american academy of gold foil operators

Gold Leaf

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President
Dr. David Bridgeman
701 N. Main Street
New Martinsville, WV 26155
(304) 455-2800
dbnbigvl@ovis.net

President – Elect
Dr. Andy McKibbin
206 Heater Road
Lebanon, NH 03766
admizmvalley.net

Vice-President
Dr. Edward Kardong
8675 Wing Point Road
Bainbridge Island, WA 98110
(206) 842-2646
edkardong@gwest.net

Secretary Treasurer
Dr. Robert C. Keene
1 Woods End Road
Etna, NH 03750-4318
(603) 643-2899
Robert.c.keene@hitchcock.org

Executive Council
2007 – Dr. Henry St. Germain
2008 – Dr. Joseph F. Newell
2009 – Dr. Richard Nash

THE AMERICAN ACADEMY OF GOLD FOIL OPERATORS

Minutes of the Council Meeting

October 25, 2006 Sequoia Room Crown Plaza Hotel, Seattle, Washington

1) **Call to order** 2:15 p.m. President-Elect Dr. David Bridgeman.

Present: - Drs. David Bridgeman, Andrew McKibbin, Edward Kardong, Henry St. Germain, Joseph Newell and Ronald Harris

Absent: - President, David Thorburn (due to family illness).

Members Present: - Drs. Martin Anderson, Clyde Roggenkamp, Frederick Eichmiller, Timothy Carlson, James Gourley, Michael Cochran and Richard Brinker

2) Minutes of the previous meeting as printed in The Gold Leaf, approved with the following correction: -

The nominating committee will submit a Council nominee six weeks prior to the mid-winter meeting. (Not at the annual meeting as previously printed).

3) Secretary/Treasurers Report: - Approved as printed. (see attachment).

4) Annual Meeting Reports: -

Dr. Maxwell Anderson "The Probiotic Treatment of Dental Caries".

Dr. Werner Geurtsen "Dental Resins Do They Have The Potency to Cause Systemic Dysfunctions and Diseases?".

Dr. Wendell Foltz "Direct Gold for the Mesial of First Permanent Molars In Adolescents".

Clinical: - Dr. Andrew McKibbin reported there would be 22 clinicians operating, including four students, at the University of Washington, and thanked Dr. Richard Nash for his local assistance.

Meeting Planner: - Dr. Ronald Harris noted that there had been some function room changes; 74 people had registered for the meeting, and there should be 102 in attendance. Each year the same issues of tardiness prevail regarding TIMELY REGISTRATION. Ron stated that this makes it VERY DIFFICULT to plan with the hotel!!

It was suggested that the registration forms be sent with the first early summer notice and again in the early fall.

On behalf of the whole Academy Council expressed their deep sense of gratitude and appreciation to Ron and Laverne for 14 years of dedication and hard work planning our meetings.

5) Committee Reports: -

a) Literature and Research: Dr. Clyde Roggenkamp No Report.

b) Nominating: Dr. James Gourley: Dr. Richard Nash for Councilor 2010

c) Inter-Academy Liason: Dr. David Thorburn: (Not present) reports that he met with 5 dentists in Germany and believes that there might be some new membership applications as a result.

d) Education & Clinical Seminars: Dr. Edward Kardong: four students will be operating during Thursday's session. Mentors for those students have been selected.

The Master Class this year has been postponed due to the dinner to honour Dr. Richard V. Tucker on the Thursday night.

Next year in Hawaii the two Tucker Clubs will be the focus of a Master Class. Dr. David Thorburn will meet with those clubs either a day before or a day after to conduct a day long session covering class V's and class 1,s Drs. Ted Kanamori and Gary Umeda are the local arrangement team in Hawaii.

e) Outstanding Clinician: Dr. David Bridgeman: Dr. Dan Saucy has been selected and Dr. Moline will make the presentation.

