@13c; young ducks, 14@15c per pound.

Veal.—All grades steady. Fancy, 13½@14c per lb; choice, 9@10c.

Cheese.—Market rules higher for all grades. In wholesale lots, Michigan flats, 15@16c; York state flats, 17@17½c; limburger, 16½@17½c; brick cream 17½@17¾c.

Fruits and Vegetables.

Peaches.—Offerings are liberal with prices lower. AA, \$1.50; A, \$1.75; B, \$1 per bushel.

Pears.—Bartletts are quoted at \$2@2.45 per bu.

Plums.—Higher. Per bu., \$1.50@1.75.

Apples.—New apples are quoted at \$1.75@2.25 for fancy, and \$1@1.50 for common; poor, 75¢@1 per bbl. Good apples by the bushel are selling at 40@60c.

Grapes.—In 8-lb. baskets: Delaware, 20c; Niagara, 20c; Concord, 15@16c.

Honey.—Choice to fancy comb, 15@16c per lb; amber, 12@13c.

Tomatoes.—Per bushel, 75¢@80c.

Onions.—Per bushel, 75c.

Cabbage.—New, \$1@1.25 per bbl.

OTHER MARKETS.

Grand Rapids.

About 400 loads of fruit and farm produce were sold on the city market Tuesday morning. Grapes were leaders, the amount being estimated at 1,094 bushels, and the average price paid was 50c. The apple supply was about 850 bushels and average sales were at 50¢@60c. Best pears brought \$1.50. Potatoes were scarce and sold readily at 50¢@55c. Tomatoes brought 60¢@75c; beets, 40c; carrots, 25c; cucumbers, 75c doz; cabbage, 35c. The hay market is steady at \$13@15. Wheat is worth \$1.03; corn, 75c; rye 62c; oats, 34c; buckwheat, 65c. The new crop of beans is quoted on \$2.10 basis to farmers.

Chicago.

Wheat.—No. 2 red, \$1.02@1.04; Dec., 90½c; May, 95½c.

Corn.—No. 3, 66½@68½c; Dec., 52½c; May, 51½c.

Oats.—No. 2 white, 33½@34c; Dec., 31½c; May, 34c.

Butter.—All grades are 1@1½c higher, best quality dairy showing an even greater advance. The rise seems largely due to buying on speculative account. Receipts are running well above those of last week and the market is quiet at the higher range. Quotations: Creameries, 25½@30c; dairies, 23½@28c.

Eggs.—An advance of a full cent since last week is recorded; market steady with receipts hardly up to requirements. Quotations: Firsts, 23c; ordinary firsts, 21½c; at mark, cases included, 19@20c per dozen.

Potatoes.—Practically no change in prices; market steady to firm. Michigan stock is quoted at 55¢@57c; Minnesota, 52¢@57c; Wisconsin, 52¢@57c.

Beans.—Firm at former prices. Pea beans, choice, hand-picked, \$3 per bu; prime, \$2.90; red kidneys, \$2.40@2.50.

Hay and straw.—No change this week except an advance of \$1 on rye straw. Quotations are: Timothy, choice, \$18@19; No. 1, \$16@17c; No. 2 and No. 1 mixed, \$13@15; clover, \$7@12; No. 2 and no grade, \$5@7; alfalfa, choice, \$16@17; No. 1, \$14@15; No. 2, \$10@13. Straw—Rye, \$8@9; wheat, \$6.50@7; oat, \$7.50@8.50.

New York.

Butter.—Marked firm at advanced values. Quotations: Creamery, special extras, 32c; do., firsts, 29¢@31c; seconds, 26½@28c; factory do., June make, firsts, 23½c.

Eggs.—All offerings meeting a good demand at advanced prices. Fresh gathered extras, 31¢@34c; extra firsts, 28¢@30c; firsts, 25¢@27c per dozen.

Poultry.—Dressed—Firm, with prices practically unchanged. Fresh killed western chickens, 14¢@20c; fowls, 15¢@17c; turkeys, 16¢@17c per lb. Live—Dull. Western chickens, 15¢@15½c; fowls, 15¢@16c; turkeys, 20c per lb.

Elgin.

Butter.—Market firm at 30c per lb., which is an advance of 1½c over last week's quotation.

THE LIVE STOCK MARKETS.

Buffalo.

September 30, 1912.

(Special Report of Dunning & Stevens, New York Central Stock Yards, East Buffalo, New York).

Receipts of stock here today as follows: Cattle, 245 cars; hogs, 95 double decks; sheep and lambs, 100 double decks; calves 1,200 head.

