

In cases where nerve broaches cannot be used with full satisfaction, it is necessary to depend for success upon thorough medication of the remaining debris.

For removing debris from canals, the prepared nerve bristles are very unsatisfactory. They are either too soft or too brittle, or the barbs rub off very easily.

It is a wonder that so many firms keep on making, and so many dentists buying, articles that are of no earthly value to anyone who wishes to do thorough work.

A broach must be stiff, springy, and of even taper. It must also be cheap and adaptable to various circumstances. Broaches for lower molar roots should be somewhat flattened to suit the canals. The points must be very sharp to avoid pushing debris ahead; while the butt must be of sufficient thickness to give strength.

To make nerve broaches that will do reasonably satisfactory work, take No. 18 piano wire, and draw the temper a little.

A little experience will enable one to draw to any desired temper for any particular case. A Bunsen flame will do very well. The wire should be left sufficiently stiff to come back straight when the point is deflected thirty or forty degrees. Place a piece of hard wood end up in the vise, and with the corner of a file cut a light groove parallel with the jaws. This groove is to keep the wire from slipping while it is being filed.

Place the piano wire in a pin vise and file it taper with a square section, or slightly flattened for some cases. Care must be taken to make the taper even from butt to point, or the broach will be liable to break.

With a sharp graver nick the square corners of the broach, and the result is a series of barbs that will stand a great deal of use. The barbs may be placed on one, any, or all corners, according to requirement. The butt must be adapted to the particular kind of broach-holder used. For a screw chuck-holder the butt should be made square. For a sliding ring-chuck the butt will stay better if slightly flattened.

A foot of piano wire will make nine broaches, and costs less than a cent. One of these broaches will do more work than three ordinary ones at fifty cents a dozen.

Having now a serviceable broach, it is necessary to use it rightly. It should not be sent to the apex at first, but the debris must be carefully removed as one goes up, care being taken to avoid wadding the narrower portion with debris, as it is very difficult to remove and may get solid enough to be taken for the apex. To properly cleanse a root requires time and patience, for it is a really tedious operation.

Having removed all dead matter that will come out, the next step is the thorough medication of the root. A few fibres of