Distinguished Member: Dr. Warren Johnson: (absent from meeting). Dr. Allan Osborn has been selected and Dr. Richard Hoard will make the presentation.

f) Constitution & Bye-laws: Dr. Melvin Lund no activity to report.

g) JOD editorship search committee: Dr. Martin Anderson reported that there was a possibility that Dr. Jeffrey Platt from the University of Indiana staff might agree to serve thus keeping the journal located at the University of Indiana.

h) Report of the Journal: Dr. Timothy Carlson: reported that the JOD is doing well financially. Basically institutions are willing to pay more for the electronic form of the Operative Journal. Also that the major 'hits' to the JOD are during early hours of the morning suggesting that people from the other side of the world are making use of the online feature.

6) Old Business

a) The Nominating Committee: will consider the list of names that they receive from Council following the Annual General Meeting of Council, but are not limited by that list. The member whose name is selected will be submitted to Council at least 6 weeks prior to the mid-winter Council Meeting held each year in Chicago. Approved

b) Raising dues to $70.00. Following a review of the financial resources the AAGFO Sec/Treas. Suggested that this item be dropped from consideration by the general membership. The council agreed that unless and until the financial resources of the Academy drops below three times our operating expenses, no consideration for raising the dues is appropriate.

c) Web Page: Dr. Scott Barrett, The Council discussed just how much information needs to be placed on the website. Only information that would normally be part of the public record should be placed on the site, i.e. the name, address, phone number and e-mail address. Scott will be working with Dr. Von Hanks and Dr. John Sechena in the process of taking over the GoldFoil.org site.

d) 2007 Hawaii Annual Meeting: Will be held October 25 – 29, 2007 and the rate for the Turtle Bay Resort would be $209.00/night. Each room has an ocean view. Currently every effort is being made to arrange with the Pearl Harbour Naval Dental Clinic to be the site of the clinical session on the Friday Academy members, Drs. Gary Umeda and Ted Kanamori have offered to help with the local arrangements. The two Tucker Study Clubs may be asked to help with patients should the USN allow operating on civilians. The Council is considering the possibility of extending an invitation to local non-academy dentists to join the didactic portion of our meeting without cost. Meals would be charged at cost.

e) 2008 Phoenix Joint Tucker AAGFO meeting to be held November 12 – 16, 2008 at the Kierland Weston Resort Hotel. Dr. Henry St. Germain will work with Tucker member Dr. Martin Margetis as one of the local arrangements contacts. Two clinics and joint scientific and social sessions are planned. We need to know who provides the patients and whether the school will cover the liability for patients being treated by AAGFO members.

ACTION: Dr. Andy McKibbin offered to follow through with the contacts.

f) 2007 AOD Table Clinic: The Hollenback Study Club are set to man the Table Clinic at the Annual Meeting of The Operative Academy. Last February (2006) the New Hampshire Study Club manned a successful Table Clinic at the Operative Meeting. Participants were given the opportunity to use EZ Gold and to discuss the clinical use of both direct and indirect golds.

7) New Business

Requests for donations from the ADA Foundation for Oral Health Matters, and from Oral Health America were considered.

ACTION: The Council decided to contribute $200.00 annually to the ADA Foundation but not to contribute to Oral Health America's request for funding.

8) Other Business

a) Dr. Scott Barrett asked for permission to present to Dr. Marty Anderson: -

A book of Gold Foil, donated by Jensen Industries, and a set of gold foil instruments donated by Suter Dental Company. This gift will be used by Dr. Anderson to encourage his students in the use of gold foil. Further, Scott noted that he had been contacted by members of Dr. Ferrier's family who have access to memorabilia. The Council suggested that Dr. John Sechena or the National Dental Museum would be the most suitable venue for these resources.

b) The Tucker Dinner. In the absence of President, Dr. Dave Thorburn, President-Elect, Dr. David Bridgeman asked Dr. Robert Keene to deliver the greeting from AAGFO at the Gala Dinner on Thursday night.

c) Liability Insurance. This remains a continuing problem and so far no solution has been achieved. Dr. Bob Keene will continue his search with a few insurance companies.

The Clinical Director/Councilor shall ensure that each operator verifies that they are covered to operate at the meeting site each year.

Council was reminded that (a minimum of one year prior to our meeting date) Institutions should be asked to declare our meeting a "CE Course" at th schools so that we can be covered under their umbrella policy. When a master class is held this should be easier. This detail should be inserted into the Clinical and Master Class Operator's Manual.

