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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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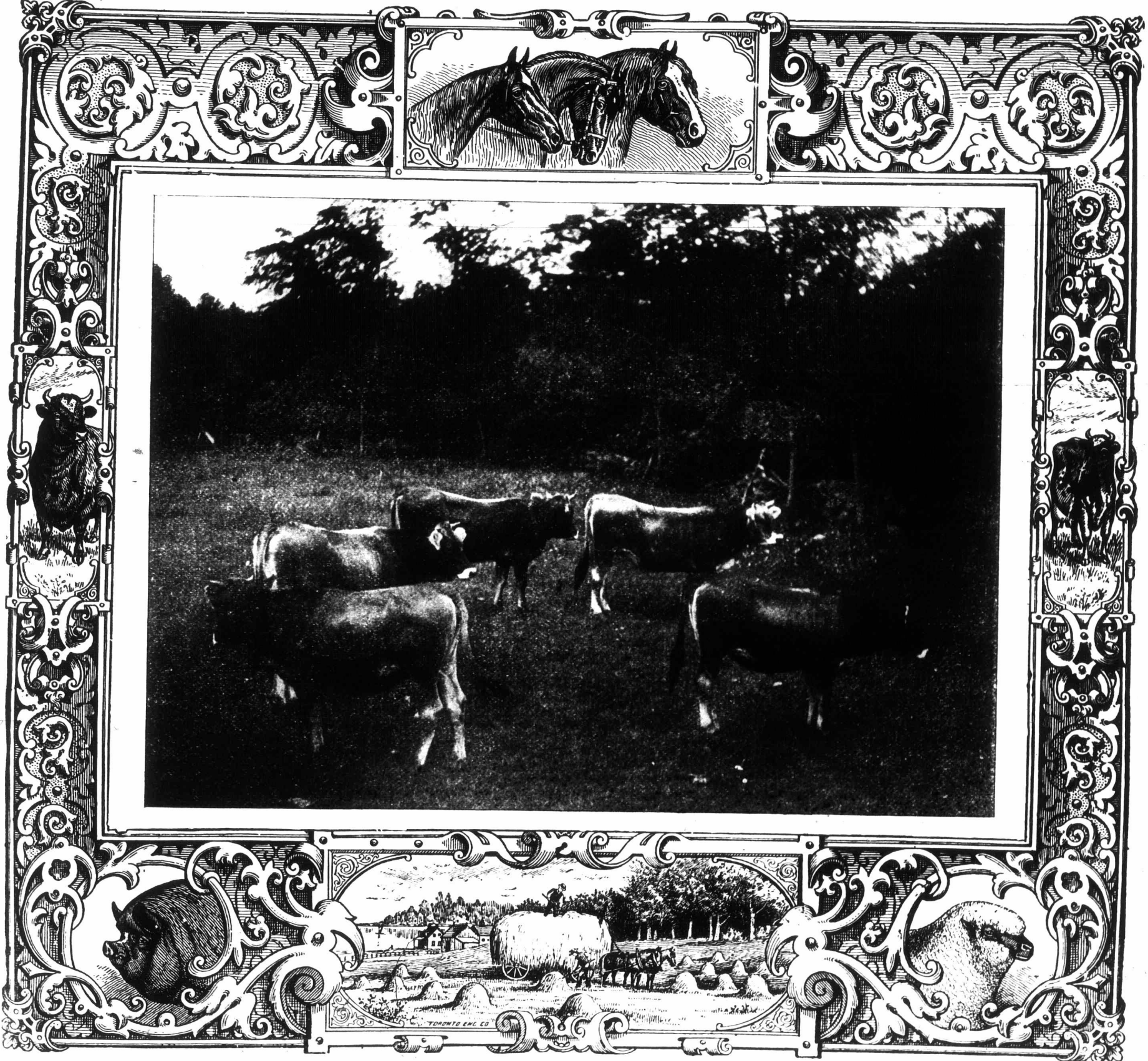
* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE. *

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No. 399



A GROUP OF BROWN SWISS FEMALES,
THE PROPERTY OF WALTER FISH, MYSTIC, CONN., U.S. A

The Agriculture and Arts Association--A Glance at Its Half-Century's Work--An Honorable Record.

(CONTRIBUTED.)

Few who have heard the name of the Agriculture and Arts Association of late years only in connection with the annual fat stock show in Guelph, or, perhaps, also the horse show in Toronto, are aware of the magnitude of the work carried on by that Association from time to time during the fifty years of its existence. The Association was formed in the year 1846 the leading spirits in its organization being Mr. E. W. Thomson, of York County, and Mr. W. G. Edmundson, the publisher of the *British-American Cultivator*, a pioneer agricultural journal of Upper Canada. Local agricultural societies had been already formed in most of the twelve or thirteen districts into which the Province was then divided. These local societies performed, in a more or less efficient way, almost all the functions which have fallen to the lot of the various farmers' societies in later times. The sparsely settled farmers were brought together, discussed their interests, made common purchases of seeds, breeding animals, and articles of general utility, such as stumping machines, and held an annual fair. The design of the Provincial Agricultural Association was to perform these same functions for the Province at large. In addition to holding an annual Provincial exhibition, it aimed to draw the farmers of the Province closer together, to disseminate information among the local societies, and help them in their work, and assist them in making purchases and importing breeding animals to the best advantage. At the annual fairs delegates from all parts of the Province met and talked over agricultural prospects, and debated as to the lines along which improvement might be made.

The first exhibition was held in Toronto in the fall of 1846. The prize list amounted to the moderate sum of \$1,600. At the fair in Hamilton in 1847 it was nearly double that sum, and was afterwards rapidly increased. At the fair in Brantford in 1857 it had reached \$10,000, and from that time increased, with numerous fluctuations, of course, until \$20,000 was reached in 1884 and 1885, after which it again began to decline.

In 1851 a Provincial Board of Agriculture was constituted, which was to act as the Executive of the Agricultural Association. With this better provision for its management, the scope and usefulness of the exhibitions grew rapidly. A special feature was the encouragement given to the importation of good breeding stock, and to the work of this body is due very largely the position which Ontario's live stock holds to-day.

Up till the time of Confederation the Board was the sole executive body of agriculture in the Province. It supervised the distribution to county societies of the Government grant for agricultural purposes; it collected and published agricultural essays; it secured the establishment of a chair of agriculture in the University of Toronto, to fill which its Secretary, George Buckland, was appointed; it conducted in connection with this an experimental farm, and generally managed the affairs of agriculture, besides providing for any special emergencies which arose.

After Confederation some of this work was taken over by the Government. The Association, however, continued to hold its annual fairs until 1880. They were given up because great central fairs had grown up in each of the cities, among which the Provincial had circulated. To the grounds and buildings of these the Association had largely contributed.

The Association also had control over the breeding interests of the Province, and founded a society or association for almost all the principal breeds. It has also kept registers for pure-bred animals, and issued numerous volumes of stud and herd books. The work of registration has especially been developed since Mr. Wade became Secretary of the Board in 1881. Plowing matches have also been held, prizes given for farms, valuable agricultural reports compiled and published; and since the abandonment of the Provincial Exhibition much attention has been given to fat stock, horse and dairy shows.

The Association founded the Ontario Veterinary College in 1861, and has always had some interest in its management.

In 1862 the Board purchased a lot in Toronto, and erected the building which it occupied from that time until it was destroyed by fire last year. The real estate, which now, on the dissolution of the Association, passes to the Government, is valued at \$100,000.

A few of the men who have occupied the presidency of the Association are Hon. Adam Ferguson, Hon. David Christie, T. C. Street, J. C. Rykert, Hon. C. Drury, J. C. Snell, and Nicholas Awrey. The first president was E. W. Thomson; the fiftieth and last, Jonathan Sissons.

By the Agriculture and Arts Act of 1895, the work done by the Association (which at the close of last year passed out of existence) is to be divided between the Ontario Government and the various breeders' societies, most of which the Association itself developed. Thus, permanent provision is made for the continuance of the work of the Association, the utility and necessity of which in days gone by was always fully recognized.

The New Dominion Minister of Agriculture.

The Hon. Walter Humphries Montague, M. D., M. P., Haldimand Co., Ont., a life-like portrait of whom appears herewith, has been appointed Minister of Agriculture for Canada, as announced in the Jan. 1st issue of the *ADVOCATE*. He had previously been Secretary of State. He is a son of the late Joseph Montague, farmer in the township of Adelaide, Middlesex Co., Ont., where he was born in November, 1858. He was educated at the Public School, High School, Woodstock College, Victoria University, and Toronto School of Medicine, being a member of the College of Physicians and Surgeons, and a Licentiate of the Royal College of Physicians, Edinburgh, Scotland. In March, 1879, he married Miss A. Furry, daughter of Mr. Elias Furry, J. P., Reeve of South Cayuga, Haldimand Co., Ont. From about 1883 he has been in political life, displaying abilities that have caused his rapid advance. Since taking charge of the new portfolio he has devoted himself energetically to the details of his Department, and we have received assurance from him that the subject of live stock husbandry in connection with the Experimental



HON. W. H. MONTAGUE, M. D.

Farm staff, the necessity for which has been repeatedly urged in the *ADVOCATE*, will receive prompt attention. He writes us that he quite agrees with the necessity of the points urged, intimating that such a branch is to be established, special reference being made to sheep husbandry. While that has been almost entirely overlooked heretofore—a fact greatly to be deplored—we have no hesitation in saying that it would be a decided mistake to confine the proposed new department to that single industry. The proper strengthening of the Central Farm staff on the line of live stock husbandry has been an obvious need, and will, apart from the direct work connected therewith, be of very great advantage to the Agricultural Department generally, by keeping it more closely in touch with the great breeding fraternity of Canada, the varied interests and needs of which are all the time increasing.

STOCK.

The Champion Cow -- Mr. Glennie to Messrs. Rice.

SIR,—I see in the *ADVOCATE*, that A. & G. Rice claim that the performance of their cow, Calamity Jane, in the dairy test at Guelph has never been equaled by a four-year-old. He mentioned her as having beaten the eight-year-old cow at Winnipeg—no doubt referring to R. L. Lang's Short-horn. They must have overlooked the performance of my four-year-old Holstein, Daisy Teake's Queen, in the same test. I see that their cow gave 69.18 lbs. milk, 3.16 per cent fat—2.09 lbs. fat. My cow gave 72.25 lbs. milk, 3.00 per cent. fat—2.62 lbs. fat. This is practically 3.27 pounds of butter in the 24 hours, while Calamity Jane's yield was 2.61 pounds of butter. In the ten days before leaving for the Exhibition she gave 810 lbs. of milk. They claim that Calamity Jane is champion of the Dominion. I claim the honor for Daisy Teake's Queen, No. 126, of "Hazel Rigz Farm," Portage Plains, Manitoba; and hope that Messrs. Rice will be content to hand over the championship to whom it is rightly due. JAS. GLENNIE.

[NOTE.—Messrs. Rice's cow, Calamity Jane, was credited in January 15th issue with having given 2.60 lbs. "butter," which should have read "butter-fat." Ed.]

Dehorning Calves.

SIR,—The dehorning fever is still spreading. The other day my nearest neighbor, who had until then held out, had all his cattle dehorned, except his young calves. In my case, it has worked the other way. I have not, as yet, had the horns taken off the old cattle, but for the last two years I have dehorned the calves. Two years ago I tried caustic potash on some, but it was not a success. I gave several applications, a little at a time; a slow process it was, and the horns were only checked, not completely stopped. On two calves, that year, I used dehorning tools, and was so well pleased with the result that I repeated the process on all the calves last spring, and my present intention is to treat all the calves that come in the same way. The horns are taken out completely, and do not grow again. The operation should be performed at the age of six weeks to three months. One of the tools resembles a gun-wad cutter, only larger, which is pressed down and cuts the skin around the base of the budding horn. The other may be described as gouge pinchers, which, when used, leave a hollow where the horn had been. I generally fill each little hollow with pine tar. In only one case was there any excessive bleeding and no harm came of it. In some cases the blood never flows out of the wound and all heal up without any discharge.

But this is no new practice. A friend has told me that when he was a boy in Scotland, fifty years ago, the farmers used to grub out the horns of calves with a knife, and sear the wound with a hot iron to stop the bleeding.

The objection has been raised that dehorning calves will cause frontal bone development and an ugly habit of bunting, but my experience leads to the conclusion that there is nothing whatever in that idea. THOS. BATY.

Middlesex Co., Ont.

FARM.

Uncut Corn in a Round Silo.

SIR,—In submitting to the *FARMER'S ADVOCATE* how I built and filled my silo with uncut corn, I do not wish to assume undue credit, for I owe it to articles in the *ADVOCATE* and *Hoard's Dairyman* that I now have a silo and an abundance of ensilage and corn stover this unprecedented year. The merits of ensilage and the silo are settled. The question of how to construct and fill is not settled, at least to those who have, like myself, a limited amount of capital. I found, after visiting a number of silos, that it was impossible to find one of perfect construction and within my means. The *FARMER'S ADVOCATE* of April 1, 1895, contained a description of the round silo at Mono Mills, which so far revived my hopes that I purchased and drew to the saw and planing mill sufficient tamarac to build a silo. As the season advanced the short crops (except the twenty acres of corn I had planted) and the high price of a good cutter about caused me to delay for another year. When I noticed an article, "Why We Do Not Cut Our Ensilage," by John Hodgins, Jr., of Penankee, Wis., I at once wrote Mr. Hodgins, who very kindly gave me his eight years' experience in storing uncut ensilage. The result is that I now have a silo that cost me less than \$45, built by our own labor and filled at not much more expense than the interest and repairs on a good cutter and elevators, not including cost of engine, fuel, board and wages of extra help in silo-filling. The labor of putting in ninety tons of ensilage corn was, besides my ordinary farm help, two men at five days each. In describing how I built and filled my silo no attempt has been made at mechanical terms; and while perhaps of no special benefit to those who are able to purchase all the modern machinery necessary, may be of some benefit to your readers who, for reasons best known to themselves, are desirous or compelled to study economy. On December 12 I opened my silo and found ensilage in excellent condition, the quality of which I hope to have reported upon by disinterested and competent judges.

Building the Silo.—My silo is round, 14 feet in diameter, made of 2x6x25-ft. tamarac staves, surfaced and beveled, and bound together by eight steel bands 2½x½-inch, tightened by ¾-inch bolts, 14 inches long and 10-inch thread, running through lugs 12 inches long, made of 2½x½-inch steel, bent with eye for bolts, and riveted firmly to the end of bands. Set upon foundation one foot larger in diameter than the silo; made by digging trench 18 inches deep and 18 inches wide, filled with broken stone firmly pounded down within 2 inches of the top, giving a slight covering of dirt to the level of the ground, which forms the bottom of the silo, and should be perfectly level. If the silo is clay, a drain should lead from bottom of foundation. To build silo, make two circles 4 inches larger than the silo is in diameter outside, to allow for the tightening of bands, and thus closing of joints; for example, if the silo is to be 14 feet and the staves are ½-inch, the circles should be 14 feet 7½ inches. To get the circle, drive wire nail in batten or narrow board near the end, and in the center of barn floor, then drive another 7 feet 3¼ inches from the center and use as a compass to draw circle. Cut an inch board 4 feet long, lay it on outside of circle, so each corner of one side of board meets the circle, hold firmly, and draw the circle on the board; draw the nail, and drive again 3½ inches nearer the end of board, again describe the

circle. This gives the pattern of felly from which circle is to be constructed. Rip out with wide-set rip-saw enough felly to form the circle.

Lay two fellys down exactly on the outside of circle described on floor, one lapping a little on the other, run a saw through both, which makes the joint. Take the third felly, laying it to the center of the two, and nail with wire nails; continue until the circle is complete, then clinch the nails; if not convenient to put in position whole, remove in half sections, place one circle on foundation, and fasten in position the other circle within three or four feet of top of silo, secured to a scaffold, and plumb with the bottom circle, and secured firmly. Pile ten or twelve staves one upon another on trestles, with the ends projecting to center of lower circle; then paint the edges with coal tar. Let one man ascend to the scaffold with a rope attached to a stave, then when the rope is drawn the man on ground handles the other end of stave, setting it in place; plumb this stave and toe-nail to both circles; the next stave toe-nail to both circles, and at top toe-nail one stave to the other; continue thus until staves are all in position. Nail a few blocks about 18 inches from top for band to rest on. Above these measure with tape line the length of band, less the length of bolt; cut band, and with center-punch 5-16 drill and $\frac{1}{2}$ -in. countersink-drill make corresponding holes in band to those in lugs, rivet firmly, with heads out. Place in position, begin tightening bands, which will draw staves from the circle. See that no staves get out of place and that the staves leave circle evenly. When the band has been drawn as tightly as possible, again measure and make another band, placing it immediately above the one in position, and tighten again. Nail blocks in center of silo, loosen the first band, remove the blocks, and let this hoop, which may be termed a "tightener," drop to center, and proceed as before. Next drop within 12 to 15 inches of bottom. The remaining bands may be put on as most convenient, but use the tightener every time. This tightener is then cut and put on permanently as the last hoop. In tightening the staves a man should be inside to watch carefully that every stave is in position. This completes silo with exception of doors, which, if made, would have to be closed again. The better way is to fill silo and open doors as the ensilage is removed, which can easily be done with small bit and keyhole saw. To close the openings use two upright strips, bolted and projecting $\frac{1}{2}$ in. inside of doorway. Use two thicknesses of matched lumber and tar paper.

The silo is built in corner of lean-to on barn. A slide leads to double doors at top of silo. Heavy pulline and rafters are necessary to stand strain of elevating corn. Adjust ropes and pulleys as for hay fork, or a track and car could be used in filling silo.

Filling the Silo.—The corn for filling uncut into silo, should be in the glazed or dented stage, cut with binder, sled or by hand into gavels to remove to the silo. Place bottom of hay rack on low trucks; across this place three scantlings; outside of bolster stake space two 14-ft. planks, 12 inches wide; in each plank bore four 2-inch holes at equal distances; in these put stakes four feet long with a piece across the top, forming a cross; put two 2x4-in. scantling lengthwise, eight inches inside the bolster stakes; use six slings of inch-rope long enough to loop around bundle of corn; hang the slings on the stakes, spreading slings outside of planks and inside of 2x4-in. scantling. The corn was loaded from the ground in these loops, tassels out; the slings adjusted ready for elevating, drive the load up facing the slide, then attach the horses to elevator ropes; with the first bundle the wagon was drawn up to slide; then remove the stakes as the bundles are elevated. The all-important part is storing; the corn must be arranged so that it will settle against the sides of the silo to exclude the air. To do this in square silo, commence by leaning corn against one side of silo, tassels up; with the foot or spade break or press the center against the sides; continue a layer in this leaning position nearly across the silo; then finish as the tier is commenced, never letting butts come in contact with wall of silo. If first layer is started on the north, the next should be started at the east, then south and then west, thus continuing till silo is filled. When within a few feet of the top use spade freely and tramp well on outside of silo. Where silo is round, the layers should go round and round, auger fashion, leaning corn tassels out, using spade and feet similar to filling square silo; finish by putting about one foot of chaff or cut straw on top, wetting and tramping it. To remove ensilage, cut across silo with straw knife every three feet. No difficulty is then experienced. J. F. Brant Co., Ont.

[NOTE.—J. F. has sent us a sample of his ensilage, evidently made from well-eared and well-matured corn, which is certainly about as good as any we ever saw; somewhat acid, but probably not more so than cut ensilage would be. It is well preserved and of the usual brownish-green color. He writes us that he has no difficulty feeding this ensilage; it does not cling to the fork-tines, and stalks are quite soft and juicy. He claims to be able to remove enough from the silo in 15 minutes for 22 head of cattle. There is undoubtedly a good deal of prejudice regarding "whole" ensilage because of the labor, both in putting it in and taking it out of the silo; and also because it is not so convenient for mixing

with other cut food and grain in feeding. The above experience will, therefore, be read with much interest. We might add that since receiving "J. F.'s" letter one of our staff visited his farm and found the silo as represented. The ensilage was good, being more like what is called "sweet ensilage" than the sample sent us. Exposure to the air a couple of days had apparently made it more acid.—EDITOR.]

Modern Maple Sugar and Syrup Making.

BY W. H. BARBER.

The Indians and early settlers made maple syrup and sugar, using the stone gouge in tapping the trees; the boiling being done in kettles or pots. These primitive methods have now altogether disappeared, except, perhaps, in some remote settlements, where the potash kettle, hung on a rail, may still be found. Perhaps some of your readers are enlarging or improving their sugar camps, and may profit by this article. I shall not describe any particular camp, but the description given is drawn from an observation of the methods used in many of the best maple camps in both Quebec and Ontario.

The modern sugar house, located on a sidehill, if possible, so that the sap may be emptied by its own gravity, should have battened or matched sides, so that it will be tight unless the doors and windows are open. It should be divided into two separate compartments—one open on one side for wood, and the other the main boiling-room. A partition with a roller door separates the two, so that the dust arising from the splitting of wood, etc., need not enter the boiling-room. The dimensions of a house may be adjusted to the needs of each camp. A well-proportioned house which we know of is 16x32 feet—the woodshed being 12x16 feet, and the boiling-room 16x20 feet. A large ventilator is built through the roof over the center of the boiling-room, where the evaporator stands, with slats so arranged that they will not permit rain or snow to enter, but allow the steam to escape freely.

Evaporators have now largely superseded the kettles and sheet-iron pans which a few years ago were in such general use. They are a great saving both of labor and fuel. Evaporators are made of heavy tin. One popular style which I have noticed in use consists of four, five or more pans, placed upon an iron or brick arch. The sap is conducted from pan to pan by siphon connections, which clarify the sap as it passes through (there is no dipping to be done), and is drawn off from the last pan as syrup. Just over the firebox, where the sap enters, is a large pan with a corrugated bottom, which nearly doubles the boiling capacity. In this pan the sap is run about two inches deep. The rear pans all have plain bottoms, and are so arranged that there is never run over an inch and a quarter of sap in them. The shallower the sap the more rapid is the evaporation, and the more rapid the evaporation the lighter will be the color of the product. The rear pans of the style referred to are interchangeable, and by shifting them daily the trouble with the lime or nitre deposit burning on the pan is avoided. This evaporator has a regulator through which the sap enters, and after adjusting the regulator to the depth of flow desired, there is no more feeding to be done, except to see that there is plenty of sap in the storage. For sugaring off, a plain pan twelve inches deep is used. This may be used on the evaporator arch in place of one of the rear pans, but it is better to have a small arch or stove for this purpose.

The majority of evaporators are set on iron arches. A few farmers who have plenty of stone or brick at hand lay a deep foundation, and build brick arches. But owing to heavy frosts and the undermining done by the woodchuck, brick arches give considerable trouble, and iron arches have come into more general use. These arches are manufactured and sold with the evaporators if desired. Evaporators vary in price according to the make and size used.

It is important that the sap should come in contact with nothing but metal from the time it leaves the tree until it is drawn from the evaporator as syrup, or poured off into moulds to cool into sugar. Metal spouts have, therefore, come into general use. They are either of tin or cast iron. The tin are more easily cleaned, and they do not require as large a hole as the iron spout, so that the tree is not injured and heals over readily where it has been tapped. Sap pails, made of tin, are hung on the spouts by means of a wire hook or loop for the purpose, or by a hole punched through the pail just under the wire rim. These pails are provided with covers to keep out the leaves and dirt, as well as water from rain and snow. Wooden covers, securely fastened to the pail, so that they cannot be blown off by a strong wind, can be procured. By painting the opposite sides of the cover different colors, and reversing the covers as the sap is gathered, these covers become self-registering, and a mere glance will show the gatherer which buckets have been emptied; but a square wood or round tin cover answers this purpose well, and many use them altogether.

For gathering the sap, a tank made of galvanized iron or tin, which holds three or four barrels, is now used by some, instead of the old-time "puncheon." It is securely fastened on the sled or broad stoneboat. Some empty their sap pails right into the tank as they drive about; others carry the sap from the trees to the tank in gathering-pails, made to hold four or five gallons. When this tank is filled it is drawn to the sugar house, and the sap let into the storage tank—another galvanized iron or tin tank, which holds 10, 15, or 20 barrels, according to the size of a man's camp.

Some sugarmakers still use the heater, which is a pan with long flues extending downward from the bottom of the pan into the arch. These heaters are placed at the rear of the arch, the object being to utilize the heat as it passes through the flues on its way to the chimney, but as this necessitates deep boiling, and the heating of the sap for some time before rapid evaporation begins, it produces a dark and inferior quality of syrup and sugar, which must take a second place upon the market in competition with the clear, light-colored article. Besides, these heaters are difficult to keep clean and free from lime and other impurities, and unless they are properly cleaned, the product will become darker and darker each year. This same objection applies to all pans with deep flues.

Canada produces a surplus of maple syrup and sugar, and the sugar is shipped in large quantities to the United States. As improved methods have been adopted there, it is important to all Canadian producers that they use good apparatus, and pursue the best methods, so that their output will bring good prices. At this time, when most farm produce is selling at low figures, it is interesting to note that maple syrup and sugar have brought high prices. Much of the sugar made in the spring of 1895 sold for 8, 10, and even 12½ cents a pound in quantities for shipment to the States, and the outlook is for high prices again this spring, as the people are learning to appreciate this incomparable sweet. Fine, light-colored maple syrup sells to the consumer for \$1.00 per gallon, and in some sections even higher prices are realized. The "first run" commands sometimes as high as \$1.40 per gallon from customers who want a "gilt-edged" article, and want it first.

Securing a Clover "Catch."

At a meeting of a Westminster Township (Middlesex Co., Ont.) farmers' club, of a nature such as we suggested in a recent issue, the subject, "The best method of obtaining a catch of clover," was discussed. This subject—to many of the "club" members, as to hundreds of others—has been one of especial interest for a couple of seasons, owing to the seeming impossibility of obtaining a decent stand. Of course, the great cause of failure has been lack of moisture, which fact the "club" recognized and dealt with in their discussion.

There are several ways, other than by light rainfall during the summer months, of securing moisture. We invariably have sufficient rain and snow between November and April to fill the ground fairly well, and in order to retain this for growing crops, man must adopt means not usually resorted to. We have learned from experience that loosened, loamy soil acts somewhat like a sponge in holding water; and the deeper we have the soil in that loamy, free condition, the more water will be retained, and the more easily will the plant roots spread out and fill the soil in quest of nourishment. This condition can be best obtained by means of subsoling. This operation permits the under soil to receive and retain much more water than if the subsoil were hard and unmoved. The moisture, instead of being removed by surface drainage or evaporation, is allowed to sink into the soil, where it is held.

Another method of conserving moisture is to keep the soil well supplied with vegetable matter. This is one of the very important conditions favorable to successful germination of the clover seed and after life of the plant. This can be done by always seeding the root and corn ground of the previous year, where manure and frequent tillage have been given. Where stubble land is to be seeded, it is well to grow rape, buckwheat or other green crop after harvest, to be plowed under before winter sets in. Such land will not only retain moisture the following summer, but it will be well supplied with humus to feed the plants and hasten them to good development.

In the course of discussion it was brought out that the farmers who followed a certain method of sowing almost invariably met with success in obtaining a good "catch" during the past year. In most cases the successful ones seeded upon root or corn ground which had been well manured and tilled the previous year. The successful plan of seeding with a spring crop was to first sow the grain and harrow the ground, then sow the clover seed and harrow once or twice with very light harrow, and then roll firmly. In some cases the land was rolled before the clover seeding and again afterwards.

Seeding on fall-wheat ground is usually a success where the soil contains plenty of humus, and has been deeply worked. The best time to sow is in March, on land that will not easily wash. Just after a light snowfall, towards the first of April, has proved to bring good results. It is well to put on a good heavy seeding of a mixture of the Red and Alsike varieties.

Whole vs. Pulped Turnips--Mr. Hallman to Mr. Taylor.

SIR,—In the January 1st issue of the *ADVOCATE*, Mr. John Taylor, Jr., endeavors to criticize my views regarding the use of the root pulper rather severely. I might say that I enjoy criticism, if it is of the right sort and to the point, but I do not like the idea of a man wasting time by introducing side issues. Had Mr. Taylor taken up the subject of "root pulping" pure and simple, and discussed it on its merits, giving practical experience, the article might have had some merit. It is largely devoted to emphasis of what nobody denies.

I admit the high value of turnips if fed in conjunction with other foods, also of ensilage and good pasture. Wherein did I deny their value? I consider it of the greatest importance to have an abundance of cheap, succulent food. Their value cannot be too highly estimated when judiciously fed. It is the manner of feeding turnips we wish to discuss at this juncture.

I desire to say to Mr. Taylor that what he terms "ideas" are the results of actual experience, but it is evident that his statements are simply expressions of "ideas." I never jump at conclusions, but weigh matters carefully before making important changes. I am not so conservative that I cannot change from former methods, especially when such important considerations are at stake as labor, time, and muscle. I do not work for sport. If Mr. Taylor does he is constructed upon a different plan from the most of us. I am sure pulping turnips is no recreation. Consider the immense amount of extra labor of handling from 2,000 to 4,000 bushels and upwards of turnips that some farmers grow from year to year without a remuneration therefor. Theory is one thing, and is all right, but practical experience is another.

