

cellent anatomist, physiologist, and pathologist, (the latter branch of science, was, I may say, his *profession*), and he informed me that out of 22 sheep he had seen killed on the day of our visit, only 4 were fit for his people (*i. e.* the *Jews*) to eat; the 28 were rejected: I enquired what became of those rejected, "Oh, said he, "we sell them to you Christians, you are not so particular in your food. I inspected the lungs of many of the rejected sheep, and found ulcers (tubercles) of all dimensions, while in some, the livers, instead of being firm, and of a fine healthy appearance, were soft, and more like a sponge dipped in dark venous blood, than the natural biliary organ. Surely, these facts which I have here stated ought of themselves to cause a reformation in the treatment of animals generally. It is a subject deserving the attention of the farmer and all persons concerned in the healthy rearing, and preservation of cattle.

Sorry am I to be compelled to record, that farmers in general, pay but little attention to the conditions of the sheds, yards, and the temperature of the places wherein they confine their more valuable species of animals; and yet, in consequence of being thus blind to their own interests, both their cattle and themselves suffer accordingly. It is in the management of our domestic animals, that physiology and the collateral sciences here lend to agriculture their valuable assistance; thus, by our being acquainted with the laws relative to the heat and its phenomena, in connection with physiology, we discover that if the temperature of the apartment or building wherein the cattle are placed, is too low, then the proportion of food which they consume is much greater; and this (as I have already explained) increased amount of provender does not tend to increase the fatness of the animal. But where the farmer has paid proper attention in equalizing the temperature of his cattle-sheds, &c., then we find that corresponding benefits ensue both to man and beast; inasmuch, as the latter not only requires a less quantity of food, but that the animal duly increases directly in proportion. This is a remarkable fact, and one deserving the farmer's remembrance.

An attention to the temperature of the atmosphere, and to the cleanliness of the animals, is highly inductive to their preservation in a state of health. Unfortunately, the farmers generally, are in ignorance of the powerful effects of the air upon animals, but just in proportion as the air is pure or impure, so is their state of health good or bad. The same remark applies to care and cleanliness, and in some farming districts, the people their actually imagine, that the dirtier pigs are allowed to be, the better they thrive.

I have visited stables, where the ammonia which evolved from the urine and litter on which the horses lay, both were so powerful as to sensibly effect my own nose and eyes. Can we wonder then, that the animal, who for many hours is compelled to remain in such an atmosphere, should

be sooner or later seriously affected? *first*, in the disturbance of his bodily functions, and *secondly*, in his organization; yet, strange to say, I have found individuals, who have stoutly maintained, that these noxious ammoniacal gases, and the badly ventilated stables, are not inimical to the health of their horses, but that the maladies under which they labour have originated from other causes.

And in speaking of the origin of the diseases in animals, an able writer, Mr. Johnson, thus truly remarks:—

"In the case of sheep (natives as they are of warm climates, and elevated dry districts), that to keep them on cold, wet, ill-drained lands, or in close comfortless yards, perhaps covered with straw, super-saturated with the most foul and putrefying liquid matters, is a system neither to be held in contempt, nor one which is improbable, by the use of the farmers' own common sense and unaided exertions."

It must be freely admitted, that very little is known respecting the *actual causes* of the numerous diseases affecting live stock, inasmuch as words both rude and, I may say, barbarous, being many of them *provincialisms*, have been gradually incorporated into veterinary practice; the most common definitions being often mere substitutions of unmeaning words for unknown phenomena.

As prevention is, however, far better than cure, and as the animal functions are the same, to a very great extent, as in the human body, so, in many cases, the means that we should adopt to prevent, as well as to alleviate disease in the one case, may be applied in the other. All land animals like warmth: it is natural to their organization; and, as my late friend, Professor Coleman, of the Royal Veterinary College, London, used to observe, "that it was the sudden transition from heat to cold, and cold to heat, that was so productive of inflammatory diseases to horses in general—taking them from a hot stable into the cold atmosphere, and *vice versa*." This observation we may justly apply to mankind, and all the animals we domesticate. Moderate warmth and an uniform temperature in the atmosphere of the stable or building in which the horses or cattle are kept, is highly essential to the due preservation of their health. This is of much greater importance than many persons who domesticate cattle are inclined to believe. Attention must also be paid to the natural habits, kind of food, &c., of the various species of the same order of animals—for the circumstances wherein they are placed frequently cause them to differ materially. The pulsation of a farm cart-horse is rarely higher than 36; but in small and thorough-bred horses, the pulsations of the heart and arteries will frequently amount to 40, 42, or even 45 per minute. If, however, the horse is excited by ill usage, and even if spoken to with harshness, it will often increase to the extent of 10 or 15 per minute.