HOW SUCH A GOLDENT IS MADE

Field of Operation: Preliminary to making any GOLDENT restoration in the mouth is the insuring of a field of operation that is absolutely dry and surgically sterile. It is discussed inside, under "GOLDENT'S SIMPLE PRELIMINARIES."

Cavity Preparation: The next step is that of preparing the cavity. The general principles of cavity preparation for GOLDENT restorations are explained inside, under "GOLDENT'S Cavity Preparation." As to their specific application to the preparation of the present cavity in particular, thecusious legend is entered with a No. 35 inverted cone burr for the air rotor handpiece. The depth of the penetration is tentatively on the level of the bottom of the occlusal channel.

Changing to a No. 700 or No. 170 L tapered fissure burr, the occlusal grooves are then followed out so as to establish the cavity outline. Extension along the developmental grooves is carried out till all defective fissures have been removed entirely. Care is exercised also not to make the histologic channels of the preparation any wider than necessary.

With all the defective fissures removed entirely, and the cavity outline established properly, the floor of the cavity is evensmoothed out to be of the same depth throughout. That is done best with the No. 35 inverted cone burr. By virtue of its flared cutting end, this burr, in evening and smoothing the floor of the cavity, also cuts slightly into the buccal and lingual walls, automatically producing undercut for adequate retention.

The preparation of this cavity makes sure also of the following:

1. That the enamel margins are perfectly clean-cut. Any irregularity or jaggedness is planed even and smooth with the No. 170 L burr.

3. That the lingual walls are parallel or closely so, and the mesial and distal walls diverge slightly in the direction of the occlusal. The retentive portions are of course excised.

4. That the buccal and lingual walls are parallel or closely so, and the mesial and distal walls diverge slightly in the direction of the occlusal. The retentive portions are of course excised.

Annealing: This simple operation of far reaching consequence is explained inside, under "GOLDENT'S Care and Annealing."

Condensation: The hows and whereabouts of condensing GOLDENT thoroughly are described inside, under "GOLDENT'S Condensation."

Building Up the Restoration: The general principles of building up GOLDENT restorations are explained inside, under "GOLDENT'S Building Up." As to their specific application to the building up of the present restoration in particular, the restoration is started by placing the central pit of the cavity the largest GOLDENT pellet that the cavity can accommodate (were the cavity larger, two pellets). In the distal a pellet that is moderately large, and a pellet of the same size in the mesial pit. These pellets are pressed gently against the floor of the cavity and into the apices, and spread out over the floor of the cavity so as to cover it from one of the opposing walls to the other with a loosely covering bed of gold that is one pellet thick. If this base of gold fails to cover the floor of the cavity completely, any void is filled with an additional pellet, of a size to fit.

The finishing is done with the No. 20 condenser, of which one end is used in the buccal and lingual grooves, while the other end is used in the histologic channels.

This same condenser is used also for thoroughly condensing the loosely covering base of gold, with a force of 6 to 8 pounds, into a solid, hard, and smooth mass, taking care not to wedge the gold thoroughly and securely into the angles and against the walls forming the angles. The first thrusts are directly downward, toward the floor of the cavity and at right angles to it. They are made along the edges of the base of gold, in such a way as to wedge the gold into the histologic channel. This is followed by penetrating the condenser across the entire surface of the base of gold in the manner described inside.

With one end of the No. 20 condenser used hatchet-like and the other used hoe-like, it is feasible to reach satisfactorily all areas of the cavity other than the ends of the grooves. The latter can be reached satisfactorily with the No. 25 condenser. If the area of the mesio-pulpal line angle presents any difficulty, it can be overcome with the round end of the No. 21 condenser. The gold is then worked into the mesial line angle not by thrusts, but by an action that is more like pulling.

The base of gold thus firmly locked in between opposing cavity walls is to be sufficiently thick and strong not to buckle or loosen, anywhere. Also, its surface is smooth and shiny. An irregularity or roughness in the surface of the gold, or the addition of excess gold removed, at the end of the restoration, it is removed with a small coarse-grit inverted-cone finishing stone in a slow-speed straight handpiece. Like the bars, it is rotated from the center toward the margins.

Grooves so finished are made velvet-smooth and lustrous with a cloth. It is grasped firmly and used with a slight amount of pressure. It takes only a moment also to superpolish with it the entire main surface. That is in the nature of final hardening of the entire finished restoration, final tightening of the margins, and final smoothing of the surface, all with heavy pressure.