I was among the first in this section to adopt the pulping and mixing system. It gave good satisfaction, and I pursued it for ten years, and was one of the last to abandon it, but I now have been feeding whole turnips for two years, and would say that I have no use for the pulper, except for purposes stated in my former article. It is freely admitted by drovers that in this and surrounding locality there are some of the best and most practical feeders in the country, who see that the cash balance is on the right side of the ledger. They formerly used the pulper, but are now almost entirely feeding whole turnips. This is to me sufficient evidence that the root pulper has seen its best day. It is true we should look to the comfort of our cattle, and I am sure mine have and are receiving due consideration. My cattle have all the comforts of a modern barn can give; water inside, silo and everything complete. The little muscular exercise necessary to gouge and masticate turnips along with other food is greatly enjoyed, and I am confident it assists digestion and assimilation in a considerable degree. Now, friend Taylor, let us reason together. I am no scientist, only a common farmer endeavoring to apply the practical knowledge gained by my own and others' experience. You seem to be quite a theorist. You say, "When roots are pulped and mixed with cut feed and meal they help to assimilate the more fibrous and less digestible portions of hay and straw, and in this their value lies, more than the nutrient they contain"; also, "The water in the grass or turnips is worth more than it would be in the bucket." I shall not stop to discuss this question, but will allow every one to draw his own conclusion. If the succulent matter of the turnip is of such value, why not retain all possible moisture. A turnip is at no other time as crisp and juicy as when first broken. In no way will an animal receive the full value of its succulence except when eaten immediately after being broken, and in no way fresher than when eaten whole. Not only is the juice of the turnips more than that at any other time, but the great amount of saliva secreted while gnawing whole turnips greatly assists the digestive process. If turnips are pulped once a day, as is the case when other than man-power is used, they lose considerable moisture by evaporation. This is no theory, as I have proved it by experience. When cut feed, whole turnips, ensilage and meal are put into a clean manger, by the time the meal is over and the food passes out of the fourth stomach, I'll guarantee it is thoroughly mixed and digested.

In conclusion, I would say I do not condemn the mixing system, nor do I condemn the root pulper, and no one can infer such from my former article.

If many would practice mixing, it might probably be of more value than their present careless system; but for me, I have no use for it, except as I stated before, neither has any careful feeder with a modern barn and conveniences. If Mr. Taylor's horses require some mechanical exercise to keep the "puffs" down, the pulper will answer a good purpose: probably all the better for his horses if he would pulp his neighbors' turnips as well. I can keep my idle horses' legs clean and healthy by giving them a cheap ration composed of cut straw mixed with ensilage and a little grain, and a whole turnip thrown in their manger once a day. The spare time with me can be spent with more profit than in pulping turnips, by applying "elbow grease" to my cattle and horses. —A. C. HALLMAN, Waterloo Co., Ont.

From the "Land o' Cakes."

Our readers, particularly those from the "Land of Brown Heath and Shaggy Wood," will appreciate the accompanying illustration. It represents a "threshing," at dinner hour, on the farm of one of our Scottish subscribers, Mr. J. Allen, Slydie Clung, Aberdeen, who, on seeing the "Manitoba Threshing Scene" in our November 15th issue, favored us with the photograph in sending across the Atlantic his renewal to the *ADVOCATE*, and from which our engraving has been prepared. Mr. Allen, in the illustration, occupies the position next to the left of the man with the dog at his side at the near end of the line, Mrs. Allen and three little daughters standing near the farther end, while their grown-up daughter and four sons are to be seen standing among the "hands."

Upon comparing the two threshing scenes, the characteristic leisure and order of the "canny"



A SCOTTISH THRESHING SCENE.

Scot at home is the more striking when viewed side by side with the decidedly "hustling" Western Manitoba farmer. Mr. Allen expresses himself as much pleased with the illustrations we give from time to time, and, on behalf of our readers in America, we thank him for his thoughtful greeting.

"Blue-Grays" Once More.

SIR,—In your issue of Jan. 1st, "Onlooker" has an article on "Blue-Grays," and suggests the propriety of starting a new breed of cattle. When I read it I thought it might have emanated from one who had a lot of white Shorthorns. But I did not feel deeply interested until, "lo and behold," out comes Mr. Keough, in your issue of the 15th, endorsing the scheme. Knowing Mr. Keough's fancy for Galloways, I thought we had surely found the pair who could do it up "brown" (or gray). Some years ago, when Shorthorn breeding was in its glory, the breeders were divided into two camps, one advocating line breeding and the other as bitterly opposed to it, on the ground that inbreeding destroyed the physical vitality of the animal. Now, the latter class might have some sympathy with Mr. Keough and "Onlooker," as the dreaded evil effects of consanguinity would be effectually removed. However, a trial might be made just now, along the line suggested, without any very great risk or sacrifice. X Y Z.

In our "Stock Gossip" Department, Mr. Wm. Rivers, Shorthorn breeder, of Bruce Co., Ont., writes commending the great practical value of the articles on Economical Feeding that have appeared in the *ADVOCATE* this season. He adds his testimony in favor of corn ensilage, and speaks highly of the root pulper, which he regards as an indispensable implement to the feeder.

DAIRY.

A "Travelling Dairy" Humbug.

Word has reached the *ADVOCATE* that a party calling himself "Marr" has been visiting farmers, representing himself as authorized by the Dominion Dairy Department to give them instructions in buttermaking—which he appears to understand. After doing so, he unfolds a tale about being a little short of funds till his next cheque comes, on the strength of which he has in several cases secured "temporary" loans, though the amounts were probably not large, but which, it is needless to say, were not repaid. One of the victims has reported his case to a lawyer. Dairy Commissioner Robertson was written to, and replies that the man has no authority whatever from him, but he has had a similar complaint from another quarter. Our readers will do well to give all such questionable gentry a wide berth. It is surprising, after the repeated warnings given against these plausible adventurers, that persons are still open to be gulled.

The Babcock Test—Its Cost and Labor in the Cheese Factory.

SIR,—All well-informed dairymen admit that the only just way to pay for milk delivered at the cheese factory is by the use of the Babcock test. It should be paid for according to the per cent. of butter-fat found in it. Adding the casein to the fat, as suggested by Prof. H. H. Dean (and adopted by many cheese factories), is the simpler and most just way to pay for milk, as his experiments will prove beyond all chance of successful contradiction. Can the outlay connected with the Babcock test be

adjusted satisfactorily? is the question put by patrons and managers of cheese factories. This is not as difficult a question to answer as many have been led to believe. First, composite sample bottles for 34 patrons, \$7.00; 3 pounds pulverized bichromate of potash, 75 cents; 20 pounds sulphuric acid (enough for one season), about \$1.00; 20-bottle Babcock tester, test-bottles, pipette, and acid measures, all complete, about \$16. Now, as experience demonstrates that the quality of the milk was improved where the Babcock test has been introduced, the patrons have been lifted above suspicion, and the necessity of looking after adulterated milk being almost entirely done away with, any cheesemaker with his business at heart, and who aims to make his factory a success, would be willing to take the samples daily free of charge, as many are doing, and others would rather than do without the Babcock test. When everything is made convenient for

taking samples the labor is not very great. Next, as to the cost of testing the milk: We will lessen this by testing only once a month, as many factories are doing. If sufficient quantity of bichromate is used, the milk will be preserved in good condition for testing purposes up to seven weeks, as we have proved by our experiments.

It is not necessary to employ an extra man for the season, to do the testing, but we will lessen the cost by arranging with some intelligent person to come to the factory on testing day to do the work. There is nothing so complicated about testing milk that such a man cannot learn in half an hour to do it with satisfaction to all concerned. Be sure he has the confidence of the patrons. As a man can test from 100 to 125 samples in a day, clean his bottles, and make ready for samples again, the cost will be from one to three dollars (according to size of factory) per month, and for six months from six to eighteen dollars. Some will criticize these figures, but as much work in other ways is being done for less money in some of our factories at the present time. Let the new beginner go to a factory and see the testing done for a day, notice the appliances and conveniences made use of to do the work quickly, then return to his own factory and make everything as convenient as possible for rapid work. If these suggestions are followed, there is no reason why the Babcock test should not be in every factory in the Dominion. The cost per patron would not exceed fifteen cents for the season. Any patron who values a good name would rather pay this amount than run the risk of being accused of dishonesty. Some would gladly pay a large amount if the charges made against them could be remembered no more. The Babcock test lifts a man above suspicion, and does justice to all. O. A. C. Dairy School. T. C. ROGERS.

THE FARMER'S ADVOCATE & HOME MAGAZINE

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A Word with Agents.

We have been advised that some persons claim to have been offered the FARMER'S ADVOCATE at a less rate than \$1 per year. We therefore desire to state that no agent or other person has been authorized by us to do so, and that no subscriptions can be accepted at less than \$1 per year. In other words, we adhere strictly to our regular announcement, as published in each issue of the paper.

Attention is specially directed to the attractive premium announcement on another page.

Cheese Branding.

Mr. McLennan, M. P., has reintroduced his Bill at the present session of the House of Commons, which requires the word "Canada," the day and month of manufacture, the registered number of the factory, and the initial letter or letters of the Province in which the factory is situated, to be stamped or branded, both upon the cheese and the box, in letters not less than three-eighths of an inch high and one-quarter of an inch wide. The proposed Act also requires every cheese manufacturer to take out a certificate of registration from the Dairy Commissioner at Ottawa.

One original intent of this Bill, when the agitation sprang up last year, was to prevent cheese of one month, say in early summer, being sold by dealers as of September make, but the main advantage is to secure to Canada the splendid reputation of its cheese, by preventing any such "filled-cheese" (a U. S. product) slander as was circulated last season in the Old Country. With this feature of the Bill we are in hearty sympathy, but seriously question the wisdom of the registration clause, which will certainly be regarded with indifference, if not positive disfavor, on the part of many factorymen. Similar objections would be raised to branding either the name of the factory or a registered number upon the cheese, though, if factories saw fit to specially designate their make, that can be left optional. The word "Canada" should be a sufficient stimulus and safeguard to makers.

The recent Dairymen's Convention at Woodstock, probably the largest ever gathered in Canada, endorsed branding upon the cheese the date, month, and "Canada," but disapproved of the registered number. We are favorably impressed with the idea of putting on the initials of the Province, as indicated in Mr. McLennan's Bill.

The Ontario Creameries Association.

The annual convention of the above Association at Cornwall, Ont., on January 14, 15 and 16, was, we regret to note, not very largely attended, owing, doubtless, to its out-of-the-way location. President Derbyshire made the encouraging statement that Canadian creamery butter shipments had doubled last season. He urged a longer butter-making season by co-operative methods. He differed with those who had suggested uniting the Creameries Association with the Dairymen's Association, as he thought a special organization was needed to promote the butter business. Mr. A. A. Wright said the butter men would be the dairy giants of the future, and if any one attempted to put their hand on this organization, they would rise in their might and, in the words of Artemus Ward, exclaim, "Why is this thus?" In reference to the idea of further promoting better exhibitions, Mr. J. S. Pearce suggested adding experiments and object lessons to show the different qualities of butter. Mr. Croil did not favor concentrating the prize money at one exhibition. Prof. Shutt emphasized the necessity of having wells so located that the water could not be contaminated by soakage of barnyard or house filth. Prof. Brooks, of Amherst, Mass., gave a comprehensive scientific address on the fertility of the farm. Mr. Wright suggested that the Government have an agent in England, not to sell Canadian butter, but to look after it on arrival, and report as to condition, with hints as to coloring, salting, packages, etc. Addresses were also given by Prof. Robertson; C. C. James, Deputy Minister of Agriculture for Ontario; Prof. Fletcher, Prof. Barre, and Prof. Dean. The latter indicated the value of testing cows, by referring to the O. A. C. herd, in which yields varied from over 10,000 pounds each of milk and about 400 pounds of butter in a year to a little over 3,700 pounds of milk and 143 pounds of butter. Mr. D. M. McPherson, M. P. P., spoke on economy in milk production. Mr. Mark Sprague, Inspector and Instructor, reported that during the past year, one cream-gathering and 18 separator creameries had been started. Out of 112 creameries only 9 were yet "pooling" their milk. The ADVOCATE is certainly surprised to learn that there are still to be found creameries so far behind the age as to be "pooling" milk, however cheese factories may cling to that discredited system. Directors were elected as follows:—President, D. Derbyshire, Brockville; First Vice-President, Wm. Halliday, Chesley; Second Vice-President, T. J. Miller, Spencerville. Directors—Division No. 1, J. Croil, Aultsville; Division No. 2, A. Campbell, Ormond; Division No. 3, Chas. Johnson, Athens; Division No. 4, John Sprague, Ameliasburg; Division No. 5, A. A. Wright, Renfrew; Division No. 6, F. L. Green, Toronto; Division No. 7, John S. Pearce, London; Division No. 8, W. G. Walton, Hamilton; Division No. 9, A. Q. Bobier, Exeter; Division No. 10, A. Wenger, Ayton; Division No. 11, Jas. Struthers, Owen Sound; Division No. 12, James Carmichael, Arva; Division No. 13, John Zenkann, Wellesley; R. J. Graham, Chairman.

Mr. Sprague was reappointed Secretary, Instructor and Inspector.

The new Strathroy Dairy School opened on Jan. 24th, with 15 students, and the number increasing daily.

The Western Ontario Dairymen's Convention.

(Continued from page 31.)

The Hon. John Dryden, referring to the work of the Dairy Association, expressed perfect satisfaction in the economical expenditure of the "grant" contributed. He maintained that the present grip upon the English market for our cheese has been the result of education and general co-operation. A continuation of the success of dairying depends upon wisely directed effort upon the part of breeder, feeder, and manufacturer.

Swine Husbandry (by Mr. Theodore Louis, Wisconsin).—Swine raising is closely allied to dairying, because the former makes a profit by consuming the by-products of the latter. To conduct this branch profitably, skill is necessary. One of the first considerations should be comfortable shelter. Mr. Louis condemned the straw pile as a sleeping place, claiming that lame loins and coughs are to a great extent due to bad shelter. When large numbers of hogs are allowed to pile up in straw stacks, as is too frequently the custom in Wisconsin, heavy losses occur by reason of bad health. Comfort to a hog means the same as to any other animal. A house seven by eight feet is best for breeding or feeding hogs. This size will accommodate four in summer or five in winter. A hog house should be on an elevation to insure good drainage. When a large house is built, Mr. Louis recommends a single row of pens, opening to large, dry yards on the south side. The stalls should be seven by eleven feet, and every breeding-pen should be provided with a fender or board, projecting six inches from the wall and eight inches from the floor, to save young pigs from being overlain by their dams. Through the entire length of the pen was recommended a passage five feet wide. This should be right against the north wall. Sufficient trough room should be provided, so that all the pigs can feed comfortably together. The V-shaped trough suits Mr. Louis best. His pig yards, which are seven by twenty feet, are divided by movable hurdles. The pen has a window above each door, and a loft above the stalls to hold bedding. Weigh scales are set so that the platform is level with the floor. When these are wisely used, and an accurate record kept of gains made and food consumed, they become one of the best educators possible in successful feeding. While a hog will, if allowed, consume sixteen pounds or more of skim milk, eight pounds is as much as can be profitably fed at a feed. To 100 pounds of skim milk Mr. Louis would add thirty pounds of corn or barley meal, or of barley and rye, for fattening pigs. Feeding whey alone is not profitable, neither is it wise to keep any food in barrels to become sour before feeding. When one, in dipping from the barrel, has to hold his nose with one hand and the dipper with the other, very much of the value of the food has been lost. Souring develops alcohol and vinegar, neither of which have a good effect in hog feeding. In the last stages of fattening, however, a slight acidity in the food may be an advantage. A 100-pound pig requires two and a half pounds of properly-balanced, digestible food to sustain life for one day. It requires four and a half pounds of a like food to produce a pound of growth; therefore the profit may be all lost by unwise compounding of the ration, or by just feeding enough to sustain life. It is profitable in every case to grind grain. We must feed against temperature, therefore the value of warm pens. Exercise is a consideration of money. Large yards must be used in high feeding, if best results are to be obtained. Mr. Louis claims that hogs root for phosphates, and not for mischief, as is generally supposed. He, therefore, believes it wise to supply a condiment for their consumption to satisfy this craving. To six bushels of charcoal cob he adds six pounds of salt, one bushel of wood ashes, one and a quarter pound of copperas, dissolved. This is thoroughly mixed and placed in a self-feeder, so that the hogs may help themselves at will. The use of this mixture greatly assists digestion and assimilation. The charcoal is prepared by building a pit and commencing a fire in it, then filling it with corn cobs, and when the whole mass becomes aglow the pit is sealed up air-tight and left to cool, when the coal is ready for use. Charcoal made in this way contains all of its carbon, which is not the case when burned in the open air. As hogs near the finishing period their organs become more or less covered with fat, and therefore lose power, which condition increases the desire for this mineral product. They will even eat sandstone, and soil, if the needed elements are not supplied in some other way.

The speaker, in discussing the boiling of grain, considers such a practice useless when carried beyond heating the food up until the starch grains are bursted. The feeding of warm food saves animal heat, therefore saves food. The brood sow, while nursing, gives as much milk in twenty-four hours as does a cow that gives 3,000 pounds in a year. This has been found, not by milking the sow, but by weighing the litter every twenty-four hours for several days after birth. She must, therefore, have a well-balanced and easily-digested ration. A good ration is made up of two parts shorts, one part corn meal, and a small quantity of oil meal. The oil meal keeps the sow from becoming constipated. The young pigs are taught to eat by throwing to them a few handfuls of oats on the floor occasionally.

In speaking of his hog-pen floor, Mr. Louis expressed a liking for wooden floors, quite level. He

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has them cleaned every day. He also prefers wooden walls, or if stone, there should be a dead-air space in the center to keep out moisture and frost.

In reply to questions regarding different grain foods, it was shown that oats are not good for hogs, for the reason that they have so much indigestible hull. At the current prices of oats and shorts the latter has much in its favor. He has never found a profit in feeding wheat. If used at all it should be ground and soaked. Mr. Louis feeds large quantities of steamed clover heads and leaves, also a deal of squash in the fall and winter seasons. He would not feed ensilage except for a change. Mangels and turnips should be fed raw, but potatoes should be boiled.

In speaking of diseases, it is believed that almost all troubles are caused by errors in feeding. Constipation causes disordered kidneys, and is, therefore, the cause of lame back. For paralysis he would rub on turpentine and administer saleratus. To physic a pig, split a strip of boiled pork and close within it four or five grains more calomel than a human subject should take. The patient will consume this without objection. Milk fever is caused by feeding heated foods, such as barley or corn, and keeping the sow confined too closely. The remedy is to first prevent by avoiding the above conditions, but when a sow is attacked give linseed oil, bathe the udder with hot water several times a day in a warm house, half an hour each time; feed light until the young pigs can take all the milk. It is always wise to have sows farrow at a time that they can get outdoors for exercise; if this is done there will be no loss from the

ing the quality. England is our chief and a convenient market, and we must beguile the English consumer into using as much of our products as possible. He considers it unwise to push our cheese any farther in quantity, but to give more attention to the quality. Britain is now getting half their cheese from Canada, but our export of butter to that country is very little. In view of our dairy resources, and the intelligence and perseverance of our people, there is every reason for pressing our good butter before them in its very best form. We are now sending very little dressed beef, but Australia is sending a great deal, under great disadvantages of expense of transportation across the tropics, and by having to freeze it. The freezing ruptures the juice cells of the beef, and renders it mussy and unsightly when carved upon the table. We can send dressed beef at little cost of transportation, and simply chilled, which leaves it fresh and juicy, like newly killed beef. He therefore recommends developing as fast as possible a dressed meat trade in that country. This would retain in Canada all the refuse material. Fertilizer and glue factories and tanneries would spring up and do business.

Dr. Mills, M. A., referred to the need of closer attention to the details of dairy farming. Success does not depend upon the particular breed nor the pedigrees of animals so much as the care of stock. He advised that we dairy with dairy cattle, not beef cattle, and that the Babcock test be used to aid us in ridding out unprofitable cows. Provision must be made to bridge over the season of dry pastures by a system of soiling, and recommended

By the extra care that cows must have in winter buttermaking, they are rendered better and more profitable animals. Winter buttermaking is a practicable thing, while winter cheesemaking is not. Cream need be delivered only every other day in winter, which need be no loss of time to farmers, if the creamery be situated in his town or village. The speaker recommended a separate room for buttermaking in a summer cheese factory. Where much moisture is present, iron pulleys and rubber belts were recommended on the score of durability. (TO BE CONTINUED.)

Quality of Cheese from Rich and Poor Milk.

Sir.—As I intimated in Jan. 1st issue, producers of rich milk would watch experiments along this line closely, so we eagerly looked for the experiments as given us by the Professor of Dairying at the Guelph College, in Jan. 15th issue. Readers are asked to draw their own conclusions and also to give suggestions for 1896, so, with your permission, I will venture the following:

The "rich" and "poor" milk, so called in each case, is neither rich nor poor, but only medium, as the averages of fat given denote milk of average quality with no great differences between them. This is greatly against the value of the experiments for the purpose intended, viz., to find out whether additional butter-fat in milk adds to the quality of cheese or only to the quantity. In 1894, the average difference in richness is only .57 of one per cent. In 1895, the differences are .73 and .81 of one per cent. Now, last season we were called on to divide moneys where there was twice as great a



APPLE PICKING IN WOODSIDE ORCHARD, GRAFTON, ONT. (THE PROPERTY OF COL. R. Z. ROGERS), SHOWING THE PAGE FENCE ERECTED THREE YEARS AGO.

disease known as "thumps." Blind staggers are caused by errors in feeding; the remedy is to give physic and saleratus.

In selecting a brood sow, have an eye to the dairy type, and see that she has twelve or fourteen teats. She should be broad between the eyes and wide between the fore legs. The pig's tail is its thermometer—one curl means good vigor, but two curls indicates the highest condition of vigor known. A sow with a sagged back should not be chosen, neither does a drawn-up belly belong to a good doer. It is not wise to purchase a show sow for breeding. Never select a sow to breed from a suckling litter; it is better to wait until she is five or six months old. Young sows should never be bred twice the first year. Do not breed a sow that has not good hearing.

Prof. J. W. Robertson, at the close of Mr. Louis' address, referred for a few minutes to the methods practiced at the Central Experimental Farm for keeping the pigs in perfect health and in good humor. They have found that by giving pregnant sows, and those that are suckling pigs, plenty of sods, the young pigs never get "black tooth," which is a symptom of an ill-nourished system. They have found that it pays to grind all grains at all times. Bad feeding makes pigs cranky, while proper feeding of well-balanced diet causes them to feel well and do well.

The Resources of Ontario.—Prof. Robertson delivered an excellent address on this subject, in which he emphasized the need of more knowledge, so that more of our resources may be realized in dollars and cents. It is necessary to use the best labor to lower the cost of production. We cannot raise the prices of our products except by improv-

greater use of green peas and oats for that purpose. Competition is becoming keener, therefore greater necessity of close attention to business.

Cheesemaking.—One entire session was devoted to cheesemaking, when practical makers discussed, to the advantage of each other, many of the troublesome problems connected with their work.

Mr. A. T. Bell, Tavistock, read an excellent paper on the Cheddar system, in which he reviewed the different steps in detail. The condition of the cows and the milk play a very important part. He referred to the need of using the rennet test, and also impressed the fact that the curd knife be kept sharp to avoid tearing the curd and losing fat in the whey. Fast workers should be cut finely, and gassy curds should be milled twice in order to hasten the process. Fall cheese should be cured at a temperature not above 65 degrees. Mr. Bell has found that a "starter" often causes harshness in the cheese.

During this session valuable papers to practical makers were read by Jas. A. Gray, Atwood; Robt. Johnston, Bright; Harry White, Belfast; John B. Muir, Avonbank, and T. B. Millar, Guelph. We regret that lack of space forbids our dealing with the subjects taken up by these gentlemen.

Winter Buttermaking.—Mr. J. A. Ruddick, of the Kingston Dairy School, took up this subject briefly. In Ontario and Quebec there are fifty-five cheese factories making butter in the winter season, while many creameries are running the year round. Experience has taught that as good butter can be made in winter as in summer; in fact, it is now looked upon as an important branch of Canadian dairying. It is not, as some are narrow enough to suppose, in opposition to cheesemaking.

difference as even .81, viz., between milk testing from 3 per cent. to 4.6 per cent. of fat. My suggestion would be that richer milk be secured, averaging 4 per cent., if possible, and poorer milk also, averaging 2.7 or under (the average for our factory for June and July would not be more than this last year), so as to give the matter as fair and clear a test as possible. The results of the experiments are close, but as the differences in qualities of milk are not great we could not expect to see much difference in quality of cheese from extra richness of milk, *all other things being equal*. But I think a careful look into the experiments will reveal the fact that *all other things are not equal* in every case, and that some points have been counted against richer milk which further light shows should not have been done. Take the experiments for 1894, which, I think, are rather misleading, and if carefully reviewed in the light of double the number of experiments in 1895, it will be clearly seen that they are so, and that richer milk did not get as good treatment as the poorer, either from patrons or cheesemakers or both—that mistakes were made in care or handling, and this counted against the richer samples.

To explain: Four and one-half points in flavor are shown in favor of poorer milk in 1894, but in 1895, with double the number of experiments and greater differences in richness, a difference is shown in favor of richer milk in point of flavor. I conclude that this shows that richness in milk adds to the flavor, and that the count of 4½ points against the richer milk in 1894 must have been the result of something else than richness in the milk.

In regard to "closeness," we find that all the experiments thus far show just what I expected to

see—a difference in favor of richer milk. The more "fat," the less "holes."

In regard to color, we find, again, that 15½ points have been counted against the richer milk in 1894, but double the number of experiments in 1895, with greater differences in richness, show it to be possible to get just as even a color with richer as with poorer milk, so I conclude that those 15½ points should not count against the richer milk on account of its richness, but should be accounted to mistakes from other sources.

Then, as to "texture," we find that 26½ points go against the richer milk in 1894, but in 1895 we find them scored almost equal, so I conclude the same as above in this regard. Thus it was that 43½ points were counted in favor of cheese from poorer milk in 1894, while in the greater light of 1895 these same things look differently. But this only shows that great caution should be exercised in giving results of a series of experiments, when these results seem to be unreasonable, until further light is got in the matter, and also that the multiplication of experiments is much better than one series, as we can then compare one season's work with another and get a more conclusive view of the matter. I hope that with a greater difference still in richness of samples to see what I always thought to be reasonable, viz., that, "all other things being equal," additional fat will give additional quality of cheese as well as quantity. The results given are very close, but as they are the "scoring of the only man in the world who can score to half a point," and other thorough judges as well, we should notice every point and one-half point given. Doing so, I have found that richer milk gives a gain in flavor and closeness, with no loss in color, texture or finish, and I would expect to see, with greater differences still in richness of samples, a more clearly defined difference in quality of cheese also. Others may form different conclusions, and I will not be surprised if they do so, as we find that while one Professor advocates the addition of 2 per cent. to fat readings, through the press, another Professor from same college, within two weeks after, at Institute meetings advocates using a sliding scale of addition, increasing the addend as the milk increases in richness, both systems being results of same experiments. This last is a slide in the right direction, and I believe will eventually slide into the division by the straight butter-fat as per Babcock test. The "standard for the world" in quality spoken of I would say is "fine Canadian Cheddar cheese." The World's Fair proved this, and our world-wide reputation proves it also. Americans say that the "controlling element" in our "continuing to hold this reputation" is the fact that we do not allow any skimming to be done. The holding of this reputation is the main thing, and I thoroughly believe that if we are to brand all our cheese as "Canadian," it will also be to our best interests to keep everything that tends towards skimming, and that would encourage in the slightest degree a poorer quality of milk, out of our cheese factory systems. Thus we will be saved from such a sliding scale of prices as we see reported in New York, viz., from 2½ to 11 cents, as the cheese varies from skims to full creams. I believe that dividing by straight butter-fat will do much to encourage better quality of milk, and the maintaining and improving of the standard of "Canadian cheese."

ROBT. McCULLOCH.

POULTRY.

Broiler Raising.

BY R. C. ALLAN, NORTHUMBERLAND CO., ONT.

The judicious selection of stock from which the supply of eggs for hatching is to be obtained should be the first consideration with the broiler-raiser. So much depends upon the laying stock, their care and feed, that many become discouraged, owing to the inferiority of the eggs they are compelled to use. What is wanted is a breed that will produce a plump, yellow-skinned chick, one that will mature early, and be as free as possible from black pinfeathers, which often render an otherwise fine bird very unsightly. Each of the different breeds have their advocates, and their different merits cannot be discussed in an article on broiler-raising. I have used several different kinds, but as we combine egg-production with the broiler work, using an incubator for hatching, the sitting breeds are not necessary for us to keep. I find B. P. Rocks very good, White Rocks better, S. C. W. Leghorns and their crosses upon the heavier breeds very satisfactory also. Leghorns have one drawback, viz., the tendency of the cockerels to develop too much comb, which makes them appear older than they really are. We are importing another pure white breed for broilers, which we think will be superior to any of the others, and will let your readers have the result next season.

It is advisable for every one who contemplates broiler-raising to be prepared to produce the eggs he uses from his own flocks. We have purchased eggs from farmers, but, as a rule, they do not hatch well, owing to the absence of judicious feeding, inbreeding, and other causes. Many prove infertile, and the chicks are often weak or de-

formed. The hens should be fed a liberal, well-balanced ration. Cut clover, steamed and mixed with middlings, ground green bone and meat, with good, clean wheat, will go far towards giving you a supply of eggs that will hatch out a large percentage of large, vigorous chicks. In cold weather the eggs must be gathered several times during the day, especially if your poultry house is not kept at a temperature considerably above freezing. They must be handled carefully, and kept in a moderately cool place. We find that eggs set soon after being laid hatch better than those kept for some time. Discard all misshapen, very large or very small eggs, also pullet eggs if hen eggs can be obtained.

