

morning and evening, by downward friction with the hands, the following lotion: Acetate of lead, one ounce; tincture of arsenic and camphor, of each two ounces; alcohol, four ounces; water, one pint. Apply a flannel bandage during the night. Give moderate exercise daily. W. A. DUNBAR, V. S.]

## WORMS IN SWINE.

JAS. BARBOUR, Balmoral, Man.:—"Can you give me a remedy for worms in pigs? Our pigs are troubled with worms, occasionally passing very large ones, from five to six inches long. I believe this must be the cause of their not developing as they should. They do not seem to thrive well, and I know of no other cause."

[Give twice a week to pigs one year old and upward, in food, a teaspoonful of powdered charcoal, and the same quantity of powdered arica nut. To younger animals give proportionately less. W. A. DUNBAR, V. S.]

## WART.

SUBSCRIBER, J. T.:—"I have a colt, three years old; has a big lump on hind fetlock, which I call a wart; first noticed it eighteen months ago; was then about the size of a coat-button. Some time after I took the colt to a V. S., who pronounced it a wart, and cut it off, then burnt the place with a hot iron, and said that would be the last of it. In about two months it started to grow again, faster and bigger than ever, and I had the operation repeated, and some light-colored powder given me to put on the sore when the scab from the burning came off. This I applied three times, and though it made a blister and raised a scab, it did not prevent the wart from growing again. It is now as big as a dessert plate, and about 1½ inches thick. It bleeds when cut or scratched. The colt goes a little lame on that leg sometimes. Can his leg be cured; if so, by what means?"

[Any qualified veterinary surgeon should be able to remove and prevent a second growth of the wart; but being over a joint, I would not advise you to undertake the treatment yourself, as it has to be closely watched by an experienced person. The treatment after the wart has been removed and the roots cauterized is the judicious application of arsenicum alba.

W. A. DUNBAR, V. S.]

## Miscellaneous.

## MAPLE SYRUP STANDARD.

FREEMAN GREEN, Kent Co.:—"Is there a standard weight for a gallon of maple syrup? Please answer through the ADVOCATE."

[No. The Imperial gallon is the only lawful measure. If the saccharometer is used in making the syrup, the proper density can easily be obtained. This instrument can be bought at any drug store for about sixty or seventy cents.]

## CRANBERRIES.

Y. Z.:—"1. Are there two sorts of cranberries, or is the cultivated sort simply an improved condition of the wild, by cultivation, etc.? 2. Where can I get literature on cranberry culture? 3. Has stack ensilage, outdoors (no silo), been tried with success in Canadian climate? 4. Will watercress succeed in Nova Scotia?"

[1. There are several sorts of cultivated cranberries, three of which are the Bell, the Bugle, and the Cherry, all of which are the results of improvement of wild sorts by selection and cultivation. 2. In Massachusetts Hatch Bulletin, No. 19, which can in all probability be had by writing the Secretary at Amherst, Mass., Agricultural College. There is also a little work by Joseph J. White, published by the Orange Judd Co., 751 Broadway, N. Y., which contains some reliable information on the subject of cranberry growing. 3. Not to our knowledge. 4. Yes.]

## SELF-SUCKING DEVICES—CONTROLLING SEX.

E. C. T.:—"In reply to Mr. Donald Frazer, of Emerson, Man., I must thank him for his suggestion re sucking cow, but I must say that I have tried the flap he speaks of, and have found it to work very well for weaning calves, also for the cow herself until she got used to it, when she would (as you say in your note) 'hold her head sideways and suck away quite contentedly.' Am trying to work out a half-circular arrangement on the same principle; cover it with a thin coat of leather, and have nails sticking out. Should that succeed, I will let your readers know."

"Is there any foundation for the idea I have sometimes heard, viz.: That a cow served at the beginning of her period will produce a bull calf, and *vice versa*, or is it a fallacy?"