Polishing the Restoration: If finished properly, the surface of a GOLDENT restoration is so velvet-smooth and so lustrous, there is no need of polishing it with a polishing agent. However, a flexible rubber cup and an extra-fine polishing agent like Amalgols or tin oxide cannot be surpassed to impart to it a luster that is even softer and more beautiful, a silky luster possible only with GOLDENT and with gold foil.

After making two or three such restorations and getting the feel of working plastic, easy-working GOLDENT, you're sure that any dentist prficient in restoration with amalgam can easily transfer his skill to the technique of making more beautiful, more servicable restorations with GOLDENT. And you'll enjoy in GOLDENT's world of opportunities for rendering your patients a higher service at a lower cost.

Easiest way of getting started with GOLDENT is by restoring a tooth having an incipient one-surface carious lesion in a surface that is easily accessible.
WHAT GOLDENTON IS
As the newest type of cohesive gold for dentistry, GOLDENTON represents a metallurgical breakthrough that is truly revolutionary—the first major advance in lasting dentistry in over 60 years.

GOLDENTON is a balanced blend of various pure gold-powders of almost microscopic fineness, specially compacted into small roundish pellets of unequaled density, and then wrapped in gold foil. Thus GOLDENTON is 100% gold, 100% cohesive, and 100% homogeneous.

GOLDENTON’S Distinctive Characteristics
In addition to the characteristics as a finished restoration that it has in common with other types of cohesive golds for dentistry—inductively compacted, density, hardness, strength, beautiful finish, lustrous polish, etc.—in addition also to the manipulative characteristics common to all other types of cohesive golds for dentistry—weldability in the cold state, adaptability, contourability, esthetics—GOLDENTON is distinguished by manipulative characteristics possessed by no other cohesive gold.

One such characteristic is that of distinct plasticity. Not only is GOLDENTON inherently cohesive, but, owing to its finely powdered structure, as well as to the special, exclusive Morgan-Hastings process, it is peculiarly plastic. A great deal of its elasticity resides in its powder structure. GOLDENTON is up to 10 times more dense than any other types of cohesive golds for dentistry. A pellet of a given size of GOLDENTON contains up to 10 times as much gold as does a pellet of the same size of other types of cohesive golds.

GOLDENTON’S Exclusive Advantages
GOLDENTON’s distinctive manipulative characteristics have such concomitant exclusive advantages clinically.

Thanks to its peculiar plasticity, GOLDENTON yields to condensing pressure much more readily than does non-plastic gold foil, and thus can be condensed to the greatest density. It can indeed be condensed with the ease almost of silver amalgam. And thanks to its far greater density, requiring up to 10 times fewer pellets, the GOLDENTON restoration can be built up far more rapidly.

GOLDENTON’S Unique Benefits
GOLDENTON’s distinctive characteristics co-operate with its exclusive advantages to produce a number of unique benefits, both to the dentist and to the patient.

By condensing far more easily, plastic GOLDENTON requires not only less force to condense it properly, but less time to complete the restoration; with the collateral benefits of less exposure by the operator and of less stress on the patient, as well as of less likely trauma to the tooth or its supporting tissues.

And by building up far more rapidly, GOLDENTON further shortens the time required to complete the restoration, with the collateral benefits of further reduction of exposure by the operator and stress on the patient.

The mechanical and esthetic benefit from so speeding up the operative procedure and increasing operative productivity is that of reducing the GOLDENTON’s cost, and thus of putting lasting dentistry within the reach of vastly more patients.

GOLDENTON’S Supreme Practicality
GOLDENTON’s characteristics, advantages, and benefits add up to the superior modern material, the material that from the standpoint of practical dentistry is the most desirable of all existing materials.

The GOLDENTON top the relatively permanent cemented cast inlay. It is made more easily, more rapidly, and with far fewer expenses. As one of the true elements, An elementary substance, GOLDENTON is free from all the variables and complications incident to the processing of the cemented cast inlay, and hence is controlled more easily. Hence also success is more certain; it is not accidental. And compared with those of the cemented cast inlay, the GOLDENTON’s inherent factors of permanence, determining its life-expectancy, are distinctly superior; including the paramount factor of adaptability to the cavity walls and margins.

The GOLDENTON tops even the lifetime gold foil. While not fully the equal of gold foil in its esthetic characteristics—there is no substitute for that pre-eminent material—GOLDENTON is its best practical alternative. It is made more easily, more rapidly, and with the economic advantages of lesser excretion by the operator and the patient. As with far less likely trauma to the tooth or its supporting tissues.