With 245 cars of cattle on our market here today, and not a single prime load in the lot, we again quote our market generally 15¢@25c lower than last Monday.

We quote: Best 1,350 to 1,500-lb. steers

\$9@9.50; good to prime 1,200 to 1,300-lb. do., \$8.50@8.75; good to prime 1,100 to 1,200-lb. do., \$8.25@8.50; medium butcher steers, 1,000 to 1,100, \$6.50@7; butcher steers, 950 to 1,000, \$5.75@6.25; light butcher steers, \$5.25@6.25; best fat cows, \$5.25@5.75; butcher cows, \$4.25@5; light butcher cows, \$3.25@3.75; trimmers, \$2.75@3.15; best fat heifers, \$6.75@7.25; medium butcher heifers, \$5.50@6; light butcher heifers, \$4.25@5; stock heifers, \$3.75@4.25; best feeding steers, dehorned \$5.85@6.25; common feeding steers, \$4.25@4.65; light stockers, \$4.25@4.50; prime export bulls, \$5.75@6; best butcher bulls, \$5.25@5.50; bologna bulls, \$4@4.50; stock bulls, \$4@4.50; best milkers and springers \$6@7; common kind do., \$3@4.50.

Our receipts of hogs today were fully up to expectations, 95 double decks on sale. Light receipts at all western markets put a little ginger in our buyers, and while prices were no higher than the close Saturday, trade was active and a good clearance was made. General sales of the best yorkers and mixed hogs was at \$8.90@9, with common heavy quoted as low as \$8.75. Light yorkers, \$8.25@8.50; pigs, \$7.50@8; roughs, \$7@7.50; stags, \$6@7.

The sheep and lamb market was fairly active today, with prices 10c higher than the close of last week; most of the choice lambs selling from \$7.40@7.50. Yearlings \$5@5.75; look for about steady prices the balance of the week.

We quote: Choice lambs, \$7.40@7.50; cull to fair do., \$5.50@7.25; yearlings, \$5.25@5.75; bucks, \$2.50@3; wethers, \$4.75@5; handy ewes, \$4@4.25; heavy ewes, \$3.65@3.75; cull sheep, \$2.50@3; veals, choice to extra, \$11@11.50; fair to good, \$9@10.50; heavy calves, \$5@6.

Chicago.

September 30, 1912.

Cattle. Hogs. Sheep.
Received today .. 18,000 19,000 63,000
Same day last year..32,056 20,811 46,176
Received last week..57,356 86,533 177,221
Same week last year..68,937 124,146 157,377

A Monday run of around 18,000 cattle, including about 4,000 from western ranges, would mean ordinarily a sharp advance, but these are no ordinary times. Besides, there were heavy receipts at markets farther west, Kansas City reporting 26,000 head received there, and this helped to hold prices down. Fat beefs alone were active and firm, with an \$11 top, other kinds being slow at barely steady prices. Hogs averaged 5@10c higher, but the improvement was felt mainly in the in-between kinds. Hog sales were at \$8.05@8.95, with the north shipping drove of hogs averaging around 270 lbs. costing \$8.75. Mixed packing and heavy packing showed the greatest rise, with the bulk going at \$8.25@8.50. Hogs received last week averaged 233 lbs., compared with 215 lbs. one year ago, 264 lbs. two years ago and 232 lbs. three years ago. The sheep market was late in opening, and at a late hour very little trading had been done, prices averaging 10@15c lower, though some good lambs brought nearly steady prices.

Cattle receipts last week were increased so much that buyers had good opportunities to force values to a lower level, except for the very best corn-fed lots, and declines of 25¢@50c occurred, all grades of beef steers from \$10.50 down being included in the break. Butcher stuff was included in the downward movement, as were stockers and feeders, and country buyers were offered feeding cattle at reductions of 25¢@40c. Buyers have paid former extreme prices under protest, and any approach to normal cattle receipts is sure to result in severe reactions. Last week's sales of beef steers were largely at \$7.40@10.15, with the choicest cattle taken at \$10.50@11 and the poorer light-weight grass-fed lots selling at \$5.75@6.75, with great numbers of the in-between kinds selling at \$8@9.

There is no graded system like that adopted for grain on the Board of Trade, so that there are wide differences of views as to what are "good" steers, but no very attractive good heavy weights are selling for less than \$9.50. Prime little yearlings have sold at a new high level, a sale being made of 16 head of Angus and Shorthorn steers that averaged but 1,006 lbs. at \$10.65. Cows and heifers brought \$4.25@8.35, with a few prime heifers selling up to \$9, there being a poor showing of heifers good enough to sell above \$8. Cutters went at \$3.45@4.20, canners at \$2.50@3.40 and bulls at \$3.75@7.

