



## AN EXPERIENCE AT THE BELLE MEADE FARM

THE Belle Meade Farm of Bedford, Mass., is well known for its thoroughgoing and scientific methods, and is a model in many respects. Its big stables are all covered with Amatite Roofing. The owners write us as follows:

"It is now nearly three years since we put your Amatite Roofing on our new 300-ft. buildings. This Roofing is now in its third winter, and has gone through without a leak, and there is every indication that it will be good for many years. The buildings with this light, sparkling Roofing and the red trimmings as painted, are very attractive in appearance, and altogether we are much pleased with your Amatite Roofing. We are contemplating the construction of some further buildings for our Shetland Ponies, and mean to use more of your roofing."

If the Belle Meade Farm people had chosen a "smooth surfaced" roofing it would have cost them more in the beginning, and the difference would have become greater every year. Those roofs were laid in 1905. In 1907 they

would have required a thorough painting, which would have to be repeated in 1909, and every two years thereafter.

The Amatite, however, has had no painting, and needs none. The mineral surface takes care of that. When the roof finally wears out and the owners of the Belle Meade Farm compute the cost of their Amatite Roofing, they will put down "for the Amatite, so many dollars"; "for care of same, nothing." If they had used a painted roofing there would probably be several coats of paint to figure on, besides the original cost of the roofing, and the total would be several times as much as Amatite.

It does not matter whether your roofs be large or small, it is wasteful to use anything but Amatite.

Let us send you a free sample, together with a booklet telling more about Amatite. It will save you money later.

The PATERSON MANUFACTURING CO., Ltd.

TORONTO,  
MONTREAL,

WINNIPEG,  
VANCOUVER,

ST. JOHN, N. B.  
HALIFAX, N. S.

## Watch Your FRUIT TREES

Have V 2 Fluid ready and watch the Fruit Trees. At the first sign of insects moving, of Scale, Aphis, Psylla or other destructive insects, spray the trees with V 2 Fluid Spray Mixture (one part V 2 Fluid to 100 parts water).

That means death to every insect on the trees in which it comes into contact—and absolutely no injury to leaf, blossom or fruit. Tell us the size of your orchard and mention this paper and we will send, free, copy of our book "The Eradication of The Plant Pests."

For sale by druggists and dealers generally or direct from

WM. COOPER & NEPHEWS  
11 TORONTO.

# V 2 FLUID

The Summer Spray

Winter spraying can't prevent re-infection. The coming of warmer weather means that insects will be on the wing—passing from tree to tree and orchard to orchard.

### QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.  
2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.  
3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.  
4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

#### Miscellaneous.

#### FLOW OF WATER — TESTING WATER—FOUNDATION FOR HOUSE.

1. How much water would a 1-inch pipe, two thousand feet long, with a fall of not less than 7 feet, deliver per day?  
2. Where could I get a sample of water tested, to see whether it would eat iron or not?

3. Which makes the best foundation for a brick house, cost being equal, ordinary stone or cement?  
M. A. S.

Ans.—1. 1,900 gallons, or 47.5 barrels, approximately, on 7 feet fall in the 2,000 feet.

2. Try the Chemical Department, O. A. C., Guelph.

3. I prefer concrete. WM. H. DAY.

#### ELECTRIC GENERATOR.

1. What kind of generator would be best adapted for charging four storage cells of 100 ampere hours capacity, to run a ½-h.p. motor, wound for 7 volts?

2. How should generator be wound?  
3. What voltage and amperage should generator give?

4. In installing said generator, would it be necessary to use automatic switches? If so, what is their function, and how are they attached?

5. What horsepower would be required to run said generator?

6. Would a windmill, with 10-ft. wheel, be sufficient?

7. At what speed should said generator be run?  
W. T.

Ans.—1. Any direct-current generator, giving a somewhat higher voltage and amperage than necessary for the four cells, will be suitable. Each cell will require about 2 volts, and the motor, to give ½ horsepower, will require 26.3 amperes, hence the generator must produce at least 8 volts and 26.3 amperes, if the cells are arranged in series when charging. If the cells were arranged in parallel when charging, then your generator would have to give 2 volts and 26.3 amperes. The latter, however, is a difficult combination to obtain, so the former would be better, and, indeed, a ½ horsepower motor running on 7 volts, is a very unusual design.