The GOLDENTON ranks even more above the semi-permanent silver amalgam. It is more beautiful, more serviceable, and more compatible with the living tissues. Being free from all the variables and complications incident to amalgam, it is controlled more easily and its most certain of its attributes, success. And it is far superior in the inherent factors of permanence, since it is not possible to outlast the amalgam by decades. Yet any dentist proficient in restoring with amalgam not only can easily transfer his skill to the technique of making the superior GOLDENTON, but can make it in only little more time. At one sitting, and with a consequent long-range extra benefit to the patient, in money saved, discomfort saved, appearance saved, and, often, in the saving even of the tooth itself, are worth many times the little difference in cost originally.

The GOLDENTON ranks still more above the common compounds—the acrylics, the “silicone,” and the silicates—their variable esthetics of very limited permanency. Not only are they less serviceable, less compatible with the living tissues, and beset by variables and complexities that make their control more difficult, but even their attainable success less certain. They are so far keeping deficient in the inherent factors of permanence as to require replacement before they have any lived expirations. Falling short of lifetime permanence by decades and decades, and entailing by their subsequent failures progressively worsening pain, impairment, loss, and expense, such inadequate, short-lived fillings are clearly unenlightened. As so persuasively urged by Dr. Wm. T. Sorey Smith, “There is no saving in inadequate restorations.”

The truth is that from the standpoint of economy, not only are such short-lived fillings really no bargain; they too often end up even in grief. And considered even economically, their only plausible claim to consideration, is that of their harmonious blend with the enamel of a particular tooth made less lasting even than the filling. Whereas the GOLDENTON’s intrinsic harmony with the tooth at the time of insertion is innervateable and constant—can remain unaltered, unyielded, and pleasing throughout the longest lifetime; a compound’s match with the tooth at the time of insertion is changeable and inconsistent is foredoomed to progressive deterioration by both the natural and inevitable progressive alteration in the shade of the tooth itself. The GOLDENTON indeed remains at the peak of its beauty for life.

Thus, compare it as one well, easily working, rapid-building GOLDENTON is truly the material of supreme practicality—truly the best value for the patient’s dental dollar, as well as dentistry’s best offer for rendering higher, more lasting service to the greatest number of patients.

GOLDENTON’S MANY USES
Happily GOLDENTON’s supreme practicality is utilisable in a wide range of successful applications. GOLDENTON’s legitimate indications in present-day dental practice are estimated at about 25% of all cavities that receive restorations.

In general, this superior modern material for all ages is favored for cavities of small or moderate size, in marginal areas that are easily accessible, and in surfaces subject to normally heavy attrition or occlusal stress. In a recent nationwide poll of dentists who have been using GOLDENTON routinely for several years, the percentages favoring it for each class of cavity were as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>Percentage Favoring GOLDENTON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>Cavities in pits and fissures of small or moderate size. Favored by over 90%.</td>
<td>90.0%</td>
</tr>
<tr>
<td>Class II</td>
<td>Cavities in the proximal surfaces of incisors and canines. Favored by over 80%.</td>
<td>85.0%</td>
</tr>
<tr>
<td>Class III</td>
<td>Cavities in the gingival third of labial, buccal, and lingual surfaces. Favored by well over 90%.</td>
<td>95.0%</td>
</tr>
<tr>
<td>Class IV</td>
<td>Worn or chipped. Favor by over 60%.</td>
<td>60.0%</td>
</tr>
</tbody>
</table>

GOLDENTON is being used increasingly also in combination with gold foil. The following procedure is typical of the current practice of many operators who use gold foil restorations: “I use it successfully to build up bulk of filling in large Class I and Class IV. I start with gold foil, fill it with GOLDENTON, and veneer it with foil gold. I build up rapidly, and get a good finish.”

FIG. 7—Some indications for widely versatile GOLDENTON simulated cases. Note the use in the gold foil build-up. 
GOLDENT is a new material for teeth that has been recognized recently. It is an amalgam that is made of gold and palladium, giving it a golden color. The material is used for cavity fillings and other dental restorations.

GOLDENT's advantages over traditional amalgam include:

1. **Strength and Durability**: GOLDENT is stronger and more durable than traditional amalgam.
2. **Cavities FEELING**: It provides a gentle, comfortable filling experience for patients.
3. **Aesthetic**: GOLDENT's golden color blends well with natural teeth, making it a popular choice for patients who value aesthetics.
4. **Longevity**: It has a longer lifespan compared to traditional amalgam.
5. **Easier Filling**: The process of placing a GOLDENT filling is easier and faster for dentists.

**How Goldberg's Original Amalgam Works**

GOLDENT is made up of gold and palladium, which are mixed with other metals to create a powerful amalgam. This material is hypoallergenic, making it safe for patients who are sensitive to traditional amalgam.

