

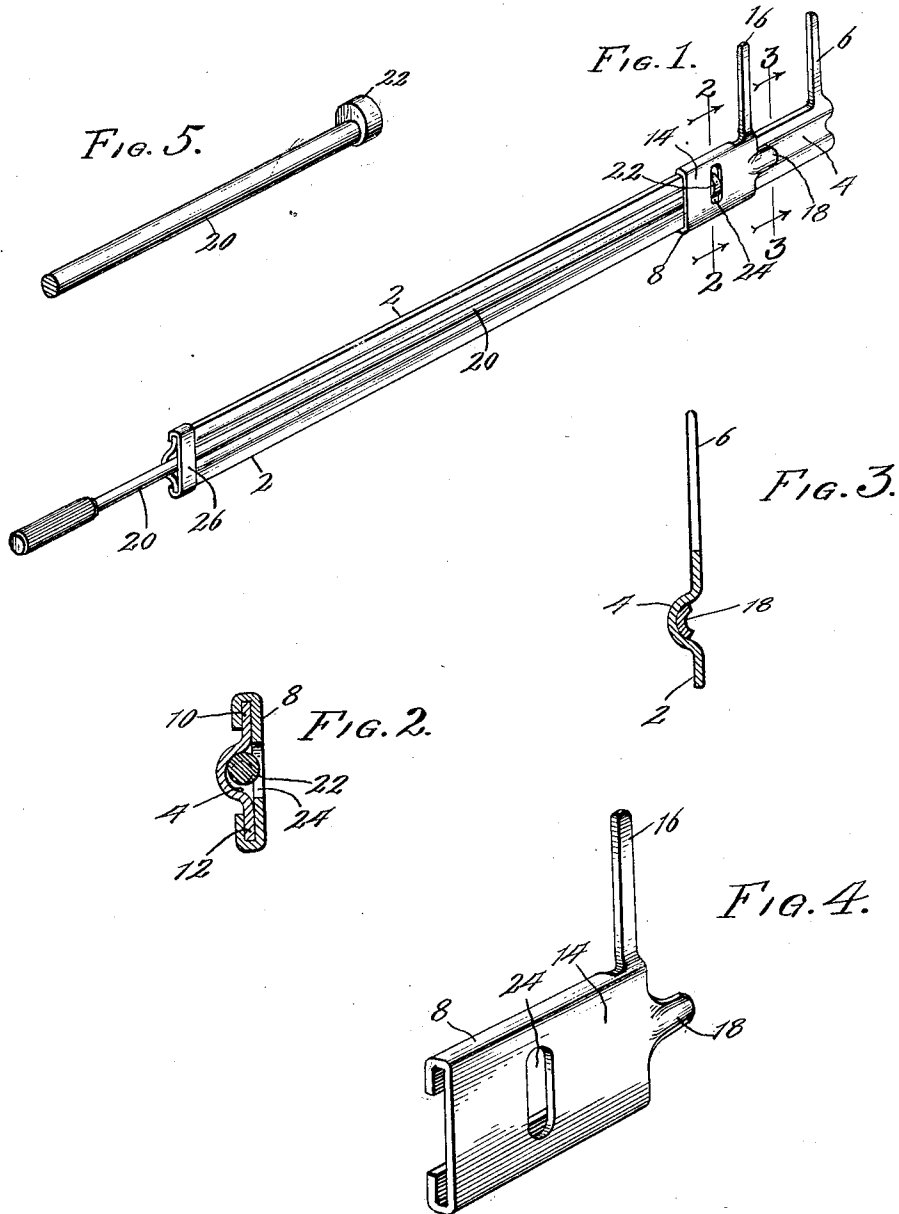
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DENTAL GAUGE

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UNITED STATES PATENT OFFICE.

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DENTAL GAUGE.

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My invention relates to dental gauges for use in bridge work to enable the dentist to position the inserted tooth in proper relation with the other teeth in the patient's mouth and also to measure teeth or spaces between teeth.

The general object of the invention is to provide a gauge of this character which shall be simple to construct and easy to manipulate. More specifically it is my purpose to provide a gauge such that the movable element may be locked by means of the same element which shifts it along the shank of the co-operating gauge. Still another object is to provide a main guide which shall be unusually rigid and at the same time provide a housing for the locking cam and its operating rod. A further object is to provide a friction device for preventing the slide from moving too easily along the main guide.

These and other objects of my invention will be apparent from a perusal of the following specification when taken in connection with the accompanying drawing wherein,

Figure 1 is a perspective view of my gauge.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a section on line 3—3 of Figure 1.

Figure 4 is a perspective view of the slidable jaw and

Figure 5 is a view of the end of the control stem and its locking cam.

In the particular embodiment of my device illustrated, the improved gauge comprises a main guide 2 provided with a longitudinal channel 4 which not only strengthens the guide but also provides a housing for accommodating certain parts of the movable jaw and its control stem. The extreme end of the main guide 2 is provided with an upstanding jaw 6 which forms the stationary jaw of the gauge.

The movable element or slide 8 shown clearly in Figure 4 comprises a substantially flat sleeve preferably of sheet metal, having flanges 10 and 12 adapted to slidably engage the upper and lower edges of the main guide 2. The wall 14 of the slide is provided with an upstanding jaw 16, which may be moved toward and from the fixed jaw by moving the slide 8. If desired the movable slide

may be provided with a lug-like extension 18 slightly offset and of accurate conformation so as to fit the interior wall of the channel-like rib and provide a friction surface to prevent the slide from moving too easily along the main guide. This lug 18 may be bent to provide greater or less friction. This lug also prevents tilting of the slide.