Hogs sold most of last week at well maintained prices, the market rallying sharply at times, when the receipts were smaller than usual. The poor eastern shipping demand continued the weakest factor in the market, the eastern packing points receiving large supplies from their home territory. The large consumption of fresh pork products was as strong a feature as ever, as was also the large sales of car lots of lard and cured meats of all descriptions. Choice light butcher hogs continued the favorite sellers, going at the highest prices paid for anything, and rough, heavy packing sows sold lowest of all. The decreasing receipts of pigs is taken as a good indication that hog sickness is dying out in hog raising districts generally, and with cheap corn in sight, it is believed that farmers will be encouraged to put plenty of weight on their young hogs. Provisions, while much higher than a year ago, are decidedly lower than a few weeks ago. At the close of the week hogs sold at \$8.05@8.95, compared with \$7.85@8.82½ a week earlier, pigs bringing \$6@8.35.

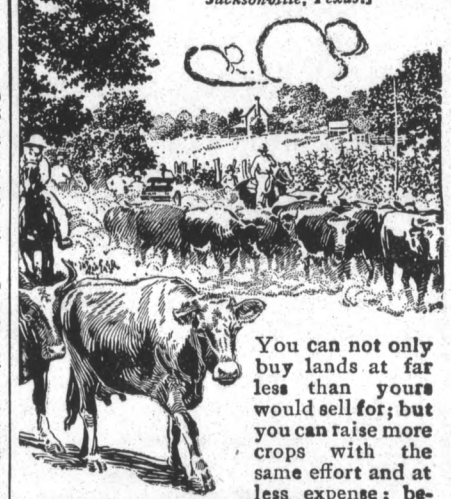
Sheep and lambs were marketed last week in extremely liberal volume, the receipts embracing too generous offerings of natives, as well as excessive receipts from the ranges of Idaho, Montana and Nevada. Of course, weakness was inevitable under the strain of such liberal supplies, yet prime range lambs sold much better than might have been expected, the demand being especially good for these. Native lambs failed to grade as well as the range flocks and had to go at a large discount. As for range

feeders and breeders, the demand was as strong as ever, and prices failed to go off with mutton grades. Lambs comprised the customary large percentage of all the offerings, and consequently reductions in prices were apt to be less marked in sheep and yearlings, although wethers and ewes sold extremely low as a rule. At the close prices were largely 25¢@40c lower than a week earlier, lambs selling at \$4.75@7.25, yearlings at \$4.75@5.60, wethers at \$4@4.50, ewes at \$2.50@4 and bucks at \$2.50@3.25. Breeding ewes brought \$3.75@5, and feeders paid \$6@6.75 for lambs, \$4.75@5.50 for yearlings, \$3.65@4.25 for wethers and \$3@3.50 for ewes.

Land cost him \$600 \$6000 profit now!

Mr. Hall, a former Michigan man, bought 100 acres of land in East Texas, at \$10 per acre, a few years ago; planted 60 acres to peach trees; made a good living from melons and berries until trees came to bear—and now he is getting \$6000 net from his sixty-acre orchard alone.

(Monkress Farm Jacksonville, Texas.)



You can not only buy lands at far less than yours would sell for; but you can raise more crops with the same effort and at less expense; because of the rich fertility of these lands and the milder climate, which cuts winter expenses 'way down, along the

Cotton Belt Route in Arkansas and Texas

As Frank Federer says, who came here from Rhineland, Wis.: "I can raise here on \$15 land as much as I could in Wisconsin on \$200 land." S. N. Jackson of Piggott, Ark., declared that "This is better fruit country than in Tennessee; our orchard crops bring more money here, and there is a better market for what we raise." Jackson only paid \$700 for his place. These lands won't stay cheap. They have already doubled in value since 1905; but even this year you can buy at \$12 to \$25 per acre, as good land there as you are farming now. And you'd have every advantage of schools, churches, close neighbors, good local markets, phones, rural free delivery, etc. This proposition deserves serious thought.

On the 1st and 3rd Tuesdays of each month there are low round trip excursions to Arkansas and Texas via Cotton Belt Route, allowing 25 days' time and free stopovers. Go on the next one.

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THIS IS THE LAST EDITION.

In the first edition the Detroit Live stock markets are reports of last week; all other markets are right up to date. Thursday's Detroit Live Stock markets are given in the last edition. The first edition is mailed Thursday, the last edition Friday morning. The first edition is mailed to those who care more to get the paper early than they do for Thursday's Detroit Live Stock market report. You may have any edition desired. Subscribers may change from one edition to another by dropping us a card to that effect.

