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In order to be considered for publication all articles must be submitted typewritten and double spaced, at least three months prior to the date of publication. Papers presented before any of the Academy meetings will become the property of the Academy and will be published in the Journal as time and space will permit.
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THE PRESIDENT'S MESSAGE

This past year has been a rather exciting one for your President. He has become involved with many challenges which concern our Academy and the future of many clinical aspects of our profession.

While some State Boards are restoring foil requirements, others have considered deletion. Some schools are gradually de-emphasizing the gold foil procedure, while others are making definite programs to improve its teaching. Articles have appeared which have belittled gold foil teaching and subsequent clinical examination by State Boards. Meanwhile our Academy, its Council, committees and membership have taken active interest in these problems, and it has been with a great sense of pride that I have watched our members in action when called upon to help. To say that our efforts were overwhelmingly successful would indeed be presumptuous. However, I am certain that the critics have been made to wonder if their attitudes and judgment against the teaching of gold foil technics and their inclusion in State Board examinations have been wise. With relentless effort we can remold such decadent thoughts which would discourage members of our profession from the desire to improve or perfect themselves.

Despite the valuable efforts of many to challenge the opinions of a few who lead in this derogation, we are faced with a long, relentless struggle. It requires the experience, ability and support of each member, whether he is to be found in the secure and stable community of Seattle, in the untapped strength of Chicago, or in the newly stimulated communities of Grand Rapids and Boston. The greatest deterrent to apathy, and to forces which would destroy, is the Study Clubs. Those who have found the energy and enthusiasm to participate in these clubs have witnessed the dividends which accrue to themselves, their community and their profession.

One can gain satisfaction or pride of accomplishment only when he has given something in the form of energy, interest, application, and time. It is certain that 400 members of the American Academy of Gold Foil Operators could be a tremendous creative force, that would serve to sustain the desire for perfection in our profession. Their efforts can be the source of unbounded satisfaction.

Robert B. Wolcott
U. S. Naval Training Center
Great Lakes, Illinois
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GOLD FOIL IN EVERYDAY PRACTICE*
Bruce B. Smith,** B.S., D.M.D., Seattle, Washington

Gold foil is a unique service. It is sterile and is placed in a freshly cut cavity directly from the flame. It has antibacterial action second only to that of copper cement and copper amalgam. The finest margins in dentistry may be obtained with this material. It is honest, for an operation may be recognized as a success or a failure when the restoration is complete. It may serve in a tooth not only for 20 to 30 years, but for a lifetime.

Indications and contraindications must be recognized and understood, however, for success and intelligent use of foil in practice. With the possibility of using well-fitting crowns, inlays, and other types of castings, it is a mistake to attempt to restore large carious areas with foil just as it is a mistake to cut an inlay cavity in a tooth with incipient caries and thereby destroy fine tooth structure, when a properly placed gold foil restoration will conserve and protect the patient’s dental resources.

Indications and Contraindications

The salient indications and contraindications for gold foil are logical and self-evident. Extensive cavities or those with weakened walls which would place an unreasonable strain on the patient, the tooth, or the operator, should not be restored with gold foil. The very young patient whose root development is insufficient or whose periodontal membranes are too thick to properly resist malleting should not receive gold foil, nor should the individual with extensive alveolar bone recession.

Devital teeth may receive foil just as they may of necessity be forced to assist at times in supporting a bridge, but it is far better to avoid any unnecessary strain on a tooth with a weakened circulatory protective system.

Finally, in rare instances, one will contact a patient whose temperament is unsuited to the malleting. Such a person will be intolerant of the mallet blows. By far the majority of patients, however, will relax or even sleep while the cavity is prepared and filled.

Class V Cavities

Gold foil may be used satisfactorily in almost all normal restor-

*This is a revised version of a paper originally published in Dental Clinics of North America, pp. 123-137, March, 1957.
**Past-President, American Academy of Gold Foil Operators; Member, University Ferrier Study Club; Clinical Associate in Operative Dentistry, University of Washington.
ative procedures if the operator is competently trained in the art. The prime indications for the average man will first be found in Class V cavities. There the fine finish, without overhang, ditching, or scratches, will permit the original tissue to come up around the foil and usually cover at least the gingival third of the restoration. No expansion or contraction will cause gingival irritation, nor will cement margins or cement deterioration cause unsightly stains or recurrent caries. Neither will the entire filling wash away as with siliceous cements, leaving a sharp cavity margin to cut the gingival tissue.

Class I Cavities

The pit and fissure cavities are second in indicated foil usage. Here we find notably simple operations where foil may be placed rapidly and neatly. Class I foils in molars and bicusps and the lingual pits of the maxillary incisors become more dense through wear and abrasion and do not have the lack of edge strength noticeable in some alloy occlusal restorations. The foil tends to burnish with usage.

It is common practice in many areas to place a simple foil restoration in the mesiobuccal aspect of a gold crown. This Class I cavity is cut as a tiny opening in the crown just prior to cementation in order to release the hydraulic pressure of the cement and to allow the well-fitting crown to seat completely. When cementation is accomplished, the opening is cleaned and made retentive. Then in minutes the pit is restored with gold foil. Because of the accessibility, fine cuttle disks may be used in the finishing, and the operation is complete.

Class III Cavities

In many areas, foil is in great demand for Class III cavities. What could be finer on the distal aspect of a cuspoid where strength of contact is essential for the keystone of the dental arch? The distal aspects of central and lateral incisors are again natural areas for foil because they are very inconspicuous in most mouths when properly prepared, giving the patient unparalleled service and freedom from recurrent decay. Condensed properly, they do not absorb oral secretions. Neither do they shrink from cavity walls when exposed to the air.

The lower incisors are small, delicate teeth, in which only one or two additional replacements will jeopardize the incisal angle of a tooth. Therefore, foil restorations are ideal by virtue of their neatness and tiny proportions (they may be unusually restricted with safety in this area) and because they do not require repeated preparation over the years.

Class II Cavities

The Class II foil restoration, generally speaking, is for the more experienced operator. Its indications are many. Esthetic-
ally, it is far superior to an inlay. Therefore, on any mesial bicuspid or molar surface it is the material of choice. The lower first bicuspid is a special indication, for the strong lingual triangular ridge of the buccal cusp cuts the tooth into two separate areas, each of which is too delicate to permit inlay cavities without extensive and wasteful loss of vital tooth structure. Occasionally on the other bicuspids, where distoocclusal restorations are already present, foil may be placed in a mesioocclusal cavity and readily joined to the distal inlay or foil. This has the obvious advantage of retaining a pre-existing sound restoration for the patient and supplying the most esthetic and permanent service possible.

Class VI Cavities

Class VI abrasion cavities are often overlooked, but restoration may serve to substantially delay later bite-opening procedures and avoid broken teeth and many of the effects of wear on an older patient’s dentition. It is well to consider these cavities in geriodontics, and platinum and gold foil is the finest restorative material possible to correct the situation. The added hardness of the gold foil with platinum produces fine wearing qualities without enough additional working harshness to be noticed by the operator. Here, in exception to our general rule, we place a well-defined cavosurface bevel on the preparation.

Office Preparation of Gold Foil

The preparation of gold foil for use in the office is a simple, direct procedure which the assistant may learn quickly. Normally a book of No. 4 foil, non-cohesive, is cut into the proper sizes for either pellets or cylinders (Figure 1). This is best done by measuring the size of the gold sheets within the book; then a piece of cardboard of the same size is cut out and marked with pencil into the proper divisions. The cardboard sheet is placed over the tissue, directly in line with the underlying foil sheet. Now the pencil markings of the correct size are transferred from the edge of the cardboard to the tissue paper. Once the tissue is ruled off into the size squares desired, it is convenient to slip four paper clips over the edges of the entire book (one at each corner) to prevent any movement of the foil or tissue while cutting. The entire book or sections of it may now be cut with shears into the proper size sheets. The pellets used most often are 1/64 and 1/32 of a 4 grain sheet. The 1/128 is used less often, as is the very large 1/16 pellet.

