

## 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.

## BLACK TOOTH.

"QUIT," Qu'Appelle:—1. "Please give cause, effect, and treatment of black tooth in sucking pigs? Does it detract from the usefulness of the animals for breeding purposes or lessen their selling value?"

"2. Also are round black patches usual on thoroughbred improved White Yorkshire? sire and dam registered."

1. Premature decay of the temporary teeth of pigs is due to some defect in the secretions of the dental sac. If the teeth are loose they should be removed with small forceps. This should be done especially if the gums are inflamed. It will not lessen the value of the animals either for breeding or selling purposes. The permanent teeth will appear in due time, and will likely be healthy and remain so.

2. Black spots, with hair of same color, will disqualify. Small blue spots on skin with white hair, though not desired, are frequently met with in pure-bred Yorkshire swine.

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

## LAME MARE.

E. J. H., Carnduff:—"I have a mare that goes lame on rough ground; lump formed on shoulder. Is it more than a sprain?"

We are not good at guessing, and without a fuller history and description of the case, do not feel competent to prescribe proper treatment.

## RETENTION OF AFTER-BIRTH.

L. O. LEMIEUX, Joly, Man.:—"What is the cause of our cows not 'cleaning' after calving? The trouble is very prevalent this season; cows that seem strong and healthy, before calving, do not clean, and then give no milk and fail away to nothing. What will prevent it in future?"

Retention of the after-birth is very common among cows. The causes are not very well known, as it occurs under every condition of feeding and management. The connection between the fetal membranes and the womb of a cow are very strong, and in almost every case of premature birth the process of disunion is very protracted. In such cases, the "after-birth" is sometimes absorbed, but it is usually expelled in a partially or wholly decomposed state. The following are some of the other alleged causes of retention of the "after-birth": Rigid contraction of the mouth of the womb; giving cold water to drink immediately after parturition; protracted and severe labor; abnormal adhesion of the womb and "after-birth." The accident has been observed to be more frequent in years when the fodder is not good, especially when it is mouldy, and it occurs more frequently in old cows than in young ones. When the "after-birth" is retained twenty-four hours after parturition, the following drench may be given with advantage: Epsom salts, twelve ounces; nitrate of potash, one ounce; fluid extract of ergot, half-an-ounce; dissolve all in one quart of hot beer, add half-a-pint of treacle, and give in one dose. At the same time, tie a weight, not exceeding two pounds, to the extruded portion of the "after-birth." I know that there are objections to this mode of treatment, but if the weight is no heavier than that mentioned, it will do no harm, and by affording gentle traction will tend to expedite the removal of the fetal membranes. When other means have failed, and the cow is becoming feverish, the hand should be inserted into the womb and the membranes carefully separated from the cotyledons. This operation requires a good deal of patience and care, and should only be undertaken by a person who has some knowledge of the anatomy of the parts. When the "after-birth" has been removed by the hand in a decomposed state, the womb should be syringed with a solution of carbolic acid—carbolic acid, one part to forty of soft water.

W. A. DUNBAR.

## Miscellaneous.

## DRIVE-WELL.

P. CLARK:—"I want to put down a drive-well. Can you or any of your readers inform me how to proceed? Give size of pipe, how protected from frost, and what kind of soil they are considered a success in. I have had three wells, and have had to abandon them all. Surroundings low and quick-sand; below, the trouble too much surface water."

Either 1 1/2-inch or 1-inch pipe may be used. The only way to protect the pump from frost, is to have a leak hole below the surface of the earth to drain the water from the pump. The drive-well succeeds best where there is a layer or bed of gravel containing a quantity of water; it also gives fairly good satisfaction in sand, but in most cases will not furnish a very large quantity of water; say about enough to supply a house for domestic purposes is about the limit. Mr. Clark does not say at what depth he gets the water. I might say that it is not advisable to try to drive pipe of that size any more than twenty feet at the outside. In my opinion the best well he could have would be a drilled well with a pump or a well casing put in, and a surface supply of water was obtained. By this method surface water is completely shut off.