## MARL AS A FERTILIZER.

C. G. J.:—"Will you or some subscriber please inform me of the best method of using marl as a fertilizer. If used as an absorbent in stables, would the lime in it liberate the ammonia in the manure? What is its value per ton (sun dried). It contains about 90 per cent. lime and a certain amount of phosphoric acid. Is it of recent formation, how formed, and where found in Ontario?"

[Marl occurs in many parts of Ontario. It frequently occurs in beds or deposits in swamps and low land. These deposits are sometimes quite near the surface; at other times they are found underlying beds of muck or humus. The marl deposits result from the evaporation of spring-water containing carbonate of lime in solution, which water fills some swamps and low lands. In such swamps and low places, while the water evaporates, the marl deposits deepen. A low-lying bed of marl on the Ontario Experimental Farm contains 42% of carbonate of lime. Other deposits in Ontario have been found to contain as high as 92% of carbonate. These deposits represent pretty pure marls. Marl is a lime manure, but not so powerful in its action upon vegetable matter as burned lime. It may be used on soils naturally destitute of lime, as many clays, which can scarcely receive too much. Sixty to seventy bushels per acre may be applied to drained swamp muck to render its nitrogen available. On light soils, deficient in lime, twenty-five bushels per acre are sufficient to supply lime to the crops. Containing no sulphate, marl cannot be used as an absorbent in stables. It should not be used with manure, because lime in the form of a carbonate liberates ammonia. While there is no market value for marl in Ontario, your marl, as a fertilizer, is worth about \$3.00 per ton.

A. E. SHUTTLEWORTH,

Professor of Chemistry, O. A. C., Guelph.

## PERMANENT PASTURE—RAPE—LEGAL.

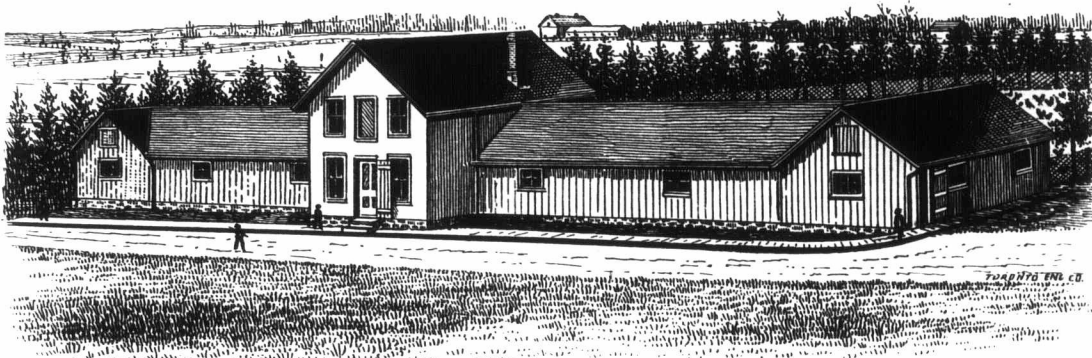
J. J., Boston, Ont.:—"1. Would you recommend permanent pasture for creek-bottom land, which flows spring and fall? 2. Would rape be profitable to sow to plough under for wheat on sandy loam; if not, what would you recommend? 3. In the case of a will, is it necessary to will some to each of the heirs to make the will legal; if so, what would be the least amount?"

[1. Yes. 2. Rape or buckwheat are about equally profitable to plough down. When practicable, it is preferable to sow a leguminous crop, as clover, peas, or tares. Of these, clover is most preferable. 3. No.]

## BUCKWHEAT AS GREEN MANURE.

J. D., Centralia:—"1. Is it a good plan to sow buckwheat on a summer-fallow to be ploughed under? 2. If so, what sort, how much per acre, when should it be sown, and when ploughed under? 3. Have the American Harrow Co. any agents in Canada?"