To convert the small sheets into pellets the assistant, having clean, dry hands, carefully picks up the sheet with a pair of light flat dental pliers. Resting the sheet delicately on the first two fingers and thumb, the corners of the sheet are tucked in and with a quick, light rolling movement the sheet is made into a
small round ball. (Some prefer a football shape.) Care must be taken not to exert too much pressure, as the pellet should be uniform in density and free of hardness so that it may flow evenly and easily under the condenser point.

The non-cohesive cylinders are fashioned by placing the small sheets on a clean folded towel. Then the two outer edges of the long sides are folded inward by marking the gold with a straight edge and pressing it down with the towel. The folding is continued until a uniform strip is made which is twice the approximate depth of a Class V cavity or $1\frac{1}{2}$ times the width of the proximal walls of a Class II cavity (depending upon the type of cavity in which the cylinder is to be used). The strip is now picked up at one end by a small two-pronged fork or a jeweler's broach. A large mounted tapestry needle, size 22, with the end of the eye cut open, may also be conveniently used for this purpose (Figure 2). By laying the strip on the outer edge of the palm of the hand and rolling the fork along the strip, a cylinder is formed which has a small hole in the center. The cylinder is slipped off the fork and, while held firmly between the thumb and forefinger, the ends are slightly and evenly crimped with the flat dental pliers to prevent the cylinder from unrolling. The
cylinders most often used are the 1/16, 1/8, and 1/4 sizes. Occasionally a 1/2 or a 1/32 cylinder is very convenient.

When the cylinders are later flattened to lie against a cavity wall, the center hole prevents the formation of a knot or bulge in the center of the cylinder. This type of cylinder is always used in a non-cohesive state and is never annealed. This allows the layers of gold to slide one upon the other against the cavity walls and secure the finest marginal adaptation.\(^1\)

However, being soft foil, the cylinders are not able to stand pressures or heavy strains, and are best suited to line labial or buccal cavities, the proximals of Class II cavities gingivally from the contact point, or in adding bulk to the pulpal walls of small but deeper cavities. When not subject to excessive wear, fine Class I restorations may be fabricated with these cylinders.

The pellets may be annealed in an electric annealer, in a mica tray over an alcohol lamp, or piece by piece by the assistant in a clear, blue alcohol flame. When the annealing is done in an open flame, the pellet should be held on a thin iridioplatinum or tungsten wire and heated to a dull red only. The wire in a large light bulb may be conveniently used for this purpose.

Great care should be taken that the gold is stored in an atmosphere of ammonia to prevent contamination by other gases. Cotton pledgets saturated with ammonia are placed in the storage bottles of rolled gold as well as in the gold box. Phosphoric acid fumes from matches, medicament fumes, and hydrogen sulfide breakdown odors, are all potentially dangerous to the cohesive properties of the gold.

Condensation

Every operator finds that a correctly shaped instrument to use as a condenser assistant is invaluable to stabilize the first pellets and to properly locate the later ones (Figure 3). The common use of a second condenser for this purpose is a mistake, for the point is bulky and the shaft end is confusing to the chairside assistant.

To expedite all procedures, the chairside assistant and the operator must function as a well-trained team. Even though the pneumatic condenser is a great aid in cavities of difficult access, and an electromatic condenser properly regulated may be of use, the hand mallet is still the backbone of all practical study club and office procedures. It is extremely fast, versatile, and dependable. The assistant should master a "one, two" blow which is timed to coordinate with the operator's pressure on the condenser. In this manner the tooth is set to receive the blow, and the periodontal membrane is condensed on the side where the impact will be met. The first tap seats the condenser and the second condenses the gold. The blows should be uniform and as
Figure 2. Instruments for rolling cylinders. From left to right: a fork prepared from a dental instrument; jeweler's broach; No. 22 tapestry needle with end cut open (mounted on a peg-wood stick).

Figure 3. Holding instruments for assisting in foil placement and stabilizing of the first portions of the restoration.

regular as a clock. They must be of at least 15 pounds pressure on a 1 mm. diameter condenser, to secure adequate condensation, and should be delivered at a right angle to the condenser shaft without tapping or tilting the head of the mallet. After the two blows the condenser point is stepped over one-half of its diameter so that each imprint is one-half covered by the next. Each succeeding row of imprints is set over so that the new imprint covers a quarter of two marks in the preceding row, much like shingles on a roof.

The smaller the pellet and the smaller the condenser point used, the finer the result. A straight round condenser with a 0.5 mm. face is the ideal size for the best condensation and efficient work in the routine building of foil, though other sizes and shapes have definite uses which will be considered later.

A straight condenser should be used whenever possible, for the pressure is more directly transferred from mallet to gold. The old rule applies that whenever the diameter of a condenser point is doubled, the area of the condenser point and the pounds of force required to adequately condense the gold are four times
greater. Many of the technical procedures to follow are based on the work of W. I. Ferrier and the training employed in the Northwest Associated Gold Foil Study Clubs. Great credit is due these instructors for their continued advancement of fine dentistry.

**Details of Cavity Preparation**

**Class I Cavity Preparation**

*Outline.* The outline should be conservative, for it corrects faults in enamel only. The entire area is washed by food excursions. The outline should correspond to a Class II occlusal outline in anticipation of later proximal involvement.

*Retention.* Resistance and retention are cut principally with short 700 series burs (one-third is broken off and the end is squared on a wheel stone). All marginal ridges should be supported by dentin and have slightly divergent walls. The only retentive points are at the expense of the thick buccal and lingual walls at the mesial and distal aspects to assist in starting the foil. They are made with small gingival margin trimmers (Nos. 28 and 29).

*Finish.* Fine planing is done with hoes on the pulpal wall (Nos. 22 or 20 of the Ferrier Study Club set). The other walls are planed with a Wedelstaedt chisel or the side of a hoe. All final planing should be done with very sharp instruments. No bevel is added as such, but the final planing introduces a slight bevel automatically. A wall against which non-cohesive gold is to be placed should be free of any intentional bevel (Figures 4 and 5).

*Foil Placement.* There are three methods which may be employed in fabricating the restoration.

The method of choice for a relatively inexperienced operator is to use all cohesive gold, usually pellets of about 1/32 to 1/64 in size. The straightest possible condensers should be used that will give the proper angle of force. The first pellets of gold are placed at the extreme distal portion of the cavity and subsequent pellets are added and condensed so that the filling forms a concave contour both buccolingually and mesiodistally. The mesial wall is the area where greatest care should be exercised to insure an angle of force which will adequately adapt the foil to the wall. A condenser angle of about 12 degrees to a wall is generally considered to be the most effective. However, at times a slightly more parallel position is effective while exerting a wedging action against the wall and back pressure into the main mass of gold. A 90-degree angle to a wall and the other extreme, that of a position parallel to a wall, are both very poor practice and will almost certainly result in poor adaptation (Figure 6).

The second foil placement method is to line the periphery of the cavity with non-cohesive cylinders (rolled end out), using
Figure 4. A Class I cavity showing internal detail and symmetrical outline form. (Smith, B. B. "Broader Concepts of Gold Foil." The Journal of Prosthetic Dentistry, 6:564, July, 1956. The C. V. Mosby Company. Fig. 1)

Figure 5. A Class I cavity in molars and bicuspids should conform to the normal Class II occlusal outline. (Smith, B. B. "Broader Concepts of Gold Foil." The Journal of Prosthetic Dentistry, 6:565, July, 1956. The C. V. Mosby Company. Fig. 5)

Figure 6. All cohesive gold technic. (Smith, B. B. "Broader Concepts of Gold Foil." The Journal of Prosthetic Dentistry, 6:564, July, 1956. The C. V. Mosby Company. Fig. 2)

Figure 7. Combination non-cohesive and cohesive gold technic. (Smith, B. B. "Broader Concepts of Gold Foil." The Journal of Prosthetic Dentistry, 6:564, July, 1956. The C. V. Mosby Company. Fig. 3)
the No. 13 and No. 14 large parallelogram condensers. Each cylinder protrudes one-third its length from the cavity and is tightly pressed against the walls. Large 1/16 pellets are annealed and packed against the pulpal floor to stabilize the cylinders, and the remainder of the cavity is filled progressively as before with cohesive foil (Figure 7).