Wm. Sharpe, 154 Hamburg Ave., Toronto.

## WATER SUPPLY.

S. K.:—"As I am a little scarce of water near the buildings in winter, having to let most of the horses and cattle go to the Don, about eighty rods away, for a drink, which I believe does them good in fine weather and harm in stormy weather. When the track is icy, if I had plenty of water, I would not let them out of the barnyard from fall till spring. There are three ways I can get water: First, by well; can get quicksand springs from 30 to 35 feet deep, which require to be curbed about 6 or 8 feet at the bottom; then the water raises only about three feet in them, which makes it hard to pump; also, the valves soon wear out. Second, by cisterns, with eave troughs from the buildings; cisterns would have to be cemented; do not know whether they would require to be bricked up before cementing. Third, by digging a well about 240 rods from the house and barns, where, I think, there could be first-class water got at less than twenty feet deep, which, I am thinking, might be brought down by iron pipes through the house cellar, and then to the barn. If taps would work well in each place, they would be very handy, as we would not need to go out of either house or stable for water—winter or summer. Now, as I have never had anything to do with piping in any way, and as you seem to know all about such things, I would like you to answer in the first ADVOCATE which of the three ways you think would be the best and cheapest, especially the size, cost and kind of pipe to be used; also, how deep they should be put in, how long they would be likely to last, and if there is much danger of them filling up or not working well from any other cause; how to fix pipe in the well where water begins to run. Not having levelled to the hill, cannot tell how many feet of fall there is, but am sure there is a good deal. In the first place, the piping will be down hill for about a hundred rods; then it would have to go up hill for about twenty rods, perhaps to the height of twenty feet; then the rest would be slightly down grade; all through clay ground."

The drilled well, with pipe inserted to where the water is obtained, is the only method, and if the water has to be elevated too great a distance to do it by hand, a windmill should be erected and a tank elevated, which will give water at any point desired. Eave troughing and cisterns are in use in some localities, and when properly constructed, give fairly good results. To make a good job it would be necessary to brick it before cementing. The third method would be pretty expensive, as inch-pipe would cost six cents per foot in Toronto, and would have to be laid below frost, say two and a-half or three feet deep. There is a drilled well on the Nichol farm, near Newtonbrook, not far from Mr. K's. This well had been dug 62 feet through clay; 118 feet was then drilled through sand, where water was found in a gravel bed. A windmill was erected; the water supply thus obtained was abundant, supplying the needs of a farm containing 350 acres; a heavy stock is carried.

WM. SHARPE, 154 Hamburg Ave., Toronto.

## NUMBER OF CUBIC FEET TO A TON OF HAY.

W. R. AUSTIN:—"Please inform me through the FARMER'S ADVOCATE what a ton of hay put in a stack last summer would measure in cubic feet. 1st. Good hay. 2nd. Mow-burnt hay?"

The usual estimate is about 500 feet to the ton; but, on account of the great variation in hay, it is impossible to give a general rule, for it will vary all the way from 400 to over 600 feet, according to the amount of tramping and the size of the stack. Mow-burnt hay will weigh considerably more to the foot than good hay.

## APIARY.

## Smokers When to Use, and What to Use in Them.

BY JOHN MYERS.

A good smoker is one of the essentials in any bee-yard, and a poor one is one of the greatest nuisances that a beekeeper can have. Just think of a person in the midst of opening a colony and they begin to get rather angry, and he makes a grab for the smoker and commences to puff, puff, but there is not draft enough to blow the smoke clear of the nozzle of the smoker. Methinks that under such circumstances a person's thoughts are not very elevating. A good smoker should have a strong draft—strong enough to blow the smoke clear across the hive and down between the frames to the bottom of the hive, if needed. Now, don't think that I advocate overdosing them with smoke, because I don't, as you will see further on, but there are times when one needs a good volume of smoke, and it is sometimes necessary to blow it down between the frames, especially when you want to drive the bees out of an upper story. Another essential in a good smoker is that it has a good, lively spring, so that it will contract and enlarge quickly. I like a coiled spring best; there is no other kind of spring that will act so quickly and at the same time take so little pressure to close it. The leather on a smoker should not be too heavy. I have often seen persons when buying a smoker, pick one with the thickest

leather they could find, thinking that it would last longer than one with lighter leather, but in that they were mistaken; as long as the leather is not soft and spongy, we need not care how light it is; the working of the bellows causes the leather to crease, and the heavy leather will crack much sooner than the light. In purchasing a smoker, I do not buy one that is too small; the extra trouble of filling so often will soon make up the difference in price between a large and small one.