We must now consider the means employed to do the hatching—whether by incubator or by hens. If a winter business is to be conducted, an incubator becomes a necessity; if summer work, hens only may be employed. A number of hens should always be set at the same time, because it is easier to feed and care for a small number of flocks of uniform chicks than for a great number of hens having chicks varying a few days between each lot; and forty sitters can be fed and cared for as easily as a dozen, if you keep them all in the same building. It is not practical to manage a large number any other way. Laying stock must be excluded. The nest boxes should be thoroughly sprinkled with coal oil, and filled with clean, soft material. If an egg becomes broken, the remaining eggs, if soiled, should be gently washed in luke warm water, dried and replaced under the hen. The eggs should be tested the seventh day, and the infertile ones removed. They will serve nicely to feed the young chicks. The fertile eggs may be given to part of the sitters, and a fresh supply given the others. The hens should be fumigated when they first begin to sit, and again just before the eggs are hatched. I have made and used a fumigator which is very simple and effective. It is a much speedier and less expensive method than using insect powder. It does its work thoroughly, and I am more than satisfied with it. (A future letter will describe it.) After the chicks are hatched, leave them in the nest twenty-four hours. They will not eat before that time, as nature has provided a supply, and they are not hungry. Then remove the hen, and place her in a coop that will at least keep-out wind and rain. If the ground is dry, the coop may be without a bottom, and can be moved to a clean place each day. But if the ground is damp, the coop should have a movable bottom, which can be taken out and cleaned. Little chicks will not thrive in filthy quarters, and where vermin abound. If you wish to raise large numbers of chickens, cleanliness is absolutely imperative. I believe more chicks hatched and brooded by hens are lost from living in dirty coops, and being infested with lice, than from all other causes combined.

The first food I give little chicks is egg-custard, made by adding one tablespoonful of milk to an egg, and cooking in the oven until firm. Bread soaked in milk and squeezed out dry is good. Always give a variety of food. Corn meal, oatmeal, and ground wheat, mixed in equal quantities and baked like biscuit, is relished very much. Onions chopped fine, cabbage or young clover will help to supply the green food required. If much soft food is fed, no water will be required for the first two weeks. Meat must be given unless large quantities of insect food can be obtained. We feed meat and ground green bone, one tablespoonful (heaped) to a dozen young chicks per day, increasing the amount as they grow older. For the first two weeks we feed every two hours, but not all they will eat. No food should be left on the feeding boards when the meal is finished. After that age they should be fed five times per day. Never let them have all they can eat, except at the last meal. Even then be careful that they do not gorge themselves and bring on indigestion. I like to see them eager for their food each meal. Slipshod methods of feeding, namely, neglecting them long after the usual hour, and then giving them all they will gobble up when half famished, feeding meal mixed up with cold water, or grain too coarse for them; also neglecting to supply a quantity of fine grit, such as broken glass or crockery, are most certainly the cause of most of the ill-luck people complain of. If the weather is warm the hen may be taken from them as soon as they are feathered. They will do better alone if the coop is comfortable. Chicks do not want too warm a place to sleep in. They will sweat off at night all the flesh they put on during the day if confined in closed coops. See that the coops are properly ventilated. So much for natural incubation and brooding.

(TO BE CONTINUED.)

Nine Ways to Make Hens Lay.

1. Warm and dry houses for them to roost in.
2. A shelter shed alongside each pen for bad weather.
3. Corn should be given on cold mornings.
4. All grain should be buried under chaff or straw, to induce exercise.
5. Mash of ground grain with meat scraps for morning meal: good feed of grain at night.
6. A liberal supply of green food.
7. Fresh water daily or twice a day in warm weather.
8. A constant supply of sharp grit and broken shells.
9. Perfect cleanliness and freedom from vermin.

GARDEN AND ORCHARD.

Practical Gleanings from Farmers' Institute, Division No. 4.

PROPER CARE OF AN ORCHARD.

Good cultivation is essential in an orchard, but a mature orchard should not be plowed. Cultivate as early in the spring as possible and preserve moisture. Use a spring-tooth cultivator. Sod should not be allowed in an orchard, unless in the case of one growing wood very rapidly. Hoed crops should be produced in a young orchard to procure return from soil till the trees come into bearing.

Manuring.—Do not attempt to grow fruit year after year without applying manure; a hungry fruit tree can be easily detected. When the tree has only a few small apples and the leaves turn yellow early in the season, you can conclude that your tree needs manuring. Barnyard manure should be applied freely. Wood ashes are the best fertilizers which we can apply to an orchard. Manures should be spread over the ground as far as the branches extend, as the roots penetrate that distance, and often farther.

Pruning.—Start your trees at a uniform height. Do this when trees are small. The trunk of a tree does not increase much in height after head is started. Three main branches are enough. Prune so that you will have a spreading growth, that the sunlight may enter freely. Always remember in pruning: aim to direct growth rather than cut out what has been produced. The best time for pruning is March or April, before the growth starts.

Spraying.—Spraying is practiced for the destruction of insects and the prevention of fungous diseases. The first spraying should be copper sulphate mixed at the rate of one pound to 25 gallons water, and applied with a force pump having a very fine nozzle; the finer the spray we can produce, the more effective. This should be applied before the leaves open. After leaves open, use what is termed Bordeaux mixture. Bordeaux mixture should be applied before the blossoms open. Paris green should be applied at the same time, one-quarter pound to fifty gallons of mixture. Spray again after the blossoms fall to the ground. Keep codling moth in check by letting hogs run in the orchard.

Thinning.—Never allow a tree to over-bear in a good year. Thin out the fruit even as much as one-half; what is left will grow so much larger that you will have more baskets of better fruit. The core and seeds exhaust fertility much more than the pulp of the apple.

The whole process may be summed up in a few words: Cultivate thoroughly, manure liberally, prune intelligently, spray regularly, and when you get a large crop thin judiciously.

POTATO GROWING.

For Seed.—Small potatoes should not be planted; medium-sized and well-formed tubers should be used, and should be selected while digging. Keep seed from growing by storing in a cool place. Seed should be cut, but only to a large size: every piece should have from three to four eyes. Good buds can be produced by keeping in a place where sunlight can shine upon the potatoes; be careful and do not break off the newly formed buds.

Soil.—Potatoes do best on a soil full of humus or vegetable mold. A good clover sod plowed down is excellent for potatoes.

Planting.—The last days of May or first of June is the best time to plant. Plant in hills or drills; the latter preferred. Plant rather close together in the drill, and plant deeply—about five inches gives good results. Potatoes always grow above the seed. Plant as soon as possible after cutting, in a furrow. Cultivate deeply at the start; flat cultivation is preferable. For destroying beetles, apply Paris green and lime with a spray pump. Varieties for late planting are Empire State, Summit, Thornburn, Rural New Yorker. Early varieties—Early Puritan, Burpee's Extra Early.

MANURES.

Manure is a term applied to anything which we put back upon the soil to increase its fertility. Every farmer should keep stock enough to consume all the fodder and coarse grains grown upon his farm, as the manure thus produced is the great source of fertility. The quality of the manure depends upon the food fed to the stock. If the feed be poor, the manure is also poor. When all the animals are fed a grain ration every day, the quality of the manure is much improved. If there is not too much snow and the land is level and fairly well drained, the best results are obtained by drawing directly to the field and spreading evenly on the land. If the manure is left in the barnyard, it should be spread evenly over a given area removed from the drippings of the roofs, and the manure from the pig sty, the horse stable, and the cattle barns should be mixed in the one pile. This should be well tramped and made as solid as possible, in order to prevent fermentation. Keeping the manure in a covered shed is an advantage. Manure should be applied as near the surface as possible, and be thoroughly mixed with the soil.

MUNGO McNABB.

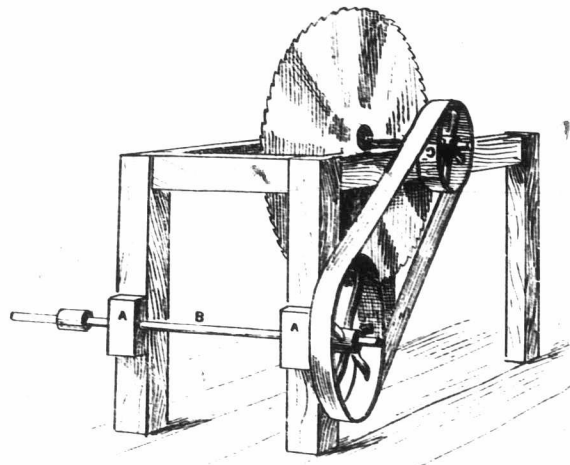
Mr. W. G. Pettit, of Freeman, Ont., the well-known breeder, in our "Gossip" Department states that he has had gratifying experience in feeding rape to his Shropshires, and says that so long as he keeps sheep he will never be without it again.

THE HELPING HAND.

Improved Jack.

J. G. COWIE, Haldimand, Co.:—"To increase the speed of cutting-box or circular saw:—

"Bolt boxings on to the end posts of cutting-box or circular saw, about 2 feet from the floor, (A A); hard maple blocks, 4 x 4 x 8 in., with hole bored in them the size of shaft, and oil hole, answer the purpose quite well. Get a piece of tumbling-rod or piece of steel shaft (B) cut 2 feet longer than width of cutting-box, and have each end squared so that the tumbling-rod knuckle will fasten to either end. Get an old threshing machine pulley from 2 to 2½ feet in diameter and fasten with set-screw or wedge on shaft (B), as close to boxing

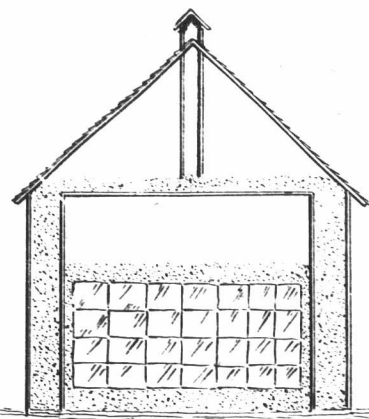


as it will run. If there is not already a pulley on main shaft (C), another old one may be procured, from 8 to 12 inches in diameter, so as to have the large pulley 2½ to 3 times the diameter of small one. Connect with a piece of rubber belting tightly laced. Connect tumbling-rods with either end of shaft (B), and you can set your cutting-box on the ground or barn floor and cut all day without so much as a nail or brace to keep it in position.

"We placed this device upon our cutting-box two years ago, at a cost of \$2.00, besides our own work, and find it far superior to any jack or extra gearing I have ever seen."

An Ice House on the Farm.

T. P. HART, Oxford Co.:—"A very convenient and almost necessary building on a farm nowadays is an ice house. For keeping milk over Sunday for the cheese factory or cooling the 'night's' milk in very warm weather, hang a pail containing a piece of ice in the can, or place the can in a large tub with pieces of ice around it. Where butter is made in the warm weather ice is also used for raising the cream, in deep-setting cans, and for keeping the butter firm for working. In marketing, firmness helps the price. As a luxury, ice may be used in the manufacture of cooling drinks, lemonade, and ice cream.

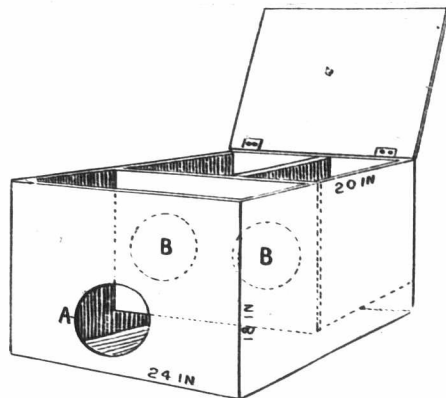


"In choosing a situation, the north side of a larger building, or under the shade of trees, is desirable. Attention must be paid to drainage, as there will always be more or less waste water during the summer, which must not be allowed to remain near the ice. For the foundation, it is not necessary or advisable to dig below the surface of the ground; put about a foot of sawdust over the bottom. The frame is made of 2 x 4-inch scantling, twelve or fourteen feet square on the outside, and at least eight feet high. It is best to put on a good, shingled roof, which helps to keep out the heat as well as the rain. Board it up inside and out with any rough lumber, also put a ceiling in, which is covered with sawdust. The first winter the writer only left a space of four inches between the inside and outside walls, but the next year this was changed to sixteen inches, and well packed, with much better results. The thicker wall keeps the ice without much sawdust between the inside wall and the ice itself, and saves the trouble of shovelling over so much of the packing material near the end of the season. A small ventilator is put in through the ceiling and roof. Along in January or February we go to a neighboring pond, cut a hole with an axe, and proceed to saw into cakes about eighteen inches square, which is found to be the most convenient size. The cutting is done with an ordinary

cross-cut saw with a little more set than is used for sawing wood. Care should be taken to have all the squares as near one size as possible, and the sides perpendicular. Pack them together as closely as possible, filling in the small spaces with broken ice. Leave a space of three or four inches between the ice and the inside wall, to be filled in with the sawdust; also cover over the top layer, six or eight inches deep, with the same material. Ice tongs are not expensive, and are used in removing the ice from the water, but a board with a cleat across one end, thrust under the cake till the cleat catches the lower edge, may be used in place of the tongs. Examine the ice frequently during the summer, and fill in all spaces caused by melting. The cut shows a section of the ice house after it is filled."

Nest Box to Avoid Egg-Eating.

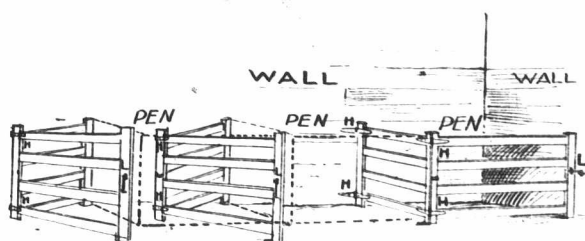
W. C. HUFF, Prince Edward Co.:—"The egg-eating habit, when once acquired, is difficult to break. The cause may be attributed to mismanagement in feeding, along with idleness at this season. Try this nest before they commence. Make a box 24 inches long, 20 inches wide, and 18 inches high; 'A' is an 8-inch entrance to passage before the nests; 'B B' is where the hen enters the nest; 'C' is lid at top for removing eggs. Make two ends and



a back for the box; then take a 10-inch piece that will go inside of box, nail it to ends and back, 5 inches from floor; this is the bottom for the nests. Next take a piece that will make a partition to separate nests; the next, a board for front; make two holes in it 8 inches from lower edge; put this up for front of nests, also to enclose 5 inches space under the nest-shelf; now put on front of the box with one entrance. The passage between the outside front and inside front makes it much darker. Complete it by putting on top."

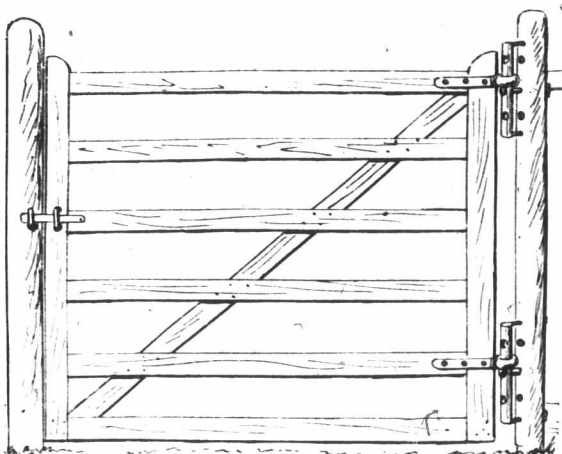
[NOTE.—Our artist has shown the whole top of box to be a lid, so as to more clearly show the construction of the inside. A narrow lid at the back is all that is necessary for the removal of the eggs.—EDITOR.]

Adjustable Pens.



WM. J. WILLIAMS, Ont. Co.:—"The above cut represents pens for sheep at lambing time, or cows at calving time. They are made of lumber, in the shape of common gates; it takes two of these gates, four hinges, one hook and two staples, to make one pen. In Fig. 'H H' are hinges and 'L L' are hooks; the cut shows how they work. They may be made behind where cows or horses stand if there is room; they fold back out of the way when not in use, and may be made any size desired."

A Gate for Snowy Countries.



J. J. MCGUIRE, Allumette Island, Que.:—"I enclose you an illustration of a handy farm-yard gate for snowy districts. It can be raised up from the snow by lifting and removing the pin to the highest hole in the hinge. These holes should be continuous into the post a few inches, so that the gate may have a solid bearing upon the bolt."

APIARY.

Ontario Bee-Keepers' Convention.

The annual meeting of the Ontario Bee-keepers' Association convened in Brantford on January 16th, 16th and 17th. The almost entire absence of a honey crop last year prevented a large attendance, and it was noticeable that some of those present were not in the best of humor, which condition had an undesirable effect upon the harmony of the sessions—more sweetness needed. Notwithstanding the fact that a programme was prepared that might have brought out much valuable discussion, the time was so much occupied with personal differences that not only was the time lost but peaceable members became so much disgusted and annoyed with the proceedings that almost all the utility was taken out of the convention. It is a matter for regret that expert bee-keeping delegates should gather together from the very extremities of the Province and not have an opportunity of teaching and learning lessons from each other's experiences, to be disseminated through the press, so that smaller bee-keepers may glean points whereby they may improve their methods. We would not be understood that the majority of the members who attend this convention from year to year are unreasonable cranks, but when a few men are allowed to break the peace of the whole gathering, the directors and other officers are more to blame than perhaps they allow themselves to believe. We have attended the last two annual meetings, and have come to the conclusion that unless the directors and officers combine against such dissensions as have characterized these two conventions, the money expended in holding such would be more productive if devoted to some better directed enterprise.

The President's Address dealt with the salient features of the industry. It was recommended that bee-keepers who get foul brood co-operate with the Inspector as carefully as possible in stamping it out. It gave him pleasure to realize that Europeans are seeking Canadian honey; he therefore felt the necessity of having the Pure Honey Bill passed, so that the reputation of Canadian honey may arrive at the position which will make it desirable to honey-consuming markets. The President also recommended that packages be stamped, on the same principle as the branding of Canadian cheese.

Foul Brood.—The report of the Foul Brood Inspector, Wm. McEvoy, showed that eighty-five bee yards were visited, thirty-two of which were affected with the disease. Owing to the severe frost in May, followed by the continued drouth, the brood of many colonies died from starvation, which in many cases was taken for disease, and therefore a great demand was made for inspection, which fact indicates that bee-keepers are becoming more anxious for visits from the inspector than heretofore. A few years ago much opposition was met from bee-keepers who now welcome inspection, knowing that the desire is to cure and not to kill, except when a cure can not be otherwise obtained.

Among the communications read was a letter from the Rev. W. F. Clark, Guelph, in which the Foul Brood Inspector was strongly condemned for having destroyed a number of his colonies by fire. To this, Mr. McEvoy explained that he had spent a great deal of time endeavoring to have a cure effected, but ultimately found that destruction by fire was the only wise method to pursue. After hearing both sides of the case, the convention endorsed the Inspector's actions in this as in all other cases. A vote of thanks was then tendered to him for his good work, and a resolution was passed to the effect that the Association have confidence in their Inspector, and that they believe his method of cure is the best known.

The Pure Honey Bill.—Mr. S. T. Pettit reported on the Pure Honey Bill, which has been introduced into the House of Commons, but has not as yet passed all the readings. The purpose of the Bill is to prevent the production of sugar honey, and ultimately to have the same effect on the honey industry of Canada as the law against "filled" cheese has on the cheese reputation and business. Mr. Pettit was one of a committee last year to go to Ottawa in its interests, and, although he did not succeed in getting the Bill through, feels convinced that all that is necessary for its passage is continued effort by the Association for a short time longer. One very good argument in favor of such a Bill was the presence of a sample of adulterated honey brought to the meeting by one of the directors, who obtained it from a grocery store. It was in a glass vessel sealed with a paper stamped "Canadian honey." The stuff was mildly sweet, light in color, and thin. While it was not unpleasant to taste, its after effects were of such a character as to disgust a consumer with honey as an article of food. A sample of this so-called "Canadian honey" was recently subjected to the Dominion Analyst for analysis, when it was found to contain too much glucose syrup and more than the average per cent. of water. It was, therefore, evident that it had been adulterated with these substances. The only opposition offered to further pressing the passage of the Bill was by one member, who has always claimed that the Adulterated Foods Act already covers the necessary ground. He therefore considers it unwise to expend any more money over it. It was, however, claimed by several intelligent members that the presence of such stuff as was proved to be upon the market showed that the passage of such an

Act as is now being pushed is necessary in order to develop a demand for honey and to protect honest honey producers. It was resolved that Mr. Pettit's report be accepted, and also that the former committee still prosecute the passage of the Pure Honey Bill.

Honey Packages.—The question was asked, whether it were wiser to sell honey in packages, charging for gross weight for honey and package or for net weight of honey? For instance, when honey is ten cents per pound, is it wise to sell ten pounds net of honey in a pail, or should the value of the pail be retained in honey? Several dealers claimed that the price of the vessel should be added to the honey in asking a price, as it was difficult to get extra for the pail or to get it returned in good order. It was therefore advised that twenty-five-pound pails be used as far as possible, because the value of the pail was relatively small compared to the honey contained, and it is also of more value to the receiver, because of its size.

Foundation in Sections.—While all agreed that at least a starter be used all around the edge, so as to avoid creep holes between the wooden side and the comb, it was generally conceded that whole foundation of white wax, about ten or eleven feet to the pound, gave very satisfactory results in the production of comb honey. Too heavy foundation is apt to cause "fish-bone" comb.

Shipping Comb Honey.—It is fairly evident that Manitoba will furnish a good market for a large quantity of comb honey annually, if of good quality and well packed. It was advised that sections to be shipped should be full and uniform, and packed so tightly that they cannot shift or rub. Mr. Hall, who has shipped as high as \$1,100 worth to Manitoba in one shipment, without any loss, recommends that not less than two hundred pounds be put into a package, and that the package be long in form and have two handles, so that it may be lifted by R. R. men and not rolled and tumbled. Mr. McKnight, who also ships to Manitoba, recommends using light but strong cases holding twelve sections each, packed on edge, three high and four deep. He also recommended that the case have a glass front, and that the crate be protected by laths nailed up and down the ends, the back, and cornerwise across the front; the sections should have comb attached all around, and that excelsior be used as packing to avoid crushing.

Ventilation in Winter.—It is now generally admitted that upward ventilation is not desirable, but that front and back bottom ventilation should be given. It was recommended that the top of the hive be hermetically sealed with propolized cloth. For outdoor wintering, six inches of straw should form the top, side and back packing; a less thickness is desirable on the south side, so that the warmth of the sun may penetrate to some extent on bright days. It is advisable to have a dead-air space on top. The subject of packing was gone into, and brought out points to the effect that dry leaves, well packed in, are entirely best when there is any possibility of rain getting in; but where a positively water-tight roof and box is used, dry sawdust answers all requirements.

Wintering.—Mr. Pettit is of the opinion that in the dead of winter, if bees are in the very best condition, they will be in almost perfect quiet. Other good bee-keepers claim that the bees are all right when a low hum of contentment, so called, can be heard. The most generally accepted theory offered was that in large apiaries it is impossible to have all the colonies quiet at once. When they are in the best condition, the different swarms will each have their spells of humming and quietness.

Business.—The By-laws were adjusted to harmonize with the new Agricultural Act. It was also resolved that hereafter the reports of affiliated societies be in by December 1st, instead of January 1st, so that the annual meeting may be held in December.

A resolution was passed to the effect that each affiliated society be entitled to send two delegates to the annual convention, and the fee of five dollars paid by each affiliated society entitles the delegates to full privileges of members in voting, etc.

It was resolved, on recommendation of a committee appointed by the President,—That the President, Vice-President, 2nd Vice-President, and Secretary, each represent on the Board the district from which they come, and that each of the nine directors represent one of the remaining nine districts, so that each district has representation.

Election of Officers.—President, R. F. Holtermann, Brantford; 1st Vice-President, J. K. Darling, Almonte; 2nd Vice-President, W. J. Brown, Chard; Secretary, W. Couse, Streetsville; Treasurer, M. Emeigh, Holbrooke. Auditors—J. D. Evans, Islington; D. M. Heise, Bethesda. Foul Brood Inspectors—W. McEvoy, Woodburn; F. A. Gemmill, Stratford. Directors—W. B. Holmes, Athens; A. Pringle, Selby; J. W. Sparling, Bowmanville; A. Pickett, Nassagaweya; J. Armstrong, Cheapside; A. E. Sherrington, Walkerton; F. A. Gemmill, Stratford; W. A. Chrysler, Chatham; N. H. Hughes, Barrie. Delegates to Fair Boards—Toronto, R. H. Smith, Palmerston; Western, John Newton, Thamesford.

The next annual meeting will be held in Toronto in Dec., 1896. The date was left to the Executive.

An Open Session.—The second evening's meeting was thrown open to the citizens and partook of the nature of an entertainment. Mayor-elect Elliott very ably filled the chair. After welcoming the Bee-keepers to the "Telephone City," he made a few well-chosen and pleasing remarks. He ex-

pressed his appreciation of the work the Foul Brood Inspector is doing, and also wished the Association success in obtaining pure honey legislation. Mr. McKnight, of Owen Sound, delivered an eloquent address, which was attentively listened to. Mr. Holtermann, the newly-elected President, gave an interesting address on the past, present, and future of bee-keeping. Some references were made to the care of honey and to the natural history of the bee. He also hoped to see Canadian honey placed upon the English market by the Dominion Government. The programme was interspersed by highly appreciated selections given by the Telephone City Quartette. At the close of the entertainment the delegates were right royally banqueted by the newly-elected President.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

KNUCKLING HIND FETLOCK JOINTS.

J. W. TILSON, Algoma, Ont.:—"I have a spring colt, eight months old, which knuckles over on the hind fetlock joints when walking or standing. It is of the Clydesdale breed, and is fed chiefly on cut oat straw, oat chop, and a little hay. Will you kindly advise me through your columns what to do for it?"

[Knuckling is a partial dislocation of the fetlock joint; the pastern bone becoming nearly perpendicular, while the lower end of the bone rests upon and behind the center line of the foot. Causes:—Young, immature foals are often subject to this condition when predisposed, which passes away as age increases; when very pronounced, is due to a fixed position previous to birth. It may be due to a want of nutritious food, or from any cause that interferes with the process of digestion, where there is an increased call upon this apparatus without giving sufficient nutriment, as appears in this case. Treatment:—Give an increased diet of succulent food, such as carrots, etc., a grain ration once a day, and a mash of boiled flaxseed or linseed cake once a week. Place a piece of lime in the drinking-water with a view of supplying calcareous matter to the growing system. Some simple digestive powders will be found useful, as follows: Tartrate of potash, 2 ounces; carbonate of magnesia, 2 ounces; aniseed powder, 4 ounces. Mix thoroughly and give a teaspoonful night and morning in the animal's food.]

DR. WM. MOLE, M. R. C. V. S., Toronto.]

TO DRY A COW—TO FATTEN CATTLE.

SUBSCRIBER, Simcoe Co.:—"1. What can I give my cow to dry up her milk? 2. What can I give cattle to fatten them rapidly?"

[1. Feed the cow on dry food without grain for three or four days, with a scanty supply of water. Give alum, powdered, two drams; vinegar, half an ounce; water, half a pint; to be given every day until milk ceases to secrete. 2. The first condition is to give plenty of nourishing food. A good alterative powder may consist of: Sulphate of magnesia, one pound; carbonate of magnesia, one pound; carbonate of soda, one pound; aniseed powder, one pound; capsicum, one ounce; mix, and give a tablespoonful in each feed—a flaxseed mash—twice or three times a week.]

DR. MOLE, M. R. C. V. S., Toronto.]

VOMITON OR DROPPING THE CUD.

J. S. L.:—"I have a cow that vomits her food occasionally; is in good condition; good stable, well ventilated; fed on oat straw and lots of good water; is giving milk, and seems to be all right before and after; she is eight years old. Can you tell me cause, and cure? and oblige."

[The result of a form of indigestion usually caused by improper feeding. Change the food from oats and straw to bran mash, hay and roots—turnips if possible. Give the following laxative: Epsom salts, fourteen ounces; gentian and ginger, of each, six drams; dissolve in one quart of hot water; add half a pint of treacle, and give in one dose. After the laxative has operated, give, morning and evening, in bran mash for ten days: Bicarbonate of soda and gentian, of each, two drams.]

W. A. DUNBAR, V. S., Winnipeg.]

OVER-FED HENS.

J. S. L., Oak Lake:—"Would you tell me through your valuable paper what is wrong with my hens? Quite a number of them appear to get sleepy and seem to lose all power of their limbs; they will not eat for a day, and then get all right again. I have them penned off in part of the cow stable; they are not crowded in any way. I feed them wheat morning and evening, milk for drink, and boiled feed at noon, mixed with shorts; they are laying well."

[You are feeding your hens too much grain. Let them have, three times a week, a ration of animal food, such as scraps of meat. Instead of the milk give them a plentiful supply of pure water, also access to plenty of fine gravel.]

W. A. DUNBAR, V. S., Winnipeg.]

URETHRA CALCULI.

MANITOBA SHEEP BREEDER:—"I have quite a few ram lambs that have trouble in making their water; they seem to have gravel in the bladder, which gets down into the passage and blocks it up entirely. I have done everything I know of—changing the diet, withholding water, etc.—but the only relief I can find is to remove the appendix; they can then make water, but, of course, are no use for breeding purposes. Can you advise me through your columns?"

[The nature of the food, water, and lack of proper exercise are the chief causes of this affliction. In rams, the calculus is generally lodged in the vermiform appendix of the penis. When the location of the stone is determined, a longitudinal incision is made in the penis directly over the obstruction, and when extraction is accomplished the lips of the wound are brought together by a few silk stitches. This mode of treatment is superior to the one you have adopted of completely excising the appendix, as the animal may afterwards be able to exercise the procreative function. You should endeavor to give your lambs more exercise, and a change of diet. Sprinkle fodder three or four times a week with hydrochloric acid, four ounces; water, two gallons.]

W. A. DUNBAR, V. S., Winnipeg.]

Miscellaneous.

HOW TO BUILD A ROUND SILO.

C. ALBERT JERMEY, Simcoe Co., Ont.:—"Please let me know through the ADVOCATE how to build a round silo?"

[Mr. Jermey will find one description of how to build a round silo on page 135, April 1st (1895) FARMER'S ADVOCATE, and another by "J. F." in the present issue.]

