

BARN PLAN WANTED.

ENQUIRER, Buffalo, N. Y.—"Can you or any of your readers give me a good plan for a basement of a barn 36x54, to accommodate cattle and horses? Also, will you please give me the proper size, width and length, for cattle stalls from manger to drop, and necessary room behind; also width and length of horse stalls and room behind. I want to get as much room as possible consistent with comfort and convenience for the animals, at the same time not waste any room. I would like to get reply in next issue if possible. No plans I have seen give these measurements."

[Among the plans that have appeared in our columns there are none of the particular size 36x54, but from them a good arrangement of the basement should be selected. We hope, however, to hear from some of our readers on this point. Double cattle stalls should range in width from 6 feet for young stock to 7 or 7½ feet for large cows. Single stalls should range from 3 feet 6 inches to 4 feet wide. Five feet 6 inches from manger to gutter is a good medium length, but 4 inches longer is necessary for large cows. The best width of passage behind the cattle depends upon the method to be adopted in taking out the manure. If it is to be wheeled out (which seems an unnecessarily laborious method), 5 feet will do, but 6½ feet would allow a horse and boat, or even a team, to be driven through. Horse stalls should be not less than 5 feet wide and 8 feet long, and 7 feet behind the horses is as narrow as we would care to recommend. Unless one has a very effective ventilation system, an extra high ceiling (10 to 11 feet) should be provided where animals fill most of the floor space, in order to avoid foul air in the stable.]

STRANGLES—CHRONIC COUGH.

OLD SUBSCRIBER, Renfrew Co., Ont.—"My mare, now six years old, had strangles about three years ago, and a cough ever since. There is a discharge from the nose of a white color. My horse, nine years old, got sprained in the hock joint four weeks ago. I put a blister on the inside and outside, but the inner side has remained large, and he is stiff on the leg yet."

[Strangles is a disease peculiar to young horses, and the attack generally takes place during the third and fourth year. Should it be allowed to run its course without attention will often terminate, as in this case, in chronic cough or bronchitis. This often results in an inflamed and thickened condition of the lining membrane of the throat and trachea, or giving rise to a chronic cough. These cases are often difficult to cure, and require so much consideration of all conditions that we do not like to suggest any treatment. You might try the following powders, but do not expect any improvement for some considerable time: Chloride of ammonium, 2 ozs.; nitrate of potash, 2 ozs.; powdered belladonna, ½ oz.; powdered liquoric, 4 ozs. Give a teaspoonful in every feed. To your second question, we would advise that you take him to a veterinary surgeon and have him properly fired and blistered. This will no doubt relieve the swelling and lameness. DR. MOLE.]

FEED FOR YOUNG LAMBS.

J. C. W., Beaver Lake, Alta.—"Please inform me in your valuable magazine what would be the best feed to raise lambs on where there is a scarcity of milk? That is, where we have the misfortune to lose the mothers."

[Young lambs that have lost their mothers, and cannot be put to suckle other ewes, must be fed with cow's milk until they are three or four months old. The milk should be newly drawn from the cow, or warmed to the same degree of heat as new milk. It may be fed to them through rubber teats similar to those used for infants. These can be got at any drug store. When about three to four weeks old the lambs will begin to nibble nice green hay, crushed oats, bran or finely-ground linseed cake, which they should receive. When grass is ready there will be no difficulty, but the above foods may advantageously be continued for some time thereafter.

Elsewhere in this issue appears an article giving concise instruction on raising pet lambs.—ED.]

ASHES AS FERTILIZER—SEED POTATOES WANTED.

T. BENTLEY, Ontario Co., Ont.—"I wish to go into vegetable growing this season, and having a good quantity of fresh hardwood ashes, would like to know if there is any fertility in them. If so, how should they be applied to the hills or rows, and when, and in what quantities? 2. Could you direct me to some person who has Extra Early Prolific potatoes for sale?"

[Fresh, unleached hardwood ashes are estimated to be worth about 25 cents per bushel as a fertilizer. They should be sown broadcast, about 40 to 50 bushels per acre, and worked into the soil before planting the seed.

2. The seed merchants advertising in our columns have early seed potatoes for sale. Any of them will be pleased to send catalogues if applied for, from which varieties can be selected.]

PUMPING DEVICE.

MIXED FARMING, Elva, Man.—"I would be much pleased if you would furnish me through the columns of your valuable journal with information relating to the construction of a device whereby it would be practical for stock to lift their own drinking water from a well some twelve feet deep."

MANGELS AND TURNIPS COMPARED.