DETROIT LIVE STOCK MARKETS.

Thursday's Market.

October 3, 1912.

Cattle.

Receipts, 2,057. Market strong at last week's prices.

We quote: Extra dry-fed steers, \$8@9; steers and heifers, 1,000 to 1,200, \$7@7.50; do. 800 to 1,000, \$6@6.50; grass steers and heifers that are fat, 800 to 1,000, \$5@6; do. 500 to 700, \$4.50@5; choice fat cows, \$5.75@6.50; good do., \$4@5; common cows, \$3.50@4; canners, \$2.50@3.25; choice heavy bulls, \$5@5.50; fair to good bolognas, bulls, \$4.50@4.75; stock bulls, \$3.50@4; choice feeding steers, 800 to 1,000, \$5.25@5.75; fair do., 800 to 1,000, \$4.75@5.25; choice stockers, 500 to 700, \$5@5.25; fair stockers, 500 to 700, \$4.25@4.75; stock heifers, \$4@4.50; milkers, large, young, medium age, \$4@70; common milkers, \$25@35.

Bishop, B. & H. sold Mich. B. Co. 16 butchers av 740 at \$4.50, 1 steer weighing 1,000 at \$6.50, 11 do av 803 at \$6, 4 cows and bulls av 1,045 at \$4.50, 7 butchers av 904 at \$6.50; to Kimball 2 stockers av 500 at \$4.60, 3 do av 607 at \$4.60; to Bresnahan 22 do av 650 at \$4.50, 16 cows av 872 at \$3.50, 3 do av 890 at \$3.25, 2 do av 765 at \$3.25, 13 do av 840 at \$3.50, 3 do av 770 at \$3.40, 2 steers av 1,600 at \$7, 2 cows av 920 at \$3.40; to Hammond, S. & Co. 5 butchers av 760 at \$4.25, 15 do av 620 at \$4.75, 1 cow weighing 1,440 at \$6.25; to Patrick 5 stockers av 724 at \$5.35, 1 do weighing 650 at \$5, 3 do av 670 at \$5.25; to Rattkowsky 10 cows av 876 at \$4.50, 2 do av 780 at \$4.50, 2 bulls av 490 at \$3.50, 1 cow weighing 1,410 at \$5.50, 7 butchers av 720 at \$4.25; to Sullivan P. Co. 2 cows av 1,195 at \$5, 5 steers av 734 at \$5.25; to Applebaum 8 butchers av 830 at \$4.25; to Thompson Bros. 19 do av 624 at \$4.75, 5 do av 866 at \$3.40; to Hills 2 stockers av 590 at \$4.50, 13 do av 620 at \$4.75; to Sullivan P. Co. 13 butchers av 702 at \$4.50; to Parker, W. & Co. 31 do av 580 at \$4.50, 3 cows av 947 at \$3.75, 8 butchers av 875 at \$4.25, 3 do av 760 at \$3.25, 18 do av 605 at \$4.25.

Spicer & R. sold Wyness 1 cow weighing 900 at \$3.25, 3 stockers av 530 at \$5.25; to Thompson Bros. 1 bull weighing 1,310 at \$5.25, 1 cow weighing 880 at \$3.50; to Parker, W. & Co. 4 do av 1,030 at \$4; to Mason B. Co. 2 steers av 700 at \$5.15; to Newton B. Co. 6 cows av 816 at \$3.50, 1 canner weighing 750 at \$2.75, 3 cows av 933 at \$3.60; to Sullivan P. Co. 2 cows av 1,070 at \$5, 4 butchers av 730 at \$4.25, 12 do av 550 at \$4.25; to Hammond, S. & Co. 18 do av 502 at \$4.40.

Roe Com. Co. sold Newton B. Co. 3 cows and bulls av 923 at \$4.50, 1 bull weighing 1,210 at \$5, 1 do weighing 1,000 at \$5, 1 do weighing 1,000 at \$4.25; to Hammond, S. & Co. 5 butchers av 766 at \$5.40, 2 steers av 1,045 at \$7.50, 7 butchers av 785 at \$5.50; to Sullivan P. Co. 10 do av 918 at \$6.25, 17 do av 694 at \$4.25; to Parker, W. & Co. 23 do av 895 at \$6.25, 26 steers av 785 at \$6, 1 do weighing 720 at \$5; to Fry 12 butchers av 590 at \$4.35; to Bray 1 steer weighing 400 at \$3.50; to Fry 7 butchers av 637 at \$5.25, 1 heifer weighing 650 at \$4.50; to Hills 14 stockers av 420 at \$4; to Fromm 29 butchers av 600 at \$4.65; to Heinrich 19 do av 653 at \$5.60; to Applebaum 9 do av 522 at \$4.50; to Sullivan P. Co. 1 bull weighing 1,290 at \$5, 2 cows av 905 at \$3.50; to Kamman B. Co. 5 steers av 714 at \$5.65, 6 stockers av 495 at \$4.25; to Mich. B. Co. 2 bulls av 1,160 at \$4.90; to Hammond, S. & Co. 2 bulls av 740 at \$4, 3 do av 1,220 at \$4.75; to Rattkowsky 4 cows av 785 at \$3.90; to G. Rattkowsky 4 do av 425 at \$3.75, 4 do av 1,005 at \$4.25, 3 heifers av 793 at \$4.75; to Austin 15 stockers av 572 at \$5; to Hills 9 do av 605 at \$5.