HOG RATION—EAR LABELS.

A. MCF., Renfrew Co.:—"I have no roots this year, but a good supply of oats, barley, shorts, and bran. I expect my sows to farrow soon. (1) What do you consider the best food for sows after farrowing, to promote rapid growth in the little pigs? (2) Where can I get ear marks for my sheep, with name and number stamped on them?"

[(1) No less an authority than Mr. Theodore Louis, of Wisconsin, who very ably discussed hog-feeding at the recent Western Dairymen's Convention, recommended for sows suckling pigs a grain ration made up of two parts shorts and one part corn meal. To this he would add daily for each sow half a pound of oil meal, mix with this milk or water and feed warm. We would recommend the use of barley meal instead of corn in this particular instance; also, see Western Dairymen's report in this issue. (2) C. H. Dana, West Lebanon, New Hampshire, U. S. A.]

CORN SMUT.

HENRY WILSON, Cardwell Co.:—"Kindly publish in your valuable paper a remedy for smut on corn, which annoys us considerably."

[In the light of present knowledge, measures looking towards the lessening of loss by smut must be largely of a preventive nature. The fact that smut thrown or left upon the ground produces the disease in succeeding crops, and the apparent probability that infection may be brought about by the distribution of the spores, or sporidia, in manure, indicate (1) that rotation of crops should be practiced, and (2) that as much of the smut as possible should be destroyed before it comes to maturity. It will pay the careful farmer to cut out and burn the smut balls before the membrane covering them bursts and allows the spores to escape. The soaking of seed corn in copper sulphate solution, to destroy the adhering smut spores, has frequently been recommended, but the failure of experiments upon this line indicates that such a process is hardly worth while. The hot water method used to destroy the smut of oats and wheat, as recommended by Prof. Weed, in his "Fungi and Fungicides," is claimed to be a more satisfactory method. The mode of procedure is to provide two kettles or boilers on a cookstove—the first containing warm water, say 110° to 130°, and the second containing scalding water (132½ Fahr.). Place the grain in a wire or wicker basket or an open sack. Plunge the grain a few times into the cooler water, and likewise into the second vessel. Keep the temperature between 130° and 135°. The operation should be repeated eight or ten times in the hotter vessel during the treatment, which should be continued fifteen minutes. In this way every portion of the seed will be subjected to the action of scalding water. Immediately after its removal, plunge it into cold water, then spread out to dry. This should be done just before planting.]

CATTLE QUARANTINE.

SIDNEY A. DEUYES, Lennox Co., Ont.:—"Will you please publish in your valuable journal the quarantine regulations with regard to stock from United States into Canada. Do they make any difference with regard to young calves?"

[All cattle, old or young, imported into Canada from the U.S. (except those going through in bond), must spend 90 days in quarantine. There are stations at Halifax, N. S.; St. John, N. B.; Pt. Levis, P. Q., and Pt. Edward, Ont., as well as stations for Manitoba, the Territories, and B. C. The cost varies with the age of the animal, quantity and quality of feed furnished, etc., the average, including all expenses, being about from \$12 to \$15 per head.]

SANFORD CORN.

E. A. N., Missisquoi, P. Q.:—"What is your opinion of Sanford corn for silage, and also for pig feed, as compared with other varieties of corn?"

[We observe that the Dominion Central Farm experimenter places the Sanford 19th, in a list of 21 varieties tested at Ottawa, as to earliness and yield of fodder. It gave about half the amount of fodder per acre of some of the other sorts, namely: Rural Thoroughbred, White Flint, and Evergreen, Red Cob heading the list. It is, however, somewhat earlier than the two sorts mentioned, being nearly ripe when cut, while the other sorts were in early milk. The Angel of Midnight and North Dakota almost ripened at Ottawa, and yielded over 20 tons per acre of fodder, while the Sanford gave about 13½ tons. The Guelph (Ont.) Farm experimenter places the Sanford 22nd in a list of 30 varieties grown in 1894. It produced less than the average weight of ears per acre, and also stood rather low in point of yield of whole crop. We would, therefore, be strongly inclined to try other sorts for the silo and for hog feed, but we have had no experience with it ourselves.]

SOW EATING PIGS—CRIMSON CLOVER.

SUBSCRIBER, Grey Co.:—"1. What is the cause of a sow eating her pigs?"

[It will have been observed by pig breeders of any considerable experience, that in the case of litters farrowed in the autumn, when the sows have lived outdoors on scant fare during the summer, no trouble of this sort occurs. The same may be said of spring farrowing, when the dam has had the run of the barnyard. The whole trouble apparently arises from two high feeding, or a carbonaceous diet, accompanied with too close confinement before farrowing time, when the fevered condition always present then is so much increased by the over-pressure of blood upon the brain that she becomes crazy and vicious, when the offspring falls a victim to her depraved craving.]

"2. Please tell me the proper time and method of sowing Crimson and Lucern clover?"

[Crimson clover should be sown, in a climate like ours, by itself, as early in the spring as the ground can be gone onto. Work the surface up fine and sow about ten pounds per acre; then harrow in lightly and roll. Lucern clover is sown at the same time and in the same way as Red clover. The ground should be thoroughly mellowed and prepared by clean and careful tillage. The seed does best sown with a cereal crop, at the rate of about ten pounds per acre.]

CRIMSON CLOVER AGAIN.

J. H. FERGUSON, Peel Co., Ont.—See answer to another question on this subject in this department. Crimson clover produces considerable forage in the autumn of a favorable season. We have never known it to ripen and produce seed in Ontario. The plant is peculiarly suited to Delaware and other southern lands, but has so far failed to be of much value in Ontario.

BORDER LEICESTERS.

J. T. HURON Co.:—"What is the difference between Border Leicesters and other Leicesters?"

[The original type of Leicester was a large, coarse-boned, rather ungainly animal, generally spoken of as "Old Leicester." Robert Bakewell, of Dishley, spent a great deal of time and care in improving this breed of sheep, with great success. Since about the year 1760 this improved breed took the name of "New Leicesters," which might be termed a "creation" of Bakewell's. The Border Leicesters have for many years been quite a separate breed from the ordinary Leicester, although they were originally got from Bakewell's stock. In 1767, Messrs. George and Matthew Culley, who had been pupils of Bakewell, left him and went to the Border, taking with them a flock of Dishley Leicesters. They were soon after followed by Mr. Robert Thompson, another of Bakewell's pupils, who also established a Dishley flock at Lilburn, and then at Chillingham Barns. The merits of the sheep soon became recognized, and other flocks were started. The change of environment naturally altered the characteristic points of the Dishley Leicesters, and this, combined with selection and breeding for certain lines, soon gave the Border Leicesters a particular type of their own. It has been claimed that a Cheviot cross entered into their breeding, but authentic writers discredit this. They are somewhat longer and more stately than other Leicesters, and have whiter faces and legs.]

TO PROTECT SMALL FRUITS FROM RABBITS.

SIR,—In a recent issue, I notice that Mr. Stevenson, of Southern Manitoba, is troubled with rabbits in his orchards. Let him try the Australian cure and his fruit trees will flourish. Put a wire net fence, of a mesh too small for a rabbit to get through, all round his orchard. Set a strip of the same netting on the ground at base of the outside of the fence, to prevent the pests burrowing under, and no rabbit will ever get in to trouble him. If any are

in the orchard it will be an easy matter to hunt them down. The Australian colonies spent millions of dollars in trying to cope with rabbits, but never succeeded until one dry year a farmer fenced with wire net all his ponds and springs, and the rabbits died outside the fence by hundreds. Acting on this hint, Australian farmers fenced their farms with rabbit-proof wire net, laying a base to prevent the animals tunnelling under, and now the nuisance is rapidly abating, because once a place is cleaned they cannot come in again while the fence is kept up. Let your friends know this and they will bless you. I am in commercial business, but have farmed both in Ontario and Manitoba, and enjoy reading your paper when I get it. C. T.

VETERINARY.

Home Treatment for Farm Animals.

[From an address by F. Torrance, B. A., D. V. S., President of the Manitoba Veterinary Association.]

COLIC.

The commonest disease among horses in this country is colic. It is probable you have all seen horses affected with this distressing malady. Now, colic is the name given indiscriminately to a large class of derangements of the digestive organs, namely all those which are characterized by pain in the region of the bowels, no matter what the cause may be. And to simplify the subject we will divide all colics into two classes:—

1st. Colics caused by simple derangements of the stomach or bowels, and usually arising from some error in feeding or watering the horse.

2nd. Colics depending upon some disease or displacement of the bowels.

Now, between these two classes of colics it is impossible to draw a hard and fast line. As we see them in practice, it is frequently impossible to distinguish between a colic from the displacement of the bowels and colic from any other cause; and as it is beyond the skill of the surgeon to replace a twisted bowel in its proper position, you will readily see that these latter cases are always serious and frequently fatal. Indeed, a horse suffering from a twist in the bowels may be looked upon as a "gone goose," for it is only by the merest chance that the twist may uncoil itself. Fortunately, displacement of the bowel is not of very frequent occurrence, and the ordinary case of colic has a very different origin.

There is generally preceding the attack of colic a history of some change in the feed, either in quantity or quality. The animal may have accidentally received two feeds of oats at once, or has got loose in the stable and found his way to the oat box. Perhaps the owner is feeding him on sheaf oats and he is getting more grain in his ration than he can digest. Any sudden change to a different diet from the one he is accustomed to will often bring on an attack of colic in the horse, and horse owners should be careful, when making the change, to do so gradually and begin with a small feed of the new grain. During harvest months there are frequent cases of colic arising from the feeding of new oats, particularly oat sheaves. The watering time is important, and should always precede the feeding. The reason for this is apparent from a study of the horse's stomach and intestines. The stomach is comparatively small, and as a horse will frequently drink more at a time than the stomach can hold, it is evident that some of it at least must pass on into the bowel during the act of drinking. If the stomach is full of food at the time of watering, the smaller particles will be carried on by the water before they have been properly acted upon by the gastric juice, and the gastric juice is diluted to such an extent that it loses part of its digestive power. This system of watering after feeding is decidedly injurious to horses, and, if persisted in, has the effect of weakening the digestive organs and predisposing them to attacks of colic and indigestion.

Now, to come to the attack of colic itself, and how to handle it if it should unfortunately arise. We will suppose you go to the stable in the morning and find one of the horses on his back with his legs in the air; you make him get up, but he is no sooner up than he wants to get down again. He looks back at his flanks, throws himself down carelessly and rolls from side to side. You observe that his belly is not distended, the eye looks natural, and, if you can feel his pulse, you find it about 45 to 50. This horse is affected with that variety of colic called *spasmodic*, because it is supposed to be caused by painful gripping or spasms in the muscular coat of the bowels, owing to the presence of some irritant, such as undigested food, intestinal worms, sand, etc.

Now, the question is, How are you going to relieve him? You examine your resources and find they consist of a little aconite and sweet nitre, and perhaps a little pain-killer, and with the aid of these and perhaps a spoonful of pepper and ginger, you fix up a dose—kill or cure. This combination, which experience tells me is a fair average one,

may have the desired effect and relieve the pain and stop the rolling about; but there is another remedy which is always at hand and is usually very effective in relieving the pain of this form of colic—and that is *hot water*. Take a woollen blanket, fold it lengthwise, so that it will go round the horse's middle, wring it out of hot water as dry as possible and wind it quickly round his belly. Put it on as hot as the back of the hand can bear, change it every few minutes before it has time to cool, and, as a general thing, a few applications will give relief. Spasmodic colic is generally relieved by a good stimulant—spirits of any kind: whiskey, gin, or brandy; sweet nitre is one of the best stimulants for a horse. In addition to the stimulant, it is well to give a drug or spice that has a warming effect on the stomach, such as ginger or Cayenne pepper. The giving of aconite to horses for relief of colic is a practice that has little to commend it, and the poisonous nature of the drug ought to exclude it from the list of home remedies. Laudanum is another poisonous drug frequently administered to horses for colic, and is useful in allaying pain, but has the serious drawback that it checks the movement of the bowels, and may prevent the system from getting rid of irritating substances. Spasmodic colic is the least serious of all forms of colic, and many cases recover without any treatment at all, while the majority will get well with the use of the home remedies which I have spoken of. But there is another form of colic almost as frequent, but far more serious:—

(TO BE CONTINUED.)

LIVE STOCK MARKETS.

Toronto Markets.

Cattle.—Several French buyers were on the market from Montreal and cleared out the pens at an advance. The freight agent from the Intercolonial Railway was soliciting cargoes for the next sailing in February, and has space for a further consignment of cattle to Glasgow. Trade was of a much better character; prices ruling steady at a slight increase. The best feeders are scarce; only 20 loads on offer; 112 sheep, 632 hogs.

Butchers' Cattle.—There were far too many cattle on sale in the early part of the week. Mr. Halligan purchased 5 loads for Montreal; the ruling price is from 2½c. to 3½c. per lb.; extra choice went a little higher than the latter figure. Five cattle, 1,200 lbs. average, sold at \$32 per head; 9 cattle, nearly 1,200 lbs. average, \$30 per head; 19 cattle, 1,000 lbs. average, 2c. per lb.; 21 cattle, 975 lbs. average, \$2.50 per cwt. One carload, 1,100 lbs. average, \$2.40 cwt. One poor lot reported sold at \$1.

Export Cattle.—Good, fat steers were selling all right at 4c. per lb., and more would be given for the right sort, but they do not appear. Well-finished, thick, fleshy animals asked for and wanted in two weeks from date; exporters are expecting to ship early this season.

Milk Cows and Springers.—Trade was not good; top figure was \$35; only good ones wanted; five on offer.

Bulls.—Good shipping bulls are worth from 2½c. to 3½c. per lb.; none wanted for two weeks; none on sale to-day.

Pigs.—There are few on offer that are really desirable. Most of those offering are too light; they do not scale over 800 or 900 lbs.; a few were bought up by a wide-awake farmer for stall feeding, to be ready in April.

Sheep.—About the only deal to-day was a bunch of 34 head, 151 lbs. average, for which Mr. Jos. Lunness paid 3c. per lb.; 2½c. to 2½c. was the ruling price.

Lambs.—These were down a shade, prices ranging from 3½c. to 3½c. per lb.

Hogs.—This market shows good improvement in consequence of the price of bacon in Liverpool, England, taking an upward tendency of one shilling, or about 2½c. per 100 lbs. in two weeks. There were only 700 hogs on offer; all sold at better prices; a rise of 10c. per cwt. since last report. Choice bacon hogs sold from \$3.90 to \$3.35 and \$3.87; light hogs, 2½c. to 3½c. per lb.; fat, \$3.60 per cwt.; stags, 2c. per lb.; sows, 3c. per lb.; good demand at an advance for "storks"; 200 wanted for distillery.

Dressed Hogs were plentiful and market easier at \$4.50 to \$4.70 per cwt.

Grain Markets.—Very little wheat coming forward. As soon as the roads are good the bulk of the grain is expected from the country, if it has not already been marketed. There was a sharp advance in the price of wheat in Chicago this week. May options sold 6½c., an advance, compared with last week, of 3c. per bushel. On this market there has been a good advance and the farmers are holding back, though present price is above export basis.

Wheat.—On the street market, 200 bushels of wheat sold at 72c. for red and 74c. per bushel for white; the highest price this year. The offerings were small; there is a good demand from the millers, and the situation has improved since last report; the decrease in stocks in the city encouraged buying, this caused several cents advance. White, 73½c. to 74½c. per bushel; red, 72c. to 73c. per bushel; goods, 56c. to 60c. per bushel.

Oats.—Five hundred bushels of oats sold at 28c. per bushel.

Barley.—Four hundred bushels sold at 44c. per bushel; 1,000 bushels sold for export.

Mill Feed is in better demand; car lots of shorts are quoted at \$13 to \$14 per ton, and bran \$11 to \$12; market steady.

Hay.—About 10 loads of hay, at \$17.50 to \$18.25 per ton; one load, \$19.

Straw.—Three loads on offer, at \$11 to \$12 per ton, baled straw; oat straw is quoted at \$9 per ton.

Baled Hay.—American buyers are still operating in Quebec; there is also more enquiry from Western Ontario, where supplies are light and prices firm. Round lots of No. 1 Quebec, on track here, are quoted at \$15 and \$15.50.

Butter.—Receipts of creamery butter are slightly more than requirements. Choice fresh-made dairy on this market is quoted at 20c. to 25c. asked for; price steady; medium slow at 16c. to 20c.; low grade hard to sell at any price.

Eggs.—In consequence of the strong talk during the early part of the week, the market is much firmer and stocks lower. Choice cold storage, 15c. to 18c. per dozen; strictly new laid, 23c. to 25c.; higher prices looked for if the demand continues.

Cheese.—The demand for export is considerably improved; two carloads left this market for the Old Country. Full cream, September make, at 9½c. to 10c.; finest late made selling at 9c. to 9½c.

Poultry.—The receipts are light and demand good. Turkeys, 7c. to 8½c. per lb.; good demand; geese, 5½c. to 6c. per lb.; ducks, 50c. to 75c. per pair; chickens scarce, 30c. to 50c. per pair.

Hides.—No. 1 green, 5c. per lb.; No. 1 cured, 6c. per lb.; in one or two instances an advance of half a cent. Calfskins—Green, 6c. per lb.; cured, 75c. to \$1 each. Sheepskins—Green, 80c. each; early, 10c. each.

Wool.—As regards consumption, the prospects are good, the improvement in trade is very manifest, and there is indication of a very good rise with short supply. Fleeces combed, 24c. to 25c.; tub-washed fleeces, 22c. to 23c.; rejections, 17c. to 18c.; pulled supers, 21c. to 23c.; extras, 22c. to 23c.; combed, 22c. to 23c.

Act as is now being pushed is necessary in order to develop a demand for honey and to protect honest honey producers. It was resolved that Mr. Pettit's report be accepted, and also that the former committee still prosecute the passage of the Pure Honey Bill.

Honey Packages.—The question was asked, whether it were wiser to sell honey in packages, charging for gross weight for honey and package or for net weight of honey? For instance, when honey is ten cents per pound, is it wise to sell ten pounds net of honey in a pail, or should the value of the pail be retained in honey? Several dealers claimed that the price of the vessel should be added to the honey in asking a price, as it was difficult to get extra for the pail or to get it returned in good order. It was therefore advised that twenty-five pound pails be used as far as possible, because the value of the pail was relatively small compared to the honey contained, and it is also of more value to the receiver, because of its size.

Foundation in Sections.—While all agreed that at least a starter be used all around the edge, so as to avoid creep holes between the wooden side and the comb, it was generally conceded that whole foundation of white wax, about ten or eleven feet to the pound, gave very satisfactory results in the production of comb honey. Too heavy foundation is apt to cause "fish-bone" comb.

Shipping Comb Honey.—It is fairly evident that Manitoba will furnish a good market for a large quantity of comb honey annually, if of good quality and well packed. It was advised that sections to be shipped should be full and uniform, and packed so tightly that they cannot shift or rub. Mr. Hall, who has shipped as high as \$1,100 worth to Manitoba in one shipment, without any loss, recommends that not less than two hundred pounds be put into a package, and that the package be long in form and have two handles, so that it may be lifted by R. R. men and not rolled and tumbled. Mr. McKnight, who also ships to Manitoba, recommends using light but strong cases holding twelve sections each, packed on edge, three high and four deep. He also recommended that the case have a glass front, and that the crate be protected by laths nailed up and down the ends, the back, and cornerwise across the front; the sections should have comb attached all around, and that excelsior be used as packing to avoid crushing.

Ventilation in Winter.—It is now generally admitted that upward ventilation is not desirable, but that front and back bottom ventilation should be given. It was recommended that the top of the hive be hermetically sealed with propolized cloth. For outdoor wintering, six inches of straw should form the top, side and back packing; a less thickness is desirable on the south side, so that the warmth of the sun may penetrate to some extent on bright days. It is advisable to have a dead-air space on top. The subject of packing was gone into, and brought out points to the effect that dry leaves, well packed in, are entirely best when there is any possibility of rain getting in; but where a positively water-tight roof and box is used, dry sawdust answers all requirements.

Wintering.—Mr. Pettit is of the opinion that in the dead of winter, if bees are in the very best condition, they will be in almost perfect quiet. Other good bee-keepers claim that the bees are all right when a low hum of contentment, so called, can be heard. The most generally accepted theory offered was that in large apiaries it is impossible to have all the colonies quiet at once. When they are in the best condition, the different swarms will each have their spells of humming and quietness.

Business.—The By-laws were adjusted to harmonize with the new Agricultural Act. It was also resolved that hereafter the reports of affiliated societies be in by December 1st, instead of January 1st, so that the annual meeting may be held in December.

A resolution was passed to the effect that each affiliated society be entitled to send two delegates to the annual convention, and the fee of five dollars paid by each affiliated society entitles the delegates to full privileges of members in voting, etc.

It was resolved, on recommendation of a committee appointed by the President,—That the President, Vice-President, 2nd Vice-President, and Secretary, each represent on the Board the district from which they come, and that each of the nine directors represent one of the remaining nine districts, so that each district has representation.

Election of Officers.—President, R. F. Holtermann, Brantford; 1st Vice-President, J. K. Darling, Almonte; 2nd Vice-President, W. J. Brown, Chard; Secretary, W. Couse, Streetsville; Treasurer, M. Eneigh, Holbrooke. Auditors—J. D. Evans, Islington; D. M. Heise, Bethesda. Foul Brood Inspectors—W. McEvoy, Woodburn; F. A. Gemmill, Stratford. Directors—W. B. Holmes, Athens; A. Pringle, Selby; J. W. Sparling, Bowmanville; A. Pickett, Nassagaweya; J. Armstrong, Cheapside; A. E. Sherrington, Walkerton; F. A. Gemmill, Stratford; W. A. Chrysler, Chatham; N. H. Hughes, Barrie. Delegates to Fair Boards—Toronto, R. H. Smith, Palmerston; Western, John Newton, Thamesford.

The next annual meeting will be held in Toronto in Dec., 1896. The date was left to the Executive.

An Open Session.—The second evening's meeting was thrown open to the citizens and partook of the nature of an entertainment. Mayor-elect Elliott very ably filled the chair. After welcoming the Bee-keepers to the "Telephone City," he made a few well-chosen and pleasing remarks. He ex-

pressed his appreciation of the work the Foul Brood Inspector is doing, and also wished the Association success in obtaining pure honey legislation. Mr. McKnight, of Owen Sound, delivered an eloquent address, which was attentively listened to. Mr. Holtermann, the newly-elected President, gave an interesting address on the past, present, and future of bee-keeping. Some references were made to the care of honey and to the natural history of the bee. He also hoped to see Canadian honey placed upon the English market by the Dominion Government. The programme was interspersed by highly appreciated selections given by the Telephone City Quartette. At the close of the entertainment the delegates were right royally banqueted by the newly-elected President.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

KNUCKLING HIND FETLOCK JOINTS.

J. W. TILSON, Algoma, Ont.:—"I have a spring colt, eight months old, which knuckles over on the hind fetlock joints when walking or standing. It is of the Clydesdale breed, and is fed chiefly on cut oat straw, oat chop, and a little hay. Will you kindly advise me through your columns what to do for it?"

[Knuckling is a partial dislocation of the fetlock joint; the pastern bone becoming nearly perpendicular, while the lower end of the bone rests upon and behind the center line of the foot. Causes:—Young, immature foals are often subject to this condition when predisposed, which passes away as age increases; when very pronounced, is due to a fixed position previous to birth. It may be due to a want of nutritious food, or from any cause that interferes with the process of digestion, where there is an increased call upon this apparatus without giving sufficient nutriment, as appears in this case. Treatment:—Give an increased diet of succulent food, such as carrots, etc., a grain ration once a day, and a mash of boiled flaxseed or linseed cake once a week. Place a piece of lime in the drinking-water with a view of supplying calcareous matter to the growing system. Some simple digestive powders will be found useful, as follows: Tartrate of potash, 2 ounces; carbonate of magnesia, 2 ounces; aniseed powder, 4 ounces. Mix thoroughly and give a teaspoonful night and morning in the animal's food.]

DR. WM. MOLE, M. R. C. V. S., Toronto.]

TO DRY A COW—TO FATTEN CATTLE.

SUBSCRIBER, Simcoe Co.:—"1. What can I give my cow to dry up her milk? 2. What can I give cattle to fatten them rapidly?"

[1. Feed the cow on dry food without grain for three or four days, with a scanty supply of water. Give alum, powdered, two drams; vinegar, half an ounce; water, half a pint; to be given every day until milk ceases to secrete. 2. The first condition is to give plenty of nourishing food. A good alterative powder may consist of: Sulphate of magnesia, one pound; carbonate of magnesia, one pound; carbonate of soda, one pound; aniseed powder, one pound; capsicum, one ounce; mix, and give a tablespoonful in each feed—once a day—twice or three times a week.]

DR. MOLE, M. R. C. V. S., Toronto.]

VOMITION OR DROPPING THE CUD.

J. S. L.:—"I have a cow that vomits her food occasionally; is in good condition; good stable, well ventilated; fed on oat straw and lots of good water; is giving milk, and seems to be all right before and after; she is eight years old. Can you tell me cause, and cure? and oblige."

[The result of a form of indigestion usually caused by improper feeding. Change the food from oats and straw to bran mash, hay and roots—turnips if possible. Give the following laxative: Epsom salts, fourteen ounces; gentian and ginger, of each, six drams; dissolve in one quart of hot water; add half a pint of treacle, and give in one dose. After the laxative has operated, give morning and evening, in bran mash for ten days: Bicarbonate of soda and gentian, of each, two drams.]

W. A. DUNBAR, V. S., Winnipeg.]

OVER-FED HENS.

J. S. L., Oak Lake:—"Would you tell me through your valuable paper what is wrong with my hens? Quite a number of them appear to get sleepy and seem to lose all power of their limbs; they will not eat for a day, and then get all right again. I have them penned off in part of the cow stable; they are not crowded in any way. I feed them wheat morning and evening, milk for drink, and boiled feed at noon, mixed with shorts; they are laying well."

[You are feeding your hens too much grain. Let them have, three times a week, a ration of animal food, such as scraps of meat. Instead of the milk give them a plentiful supply of pure water, also access to plenty of fine gravel.]

W. A. DUNBAR, V. S., Winnipeg.]

URETHRA CALCULI.

MANITOBA SHEEP BREEDER:—"I have quite a few ram lambs that have trouble in making their water; they seem to have gravel in the bladder, which gets down into the passage and blocks it up entirely. I have done everything I know of—changing the diet, withholding water, etc.—but the only relief I can find is to remove the appendix; they can then make water, but, of course, are no use for breeding purposes. Can you advise me through your columns?"

[The nature of the food, water, and lack of proper exercise are the chief causes of this affliction. In rams, the calculus is generally lodged in the vermiform appendix of the penis. When the location of the stone is determined, a longitudinal incision is made in the penis directly over the obstruction, and when extraction is accomplished the lips of the wound are brought together by a few silk stitches. This mode of treatment is superior to the one you have adopted of completely excising the appendix, as the animal may afterwards be able to exercise the procreative function. You should endeavor to give your lambs more exercise, and a change of diet. Sprinkle fodder three or four times a week with hydrochloric acid, four ounces; water, two gallons.]

W. A. DUNBAR, V. S., Winnipeg.]

Miscellaneous.

HOW TO BUILD A ROUND SILO.

C. ALBERT JERMEY, Simcoe Co., Ont.:—"Please let me know through the ADVOCATE how to build a round silo?"

[Mr. Jermey will find one description of how to build a round silo on page 135, April 1st (1895) FARMER'S ADVOCATE, and another by "J. F." in the present issue.]

HOG RATION—EAR LABELS.

A. McF., Renfrew Co.:—"I have no roots this year, but a good supply of oats, barley, shorts, and bran. I expect my sows to farrow soon. (1) What do you consider the best food for sows after farrowing, to promote rapid growth in the little pigs? (2) Where can I get ear marks for my sheep, with name and number stamped on them?"

[(1) No less an authority than Mr. Theodore Louis, of Wisconsin, who very ably discussed hog-feeding at the recent Western Dairymen's Convention, recommended for sows suckling pigs a grain ration made up of two parts shorts and one part corn meal. To this he would add daily for each sow half a pound of oil meal, mix with this milk or water and feed warm. We would recommend the use of barley meal instead of corn in this particular instance; also, see Western Dairymen's report in this issue. (2) C. H. Dana, West Lebanon, New Hampshire, U. S. A.]

CORN SMUT.

HENRY WILSON, Cardwell Co.:—"Kindly publish in your valuable paper a remedy for smut on corn, which annoys us considerably."

[In the light of present knowledge, measures looking towards the lessening of loss by smut must be largely of a preventive nature. The fact that smut thrown or left upon the ground produces the disease in succeeding crops, and the apparent probability that infection may be brought about by the distribution of the spores, or sporidia, in manure, indicate (1) that rotation of crops should be practiced, and (2) that as much of the smut as possible should be destroyed before it comes to maturity. It will pay the careful farmer to cut out and burn the smut balls before the membrane covering them bursts and allows the spores to escape. The soaking of seed corn in copper sulphate solution, to destroy the adhering smut spores, has frequently been recommended, but the failure of experiments upon this line indicates that such a process is hardly worth while. The hot water method used to destroy the smut of oats and wheat, as recommended by Prof. Weed, in his "Fungi and Fungicides," is claimed to be a more satisfactory method. The mode of procedure is to provide two kettles or boilers on a cookstove—the first containing warm water, say 110° to 130°, and the second containing scalding water (132° Fahr.). Place the grain in a wire or wicker basket or an open sack. Plunge the grain a few times into the cooler water, and likewise into the second vessel. Keep the temperature between 130° and 135°. The operation should be repeated eight or ten times in the hotter vessel during the treatment, which should be continued fifteen minutes. In this way every portion of the seed will be subjected to the action of scalding water. Immediately after its removal, plunge it into cold water, then spread out to dry. This should be done just before planting.]

