

Case Reports

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CASE A (735)

HISTORY

A white girl, 11 years of age, in good health, rather nervous temperament, a great reader. Being reared in a middle-class family. Growth spasmodic and retarded.

Parents both in best of health; brother's growth even and accelerated.

Subject to usual childhood diseases without complications. Tonsillectomy and adenoidectomy at five years. No apparent allergy.

General physical condition good, but retarded for her age, and posture only fair.

Teeth well formed but great susceptibility to decalcification. Silver nitrate seemed to stop this decalcification. Susceptibility to decalcification seemed to disappear during treatment.

DISCUSSION

With today's prevalence of extraction of bicuspid in orthodontic treatment, the question arose in the author's mind as to just what had been accomplished in orthodontic treatment in the past when extraction was seldom considered.

The absence of space for lower cuspids (Fig. 1 and 2) and protrusive appearance of maxilla might lead one to consider extraction of first bicuspid. The results shown after treatment (Figs. 1 and 2) with lower incisors still vertical, the overbite corrected, Class I established and nice appearing profile would lead one to believe the advisable type of treatment here to leave all of the bicuspid in place.

DIAGNOSIS (Fig. 2)

Upper incisors greatly extruded; upper buccal segments drifted mesially closing cuspid spaces by a third; $\overline{2}$ tipped lingually nearly completely closing $\overline{3}$ space, locking $\overline{3}$ buccally which also is tipped mesially; $\overline{21}$ $\overline{1}$ situated lingually yet upright and closing $\overline{3}$ space partially and locking it buccally also. \overline{V} \overline{V} larger than $\overline{5}$ $\overline{5}$; $\overline{431}$ $\overline{34}$ rotated disto-lingually; $\overline{2}$ $\overline{2}$, $\overline{4}$ $\overline{4}$ rotated mesio-lingually; both sides in Class II; both arches deficient in length; underdeveloped lower incisor region, causing a very excessive overbite.

TREATMENT

Started with Ideal upper arch, ribbon lower arch using edgewise brackets. Gained space for cuspids by use of neckties on upper arch and screw force

on lower arch. After eight months $\overline{3|3}$, $\overline{4|4}$, $\overline{5|5}$ were banded and Ideal lower arch was placed. Right side had developed into a Class I, but second order bends and elastics were necessary for two months to reduce left side from Class II to Class I.

Hawley retainer without biteplane held uppers nicely; lower cuspid-to-cuspid retained lowers; continued retention for two and one-half years, but left side did not stay in complete Class I because lower incisors retained too far labially as shown by spaces between lower cuspids and lateral incisors. X-rays show no root resorption.

CASE B (887)

HISTORY

A white girl, 12 years old, in good physical and mental health, reared in an ordinary middle-class family. Her growth was even and accelerated.

Her mother's health splendid, her father's slightly below par although working continuously in the insurance business. Her two sisters in splendid health. Her malocclusion identical to her mother's at the same age.

Subject to usual childhood diseases without complications and no apparent allergy. Tonsillectomy and adenoidectomy at four years.

General physical condition healthier, more robust, and larger than average for her age, with fine posture. Osseous development good; very little caries; perfect tooth form.

DISCUSSION

The fullness of the lips (Fig. 3-A) might cause one to consider extraction of the first bicuspid but customary Class II treatment produced a satisfactory result. (Fig. 3-B and 4).

DIAGNOSIS

Maxillary protrusion; narrowed upper molar region. Lower arch splendid; upper arch form fine; protrusion of $\overline{1|1}$; disto-lingual rotation $\overline{1|1}$, Class II, div. 1.

PLAN OF TREATMENT

Widening of upper arch in molar region, correction of Class II with second order bends and "4x" intermaxillary elastics, maintenance of lower arch shape, correction of rotations.

TREATMENT USED

Ideal arches, all teeth banded. Stops mesial to molar tubes to maintain length of arches. Second order bends on uppers and 4x elastics started four months after arches were placed. Class I on left side in six weeks time; second order bends had to be increased on upper right side and intermaxillary force continued full time on right side for another six weeks when Class I established on both sides. Continued elastics at night for two months when appliances removed. Hawley upper retainer without biteplane; cuspid-to-cuspid lower retainer. X-rays show no root resorption.