Haley & M. sold Bresnahan 3 cows av 770 at \$3.40; to Bray 2 cows av 945 at \$3.50; to Schlischer 1 do weighing 970 at \$5.50, 1 heifer weighing 570 at \$5, 4 cows and bulls av 855 at \$4; to Newton B. Co. 3 cows av 1,093 at \$3.75; to Cooke 17

steers av 761 at \$6, 2 do av 610 at \$5; to Sullivan P. Co. 1 cow weighing 1,180 at \$5.25; to Charles 1 ox weighing 1,180 at \$5; to Breidenbeck 12 butchers av 875 at \$5.80, 7 cows av 934 at \$4.25; to Bresnahan 15 do av 835 at \$3.25, 9 bulls and heifers av 624 at \$4.30, 3 cows av 943 at \$3.40, 2 do av 860 at \$3.25; to Rattkowsky 5 do av 906 at \$3.85; to Shephert 9 butchers av 502 at \$4; to Goose 15 do av 600 at \$4.10; to Hammond, S. & Co. 12 do av 804 at \$5.85, 1 bull weighing 1,300 at \$4.50; to Hills 5 stockers av 550 at \$4.50, 13 do av 583 at \$4.80; to Sullivan P. Co. 2 cows av 1,030 at \$4.50, 5 do av 914 at \$5, 2 do av 1,030 at \$5.25, 3 heifers av 637 at \$4.35; to Grant 7 cows av 934 at \$3.80; to Kamman 10 butchers av 502 at \$4.35, 5 do av 702 at \$5.50, 1 bull weighing 1,360 at \$4.75, 1 do weighing 1,130 at \$5; to Sullivan P. Co. 3 cows av 1,016 at \$4.10; to Hammond, S. & Co. 4 bulls av 667 at \$4; to Regan 5 butchers av 426 at \$3.90, 4 do av 480 at \$4.15; to Goose 8 cows av 984 at \$4; to Hirschleman 9 butchers av 716 at \$5.15.

Veal Calves.

Receipts, 507. Market steady at last week's prices. Best, \$9@11; others, \$4@8.75; milch cows and springers steady.

Roe Com. Co. sold Hammond, S. & Co. 12 av 185 at \$11, 1 weighing 160 at \$9, 4 av 250 at \$5.25; to Goose 25 av 250 at \$5; to Parker, W. & Co. 3 av 200 at \$5.50.

Spicer & R. sold Newton B. Co. 3 av 250 at \$6.50. Bishop, B. & H. sold Parker, W. & Co. 5 av 125 at \$10.50, 5 av 275 at \$7, 1 weighing 100 at \$10, 2 av 155 at \$11, 2 av 105 at \$9; to Hammond, S. & Co. 1 weighing 180 at \$11; to Goose 7 av 270 at \$5.50; to Kull 1 weighing 480 at \$8, 5 av 120 at \$10; to Shapiro 16 av 265 at \$5; to Parker, W. & Co. 2 av 135 at \$8, 4 av 165 at \$11, 6 av 135 at \$10.50, 4 av 235 at \$6, 16 av 150 at \$11, 2 av 275 at \$7, 2 av 150 at \$10.50, 2 av 140 at \$11; to McGuire 12 av 150 at \$11; to Thompson Bros. 4 av 155 at \$11.

Sheep and Lambs.

Receipts, 6,998. Lambs 15 to 25c and sheep 10@15c lower than last week. Best lambs, \$6.25@6.50; fair to good lambs, \$5.50@6; light to common lambs, \$4.25@5; fair to good sheep, \$3@3.50; culls and common, \$1.50@2.25.