The foil should be built to contour, condensed carefully and finally burnished. Final contouring and margin trimming of the gold may be done with either a large round bur or a shortened and squared-off 701 bur, which is moistened to prevent the gold from "leading" the bur. A No. 1 or No. ½ bur may be used to smooth the sulci. Graded abrasive disks and powders complete the operation.

The third method requires the greatest skill but is very rapid. The restoration is made completely of non-cohesive cylinders. First, the periphery is lined as before. Then additional cylinders are forced into the cavity until it is tightly packed. Now, using a wedge-shaped instrument, the gold is forced apart laterally and one or two more cylinders are inserted if at all possible (Figure 8). Vertical condensation is now started, using larger condensers and working down to the 0.5 mm. size as the hardness increases. The final finish is secured with burnishers. 6

Class II Cavity Preparation

Outline. The occlusal outline is not overly wide, with a small and neatly cut dovetail. It presents a slight reverse curve at the buccoproximal area and the linguoocclusal aspect is almost straight, depending upon the extent of lingual embrasure.

The proximal outline is cut with adequate gingival extension buccolingually. The lingual proximal outline forms an acute angle in the maxillary arch with the gingival wall, for less extension is needed occlusally due to the widening linguoocclusal embrasure. The buccoproximal outline is almost at right angles to the gingival wall for proper extension. In the mandibular arch these angles are reversed owing to the change in embrasure form. The major exception is the mesial aspect of the lower first bicuspid, for the lower cuspid form allows both gingival angles to be more acute.

Resistance Retention. Contrary to usual belief, the Class II
occlusal area is not simply undercut with an inverted cone bur. A 700 series bur will give the proper inclination and slight divergence needed for the isthmus area. It will also provide a slightly divergent and strong wall at the marginal ridge. The occlusal dovetail is slight but adequate to prevent proximal displacement. In the distal portion of the occlusal area a slight retentive or undercut area is made at the expense of the buccal and the lingual walls. This aids in starting the foil.

The proximal walls should be well boxed to the gingival wall, and actual retentive areas are seldom necessary. J. M. Prime claimed that these retentive areas, when present, were seldom if ever filled with foil. However, to disprove or to check Prime's findings, W. H. Gyllenberg, of Longview, Washington, readily demonstrated the entry of foil into these areas by the use of transparent teeth suspended in water.*

Finish. The walls are planed with sharp enamel hatchets or binangle chisels (Nos. 15 and 16 or 11 and 12 of the Ferrier Study Club set). Frequently the No. 40 or No. 41 modified Woodbury chisel will be found excellent for boxing and squaring the axial wall. The gingival should receive no bevel but be planed until smooth and even, for soft foil will rest against this wall.

Foil Placement. The placement of foil in a Class II cavity may be skillfully done in a matter of 20 to 30 minutes. A matrix band never has a place in this technic. The proximal extension buccolingually should be minimal, adequate for the cleansing of the restoration yet narrow enough to allow the adjacent tooth to assist in supporting the foil as the proximal restoration is built.

Normally three cylinders of non-cohesive foil are placed in the proximal portion. The most common area of failure is at the buccogingival or linguogingival angle. Therefore, the two smaller cylinders are placed first and flattened firmly against each proximal wall (usually 1/8 size cylinders in bicuspid) with the No. 13 and/or No. 14 parallelogram condensers. The instruments first force the foil gingivally and then laterally until a slight excess protrudes in both directions. The third cylinder, often 1/4 size, is pinched into a wedge shape with the dental pliers and seated firmly between the two previous cylinders. After heavy packing with hand pressure, the square bayonet No. 18 condenser is used with a continuous, firm type of blow by the assistant. Care should be taken to condense the foil well along each proximal wall. When condensed, the soft foil should cover about two-thirds of the axial wall. If this is not the case, additional cylinders may be placed flat on top of the previous ones until the correct height is obtained. Condensing pressures and the angle of force should be directed into the cavity.

The cohesive foil is started in the axiolingual line angle, and

*Table Clinic, University of Oregon Alumni Meeting, 1950.
usually 1/32 pellets are used for the entire procedure. The foil is built up along the lingual wall and out to the adjacent tooth, tapering out as it reaches the buccal wall. When the pulpal height is reached on the lingual wall, the distal side of the occlusal portion is started, the gold running forward to connect to the proximal restoration along the linguopulpal line angle. After the lingual walls are covered to the cavity margins, the line of force is changed and the buccal walls are gradually covered in the same manner. This leaves a saucer-shaped central area which is filled in and built to proper contour. The gold must be firmly condensed as the interproximal restoration grows, especially so against the adjacent tooth for contact and the cavity walls for adaptation. Lastly, the Nos. 16 and 17 interproximal foot condensers are employed to condense the gold from the contact point gingivally. Used properly they sweep the gold in toward the cavity from the adjacent tooth and pinch it off at the gingival margin. They may also condense the gold all along the buccal and lingual margins. The No. 12 or the Special F condenser may also aid in this respect. It is well to have adequate gold protruding from each buccal and lingual margin, for it is almost impossible to add to those areas after the restoration is completed.

The Class II restoration may be finished quickly and well if a sound routine is employed. All excess gingival gold and interproximal gold should be condensed laterally toward the cavity and pinched off or shaved away. Well-balanced gold knives, designed by Nathan H. Smith and used by study club men for over 30 years, are very helpful in this area. The excess gold on the buccal and lingual walls is reduced with a file and disked away, and the occlusal surface is contoured with a wet short 700 or 701 bur, being finally contoured with a sharp small discoid or cleoid. Most of the occlusal finish is then completed with graded disks and abrasives.

When all other areas except the contact point are essentially completed, the separator is placed and well blocked with compound. It should remain in place for only a short period of time. Usually the No. 4 Ferrier separator is the correct size for bicuspid and molar Class II restorations. When a slight separation is achieved, the Gordon White saw is pressed through the contact area and extra-long finishing strips quickly bring the gold to contour. The gold knife or sharp small cleoid carve and round out the occlusal embrasure. This is further smoothed and contoured with a large 7/8 fine cuttle disk, which easily bypasses the separator frame. The separator is immediately removed and, with the employment of abrasive powders and polish, the restoration is complete.

Class III Cavity Preparation

Outline. The classic Class III outline blends with the adjacent
lobe of the tooth, depending upon the shape and size of the tooth and its position in the arch. With lapped or rotated teeth a variation may be found that involves a lingual approach or even a labial outline which follows the line of the adjacent tooth. But the variations will not be considered here.2

Forming the Cavity. Only six instruments are needed to form the normal Class III cavity. They are the contra-bevel Wedelstaedt chisel, for the outline; the No. 23 hoe (6 1/2-2 1/2-9) for the interior; a pair of small angle formers for the axiolabiogingival and axiolinguogingival point angles; the 3-2-28 hatchet for the incisal retention; and the No. 25 (4 1/2-1 1/2-25) hoe for the axiolabial line angle.

When caries undermines the enamel slightly, the cavity may be opened with the No. 23 hoe, but in cases of incipient decay the use of a chisel or hoe will sometimes start a fine crack or check running either incisally between the labial and lingual enamel plates or gingivally when near the cervical line. It is far better to use a small bur to open this type of cavity.

After the cavity is opened, a No. 33 1/2 bur in the straight handpiece is used to establish the straight gingival wall. Then the bur is brought in from the lingual aspect, and the gingival wall is accentuated here to form the so-called "linguogingival shoulder." W. I. Ferrier, to whom so much credit is due for his work in establishing fine gold foil procedures, has often said that this shoulder is one of the most important features in the entire technic, for the linguogingival area is where most Class III foils fail if improperly done.