**Advantages of GOLDENT**

- **Improved Durability**: GOLDENT is more resistant to wear and tear compared to traditional amalgam.
- **Aesthetic Appeal**: The material's golden color provides a natural look similar to natural teeth.
- **Reduced Sensitivity**: Patients experience less sensitivity compared to traditional amalgam.
- **Easier Placement**: Dentists can place GOLDENT fillings more easily and quickly.

**GOLDENT's Components**

GOLDENT is made up of:

- **Gold**: The primary component, providing strength and durability.
- **Palladium**: A noble metal that enhances the material's properties.
- **Other Metals**: These are added to control the material's physical properties.

**Placement Process**

The placement process involves:

1. **Preparation**: The dental cavity is prepared by removing decay and shaping it to receive the filling material.
2. **Amalgamation**: A special alloying process to ensure the material's proper consistency.
3. **Placement**: The gold-palladium alloy is inserted into the cavity and shaped to fit.
4. **Curing**: The filling is cured to harden and set in place.

**Conclusion**

GOLDENT is a promising new dental material that offers significant advantages over traditional amalgam. Its unique properties and improved aesthetics make it a valuable addition to dental practices. As technology advances, it is likely that GOLDENT and other innovative materials will continue to improve the quality of dental services.
In addition to keeping GOLDENT away from solids and liquids that can impart to its surface an adhesive property on contact, the stopper of an oil vessel should be tightly fitted to prevent漏soaking.

**GOLDENT's Condensation**

The condensation of GOLDENT differs from that of any other retortive material, as to decided advantage both in manipulation and in results. In order to prevent condensation of pressure much more readily than does non-plastic gold foil, GOLDENT can be condensed not only on any metal surface, but also on glass, rubber, or plastic materials. For example, with a force of 15 pounds required by the water when condensed in the form of a millimeter in diameter, GOLDENT requires a force of only 6 to 8 pounds. And the smaller the temperature, the greater the difference.

On the other hand, GOLDENT's plastically, unlike other materials, is not affected by the presence of compounds, is not wet and flammable, but dry and metallic. Consequently the condensing force is generally much less, and the amount of gas that is extractable by wet and flammable materials, is not wettable by water, but flammable.

As to the best method of GOLDENT's condensation, the subject will be considered in detail in another article. But a test of the shift of the container held with the pen graph recommended by Dr. G. V. Black, refers, the lower layer of the gold foil in the palm gum and the thumb brushing against it, may be used for the condensation of an object. But the shift of the container held with the pen graph is affected by a great variety of substances. For example, with a force of 15 pounds required by the water when condensed in the form of a millimeter in diameter, GOLDENT requires a force of only 6 to 8 pounds. And the smaller the temperature, the greater the difference.

**Starting the GOLDENT**

The building up of the GOLDENT resinsate is best started with one or more large pellets, depending on the size of the cavity, and spread over the floor of the cavity and into the angles, and spread out over the floor of the cavity and into the angle of the opposing walls to the other with a loosely coating base of gold. This base of gold.

As has been stated, with a force of 6 to 8 pounds, into a solid, hard, and smooth mass, taking due care to wedge the gold thoroughly into the angles and against the walls forming the angles. The base of gold is not at all to be too thick, and not to be too strong to buckle or buckle. When the base of gold has been condensed thoroughly and locked in securely between opposing cavity walls, the building up is continued with additional pellets, one at a time and successively, until the mass already condensed is thoroughly condensed and locked in securely between opposing cavity walls.

**Checking for Density and Adaptation**

Until the operator is sufficiently experienced to be able to recognize thoroughly and accurately the adaptability of the specimen under examination, a closer inspection of the specimen is required. The closer inspection of the specimen is required. The closer inspection of the specimen is required. The closer inspection of the specimen is required. The closer inspection of the specimen is required.

The former is necessarily corrected by removing the undercondensed mass of gold altogether and building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew. The latter is corrected by building up the restoration anew.

**GOLDENT's Building Up**

The building up of the GOLDENT is not only more and much more rapidly than the building up of the gold foil, but simpler.

**Correct Line of Force: To insure over-all max-**
imum filling, it is necessary first to reduce the GOLDENT to cavity walls and margins, the line of force the direction of the force exerted by the filling force should be toward the cavity walls and mar-
gins, and the margin. The margin of the cavity wall to be covered. The shaft of the condenser should be inclined at least 6 degrees from the perpendicular to the plane of the wall. As much as 12 degrees may be even better.

