

pennyroyal, 1 oz ; oil of tar, 8 ozs. ; kerosene, 1½ qts. , or enough to make one gallon of the mixture. This will cost about 80 cents a gallon, and must be applied with an atomizer, not with a brush. An atomizer costs about a dollar and fifty cents, and can be obtained at any hardware or drug-store. It is very economical in the use of the mixture and enables one to make a very quick application.

Each man must decide for himself whether it is profitable to try to protect his stock from annoyance in this way. So far as the dairy is concerned it has been proved so frequently by actual test that the grain (or more properly, saving) in milk and butter where horn fly mixtures were used more than paid for the cost of the protection, without taking into consideration the increased comfort of the animals. We would advise every one handling milch cows to test these remedies for themselves and see if it is a profitable procedure. We would be glad to have the experience of anyone trying such remedies.—*N. W. Farmer.*

TO SPAY SOWS.

Constant Reader, Headingly, Man. :— “ Could you tell me how to spay sows ? ”

Answer.—Lay the sow on the right side and draw the left hind leg backwards so as to expose the left flank. Clip and wash the site of the operation and make an incision two or three inches long, beginning opposite the first lumbar vertebra, and extending downwards parallel with the last rib. This incision should be made with one sweep of the knife down to, but not through, the peritoneum (the membrane lining the abdomen). This is torn through with the finger or else seized with the forceps and cut with scissors. The first finger is passed through the wound and searches for the ovary between the bowels and the vertebral column. As soon as the finger detects it, it is drawn by a sliding movement through the wound. Here it is removed by any of the ordinary methods, of twisting it off, or scraping the ligament through, or else by ligation of the stump with sterilized catgut. The other ovary is reached by pulling gently on the horn of the uterus (from which the ovary has just been removed) until the bifurcation comes into sight, when the other horn is followed up until the right ovary is reached, and removed in the same way. The wound is then sutured and covered with collodion to exclude the air. The operation is

not always an easy one, as the thick fat on a large sow makes the finding of the ovary difficult, but in young or thin sows a little practise will soon make one proficient.—*North West Farmer.*

THE FROZEN MEAT TRADE.

England seems to be the great market for all kinds of animal products. Her own land cannot raise all the food products she needs to keep her many millions alive. The largest share of her meat is shipped to her on foot, but it is a costly way and in the interests of her own stock growers the restrictions about landing the animals imported for food are becoming more stringent and before long it will not be surprising to find all our animals killed near the place where they were fed and the carcasses shipped in cold storage. The supplies of meat sent forward from Canada and the States is technically called “ chilled ” meat, as it is not brought down to the freezing point, as is the mutton shipped the 13,000 miles from Australia.

This Australian mutton is frozen and has to be in order to stand the long voyage across the equator. The growth of this Australian trade is remarkable. It was only in 1880 that the first shipment of 400 carcasses of Australian mutton was sent to England. Now New Zealand and Australia have nearly 90 vessels engaged in the trade, which has now swollen to over 7,000,000 carcasses a year. A single vessel will sometimes carry 70,000, and at Nelson’s wharf, London, an average of 10,000 to 12,000 are handled daily. Up to 1880 sheep in Australia were kept only for their wool, hide and tallow and little attention was paid to the quality of the mutton. Since then the sheepmen have been alive to the importance of the mutton sheep and heavy importations of rams of the improved mutton breeds have been made, and some of the highest prices ever paid for sheep have been paid in Australia.

What the business of shipping chilled meat from Canada to England will grow to we cannot say, but we do know that our prairies are capable of raising an enormous quantity of meat products and we feel satisfied that there will be an ever increasing quantity for export to England and it stands to reason that sooner or later the long journey by rail to the seaboard will cause all animals to be killed at Winnipeg or Calgary and their carcasses shipped to England as chilled meat.