2. Series, shunt, or compound.

3. Answered in 1.

4. Not unless the generator is to be driven by an intermittent power with no one in charge, such as the windmill. If there were not automatic switches, and the windmill were to stop, then the energy already stored in the cells would discharge back through the generator and run it as a motor, or try to, not succeeding if the load was too heavy, but using up the energy all the same, and all the more quickly. These automatic switches are controlled by means of an electric magnet, acting on an iron armature fastened to the knife edge of the switch. As long as the generator is working, the magnet holds the knife-edge of the switch in position, but the moment the generator stops, and the magnetism disappears, the switch is thrown open by means of a spring. It should be possible to so arrange the details of one of these switches that the circuit would be closed again automatically as soon as the generator was started anew. Considerable fine work and design is necessary in their construction, and they are expensive. If the switch was to be automatic in both cases, that is, making the circuit when the windmill starts, as well as breaking it when the mill stops, the magnet controlling the knife edge would have to be in parallel with the cells when being charged, and the resistance of the wire with which the magnet was wound would have to bear a suitable proportion to the resistance of the cells. But, if the switch was to be only an automatic circuit-breaker, then the mag-

net controlling it might be either in series, or in parallel with the cells.

5. The horse-power to run the generator would need to be greater than ½ h.p. would do it nicely.

6. In case of a strong wind, a 10-ft. windmill would be sufficient, but not in the case of a light wind.

7. This question could only be answered if all the details of the generator were given. Lacking these, the speed would have to be determined by experiment.

#### Veterinary.

##### AGALACTIA.

Cow has had three calves, and has always been a good milker. Her udder did not fill before calving five weeks ago, and she has given very little milk, although well fed and looking well.  
R. H.

Ans.—The absence of milk is called agalactia. It occasionally occurs in all classes of mammals, and the reason is not understood. All that can be done is to milk the cow regularly, feed well, and massage the udder frequently. Her mammae may and may not regain its normal activity.  
V.

##### PREGNANT MARE.

Pregnant mare, whose 11 months will be up May 9th, has a swelling in front of her mammae. It is getting larger. What had I better give her? When will she foal?  
H. A. B.

Ans.—Swellings of this kind are quite common in pregnant mares, especially during the latter months of gestation. In some cases, the whole floor of the abdomen becomes swollen. No treatment other than gentle and regular exercise is advisable. It is not possible to say when she will foal. In round numbers, we say that 11 months is the period of gestation, but it varies greatly in different mares, and in the same mare in different periods. The shortest noted has been 307 days, and the longest 370. Hence, your mare may foal any time now, and may not foal until June.  
V.

##### DISTEMPER—NON-APPEARANCE OF TESTICLES.

1. My horses had distemper, from which they have recovered, but are very much run down. What can I give them to tone them up? How could I disinfect the stable?

2. A male twin calf, six months old, shows no signs of testicles.  
A. C.

Ans.—1. Take equal parts of powdered sulphate of iron, gentian, ginger and nuxvomica; mix and give each horse a tablespoonful three times daily. The stable can be disinfected by sweeping and dusting thoroughly, and then giving a thorough coat of hot lime-wash, with five per cent. carbolic acid. If you do not want the whitewash in stable, you can use a hot five-per-cent solution of carbolic acid without the lime.

2. The testicles may or may not appear in the scrotum later on. In some instances they do not descend, in which case it is not possible to say whether or not he will be a good breeder, but it is not wise to breed a bull that is not perfect, even though he be potent.  
V.

#### TRADE TOPIC.

HUGE BANQUET.—The fortieth anniversary of the founding of the house of N. W. Ayer & Son, one of the leading advertising agencies of America, as well as the successor of the pioneer advertising agency, was celebrated at Philadelphia recently by a banquet tendered by the firm to upward of 500 guests, comprising their 260-odd employees and the most prominent men of the country in advertising circles, journalism and immense enterprises and industries in commercial lines. The esteem in which F. W. Ayer is held was shown by the presentation of loving cups from the publishers with whom he has had business relations, and from the employees of the firm. The history of this advertising agency shows that push and progress go hand in hand, and that "keeping everlastingly at it" brings success. Ayer & Son state that they have greater faith in advertising to-day than ever before.