9) Meeting adjourned 4:45 p.m.

Respectfully Submitted:

Dr. Robert Keene, Secretary/Treasurer.

Your New Editor

Your new Editor, Dr. Richard Brinker

Dr. Richard Brinker officially takes over in January, 2007 following the publication of this newsletter. Son of former President, Hunter Brinker (1977) has served in the US Navy as Commander until 2006, when he officially retired form active service. Currently living in New York State, he is married to Dr. Lynn S. Brinker who practices as a specialist endodontist. He will continue in the fine tradition of the Academy, and I know that we are fortunate to have an enthusiastic and capable member to take the helm of The Gold Leaf for the future. Congratulations Richard.

Allan Osborn, Past Editor

President's Message, January 8, 2007

Greetings from West Virginia. I am indeed honoured to serve as your President during the 2006-2007 term. As I reflect upon all who have preceded me in this position throughout this Academy's rich history, I am truly humbled.

Allow me to extend a warm welcome to our newest members and say congratulations! You have chosen to become associated with an Academy which has held a position of eminent prestige within our profession for virtually its entire existence. Our founding members were some of the legends and giants of dentistry and, in particular, the discipline of operative dentistry. They were exceptional clinicians, devoted teachers and ever inquisitive researchers. Above all, they were true believers in excellence. They were so attuned to excellence and its importance and value to our patients that they endeavored to form this Academy whose primary purpose was and still remains to this day – the promotion of excellence in operative dentistry.

Over the years this Academy has met this purpose through our standard format of clinical demonstrations at our annual session. We encourage proper tooth isolation through the use of rubber dam and we teach discipline and attention to detail through the use of hand instrumentation and proper manipulation of a most demanding but excellent restorative material – gold foil. Many years ago I heard Dr. Tucker say, "Dentistry will always be searching for the perfect restorative material, and while that is a worthwhile endeavor, it seems God has already given us the perfect restorative material. Unfortunately or fortunately, he made it gold in color just to remind everyone that he is still in charge." I don't know if that quote was an original from Dick or if it was passed on to him by one of the legends above, but isn't that a nice way to frame a discussion about material choices with our patients.

I believe the position of prestige this Academy holds and of which I spoke above is not in danger. In fact, I believe our opportunity to thrive is as great as it ever has been. Though many of our original founders are gone, their impact was felt, their enthusiasm infectious, and others so influenced stepped forward, distinguished themselves and now to carry the torch. So it was long before my appearance in this Academy. So it will be after I and my contemporaries are gone. Excellence will always be in demand. Those in our profession who truly desire to know excellence will search for it. Finding it and seeing it defined, they will aspire to achieve it. Achieving it, they will live and breath it and they will continue to carry the torch.

This Academy has served its membership very well over the last 50+ years and I believe that tradition will continue. Our job is to endeavor to continue this mission our founders gave us. As long as we are diligent in our efforts to teach and demonstrate the true value of gold foil and promote excellence in restorative dentistry, our Academy will continue to thrive and serve as an available resource for those who pursue excellence.

My sincere thanks to outgoing President, Dr. David Thorburn, for skillful and insightful leadership during the past year. Because of his commitment to service over numerous years, this Academy has benefited immensely. Also, welcome to Dr. Rick Nash who is coming on board as our newest Executive Council Member. I look forward to working with all the executive board during this year. Check out our website @ www.goldfoil.org You will find some very interesting photographs and history about the academy, scientific articles and instructional materials and other useful links. This benefit is just one of the ways our Academy is improving in an effort to better serve you. As we begin this New Year, my sincere best wishes for God's blessings, good health and prosperity to all members and your families. Hope to see you in Hawaii in October.

David Bridgeman
dfbdds@charterinternet.com

Welcoming Party

Joe & Pat sharing a moment with Rick & Bruce

Susanne & Mark

Allan with Connie and Jan Drews

Del Crowe with friends east and west

Proud mother with new member and son

Hazel and Laverne comparing notes

Henry St. Germain with good friends

Kathy Hoard says yes they do need orthodontics

Mary Hamilton with Bob Allen

Old friends enjoying the moment

Advice to our incoming President, "This is a tough job".

