

VETERINARY.

Dentition and Dental Diseases of Farm Animals.

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(Continued from page 49.)

In ruminants, as already mentioned, there are thirty-two permanent teeth, eight incisors, and twenty-four molars, but forty-four is said to be the typical number. There are three kinds—the incisors, which are chisel shaped, for cutting; the canines, for tearing, absent in the ox, and molars, for grinding.

The incisors are smallest in the insectivora, larger in the carnivora, and of great strength in the herbivora, and always somewhat loose, the table inclined forward and border sharp; these sharp teeth become more and more blunt and narrow, until in old age they are reduced to very small stumps, standing out quite free from each other. When the enamel is worn from the table, which takes place about the tenth year, the entire crowns of the teeth wear down until in extreme old age only the necks are left.

Molar teeth are named and numbered according to their position; in the temporary set there are three molars on each side of the upper and lower jaw, and in the adult these teeth are changed for permanent, while the three additional teeth, the fourth, fifth and sixth in position, all of which are permanent teeth from the first, making the full set of permanent teeth—six on each side of the upper and lower jaw. At birth the temporary molar and incisors are all so advanced that they may be seen in outline; frequently the cutting edge of incisors is quite through, as seen in figure 14.

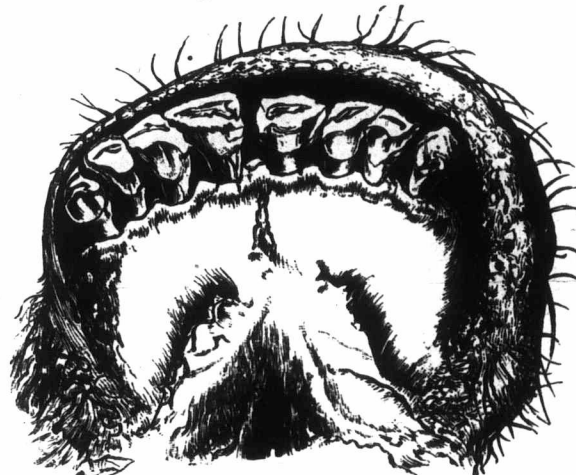


[Figure 14—Incisors of calf at birth.]

As soon as the calf is on its legs, the advance of teeth proceeds rapidly, and at one month the temporary incisors are all in view, and the temporary molars can be seen on inspection. As the jaw enlarges the teeth are less crowded, and the fourth molar appears at six months as a permanent tooth, although its posterior surface will be still covered with the gums.

Between six and twelve months the temporary incisors become worn, the space between them enlarging in preparation for the permanent teeth. It is difficult to estimate the age in months of a calf; up to one year butchers take notice of the growth of horn.

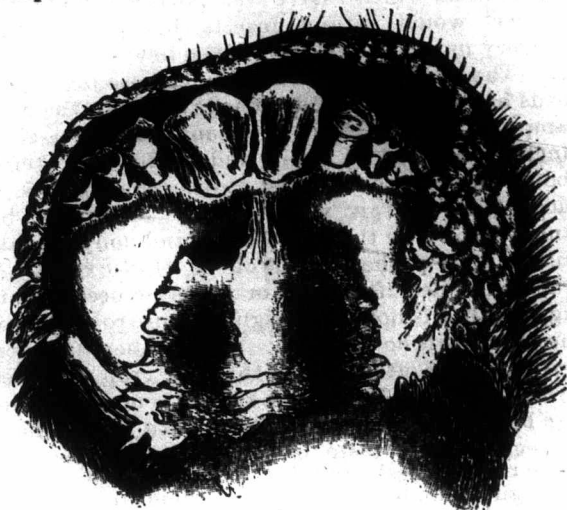
The figure No. 15 will give a pretty accurate description of the incisor teeth at one year; the fifth molar will also guide the opinion, which is very



[Figure 15—Incisors of steer at 1 year.]

much like the fourth molar in appearance at six months. No change occurs in the incisors except that which is caused by the wear of the teeth and the growth of the jaw. At the age of one year and nine months the two central become loose, and the first broad teeth begin to project through the gums.

