

isms, and that the one cannot possibly produce the other; while others, and, we may say, by far the greater number of scientific investigators of this subject, claim that the bacilli are identical, and either quite capable of producing the disease in the other. While this is a point that, as a matter of course, is hard to determine beyond any possibility of doubt, we think that we are justified in assuming that there is at least a possibility of danger, and especially in children and delicate adults whose powers of resistance are not so great as in older or more rugged individuals. If we admit the possibility of danger, it behooves us to observe all possible precautions to see that the milk and flesh of cattle that are used for human consumption are those of non-tubercular animals, and this can be assured only by applying the tuberculin test to milking cows, and by careful official inspection of the carcasses in the slaughter-houses of cattle killed for beef. Again, these precautions can and will be observed only after the most rigid legislation. We are of the opinion that the danger of contracting the disease, as stated, is slight, but at the same time exists, hence the advisability of hasty legislation in the matter must rest with those in whom the duty and power of legislation is placed.

Some scientists claim that infection by inhalation is not possible; that infection always occurs through the digestive tract; while others claim that the most common manner of infection is by inhalation. The former claim that milk and its products are the general carriers of the bacilli, not that the milk in general contains the germs when drawn, but becomes infected later on; that most tubercular cattle pass feces largely impregnated with bacilli, and that, during milking, small portions of the excrement are introduced into the milk, by splashing during defecation, whisking of the tail, etc., and thus the milk becomes charged with the virus, hence people or animals drinking the milk introduce the bacilli into the digestive tract; and that butter and cheese manufactured from unpasteurized milk also contain large numbers of the bacilli, hence those consuming these products are subject to the same danger. They claim that the bacilli are capable of being taken up by the blood-vessels, and carried to various parts of the body more or less remote from the seat of introduction, and lodging in tissues or organs for which they have an affinity, and that the lungs and other respiratory organs and glands, having an affinity for these bacilli, arrest them, extract them from the circulation through the fine coats of the capillaries, and develop tubercular matter, and that tubercular deposits in other glands or organs are produced in the same way. The latter class of scientists dispute this theory, and, while they admit the possibility of the blood stream carrying the bacilli and depositing them in various organs, claim that infection may and very frequently does occur by inhalation, and this mode of infection largely accounts for the frequent attacks of the respiratory organs. These are points that are very hard to determine, and those who favor either theory can produce apparently conclusive arguments to support it.

If we admit the possibility of the transmission of bovine tuberculosis to the human family, the mode of transmission is probably not of so much importance as the fact that all possible care should be taken not to consume either the flesh or milk of diseased animals.

"WHIP."

Shropshire Sheep.

By John Campbell.

This breed of sheep, which has during the past twenty-five years become exceedingly popular not only in Canada and the States, but also in nearly all civilized countries, is a creation some hundred years old, having its origin in the Midlands of England. Plymley, writing in 1803 on the agriculture of Shropshire, describes the breed as it then appeared to him: "They are a nimble, hardy sheep, weighing, when fatted, 10 pounds per quarter. Their fleeces, upon the average, may weigh 2½ pounds." Again, Professor Wilson, writing later, refers to them as the "Morie Common" breed. Some writers of later date state that the Southdown was used in the first attempt at improvement. The present secretary of the British Shropshire Association, Alfred Mansell, states that, "No doubt some breeders, many years ago, had recourse to the Southdown," but the result was most unsatisfactory, and nearly ruined the flocks that had made the trial, they having, in every instance, to get rid of the progeny. The first public appearance of the breed was in the Royal show-yard, at Gloucester, England, in 1853, and then was the turn of the tide with the Shropshire sheep.

It was not, however, until the Warwick meeting, in 1859, that a special class was given the breed by the Royal Agricultural Society. One hundred and ninety-two Shropshires were then exhibited. The names mentioned in history of the earlier breeders and exhibitors are: Thomas Horton, W. O. Foster, J. & F. Crane, G. Adney, and one lady admirer, Mrs. Anne Baker.