The gingival wall is cut straight and at right angles to the long axis of the tooth, the interior sloping slightly and forming an acute angle with the axial wall. The axiolabiogingival and axiolinguogingival point angles are made at the expense of the lingual and labial walls and do not run axially unless forced to do so by the extent of the cavity and the contour of the tooth. These point angles run out and become the axiolabial and axiolingual line angles about one-third of the way up the axial wall. Here the internal portion of the cavity is designed to give strength to the walls and lingual ridge areas. The middle one-thirds of the internal labial wall and lingual wall actually form a slightly obtuse angle with the axial wall. In the incisal one-third the angles become more and more acute until they run into the incisal retention, which frequently is located just a trifle to the labial side because there is more bulk of tooth structure in this area.

A common error is to leave too much "stock" or thickness in the middle to incisal thirds of the labial wall. This mistake can prevent easy access of the condensers and greatly hinder foil placement and condensation. The No. 25 hoe or the side of the No. 23 hoe can be used to correct this fault. The easiest method for
testing, to be sure there will be no difficulty, is to place the foil condenser into the prepared cavity before starting the gold. The small bayonet (No. 8) should reach all of the interior along the axiolabial angle with ease.

Foil Placement. Foil placement is started using 1/64 pellets of No. 4 foil. Usually the No. 7 condenser, a long Carlson type with a round 0.4 mm. point is the one of choice. The first pellets are placed in the axiolinguogingival point angle and more are added until the cavosurface angle is covered. It is wise to insure complete coverage of the linguogingival shoulder at this time, as later additions are sometimes difficult. Therefore, pellets are forced through from the labial to the lingual side where they are condensed from the lingual in an axiogingival direction.

Gold is now added progressively across the gingival line angle to the labial retention area and secured there. This stabilizes the restoration, and succeeding pellets are added to build up the lingual wall almost to the incisal retention.

At this point 1/128 pellets are condensed by hand pressure into the incisal retention, using the No. 11 right-angle hand condenser. This gold is built down the axiolingual line angle and connected to the previous mass. The operator should bear in mind that most retention is secured between the incisal and the gingival areas, and that care should be exercised in joining the two masses to insure that wedging action is established and that the sections are not dislodged. Frequently the tiny F foot condenser is a great aid in this area, followed by the No. 8 small bayonet in the incisal area. The last area to be filled is the middle third of the labial. When this is accomplished, it is well to go over the entire restoration with the F condenser for “after-condensation.”

The No. 1 or No. 2 Ferrier separators are most frequently used on Class III restorations; occasionally the No. 3 is used in the cuspid area. They may be applied passively when the operation is started and turned up a little when the gold is being placed for the contact area. Normal caution should be exercised in their use because they continue to work over a period of time, and excessive separation may result if the pressure is allowed to act for too long a period. Many experienced operators prefer to place the separator after the foil has been condensed, for with their skill in placing and working the foil they will wedge separation enough for a proper contact.

It is well to use push files on the lingual aspect and pull files on the labial aspect. They should be worked carefully over the restoration and will tend to harden and burnish the gold. Finger stones or round burs may adequately reduce the lingual surface but are potentially dangerous from the standpoint of producing poor contour or shattered enamel rods. Disks work well and rapidly but can produce flat spots or facets if they are not used
lightly and moved continually. After the files, a sharp gold knife (No. 52 University of Washington set B) may be used to shave away the gold at the gingival margin. Now, extra-long finishing strips of graded abrasive grits will quickly bring the restoration to form. The extra-fine, extra-narrow* strips, when worn smooth, will leave a beautiful satin finish and complete the operation.

Class V Cavity Preparation

The Class V is by far the most popular foil restoration in dentistry. The late E. M. Jones has covered many of its variations, but the classic form is just now coming into universal use throughout the nation.

Outline. The outline is trapezoidal with the occlusal and gingival walls parallel to each other (Figures 9 and 10). The occlusal wall should be parallel to the occlusal plane of the teeth so that restorations in adjacent teeth may follow the same guide and give an over-all pleasing effect of a well-cared-for mouth. The proximal walls lie at the angles of the tooth where they are covered by the gingival tissue when the dam and clamp are removed.

Figure 9

Figure 9. Class V cavity preparation with normal use of compound to stabilize the 212 clamp. Note the strength of the mesial and distal walls, which are flat and slightly divergent to the axial.

Figure 10

Figure 10. Completed Class V restoration, demonstrating the fine gingival finish without "ditch" or overhang. The lingual compound support is necessary only in unusually large cases or those needing extra periodontal support.

*Moyco, J. Bird Moyer Co.
Retention. The retention is gained between the occlusal and gingival walls, with the gingival being the most retentive. If the occlusal wall is undercut to any extent, the gold may show through the overlying enamel and give a poor appearance. The mesial and distal walls are divergent to the axial wall for strength. All walls are cut easily, using a No. 34 or No. 35 inverted cone bur on its end for the gingival, mesial and distal walls, and on its side for the occlusal.

Finish. The No. 23 hoe (6 1/2-2 1/2-9) is convenient for finishing and planing the walls, but a large Wedelstaedt or straight chisel such as Jeffery’s No. 103 is very useful to straighten the walls and to plane the axial. A well-planed axial wall is the sign of a good operator who takes pride in his work. A rough axial wall has no beneficial effect upon retention, and demonstrates a tendency to be careless.

Foil Placement. It is essential always to block the No. 212 Ferrier clamp carefully with modeling compound before starting the Class V operation. A wise and very stable method is to place two very small compound pieces around and into the embrasures over which the bows of the clamp will rest. When these are cool, the clamp is seated, and two additional pieces attach the clamp to the previously placed compound.

Non-cohesive foil cylinders, usually 1/16 in size, are used to line all walls of the Class V cavity. They give finer adaptation, rapidity in filling the cavity, and ease in finishing. They also protect the margins against inadvertent blows of the condenser. The cylinders are placed end-on into the cavity with the two large parallelogram condensers, Nos. 13 and 14. Practically, it is best to line the mesial and distal walls first, then the gingival, and lastly the occlusal. A large 1/16 or 1/32 pellet of cohesive foil is now packed firmly across the entire axial wall and helps to stabilize the cylinders. With subsequent pellets, usually 1/64, the restoration is built up in a concave fashion until the walls are covered. As the cohesive gold reaches the cavosurface area, the operator pinches off the excess of non-cohesive gold and covers the entire filling surface with cohesive foil. He builds to contour and, in the final finish, he should duplicate the normal curve of the enamel at the cementoenamel junction.

The condenser used during the operation is the straight 0.5 mm. round condenser. Sometimes a No. 8 bayonet will assist in difficult areas where the clamp bow may interfere or where the proper line of force to the occlusal wall is a problem. The No. 5 Varney condenser and the smaller No. 12 foot condenser are very fine for the final contouring of the filling for “after-condensation,” and for pinching off the excess gold around all of the margins.

The entire restoration is now carefully and quickly reduced
Figure 11. The three most common and practical Class V forms. (Smith, B. B. "Broader Concepts of Gold Foil." The Journal of Prosthetic Dentistry, 6:566, July, 1956. The C. V. Mosby Company, Fig. 6)

Figure 12. The buccal view of Class V restorations demonstrating tissue acceptance and extension into caries-free areas. (Smith, B. B. "Broader Concepts of Gold Foil." The Journal of Prosthetic Dentistry, 6:566, July, 1956. The C. V. Mosby Company. Fig. 7)

Figure 13. Anterior view of Class V restorations showing contour and occlusal levels. (Smith, B. B. "Broader Concepts of Gold Foil." The Journal of Prosthetic Dentistry, 6:566, July, 1956. The C. V. Mosby Company. Fig. 8)
to the proper contour with thin files of both the push and the pull types. These files should be thin enough to have a slight spring when used; when their work is done, only the finest disks and polishing agents should be necessary to lightly finish the restoration. Occasionally a fine line of gold may be found in excess at the gingival margin, and here special care must be taken in its removal. A very small Whiteside scaler, a Wedelstaedt chisel, or a Jones knife may be used to lightly trim the excess away. No instrument or abrasive should ever be allowed to contact or “ditch” the cementum, as overindustrious finishing here may result in a very sensitive area for the patient and poor adaptation of the gingival tissue (Figures 11, 12 and 13).

