

shapely, as well as the teeth regular, the tongue and salivary glands large, and the nasal and posterior nasal passages spacious and the membranes of the mouth healthy. As the teeth are developed within the jaws they necessarily share in the nutrition and proper development. If these bones are properly exercised during the formation of the teeth the tooth germs will grow and develop more perfectly and the teeth will be more resistant to caries or decay, the best preventative of which is efficient mastication.

The ample development of the jaws brought about by prolonged masticating tends to the regularity of the teeth, thus providing a proper "bite" or the proper relation between the upper and the lower teeth.

Why do the vast majority of people not masticate properly? There are several reasons, the most frequent, possibly, being "soft" or "mushy" food. This is most noticeable in the case of children's diet. Where the necessity of mastication is lacking, the instinct for it gradually disappears and the child acquires the habit of bolting its food and very soon comes to reject the harder for the softer foods. It is very important for the proper development of the jaw bones and of the permanent teeth that a child should be given food which cannot be swallowed without thorough mastication.

Another reason is some defect in the masticatory apparatus, and this is very common in those who have not learned to masticate properly in early life. The defects may be irregularities in the arrangement of the teeth whereby they do not come into proper relation, the upper with the lower, thus largely diminishing the area of the grinding surface, or the teeth may be decayed or loose and painful upon pressure, or some may be lost. Again, many people hurry over their meals, either of supposed necessity or on account of an acquired habit.

What are the evils resulting from improper mastication? Their name is legion. Possibly the most important is the tendency to take too much food. If the food were of a variety necessitating abundant masticating less would be taken, on account of the longer time and the more labor required, but thorough mastication, even of soft foods, "reduces the amount needful, for the more perfectly the

food is chewed, the more perfectly is it digested and the more economically is it disposed of in the system."* An inevitable result of an excess of food or of food insufficiently chewed is a derangement of the digestive tract resulting in more or less serious indigestion or in some cases even in cancer of the stomach or in appendicitis. Again, in those who do not masticate properly in early life the nasal passages and tonsils fail to properly develop, and in later life also, unless mastication is prolonged these parts are deprived of the stimulating effect of increased flow of blood to the parts, brought about by the action of masticating, and hence are more liable to become diseased both in the child and in the adult. There is no doubt whatever that the lack of efficient mastication predisposes the child and the adult to rhinitis, tonsillitis, adenoids and other affections of the throat and nasal passages. "The prevalence of adenoids among moderns must be the result of the modern system of feeding children and the defective mastication which goes along with it."* A sequence of adenoids is "mouth breathing" on account of the posterior nasal passages becoming blocked up. So, also, a sequence of mouth breathing is the predisposition to laryngitis, bronchitis, phthisis, dental caries, irregularity of the teeth, lack of development of the cranial and jaw bones. Another result of lack of abundant mastication is a lack of development of the tongue, salivary glands and jaw bones. The effect on the teeth is very marked. As the circulation in the teeth and surrounding parts is not stimulated, the teeth in infants do not develop properly and after development they are not properly exercised and massaged, while the secretions of the mouth are apt to be scanty and unhealthy. Under these conditions the teeth and surrounding parts are more liable to become diseased. Another result in more mature life is the loosening of the teeth from a disease called pyorrhœa alveolaris or Riggs' disease. Realizing the importance of thorough mastication and the evils arising from the lack of such, what should be done? In the first place, the jaws and surrounding parts should be exercised during their development. As soon as an infant shows any disposition to bite hard substances the instinct should be gratified.

At first, a hard rubber ring may be used, but as the time approaches for the teeth to