CATTLE QUARANTINE.

SIDNEY A. DEUYES, Lennox Co., Ont.:—"Will you please publish in your valuable journal the quarantine regulations with regard to stock from United States into Canada. Do they make any difference with regard to young calves?"

[All cattle, old or young, imported into Canada from the U. S. (except those going through in bond), must spend 90 days in quarantine. There are stations at Halifax, N. S.; St. John, N. B.; Pt. Lewis, P. Q., and Pt. Edward, Ont., as well as stations for Manitoba, the Territories, and B. C. The cost varies with the age of the animal, quantity and quality of feed furnished, etc., the average, including all expenses, being about from \$12 to \$15 per head.]

knowing whither he went. He reached the foot of the tower, wished for a horse, and, mounting, rode swiftly to Zola's home. The minister was just asking Eucisis if he would have Zola "to be his wedded wife," when in rushed Carlo. In his hand he held the ring. Eucisis fell dead, and Carlo clasped the unconscious Zola to his heart. He answered, "I will," in a clear voice, and the ceremony proceeded.

Sir Walter Scott and His Family.

A full account of this picture is given by Sir Walter Scott, in a letter which he wrote to the publisher of the engraving. He writes as follows: "This picture has something in it of a domestic character. The idea which our inimitable Wilkie adopted was to represent our family group in the garb of south-country peasants, supposed to be concerting a merry-making, for which some of the preparations are seen. The place is the terrace near Hayside, commanding an extensive view towards the Cildon Hills. 1. The sitting figure, in the dress of a miller, I believe, represents Sir Walter Scott, author of a few score of volumes, and proprietor of Abbotsford, in the county of Roxburghe. 2. In front, and presenting, we may suppose, a country wag, somewhat addicted to poaching, stands Sir Adam Ferguson, Knight, Keeper of the Regalia of Scotland. 3. In the background is a very handsome old man, upwards of eighty-four years old at the time, painted in his own character of shepherd. He also belonged to the numerous clan of Scott. He used to claim credit for three things un-

usual among the Southland shepherds: first, that he had never been 'fou' in the course of his life; secondly, he never had struck a man in anger; thirdly, that, though entrusted by his master with the management of large sales of stock, he had never lost a penny for his master by a bad debt. He died soon afterwards at Abbotsford. 4, 5, 6. Of the three female figures, the elder is the late regretted mother of the family represented. 5. The young person most forward in the group is Miss Sophia Charlotte Scott, now Mrs. John Gibson Lockhart; and, 6, her younger sister, Miss Ann Scott. Both are represented as ewe-milkers, with their leylins, or milk-pails. 7. On the left hand of the shepherd, the young man holding a fowling-piece is the eldest son of Sir Walter, now Captain of the King's Hussars. 8. The boy is the youngest of the family, Charles Scott, now of Brazen Nose College, Oxford. The two dogs were distinguished favorites of the family: the large one was a stag-hound of the old Highland breed, called Maida, and one of the handsomest dogs that could be found; it was a present from the Chief of Glengary to Sir Walter, and was highly valued, both on account of his beauty, his fidelity, and the great rarity of the breed. The other is a little Highland terrier, called Cruishe (goblin), of a particular kind, bred in Kintail. It was a present from the Honorable Mrs. Stewart Mackenzie, and is a valuable specimen of a race which is now also scarce."

The King Didn't Know.

King Frederick VI. of Denmark, while traveling through Jutland, one day entered a village school, and found the children lively and intelligent and quite ready to answer his questions. "Well, youngsters," he said, "what are the names of the greatest kings of Denmark?" With one accord they cried out, "Canute the Great, Waldemar, and Christian IV." Just then a little girl, to whom the schoolmaster had whispered something, stood up and raised her hand. "Do you know another?" asked the King. "Yes; Frederick VI.!" "What great act did he perform?" The girl hung her head and stammered out, "I don't know." "Be comforted, my child," said the King; "I don't know either."

THE QUIET HOUR.

Repentance and Faith.

There was a ship, one eve autumnal, onward
Steered o'er an ocean lake;
Steered by some strong hand ever as if sunward:
Behind, an angry wake;
Before, there stretched a sea that grew intenser,
With silver-fire far spread,
Up to a hill mist-gloried, like a censer,
With smoke encompassed;
It seemed as if two seas met brink to brink,
A silver flood beyond a lake of ink.

There was a soul, that eve autumnal, sailing
Beyond the earth's dark bars,
Toward the land of sunsets never paling,
Toward Heaven's sea of stars:
Behind, there was a wake of billows tossing;
Before, a glory lay.
O happy soul! with all sail set, just crossing
Into the Far-away;
The gloom and gleam, the calmness and the strife,
Were Death before thee, and behind thee Life.

And as that ship went up the waters stately,
Upon her topmasts tall
I saw two sails, whereof the one was greatly
Dark, as a funeral pall.
But oh! the next's pure whiteness who shall utter?
Like a shell-snowy strand,
Or when a sunbeam falleth through the shutter
On a dead baby's hand;
But both alike across the surging sea
Helped to the haven where the bark would be.

And as that soul went onward, sweetly speeding
Unto its home and light,
Repentance made it sorrowful exceeding,
Faith made it wondrous bright.

ance of effort mars any performance. All truly great things are done easily and unconsciously. The principle is just as true in its application to Christian life. When one is conscious of his spiritual graces, the beauty of these graces is marred. When a man knows that he is humble, his humility vanishes. When one has to make effort to be generous, patient, or unselfish, he has yet much to learn about these elements. The highest reach in Christian character brings the disciple back to the simplicity of a little child, when he is utterly unconscious of the splendor of his character in Heaven's sight.

This is the culmination; but it takes many years, oftentimes, to attain to such completeness. Take piano-playing. You listen, entranced, to the skillful performer. His fingers fly over the keys, and you are utterly amazed at the skill he exhibits. Yet it seems no effort to him; he does it all as easily as the bird sings its morning song. This is the ultimate of his art; but it was not always so. Back of what you now see and hear, lie long, patient years of weary, toilsome learning, when he had to pick out each separate note on the keyboard, then pass to the next and search for that.

So, you see, a Christian who is very patient is not easily provoked. When he is insulted, his face grows a little pale, but there is no outburst; no anger clouds his brow; no passionate word escapes his lips: he speaks gently, or is silent. He displays the graces of the spirit in unusual measure. He manifests Christ's hidden life wherever he goes. His life is one of great usefulness, as, with beautiful unselfishness, he ministers to the good of others. It appears easy and natural for him to be just such a Christian, and he seems unconscious of any pre-eminent attainments.

Looking at such characters and lives, many feel discouraged. They say, "I can never be such a Christian"; or perhaps they take another view of it, and say: "It costs these men or women nothing to be good Christians: it is easy and natural to them. They have to make no effort to be unselfish or good-tempered. If they had my quick, fiery nature, they could not be so." Many people seem proud of a quick temper, and rather despise a man who is "not easily provoked."

No doubt there is something in temperament; but there is far less than many of us claim. It is very convenient to have such a scapegoat on which to pile the responsibility for bad temper and bad living; but the difference usually is in the culture of the life. It is just as in the case of the pianist. You see the matured character, the disciplined spirit, the trained life, and you marvel at the ease, the perfectness, the unconsciousness, with which these beautiful things are done; but you know nothing of the years that lie back of these results, in which there were exertions, efforts, struggles, and failures, amid which, a thousand times, hearts grew faint, and spirits sank almost in despair.

The tendency of all faithful and true living is toward the confirmation and solidifying of character. He that continually struggles to be unselfish, will have many a conflict and many a defeat; but at length he will learn to exercise an unselfish spirit without any exertion. The wheels have run so long and so often in the one track, that they have cut deep grooves for themselves, into which they fall as if by nature. This shows that, instead of piecemeal obedience, holy principles have become wrought into the very fiber of the soul. There may be less feeling, less emotion, but the character has taken on the stamp of holiness.

(TO BE CONTINUED.)

Truth is infinite, and we cannot clasp it in our finite arms: yet we may live in its light, and learn more and more of the grand meaning, if we but sincerely, honestly, and patiently tread the straight road of intellectual virtue.

Of all the evil spirits abroad at this hour in the world, insincerity is by far the most dangerous.



SIR WALTER SCOTT AND HIS FAMILY.

Repentance, dark with shadowy recollections
And longings unfulfilled
Faith, white and pure with sunniest reflections
Full from the face of Christ:
But both across the sun-besilvered tide
Helped to the haven where the heart would ride.
—Rev. W. Alexander, D. D.

"Habits in Religious Life."

Some conscientious people are anxious because their religious life has become such a matter of habit that they are not conscious of any voluntary efforts to live right. They feel that their services cannot be pleasing to God when rendered without any conscious desire to honor Him. They are oppressed with the fear that their comfortable religion is really only formality. They pray at certain hours, and go to church at certain times, and go through regular routines of duties, and they seem to do good by routine rather than from the heart. The methodicalness of their piety frightens them when then think seriously about it: it seems to them that in all their acts of devotion and service there should be a spontaneous feeling, ever fresh and sweet.

A little reflection will show us that such anxiety is groundless. All true greatness is unconscious of itself. It is so of beauty. The sweetest feature in childhood is its unconsciousness of self. The highest skill in any art is that which is not conscious of skill. Poets do their best work when they are conscious of no effort. Artists reach their highest achievements when they are conscious of making no great exertion. The appear-

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

Already one snowy page of our new book bears the ineffaceable tracery that time is ever tirelessly but noiselessly inditing, and soon we shall cease to speak of this as the New Year. I am delighted to notice an increase of interest in the puzzle column; and while it affords me much pleasure to see new faces (or rather names), I am always glad to welcome the old contributors, another of whom makes his appearance this issue, bringing with him a friend. That the cousins have not forgotten the art of "posing" is evident from the good puzzles I have received.

I am glad to hear from you again, T. W., and thank you for bringing your friend. If each of the boys and girls would do as much, we would soon have a large and merry family once more.

I will try and have the Illustrated Rebus again, Lily, since some of our readers miss it.

You are a very clever boy, J. S. C.; only nine years old, and in the Fourth Reader! I hope to often hear from you.

No, indeed, Chris, I have no intention of neglecting my boys and girls, but will try to have my usual chat with them every month, as I would feel quite lonely without it, and in return I hope they will not quite forget their old uncle, but will send him a letter occasionally. Letters for me may be sent with the puzzles, and will reach me later on, thus saving additional postage.

Some time ago I mentioned that we might have some other contests during this year, but as I have not yet decided what they will be, I have concluded to ask you all to write and tell me what sort of contest you would like. This department is specially intended for the entertainment of the younger folks, and I wish to make it as interesting as possible. Now, you can aid in so doing by writing and telling what you would like best; if there be any new features you would like introduced; and whether you prefer money or book premiums. I also ask the puzzlers to mention whether they prefer to have the prizes awarded quarterly, as at present, or yearly, as formerly. Don't be afraid to offer criticisms or make suggestions; the first will not offend us, and, whenever practicable, we will try to carry out the latter. Would you like to have shorter letters from me, and the space devoted to "chit-chat" with contributors? Awaiting the opinions of all my young readers, I remain,

Your devoted old— UNCLE TOM.

My Cat and I.

Just at dusk, at my study door,
Four little white feet stand on the floor,
Four little white feet leap to my knee,
And a beaming face looks up at me.
Oh, full many a love I've known,
But never a heart so much my own,
Never a grateful soul like that—
And this is the way I love my cat.

Every day, through storm or shine,
This rapturous greeting still is mine;
Every night on my knee she lies,
Watching my face with her crystal eyes;
Through fame well gained, or a lost renown,
If stocks go up or if stocks go down,
Faithful forever as faith can be—
That is the way my cat loves me.

Oh, my pussy! the world is round;
In it full many a friend I've found.
When I was rich they bent the knee,
And when I was poor they frowned on me;
But, rich or poor, you have loved me still,
You share the good as you shared the ill;
So, while we live, and when we die,
May we be together, my cat and I!

—Mary Field Williams.

Tests of Pronunciation.

The following composition, according to a writer in the *Homiletical Review*, came from a teachers' institute in Pennsylvania. He asserts that not one in fifty will read it correctly at sight. Submitted to bishops, editors, professors, authors, etc., it has never been read, in his hearing, with less than five errors, while he has known ministers of considerable prominence to miss twenty-eight of these common words:—

A sacrilegious son of Belial, who suffered from bronchitis, having exhausted his finances, in order to make good the deficit, resolved to ally himself to a comely, lenient and docile young lady of the Malay or Caucasian race. He accordingly purchased a caliope, and a necklace of a chameleon hue, and, having secured a suite of rooms at a leading hotel near the depot, he engaged the head waiter as his coadjutor. He then dispatched a letter of the most unexceptional caligraphy extant, inviting the young lady to a matinee. She revolted at the idea, refused to consider herself sacrificable to his designs, and sent a polite note of refusal; on receiving which he said he would not now forge fetters hymeneal with the Queen. He then procured a carbine and a bowie-knife, went to an isolated spot behind an abode of squalor, severed his jugular vein, and discharged the contents of the carbine into his abdomen. The debris was removed by the coroner, who, from leading a life in the culture of belles-lettres and literature, had become a sergeant-at-arms in the Legislature of Arkansas.

For Valentine's Day.

What though the skies be cold and gray,
And winds be wild and shrill,
Love's messenger shall find his way
Across the vale and hill:
For sunlight he shall have your face;
For stars, two eyes that shine
Where my heart has its dwelling-place—
Your own, dear Valentine!

He turns to neither left nor right,
But straight ahead he goes;
His guide is Hope, whose footstep light
The surest pathway knows.
He bears my message in his scrip—
A song whose every line
Shall turn to music on your lip,
My own dear Valentine!

Oh, when you hear his eager knock
Upon the door begin,
Make haste to lift the heavy lock
And bid young Cupid in.
Glad then shall gleam the skies above,
And glad this heart of mine
To be at last with her I love—
With you, dear Valentine!

—Frank Dempster Sherman, in *February Ladies' Home Journal*.

Advertisement Curiosities.

Curiously worded advertisements, which are funny without intent, are more common in the English papers, it would seem, than they are in publications on this side. An English periodical offered a prize the other day for the best collection of such announcements, and the following is the result:—

"Annual sale now on. Don't go elsewhere to be cheated—come in here."

"A lady wants to sell her piano, as she is going abroad in a strong iron frame."

"Wanted, experienced nurse for bottled baby."

"Furnished apartments suitable for gentlemen with folding doors."

"Wanted, a room by two gentlemen about 30 feet long and 20 feet broad."

"Lost a collie dog by a man on Saturday answering to Jim with a brass collar round his neck and a muzzle."

"Wanted by a respectable girl, her passage to New York, willing to take care of children and a good sailor."

"For sale—a pianoforte, the property of a musician with carved legs."

"Mr. Brown, furrier, begs to announce that he will make up gowns, capes, etc., for ladies out of their own skin."

"A boy wanted who can open oysters with a reference."

"Bulldog for sale; will eat anything; very fond of children."

"Wanted—an organist and a boy to blow the same."

"Wanted a boy to be partly outside and partly behind the counter."

"Wanted for the summer, a cottage for a small family with good drainage."

"Lost, near Highgate archway, an umbrella belonging to a gentleman with a bent rib and a bone handle."

"Widow in comfortable circumstances wishes to marry two sons."

"Wanted, good boys for punching."

"To be disposed of, a mail phaeton, the property of a gentleman with a movable head piece as good as new."

The Little Queen of Holland—She Probably Envis Her Girl Subjects Their Unrestrained Freedom.

Arthur Warren contributes a very bright and interesting article (illustrated) on "The Little Queen of Holland" in *February Ladies' Home Journal*. He presents this almost idolized girl sovereign in a graceful pen picture, tells of her daily life, her studies, her diversions, her toys, her pets, and of her patriotically reciprocated love of her subjects. Mr. Warren has sweetly pictured her in these words: "She is a bright-faced, blonde little lassie, who passed her fifteenth birthday on August 31, 1895. She is rather pretty, and has a slender, graceful young figure. I have seen her dressed in the peasant costume of Zeeland, and she looked for all the world like one of George Boughton's dear, delightful Dutch maidens, except that her cheeks were not ruddy. She has a very delicate, clear complexion; her hair is pale brown, and long and wavy; her eyes are blue and there is a delicious twinkle in them which suggests that the young girl has a fair sense of humor. Her Christian names are Wilhelmina Helena Paulina Maria. I suppose that if Wilhelmina I. were asked by some staunch democratic maiden of her own age, whether in the dignities of Queenship there is much satisfaction for a little girl, she would answer 'No.' To be sure, there is some amusement to be got out of her position, but not so much as if the girl were the daughter of a rich Dutch burgher, or of a farmer in that wonderful country where the peasants are like walking jewelers' shops, and where the land flows with canals and honey. For one thing, the playmates of the child Queen can be very few, and, as there is no bevy of brothers and sisters in the family, the girl's life has so far been spent almost entirely among persons much older than herself. There is a genuine affection for her throughout the country, and with good reason, for she is a very lovable child. The sweetness of her nature shines out through her face. She has the most winsome smile that you could wish to see. She appreciates her position thoroughly; that is to say, as thoroughly as a girl of her years can appre-

ciate such an exceptional condition as Queenhood; and she is amusingly particular about the dignities which encompass her. For all that, she is delightfully considerate of others. Her servants worship her, Dutch children adore her, and everybody who comes into contact with her speedily becomes very fond of her.

Puzzles.

1—ANAGRAM.

From puzzling for some time I've rested,
And my cousin's patience I have tested;
And for some longer time 'twill last,
So from this sport my soul must fast.
Of the great reforms which you have made
In the *ADVOCATE*, I've lately read
Of how that artful, witty maid
Takes Uncle Tom's cares in his stead.
But now with my lot I must comply
Until I can on the times rely,
And the *NAG I REST ON I* am bent
Is one on which I must be content.

T. W. BANKS.

2—CHARADE.

'Tis a long time ago since first I saw
In the columns of the *ADVOCATE*,
The names of several puzzlers bright,
Who since have met their fate.

I would like to be a puzzler
And a nephew of Uncle Tom,
And so help on the puzzling
And bring it FIRST-long.

For I believe that puzzling
Is THIRD for all mankind;
I better pastime would not want
Than the answers to find.

'Twas one of the cousins who asked me
To try a puzzle or two;
MY SECOND was great, but hard I tried,
And this is what I did do.

Although my COMPLETE at first was great,
It much has passed away;
I hope to see this in the *ADVOCATE*
At a very early day.

H. A. BRADLEY.

3—DROP LETTER.

B-t-e-t-d-s-c-i-d
A-d-u-d-d-h-r-y-u-o.

IRENE M. CRAIG.

4—METAMORPHS.

Value of letters:—
A=500 I=1 R=80
B=300 K=250 S=7
C=100 L=50 T=160
D=500 M=1000 U=5
E=500 N=900 W=55
F=40 O=11 or 0 X=10
G=400 P=100 Y=150
H=200 Q=500 Z=2000

If 2501160500 = Kite,

What does (1) 100002507,
(2) 300002507,
(3) 1605030050500,
(4) 100200500807,
(5) 30050050160 equal?

LILY DAY.

5—DECAPITATION.

I FIRST began puzzling
Myself to COMPLETE,
And cracked a few nuts,
The kernels to eat.

Quite pleased with my efforts,
Emboldened I grew,
And dreamed to become
A puzzler too.

So, high I aspired,
And vaguely I reckoned,
And ere long began
Courting my SECOND.

"Success crowned my efforts,"
You'll know by the past;
And puzzling to me
Has been of great LAST.

C. S. EDWARDS.

SOLVERS OF JAN. 1ST PUZZLES.

Charlie S. Edwards, Clara Robinson.

Scene:—The bar parlor of Prince George, Brixton. Pipes and beer all round. An old salt saying: "I've got a riddle to ask you chaps. If a 'erring and a 'alf cost three farthings, 'ow many could you buy for sixpence?"

Profound silence and much puffing of pipes. Presently a voice from the corner:

"I say, Bill, did you say 'errings?"

"Yes, I said 'errings."

"Drat it, I've been a-reckoning of pilchards all this 'ere time!"

SOCIETY SNAP-SHOTS.

Under this heading we shall be glad to receive correspondence from our friends, relating to social events of interest. Our space will not admit of lengthened details; we therefore request that the notices be brief. We think that this additional department to the *ADVOCATE* will prove interesting to its many readers.

All communications to be addressed to "Minnie May," *FARMER'S ADVOCATE*.

"Society Snap-Shots" is our elegant name,
And we want now to chronicle every game
That is played by the youths and the maidens fair,
Who sing and who dance and go every where.

For description of dresses we haven't much space,
So will try to imagine the silks and the lace.
We don't mean to tell who's "engaged" and who's not,
Because all such news might bother a lot.

We want news of all, irrespective of age—
The old and the young, the silly and sage.
We just want to know what is done "up to date,"
That our readers may see in our own *ADVOCATE*.

New Music.

"The Song of the Southern Maiden," an exceedingly pretty song for medium voice. Music by Albert Nordheimer. Published by A. & S. Nordheimer, Toronto.

To any of our subscribers furnishing the required number of names we will send per mail or express, as most convenient, the following premiums, charges prepaid on all except Animals:

"Canada's Glory" Our New Premium Picture!

A beautiful engraving representing eleven of the grandest light horses in Canada. Should adorn the drawing-room of every lover of the horse. Will be a life-like and popular work of art, unequalled in live stock portraiture.

HOW "CANADA'S GLORY" MAY BE OBTAINED:

Any subscriber sending us one new subscription for the FARMER'S ADVOCATE, accompanied by \$1, will receive a copy. Price, 50c. Copies of "Canada's Pride" or "Canada's Columbian Victors" may still be obtained by sending us the name of one new yearly subscriber for each. Price, 25 cents each.

THE SILO and ENSILAGE== New Book Premium. How to grow Ensilage Corn.

How to build, fill, and feed from a Silo. Most complete work yet issued.

HOW TO SECURE A COPY.--Any subscriber sending us one new subscription and \$1 will receive a copy, paper bound; or, for two new subscriptions and \$2, a copy well bound in cloth. Price, paper, 50 cents; cloth, \$1.00.

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How to get a first-class Collie:



To any subscriber sending us the names of 10 new yearly paid-up subscribers we offer a young Collie, six weeks old or over, eligible to registration, and bred by Mr. R. McEwen, Byron, Ont. (See page 453, Nov. 15th '95 issue, for fuller description.)

LIVE STOCK

To those desiring pure-bred stock of any breed as a subscription prize, we are prepared to supply same on most favorable terms.

How to get the "Farmer's Advocate" FREE!

FOR SENDING us the names of 3 new yearly paid-up subscribers we will give free, 12 months' subscription to the FARMER'S ADVOCATE.

A. J. C. Jersey Bull Calf

(SIX MONTHS OLD.)
For sixty new yearly paid-up subscribers, or thirty new subscribers and \$20 additional cash. Sire, Carlo of Glen Duart 15037; dam, Mina of Arklan 60224. This is a great opportunity to get a choice animal easy.

WE ARE HAVING A WONDERFUL RUN ON OUR WATCH AND RING PREMIUMS, EVERY ONE RECEIVING THEM IS PLEASED.



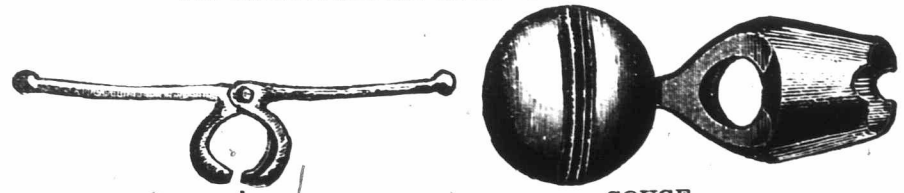
DUKE (PLAIN).

A thoroughly reliable 18 size watch with a Genuine American lever movement. Runs over 30 hours. Total weight, only 4½ ounces. They are perfect time-keepers.

The watch, with chain and charm, will be given to any subscriber sending us the names of three new yearly paid-up subscribers.

THE HAAFF DEHORNING TOOLS

FOR CALVES FROM SIX WEEKS TO SIX MONTHS OLD.



OUT-CUTTER.

GOUGE.

EASY, QUICK, CHEAP. (See Thos. Baty's letter, page 47.)

One set of these tools will be given any subscriber sending us the names of FOUR new yearly paid-up subscribers. Cash price, \$1.50 per set.

IF PREFERRED, WE GIVE LIBERAL CASH COMMISSION.

To find the size of ring required, take a narrow strip of paper that will draw tightly around the finger, forward same to us, and we will assure you a perfect fit.

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3 Pearls.
3 New Subscribers. | No. 4—Price, \$2.00.
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3 New Subscribers. |

LADIES' REAL STONE SETTING.

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5 New Subscribers. | No. 6—Price, \$3.50.
2 Garnets, 5 Pearls.
5 New Subscribers. | No. 7—Price, \$3.50.
1 Garnet, 2 Pearls.
5 New Subscribers. | No. 8—Price, \$2.00.
3 New Subscribers. |

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3 New Subscribers. | No. 10—Price, \$4.00.
6 New Subscribers. | No. 11—Price, \$2.50.
Wedding.
5 New Subscribers. | No. 12—Price, \$3.50.
Beautifully Chased.
10 New Subscribers. |

NOTICES.

In writing to advertisers please mention the Farmer's Advocate.

Cultivation is one of the great essentials of success in gardening and farming. To secure proper implements is half the battle.

A WORD TO SHEEP AND CATTLE MEN. Some important reasons why "Little's Non-poisonous Liquid Sheep and Cattle Wash" should be used.

DEHORNING CLIPPERS. Mr. A. C. Brosius, Cochranville, Pa., the manufacturer of the Keystone Dehorning Knife, writes us that the Canadian demand has so much increased during the past season that it has become necessary to manufacture them in this country.

THE USE OF CLIPPERS. Sir.—I note in your issue of January 1st, page 9, that you give a short article (report farmers' institute meeting) on dehorning, in which the writer recommends tying twine around the horn to prevent bleeding.

Mr. A. B. Campbell, V.S., Berlin, Ont., writes us: "I may say that I have used the Keystone Dehorning Clipper for the past year, operating on over one thousand head of cattle."

BOOK TABLE.

The Shoemaker Incubator Company's catalogue of Incubators and Brooders should be in the hands of every poultryman who has any notion of introducing artificial incubation into his practice.

The "Farmer and Stock-Breeder Year Book," or the "Farmer and Country Gentleman's Almanac," for 1896, is among the good works of its kind that has come to our notice.

Published by the Farmer and Stock-Breeder, 190 Fleet street, London, E.C., England.

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THIRTY Percheron, Clyde, and Norman (French Coach) Stallions and Mares; also several Norman Cows (pure-bred), Shetland and Welsh Ponies.

PUBLIC AUCTION SALE ON Wednesday, March 4, 1896,

AT 10 O'CLOCK IN THE MORNING,

AT THE Haras National Co.'s Stables, OUTREMONT (NEAR MONTREAL).

Most liberal terms to agricultural societies, farmers' clubs, or groups of ten breeders. For particulars and catalogue apply to

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OR TO THE HARAS NATIONAL CO.,

30 St. James St., MONTREAL.

To reach the Haras National Stables, take the Park and Island street cars for Outremont, from any part of Montreal. These cars pass the farm.

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160 acres of choice land, situated within two miles of Wellwyn, and sixteen miles from Moosomin, Man.; good hewed log house, five rooms; good garden; 100 feet of stabling; implement shed, 33 feet long, large granary, 22 x 33 feet; good well, 30 feet deep, never less than 20 feet of water. Also Live Stock and Implements. This is an exceptional opportunity for anyone in Ontario to make a good investment. Address,

G. P. COLLYER, "Westwell House," LONDON, ONTARIO.

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or veneer machines are a very profitable investment. Requires small capital, quick turnover. The rapid increase of cheese factories makes a great demand for boxes at a paying price.

WATEROUS, BRANTFORD, CANADA.

A. B. HOLBERT

IMPORTER AND BREEDER OF



Shires, Clydes, Percheron, Royal Belgian, German Coach, French Coach, Hackney, Cleveland Bay, Yorkshire Coach, and Thoroughbred Stallions and Mares, and Shetland Ponies for sale.

He has the largest assortment of imported horses of any firm in America. Canadian distributing point. Woodstock, Ontario. Write

A. B. HOLBERT, GREELEY (Iowa), or WOODSTOCK (Ont.).

3 young mares, Cleveland Bay breeding; 3 Durham cows and heifers forward in calf; 2 heifers, not in calf; 3 Durham bulls, fit for service. Registered Berkshire hogs and sows. Prices reasonable. A. J. C. SHAW & SONS, 12-y-om Thamesville, Ont.

Shining Light for Sale

The Imp. Yorkshire Coach Stallion, "Shining Light," is offered for sale. He won first prize and silver medal twice at Toronto Industrial Exhibition. Also first prize two years in succession, at same place, for Stallion with five of his progeny.

STALLIONS FOR SALE or EXCHANGE

The Imp. Eng. Thoroughbred Stallion, Norwegian (351), and Yorkshire Coach horse, Ambassador (1661), winners of seven first prizes in Toronto and London, and unbeaten; both horses are sure, and good breeders will show any number of colts from either horse; but, having had them four years, I will sell very cheap, or will exchange for an extra good young draft horse, or one of their own class.

For Sale or Exchange

ONE OF THE FINEST THOROUGHBRED STALLIONS IN CANADA TO-DAY.

If not sold will exchange for a No. 1 Coach or Clydesdale. Apply to

Credit Valley Stock Farm, 3-b-om HILLSBURGH, ONT.