**Correct Stepping of the Condenser:** Another essential to the attainment of maximum density and optimum adaptation is that of the correct stepping of the condenser. To prevent voids, and to fill the gap, the condenser is to be advanced, in order sequence, from gold lost thoroughly condensed to gold lost only once condensed so as to overlap the preceding pellet to the extent of half the diameter of the con-
derator. Each time a pellet is to be placed, the pellet last condensed as you advance with the condenser's next application is somewhat akin to the overlapping of shingles in covering a roof. After the first row of pellets so condensed is com-
pleted, every addition that is to be stepped up is to overlap not only each pellet last condensed, but even the row of pellets last condensed. And this orderly stepping is to proceed from the cavity's center toward the opposing walls, keeping the gold ahead of the condenser.

**GOLDENT's Finishing**

The finishing of the completed GOLDENT resi-
dration differs materially from that of the com-
pleted gold foil only in its finishing. Because of its plasticity, the completed GOLDENT restoration must be super-
burnished. In addition to the usual smoothing and imparting a luster, the GOL-
DENT's finishing is to be in the nature of final hardening of the entire completed restoration, closely finishing the margins, and finally smoothing the surface of the restoration.

**Superbionishing with heavy pressure is obviously done best, just before the final finishing, and by using an instrument that is serrated, but with one whose surface is smooth. Especially with coarse polishing, the instrument is a cloth, a disc, or a beavertail bionisher.**

Finishing other than the superbionishing—
typical of the ordinary or semi-extraction bionishing incident to the trimming and contouring of the final restoration, and requiring instruments and materials such as coarse-grit fin-
ishing stones, finishing burs, knives, files, carvings, burs, saws, rasps, scrapers, sanding drums, etc., progressing from coarser instruments and materials, for initial finishing, to finer instruments and materials, for final finishing. The correct choice of the instruments and materials in any finishing is governed by the restoration's particular surface, and by the operator's personal preference. In the interest of
GOLDENT’S Instant and Universal Appeal: Of 38 dentists at GOLDENT’S unveiling, in October of 1962, all ordered it immediately. All 38, all leading operators, were quick to recognize its unique and far-reaching benefits and were eager to make them available to their patients. That was a response of 100%. That was instant unanimity!

GOLDENT’S Phenomenal Popularity and Growth! The high promise implicit in GOLDENT’S instant and universal appeal on its unveiling has since been realized phenomenally. Wherever demonstrated, GOLDENT has been a magnet for crowds of fascinated dentists. They have welcomed it enthusiastically as the long-sought answer to their quest for an easier, faster way of restoring teeth lastingly. And the longer they use it, the more they are enthusiastic about its blessed opportunities for rendering a higher service at a lower cost.

Here are some representative expressions of that enthusiasm:

“...I’ve had terrific success with Goldent. I would be lost without it.” Portland, Oregon

“I have restored with Goldent 12 teeth. Four were Class I, the rest Class V’s. I firmly suggest that the clinical uses of Goldent are many and surely justified in the dentist’s armamentarium.” Technical support, letter, 11/16/62. Many dentists to render this high-quality service rather than a second-choice material that is far short of being permanent.” Maple Glen, Pa.

“In five months I placed over 150 Goldents and I am very pleased with the results.” Terrell, Texas

“I made six Goldents in two days and it seems to be living up to all the claims for it. I demonstrated it to our U. S. Black Study Club last Friday and it really impressed everyone highly.” Menomonee, Wisconsin

“My colleagues participating in the course are certain to become as enthusiastic about Goldent as I am.” Captain, U.S. Army Dental Corps

“I have used my first vial of Goldent with great success and considerable pleasure.” Captain, U.S. Naval Dental Corps

“I would like to express the satisfaction and pleasure I have had working with Goldent.”

“As a part-time demonstrator and lecturer in operative dentistry, I have introduced the material to 4th year students, who in turn handled it quite satisfactorily after only little experience.” Burlington, Ontario, Canada

“My colleagues and I have put Goldent to various tests and have found it satisfactory in every respect. We expect to use it widely.” Paris, France

“The clinicians thoroughly enjoyed condensing Goldent.” Dental Dept., National Institutes of Health

“We began using Goldent in the Operative Clinic of our school during the fall term of 1963. Since then (by May of 1968), we have placed approximately 11,000 Goldent restorations. The reduction in the number of hypersensitive teeth and teeth requiring endodontic treatment has been very dramatic, supporting the theory that the placement of Goldent is very much less traumatic than the placement of gold foil.” Chairman, Dept. of Operative Dentistry

“You have a great product!” Users of GOLDENT looking in on Morgan-Hastings exhibit at meetings.

Easy-working, rapid-building GOLDENT, as attested by thousands of delighted dentists over the years, is dentistry at its practical best. Now you can benefit your patients as never before!