Spicer & R. sold Thompson Bros. 8 sheep av 110 at \$3.25; to Castello 19 lambs av 45 at \$5.50, 12 do av 95 at \$2.50; to Newton B. Co. 6 yearlings av 100 at \$4.50; to Sullivan P. Co. 7 sheep av 85 at \$1.50; to Mich. B. Co. 17 lambs av 63 at \$6, 88 do av 78 at \$6.75, 22 sheep av 125 at \$3.50; to Kull 28 lambs av 50 at \$6.65.

Sandall sold Mich. B. Co. 13 lambs av 65 at \$6.75, 39 sheep av 90 at \$2.50, 74 lambs av 60 at \$5.75.

McMillan sold same 76 do av 70 at \$6.40, 44 sheep av 85 at \$3.25, 40 do av 95 at \$2.50.

Miner sold same 13 sheep av 125 at \$3.25, 26 lambs av 78 at \$6.50. Haley & M. sold Sullivan 21 sheep av 125 at \$3.50, 12 do av 110 at \$3.25, 62 do av 125 at \$3.25; to Newton B. Co. 88 lambs av 77 at \$6.40, 71 do av 65 at \$6.10; to Castello 39 do av 55 at \$5.25, 9 yearlings av 195 at \$4.50, 25 lambs av 55 at \$5.25; to Newton B. Co. 14 yearlings av 110 at \$4.50, 16 lambs av 90 at \$6.50, 69 do av 65 at \$6, 10 do av 48 at \$5, 26 do av 70 at \$6.50, 39 do av 70 at \$6.

Hogs.

Receipts, 3,633. Market 25c higher than last week.

Range of prices: Light to good butchers, \$8.70@9; pigs, \$7.50@7.75; light yorkers, \$8.35@9; stags one-third off.

Spicer & R. sold Hammond, S. & Co. 20 av 190 at \$9, 200 av 175 at \$8.90, 25 av 150 at \$8.75, 130 av 160 at \$8.80.

Haley & M. sold same 140 av 190 at \$9, 240 av 180 at \$8.90, 242 av 180 at \$8.85, 110 av 175 at \$8.55.

Roe Com. Co. sold Sullivan P. Co. 375 av 190 at \$8.90, 235 av 200 at \$9.

Bishop, B. & H. sold Parker, W. & Co. 360 av 200 at \$9, 1,475 av 190 at \$8.90, 510 av 180 at \$8.85, 260 av 150 at \$8.75.

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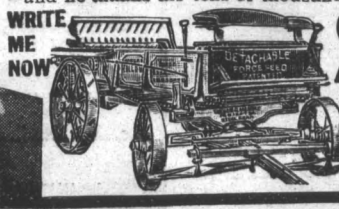
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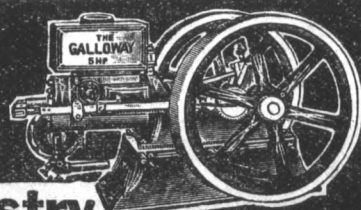
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SAVE \$50
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Go Roofing Prices!!

Go Wire Prices!!

Never before have you been able to participate in a Roofing sale such as this. This opportunity came about in an unusual manner. It is out of the ordinary channels of manufacturing and selling. We only have a limited quantity at this slaughter price, subject to prior sale or reservation.

Corrugated Steel Roofing 1 1/4 Cents Per Square Foot

You, who read this, will instantly realize that here is your lucky chance of a lifetime to buy the best roofing in the world at a mere fraction of its real value. Now here's the reason: Our enormous buying power enabled us recently to pick up for spot cash a stock of this Brand New, Perfect, Corrugated Steel "V" Crimped and Standing Seam Roofing and Brick Siding at a tremendous sacrifice way under what it is actually worth.

Immediate cash needed, made possible this purchase—couldn't wait—we had the ready cash—their loss was our customers' gain—"it's an ill wind that blows nobody good." Just another chapter added to the long list of Chicago House Wrecking Co.'s Famous Special Bargain Sales. We pass this wonderful purchase of roofing along to you now at our usual advance of one small added profit.

Corrugated Steel Roofing Practically Indestructible

There is nothing else that compares with Corrugated Steel for REAL PROTECTION. It makes a life long roof. Outlasts all other kinds of roofing many times. It's fire, rain, frost, wind, sun and lightning-proof—warmer in winter—cooler in summer—and, under ordinary circumstances, it can't leak, rot, warp or taint rain water. You can absolutely depend upon it that Corrugated Steel is the most perfect material for roofing, siding and ceiling ever known.