The figure No. 16 shows the teeth of a heifer at the age of one year and ten months, which may be accepted as indicative of the general appearance of

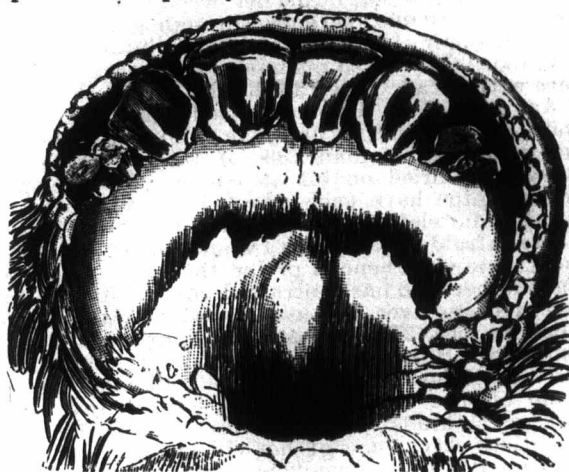


[Figure 16—Incisors of heifer at 1 year and 10 months.]

the incisors at that age; while the incisors are advancing, the sixth and last permanent molar makes its appearance, and in position at two years old.

The first and second permanent molar replace the temporary about a month or six weeks later. It often happens that young cattle are entered as under two years old at agricultural shows, but when they show four broad teeth well developed, there need be no hesitation in saying that their teeth show the animal to be above that age.

From two years and three months to two years and six months the second pair of broad teeth replace the temporary; from mal-nutrition or disease,

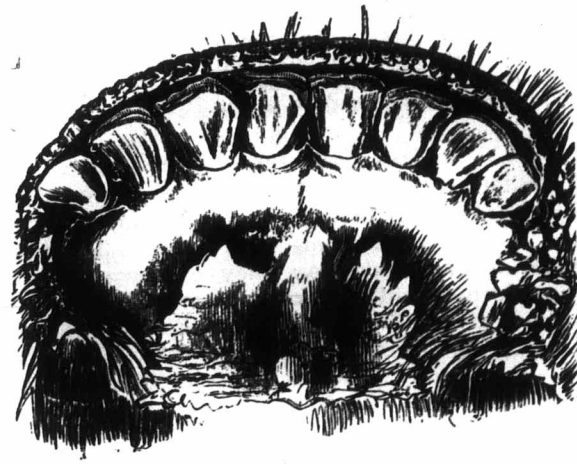


[Figure 17—Incisors of ox at 2 years and 6 months.]

it may be delayed until three years, but the variation is never on the earlier side. We have been referee in many disputes from this cause. On one occasion we remember to have withdrawn our original opinion; the corroborative evidence of certificates was in favor of the animal, yet he was over two years old, because he had four broad teeth and the sixth molar well in wear.

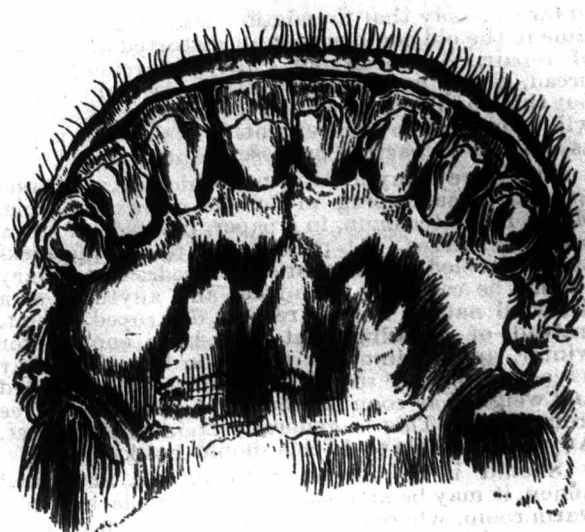
Shortly after the first and second molars are cut, third makes its appearance. The animal at the age of three years will have three anterior molars cut and level with the other teeth, but showing very little signs of wear. The third pair of permanent incisors may occur at any time between two years and six months and three years of age.