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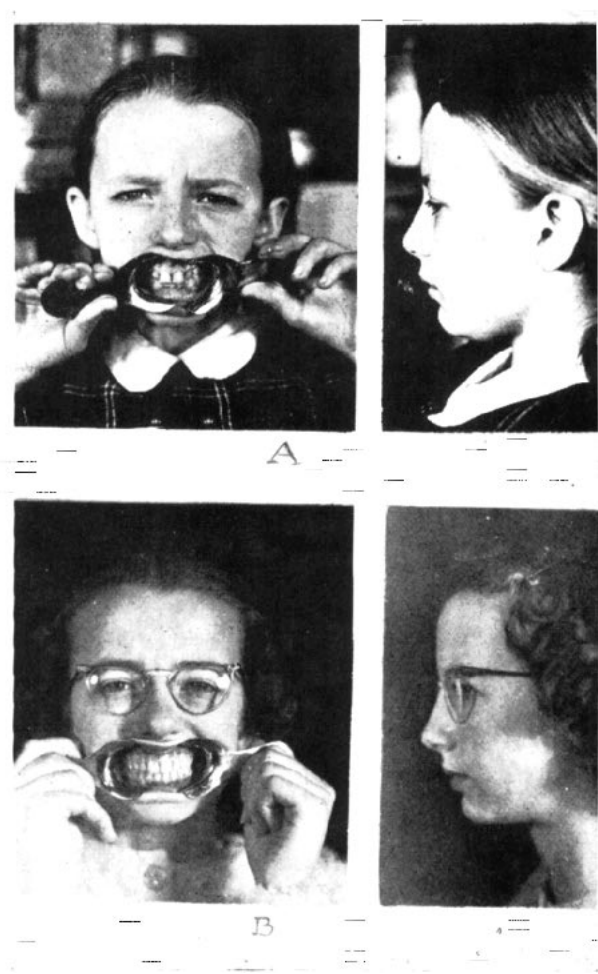


Figure 1. Photographs A 735 before treatment A, after treatment B.

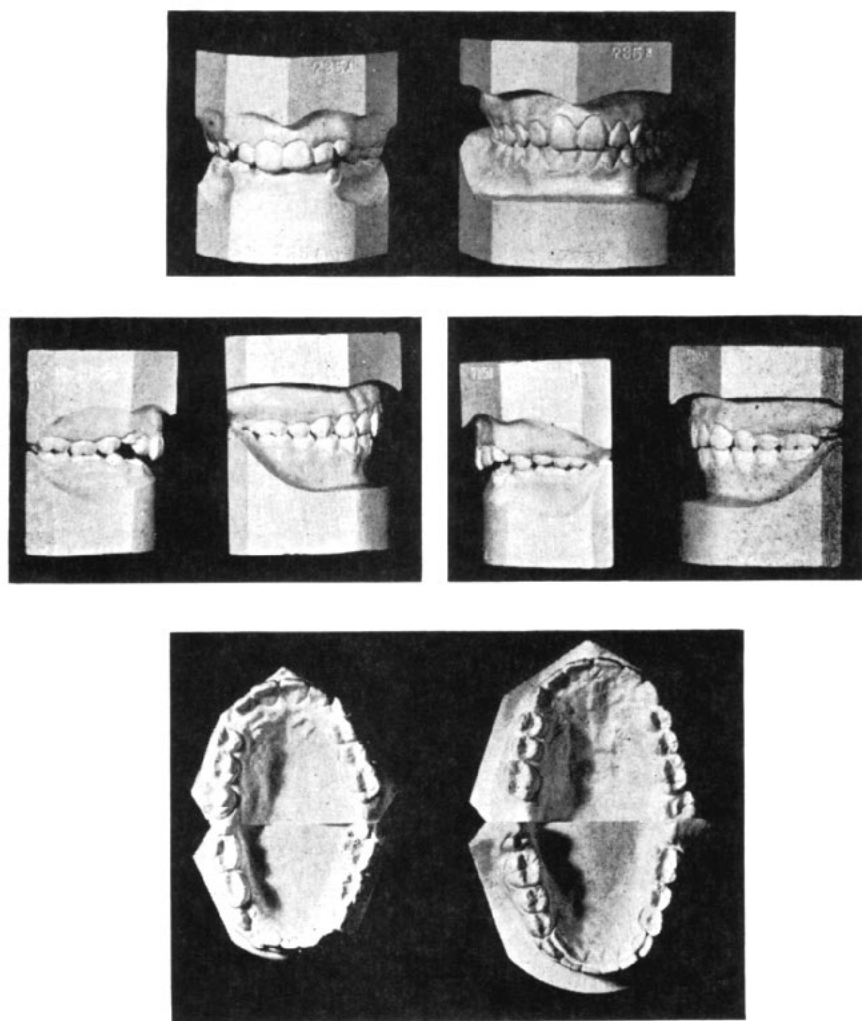


Figure 2. Casts A 735 before treatment (left) and after treatment (right).

