Parallelometry In a removable denture, in each case, the arms of the clasps (bent or cast) must be located on the surface of the tooth corresponding to the vertical and horizontal equators (lines of greatest convexity). If the number of clasps is more than two, then the choice of stabilizing and retention features of the clasps is determined on the basis of a single clinical equator common to all surfaces of the teeth, which in the specialized literature is called the “path of insertion of the prosthesis.” To objectify a single, common clinical equator, a device was created - a parallelometer. The plane of the base of the device and the horizontal part of the movable part of the stand are parallel to each other, therefore any diagnostic rod fixed plumbly on it is perpendicular to the base of the parallelometer. The table for securing the model has a movable stand with a fixing device, which allows you to give the model any position relative to the diagnostic metal rod and other tools. Consequently, a parallelometer is a device for determining points parallel to each other and located in the same plane on an infinite number of horizontal surfaces of teeth, alveolar processes of the jaws at a certain specified position of the model in relation to the diagnostic rod (vertical). Five positions of the model in relation to the vertical diagnostic rod are practically significant (Fig. 126): Fig. 126. Position of models in the parallelometer relative to the diagnostic rod. 1) horizontal - zero inclination: the axis of the diagnostic rod is perpendicular to the occlusal plane of the chewing teeth; 2) posterior, when the posterior part of the dentition is lowered;. 3) anterior, when the anterior part of the dentition is lowered;. 4) left, when the model is tilted to the left;. 5) right, when the model is tilted to the right. The effect of tooth inclination on the position of the equator on the crown and the change in the line of sight on each tooth when the diagnostic model is tilted is illustrated by a diagram with an ovoid body (Fig. 127). By changing the position of the model relative to the diagnostic rod, it is possible to change the position of the equator, the area of the occlusal and gingival surfaces selected. Rice. 127. Change in the position of the line of sight when changing the position of the body in relation to the diagnostic rod. under the support of teeth in order to ensure the required depth of retention, reasonable, from the point of view of fixation and aesthetics, location of the clasp arms in accordance with their chosen design (the latter is dictated by an analysis of the clinical condition of the crowns of the supporting teeth, periodontal disease and its x-ray assessment, type of occlusion). Having replaced the diagnostic metal rod with a stylus, the surfaces of the teeth are outlined in the position of the model found and installed on the table. As a result, a line of sight is obtained - a graphic image of points lying in different planes on all surfaces of the teeth for a given (defined) axis of insertion of the prosthesis, which is called parallelography. This line of sight is the zone of greatest convexity of each tooth in a single axis of insertion of the prosthesis. The diagram with the ovoid body shows that this line of greatest convexity may not coincide (which most often happens) with the anatomical formation on the crown of the tooth - the anatomical equator. Depending on the inclination of the model, the line of sight will be located differently on the supporting teeth, both from the side of the defect and from the vestibular and oral sides. . There are 5 options for passing the line of sight on the tooth surface. The first option is that from the side of the defect the line of sight approaches the gingival part, and from the side of the adjacent tooth medially - to the occlusal part of the tooth. As a result, quadrants I and IV have a larger area than quadrants II and III. The second option is that from the side of the defect the line of sight approaches the occlusal part, and from the side of the adjacent tooth medially - to the gingival part of the tooth. As a result, the area of the first quadrant is reduced to a minimum or practically absent. The third option is a sharply diagonal passage of the line of sight, as a result of which the areas of the I and IV quadrants become minimal. The fourth option is to bring the line of sight closer to the occlusal part along the entire length of the vestibular or oral surface of the tooth. Occurs when the tooth is tilted in the corresponding direction. Almost I and II quadrants are absent. The fifth option is to bring the line of sight closer to the gingival part along the entire length of the vestibular or oral surface of the tooth. It occurs when the tooth is tilted in the opposite direction, with a conical shape of the tooth crown. In practice, the III and IV quadrants have a minimal area or are absent. The listed options for passing the line of sight will vary depending on the position of the model, i.e., the chosen axis of insertion of the prosthesis (see Fig. 126, b). Only in the fifth option, provided that the line of sight from both the vestibular and oral sides passes close to the gingival margin (with a conical crown), to improve retention conditions it is necessary to make an artificial crown for the abutment tooth for the selected type of clasp. If

Considering that with parallelometry we determine the undercut zones near the teeth and in the area of the alveolar processes, creating isolation to avoid the formation of “captures” of the base part of the dentures for the purpose of their unhindered insertion, then it becomes obvious that parallelometry and parallelography should be used in practically the treatment of all denture designs with multiple diverse fixation elements. here https://dentaltechnic.info/index.php/obshie-voprosy/ortopedicheskayastomatologiya/673-parallelometriya about Parallelometry