From their first appearance in public to the

titution, the rapid growth of appreciation was little short of the marvellous. In 1858, the number shown at the Royal was 184, while in 1884 no fewer than 875 were in the pens, being more than double of all other breeds.

In Canada, little notice was taken of the coming sheep until about the year 1880. Before that date a few had been brought across the sea in the way of experiment. It was not long till the attention of many all over Canada and the United States was drawn towards the great merit of the new introduction. Looking over the list of Canadian names mentioned in the first volume of American Shropshire Record, we see the following names of Canadian breeders: H. H. Spencer, John Miller & Sons, John Dryden, Geary Bros., Wm. Shier, William Miller, T. D. Hodgins, and J. Glennie. Later, but not long after, the names of Gibson, Beattie, Ross, Hamner, Lloyd-

the Union, be they cold or hot, wet or dry, full of grass, or rather scant, it matters not, they will thrive and increase, and win more and more favor wherever introduced.

Another strong reason why the breed is so remarkably popular is that no rams of any other known breed will give such excellent results in grading or crossing as the black-faced Shropshire does. Of that we have had clear demonstrations at our fat-stock shows in Canada and the United States. The writer, having attended nearly all the leading exhibitions, from New York's Madison Garden Show, to the St. Louis World's Fair, and Chicago's Internationals, with Canada's most excellent Winter Fairs, for the past fifteen or more years, noticed that in the classes where grades and cross-breeds were in competition, the individuals and pens sired by the Shropshire ram won more than all other kinds of grades and cross-breeds totalled together.

Not only is the breed noted for its hardiness and vigor, but it excels in prolificness. Some years ago the writer exhibited at Guelph and Chicago a wether lamb, one of quadruplets, which won its way to the top in its class. Last year, at Fairview Farm, three ewes gave birth to ten living lambs, all, to date, doing well. One of the ewes had one ram and three ewe lambs. The ram lamb, at Toronto and London, in keen competition, won firsts in sections, and also the highest honors in pens.

The only objection or fault we had to find was the tendency to give

some seasons too many lambs. But when one of the litter can win his way to the top notch, the fault seems a harmless one.

Of course, there are Shropshires good, and some not as good. There have been imported many which would not add to the reputation of the breed. Of good ones we can scarcely have too many. The inferior ones, if not culled out closely, will increase, we believe, faster than the good ones. To prevent that, we must have the right stamp of ram to use. Here he comes: Bold, proud-looking, head up, ears up, seeming to maintain that he is "monarch of all he surveys." He walks on strong, short, well-set legs, standing well apart. Everything in his appearance, viewed from the front, impresses the eye with the fact of his belonging to the masculine gender. We notice the color of face and legs—a clear, bright black, not sooty-like. Coming closer, we notice his head—short, but broad between the ears, well covered with clear white wool on head and down the face; a strong muzzle; and all well placed on a neck rather short, which fits nicely into the shoulders. The neck, strong at its connection with the body, tapers slightly but gracefully up to its junction



Shropshire Ewe and Ram.

Breed champions at Toronto, 1907.

Jones, Campbell, and others too numerous to mention, had a hand in pushing on the breed to greater popularity as the years passed by.

To show what wonderful strides have been made by the breed, the mentioning of the membership of our American Shropshire Association will suffice. Four thousand members, all told, of which four hundred are Canadians, nearly all residing in Ontario, and considerably over 300,000 Shropshires registered, is a clear indication of how the breed has run at express rate into nearly universal favor. Why have they captured the public fancy to so great a degree? is an interesting study. The answer is simple, and it is because of their money-making power. Nowadays, in this extremely practical age, people will buy and pay well for what appeals to their fancy and pleases the palate. And right here is where Shropshire sheep have sailed into such great favor. People like the strong and sturdy—hustlers, so-called—which can win their way in all kinds of conditions and climates. There, Shropshires shine. In South Africa, in Tasmania, in the Argentine, in all the British Isles, in Germany and France, in every Province of Canada, and in every State of



Shropshire Shearing Ewes.

First-prize pens, Royal Show, 1909.