[Wherever buckwheat has been sown for green manure the practice is in high favor. It soon covers the ground, thus keeping the soil moist and open. It has a splendid effect in smothering weeds, and when ploughed down puts the land in fine mechanical condition, due, no doubt, to the rapid decomposition of the sappy stalks and leaves. 2. There is very little difference which variety is used; the common gray produces a luxuriant top. Four to five pecks per acre is quite enough. It may be sown any time after the soil warms up in spring. Ploughing under should commence so as to have all down before the bloom begins to fade. Care should be taken to have all blossoms covered, else seed will mature and give trouble the following season in grain. It is well to run the roller over the crop in the direction in which the ploughs will follow, also to use a chain on the plough to drag the last vestage under. 3. Yes.]



NO. 1 POULTRY HOUSE, O. A. C., GUELPH.

## WHITE SCOUR IN CALVES.

CONSTANT READER:—"I have a calf about four months old, which has at intervals of three or four days and for some days at a time been scouring ever since it has been born. If you would through your valuable veterinary column tell me the cause, and give me a preventive, you would much oblige."

[Many think that the only way to fatten calves is to give them plenty of milk. If a little stale, will not matter. On the other hand, there are careful men who want to know the reason why "scour" always attack young calves. Perhaps there are few diseases, the cause of which is overlooked so often, as diarrhoea in sucking calves. This disease usually occurs in rearing calves taken from their natural food—the first milk of the newly-calved cow. This contains a fatty matter, known as colostrum, which acts as a natural purgative in cleansing out the meconium or first secretion of the newly-born calf; therefore, constipation is the first symptom. The fourth stomach of the calf is called the rumen, and secretes a material which coagulates the milk. The curd or cheesy part remains as a foreign agent in the intestines, and the fluid part or whey is thrown off in the form of white semi-fluid faeces. The acid secretion of the intestines once having been set up in the intestines, it becomes a difficult matter to restore its normal condition, as each successive supply of milk coagulates and acts as a fresh irritant. Prevent by allowing the newly-born calf to take the first three days' milk from its mother, and should the disease be present, try to restore as soon as possible the natural condition. The food must be looked to, and the writer finds the best method, when once the disease is established, to take a way half the quantity of milk, and substituting the same quantity of linseed gruel, then adding a wine-glassful of lime water to every painful of food. To restore the natural secretion of the intestines, an antacid and carminative may be given. Carbonate of potash, 1 drachm; powdered rhubarb, 1 drachm; given in a little peppermint water daily.

DR. WM. MOLE.]

[This and many plans have been tried for controlling the sex of the offspring of our domestic animals, but none have proved uniformly successful as far as we are aware.—ED.]

## A QUERY IN SCHOOL LAW.

D. C., Kitley Township:—"I own one hundred acres of land in S. S. No. 6, Township of Kitley (on which are placed my buildings), and twenty acres in S. S. No. 3, Township of Kitley. Last year the trustees of S. S. No. 3 made me pay for one scholar I sent to that school as an income scholar. Can they do so? That part of my land which is in S. S. No. 6 is assessed for \$2,800, and what is in S. S. No. 3 for \$200. How is the average per scholar made up from the school taxes; I paid in both?"

[The School Act of 1891 abolished the right of children of non-resident ratepayers to force admission into the school of the section in which they pay rates, but do not reside, unless such residence is nearer the latter school than their own. The law reads: "The parents or guardians of such non-resident children shall pay . . . such fees monthly as may be mutually agreed upon, provided such fees, together with the taxes paid . . . do not exceed the average cost of instruction of the pupils of such school." The average cost is found by dividing the number of children in attendance for the preceding year into the total cost of the school for the same year. It would seem fair in such estimate to except any outlay on capital account.]

## BEAN GROWING, ETC.

W. H. STEWART, Tintern:—"Six acres on which I had oats last year. I have thought of summer-fallowing the coming summer. Would it not pay me better to plant with beans, so that I could cultivate the ground well, and have the bean crop removed in time to sow fall wheat? In such a case, what kind of beans should I plant? Do beans take much out of the soil? Would it pay me better to sow peas, as they need no cultivation? Is it better to draw manure out while the ground is frozen, or