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PROPRIETOR OF THE SANDY BAY STOCK FARM,

Importer and breeder of SHIRES, HACKNEYS, AND COLLIE DOGS.



The above stud, though only commenced in 1880, has achieved unparalleled success at all the leading Canadian shows, such as Montreal, Toronto and London, also at the CHICAGO WORLD'S FAIR.

FOR SALE!

4 YOUNG SHORTHORN BULLS

(fit for service; one roan and three reds) descended from Cruickshank cows. One Clydesdale stallion, four years old. Some brood mares and fillies.

James I. Davidson & Sons, 3-a-0 BALSAM, ONT.

3 Shorthorn Bulls 3

(from ten to fifteen months old, of grand quality, good colors and rich breeding) for sale at bargain. Also a few choice Berkshire Sows, four and twelve months old; the latter due to farrow in April, to first prize hog.

Wm. Rivers, 13-1-y-om Springhill Farm, WALKERTON, ONT.

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FOR SALE—Three very fine Durham Bull Calves of a low-down, lengthy, fleshy type, from a son of Indian Chief, dam Lovely 19 (imp.), of noted milking strains. One roan, 13 months old, and two reds, 7 months old. Come and see them before buying too soon, or write me for particulars. Farm, 6 miles from Quelfin, 2 miles from Mosborough, G. T. R.

HERBERT WRIGHT, Box 47, Cuelph, Ontario, 5-1-y-om

Shorthorns, Shropshires, and Berkshires.

Six young Bulls from 10 to 14 months old; 25 Shropshire Fwes, one, two and three year old, due to lamb in March; 15 ram and 20 ewe lambs. Twenty Berkshire Sows, from 3 to 12 months old, several of them due to farrow in March, April, and May. The above choice stock are all registered, and FOR SALE at GREAT BARGAINS. 1-y-om

W. C. Pettit, Freeman P.O., Burlington Stn., G. T. R.

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

The Messrs. Beattie, Dorchester Township, Middlesex Co., Ont., recently dehorned some 60 head of their cattle, with no going "off feed" or other unfavorable results.

J. Yuill & Son, Carleton Place, Ont.—The year 1895, now past and gone, was a very successful year to us. Breeders of high-class Ayrshires have little to fear this spring, as the demand is already good. Our herd is doing well; fed on ensilage (we would not like to do without ensilage); and we have a steady demand for our butter at a high price—25 cents per pound.

Messrs. Jas. I. Davidson & Sons, Balsam, Ont., offer for sale in this issue four young bulls descended from Cruickshank cows and sired by Scottish Prince. Messrs. Davidson write concerning them: "They are of good quality and will make prize-winners."

In our report of the dairy test at the last Winnipeg Industrial Exhibition, and subsequently in the description of Mr. Glennie's Holstein herd, we were made to say, by an error in tabulation by the judge, that the butter yield of Daisy Teake's Queen was 2.62 lbs for the twenty-four hours.

DEATH OF "OTTAWA." Word comes from the Maplewood Stock Farm, Attica, N.Y., of the death of the famous Hackney stallion, Ottawa, purchased by Mr. F. C. Stevens, a wealthy American stock breeder, at the close of the Canadian horse show in Toronto a year ago.

Important to Dairymen

We manufacture a superior line of Dairy Utensils, including CHEESE VATS, CURD SIEVES, STEEL GANG PRESSES and HOOPS, and all utensils required for cheese and butter making.

Stevly's Milk Cans

are the STRONGEST and BEST. Correspondence solicited. WM. STEVELY & SON, LONDON, CANADA.

HAWTHORN HERD

of DEEP MILKING SHORTHORNS.

FOR SALE—Four young Bulls, all reds, descendants of 2nd Fair Maid of Hullett 3047, with a record of 52 lbs. of milk and 2.34 lbs. butter in one day. WM. GRAINGER & SON, Lonsdale, Ont. 13-y-om

The annual me

Down Sheep, the Neil House, dent McKerron Secretary and year in my report ed more pedigreed than during any once. I am now winch again, not only outdoor several of the old stand second in I do not know ju I do know that of Cotswolds and and now we have a better of them. cesters, Cheviot established breed record, but the have no fault to breeds, and do disappear, them winch the Oxfo Almost any kind times are good, flourish when l pays but little less to legisla-tion free wool as any petition would be canine. Our As encourage Oxfo year. The speci Provincial fairs home-bred sheep awarded and paid in No. 81, 1895, following Canada Ont., \$40; Peter James Tolton, Laren, Clearwa Portage la Pra Shoal Lake, \$22 appreciate a motion to re following Fair ma Since last meet taining over 6,000 at a cost of \$1.1 distribution. As we find some che naming sheep which would be together, when a index, so that on at a glance how ular flock are a breeder can use McKerron's No. 2 Hester"; or any provided he uses registry. Such a neater index a sheep should re are recorded. A neater index could ear-numbers, or name or initials be registered with flock numbers s lambs are wear doubt as to pedi torn out of lost by the owner.

It was carried sheep to be nam suggested by the rule be establish private ear-numb with the pedigre A motion to re cents was lost, i plus money in the prizes to Oxford benefit of the btr advisable to cut President McHew which of excellen discussed at len was adopted as a SCALE OF POINT IN

Breed Type... Constitution... Mutton Form... Wool... Form of a good by a well-ba from coarse good style bot Head of moder tween the ears well covered down to the e dark gray or b out gray spot When fully mat rans should v 150 to 25 lbs. Ears medium-i even brown or Legs short, str dark gray or b under the body

Large around th in the chest. The movement of Eyes bold, pro Skin bright pink Neck strong an well set on in Mutton. Wide and straig loin, and rump Full shoulders a in-side and out Flank well fill the lower lines possible, and s full The whole car good, well-ma

Fleece of mode even quality, c well, and free The body, nee The g... The position o

American Oxford-Down Breeders in Session.

The annual meeting of the American Oxford-Down Sheep Record Association was held at the Neil House, Columbus, O., Jan. 11, President McKerron in the chair.

The Secretary and Treasurer's report: "Last year in my report I stated that we had recorded more pedigrees during the year than during any previous year of our existence. I am now pleased to inform you that we have again broken the record.

We have not only outdone ourselves, but have passed several of the older breeds of sheep, and now stand second in point of numbers registered. I do not know just when we passed them, but I do know that only two or three years ago the Cotswolds and Southdowns outnumbered us.

The motion to reduce all registry fees to fifty cents was lost, it being argued that as all surplus money in the treasury is given in special prizes to Oxford breeders and used for the benefit of the breed in general, it would not be advisable to cut down the receipts.

President McKerron's idea of a new standard of excellence for the Oxford breed was discussed at length, and after careful revision was adopted as follows:

SCALE OF POINTS FOR OXFORD-DOWN SHEEP, IN FOUR DIVISIONS. Points. Breed Type... 30 Constitution... 25 Mutton Form and Quality... 30 Wool... 15

F. BONNYCASTLE & SONS,

CAMPBELLFORD, ONT., Breeders of Short-horn Cattle, Cotswold Sheep and Berkshire Pigs, Young Bulls, Heifers, and other young stock for sale at lowest living prices. 11-1-y-om



Shorthorns

Four Bull Calves of finest Booth breeding. The dams are Imp. Lady Ann, daughter and g. daughter Lady Ann, sired by Mr. Booth's renowned Paul Potter; her daughter by Warlabu bull, her g. daughter by Booth bull.

MAPLE LODGE STOCK FARM. We have for sale an exceptionally choice lot of young Shorthorn Bulls and Heifers at very reasonable prices. JAS. S. SMITH, Maple Lodge P. O., Ontario. 9-1-y-om

SHORTHORN BULLS FOR SALE. Two young Short-horn registered Bulls for sale: color, red; one 21 months old and one eight months old. First-class animals; principally Booth blood. Prices reasonable. Reg. Oxford-Down Sheep of both sexes always for sale. The oldest established flock in Canada!

AMPLE SHADE STOCK FARM - BREEDS AND HAS FOR SALE - Shorthorn Cattle, Leicester Sheep, Mammoth Bronze Turkeys. All of the best quality, at reasonable prices. Inspection solicited. Stock shipped to order and satisfaction guaranteed. Address - E. GAUNT & SONS, St. Helens, Ont. 13-1-y-om

CARGILL HERD OF SHORTHORNS. Have some good show material in Heifer Calves, also some grand Canadian-bred Cows and Heifers for sale. Write for catalogue. H. CARGILL & SON, CARGILL, ONT. 11-y-om

SIMMONS & QUIRIE. Shorthorn Cattle, Berkshire Swine - Money-making Sorts. The matchless bull, ROYAL SAXON = 10537 = (by Imp. Excelsior), 1st at Toronto, 1894, heads the herd, with BARMPTON M. = 18240 =, 1st, Toronto, 1895, by Bampton Hero = 324 =, in reserve. Female representatives of the celebrated Mina, Strathallan, Golden Drop and Mysie families.

JOHN MILLER, MARKHAM, ONT. Breeder of Shorthorn Cattle. Five choice young bulls also heifers by prize bull Aberdeen for sale, winners at the Industrial for best young herd of four; two of the bulls won second and third in their class. My stock are choice. Write for prices. 19-L-om

VALENTINE FICHT, MAPLE LEAF FARM, ORIEL, ONT. Breeder of Scotch Shorthorns, Clydesdale, and Shire Horses; Cotswold and Shropshire Sheep; Yorkshire Hogs. Young stock for sale at hard times prices. Young bulls supplied in carload lots. 7-1-y-om Write for particulars.

THOS. PUGH & SONS, Breeders of Shorthorn Cattle and Shropshire Sheep of No. 1 quality. Young stock for sale at moderate prices. Write us or come and see our stock. WHITEVALE P.O. Locust Hill Station, C.P.R. Pickering, G.T.R. 15-1-L-0

WILLOW BANK STOCK FARM, Founded in 1855 by the late Wm. Douglas, has for sale a number of grand young Shorthorns, of both sexes; also the old stock bull, Baron Evelynode = 16765 =. Prices to suit the times. Write for particulars. Address - JAMES DOUGLAS, Caledonia, Ont. 24-d-om

FOR SALE - Shorthorns: A fine 18-months old Bull; Heifers giving milk and younger ones. Also Fruit Farm, at Clarkson, 16 miles west of Toronto. Fifty acres of land, good house and outbuildings, 425 apple trees, 500 pear trees and other fruit. Possession immediately. Apply to C. G. DAVIS, Freeman P.O., Ontario. 17-1-y-om

A. & D. BROWN, BREEDERS OF Scotch Shorthorns

IONA, ONTARIO. Three very choice young roan bulls, and also a number of good heifers for sale at very reasonable prices: bred from the noted stock bull Warfare (imp.). 21-1-y-0

SHORTHORN BULLS AND A FEW CHOICE Heifers

(got by the grand young sire Abbotsford = 19446 =) for sale at hard times prices. Drop a card for particulars to H. & W. SMITH, Hay, Ont. Exeter Stn., G. T. R., 4 mile. 23-1-f-om

CRAIGIEBURM STOCK FARM. BETHEDA P. O. G. A. BRODIE, breeder of Scotch Shorthorns. A few good young bulls for sale. Write me for prices and particulars. All orders and correspondence promptly attended to. Mention ADVOCATE. 21-1-y-om

FOR SALE AT A LOW FIGURE

A few Jersey Grade Heifers, to calve in April. Orders taken for Chester White Pigs. F. BIRDSALL & SON, Birdsall, Ont. 11-1-y-0

HOLSTEINS AND YORKSHIRES.

None but the best are kept at BROCKHOLME FARM, ANCASTER, ONT. R. S. STEVENSON, Proprietor. Write me for prices if you want first-class stock at moderate figures. Holsteins in the advanced registry. Yorkshires all recorded. 13-1-y-om

MAPLE HILL HOLSTEIN-FRIESIANS.

On account of scarcity of feed I will make very low prices on several fine heifers, some of them prize winners and bred to the great bulls Netherland Consul and Sir Pieter de Josephine Mechthilde. Remember that at the last Toronto Industrial I won every first on heifers and both silver medals, in hot competition and under the expert judgment of Mr. C. R. Payne, of New York. G. W. CLEMONS, St. George, Ont.

GEM HOLSTEIN HERD

6 MONTHS' CREDIT GIVEN. BULLS, all Registered Holsteins; quality the best, and fit to head any herd; we have them all ages. Write for particulars to ELLIS BROTHERS, BEDFORD PARK P.O., ONT. 7-y-om

HOLSTEINS!

WE now offer young stock that have won prizes, and calves from our show herd, from one month to one year old, whose dams have large records - any age or sex - FOR SALE, at very low prices to quick buyers. Also some Poland China Pigs, 1 and 6 months old; same quality (the best). A. & G. RICE, Brookbank Stock Farms, CURRIE'S CROSS - ING, Oxford Co., Ont. 18-y-om

HOLSTEIN-FRIESIANS FOR SALE. A few good young Bulls and Heifers of choicest breeding, being from imp. p. Cows from the famous herd of B. B. Lord & Son, N. Y., or directly descended therefrom. Address - JNO. TREMAIN, Forest, Ont. 31-y-0

WM. J. RUDD, Eden Mills, Fairview Stock Farm, breeder of Choice Devon Cattle, Cotswold and Suffolk Sheep, Berkshire Pigs, and Plymouth Fowl. Young stock of the above, and of the best quality, always on hand. I can also furnish a carload of Cotswolds, shearing rams and ewes of the choicest quality. Write me for particulars - Shipping - G.T.R. and C.P.R., Guelph 13-1-y-0

Sale of Durham Cattle

As I have given up farming, I will sell by public auction on March 4th, 1896 (one mile east of St. Mary's), my entire herd of DURHAM CATTLE, viz.: WIMPLES, MISSIES MARCHIONESS, BUTTERFLIES, MYSTIES, ETC. Many of them good show cattle; also some Grade Cattle and Implements. A full notice of the herd will appear in ADVOCATE of Feb. 15th. Catalogues ready about Feb. 15th. Send for one. Hugh Thomson, "Drawer D." 3-b-0 ST. MARY'S

ADVERTISE IN THE ADVOCATE

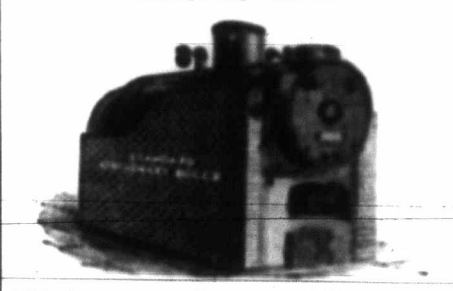
order, and it was decided to offer \$75 in cash prizes at each State and Provincial Fair in the U. S. and Canada in 1896, where the breeders have a separate class, the money to be divided as follows: Best pair of four lambs of either sex, 1st, \$25; 2nd, \$20; 3rd, \$15; Best yearling ewe, 1st, \$20; 2nd, \$15; 3rd, \$10.

It was decided to offer special prizes at the New York, Chicago and Georgia Fat Stock Shows, if such are held in 1896, the amounts to be decided by the Executive Board.

STOCK GOSSIP. In the FARMER'S ADVOCATE for January 1896, appeared a partial and complete description of that prize-winning Yorkshire Coach station, named "Light," owned by Mr. A. C. McMillan, Erie, Ont., who is now offering him for sale. He is a grand horse with a splendid breeding record.

We take pleasure in directing the attention of horse breeders to the advertisement of Mr. Fred Row, of Belmont, Ont., which appears elsewhere, offering for disposal the well known imported Thoroughbred stallion, Norwegian, by Perseus, and the beautiful imported Yorkshire Coach, station, Ambassador, by Phyllis.

E. Leonard & Sons, London, Ont.



The largest manufacturers of ENGINES AND BOILERS for cheese and butter factories in Canada. We keep in stock, Steam Pumps, Injectors, Piping and Valves for complete plants. Write us for printed matter and prices.

YORKSHIRES FOR SALE

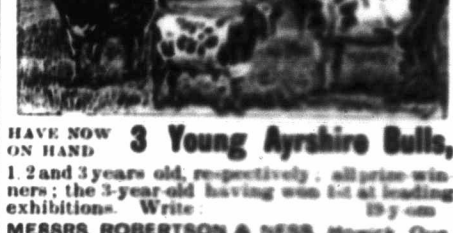
Improved White Yorkshire Pigs from two to five months old, bred from registered stock, which I will sell at hard times prices. Come early, or write for particulars. T. F. KINGSMILL, LONDON, ONTARIO. 17-y-0

GUERNSEYS

This is the Dairy breed for ordinary farmers. Large, vigorous and hardy, giving plenty of rich milk. Imported Bull Herd, son of Vice-Pres. Holton's famous butter cow, Mammoth 4th, heads the herd. Address: SYDNEY FISHER, Ayr Farm, Knoxville, P.O. 17-y-0

Ingleside Herefords. UP-TO-DATE HERD OF CANADA!

Bull Calves OF THE RIGHT SORT For Sale Address - H. D. SMITH, 17-y-om INGLESIDE FARM, CONYERS, QUE.



Ayrshires!

PURE-BRED, of different ages, and both sex No inferior animals. Write for particulars. A. McCallum & Son, Spruce Hill Dairy Farm, DANVILLE QUE 23-1-0

Ayrshire Bulls

FOR SALE A pair of fine Ayrshire Bulls, 1 and 3 years old, respectively. Also prize winners: the 3-year-old having won 1st at leading exhibitions. Write for particulars. MESSRS. ROBERTSON & NESS, Howick, Que. 19-y-0

STOCK GOSSIP.

In writing to advertisers, please mention the Farmer's Advocate.

We call attention to E. P. Stevens' (Knowlton, Q.) new advertisement of Jersey bull calves.

Several young Clydesdales, sired by Primus, have recently been shipped from Scotland to Hamburg, Germany.

Mr. Michael Ballantyne, St. Mary's, wishes to call the attention of our readers to his new advertisement of a few grand young Ayrshire bulls.

H. Wright, Guelph, also makes a change in his advertisement re young Shorthorn bulls.

During one fortnight recently, 145 horses were reported to have been slaughtered at Glasgow, Scotland, for human food, and were shipped to Antwerp.

F. W. Terhune, Brantford, Ont., writes that he has made several sales of his Duroc-Jersey swine, and makes a change in his advertisement this issue, which gives large inducements.

Capt. A. W. Young writes us that he recently purchased a fine Pekin drake, from Long Island, N.Y., which he expects will produce something good next season. Capt. Young is an enthusiastic breeder of Poland-Chinas and high class poultry.

Fine Grove Stock Farm, owned by Mr. G. Snyder, Jarvis, Ont., breeder of Berkshires and Chester Whites, was said, in our "Stock Gossip" column of January 1st issue, to be located in York Co., Ont. It should have read Haldimand Co. Mr. Snyder has fine herds of these two good breeds.

A. C. Hallman, New Dundee,—"My Holstein-Friesians are all in a healthy, thrifty condition. Have the finest lot of young bulls I ever had. Full of vigor and the best of breeding. My females are a fine lot. Have an excellent lot of young heifers that would please anybody. Tamworths are doing fine; have upwards of seventy-five in herd."

The following appears in the Pull Mall Gazette:—"The largest contract of its kind probably ever made with one firm has just been entered into with the commission house of Crandall & Co., East Buffalo, United States, who have engaged to supply four of the largest bus and cab companies in London with six thousand horses to be shipped during the present year. This and other contracts entered into abroad by the East Buffalo firm represent purchases aggregating over \$1,000,000.

E. Caverley, Sine, Ont.:—"Our swine are in fine breeding condition. The Berkshire hog, Goliath, at head of herd, is a fine hog of extra length and finish, and when in show trim would tip the scales at 750 or 800 pounds. Four stock boars have been kept. Have just sold the four-year-old, Sir Colin, at a good figure. Our Berkshire sow, Marepa, is looking well; her weight is about 550 pounds. She has been bred to Goliath. Our herd consists of about 30 at present. Sales have been slow, but prospects are now better."

John Campbell, of Fairview Farm, Woodville, Ont., lately shipped a full carload of choice Shropshire sheep—46 ewes and 3 rams—to Joseph Ballard, of Vermont State. He reports that a very active demand is springing up for good Shrops., and everything points to a big trade in the near future. It would be wisdom on the part of breeders to discard all animals not well up in points of breeding and give special attention to quality and condition. The tops are certain of a good market soon, while the inferior ones always have to go begging for buyers. High-class Shropshire flocks are now at par. Shortly an advance is confidently expected.

MR. PETER LAMARSH'S DUROC-JERSEYS. Close to Wheatley St. is the fine farm of Peter Lamارش owner of the well-known pioneer herd of Duroc-Jerseys, which were founded by selections from the well-known herds of S. E. Morton, Camden, Ohio; E. H. Small, Norwood, Ill.; Q. McBird, Burton, Mich.; Bell & Reid, New Paris; C. H. Ballanger, Sciotoville, N. Y. The stock boar now in use is King Alexander 3287, bred by Geo. Ferris, Alwater, N. Y., and sired by Pride of Cedar Lawn 3427, his dam being the Duchess of Prairie Farm 9218. Among the brood sows is Canadian Queen 8384, A. (imp), bred by S. E. Morton, Camden, O.; sired by Morton's King 2925, A.; dam Java's Queen 8256, A. Chieftain's Lass is bred from imp. stock, and is by Ohio Chieftain 2717, A. dam Gold Coast 11th 7138, C., and imp. Lass. A couple of good young boars, now about seven months old, and a number of young pigs about three months old; bred from the above stock, are now on hand, and will be sold at reasonable figures.

THE LINDEN COURT HERD OF HOLSTEIN-FRIESIANS. A few miles from Mesford, Ont., is Linden Court Farm, the splendid property of Mr. A. Gifford, who has been engaged in breeding the famous black-and-whites for the past twelve years, during which time he has established a fine herd and a lucrative trade, always finding a brisk and ready demand for his favorites. Lately the demand has been even greater than he could supply, some twenty-five head being shipped to different parts at good paying figures. In the herd may be seen such cows as Elacine (imp), bred by D. Stain Hout, Hoog Kaupel, and sired by District Bull; Ocean Wave 5119, bred by J. R. Bergune, Friesland, and sired by Cloof, whose dam had a record of 83 lbs. of milk per day and a butter record of 17 lbs. per week; Ocean Wave herself having a record of 60 lbs. of milk per day for four months, testing 3.5-10 butter-fat; while others in the herd have given 50 lbs. of milk per day, testing 3.8-10. The majority of the herd are descended from the above imp. cows, and are headed by the three-year-old bull, Neptune's Colanthus Abbecker 603, who has produced some capital stock, and whose sire was Colanthus Abbecker 308; his dam being Emma J. Neptune 404. Mr. Gifford will be prepared to supply calves to customers for the next few months at very reasonable prices. Note his advertisement.

CREAMERY AND FACTORY SUPPLIES. Cheesefactory and creamery men will consult their interests by communicating with E. Leonard & Sons, London, Ont., re engines, steam pumps, injectors, etc. See advertisement.

W. C. EDWARDS AND COY IMPORTERS AND BREEDERS. Pine Grove Stock Farm, Rockland, Ont. Shropshires and Scotch Shorthorns. The imported Cruickshank bulls Knight of St. John and Scottish Sportsman are at the head of this herd of imported and home-bred Cows and Heifers of the most approved Scotch families. JOS. W. BARNETT, Manager.

CLYDESDALES AND HACKNEYS FOR SALE! A FEW FIRST-CLASS CLYDESDALE Stallions, Mares & Fillies for sale. Prices to suit the times. Come and see them, or write for prices. GRAHAM BROS., Claremont, Ontario. 25 miles east of Toronto, on C. P. R. 44-0m

ISALEIGH GRANGE STOCK FARM, DANVILLE, QUEBEC. WE have now on hand for private sale, choice stock of pure-bred AYRSHIRE and GURNEY CATTLE, SHROPSHIRE SHEEP, and improved YORKSHIRE SWINE. At our recent annual auction sale we disposed of a lot of our surplus stock, consequently we are in better shape to attend to the requirements of our correspondents. We are preparing for publication a permanent stock catalogue, which, when ready, we shall be pleased to mail to all applicants. CORRESPONDENCE INVITED. J. N. GREENSHIELDS, Proprietor. T. D. McCALLUM, Manager, Danville, Que. 97-0m

Bargains for next 30 days in Holsteins, Jerseys, and Ayrshires. As I am overstocked and short of feed, I will sell the following choice-bred stock at a great sacrifice: Four Holsteins, two bulls and two heifers, seven to ten months old, by Postmaster-General #1, and from choice-bred (imp) cows, \$25.00 each. Two choice Jersey heifers, coming two years old, in calf to an imp. bull (if taken before January 1st) \$35.00 each. Three Ayrshire bulls, from seven to nine months old, \$30.00 each. Will register stock in purchaser's name if taken soon. 25-1-y-o ALEXANDER WOOLLEY, SPRINGFIELD, ONT.

SPRING BROOK STOCK FARM Holstein-Friesian Cattle and Tamworth Swine. A very select lot of young bulls, ready for service. Breeding the best. Quality unsurpassed. In females the choice is equally as good, all ages. A number of rare yearlings; also fresh cows and young calves. My Tamworths are unsurpassed for quality; a large number of all ages of both sexes. Write at once for bargains. Petersburg, G. T. R.; Ayr, C. P. R. A. C. HALLMAN, New Dundee, Waterloo Co., Ont.

A Great Bargain IN THE REALLY HIGH CLASS Holstein-Friesians! I now offer for sale every animal in my herd, than which there are none better in America, at prices to suit the hard times. The herd consists of mature cows with large milk and butter records, and their descendants; heifers in calf, others ready to breed, and heifer calves; bulls fit for service. Also several very choice bull calves; if taken at once will go at \$12. Write for particulars and breeding to H. BOLLERT, Maple Grove Stock Farm, Cassel, Ont.

For Sale Cheap, That grand Ayrshire "HEATHER JOCK" - 1212 - Stock Bull, Bred by D. Morton & Son, Hamilton; Sire Royal Chief (imp.) - 75 - (1647), dam Primrose (imp) - 1205 - (5507). This bull has proven a sure stock getter and can be purchased at a bargain if taken at once. Having a number of his progeny at breeding age, we cannot use him. Speak quick if you want a bargain. We have also some choice young Yorkshire Sows of breeding age from the stock of J. E. Brethour. Correspondence a pleasure. 1-1-y-o A. & H. FOREMAN, Collingwood, Ont.

There Is No Doubt About the MERIT of DEHORNING It cuts both ways, does not crush. One clip and the horns are off close. Write for circular. A. C. BROSIUS, Cochranville, Pa.

John Newman & Sons Box 221, Lachine, Que., breeders of Ayrshire Cattle and Carriage Horses. We have a choice young two-year-old bull and a yearling, bred from imp. cows and from our grand stock bull Glencoe, fit to top any herd; also yearlings, bull calves, and heifers of all ages. Write or call. 15-1-y-o J. YULL & SONS, MEADOWSIDE FARM, Carleton Place, Ont. Breeders of high class Ayrshires, choice Berkshires, and Shropshire Sheep. Young stock always for sale, at reasonable prices. Our Ayrshire herd is the largest and oldest in Canada. Write for prices. Parties met at Queen's Hotel, Carleton. 20-y-o

ADVERTISE IN THE ADVOCATE

FIRST HERD PRIZE, and some of these animals, with their descendants, are for sale. There is seldom such an opportunity to get together a superb Dairy Herd, that will also SWEET THE SHOW RINGS. MRS. E. M. JONES, Box 324, BROCKVILLE, Ont., CAN. "Dairying for Profit," By Mrs. E. M. Jones. Best book ever written. 50 cents by mail. Robt. Brown, Box 107, Brockville, Ont., Can.

THREE HIGHLY-BRED A.J.C.C. JERSEY BULL CALVES For Sale. No. 1—Solid color, dropped October 8th, sired by a son of One Hundred Per Cent; sire's dam by Canada's John Bull; dam a grand cow of Pansy, Albert and Rifer strain. F.O.B., \$35. No. 2—Solid color, dropped December 12th, sired by Baron Hugo of St. Anne's; dam same strain as No. 1; a handsome, vigorous cow. F.O.B., \$35. No. 3—Little white, dropped December 21st, sired by Baron Hugo of St. Anne's; dam by Sunnybrae, a son of Canada's John Bull 3rd; Sunnybrae's dam, Thalyer (imp.), 16 lbs. 8 ozs., by Guy Fox. F.O.B., \$30. My Jerseys are larger than the average. E. P. STEVENS, Knowlton, Que.

MAPLE CITY HERD OF JERSEYS. For Sale.—Two choice Bulls: Massena's Son 1768, A. J. C. C., whose dam gave 9,999 lbs. 6 ozs. milk in one year and 15 days, yielding 302 lbs. 3 ozs. of butter; also a yearling son of Massena's Son. A few Bronze Turkeys also for sale. 3-1-y-o WM. W. EVERETT, Chatham, Ont.