Galvanized Steel Roofing At 2 1/2c Per Square Foot

Another big Steel Roofing Bargain. 35,000 squares, very highest grade, specially coated, corrugated galvanized roofing and siding, made of specially prepared steel of a quality superior to anything before produced. Practically rust proof and will last a lifetime. Full size sheets; we will furnish it in suitable lengths for any purpose. Only a limited quantity, so we urge you to send us your order immediately without waiting to write us again. Price only 2 1/2c per square foot and it will outlast four to one. Just drop us a line—tell us your requirements—size of your studding and other general facts and we will help you select proper size sheets. If you are not ready to use material now, we will reserve it for future delivery. If you prefer some other style than the corrugated we will furnish it. We have this same grade in "V" Crimped, Standing Seam and Brick Siding.

Ready Roofing, With Supplies, 3/4c Per Square Foot

Many people are prejudiced against rubber surface, or prepared asphalt roofings. We have not been pushing the sale of such roofing because we have such implicit faith in steel roofing and are so thoroughly convinced that it is absolutely the best all around roof covering a man can buy, that we urge our customers to buy steel in preference to ready roofing. However, many people will use nothing but ready roofing and for them we have a bargain proposition that no one else can equal: At 3/4c per square foot we will furnish the very highest quality Ready Asphalt Smooth Surface Roofing—just about 40% cheaper than you can buy similar quality for elsewhere. Just think—only 75c for complete roll of 108 sq. ft. You get the extra 8 feet for laps, FREE. Mind you, we guarantee the lasting quality of this roofing to be equal to any Ready Roofing manufactured.

Send For Special Roofing Catalog and Samples

Remember, we can give you these extraordinary bargains only because we made a truly remarkable purchase. Such a wonderful roofing chance never occurred before—maybe never again! It is your one BIG opportunity—don't pass it by!! Send at once for Special Roofing Catalog, Free Samples and Full Instructions for Laying Roof. No need writing a letter, simply use Special Roofing Sale Coupon by writing your name and address in same—we will understand that you simply want full information, samples, prices and specifications which will be sent at once, prepaid. Send no money—just name and address.

SPECIAL ROOFING SALE COUPON

Chicago House Wrecking Co.,
35th and Iron Sts., Dept. M 42, Chicago

Gentlemen:

Without any promise to purchase, please send me Special Catalog prices, samples and full particulars of your Special Sale of Roofing.

Name.....

Address..... R. F. D.....

County.....State.....

Barb Wire, Woven Wire Fencing—Smooth Galvanized Wire—Telephone Wire—Nails and Staples are a part of the most stupendous, sacrifice, slaughter purchase ever made in the history of this kind of merchandising. As long as it lasts, we will dispose of it at prices heretofore unheard of.

Brand New Wire Fencing Less Than 1c Per Running Foot

Every reader of this paper knows us. Most of you have purchased something or other from us that saved you money, and, whatever it was, it must have proved satisfactory, because we handle only absolutely brand new, dependable merchandise. Our regular prices are wonderful money-savers, because we buy our goods at Sheriffs' and Receivers' Sales, Factory Overstocks, etc. But once in a while we run across something very unusual even for us, and are able to offer what may be fairly called a truly extraordinary sale. When this happens, our hundreds of thousands of customers find themselves in position to net a tremendous saving of brand new, top notch quality goods that if bought in the regular way would cost them two or three times our low bargain prices. You will realize the wonderful opportunity when we tell you that during this sale you can buy

New Barb Wire, Less Than Two Cents Per Rod

We were able to pick up this Lot at prices to Cap the Climax of any purchase we have ever made since we bought the Chicago World's Fair. Now when we say "S-M-A-S-H Go Wire Prices," we mean every word of it! Not just a trifle lower than the lowest figures ever made on wire and fencing, but prices absolutely wrecked—busted—smashed to smithereens! You old-timers who have bought loads of wire will fully realize the wonderful opportunity in this sale when we say to you that we are selling New Wire Fencing at less than 1 cent a foot. You never had a chance like this before!

Only A Mere Fraction of Its Real True Worth

We want it distinctly understood that while we paid only a fraction of the real worth of these goods, and are making unheard-of low slaughter prices, yet we guarantee every foot of this material—Wire, Fencing, etc.—to be exactly as represented and that would cost you a great deal more if bought in the regular way. In this Extraordinary Price-Wrecking Special Sale everything must go—nothing will be held back—you can buy Barb Wire, Smooth Galvanized Wire, Woven Wire Fencing, Nails of every size and description, Wire Gates, Posts,—in fact everything that comes under the classification of Steel and Wire—at prices that will net you a tremendous saving.