The sliding movement of the slide 8 along the main guide 2 is accomplished by means of the control stem 20 which is preferably round so as to fit snugly within the channel of the guide 2. The end of the stem 20 is formed with a cam 22 preferably circular and arranged eccentric to the axis of the stem so that on angular movement of the stem the cam will be shifted. The cam is housed within the slide 8 as shown clearly in Figure 2 and this slide is formed with a slot 24 to permit angular movement of the cam and to provide means for holding the cam and stem assembled to the fixed guide and movable slide. With this construction when the cam is shifted it will wedgingly engage the inner arcuate walls of the channel whereby to lock the slide in desired position on the main guide. It will be observed that the edge of the cam slightly projects through the slot in the slide so that when the stem is moved in either direction the cam will contact the corresponding side of the slot and shift the slide. The outer end of the control stem 20 is preferably knurled to form a convenient handle for not only shifting the slide along its supporting main guide but also angularly to shift the cam to either lock or release the slide. I also provide a strip 26 which overlaps the opposed edges of the main guide and prevents the stem 20 from disengaging from its channel or housing.

It will be apparent that I have provided a simple type of dental gauge and one wherein the control stem not only serves to actuate the movable jaw relative to the stationary jaw but also functions to lock the movable jaw in any shifted position. The construction of the preferably sheet-metal guide and slide and the co-operative control stem with its stem is extremely simple and effective since the longitudinal channel provides an elongated locking member which co-operates with the cam in any of its shifted positions therealong to hold the movable jaw in stationary position; and the slot in the slide not only permits angular movement of the cam-

tric cam but also provides a simple and effective means for holding the control stem and slide in assembled relation on the main guide 2.

5 Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

10 1. A dental gauge comprising an elongated main guide provided with a stationary jaw and a channel extending longitudinally thereof, a slide movable along the main guide and provided with a co-operative jaw, a control stem housed within the channel of the main guide and having a cam housed 15 in the channel and maintained in assembled relation to the slide, said stem being shiftable angularly to cause the cam to grip the channel wall of the main guide and lock the slide in desired position.

20 2. A dental gauge comprising a main guide having a stationary jaw, a slide adapted to move along the main guide and provided with a co-operative jaw, a control stem connected to the slide so that when the stem is operated the slide will be shifted 25 relatively to the main guide and means operative on the angular movement of the stem for locking the slide relative to the main guide.

30 3. A dental gauge comprising a main guide and a slide each provided with a jaw, a control stem connected to the slide for shifting it along the main guide and a cam on said stem, said cam being so constructed and arranged that upon angular movement 35 of the stem it will operate to lock the slide on the main guide.

4. In a dental gauge, a main guide formed with a longitudinal channel and a fixed jaw, 40 a normally movable jaw slidably mounted on said guide, means extending adjacent the channel for sliding the movable jaw and means formed on the jaw sliding means and adapted to engage within the channel for 45 locking the movable jaw against sliding movement.

50 5. A dental gauge comprising an elongated main guide provided with a stationary jaw and a channel-shaped rib extending longitudinally thereof, a movable slide slidable along the main guide and provided with a co-operative jaw and a slot, a control stem housed within the channel of the main jaw, an eccentric cam on the stem and hav-

ing a portion thereof lying in the slot of the 55 movable jaw.

6. A dental gauge comprising a main guide having a jaw and a channel, arcuate in cross section, a movable slide slidable on the main guide and provided with a jaw and 60 a slot, a control stem, circular in cross section, having a circular cam eccentrically mounted thereon and housed in the channel of the main guide and the slot of the movable slide. 65

7. A dental gauge comprising a main guide having a jaw and an elongated channel, arcuate in cross section, a movable slide slidable on the main guide and provided 70 with a jaw and an offset arcuate lug adapted to fit in the channel of the main guide to prevent tilting of the movable slide.

8. A dental gauge comprising a sheet-metal elongated member formed with a channel-like rib longitudinally thereof and 75 provided with an integral upstanding jaw at one end, a sheet-metal movable slide formed with opposite flanges overlying the opposed edges of the main guide to provide slideways to permit the movable slide to 80 slide along the main guide, said movable jaw having a slot and an upstanding integral jaw, an elongated stem lying in the channel of the main guide and having a cam lying in the channel of the main guide and in the 85 slot of the movable slide.

9. In a dental gauge, a main guide having a longitudinal channel and a fixed jaw at one end, a movable jaw slidably mounted on the main guide, a stem for sliding the movable jaw, and a rotary locking means associated with said stem adjacent said guide, the stem being rotatable to lock the movable jaw to the guide. 90

10. In a dental gauge, a main guide having 95 a longitudinal channel and a fixed jaw at the outer end, a movable jaw slidably mounted on the main guide, and a stem for sliding the movable jaw, that portion of the stem lying between the ends of the main guide being housed within said channel and said stem also having a cam lying in the channel and adapted to frictionally contact 100 with the walls of the channel.

In witness whereof, I have hereunto subscribed my name. 105

DANA W. ROSS.