JOS. CAIRNES, CAMLACHE, ONT., Breeder of pure St. Lambert Jerseys, Chester White Swine, and Bronze Turkeys. A few extra good young Sows, eight months old, now for sale, due to farrow March; also a few choice four-months Pigs at low prices. Correspondence solicited. 3-1-y-o

JERSEYS FOR SALE.—Young Cows Calves and Heifers in calf. Heifer bred, best testing strains, and good color. Also first-class Berkshire Boars and Sows, bred straight from imported stock. Come and see or write for prices. J. C. SNELL, - Snelgrove P.O., Ont. R. R. Station, Brampton, G. T. R., and C. P. R. 8-y-om

Jersey Sale! The entire herd of A. J. C. C. H. R. Lee Farm Jerseys. Forty head of reg. bulls, cows, heifers, and calves; same number of high grade cows and heifers. Excellent chance to start a herd cheap, as they must be sold within the next 90 days. Come and see, or write E. PHELPS BALL, Lee Farm, Rock Island, P. Q. 17-y-o

WM. STEWART & SON, MENIE, ONT., Breeders of high-class Ayrshire cattle; choice young stock of either sex and any age always on hand. Our herd contains a number of Columbian winners. 21-1-y-o

A. M. MONTYRE,

CORONMORE FARM, Lawrence, Ont.,
Breeder of choice Jersey Cattle of the St. Lambert strain, and Welsh ponies. A couple of choice Bull Calves now for sale, by Ruelter of St. Lambert and Ida's Romeo, and from cows of choice breeding. 21-1-y-o

JERSEYS FOR SALE

At the head of the herd is the grand young St. Lambert bull, Nabob, son of Nell's John Bull. Stock of both sexes and different ages, and of choice breeding, now on hand.
JONATHAN CARPENTER,
13-1-y-om WINONA, ONT.

W. F. BACON,

Orillia, - Ontario,
-BREEDER OF-
CHOICE REGISTERED JERSEYS
Young bulls and heifers of the best blood for sale. Write me for prices and particulars. 19-1-y-om

MEADOWBROOK JERSEYS.

EDGAR SILCOX, Shedden, Ont.,
Breeder of high-class St. Lambert Jerseys. A couple of young Bulls for sale, grand individuals, nine and fourteen months old, from Rose of Oak Grove and Edna Hugo, sire Robin of Meadowbrook. 21-1-y-o

A.J.C.C. BULL AND HEIFER CALVES FOR SALE

—ADDRESS—
P. H. LAWSON, Nilestown, Ont.
21-y-om

GLEN ROUGE JERSEYS

WILLIAM ROLPH, Markham, Ont., offers Twelve Jersey Bulls and Heifers (pure St. Lambert), out of tested cows. Grand individuals. Prices right. 21-y-om

DR. LEAVITT'S

NEW CHAMPION DEHORNING CLIPPER
The quickest working and the strongest clipper made.
Every Pair Warranted.
For list, etc., address,
S. S. KIMBALL,
577 Craig St., MONTREAL.
7-y-om

C. & E. WOOD,

Locust Lodge, Freeman P. O.,
Breeder of high-class LEICESTER SHEEP AND POLAND-CHINA SWINE. Stock for sale at prices to suit the times. Correspondence solicited.

"Best Quality with Greatest Quantity"
STILL THE MOTTO AT
MAPLE SHADE.

OUR Shropshire lambs are not numerous, but they are of good quality and good size. We still have left also a few strong, smooth, home-bred yearlings of good breeding and character. Our

Shorthorn Calves are developing finely, and present the characteristic quality and thick flesh of the typical Cruickshank Shorthorn. Prices moderate; if you doubt it, write and believe.
Address—**JOHN DRYDEN,**
Brooklin.
(30 miles east of Toronto.) 16-2-g-om

SMITH EVANS, Gourcock, Ont.

Breeder and importer of registered Oxford-Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited. 5-1-y-om

THE GLEN STOCK FARM

Shropshires
We will sell at moderate prices a number of Yearling Rams and Ram Lambs, also a choice lot of yearlings and two-year-old Ewes and Ewe Lambs. Our herd of Ayrshires are in splendid form, and parties in need of young stock of either sex will do well to see what we have to offer before purchasing elsewhere.
WHITESIDE BROS.,
7-y-om INNERKIP, ONT.

USE
GOCCOON
LIQUID
SHEEP DIP
NON-POISONOUS
KILLS TICKS LICE AND ALL INSECTS
4-y-om **MYERS & CO.,** Niagara Falls, Ont.

To Stockmen & Breeders.

LITTLE'S PATENT: FLUID NON-POISONOUS SHEEP DIP AND CATTLE WASH.

For the destruction of Ticks, Lice, Mange and all insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc. Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy.
The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock:

"MAPLE SHADE" HERDS AND FLOCKS.
BROOKLIN, ONT., Sept. 4th, 1895.
DEAR SIR.—I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested, I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders. JOHN DRYDEN.

Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to **ROBERT WICHTMAN, DRUGGIST, OWEN SOUND, Ont.** Sole Agent for the Dominion. 7-1-y-om

ASHTON GRANGE HERD IMPROVED YORKSHIRES

Imported or out of imported stock. We have a choice lot of young stock ready for shipping. We ship to order, and guarantee satisfaction. **WM. TAIT, St. Laurent, near Montreal.** 7-1-y-om

Specialty of Improved Large Yorkshires

I have now on hand a choice lot of young boars fit for immediate use. Prices very moderate. Orders for spring will receive careful attention. Pigs of the most desirable type and at reasonable prices.
3-y-om **J. E. BRETHOUR,** Burford, Ont.

LARGE IMPROVED YORKSHIRES

A choice lot of young pigs from four weeks to six months old, including boars fit for service and sows ready to mate. Prices to suit the times. Pairs supplied not guaranteed. Apply to **WM. GOODGER & SON, Box 160, Woodstock, Ont.** 11-y-o

J. G. CLARK, Woodroffe Stock Farm, OTTAWA.

BREEDER OF CLYDESDALE HORSES, AYRSHIRE CATTLE, and IMPROVED LARGE YORKSHIRES.

I now have on hand a number of choice young Yorkshires, both sexes, which I will sell at prices to suit the times. Pairs supplied not skin. Correspondence solicited. 11-1-y-om

YORKSHIRE PIGS

Of the best type and breeding. Pairs not skin for sale at all seasons. **J. W. HURLEY & SON, Colborneville, Ont. Box 444.** 17-1-y-om

BERKSHIRES AND YORKSHIRES!

Choice stock for sale at reasonable prices. Orders filled in rotation. Inspection invited. Write for prices.
THOMAS WATSON, Springvale, Ont. 11-1-y-o

SHORTHORNS: AND: BERKSHIRES FOR SALE.

At very low figures. Choice boars ready for immediate use, and sows of fine breeding and quality from spring litters. Also a few good bull calves. For description and prices, address—**JNO. RACEY, Jr., Lennoxville, Que.** 17-1-y-om

ENTERPRISE STOCK FARM.

E. CAVERLEY, Sine P. O., Ont.,
Breeder of large English Berkshire and Poland-China Swine. Orders booked for spring pigs from February litters. Can supply pairs not skin. Prices lower than the lowest. 11-1-y-o

MODEL BERKSHIRE HERD

D. A. GRABAM, Parkhill, Ont.,
Importer and breeder of Berkshire Pigs, offers for sale some choice Brood Sows of all ages; also a few grand young Boars fit for service, at prices to suit the times, and young pigs four to eight weeks old, and choice Bronze Turkeys. Write for prices. 21-1-om

LARGE ENGLISH BERKSHIRES, IMPROVED LARGE WHITE YORKSHIRE SWINE, SHORT-HORN CATTLE, AND SHROPSHIRE SHEEP.

A choice lot of Boars of either breed, fit for service, for sale. Young Sows in pig, and a lot of very fine Boars and Sows three months old. Herd won 65 firsts and 45 seconds prizes at leading fairs, 1895. Inspection invited. Address, **M. J. DAVIS, Woodstock, Ont.** 3-y-om

ISRAEL GRESSMAN, New Dundee.

—IMPORTER OF—
Large - English - Berkshires 4-y-om

Large English Berkshires!

Our Berkshires made a clean sweep of all the first (11) prizes offered for Berkshires at the late Toronto Industrial Exhibition, including 1st and 2nd prizes for his got, and sow and four of her produce. We now have a fine lot of young pigs for sale from two to three months, also boars and sows about five months old. Write for prices. **J. G. SNELL & BRO., Snelgrove, Ont. Brampton and Snelgrove Sts.** 2-y-om

BARTON HERD OF TAMWORTHS

Choice stock of all ages and either sex, descended from imp. stock. Pairs and trios not skin. Write for prices. 19-1-y-om
W. T. ELLIOTT, Hamilton Market.

W. P. HUFF, CHATHAM, ONTARIO.

—BREEDER OF—
CHOICE TAMWORTHS

Descended from the stock of John Bell, of Amber, and the Grant & Co's importation. Young stock of No. 1 quality always on hand. Some choice sows now ready to breed. Rock-bottom prices. 21-1-y-o

Tamworths for Sale.

Special offers for 60 days. The entire herd will be sold at bargains. Seven May Sows, bred; 3 May Boars; 4 one-year-old Sows, bred; 2 three-year-old Sows, bred; 5 Sept. Boars; 5 Sept. Sows. All stock guaranteed. 17-1-f-om **JOHN L. REVEL,** Putnam, Ont.

MR. H. REVEL

Woodlands Farm, INGERSOLL, - ONT.,
Breeder of **Choice Tamworth & Poland-China Swine**
Young stock of all ages and either sex for sale at reasonable prices; bred from or descended from imported stock.

ESSEX HERD OF POLAND-CHINAS

R. B. McMULLIN, Goldsmith, Ont.,
Imp. and Breeder of Poland-Chinas of 1st-class quality and pedigree. For sale at low prices: A couple of fine sows, 8 and 10 months old, and a number of choice 4-month pigs, both sexes. Orders booked for spring pigs from imported sires and dams. 3-1-y-om

OXFORD HERD OF POLAND-CHINAS

Our herd made a clean sweep of all the first prizes (30) at the late Toronto, Montreal and Ottawa Exhibitions. **DARKNESS QUALITY,** the unbeaten winner at the World's Fair, heads the herd. Stock for sale. Write for prices.
W. H. JONES, 15-y-om Mount Elgin, Ont.

The Secretary's Annual Report of the American Clydesdale Association.

The season of 1895 has been rather uneventful in Clydesdale circles and in the work of our Association. The depression which has attended all branches of the horse-breeding industry universally for several years past, unfortunately still continues in a measure; but, although the business, as promiscuously pursued by a majority of our farmers, has been unprofitable, there are now the most distinct signs of an early revival, and in a comparatively short time our breeders who have stayed faithfully by the good old Clydesdale and bred and fed judiciously shall reap the reward which their patience, skill and enterprise entitle them to. It is to be regretted that many of the Clydesdale breeders of this country should have so lost interest in their breeding operations as to neglect the registering of their colts the last year or two. While such neglect on their part is explainable, it betokens very poor policy, inasmuch as the registration can be done much more easily, and with less expense, while the colts are young. Not only do breeders thereby save the penalty fees, which for entries and transfers are quite heavy, but any uncertain links in the pedigree chain can be much more readily traced and adjusted than they can later on. The Secretary would specially urge this point on the immediate attention of all breeders and owners who have any eligible Clydesdales, to have their registration and necessary transfers completed without delay, and so have their horse in order when the increased demand for breeding stock comes around, as it must do very soon.

Registry in Scotland.—As instructed at the last annual meeting, your Secretary, in the name of the Executive Committee, requested the Clydesdale Horse Society of Great Britain and Ireland, that the existing rule excluding all foreign-bred animals in their Stud Book be so changed as to admit animals recorded in the American Clydesdale Stud Book. The matter was in due course brought before the Council of the Clydesdale Horse Society, and, the justice of our request being admitted, the objectionable rule was rescinded, at a meeting called for that purpose during the Highland and Agricultural Society's Show. Since then, Mr. Andrew Montgomery has purchased of Col. Holloway two American-bred stallions and one mare, which he has shipped across to Scotland, and will register them in the Scotch book—this being, we believe, the very first instance of Clydesdales bred in America being exported for breeding purposes. The event marks a new era in Clydesdale history, and the future outcome of this new venture will be watched with interest by our breeders. The liberal policy towards breeders which the present Administration determined to carry out has met with the most hearty appreciation of all Clydesdale men throughout the United States and Canada, and the feeling of Canadians towards our Association has become much more friendly than formerly. No less than 27 per cent. of our revenue during the past ten months has come from the Dominion, and the prospects are that we shall continue to receive an increasing patronage from across the line. The general conviction amongst Clydesdale breeders in Canada and the United States for several years past has been that our fees and restrictions were burdensome, and that the small or obscure breeder did not receive the same attention which the larger or more prominent breeder did. It is the special desire and endeavor of the present Administration to remove all grounds for such complaints, and the Secretary will at all times be ready to attend promptly to anyone desiring information or assistance in filling out pedigrees or anything else connected with the breeding of Clydesdales.

Clydesdales at the State Fairs.—Clydesdales were much stronger represented at the State fairs of 1895 than any other draught breeds, and the impression made on the spectators was correspondingly favorable. At the Spring Stallion Show, in Toronto, there were no fewer than sixteen entries in aged stallions, and an equal number were exhibited at the great Industrial Fair held in that city in September. Not only was the quality good throughout, but in the pink of condition. It is worthy of note that a very decided improvement in the Clydesdale business has been observable in Canada this fall, and more sales have been effected by the principal breeders than for several years past. The increased demand will doubtless travel westward and be with us before next spring. The Clydesdale stud of Col. Holloway made an excellent showing at Springfield; that of Mr. N. P. Clarke at St. Paul, and that of Mr. R. B. Ogilvie at Milwaukee; the superb quality of the animals, and the very fit condition in which they were all shown, eliciting the warmest expressions of admiration. Great credit is due to those enterprising breeders for keeping the best class of Clydesdales prominent before the people; and several smaller breeders, such as H. Von Biedenfeld, A. G. Soderburg, Geo. Klein, and Robert Morton, are also entitled to credit for exhibiting a number of animals of the very highest excellence this fall.

Horse Show and Parade.—The collapse of the Chicago Coliseum, which prevented the holding of the horse show in the city this year, was most regrettable in several respects, and particularly in view of the proposed draught horse street parade which this Association had determined to inaugurate. With that immense building completed early next summer, there should be no obstacle to the holding of a successful show in November; and the Executive Committee believe that Clydesdale interests can be advanced in no better way than by offering substantial prizes for the best grade Clydesdale mares and geldings on the American continent. The co-operation of all breeders and users of, and dealers in, heavy draught horses in the United States and Canada is respectfully and earnestly invited, so that they may participate with us in this most important enterprise.

Classification at Fairs.—While the management of most of our leading State fairs provide a full classification for the various ages of Clydesdale horses, and thereby encourage breeders to make a worthy exhibit, no such provision has yet been made at the New York,

Philadelphia, and other horse shows in the East. It is truly believed that a good representative exhibit of Clydesdales and other breeds, which would naturally be made in the event of such a classification being provided, with reasonable prizes, would not only be beneficial to those breeds but would also prove a decided attraction to such horse shows. It is recommended that this Association make a formal request of the managers of the principal Eastern shows to provide a classification for Clydesdales during 1896.

Preference for Clydesdales.—In conversation with several large lumber merchants and owners of pine lands in Northern Michigan, Wisconsin, and Minnesota, during the past year, your Secretary was struck at the unanimity with which they all pronounced their strong preference for Clydesdales over all other draught breeds. They not only claimed for them better dispositions, but superior strength, a lengthier, more elastic stride, and very much more endurance. A well-known Michigan man wrote, on November 4th, as follows:—"I have stopped breeding two year ago. The Clydesdale horse, for business, is my choice against the world, and we are working four heavy teams, and have another four coming into the harness, of our own breeding. We found we could breed faster than we could wear them out, and therefore stopped."

Good Draught for Heavy Teams.—In spite of the prevalent low prices for nearly all kinds of horses and other farm stock, good heavy draught geldings, combining substance and quality, of suitable age, and weighing from 1,600 upwards, are in active demand, and commanding good prices. Your Secretary saw a pair of grade Clydesdales at a recent Fair, in September, for which \$200 cash had been refused, and the buyer expressed his willingness to pay a higher price if the owner would part with them. Although they were admittedly an extra grand pair of geldings, there is nothing to prevent any of our breeders producing horses of equal value, provided they use the best material and give coils generous treatment and attention while young. There has never been a time when strictly first-class draught geldings would not command a profitable price over the cost of production, and it behooves all breeders, at the present time especially, to keep their standard of excellence at the highest possible notch. The greatly curtailed breeding of draught horses during the last few years is certain to cause a shortage of the supply and a corresponding advance in value within two years from now, and those who have the good fortune to own young, well-bred stock as an investment, and will consult their own interests by neither stunting them with short rations nor throwing them away at the unduly depressed prices now current.

ALEX. GALBRAITH, Sec.

STOCK GOSSIP.

MESSRS. FOREMAN'S YORKSHIRES, TAMWORTHS AND AYRESHIRE.

We recently had the pleasure of calling on Messrs. A. & H. Foreman, of Collingwood, whose stock farm is situated a couple of miles from the town, in a good agricultural and fruit district. Although engaged in an extensive mercantile business, considerable attention is devoted to the breeding of the above mentioned stock and fruit growing. The Ayreshires are of the choicest breeding, and were purchased from leading breeders. They are now offering for sale one of their stock bulls, a choicely bred animal that will no doubt go quickly, as good bulls of this breed are ready sellers, and all dairymen, as well as breeders, should be very careful in selecting bulls to head their herd, and will find it to their advantage always to select well-bred animals and of good milking strain. In Heather Jock—1212—Messrs. Foreman offer a bull of excellent breeding. He was bred by Mr. David Morton, of Hamilton, and was sired by Royal Chief (1614), while he had for his dam imp. Primrose (5607), by Prince Charlie of Dunlop (555); Primrose was a winner in the milk test at Toronto in 1891.

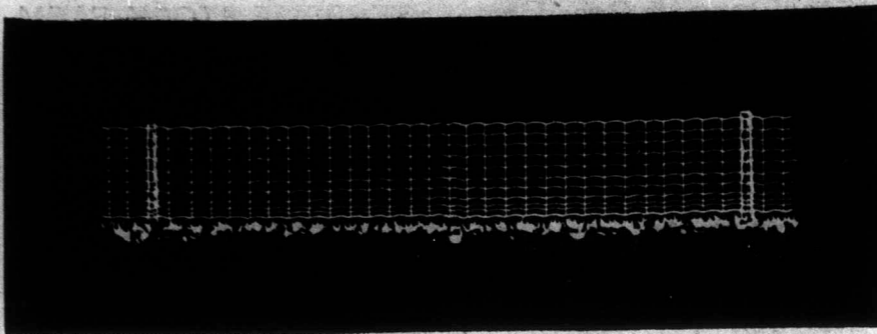
The Yorkshire herd was founded from the celebrated herd of Mr. J. A. Breton, of Burford, and contains some good specimens. A number of fine young sows were seen about eight months old, which it will be noticed they are offering for sale in our advertising columns, and which will be shipped to order at very low prices.

The Tamworths have but recently been added to the stock, and were purchased from the well-known breeder, Jas. Bell, of Amber, Ont. Parties wanting any of the above stock might find it to their advantage to correspond with these gentlemen.

THE MAPLE CITY HERD OF JERSEYS

are only few in number as yet, but it is the intention of the owner, Wm. W. Everett, of Chatham, to increase the present stock, and in the near future, no doubt, we will hear favorable reports of the Maple City herd. Massena's Son 17008, A. J. C. C., stands at the head of the herd. He was purchased from Mrs. Jones, Brockville, and is of a grand lineage and has typical conformation. The performance of his dam in milk and butter production shows his breeding to be of the right sort, as she has a record of 3,099 lbs. 6 ozs. of milk in one year and fifteen days, which produced 92 lbs. 3 ozs. of butter. We also saw a fine yearling bull—now offered for sale—a son of Massena's Son and from Croton's Twinkle 3rd 21632, who has tested six per cent. of butter-fat. Croton's Twinkle was sired by Orbelio St. Heitor 33012, her dam being Croton's Twinkle 20008. Charity of Glen Rouge 102820 is a fine two-year-old, bred by Wm. Rolph, Markham, Ont. She was sired by the grand stock bull One Hundred Per Cent. 16336, and from Cheerful of St. Lambert 2nd 3743. Charity of Glen Rouge is a beautiful fawn with dark markings, and should prove a valuable acquisition to the Maple City herd.

A small herd of reg. Berkshires is also kept. They are of Geo. Green's stock, of Fairview—1963—his dam being Model Sally—2219—by Croton's Prince—1127—and tracing to imp. stock. The sows comprise: Lady Helen—368—by Sir William—1577—dam Molly—2244—Miss Black—3470—bred by D. M. Graham, Parkhill; sire Major Black—2560—dam Miss Major—3459—Highland Mary—3640—by Prince of Perth—1963—dam Lady Helen—3686—by Sir William.



Without an Equal

It is easy enough to claim to have the best, but it takes years of use and tests by thousands of farmers before a fence can be proved the best, as the Page has been. Those who use it say it is better than any other wire or board fence and cheaper than any other stock proof fence.

When wire fences were first tried, it was found that, owing to the expansion and contraction caused by heat and cold, the wires would soon become slack or break and the fence would be useless. Many attempts were made to remedy this by means of springs or ratchets at the end, but, besides needing constant attention to keep them in order, they will afford but a few rods of the fence at most. Mr. Page found a better way on his farm, and the result is the Coiled Spring Fence. Each wire of the Page is made into a long-drawn-out, or ELONGATED, spring, having enough spring in every foot to counteract the expansion of that foot. The fence is therefore perfectly self-regulating, and as a result, when the end posts are solidly set, the Page fence always keeps tight and never sags.

As common wire contains very little elasticity, a special spring steel wire must be used in the Page fence to give each wire the proper coil. This special wire has nearly twice the tensile strength of the iron and steel wire commonly used in fences. The coiling of the wire adds in effect to the strength and enables the Page to stand more than double the strain that any other fence can. This has been proved by the use of the DYNAMOMETER, or strength-testing machine, as well as by the test of actual use on the farm. We also have what we call a "bunter," which vividly shows the strength and endurance of a fence.

(For the benefit of those readers who have not seen the bunter at the Fairs, we will briefly explain that it consists of a weighted barrel or a bundle of fence hung from a tripod so that it will swing sidewise into a length of fence. It thus gives about the effect of a horse running into the fence. We allow all comers to swing this into the fence as long as they please, and it usually is kept swinging constantly. Our fence doesn't mind it, but we have not been able to persuade other fence-makers to publicly try it on their fences.)

It is because of the coil in the wire that the posts can be placed so far apart for the Page, as the coil keeps the fence tight without sagging between posts that are thirty or more feet apart. We prefer long panels for our fence (25 to 33 feet), because there is then more coil and elasticity in each wire between the posts, and therefore more strength. When a horse or a runaway team runs into the fence the coil must be stretched to its fullest extent before the strain really comes on the wire.

Among the other advantages of the Page is the shape of the mesh, oblong, with the wires closer at the bottom, where they are needed; the cross wires are but a foot apart, so that the main wires cannot be spread apart. The Page is carefully woven in the factory and shipped out ready to be stretched on the posts. It is sold and stretched on the posts by local dealers, who are usually farmers themselves. They pay nothing for the right to sell, and our customers nothing for the right to use it. WE SELL FENCE, NOT PATENT RIGHTS.

In Essex County, where Page's Fence was first sold, very little other wire fence is now used. Wherever introduced it takes the lead and gains in favor year by year, while other fences come and go. After the most thorough investigation, the Page has been adopted by the majority of the well-equipped railroads of the continent.

We will be glad to send you full particulars, with price lists and our illustrated paper, if you will let us know your address.

The PAGE WIRE FENCE CO. OF ONTARIO, Ltd. WALKERVILLE, ONT.

A Set of Hustlers
are the PLANET JR. Farm Tools. They put farm work on a modern business basis—a week's hoeing done in a day, three times the crops on the same land. The New No. 8 Horse Hoe is a dozen tools in one; width or depth changed instantly without stopping the horse. The PLANET JR. Book for 1896 tells all about these famous tools. Sent free if you write to S. L. ALLEN & CO., 1107 Market St., PHILADELPHIA.

Warranted Seed GREGORY'S SEED CATALOGUE FOR 1896
A leading reason for warranting our seed, as per first page of Catalogue, is, we raise a large portion of them. As the original introducers of the Cory and Longfellow Corns, Miller Cream Melon, Ohio and Burbank Potatoes, Warren, Hubbard and Marblehead Squashes, Marblehead Early Marrowfat Pea, Eclipse Beet, Kentucky Wonder and Marblehead Horticultural Beans, Southport Early Globe and Danvers' Red Globe Onions, All Seasons and Marblehead Mammoth Cabbages and numerous other valuable vegetables, we solicit a share of the public patronage. Our Catalogue of Vegetables and Flower Seed for 1896, containing many new Vegetables & Flowers & the best of the old will be sent free. J. J. H. GREGORY & SON, Marblehead, Mass.

THE FARGO HERD OF POLAND-CHINAS
Are of the choicest quality and breeding. I have young stock for sale from an imp. boar and imp. and home-bred sows, also a few choice sows in farrow to the imp. boar Black Joe. Those desiring a first-class article at the right price, should write at once or come and see my stock. OLIVER DEURY, FARGO, ONT. 13-1-y-o
HERRON & DAFOE, AVON P.O.
Importers and Breeders of
Poland-China, Chester White and Tamworth Swine
Young stock of the above, any age and either sex, imp. and descended from imp. stock, for sale at hard-times prices. All stock registered. Mention ADVOCATE.

CANADA: WILKES
Over 100 head—all ages, sexes and different families.
Six gilts and ten tried sows, all bred and safe in pig for April and May litters, from \$15 to \$25 each. If you want a bargain, write CAPT. A. W. YOUNG, Tupperville, Ont. 17-y-o
DUROC-JERSEY SWINE
We have the best and greatest prize-winning herd in Canada. Write for what you want. We have everything. TAPE BROS., Ridgeway, Ont. 20-y-o

DUROC-JERSEYS FOR SALE. A number of choice young six-weeks-old pigs, of the best breeding obtainable. Prices in accordance with the times. Address—FRANK J. BARBER, Georgetown, Ont. 1-1-y-o

DUROC-JERSEYS of the best type and breeding. Choice young sows ready to breed. Boars fit for service, and younger pigs (both sex) now on hand. 21-1-y-o HUGH McCUTCHEON, Glencoe, Ont.

DUROC-JERSEYS FOR SALE Our stock is of the best quality and breeding obtainable. Special offer of young sows now ready to breed. Boars fit for service; and younger ones of both sex at hard-times prices. BERDAN & McNEIL, STRATHBURN, ONTARIO. 21-1-y-o

Summit Farm Herd of Duroc-Jersey Swine. Will sell a nice boar one year old, crated and put on board cars at Brantford, for \$15; also a sow 18 mths. old (Brantford Beauty), Amer. Duroc-J. Record, bred Jan. 2, '96, to Duke of Brant—3695—A. D. J. Record; price, \$20. Also some young sows from the above sow, which are doing well: price, \$8 each; delivered at express office, crated and billed to purchaser, with pedigree. Write for particulars to 3-1-y-o F. W. TERHUNE, Brantford, Ont.

SPECIAL OFFERING IN DUROC-JERSEYS Four fine young boars (2 extra good) ready for service; five very fine young sows fit to breed, and choice lot young fall pigs. Very low prices to sell quick. PETER LAMARSH, "Pioneer Herd," Wheatley, Ont. 5-1-y-o

IMP. CHESTER WHITE and TAMWORTH SWINE. Having won the sweepstakes for the best boar and two sows of any age at Industrial Exhibition (Toronto) 1895, we offer for sale 40 choice boars and sows from four to six months old. Prices away down for next 60 days. Pedigrees furnished. Reduced rates by express. Drop a card for prices. H. GEORGE & SONS, Crampton, Ont., Middlesex County. 7-y-o

E.D. GEORGE PUTNAM, ONT. Importer and Breeder of Ohio Improved Chester White Swine. The largest and oldest established registered herd in Canada. I make this breed a specialty, and furnish a good pig at a fair price. Write for prices. 15-1-y-o

GIDEON SNYDER, Jr. Jarvis, Ontario. Breeder & Importer of Ohio Imp. Chester & Berkshire Swine. Also Brick and Tile manufacturer. Junction of Air Line and Hamilton & North-western Ry.

O. I. CHESTER WHITE SWINE. Stock for sale. All stock registered. Toulouse Geese, Pekin Ducks, Bronze Turkeys, eggs \$1.50 per 11. Partridge and Buff Cochins, Plymouth Rocks, Silver Gray Dorkings, Game Silver, and White Wyandottes, Brown and White Leghorns, Black Hamburgs, American Dominiques, Black Red and Black Summatras, and Indian and Pit Games, eggs, \$1 per 13. Will mix sittings if desired; also a few pair of Wild Turkeys for sale. G. BENNETT & PARDO, Charing Cross, Ont. 7-1-y-o

When you want to buy a first-class Tamworth or Chester White sow, bred to first-prize sires, why not buy from a herd which has won 50% of the first prizes and 75% of the sweepstakes at leading exhibitions for the past two years? Come and see our stock at Guelph, Dec. 10, 11 and 12. WM. BUTLER & SON, Dereham Centre, Ont. 7-y-o

CHESTER WHITES and BERKSHIRES Young pigs now ready for shipping, and young sows in pig to imported boars. All are held at reasonable figures. Can supply pigs at all ages. Orders by mail filled with care, and correspondence cheerfully answered. Write for prices, stating what is wanted. 18-om J. H. SHAW, Simcoe, Ont.

CHESTER WHITE HOGS From prize-winning stock of the choicest strains. Quality the best. Prices as low as the lowest. 19-1-y-o J. H. CHALK, Calton P. O.

ADVERTISE IN THE ADVOCATE

Land for Everybody.

GOOD SOIL! PURE WATER!! AMPLE FUEL!!!
 CHEAP RAILWAY LANDS FOR SALE ON EASY TERMS.
 The Long Lake and Saskatchewan Ry. has opened up for sale, that between the Long Lake and Saskatchewan Rivers, and that between the Long Lake and Saskatchewan Railway Company.

OSLER, HAMMOND & NANTON,
 LAND OFFICE, 381 Main St., WINNIPEG.

STOCK GOSSIP.

In writing to advertisers, please mention the Farmer's Advocate.