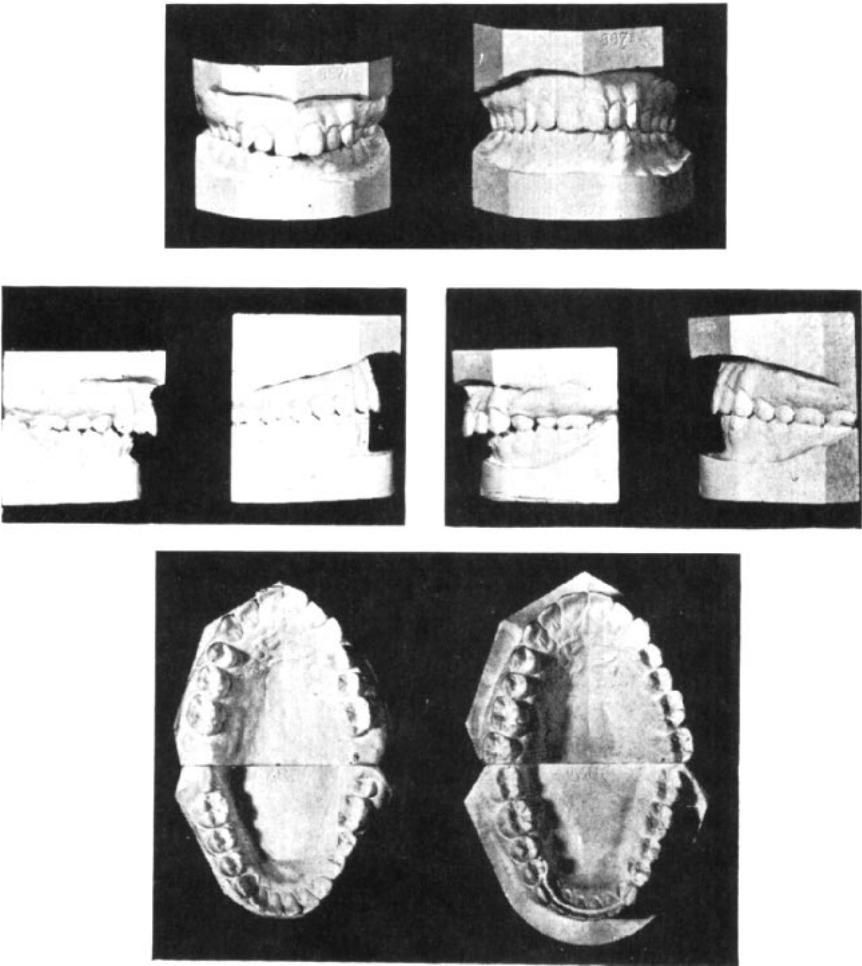


Figure 4. Casts B 887 before treatment (left) and after treatment (right).

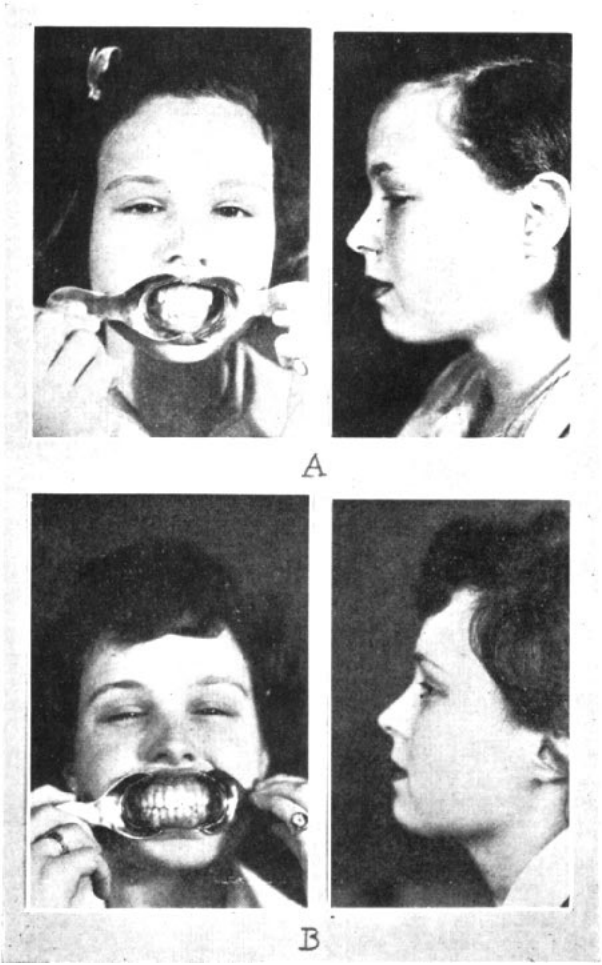


Figure 3. Photograph B 887, before treatment A, after treatment B.