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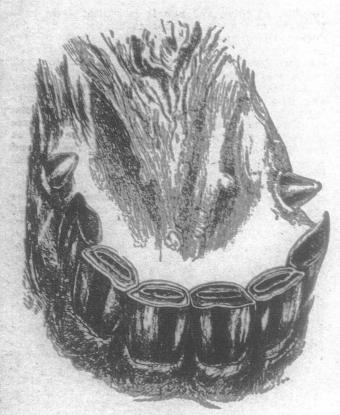


Fig. 5.-Five-year-old incisors.

porary incisors remaining to allow the examiner to distinguish them easily. By separating the lips the four permanent central incisors are seen to be about half grown with deep cavities or infundibula extending across each tooth, presenting a striking contrast to the worn temporary teeth on each side of them. At the age of two years and nine months the new permanent incisors will be in actual contact when the mouth is closed, but no wear will have taken place un-til they are about three years of age. At this period the fifth molar, which was up at two years, is fully developed, and the first and second permanent molars are well up, but have the appearance of freshness as they have only recently come through. They are distinguishable, how-ever, as they do not possess that worn appearance characteristic of the ones beside them. Six months later or at three and one-half years the permanent incisors next to the central pair, above and below, will make their appearance, and at the same time or shortly after the third and sixth permanent molars are cut. Figures 3 and 4 show the difference in the incisors of a three and four-year-old mouth. In the latter only the corner incisors remain and the tusks have appeared in the male, but have not yet reached their full development.

Between four and five years old the corner teeth are removed, and the permanent incisors occupy their place. They do not attain their true position until the animal is five years old, when the corner teeth have a shell-like appearance indicating that age and approach of maturity. They now have what is called a full mouth.

These periods are based on regular dentition, but variations will occur which the examiner must take into consideration and make allowances to correspond. By referring more closely to these dental changes the critical periods of the animal's development will be noticed at a glance. Between two and one-half and three years or a little more the mouth has undergone considerable change. Four permanent incisors

Fig. 6. Six-year-old mouth.

have been cut, the first and second molars on both sides above and below have been replaced, and the fifth molar has come in. Thus twelve temporary teeth are replaced, and four additional molars produced, making in all sixteen new teeth. This is considered by many horsemen the most critical period in the young horse's life, for at that time he is usually put to work on a ration of hard grain and expected to stand up under trying circumstances. The irritation at this time often gives rise to nervous disorders through reflex nervous action, particularly where there is any hereditary predisposition. Strangles often manifest themselves at this time or pus may Strangles often gather in the sinuses, especially in the upper jaw, ending in softening or degeneration of the bone. When four years old he casts eight temporary teeth and receives in their place twelve permanent, but horses do not generally suffer as much at this period of their dentition as they do at an earlier age, although trainers of race horses sometimes claim that a four-year-old cannot stand as much work as a three-year-old,

All animals exhibit distinct signs of wear in their teeth as age advances, but, owing to the composite arrangement of the structures of which the teeth are formed, the horse alone gives definite evidence which can be interpreted by a careful observer up to an advanced period of the animal's life. After five years, evidence of age is to be obtained by the inspection of the tables of the incisor teeth. At six years old the tables of the lower central incisors have lost their mark, the cavity or infundibulum is worn out and they are becoming elliptical or oval in form. The corner teeth have lost their shell-like character, and the corners are rounder as depicted in figure 6. At seven years of age the tables of the corner teeth are perfectly formed, and the cavity in each tooth is very shallow. The central enamel is well defined and forms an



Fig. 7:-Incisors of a seven-year-old

elliptical figure which is nearer to the posterior than the anterior edge of the tooth; these teeth are also a little deeper from front to back than they were at six years of age. The mark is becoming a thin line instead of a broad cavity.

Between the seven and eight-year-old mouth the difference is not very marked, and some care is required to be accurate at this stage. In the eight-year-old the shape of the central enamel being only a small dot affords satisfactory indications of the age. The central teeth are more distinctly angular than they were at seven, the central enamel is also triangular, and the tables of the incisors are worn as level as the different degrees of density will allow. The cavities are very nearly obliterated, and the tusks are quite blunted as shown in figure 8.

From eight to ten years old the changes occasioned by the wear to which the teeth have been subjected are not sufficiently regular to enable anyone to speak positively as to the exact age, but during this period the cavity in each lower central incisor and the center circle of enamel remain to indicate its position, and a groove on the outside appears, which is the mark of the fang or root of the tooth. After this the age of any animal becomes a matter of opinion, and the evidence of the teeth is not definite enough to warrant a positive opinion as to the animal's age.

Figure No. 9 indicates the appearance of an animal's mouth at nineteen years of age. The teeth form an acute angle, but so many differ that no accurate signs can be pointed out. There are those who profess to be able to accurately judge the age up to twenty and even more by the grooves and numerous other indications. The experience of a lifetime is necessary to make one's judgment authentic in this regard, but the length, shape and character of the teeth might lead one to estimate within a few years of the correct age of an animal advanced in years.



Fig. 8.-An eight-year-old mouth.

Experience in Raising Colts.

Editor "The Farmer's Advocate":

Having followed mixed farming on a one-hundred-acre farm for the last twenty-five years, my experience along the line of colt raising may be of interest to some. During that time I have had foaled thirty-one colts, losing but one, and that from joint-ill. I attribute my success to several things, which I will mention. In the first place, I consider poverty chief among these-I had to work the mares. I always make a practice of working my mares right up to the time of foaling. I believe lack of exercise accounts for more colts dying than all other causes put together. Then as to feed, I am never afraid of feeding mares too much as long as they are kept at work. I would rather feed a little light on hay, with plenty of good bran and oats. Of course, after foaling, if I could afford it, I would never put a collar on them, as a good pasture field is certainly the best place for mare and foal. However, as stated above, I always work mine. I try to give them a week or two after foaling, then start them gently, being careful not to overheat them. If, however, they do become overheated, I never allow the colt to get the heated milk, and always milk a little out first.

The next essential thing, I think, is watching the mares at foaling time, and I might say right here that if you want to watch a mare the way she should be watched you should stay right with her. This getting up once or twice in the night to look at a mare is too much of a risk. I am sure the life of many a mare and colt might be saved if the attendant were right on the spot therefore I would say to my fellow farmers, "Sacrifice a few nights' sleep, if for nothing else than to have a clear conscience afterwards."

I used to be rather skeptical about treatment prescribed in "The Farmer's Advocate" for prevention of joint-ill, namely, dressing the navel with carbolic acid diluted with water. Sometimes I used it and sometimes I did not until lost a foal; now I always use it, of course—just another evidence of how slow we farmers are, as



Fig. 9.—Character of the teeth at nineteen.