James S. Smith, Maple Lodge, writes us:—
 "The Barmpton Hero cross, which we have placed in our herd through our present stock bull, British Flag, has proved exceedingly satisfactory. Crossed on cows the get of Duke of Colton and Conqueror (the sires of most of our breeding cows), we have in his get a pleasing uniformity of a high standard. The color is right—red or roan, the symmetry is grand, the flesh is firm though mellow, the hair is abundant and soft, and plenty of style and size. As the winter passes by, farmers do not feel so blue when comparing the quantity of stock with the feed provided. Strict economy of the food has placed them in better shape for the latter half of the feeding season."

W. G. Pettit, of Freeman, Ont., writes us under date of Jan. 24th:—
 "Our cattle came into the stables a little thin last fall, but are doing very well now, as we have plenty of turnips. Our Shropshires had more rape than they could eat up before snow came, and they came into winter quarters in fine, thrifty condition, and are doing remarkably well since. Last year was my first experience with rape, and although it was not a favorable season with us for it growing, I had a lot of grand sheep feed, and will not be without it again as long as I keep sheep. I will not take up your valuable space to give a detailed account of my sales more than to say that in the last three months I have sold to farmers and breeders in Ontario and Quebec, 17 Shropshire yearling and ram lambs, 16 Shropshire breeding ewes, four Berkshire boars, and eight Berkshire sows. I purchased in December, a very fine young Berkshire boar, bred by Mr. Hugh McCaugherty, Streetsville, Ont., from one of J. G. Snell & Bro.'s best (imp.) boars, and I find in looking over his pedigree no less than seven (imp.) boars that have been used by the most noted breeders of Berkshires in Canada."

Mr. Arthur Johnston, of Greenwood, Ont., writes to say:—
 "Our young Shorthorn bulls are now in the very finest form, though not quite as fat as we have had them in former years, owing to the shortness of pastures during the late summer and autumn. They never came into stables so lean, and they never before made such constant and rapid gains. We still have 13 of them from our best cows, and mostly sired by Imp. Indian Chief and Imported Royal Member. The yearling show bull, 'Indian Brave,' now just past two years old, has made wonderful growth and equally wonderful improvement since the Toronto Industrial Exhibition in September last. He is now a grand, big, showy fellow—mellow as a peach and as rappy as a plum; his style and character are superb, and he is as sprightly and nimble as a calf. Our young bulls are mostly roans, with three beautiful red ones and two great, good white ones. We think the two white ones fully equal to the two we had last year and some older. On the whole, we have never had so fine a lot of young bulls at the beginning of February;—well fleshed, well haired, and well grown, with the best of shapes and colors."

In sending in a change of advertisement, Wm. Rivers, of Springhill Farm, Walkerton, Ont., says:—
 "Although times are hard, money and feed very scarce, we are receiving numerous enquiries for Shorthorn bulls and heifers; also for Berkshires; and have made a few sales of late at fair prices, viz., four very handsome young bulls, one of which was sold by some to be the best calf ever shipped at Teeswater station. We have three very promising young bulls for sale yet, in nice condition, and at very moderate prices. Our stock are all thriving nicely on a ration composed of cut straw, ensilage, and a very few roots, pulped, of course, and a little bran and oat chop, the bulk of the ration being straw, but they eat it all up clean and are contented. I could not dispense with the pulper in a season like this under any consideration, and had it not been for a good crop of corn and a small silo I should have had to reduce the stock more than one half, at a sacrifice, last fall. It is quite a problem to solve, how best to tide a comparatively large stock through this winter on a very small bulk of feed, but the ADVOCATE is doing a good work in that direction at the present time, by the valuable articles contained therein, written by men of experience and good judgment, on the breeding and feeding of stock, and every department of the farm; and I, for one, could not afford to be without it, particularly at the present time."

AMERICAN CHESTER-WHITE RECORD ASSOCIATION.

The members of this Association held their twelfth annual meeting at the Farmers' Hotel, Columbus, Ohio, the evening of January 14. In absence of President S. H. Todd, the Vice-President, L. H. Martin, called the meeting to order. The report of Secretary-Treasurer Carl Freigau showed that the Association was in a prosperous condition:—

Total receipts for pedigrees, etc., 1895... \$920.58
 Total expenditures for printing, salary, etc..... 581.32

Balance in treasury..... \$339.26
 Officers for 1896 were elected as follows:—
 President, S. H. Todd, Wakeman, Ohio; Vice-President, L. H. Martin, Alexandria, Ohio; Secretary-Treasurer, Carl Freigau, Dayton, Ohio. Board of Trustees—For term of three years, Allen Feeler, Clifton, Indiana, and F. G. Lee, Kalida, Ohio; for term of two years, F. A. Branch, Medina, Ohio, and W. H. Pool, Delaware, Ohio; for term of one year, J. L. Beringer, Marion, Ohio, and H. W. H. Morgan, London, Ohio. Executive Committee—F. A. Branch, F. G. Lee, and W. H. Pool. Resolutions passed were: 1. That the Committee on Consolidation be discharged. 2. That the volumes of the American Chester-White Record be sold at \$1, free delivered. 3. That Vol. VI of American Chester-White Record be printed as soon as 1,500 pedigrees were received. 4. Recommended that each patron of this Record use some kind of ear-mark for pigs intended for record and that such mark be given in the pedigree. 5. That the Executive Committee, with Secretary and President, arrange a programme, also time and place of meeting for a Swine Breeders' Institute, to be held in connection with the next annual meeting.

Manitoba!

POPULATION, - - 200,000.
 NUMBER OF FARMERS, 25,000.

Look up Its.. Advantages BEFORE GOING ELSEWHERE.

CROP OF 1895:

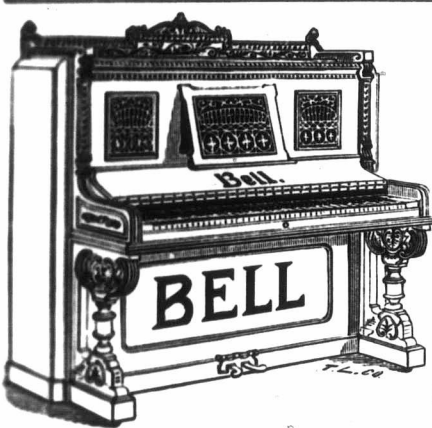
	Area Under Crop.	Average Yield Per Acre.	Total Yield.
WHEAT.....	1,140,276	27.86 bushels.	31,775,038 bushels.
OATS.....	482,668	46.73 "	22,555,738 "
BARLEY.....	153,839	36.69 "	5,645,036 "
FLAX.....	82,668	16.8 "	1,281,664 "

OVER 10,000,000 ACRES IN MANITOBA

— HAVE NEVER BEEN CULTIVATED —

Price of Land from \$2.50 to \$6 per Acre On Easy Terms

Settlers coming to Manitoba should always drop off at WINNIPEG for a few days and secure reliable information about settlements, free homesteads and lands for sale from the heads of Departments located in Winnipeg. For latest information and maps, all free, address
THOMAS GREENWAY, or **W. D. SCOTT,**
 Minister of Agriculture and Immigration, Man. Gov't Immigration Agent,
 340 Winnipeg, Manitoba. Toronto, Ontario.



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SUPERIOR IN
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 Construction
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OVER 75,000 OF OUR INSTRUMENTS NOW IN USE. Guelph, Ontario. 5-17-om

USE QUEENSTON CEMENT

FOR BUILDING CONCRETE OR OTHER WALLS, Cisterns, Stable Floors, Hog Troughs, &c.

ISAAC USHER & SON, Queenston Cement Manufacturers, Thorold, Ont.
 Bothwell, Ont.
 Gentlemen,—You promised me, if I built my walls and floors of Queenston Cement Concrete, that I would have the best and most perfect basement in the township in which I live, and I am glad to say your promise has been more than fulfilled. I have seen silos and other walls and floors in this vicinity, and I am happy to tell you they are all good. I am sure your business will largely increase in this vicinity, and in fact, all over the Dominion, when the use of your Queenston Cement is properly understood. To any one writing me, I will gladly give any information I can. Wishing you every success, I am,
 Yours very truly,
 JOHN SHEPHERD.
 WRITE FOR PRICES AND PARTICULARS TO
ISAAC USHER & SON, Thorold, Ont.



ADVERTISE
FARMER'S ADVOCATE
SOME MAGAZINE

The Agriculture and Arts Association Board.

At a meeting held during the Ontario Fat Stock Show (President Sissons in the chair), the Secretary read a letter from Jas. Miller, President of the Fat Stock Club, saying the Poultry Association could not accept the terms offered by Mr. Jarvis at the former meeting, but that Mr. Hobson and himself had arranged to give them \$10 from the gate money, and if the show was a success, \$10 more, they to manage their own department, pay their own prizes, and keep their members' fees. This arrangement was accepted, also the rate of fifteen cents per admission every time the visitors entered the doors.

Mr. John E. Coboc was added to the Sheep Committee and Mr. W. J. Westington to the Swine Committee.

Mr. Legge introduced a delegation from Gananoque, representing the town and the local Horticultural Society, bringing the accounts for lumber and other material still unpaid from the Dairy Show, and which they were totally unable to meet. The town never expected to be called on at all. Gananoque should have abandoned the project then, and would have, had they not been confident that they would have secured that amount from the Dominion Government, as they fully expected.

On motion of D. P. McKinnon, seconded by W. J. Westington, a committee, consisting of Messrs. McEwen, Legge, Dawson, Rawlings, and McKinnon, was appointed to investigate the matter. Subsequently they reported, allowing \$335 of the claim.

Letters were read from Jos. Yuill, Carleton Place; W. H. & C. H. McNish, of Lyn; J. P. Redmond, Brockville; Jas. Cosgrove, Prescott; Mrs. E. M. Jones, Brockville, and D. Derbyshire, Brockville, asking for a continuation of the Government grant for dairy shows.

At a subsequent council meeting, Mr. John I. Hobson, of Mosboro, was appointed one of the auditors to close the business of the Association. A letter was read from the Hon. John Dryden, Minister of Agriculture, appointing Mr. Wm. Dickie, of Oshawa, the other auditor.

Moved by Robt. McEwen, seconded by J. C. Snell: "Resolved, That the combined committee of the Agriculture and Arts Association, the Sheep and Swine Breeders' Association, and the Guelph Fat Stock Club, in session, desire to express their gratification that the citizens of London contemplate erecting a new live stock building on their Fair ground, as the old ones are totally inadequate, and to assure them that they will render them all the support in their power and encourage them by our attendance with our stock."

At a final meeting of the Executive Committee, in Toronto (President Sissons in the chair; also present—J. C. Snell, Edmonton; R. McKewen, Byron; Joshua Legge, Gananoque; A. Rawlings, Forest; and H. Wade, Secretary), the following statement of receipts and expenditures of the Agriculture and Arts Association for the year 1895 was presented: Cash on hand and receipts from all sources, \$39,507.38. Expenditures for all purposes, \$39,348.63.

The Executive Committee further report that after closing up the fifty years' work of this Association, they find from the Treasurer's statement, as audited, that they can place to the credit of this Province, herd books and office furniture to the value of over \$3,000, a small cash balance, and a property yielding a rental of \$1,000 per annum.

Breeders' Annual Meetings.

The annual meeting of the Canadian Shire Horse Breeders' Association will be held in the Albion Hotel, Toronto, on Wednesday, Feb. 12th, at 11 a. m. The annual meeting of the Clydesdale Association will be held at 2 p. m., the same day, in the same place. The Dominion Shorthorn Breeders' Association annual meeting will take place on Thursday, Feb. 13th, in Shaftsbury Hall, Queen street, Toronto, at 11 a. m. The Dominion Ayrshire Breeders' Association will hold its annual meeting on Friday, Feb. 14th, at 2 p. m., in the Albion Hotel, Toronto. Secretary Hy. Wade writes inviting a large attendance of those interested in these various breeds of horses and cattle. All are requested to ask at their station, on starting, for a standard railway certificate, which will entitle them to reduced return fare.

Canadian Jersey Breeders Meet.

There was a meeting of the Canadian Jersey Breeders' Association on December 31st, in Toronto. Messrs. Rolph and Duncan were appointed representatives to the Toronto Fair Board, and Messrs. Gibson and Humpidge to the London Fair Board.

It was decided to ask other dairy breeders to co-operate in securing better inducements to exhibitors of dairy stock at fairs. As the dairy interest exceeds that of any other live stock, it was decided to ask the associations to at least recognize it to the same extent as that of the beef breeds.

It was decided to furnish names of breeders as competent judges to any association applying for them to judge on Jersey cattle.

The election resulted in making A. McLean Howard, Jr., President, Toronto; David Duncan, Vice-President, Don, and E. W. Smith, Secretary, Grimbsy. B. H. Bull, William Bacon, P. Freeman, William Rolph, and George Smith, as Board of Managers. It looked bright for the Jersey interest to see so many new members coming in.

SHROPSHIRE SHEEP AGAIN SUCCESSFUL.

At the inauguration Christmas Fat Stock Show recently held in Dublin, Mr. J. L. Naper's three splendid Shropshire shearing wethers, which were placed first in their class, secured the champion prize given by the Lord Mayor of Dublin for the best pen of sheep of any breed in the show. These sheep were running out during the whole of the summer, and had in no way been reserved for exhibition purposes. Following so closely upon Mr. Bowen Jones's similar success at the Birmingham Show, it should help to even further extend the popularity of this breed of sheep. In competition with Mr. Naper's sheep at Dublin were no less than forty-one pens of Longwools and five of Cheviots.



Charles H. Hutchings.

Sick Headache

CURED PERMANENTLY

BY TAKING

Ayer's Pills

"I was troubled a long time with sick headache. I tried a good many remedies recommended for this complaint; but it was not until I

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Is free from the injurious coloring. The more you use of it the better you like it.

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AWARD Chattahoochee Valley Expo., Columbus, Ga., 1888.

HIGHEST AWARDS St. Louis Agricultural and Mechanical Asso'n, 1889.

SIX HIGHEST AWARDS World's Columbian Exposition, Chicago, 1893.

HIGHEST AWARDS Western Fair Association, London, Can., 1893.

SIX GOLD MEDALS Midwinter Fair, San Francisco, Cal., 1894.

SILVER MEDAL Toronto Exposition, Toronto, Canada, 1895.

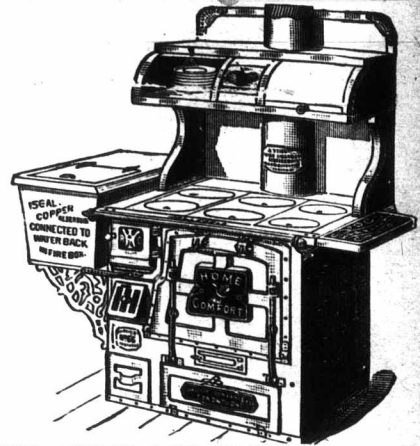
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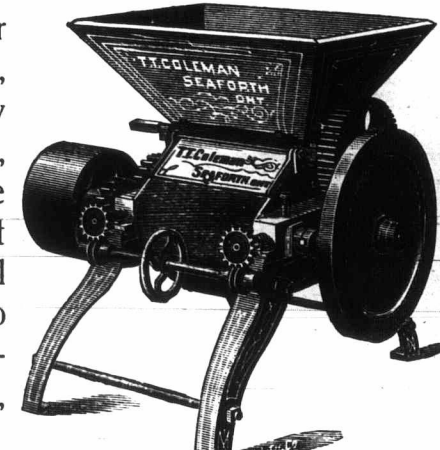
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An Improved Farm of 150 Acres, with good barns and outbuildings, including 140-ton silo; new brick dwelling house, with furnace; 125 acres are cleared; soil clay loam; large orchards of Apples, Peaches, Plums, and Pears. A plentiful supply of good water. Write for particulars and give references. A. M. McINTYRE, Lawrence, Ont. Have for sale No. 2 Alexandra Cream Separator; capacity, 50 gallons milk per hour. Only in use six months. 3-n-o

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Shrubs, Roses, Grape Vines, Small Fruits, etc. First-class stock. Leading Varieties; true to name. Also 100 bushels Joannette Seed Oats.
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We will mail on application, free information how to grow hair upon a bald head, stop falling hair and remove scalp diseases. Address, **Altenheim Medical Dispensary, Room 35 Selva Building, Cincinnati, O.**

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Should remember to use only two-thirds as much Cottolene as they formerly used of lard or butter. With two-thirds the quantity they will get better results at less cost than it is possible to get with lard or butter. When Cottolene is used for frying articles that are to be immersed, a bit of bread should be dropped into it to ascertain if it is at the right heat. When the bread browns in half a minute the Cottolene is ready. Never let Cottolene get hot enough to smoke.

THREE IMPORTANT POINTS: The frying pan should be cold when the Cottolene is put in. Cottolene heats to the cooking point sooner than lard. It never splatters when hot.
The Cottolene trade-marks are "Cottolene" and a steer's head in cotton-plant wreath.
THE N. K. FAIRBANK COMPANY, Wellington and Ann Sts., MONTREAL.

The **Alpha De Laval** Cream Separators.



Guaranteed Superior to all other makes of Cream Separators on actual test. If not proven to be so, can be returned free of expense. Send for Catalogue and Circulars to

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cannot be made out of horses that are out of condition. Merely to feed plenty of oats is not enough. A horse gets run down the same as a man and needs a general toning up.

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is a scientific preparation in the form of a powder. It purifies the blood, strengthens the digestion, turns a rough coat into a smooth and glossy one and puts the animal "in condition." He then has "good life" and feels like holding up his head and lifting his feet.

MILCH COWS are greatly benefitted by it. The whole system is toned up. The digestive organs being strengthened, more nutriment is drawn from the food and the flow of milk increased.

Dick's Blood Purifier will pay for itself ten times over.

For sale by druggists, at general stores or sent post paid on receipt of 50 cts.
Dick & Co., P. O. Box 482, Montreal.

STOCK GOSSIP.

G. W. Clemons, St. George, Ont., writes:—"I find on looking up the pedigree of the calf noted in your last issue, and which I have named Daisy DeKol, that thirty-eight of her nearest female ancestors (including four two-year-olds and two three-year-olds) have milk records which average 85 4/19 lbs. per day. She is a beauty, and if there is any value in breeding she should make a record-breaker some day. Her granddam, DeKol 2nd, has the largest official butter record ever made by a Holstein-Friesian cow, and I saw her milk in one day 89 lbs. milk containing 3 4/16 lbs. of butter-fat, equivalent to 4.307 lbs. butter containing 80 per cent. fat. I have now in my herd four granddaughters and three great-granddaughters of this famous cow, the latter three being granddaughters on the sire's side of Empress Josephine 3rd, winner of more public butter tests than any other cow in America, and great granddaughters of Mechthilde, whose milk record is 112 lbs. in one day, and butter record 39 lbs. 104 ozs. in a week. I have recently sold the fine yearling heifer Kate Claxton to Mr. William Rennie, for the Ontario Agricultural College, Guelph. She was sired by Artis Aaggie Prince, and her dam, imported Kattie DeBoer, is one of the best cows in Canada. Kate Claxton won second prize at Toronto in 1894 in a ring of seventeen heifer calves, and she promises to make an extra good cow. Mr. Gregor MacIntyre, Renfrew, Ont., selected the two-year-old heifer Rose of Maple Hill, and the yearling Grace Greenwood, both very straight and handsome heifers, sired by Artis Aaggie Prince and Netherland Consul, respectively, and out of heavy-producing and prize-winning dams. Mr. F. B. McIntyre, Rockliffe, Ont., took a very nice pair of yearling heifers, Ruth Raynor and Faith Fenton, the former being a prize-winner at both Toronto and London as a calf. She is a full sister to my bull calf that won at all the big fairs last fall. All the heifers mentioned above are in calf to my imported bull, Sir Pieterje Josephine Mechthilde, who is closely related to nearly all the great record-breakers of the breed."

TAPE BROS.' DUROC-JERSEYS.

After a successful season's campaign at the Toronto Industrial, London, and other fairs, and a heavy run of sales, the above herd are now comfortably quartered in their home near Ridgetown, Ont., and were found in fine, thriving, and healthy condition. Although the demand has been good, a few choice young sows, from two to eight months, were still left. From the grand individuals kept over for breeding sows and the superior boars used an exceptionally fine lot of young pigs is expected to fill the spring trade. A fine young boar ten months old was imported by the Messrs. Tape last fall, to use on the herd, from the famous herd of E. H. Small, Norwood, Ill., and a boar and sow, now three months old, the pick of the above herd, is also being added. This infusion of fresh blood from that noted American herd, with such stock as is to be seen in the Tape Bros. herd, which already stands well to the front, should produce stock of exceptional merit. We have no doubt but that the fall of '96 will see this herd represented at the different fairs in even better form than heretofore. The young pigs now on hand are from the two grand stock boars, Oxford Lad and Duke of Kent, while the spring litters will be from Oxford Lad and Norwood King 2nd, and from such sows as The Duchess of Kent, Blooming Bell, Royal Beauty, Baroness, Dairy Blossom, and Howard Bell. Baroness is a winner of first in 1894 and 1895 at Toronto in her class, as also was Howard Bell. They were bred to the imported boar, a winner of all prizes shown for in Illinois last year. The Durocs have many good traits to recommend them, one of which is their prolificacy, two sows in this herd having produced eighteen each, another sixteen, and others ten and upward, all coming strong and good; while their easy feeding qualities, docile disposition, etc., are among their other characteristics.

THE ESSEX HERD OF POLAND-CHINAS

is owned by R. B. McMullin, Goldsmith P. O., Essex, Ont. It was founded in 1891 by an importation from the herd of E. W. Mormier, Elizabeth, Ill. Since then importations have been made from the herds of Eli Powell, New Vienna, Ohio, and more recently a young boar was selected from the herd of Mormier to head the Essex herd; therefore this herd comprises a fine line of breeding. The breeding sows number some nine head, including some imp. sows, and are of a fine type—lengthy and deep, straight and smooth. We might mention some of the best sows: Darkness 3rd - 744 - (imp.), bred by Eli Powell, New Vienna, Ohio, U. S., is a fine type of a sow, and farrowed 16th Jan., by Joe Corwin (imp.) 387, a boar of capital breeding, which headed the herd previous to the one now in use. Darkness 3rd was sired by Black Rowdy 24119, O., and from the sow Darkness 62656, O., who was by Best on Earth 16421, O. Essex Queen is another grand imported sow, from Darkness 3rd and sired by Fred Corwin 25223. Another grand young sow that we were well pleased with is Mollie A., a two-year old of fine conformation, sired by Raven (imp.), the first boar in use on the herd, and from Molly None Such (imp.) - 683 - bred by E. W. Mormier. In tracing back the breeding of Mollie A. we find her of most excellent descent. Other sows of splendid quality and breeding may also be seen. A nine-months-old imported boar, Columbus Wilkes, now heads the herd, and promises to develop into a grand stock boar. He was sired by Columbus 23783, A., winner of first in his class this year at both Illinois and Wisconsin State fairs, and sweepstakes boar at the latter. The dam of Columbus Wilkes is Gilt-Edged Wilkes 3rd - 909 - Most of the litters to farrow this spring will be by the above boar. Mr. Mormier's herd, from which most of Mr. McMullin's foundation stock was selected, have been leading winners for a number of years at the Illinois and Wisconsin State fairs; therefore it is only natural that the Essex Center herd should be winners of the majority of the best prizes at all fairs wherever exhibited last year and also previous years. Mr. McMullin will be prepared this spring to supply a first-class article to customers. He informed us that sales never were better than the past year, and at the time of our visit he had not enough to supply the demand, showing that this breed must be increasing in favor.

\$50 Buys a Steel Plate

Range

SIX COOKING HOLES, WITH RESERVOIR AND WARMING OVEN.

Equal in . . .

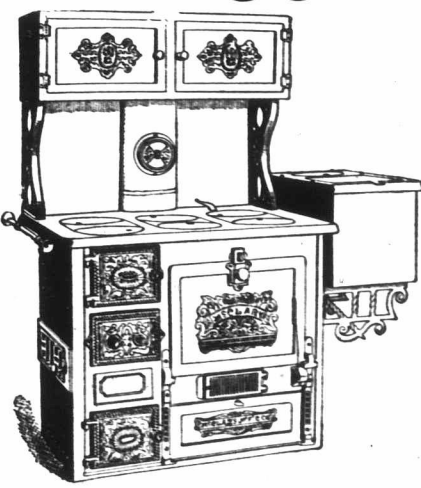
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The Pension Bond Policy of the Manufacturers' Life guarantees an income for life of from \$100 to \$10,000 a year, from any age after 45. No medical examination required. Should death occur at any time before the Pension becomes payable, all the money paid by the assured to the Company will be returned to his or her beneficiaries.

This is the easiest, cheapest, simplest, and most convenient way of providing for old age. Same rates for both men and women. No medical examination required.

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We manufacture the largest variety of Wind-mills and Pumps of any firm in Canada. Our goods are strictly up-to-date, and prices are made to suit the times. Be sure and get our prices before purchasing. Catalogues mailed free on application. Live agents wanted in unoccupied territory.
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Mrs. Marvin Burke, of Bowmanville, uses nothing but Windsor Salt, and has taken a gold medal and 26 first prizes, as follows:—Industrial Exhibition, Toronto (2); Quebec Provincial, Montreal (1); Central Canada, Ottawa (gold medal and 2 highest awards); Whitby (4); Bowmanville (3); Orono (3); Markham (4); Stouffville (3); Woodbridge (4).

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FOR SALE: Thoroughbred TAMWORTH and DUROC-JERSEY SWINE. Write for prices and terms. 0-22-1-y-0

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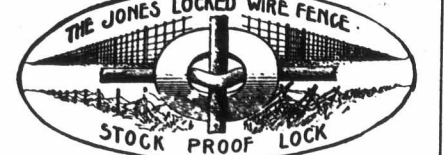
The managers of Dr. Barnardo's Homes will be glad to receive applications from farmers or others for the boys whom it is proposed to send out from England in several parties during the coming season. All the young immigrants will have passed through a period of training in the English Homes, and will be carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars, as to the terms and conditions upon which the boys are placed, may be obtained on application to MR. ALFRED B. OWEN, Agent, Dr. Barnardo's Homes, 24 Farley Ave., Toronto. 4-y-0

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A trial of this plan costs but little and is sure to lead to profitable culture.

Our pamphlets are not advertising circulars booming special fertilizers, but are practical works, containing latest researches on the subject of fertilization, and are really helpful to farmers. They are sent free for the asking.



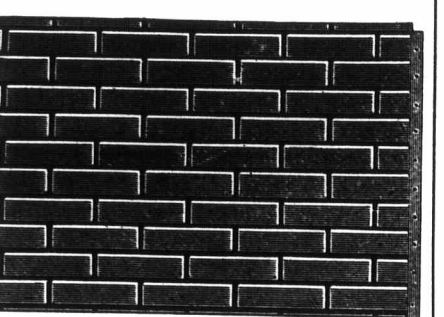
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Our Fence contains all the claims made by other companies, besides having the following exclusive points:—

Highest award at the World's Fair; more weight; more strength; heaviest stay; greatest supporting qualities; the only diagonal brace (secured in the lock); no remnants; repairing of old fences; equal strain on all wires over grades; requires less capital; can build high or low, close or open; accommodates itself to any condition. The "Missing Link," the Jones Flexible Clamp. Write for Catalogue. Agents wanted in unrepresented districts.

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Sheet Steel Brick Siding.



AS WARM AS A BRICK WALL. CHEAPER THAN WOOD. ENTIRELY WATER, WIND, STORM, FIRE AND LIGHTNING PROOF.

We manufacture any kind of desirable Sheet Steel Siding, Sheet Steel Roofing, and Sheet Steel Ceilings.

Get our prices and New Catalogues. THE PEDLAR METAL ROOFING CO. Office and Works: OSHAWA, ONTARIO. 4-y-0

CAKED-BAG LINIMENT.

This preparation is a specific for Mammitis, Garget of the Udder, or Caked Bag in Cows. Price, 50c. and \$1.00 per bottle. DR. WM. MOLE, 280 Adelaide St., TORONTO, ONT.

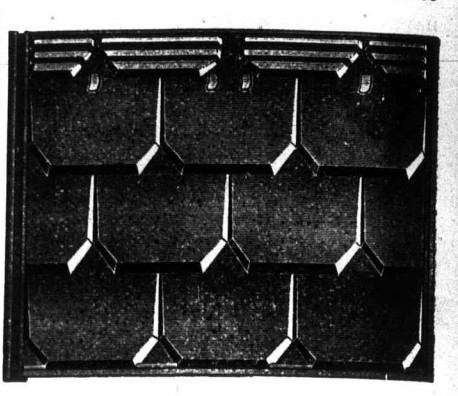
Read Testimonial.
DR. MOLE, V. S.:
Dear Sir,—We have been and are now using your liniment for "Caked Bag" amongst our cows—a herd of 50—with the best results. Since using it we have had no trouble with the disease whatever, and can recommend it to all dairymen. Yours truly,
JOHN ADAMS & SONS,
Carleton West, Ont.

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For MAPLE, SORGHUM, CIDER, and FRUIT JELLIES. Has a corrugated pan over firebox, doubling boiling capacity; small interchangeable syrup pans (connected by siphons), easily handled for cleansing and storing; and a perfect automatic regulator. The Champion is as great an improvement over the latter as over the old iron kettle hung on a fence rail. Catalogue Free.

THE G. H. GRIMM MFG. CO., HUDSON, Ohio, & MONTREAL, Quebec.

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THE "EASTLAKE"—the old reliable shingle that others try to imitate. The only original shingle with a cleat! Others are imitations. Cut out and send this advertisement for price list and catalogue.

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GRAIN, FLOUR AND HAY
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P. O. Box 428, LONDON, ONT.
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