Within a day, at the most 48 hours, the tissue will be beautifully molded over the gingival third of a well-contoured and finished Class V restoration. The satisfaction of the patient and the operator will continue to grow as decades pass. This fine material, the best available in operative dentistry, will continue to serve faithfully and honestly, rendering a true service to humanity.

812 Cobb Building

REFERENCES


There is nothing more becoming any wise man, than to make choice of friends, for by them thou shalt be judged as thou art; let them therefore be wise and virtuous; and none of those that follow thee for gain; but make election rather of thy betters, than thy inferiors, shunning always such as are needy; for if thou givest twenty gifts, and refuse to do the like but once, all that thou hast done will be lost, and such men will become thy mortal enemies.

—Sir Walter Raleigh.
THE 1961 ACADEMY AWARDS

On February 23, 1961, the Secretary, Dr. Charles C. Latham, sent letters relative to the 1961 Academy Award to forty dental schools in the country and to the University of Manitoba, Winnipeg, Canada, because there had been an indication that this Canadian school might consider such an award. Nine schools did not reply to the Secretary's inquiry.

The University of Alabama Medical Center stated that it did not feel a member of the graduating class was deserving of this honor; New York University stated that it is becoming more and more difficult to find patients who will accept gold foils and consequently it had no deserving student; and the University of Manitoba replied that it will have its first graduating class in June, 1962 and at that time it will take advantage of the Award.

The remaining twenty-nine schools submitted the names of those students selected to be recipients of the Award, and certificates of achievement were presented to the following graduates:

RICHARD M. ALEXANDER, University of Washington (Seattle)
THOMAS ALEXANDER, Meharry Medical College
ALLAN ROGER ANDERSON, Seton Hall College of Medicine and Dentistry
JAMES H. ARMSTRONG, Creighton University
ALAN C. BLEIER, College of Physicians and Surgeons
CLAUDE BROWN, JR., Washington University (St. Louis)
M. JOSEPH DWYER, JR., Temple University
LARRY V. FRANZ, University of Minnesota
GENE H. FRY, University of Detroit
HARVEY B. GARRISON, The Ohio State University
WILLIAM LAMBERT GRIFFIN, Howard University
JOHN GEORGE GOETTEE, JR., University of Maryland
VIRGIL VERN HEINRICH, College of Medical Evangelists
ARNOLD RAY HENDERSON, The University of Kansas City
LARRY BAILEY KERR, University of Oregon
HAROLD C. LOCKWOOD, JR., Saint Louis University
FREDERICK JERRY MATTKA, University of Illinois
GARRY THOMAS MOUSHEGAN, Tufts University
KENT CLARK NICHOLS, Northwestern University
KENNETH HERBERT PORTER, Baylor University
ROBERT F. SHIRLEY, State University of Iowa
RICHARD J. STANCHINA, Marquette University
WILLIAM R. SUTCH, University of Pennsylvania
PAUL F. TANNENBAUM, Columbia University
RICHARD N. TETTE, The University of Buffalo
HERBERT T. WAKAI, Fairleigh Dickinson University
JAMES DAVID WILSON, Indiana University
GILBERT F. WINTER, Loyola University (Chicago)
PAUL ISSAC WORLEY, The University of Texas
ACADEMY MEETING AT LOMA LINDA

On Thursday, October 13, 1960, the Academy held a one-day meeting at the College of Medical Evangelists, Loma Linda, California. This special meeting preceded the Ninth Annual Meeting of the Academy in Los Angeles, and was arranged primarily for the benefit of the student body in that College.


The afternoon session was devoted to the presentation of chair clinics on Class II, III and V gold foil preparations and restorations by these clinicians:

Dr. Ralph A. Boelsche, Houston, Texas
Dr. A. F. Dolan, Seattle, Washington
Dr. George A. Ellsperman, Bellingham, Washington
Dr. John C. Hampson, Seattle, Washington
Dr. Ross C. Huntley, Sherman Oaks, California
Dr. Norwood E. Lyons, El Toro, California
Dr. Walter B. Martin, Seattle, Washington
Dr. Olaf T. Olson, Langley, Washington
Dr. Lyle E. Ostlund, Everett, Washington
Dr. John T. Ryan, Seattle, Washington
Dr. Bruce B. Smith, Seattle, Washington
Dr. Donald A. Spratley, Mount Vernon, Washington
Dr. J. R. Subject, San Bernardino, California

The Academy sincerely hopes that the students who attended these sessions derived great value through their observations of the procedures employed. The Academy is also most appreciative of the reception it received during this special meeting.

VISIT TO MORGAN, HASTINGS AND COMPANY

Morgan, Hastings and Company has extended an invitation to all Academy members to spend the afternoon of Thursday, October 12, in touring its facilities. This open house will precede the Tenth Annual Meeting, scheduled for October 13 and 14, and will provide our members with the opportunity to see how gold foil and other products are manufactured. Members of the Academy are urged to arrive early in Philadelphia and to plan to avail themselves of this gracious invitation. The open house is scheduled from 3:00 to 6:00 P. M.
INTERIM ACADEMY MEETING

The 1962 Interim Academy Meeting will be held at Northwestern University, School of Dentistry, in Chicago, Illinois, on Friday, February 16, 1962. The meeting, which will precede the Chicago Mid-Winter Meeting, will consist of a one-day session of formal presentations and chair clinics. All Academy members as well as guests are invited to attend this meeting.

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NOMINEES FOR ACADEMY OFFICES

The Nominating Committee has submitted the names of the following members for offices during the 1961-1962 term: Dr. Henry A. Merchant, President-Elect; Dr. Charles C. Latham, Secretary-Treasurer; Dr. Arne F. Romnes, Executive Council (3-year term); and Dr. William M. Walla, Executive Council (to fill the unexpired term of Dr. Henry A. Merchant). The balloting will take place during the Annual Business Meeting on Friday, October 13, at the Benjamin Franklin Hotel in Philadelphia.

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PROGRAM OF THE TENTH ANNUAL MEETING

Arrangements for the Annual Academy Meeting to be held October 13 and 14 in Philadelphia have been completed. The formal presentations, chair clinics, demonstrations and table clinics will be conducted at the University of Pennsylvania, School of Dentistry, Thomas W. Evans Museum and Dental Institute, 4001 Spruce Street; the social hour, banquet and business meeting will be held at the Benjamin Franklin Hotel. This hotel will be the headquarters for the Academy during its Tenth Annual Meeting.