The fourth pair of broad incisors are the corners, and show more variation in the time of cutting than any of the others in the figure No. 18. The



[Figure 18—Incisors of ox at 3 years and 3 months.]

state of the incisor teeth at three years and three months is depicted. The eruption of the corner permanent incisors; the fourth pair of broad teeth completes the permanent dentition of the ox, and after this period the changes in form, which are due to wear, will somewhat assist the examiner in forming an opinion of the age, but no exact estimate can be based on such evidence. At five years old, see figure No. 19. A considerable

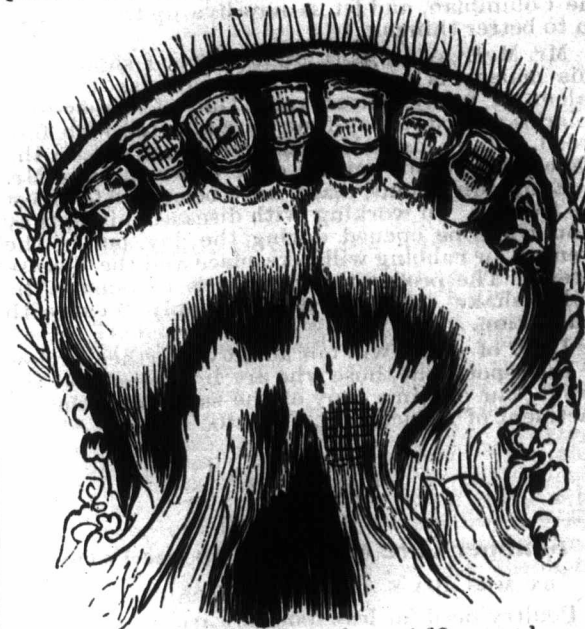


[Figure 19—Incisors of ox at 5 years.]

amount of worn surface is apparent, and as the years increase the difficulty of judging the age by the appearance of the teeth is not diminished.

It is not usually a matter of importance whether an ox is five, six or seven years old, and there are no well defined marks other than the rings on the horns; some men add two to the base, and count all the rings. We prefer to count all the rings, and add three for apex. Both ways are correct, but there seems to be less liability to error by counting the apex as three years; for the first, second and third years rings can hardly be defined.

The teeth become narrower and more widely separated from each other year by year; the pegs are only visible, whilst some of the central ones are quite level with the gums in figure No. 20.



[Figure 20—Incisors of ox at 10 years.]

The mouth of the ox at ten years of age is shown, but, as we have before stated, there is not the same change resulting from regular wear as may be seen in the horse, so that no definite opinion can be advanced.

APIARY.

Report of the Bee-keepers' Association.

The report of the Ontario Bee-keepers' Association has been received, from which we glean a few of the many valuable points taken up and discussed at their last annual meeting, held in Lindsay in the early part of January.

An interesting and instructive paper on "Extracted Honey" was read by R. H. Smith, Bracebridge, in which he advocated the provision of two supers for each colony. The first should be put on just before the bees become crowded. Two combs containing brood should be removed from the body of the hive to the extracting super to induce the workers to work in the upper spaces. If the honey flow is good the second super should be placed beneath the first, which will be filled, while the upper one is ripening. It is advised to put on a queen excluder, so that no brood will be found in the extracting combs. The question of the different hives was well discussed under this head, and the opinion was generally in favor of the Langstroth hive, it being of medium size: but for successful work, more depends on the man than on the hive. It was strongly advised to have either comb or foundation. One prominent bee-keeper stated that he would spend his last dollar in comb or foundation, if necessary, if he wanted to produce honey. The honey should be left in the hive till the very last thing, till it is thick. If honey is extracted before it is ripe, and marketed in that condition, it will ruin any man's reputation. As to the use of comb or foundation, it was advised that old, dark comb should not be used when white honey was wanted, as it would discolor the white product considerably in many cases. The use of foundation was recommended, when the combs became dark. Some went