

1. After describing the dentine enamel and *crusta petrosa* as the constituents of the teeth, and also explaining the so-called osteo-dentine, he remarked that the latter substance did not fill the pulp-cavity in an old tooth of any of the domestic Herbivora. The obliteration of this cavity is effected by the pulp continuing to form dentine, and not by its ossification or conversion into osteo-dentine, as stated by writers on the structure of the teeth.

2. In proportion as the pulp diminished, so was the supply of nutrition to the tooth cut off from the inside, and, to provide for this, the dental tubes in the fang became changed into bone-cells, or, in other words, the *crusta* increased at the expense of the dentine, and thus the tooth drew its nourishment from the blood sent to the sockets in which the teeth are embedded.

In reply to a question by Sir John Johnstone, Professor Simonds had no doubt that the teeth of horses would, to a certain degree, be affected by the same general forcing system; but, at that time, no data connected with that point had been collected, and he was consequently unable to give more than a general opinion of the probable result of the adoption of such a course in the case of the horse.

#### HOLLOW HORN DISEASE.

A writer in the *Boston Cultivator* gives the following as the symptoms of, and remedy for, the hollow horn disease:—"The symptoms are dropping of the head and ears, lying down, turning the head over the back, towards the shoulders, as if pain in the head. This I think is a spinal disease, affecting the brains and horns. Cure—Take a large table spoonful of sulphur, and lard sufficient when warm to make it soft like paste, pour it on the top of the head at the root of the horns; take a shovel or flat piece of iron, heat it, and hold it over the head so as to heat the paste and warm the top of the head, as much as the beast will bear; repeat once in two or three days, and bore the horns on the under side, two or three inches from the head, so as to let in fresh air, and let the putrid matter out, if any be collected. I have never known this to fail, if taken before too far gone. I have cured one cow when the top of the head was so full of matter that I opened a place above the ear, which discharged more than a half pint. This was in the summer; the cow was fattened in the fall and killed; the head was all right, excepting a place at the roots of the horns, about as large as a small spoon bowl."

#### HORSEBREAKING FOR HARNESS.

Before the horse is attached to any vehicle, the harness should be allowed to remain on him in the stable several hours during two or three consecutive days; he should be led out so that he may become thoroughly accustomed to the trappings, and a cord six or seven feet in length should be fastened to each trace. With this the

horse is quietly led about, one man performing that duty while another follows, holding the afore-said cords, which, as the animal moves forward, are to be strained, so that he feels a slight pressure of the collar upon his shoulders. The intention of this treatment must be obvious; if the horse is alarmed by the effect of the collar the man holding the cords which are affixed to the traces can instantly relax them; and again when he finds his pupil is reconciled, he may renew a moderate strain, and, finally, as much resistance as he has power to create. By this means the most timid horse will gain confidence, and, by perseverance, the most refractory may be overcome. A horse when first encumbered with harness, if immediately attached to a vehicle, is astonished when required to move, at finding a pressure on his shoulders which he had never before experienced. He discovers another novel apparatus for confinement, he is in fact trammelled, and endeavors to escape;—probably he plunges, kicks, or rears, and becomes difficult to manage; but by the simple process just recommended all that is obviated.—*Hints on Training.*

#### UNITED STATES NATIONAL CATTLE SHOW.

This much-talked-of affair came off at Springfield, Ohio, on the 25th, 26th and 27th of Oct. The weather was delightfully fine, and the attendance of visitors large. The amount of cattle was not so great as might have been expected, but the Durham class was numerous, and their quality never before equalled, as all accounts testify, at any Agricultural Show on this continent. We regret that no Canadian cattle were present, as we are assured by competent authorities, that we have stock, particularly Devons and Ayrshires, that would most certainly have taken premiums. The risk and expense, however, of transporting valuable animals to long distances, will always keep back a large number of the choicest specimens. We observe that Mr. Parsons, of Guelph, and Mr. Askew, of Windsor, were present, and took part in the proceedings of the Show. The subjoined list of the premiums awarded is from an exchange paper:—

The third and last day [Oct. 27] of the National Cattle Show, opened at 9 o'clock with the exhibition of stock for the sweepstakes premium of \$500. For this premium there were five entries of one bull and five cows each. The competitors are Brutus J. Clay, of Kentucky, Solomon Moredith, of Indiana, Jacob Pierce, Wm. Pierce and Arthur Watts, of Ohio. Never before has so splendid a display of thorough-bred cattle been shown on the American continent.