The committee responsible for arranging the program consists of Dr. George A. Ellsperman, Chairman, Dr. Max Oppenheim and Dr. Robert DeRevere. The Academy owes a debt of gratitude to these men for making all the arrangements. The Academy would also like to express its appreciation to the participating clinicians, who will contribute their time, effort and skill to provide for the members an excellent program.
## PROGRAM

**Thursday, October 12, 1961**

11:00 a.m. — Executive Council Meeting—Benjamin Franklin Hotel

3:00 p.m. - 6:00 p.m. — Open House and Tour—Morgan, Hastings and Company

UNIVERSITY OF PENNSYLVANIA
SCHOOL OF DENTISTRY
THOMAS W. EVANS MUSEUM AND DENTAL INSTITUTE

**Friday, October 13, 1961**

9:00 a.m. — Registration

9:30 a.m. — Opening Ceremonies

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>10:15</td>
<td>“Gold Foil—Discipline for Service” Dr. George Brass, Winnipeg, Manitoba, Canada</td>
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<td>11:00</td>
<td>“Evaluation of Rubber Dam Technic” Dr. Floyd E. Hamstrom, Burlington, Washington</td>
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<td>12:00</td>
<td>Luncheon—Penn Sherwood Hotel Speaker—“The Value of Gold Foil in Clinical Teaching and the Stimulating Influence of New Developments in Methods and Equipment” Dr. Rene W. Eidson, Pasadena, California</td>
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<td>1:30</td>
<td>Chair Clinics</td>
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<td>Class II Restorations</td>
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<td>Dr. John T. Ryan, Seattle, Washington</td>
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<td>Dr. Bruce B. Smith, Seattle, Washington</td>
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<td>Dr. Gerald D. Stibbs, Seattle, Washington</td>
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<td>Class III Restorations</td>
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<td>Colonel L. D. Barth, Presidio, California</td>
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<td>Dr. D. F. Bourassa, Seattle, Washington</td>
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<td>Dr. Carl L. Boyles, Houston, Texas</td>
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<td>Dr. George Darts, Vancouver, British Columbia, Canada</td>
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<td>Dr. Frank E. Endzell, Seattle, Washington</td>
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<td>Dr. A. Ian Hamilton, Seattle, Washington</td>
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<td>Dr. Lawrence R. Ludwigsen, San Francisco, California</td>
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<td>Dr. Arthur J. Montagne, Detroit, Michigan</td>
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<td>Dr. Austin S. Neer, Grosse Pointe Park, Michigan</td>
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<td>Dr. Harold Oswald, Bellingham, Washington</td>
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<td>Dr. Leo S. Perion, Fremont, Nebraska</td>
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<td>Dr. G. M. Phelps, Seattle, Washington</td>
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<td>Dr. W. O. Pugsley, Fremont, Nebraska</td>
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<td>Dr. H. E. Schnepper, Rialto, California</td>
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Class V Restorations

DR. LIONEL BERGERON, Somersworth, New Hampshire
DR. HENRY J. BIANCO, JR., Ellicott City, Maryland
DR. D. JACKSON FREESE, Concord, New Hampshire
DR. CALVIN J. GAVER, Baltimore, Maryland
DR. G. R. HEATH, Lansing, Michigan
DR. FREDERICK A. HOHLT, Indianapolis, Indiana
DR. JOSEPH B. LENZNER, New York, New York
DR. MELVIN LUND, Loma Linda, California
CAPTAIN NORWOOD E. LYONS, Laguna Beach, California
DR. CARL J. MONACELLI, Brookline, Massachusetts
DR. WILLIAM MILLER, Vancouver, British Columbia, Canada
DR. MICHAEL J. MURRAY, Omaha, Nebraska
DR. DONALD K. PHILLIPS, Nebraska City, Nebraska
DR. RAY E. STEVENS, JR., Grand Rapids, Michigan
DR. GLENN L. SUTTON, Saylesville, Rhode Island
DR. HERBERT J. UNDERHILL, East Greenwich, Rhode Island
DR. WILLIAM M. WALLA, Fremont, Nebraska
DR. PAUL P. WEAVER, Seattle, Washington

1:30 p.m. - 5:00 p.m. — Table Clinics
"Rubber Dam and Rubber Dam Clamps"
Dr. Floyd E. Hamstrom, Burlington, Washington

"An Evaluation of the Physical Properties of Cohesive Gold—Mat and Foil"
Mr. Earl W. Collard, Loma Linda, California
A display of instruments, exhibits and equipment used in the research problem on physical properties of cohesive gold as presented by Dr. George M. Hollenback, Encino, California

Friday, Evening Program
Benjamin Franklin Hotel
(Ladies Invited)

6:30 p.m. — Social Hour
7:30 p.m. — Annual Banquet
8:30 p.m. — Annual Business Meeting

Saturday, October 14, 1961

9:00 a.m. — “Class III Gold Foil Operations in Young Permanent Anteriors"
Dr. William E. Cody, Denver, Colorado

10:00 a.m. — “A Philosophy of Dental Practice"
Dr. José E. Medina, Baltimore, Maryland

10:45 a.m. — “Physical Properties of Cohesive Gold"
Dr. George M. Hollenback, Encino, California

12:00 noon — Adjournment

Friday morning lectures will be held in Room S-9; Saturday morning lectures in Room B-58. Chair clinics will be held on the first floor.
The Gold Foil Section of the Detroit Dental Clinic Club, under the auspices of the Educational Commission of the Detroit District Dental Society, will present a course of instruction in gold foil procedures in the fall of 1961. This course will be the first of its kind in the area dealing with gold foil. It will be limited to ten participants and will consist of didactic, laboratory and clinical instruction presented during six evenings and three afternoons. The evening sessions will provide didactic and laboratory instructions and are scheduled as follows:

November 1 — “Introduction, General Review and a Short History of Gold Foil Manipulation”—Dr. Arthur J. Montagne, Director

November 8 — “Armamentarium and the Use of Instruments in Gold Foil Manipulation”—Dr. Austin S. Neeb

November 15 — “The Rubber Dam and the Many Reasons for Its Use”—Dr. Joseph S. Markey

November 29 — “Cavity Preparation and Instrumentation”—Dr. Roy M. Cumming

December 6 — “Placement and Condensation of Mat Gold and Cohesive Foil”—Dr. Harry M. Kavanaugh

December 13 — “Finishing of the Restoration”—Dr. G. Ron Heath

The afternoon sessions, scheduled for December 16, 19 and 23, will afford an opportunity for the participants to observe clinical procedures and to manipulate the materials under supervision and under clinical conditions. The entire course will be held at the University of Detroit Dental School.

The Gold Foil Section of the Detroit Dental Clinic Club was originally organized as the Austin S. Neeb Gold Foil Study Club in March, 1956. It was admitted as a new section of the Detroit Dental Clinic Club about a year ago. All those interested in better dentistry hope that the efforts put forth by these various groups will serve as a stimulus for better courses of instruction in gold foil at both the graduate and the undergraduate levels. It is also hoped that these efforts will provide the incentive necessary for a revival of interest in the use of gold foil and the rubber dam in this part of the Mid-West.
PICTORIAL REVIEW OF ANNUAL MEETING
The Ninth Annual Meeting of the American Academy of Gold Foil Operators was held on October 14 and 15, 1960 in Los Angeles. The scientific program was presented at the University of Southern California, and the business meetings were conducted at the Mayfair Hotel.

Dr. Herbert D. Coy, President of the Academy, called the meeting to order; Reverend C. A. Neyman delivered the invocation; and Dean Robert W. McNulty extended greetings and welcomed the Academy to the University. Dr. Coy introduced Dr. Robert B. Wolcott, Program Chairman, who presided over the scientific phase of the meeting.

Attendance

During the course of the two-day program 204 members and guests registered for the meeting. They represented 33 states including Alabama, Alaska, California, Colorado, Connecticut, Florida, Hawaii, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Utah, Virginia, Washington, West Virginia and Wisconsin. In addition to these states, Brazil, Canada, Ecuador, El Salvador, Guatemala, Puerto Rico and Venezuela were also represented.

Didactic Program

During the morning of Friday, October 14, Dr. Bruce B. Smith moderated a panel on the relationship of periodontia to restorative dentistry. The panelists were Dr. Alfred L. Ogilvie, who discussed “Vital Factors Interrelating Periodontology and Restorative Dentistry”; Dr. Donald A. Spratley, who elaborated on the “Technical Procedures in Gold Foil and Their Relation to Periodontia”; Dr. John W. Neilson, who presented “A Periodontist’s Restorative Reflections”; and Dr. Lyle E. Ostlund, who discussed “Restorative Dentistry and Periodontal Health.” ** After the panel discussion, Mr. H. Walter Smith, representing Morgan, Hastings and Company, donated a motion picture on “The Class V Gold Foil Restoration” (Dr. Gerald D. Stibbs, operator), made possible through a grant from the company. Dr. Coy acknowledged this gift and expressed the appreciation of the Academy for the interest and support that Morgan, Hast-

*Secretary-Treasurer, 1959-1960

**The panelists’ presentations were published in the May, 1961 issue of the Journal.
ings and Company has always displayed towards the encouragement of sound dentistry. Following this presentation, Dr. J. C. A. Harding read a paper entitled "A Quarter of a Billion New Places for Gold Foil." Because they contained information of great value and interest to the audience, all the didactic presentations were enthusiastically received.