W. F., Brant Co., Ont.—"Please turn to page 16, Jan. 2, 1890, of the FARMER'S ADVOCATE and tell us why those two analyses from the Ontario Agricultural College do not agree with those by the same College which are given in their little book for schools and students?" According to the analyses in the College books,

40,000 lbs. of mangels will yield	4,480 lbs. of digestible matter.
40,000 " " turnips	3,140

Difference in favor of mangels... 1,340 lbs.
According to the analyses from the College in ADVOCATE,

40,000 lbs. of mangels will yield only	3,640 lbs. of digestible matter
40,000 " " turnips	4,560

Difference in favor of turnips... 920 lbs.

"From my experience, the feeding power of the mangels is much greater than that of the turnips. A good many years ago you prepared a table of analyses and printed it in the ADVOCATE, and I find that those analyses are exactly the same as those which came out in the College book a good many years after."

[In reply to your letter of 4th inst., re question from Mr. Wm. Farmer, I beg to say that the dry matter and the nutritive value of the roots do not mean one and the same thing. We have found by analysis (a report of which is given in the O. A. C. annual report, 1893) that a number of varieties of mangels average 10.24% dry substance, while a number of varieties of turnips average 13.10% dry substance. Consequently twenty tons of mangels would yield 4,066 lbs. dry substance, and twenty tons turnips would yield 5,240 lbs. dry substance. But while this is the case, it is quite possible that a given weight of the dry substance of mangels would have a higher feeding value than the same weight of the dry substance of turnips.

There is a great variation in the composition of roots grown under different conditions of manuring, thinning, etc., which accounts for differences in the dry matter obtained by different experimenters.

A. E. SHUTTLEWORTH, Chemist.
Ont. Ag. College.]

STONE SILOS.

W. G. THOMPSON, Wentworth Co., Ont.—"Would a silo thirty feet high and fifteen feet across, built with stone, with a wall one foot thick, be strong enough to stand the pressure of ensilage when it is full. It could be ten feet under ground to be level with my stable floor; or I could have one built with stone, to be level with the top of the ground, which would be ten feet, and then built twenty feet higher with scantling or plank, the form of a round stave silo. Please publish them in your paper, as I intend building one this summer."

[In the FARMER'S ADVOCATE of June 15th, 1898, was published a description of a stone silo 12x18 feet and 27 feet high. The wall at the bottom was 18 inches thick, tapering to 10 inches at the top. This is as light a wall as we would consider safe were the silo entirely above ground. It is possible, however, that a lighter wall would answer where the bottom ten feet would have the support of the earth just where the greatest pressure occurs. We are not inclined to favor a combination of stone and wood in the way that is mentioned, although a stave top on a round stonework bottom might answer well enough, provided the joint remained perfectly true and solid and the wall is plastered inside with cement smoothly. Our preference would be decidedly for a concrete cement silo throughout, or at least cement above ground, as it is less liable to burst or to crumble than stonework, and we are confident the ensilage will keep better in a cement silo. We will be pleased to publish the opinions of those of our readers who wish to help Mr. Thompson and others to decide what sort of silo to build this coming season.]

TYPE OF SHROPSHIRE SHEEP.

A SUBSCRIBER, Pilot Mound, Man., would be glad to have you furnish information as to the proper type of the Shropshire sheep, as this is about the time to select for showing at the summer fairs, and it seems to me that if there are any criticisms to be made by the agricultural papers they should be made now and not after the exhibitions. There seems to be a good many different opinions as to what constitutes the proper type. Those interested will remember that at the last Winnipeg Industrial, in the aged ram class, there were three fine-looking entries. One weighing probably 75 pounds more than the others had to take second place. Also in the shearing class a large, well-developed sheep, well covered with wool, shown in good fit, and weighing probably 75 pounds more than the other entries, had to take third place.

[Extra size and weight are not the most desirable features in any breed of sheep. Compactness, quality and symmetry are more desirable. In a Shropshire of approved type the latter are considered essential. Abnormal weight may be a result of extra heavy feeding or of the cramming process, and may impair or destroy the usefulness of the animal for breeding purposes; and extreme size is apt to be associated with coarseness, and a lack of compactness is not conducive to uniformity in a flock, and is not always an indication of constitutional vigor. The approved type of Shropshire is an animal of medium size, standing on strong, straight legs, well set apart; is broad in the chest, straight through the heart, has a prominent brisket, a thick through the well-arched neck; forehead broad and short, strong, well covered with white wool on the crown and well covered with white wool on the crown and down the sides of the face; ears short and fine;