Some Desirable "Odds and Ends" Included In This Lot

Included in this Lot 67 is a collection of odds and ends such as bolts, screws, nuts, nails, etc., all brand new goods, of all sizes and kinds. Anyone who has use for them will find them tremendous bargains as long as they last. Do not overlook this lucky chance, even though you may not just now be in need of wire and fencing supplies. You surely can use them later, and by reserving your needs now, you will get the advantage of these extraordinary low sales prices that never occurred before and in all probability will never occur again.

The Largest Institution of Its Kind In The World

The Chicago House Wrecking Co. is one of the leading commercial institutions of Chicago. Its plant covers over 40 acres. It is the most enterprising institution of its kind in the world.

The capital stock of this Company is \$2,000,000, which is sufficient evidence of our responsibility. Any bank or commercial institution anywhere will confirm the responsibility of this Company. Ask the publisher of this or any other paper.

We are known everywhere. Hundreds of thousands of satisfied customers will testify to our fair, square methods and wonderful ability to save them money.

For twenty years this Company has been well and favorably known to hundreds of thousands of customers throughout this land, and our honest public dealings have made us friends everywhere. The nature of our guarantee under which we sell all our merchandise is so broad and binding that there is no possible chance for you to make a mistake in buying from us, because we always give satisfaction or money back.

EXPLANATION

Why We Are Called The "Price Wreckers"

Did you ever stop to think what becomes of the stocks of goods when a Manufacturer, Jobber or Big Retail Dealer goes bankrupt—"busted" as the saying is? If the stock is sufficiently large, if the goods are new, clean and desirable, and the price is cut right to the bone, they find their way naturally to the Chicago House Wrecking Co.'s 40-Acre Plant for distribution at one small added profit to their hundreds of thousands of customers who in this way get wonderful bargains many times for only a mere fraction of the cost to manufacture. There's not another concern on earth that can meet our prices, simply because no other concern has the buying and economical distributing facilities which we enjoy.

Where Your Dollars Do Double Duty

Every time you buy from us, you increase the amount of your savings account. We are a safety valve between the public and high prices. We recognize no Trust or Association—we buy our goods under new and improved methods—none of the old time merchandise game about us. When you deal with us, your dollar takes on an added purchasing power. One trial will convince you and make you forever one of our good, reliable customers.

We Sell Practically Everything

Our stock includes practically everything "under the sun." That means Building Material, Lumber, Roofing, Sash, Doors, Millwork, Wire and Fencing; Hardware, Plumbing Material, Heating Apparatus and Supplies; Furniture, Household Goods, Rugs, Stoves and everything needed to furnish or equip your home, your club or hotel; Groceries, Clothing, Dry Goods, Shoes, Furnishing Goods—every single article needed to clothe a man, woman or child; Sporting Goods, including fishing tackle, hunting outfits, tents, guns, harness and vehicles; Jewelry, Sewing Machines, etc. You can't think of a single manufactured article that we can't supply you at a saving in price.

Get A Copy of 1,000-Page Catalog—Free

Our enormous stocks of merchandise are accurately described and illustrated in our mammoth 1000-page, illustrated wonderful Price Wrecker. You may have a copy, FREE. Write for it today. Also ask us to send you extracts from our unsolicited testimonial letters. We have thousands of customers who have bought roofing, fencing and other supplies from us, and have secured the same satisfaction we offer you.

SPECIAL SALE

No Advance Deposit Will Be Required

This is your chance to lay in your roofing and wire supplies at a tremendous saving. But if you want to get your share of these bargains, you must send in your reservation at once. We want you to realize that this is a very unusual offer, and want to treat all our friends alike, but while we have what would be a large stock for any other concern, remember that we have hundreds of thousands of customers all over the country who regularly watch for our advertisements for special bargains for home and farm. We have never before offered such wonderful values. We expect even our big supply of these goods will be eagerly grabbed up by our regular customers who never buy a thing until they get our prices. No need, however, to buy now. Simply write us a letter, postal or mail coupon for samples, then state about when you will want your supply and we will hold it for you without deposit, or if desired we will make immediate shipment. Get our samples at once and our complete prices. They will startle you. You will be surprised at what a trifling cost you can now buy this brand new roofing, wire fencing, etc. Use Coupons!

CHICAGO HOUSE WRECKING COMPANY

35th and Iron Streets, Dept. M 42, Chicago

SPECIAL WIRE SALE COUPON

Chicago House Wrecking Co.,
35th and Iron Sts., Dept. M 42, Chicago

Gentlemen:

Without any promise to purchase, please send me prices and full particulars of your Special Sale Lot No. 67. Wire, Wire Fencing, Barb Wire, etc.

Name.....

Address..... R. F. D.....

County.....State.....