- 2. Open bite including permanent incisors only (simple according to Moyer's).
- 3. Full permanent dentition (12-20 years).
- 4. Dental, not skeletal, anterior open bite.

For each case of the selected sample the following was done before and after treatment:

- 1. Study models: Those were kept as records for the patients and helped in evaluating the treatment effect.
- 2. Standardized lateral cephalometric radiographs:
  These were taken with the Frankfurt horizontal plane of the patient parallel to the floor. They were traced and certain landmarks, planes and angles were utilized.
- 3. Facial and intra-oral photographs were taken to clinically judge the cases.
- 4. Speech testing:

Tape recording were made for each patient before and after treatment in a sound proof room. Eighteen syllables were used, these containing the consonants: /s/, //,  $/\theta/$ , /z/, /t/ and /f/.

All the cases were treated by the fixed conventional edgewise technique. Fifteen cases were treated by four premolar extraction while five were non-extraction cases. Active treatement time ranged from 8 months to 2 years 10 months.