Case Report

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THE PATIENT was a girl of twelve years when brought to me for treatment.

The malocclusion was Class I with a mesial drift of all upper molars and bicuspids, more marked on the left than the right, causing the canines to erupt in infra-labial version. The face was the tapering type with a normal musculature. The mandible was well developed but the maxilla showed more underdevelopment in the premaxilla area as might be expected in this type of malocclusion.

Her prenatal history revealed nothing unusual. High forceps were used at delivery and birth weight was five pounds and eleven ounces. She was breast fed up until four months and then additional feeding was started with the bottle. At four and a half months the mother was taken to the hospital with pleurisy and breast feeding was discontinued. Cod liver oil and orange juice were started at two months of age. The patient gave a history of having a tonsillectomy at four and a half years; measles at five and a half; chicken pox at eight; whooping cough at nine and a half; mumps at fifteen. She was of average height, weight and of excellent posture. The etiological factors in the case were the early loss of the deciduous canines and a mesial drift of the bicuspids and molars. This shortening and narrowing of the upper arch caused a corresponding change in the lower which showed a narrowing in the intercanine width with slight peaking of the anterior segment.

The objectives were to move the upper bicuspids and molars distally to normal interdigitation with the lowers; produce slight labial movement of

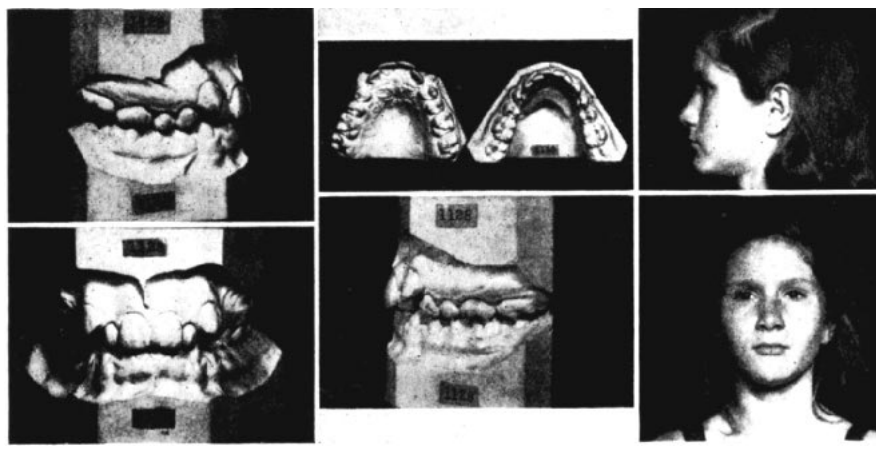

Fig. 1.—Casts and photographs before treatment.

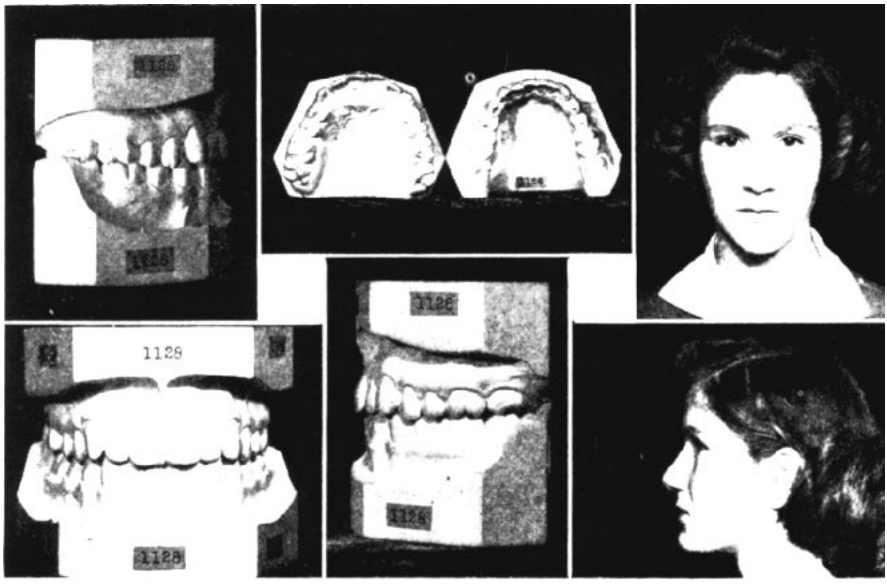

Fig. 2—Casts and photographs after treatment.