Clinical Program

During the afternoon of Friday, October 14, and the morning of Saturday, October 15, there was a continuous showing of the motion picture "The Class V Gold Foil Restoration." In addition, chair and table clinics were conducted, demonstrating the preparation and condensation of Class II, III, IV and V gold foil restorations, armamentarium, chairside assisting, and time and motion studies with gold foil. The following clinicians participated in this portion of the program:

DR. IRVING D. ANDERSON, Seattle, Washington
DR. LLOYD BAUM, Loma Linda, California
DR. NORMAN L. BEYER, Whittier, California
DR. THOMAS M. BLEAKNEY, Seattle, Washington
DR. RALPH A. BOELSCHE, Houston, Texas
DR. D. F. BOURASSA, Seattle, Washington
DR. ELDON E. BRANDT, Buena Park, California
DR. LEROY D. CAGNONE, Berkeley, California
DR. CHARLES E. CARARA, Burlingame, California
DR. ALAN Y. CLARKE, Portland, Oregon
DR. CARLO A. DELAURENTIS, Coronado, California
DR. A. F. DOLAN, Seattle, Washington
DR. RAYMOND W. DOLPH, Corona, California
DR. GEORGE A. ELLSPERMAN, Bellingham, Washington
DR. A. FRANK EYER, Arcadia, California
DR. ROY A. FETTERMAN, South Pasadena, California
DR. T. HAINES, Clairmont, California
DR. JOHN C. HAMPSON, Seattle, Washington
DR. ROBERT E. HAMPSON, Seattle, Washington
DR. WILLIAM F. HEMPHILL, Omaha, Nebraska
DR. EDWARD R. HILDRETH, Coronado, California
DR. ROSS C. HUNTLEY, Sherman Oaks, California
DR. J. B. JACQUES, Palos Verdes Estates, California
DR. LAWRENCE R. LUDWIGSEN, San Francisco, California
DR. MELVIN R. LUND, Loma Linda, California
DR. NORWOOD E. LYONS, Laguna Beach, California
DR. EDMUND F. MADDEN, Honolulu, Hawaii
DR. W. I. McILWAIN, Pasadena, California
DR. EUGENE S. MERCHANT, Omaha, Nebraska
DR. ROLAND K. MILLER, Redlands, California
DR. W. MORGAN, Salt Lake City, Utah
DR. LESTER E. MYERS, Omaha, Nebraska
DR. EARL A. NEURU, Vista, California
DR. OLAF T. OLSEN, Langley, Washington
DR. JOHN S. SHAW, Pleasant Hill, California
DR. HAROLD W. SIDWELL, Villisca, Iowa
DR. D. E. SNYDER, San Diego, California
DR. ROLF SPAMER, San Diego, California
DR. RALPH G. STENBERG, Lynnwood, Washington
DR. J. F. STEWART, Arcadia, California
DR. J. R. SUBJECT, San Bernardino, California
Social Program

The social hour and banquet held at the Mayfair Hotel in Los Angeles was attended by 135 members, ladies and other guests.

After a delightful dinner, President Herbert D. Coy spoke briefly on his experiences during the past year. He then introduced the members and guests seated at the head table and others in the audience, and proceeded with the business meeting.

Business Meeting

Treasurer's Report

As of September 1, 1960 the treasurer, Dr. Charles C. Latham, reported the following financial status of the Academy for the year 1959-1960:

<table>
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<th>Description</th>
<th>Amount</th>
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<td>Balance on Hand, September 1, 1959</td>
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<td>Total Receipts to September 1, 1960</td>
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<td>Disbursements, September 1, 1959</td>
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<tr>
<td><strong>Balance on Hand, September 1, 1960</strong></td>
<td><strong>$6,694.94</strong></td>
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Program Committee

Dr. Robert B. Wolcott, Chairman, expressed his appreciation to the many clinicians, essayists and others who had participated in the Ninth Annual Meeting. The Academy accepted his report and extended its congratulations to Dr. Wolcott and his Committee for the excellent and well-organized program.

Necrology Committee

Dr. Daniel F. Haselnus, Chairman, reported the passing of Dr. Francis S. Jankovsky of Long Beach, California. The Academy observed a moment of silence as a memorial to Dr. Jankovsky.

Constitution and Bylaws Committee

Dr. James P. Vernetti, Chairman, presented a report containing proposed changes in the Constitution and Bylaws of the Academy. Several weeks prior to the Annual Meeting, the Secretary mailed copies of these proposed changes to the entire membership. After thorough deliberation the Academy voted to adopt these proposals.

Membership Committee

Throughout the past several years, the membership of the
Academy has been increasing gradually. Dr. James W. Kapp, Chairman of this Committee, reported that as of September 1, 1960 the Academy roster contained the names of 443 members. This total included the names of the following applicants who were elected to membership during the Ninth Annual Meeting:

**ACTIVE MEMBERSHIP**

Dr. Robert Karnig Avakian, South Gate, California  
Dr. August Bartelle, San Diego, California  
Dr. David E. Beaudreau, Spokane, Washington  
Dr. Eldon Elroy Brandt, Buena Park, California  
Dr. Alfred Clarke Canfield, Portland, Oregon  
Dr. William E. Dougherty, Portland, Oregon  
Dr. Richard G. Duffin, Salt Lake City, Utah  
Dr. Homer Jenning Dyer, Jr., Seattle, Washington  
Dr. William Reap Geiger, Portland, Oregon  
Dr. Thomas Elbert Haines, La Verne, California  
Dr. Robert William Hansen, Everett, Washington  
Dr. Parker Palmer Head, Jr., Pittsburgh, Pennsylvania  
Dr. Roy D. Hoerster, Seattle, Washington  
Dr. Frederick A. Hohlt, Indianapolis, Indiana  
Dr. Michael T. Horl, Denver, Colorado  
Dr. J. Boyce Jacques, Palos Verdes Estates, California  
Dr. Arthur William Johnson, Barstow, California  
Dr. Elwood Leonard Kirkpatrick, Milwaukee, Wisconsin  
Dr. M. David Knower, New York, New York  
Dr. Michael A. Kondracki, Braddock, Pennsylvania  
Dr. Richard N. Lamermayer, Kenilworth, Illinois  
Dr. Joseph B. Lenzner, New York, New York  
Dr. Donald Everett Lindsay, Toronto, Ontario, Canada  
Dr. William Edwin LoVelette, Tulsa, Oklahoma  
Dr. Melvin R. Lund, Loma Linda, California  
Dr. Carl J. Monacelli, Brookline, Massachusetts  
Dr. Gordon Duane Raisler, Seattle, Washington  
Dr. Gerard D. Schultz, Seattle, Washington  
Dr. Jack G. Seymour, Fresno, California  
Dr. William E. Sherfrey, Portland, Oregon  
Dr. Charles Thomas Smith, Sr., Loma Linda, California  
Dr. Ray E. Stevens, Jr., Grand Rapids, Michigan  
Dr. Carl Herman Sundahl, Folsom, California  
Dr. Lem V. Sweet, South Gate, California  
Dr. Robert Gene Thompson, San Diego, California  
Dr. John J. Tocchini, San Francisco, California  
Dr. Martin Edwin Wicarius, Coronado, California  
Dr. Charles Gilbert Wood, Twentynine Palms, California  
Dr. Keith H. Yoshino, Federal Way, Washington

**ASSOCIATE MEMBERSHIP**

Dr. Norman Lee Beyer, Whittier, California  
Dr. Anthony William Bull, Sydney, N. S. W., Australia  
Dr. Leroy Donald Cagnone, Berkeley, California  
Dr. Richard Neill Draheim, Great Lakes, Illinois  
Dr. H. Scott Gray, Wellington, W. 3., New Zealand  
Dr. Eugene Eldridge Houk, Great Lakes, Illinois  
Dr. James Hammitt Korn, Seattle, Washington  
Dr. Harry Kramer, University City, Missouri  
Dr. Lewis Edward Martin, South Gate, California  
Dr. Wendell Martin Rovelstad, Elgin, Illinois  
Dr. Melvin Frederick Rugg, Kent, Washington  
Dr. Roger Theodore Rydstrom, Great Lakes, Illinois  
Dr. Rolf George Spamer, San Diego, California
Twenty-two associate members requested changing to active status. These changes were approved by the Academy and made effective as of the date of this Annual Meeting.