shoulders flat; back short and strong; ribs well sprung; hips wide, with long, level hind quarters and full twist. The skin should be a bright pink color; the fleece fine, dense, and of even and uniform quality all over the body, free from coarseness on the thighs, and free from black or brown wool. It has been the aim of the best breeders to secure uniformity in their flocks on the lines above indicated, and for this purpose it is said that for many years the exhibitors of Shropshires at leading shows in Britain agreed to have the same judges adjudicate on the class. Expert judges at leading shows in Canada have in several cases left out of the prize list large and good sheep for the reason that they were not of the approved type, and that they as judges are expected to set the standard and thus serve as educators of the public in the judging and breeding of the class of stock they consent to pass upon. It is difficult to understand our correspondent's idea that any criticisms of the agricultural press should be made now and not after the exhibitions, since criticism can surely be best made after comparison, and cannot intelligently be made without examination, but if information and light on the subject is the object of the enquiry we freely submit what we believe to be safe and sound doctrine, and trust it may meet the approval of our correspondent and of breeders of Shropshires generally.]

ADMISSION OF SHEEP INTO CANADA FROM FRANCE.

E. P., Middlesex Co., Ont.—"Are sheep admitted into Canada from France, and, if so, under what quarantine regulations?"

[Sheep from France are admitted into Canada as per the following regulations, as given in the Regulations Relating to Animal Quarantine and Health of Animals: The importation into Canada of live animals coming from Europe shall be prohibited, except at the ports of Charlottetown, Halifax, St. John, N. B., and Quebec, and such other ports as may hereafter be indicated by the Minister of Agriculture.

All animals arriving in Canada from Europe, through any port on the Canadian seaboard, shall be subject to inspection at such port by officers who may, from time to time, be appointed for that purpose.

A quarantine of 15 days shall be enforced upon all ruminants imported from countries in which foot and mouth disease has existed during six months preceding such importation.]

BOOKS FOR THE FRUIT-GROWER AND GARDENER.

S. SPROUL, Assa.—"Please let me know what books you have in your library that you would recommend as useful to one who endeavors to cultivate fruit trees, large and small, and garden stuff, in British Columbia? Also state the price, that I may be in a position to order."

[The latest really helpful books upon fruit-growing and gardening that we have received belong to what are known as the "Rural Science" and "Garden Craft" series. Of these, we would recommend the following: "The Principles of Fruit-growing," by Bailey, price \$1.00; "The Horticulturists' Rule Book," by Lodeman, price 75 cents; "The Nursery Book," by Bailey, price \$1.00; "Plant Breeding," by Bailey, price \$1.00. We can furnish the above books direct from our office, post-paid, at the above prices, or will give any one of them as a premium for obtaining two new yearly subscribers to the FARMER'S ADVOCATE at \$1.00 each.]

APPLES IN MANITOBA.

R. S. T., Eden, Man.—"Can you tell me if any varieties of apples have proved a fair success in Manitoba? If so, what varieties? 2. Are any varieties proving a success on the Brandon Experimental Farm? Would like to know if apples had a fair chance of success here on the south-eastern slope of Riding Mountains, protected by woods on the north and west?"

[There has been 194 varieties of apples tested on this farm during the past ten years. Many of these are the so-called Russian Ironclads. Every one, so far, has badly winter-killed, and the cultivation of the common apples here is, so far, a failure. The only plant of the apple family perfectly hardy is the wild crab of Siberia (*Pyrus Baccata*). The fruit of this plant is about the size of a large cherry, and is only fit for jelly. We are grafting and crossing this tree with the ordinary apple, and may get a valuable and hardy fruit. It would be worth while to try a few Transcendent crab apples in your locality, for if the altitude is not too great they may succeed; but it is unlikely that any other variety will succeed. S. A. BEDFORD, Supt. Brandon Experimental Farm.]

TROUBLE WITH WATER PIPE.

L. A. B., Ontario Co., Ont.—"I have a spring about three hundred yards from the barn, with about five feet of fall, and am trying to force the water about three feet into a trough, using three-quarter inch pipe. It ran all right for a time, but was afterwards stopped, apparently by a mossy substance formed in the pipe. Will it matter if the surface on which the pipe rests is a trifle undulating?"

[I would certainly recommend that the pipe be changed for a larger one, since the fall is so slight that any small obstruction would be sufficient to stop the flow. Any undulations in the surface over which the pipe is laid will not affect the flow so long as the pipe is not at any point as high as the source. J. B. REYNOLDS, Dept. of Physics, Ont. Agl. College.]