

Cohesive-Non-Cohesive Foil Fillings

THE ART OF MANIPULATING NON-COHESIVE FOIL

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Gold foil, despite many objections to its use, still occupies a leading place in operative dentistry because it is the best filling material obtainable. Many of the objections, I have found, can be easily overcome. The element of the time required to place the fillings, and the strain on both patient and operator are negligible when non-cohesive foil is used in conjunction with cohesive.

The non-cohesive foil is easy to manipulate and can be used in one-half, one and two-grain cylinders. It packs without bridging and is easily adapted to the cavity walls.

It is much easier to make non-leaking fillings by this method than when all-cohesive foil is used. There is less danger of marring the cavity margins because we have a good padding covering these when shingling the cohesive against and over the non-cohesive foil.

The technic I describe here is not new; in fact, it is probably the oldest in operative dentistry. But with the advent of cohesive foil some eighty years ago, the manipulation of the non-cohesive has become a lost art. Some of our modern text-books completely ignore it and even discourage its use, and its advantages are today recognized by only a small percentage of the profession.

The field for non-cohesive in conjunction with cohesive foil is limited to cavities with good surrounding walls.

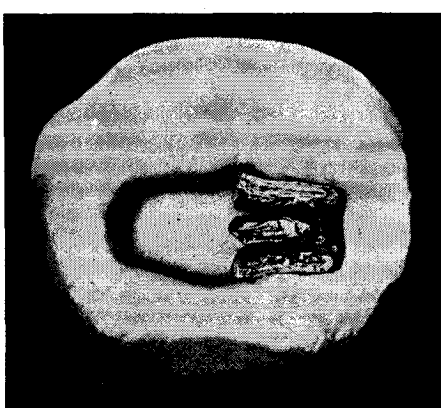
It can be used to advantage in all small and medium-size Class I cavities and all Class V cavities of moderate size and depth where gold foil is indicated. The cavity preparation does not vary from that for an all-cohesive foil filling except that no convenience pits are required.

The non-cohesive foil is manipulated with large foot-pluggers. Several very convenient instruments, which are not on the market, but which any dentist can make or have made are desirable but not absolutely necessary. I describe these as bayonet pluggers 25-10-4-0 and 25-1-4-0, and hatchet 50-5-25.

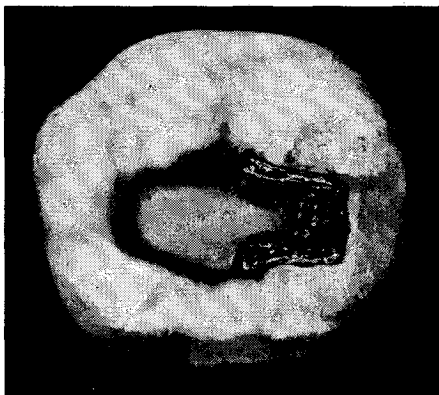
The most convenient sizes of non-cohesive foil to use are the one-half, one and two-grain cylinders. When these are placed in cavities, one end must rest on the pulpal wall in Class I and on the axial wall in Class V cavities.

In a medium-size cavity in a lower first molar, place a one-grain cylinder on the pulpal wall and against the distal wall, and with the 50-5-25, or a similar flat instrument, press it against the buccal wall.

Now place another one-grain cylinder in a similar position and press it against the lingual wall, and a one-grain cylinder, compressed with the



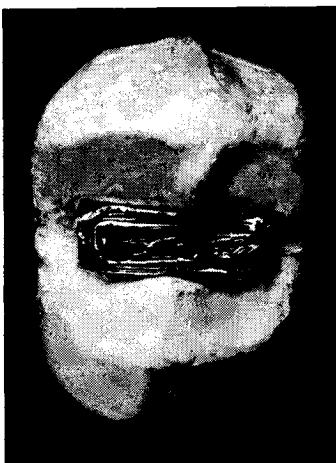
1. Three one-grain cylinders of non-cohesive foil in position in an occlusal molar cavity, ready for packing.



2. The middle cylinder is packed distally, wedging the buccal and lingual cylinders firmly in place.



3. The mesial and distal ends of the cavity are filled with non-cohesive foil. The remainder of the filling is made with cohesive foil.



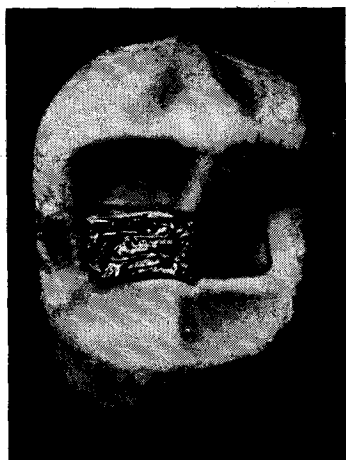
4. A single cylinder of non-cohesive foil in position in a premolar cavity ready to be packed distally.

fingers if necessary, between the first two, Figure 1.