When and how shall we use them? I always use the smoker every time I open a hive; I think it pays; you don't make your bees so cross if you use a little smoke when opening the hive. I once heard a beekeeper say he never used smoke when he opened his hive; I went to visit him and see the bees that never needed smoke. They were the crossiest insects I have ever seen. When the owner went to open a colony, he protected his head with a veil and his hands with gloves, and tied the bottom of his pants close, so no bee could get in there; then he took off the cover of the hive and started to manipulate the frames. The bees fairly poured out at him, and tried to sting him all over, but, of course, he was thoroughly protected, and they could not do him any harm; but woe to the cat, dog, man, or beast that came within ten rods of him. I went home satisfied that I did not want any of the bees that needed no smoke. I have worked among my bees for half a day without a veil, but I always use a smoker. I don't advise working among bees without a veil over the face; I nearly always wear one; I never believe in overdosing bees with smoke. I go to a hive that I want to look into and take off the cover, then start to raise the quilt at one corner; as I continue to take it off, I gently puff in a little smoke just to let them know that I am around; as a rule, scarcely a bee will take wing; they will sit quietly on their combs until I am through looking at them. If I happen to let a comb slip or jar against the hive, I will be apt to need the smoker again. In the above I am supposing that they are Italians (the only kind I keep); if the bees are blacks, they will be more irritable. I might tell how to use the smoker in driving bees out of section cases and upper stories, but, since the introduction of the Porter Bee Escape, this method is very little practiced. The escape does the business so quickly and with so little trouble that I think very few beekeepers will go back to using smoke for clearing the supers.

## WHAT KIND OF FUEL SHOULD BE USED IN SMOKER?

I always use dry planer shavings; not those from a large planer used in dressing lumber—those are too coarse—but those from a buzz planer or moulding machine are just right; put a few in the bottom of smoker, then light a match and throw it in on them; after the shavings gets a-going, commence working the bellows and get the shavings to become thoroughly heated through; now fill up the smoker with more shavings and pack them as you fill; keep puffing the bellows while you are filling, and when you have it filled place a few bench shavings, those made with an ordinary hand plane, on top, to keep the small shavings from being blown through the nozzle; you are now ready to go to work.

There are other things that makes good smoker fuel, such as rags, rotten wood, carpet felt, cedar bark, etc., but, after trying all of them, I like the shavings best. If you were to ask Mr. Wm. McEvoy, Foul Brood Inspector, what were the three best articles for smoker fuel, he would be likely to say: First, cedar bark; second, cedar bark, and third, cedar bark, as there is nothing, in his opinion, like dry cedar bark for smoker fuel. Well, cedar bark, if well dried, is very good, but "I" like pine planer shavings a little better.

The late Mr. Cornell, at one of our Association meetings, told me the best article he had ever tried for smoker fuel was carpet felt; that is, the felt paper used for putting under carpets. The way he used it was to roll up a piece large enough to fill the smoker, then light the lower end and shove it into the smoker. He said it would last a long time, and would not go out until it was all consumed. I have not tried it, but mean to do so this season.

## At the World's Fair.

Japan. The great advance which was made in all the Eastern Countries, in the arts and sciences, is illustrated in the apiary by the following: "A small but interesting exhibit was made by Japan. One of the simplest native hives, built in sections, placed one above the other to the number of six, was shown. While not presenting any feature that could be advantageously adopted here, it is of special interest to American bee keepers, because it is based on the principle of the shallow, horizontal divided section hive, and, hence, one of the best of these hives, as indicated by a few comments on the exhibit granted by our Government Commissioner."