A CLEFT PALATE
OVER-DENTURE APPLIANCE

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The patient, a 25-year-old soldier, presented himself seeking any improvement possible to his appearance and speech; he gave a vague history of having undergone six operations in infancy for palatal and hairlip repair.

Examination showed a typical underdeveloped maxilla with the arch constricted into a V-shape, and gross malpositioning of teeth. The palatal mucosa was very puckered and irregular, with a deep central fissure ending in a pin-point sinus communicating with the nose; there was no clinical evidence of loss of premaxillary alveolus.

At rest the patient had a freeway space of 10 mm. The only occlusion possible was between the disto-buccal cusps of 6/6 with disto-lingual cusps of 7/7; the vertical plane of the upper centrals was 9 mm behind that of the lowers. The labial sulcus was of normal depth except in the /12 area where it was almost obliterated by a mass of fibrous tissue.

The prosthetic treatment rendered consisted of an over-denture occlusal-restoration appliance. The denture base was cast in cobalt chromium alloy incorporating caps to the depth of the survey lines over all teeth from 6/ to /6, and a vertical retention grid in 52/ and /25 areas to hold the mass of buccal and labial acrylic. The only teeth presenting any usable retention areas were the 7/67; the other teeth were either barrel-shaped or tilted acutely towards the centre of the palate.

Similar appliances fitted in previous cases were finished in injection-moulded polyesterene to take advantage of the lesser weight and the dimensional stability but, as the process was not available, for this case acrylic was used.

The patient was very pleased with the improvement to his appearance and to masticatory efficiency in addition to the sealing of the naso-oral sinus. There has been a slight improvement in speech and it is hoped that there may be further improvement following a course of speech therapy.
Before and after fitting of the appliance.

Showing palatal deformation and jaw relations.

The metal base and finished denture.