

including such elements as climate and housing, age, nature of employment, amount and quality of food, etc. With so many determining factors in the problem it is plain that no general rule can be laid down, which can closely guide us in precisely prognosing the ultimate results in any given cases; but it is of the utmost importance that we determine as far as possible the broad conclusions to which our studies along several lines would seem to point. How great is the influence of climate on tuberculosis, is well illustrated by the accompanying foot-note.* All observers seem agreed that there is transmitted both in men and animals a hereditary tendency to scrofulous or tubercular inflammations in the offspring of tuberculous parents; and in Medicine much has been learned of the methods by which such tendencies may be counteracted. In both men and cattle, however, it is the unfortunate fact that this hereditary weakness occurs especially in those persons and cattle who are exposed through environment, as amongst the poor of cities, amongst dairies in the suburbs of cities, etc., to the quantitative virulence of the infecting agency. Hence it will be at once apparent that the sanitary question of how to lessen the existence of tubercular bacilli exter-

*GUELPH, December 29th, 1893.

TO DR. P. H. BRYCE,
Parliament Buildings, Toronto.

SIR,—Enclosed please find statement as to the condition of two pure bred Hereford cows slaughtered November and December, 1893.

The animals in question were shipped out to Southern Alberta, October, 1889. Wintered in a good pasture with open shedding (sheltered) and hay in abundance when needed. Turned loose all summer on the prairie.

Elevation about sea level, 3,000 feet.

Believe me, yours faithfully,

(Sgd.) EDMUND A. ELTON.

Lilly Grove pure bred Hereford cow, seven years old (barren). The above-mentioned cow was apparently a splendid specimen of her breed, always in good condition. Calved at three years, and has not calved again. Butchered December 6th, 1893. Lungs.—The lower portion of the right lung entirely gone for about four inches, otherwise the lungs seemed quite sound. On the diaphragm was a tubercle about 2 inches long 1½ inches wide one-half an inch thick, containing hard, cheesy matter. Intestines—rolling in fat which was dotted all over with small pea-like tubercles containing hard, cheesy matter. On the right flank close to the hip bone was a mass of tubercles resembling a heaped up mass of peas, all containing a hard, cheesy matter. Small pea-like tubercles adhered to the main carcass along the full length of the animal from neck to tail. Ovaries—Enlarged and contained hard, cheesy matter. Liver, etc, appeared healthy.

Midnight (Lord Wilton), pure bred Hereford cow, six years old. Prolific breeder. Spayed spring of 1893: showed no ill effects from the operation. Fattened rapidly on the prairie. Slaughtered November, 1893. Symptoms a long drawn cough. Occasional at first, but more frequent after winter of 1892-1893 when she strayed away during a storm. Slunk here and did not return until spring, as thin as a rail. Large glandular swelling under jaw. Lungs—both badly diseased. One more than half gone with creamy pus exuding from it. Intestines, covered with fat but healthy. Liver, ovaries, etc, healthy.