ASSOCIATE TO ACTIVE STATUS

Dr. Fred Palen Barnhart, Seattle, Washington
Dr. Kenneth Robert Cantwell, Portland, Oregon
Dr. John Cook, Lynden, Washington
Dr. Caswell James Farr, Bellingham, Washington
Dr. Roy Alvin Fettermen, South Pasadena, California
Dr. Milton Boyd Gates, Lincoln, Nebraska
Dr. Lawrence Lamont Kaylor, Long Beach, California
Dr. John B. Kiefer, Jr., Seattle, Washington
Dr. Leroy E. Knowles, Los Angeles, California
Dr. William S. Kramer, Lincoln, Nebraska
Dr. Paul W. Kunkel, Jr., Portland, Oregon
Dr. Leonard Larson, Spencer, Iowa
Dr. Miles R. Markley, Denver, Colorado
Dr. Wallace Jay Morgan, Midvale, Utah
Dr. Cassius E. Paul, Santa Ana, California
Dr. Carl W. Sawyer, Kansas City, Missouri
Dr. Emmanuel David Shooshan, Pasadena, California
Dr. Donald Carl Stenberg, Minneapolis, Minnesota
Dr. Eugene I. Stephenson, San Diego, California
Dr. Vernon Richard Swan, Pasadena, California
Dr. Kerwin Elliott Thompson, Yakima, Washington
Dr. John Johnson White, Bakersfield, California

One active member—Dr. Karl K. Webber, St. Louis, Missouri—requested associate membership. Four members—Dr. Lloyd C. Blackman, Elgin, Illinois; Dr. Thaddeus V. Joseph, Salem, Oregon; Dr. Walter E. Wilson, Seattle, Washington; and Dr. Earl H. Zimmer, Colorado Springs, Colorado—submitted their resignations. The report also contained the names of six members whose memberships were forfeited for non-payment of dues. These requests were approved by the Academy.

SCHOOL COMMITTEE

Under the chairmanship of Dr. Harry Rosen, the Committee considered methods by which indifferent schools could be activated to develop an interest in gold foil and rubber dam. After reviewing the efforts put forth by previous committees, this Committee felt that the direct approach, such as inviting representatives from the operative staffs to attend the Academy meetings, was effective for those schools having an interest in our work. However, the Committee felt that this approach would not provide the necessary stimulus for those schools lacking the desire to acquaint themselves with gold foil technics.

The Committee considered the possibility of sponsoring a meeting or seminar based upon an evaluation of all the materials available in operative dentistry. Representatives from all dental schools would be invited to participate, at which time each material and technic could be considered in its proper perspective.
The Committee recommended that the means by which such a program could be financed be considered by the next School Committee. It is hoped that such a program can become a reality, for it would greatly enhance the teaching of Operative Dentistry in our schools.

STATE BOARD COMMITTEE

Dr. D. Jackson Freese, Chairman, reported that the Committee's activities were directed primarily towards increasing the use of the rubber dam and gold foil in the New England states. Presently three of the six states do not require the gold foil procedure as a part of the State Board Examination. Efforts are being made to change this prevailing situation. Examiners who are members of the Academy, and the New England Study Club which has recently been started, have been attempting to stimulate that desire necessary to render high quality services to all patients.

STUDY CLUB COMMITTEE

Dr. Douglas J. Sutherland, Chairman, reported that requests for information and assistance had been received from a group in New England and teachers at the University of Pennsylvania. Several other groups asked for copies of the sample Constitution and suggested outline for use in the formation of study clubs. These requested items were forwarded to the respective groups.

HISTORY COMMITTEE

Under the chairmanship of Dr. Robert C. Millard, the Committee attempted to complete the project of obtaining historical data on all study clubs in existence. To date twenty-nine clubs have submitted the necessary information. All study clubs are urged to complete the forms and send this important material to the Chairman of the Study Club Committee or the Secretary of the Academy.

EDITORIAL BOARD

Dr. Jose E. Medina, Editor and Chairman of the Board, reported that the two issues of the Journal published during 1960 had been favorably received. He also stated that he hoped the Academy membership would continue to support the publication in future years.

Dr. Ralph A. Boelsche, Business Manager of the Journal, reported on the excellent cooperation received from dental manufacturing companies. This is evidenced by the eight full-page advertisements and one half-page advertisement appearing in the 1960 issues. Dr. Boelsche also informed the Academy that requests for additional copies of the Journal by manufacturers and for subscriptions by non-members had been processed. He also submitted a complete financial statement which was incorporated with the Secretary's records.
LITERATURE COMMITTEE

This Committee, under the direction of Dr. Herbert F. Gillard, continued in its efforts to stimulate the use of gold foil and rubber dam. Numerous letters were sent to members of the Academy requesting them to prepare articles for possible publication in the Journal. Several members indicated their interest and declared their willingness to submit articles to the Editor.

VISUAL EDUCATION COMMITTEE

Dr. Frank D. O’Neill, Chairman, reported that the motion picture produced by Dr. Gerald D. Stibbs under a grant from Morgan, Hastings and Company had been completed and was being projected continuously at this Academy Meeting.

Dr. O’Neill also stated that the G. V. Black Dental Study Club is contemplating the production of a film on gold foil procedures, and that Dr. James P. Vernetti is attempting to procure a sponsor for the monetary assistance necessary to add the sound track to a copy of Dr. Metcalf’s “Romance of Gold Foil.” The Committee feels both of these films would be of great value to all members of the Academy and others.

DENTAL RESEARCH COMMITTEE

The Committee, under the chairmanship of Dr. Lloyd Baum, presented a comprehensive report on gold foil research projects completed, in progress or in the planning stage during 1960. (Editor’s note—the complete report of this Committee is in the Journal, 4:42-43, May, 1961.)

NOMINATING COMMITTEE

Dr. Kenneth C. Washburn, Chairman, submitted the following names for offices:

Dr. George A. Ellsperman .................................. President-Elect
Dr. Charles C. Latham .................................. Secretary-Treasurer
Dr. Henry A. Merchant .................................. Executive Council

The Academy unanimously elected these members to their respective offices.

Adjournment

After the committee reports, President Herbert D. Coy presented appropriately inscribed certificates to Dr. Paul T. Dawson, Dr. J. C. A. Harding, Dr. John W. Neilson, Dr. Alfred L. Ogilvie, Dr. Lyle E. Ostlund, Dr. Bruce B. Smith, Dr. Donald A. Spratley and Dr. Gerald D. Stibbs for their contribution to the success of the Ninth Annual Meeting.

Dr. Robert B. Wolcott was then installed as President for 1960-1961. He praised the efforts put forth by Dr. Coy, the outgoing President, and presented him with a certificate in recognition of his many accomplishments.

Dr. Wolcott then introduced the President-Elect, Dr. George A. Ellsperman, and the Secretary-Treasurer, Dr. Charles C. Latham. The meeting was adjourned at 9:40 P.M.
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