

the places where the dots are shown; then grasp it in the hand vise or lay it on a piece of wood, which prevents it being turned around, and drill all the holes along that line. Then tap these holes with the tap you have made, cutting the thread very carefully, sawing down these surfaces and sawing off the first row. This row, then, is ready to be screwed on the opposite end of the tap and finished. The tap is then grasped with a hand vise, and the way to get the size of this is to run down the diameter of the holder and temper quite hard—not too hard so that these little points will break off—and as soon as the file comes down to the rounded surface of the holder it is then the right size. In the *Cosmos*, two years ago, I published a method and advised squaring the ends; but it is just as well to have it round instead of square.

Now, we come to the band material. This is done by annealing the wire of the proper size, using the larger wires, first annealing the wires and then rolling them down a few times, annealing again and so on five or six times. After they have been brought to the proper thickness then they are thoroughly annealed. That is the only way that is possible to get those perfect bands that are most desirable for the work. It is quite difficult for me to get the students to do all the work that is necessary on a band. If it is not annealed properly, to start with, in a little while the edges of the bands become ruffled, and have little saw teeth upon them—the only way I can detect sometimes that they have not annealed it as much as I have told them to—and it should be annealed four or five times in rolling it through the rollers while that is going on. When I say thoroughly annealed I mean that it should be put over some heating apparatus, such as a large burner placed on a sieve wire as I do in the office and at the colleges, and these raised at a red heat and held there for four or five hours, in my office never less than three hours. In that way you get an exceedingly soft material. Now, in the working of German silver there are certain things that are very desirable. One is that it shall be intensely hard for the threads on the wire, and the other is that it shall be intensely soft. You will notice that this band is like a piece of cloth, and is three and a half or four-thousandths of an inch in thickness.

Now, we have here instruments that can be made from stock material (going over list of different shaped hooks and other tools as shown on card). The most scientific principle in the regulation of teeth is to make one force aid the other; that is the force that is used in one malposed tooth should act on the other malposed tooth. You will be surprised to see the number of ways in which that principle is applied. The separating tape is not at present made by any dental people, although it ought to be; and there is only one place in Chicago that we can get it exactly as we want it. You