

atal cusps touch while the buccal do not—showing the idea of the ball and cup, the upper teeth forming the ball, while the under form the cup.

The line drawn in conformity to the faces, or grinding surfaces of the posterior teeth is a curved line, and the arc of a circle varying from a very small one to almost a straight line. I have used the arc of a circle twelve inches in diameter, as that perhaps is an average and a fair one to work on, though you will find many which are much smaller.

Looking at the Bonwell diagrams in the *September Items*, illustrating the teeth in mastication, you find he has the line drawn across the masticating surfaces of the molars, a straight line. I claim the line should be the arc of a circle. Then, when the lower jaw is carried to the left in the act of chewing, the cup slides to its place on the ball and stops against the cusps on other side.

Dr. Bonwell curved his line toward the ramus, but not in the direction I have just mentioned. The teeth, if without cusps, and arranged as in Dr. Bonwell's drawings, would continually slide from side to side; while arranged as I claim is right, would come to a common centre and remain there until again carried to either side as in masticating.

I will give you an outline of my methods: Impressions, models, bites or articulation taken and made as usual, being sure each step as taken is correct. The bite-plates are then locked together with the little bite locks made for that purpose, and which I devised several years ago, as illustrated in the *Cosmos* of August, 1896, also in "taking impressions of the mouth" by the S. S. W. Co., 1898. These do away with all the uncertainties of the usual method of marking them with a series of crosses, etc., taking from the mouth separately and trying to get them into the same position they were while in the mouth. By locking and removing them together, they must needs be just as they were in the mouth; then by using the face-bow you will get the models in the articulator, so there is no doubt but they are right. Then set up the front teeth of both sets, fastening them to trial plates slightly, as you may wish to change some of them a trifle. Then, turning back the upper bow or top of articulator with the upper model, and attaching the convex disc, setting the remaining under-teeth to the disc, making sure the inner cusps touch it as well as the outer. Thus, making plain the reason for wanting plenty of space at back of articulator the better to view the work, even the front under-teeth are to be set to the disc.