With a foot-plugger in the left hand, hold the gold against the pulpal wall, and with another foot-plugger in the right hand, force the mid-

dle cylinder distally.

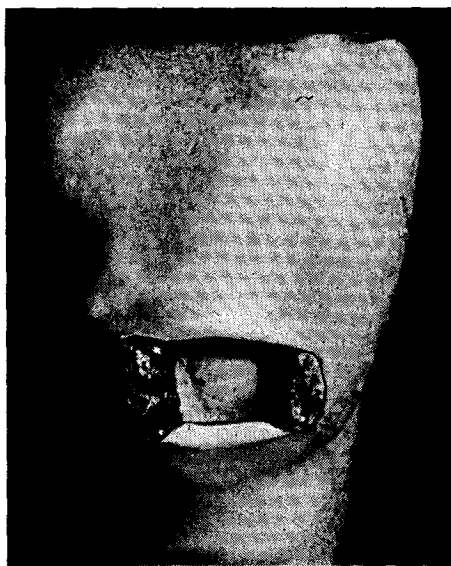
Then compress the gold buccally, lingually and distally with the 50-5-25 hatcher, Figure 2. Fill the crevice be-



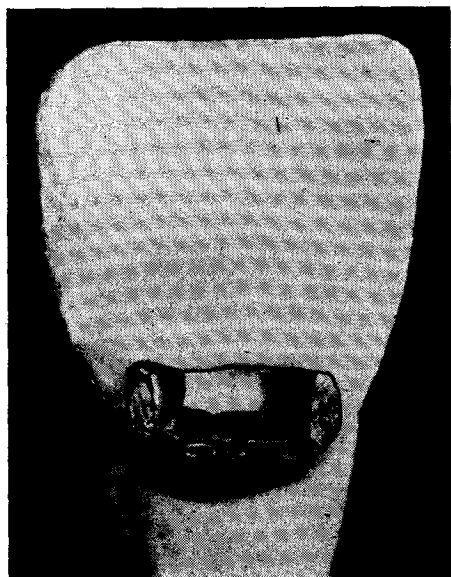
5. The foil has now been packed distally. Thoroughly wedged in place, it is ready for the next step.



6. The wedged cylinder packed against the buccal and lingual walls. The mesial end of the cavity is similarly filled with non-cohesive foil, and the filling is completed with cohesive foil.



7. Non-cohesive foil is wedged in the mesial and distal ends of a Class V cavity.



8. The gingival wall of the cavity is covered with non-cohesive foil. The filling is completed with cohesive foil.

tween the two cylinders with cohesive foil, shingling against and over the non-cohesive foil as the crevice is gradually filled.

Place three one-grain cylinders in the mesial part of the cavity and compress it as we did in the distal, Figure 3. Then fill all crevices and the rest of the cavity with cohesive foil, always condensing against and over the non-cohesive foil as the cavity filling progresses.

What have we gained by this technic? We have placed six grains of non-cohesive foil (the equivalent of forty-eight 32's of cohesive foil) and packed it with hand pressure in about the same time it takes to describe the procedure. To condense this amount of cohesive foil would require at least 1800 strokes of the mallet!

Class I. In small Class I cavities in molars and premolars where it is not convenient to place three cylinders of non-cohesive foil as in Figure 1, place a single one-half or one-grain cylinder on the pulpal wall, Figure 4, with a foot-plugger pressed distally, Figure 5.

Then with a 25-1-4-0 plugger or a 50-5-25 hatchet, make a crevice in the center of the gold, Figure 6, and condense it against the three walls. Fill the crevice and the rest of the cavity with cohesive foil.

Class V. In Class V cavities, when they are of convenient size and depth, place a half-grain cylinder of non-cohesive foil on the axial wall and with a large foot-plugger, press it distally.

Seat another half-grain cylinder and press it mesially, a half-grain cylinder against the gingival wall, Figures 7 and 8, and fill the rest of the cavity with cohesive foil, condensing it against and over the non-cohesive.

We should not attempt gold foil restorations where the area and extent of decay indicate the need for a gold inlay or some other restoration. But by using non-cohesive in conjunction with cohesive foil in small and medium-sized Class I and suitable Class V cavities, we can give the best service in less time and with no more strain on the patient and operator than it takes to complete an inlay operation.

The use of the rubber dam assures us absolute asepsis and we do not have the physical properties of cement, wax, investment material and casting gold to contend with. Those of us who are not taking advantage of non-cohesive foil are passing up an opportunity to give our patients a type of unexcelled service.

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