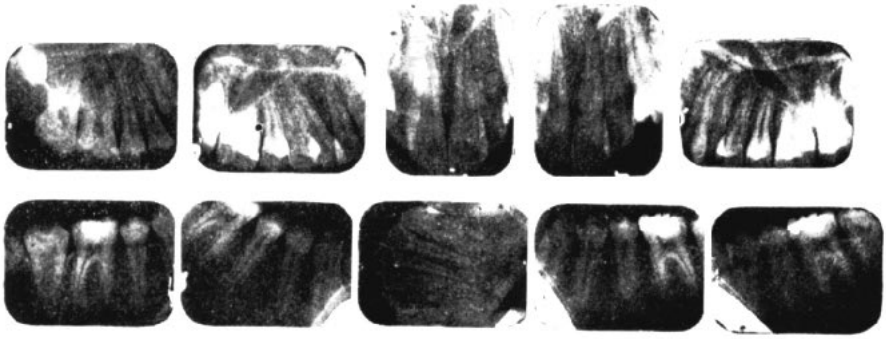

Fig. 3.—Radiographs before treatment.

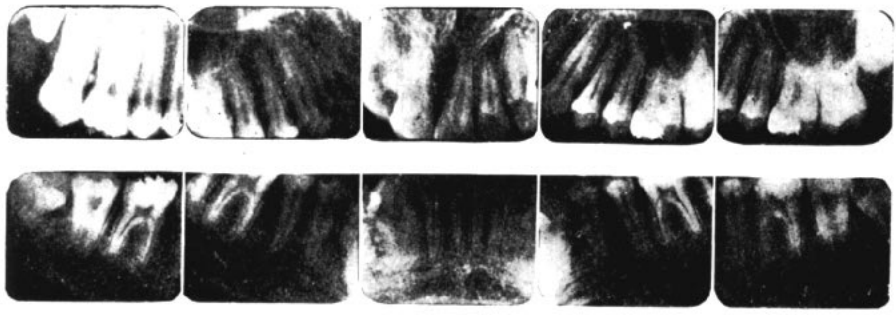

Fig. 4.—Radiographs after treatment.

root apices of the upper incisors and to keep the lower arch stationary and obtain more normal arch form.

The edgewise arch appliance was used. Bands were placed on both the upper and lower teeth with the exception of the upper incisors and canines. I felt that, with the slight lingual axial inclination of the lower incisors and the amount of overbite of the uppers, anchorage would be sufficient to carry the upper buccal segments distally. A passive arch was placed in the lower. At first sectional arches were placed in the upper with second order bends and Class II elastics. After using these for about two months I placed a modified upper arch with stops anterior to the molars and advanced anteriorly to about two millimeters to the labial surfaces of the incisors. Second order bends were placed in this arch with Class II elastics.

As the lateral segments moved distally, the arch was advanced until normal interdigitation was gained. Class II elastics were then discontinued; the modified arch changed to an ideal arch and with the placing of the tie bracket bands on the upper incisors and cuspids, normal arch form was obtained. In the lower arch, after Class II elastics were discontinued, the passive arch was removed and an ideal arch, .022 × .028 was placed and arch form restored.

Retention consisted of a lower canine to canine lingual retainer and in the upper, retaining bands were placed on the canines. The case has been out of retention a little over a year and a half and the photographs of the models after treatment are as it appears today.

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