Scott Barrett & Barry Evans

Max Anderson expounds

Hazel with Fred Eichmiller & Dan Saucy

Dick, Ed and Mark

David Moline and Ron Harris listen to Dan

The family Von Bridgeman

Vonnie with Ian Hamilton

Terrill & Frank enjoying the joke

Ann & Mark enjoying the reception

Will that fly?

Dr. Chris Hacker

The Maestro

Dr. Ted Ramage, Dr. Clyde Roggenkamp, Ms. Ann Pellegrin and Dr. Mark Ziemkowski "At the Demonstration Clinic".

Dr. John Sechena

Dr. Jody Brennan

Drs. David Bridgeman, Ron Zokol and Del Crowe.

Drs. Warren Johnson & Hans Müller

Dr. Dick McCoy with sage advice

Drs. Ian Hamilton & Ralph Stenberg

Drs. Ron Zokol & Charles Julienne

Dr. Kyle Winter

Dr. Janet Zinter assisted by Dr. Susanne Grennell

Dr. Von Hanks

Dr. Marc Tollefson

Dr. Barry Evans CL V Preparation

Dr. Rockwell Hammond

Drs. Ron Harris & Henry St. Germain

Dr. Barry Evans

Dr. Scott Barrett

Dr. Ronald Dahl

Guests Ryan and Sarah

The Victor Williams Outstanding Clinic Award

Dr. David Moline presents Dr. Daniel Saucy with the Outstanding Clinician Award 2006

Dan with his wife Kathy and presenter David Moline. This beautiful Williams Plaque" was donated by Viola

The Victor Williams Outstanding Clinician Award

This year's recipient of the Outstanding Clinician Award, Dr. Daniel Saucy is a native Oregonian and graduate of the North Pacific College University of Oregon Dental School. He now lives in Salem, Oregon with his wife, Kathleen.

In Dental School, Dr. Moline first encountered Dan who was an outstanding and innovative student. From this point forward these two became very close friends, a relationship only separated by the calls of service. When Dan commenced his own practice it was not long before the former Professor decided that there could be no better place than in Dan's practice to spend a little time working.

Congratulations Dan upon a well deserved recognition and award.

Dr. David Moline

Didactic Session

President – Elect, Dr. David Bridgeman introduces the Didactic Session

Secretary Treasurer, Dr. Bob Keene and President-Elect, Dr. David Bridgeman completing arrangements for the Didactic Session

Vice-President, Dr. Andy McKibbin announces room changes

DR. MAXWELL ANDERSON

Dr. Maxwell Anderson

Between the years 3000 BC and 1000 BC we start to see the introduction of the refined carbohydrates into the human diet, and concomitantly an increase in the prevalence of caries and missing teeth. This was a trend that was to continue, until in our own times up until recently we were witnessing a caries pandemic.

One of the first people to recognize that this was a bacterial infection was a certain Dr. Miller, a trained engineer who went on to become a dentist at the University of Pennsylvania. Following graduation, he worked with a Dr. Abbott, marrying Dr. Abbott's daughter and from there he proceeded to the famous laboratory of Professor Koch. It was in 1890 that Dr. Miller postulated that bacteria were responsible for caries. Dr. Willoughby, another researcher noted that aggregated groups of bacteria were formed into what we today call dental plaque. Great efforts were made to determine exactly which of the bacteria were responsible for the disease which was causing such havoc and edentulism.

Between the early 1940's and the late 1970's the chance of getting caries reduced from 35% to 15%. Currently the children in the age groups 6 through 11 have the highest rates of infection, this reducing to one third in the 12 to 17 age groups. Some 20% of the population has 60% of the caries, whilst 10% of the population receive 65% of the restorations. It is also noteworthy that 10% of the population get some 98% of the periodontal disease.

New diagnostic tools are on the market for caries, and one called the Diagnodent is currently the most accurate. It is still possible to get false positive and false negative readings with these instruments. The best predictor where treatment is concerned is the experienced clinician's sixth sense and clinical judgment.

The plaque biofilm is aerobic with its own ecosystem and with metabolic cooperation amongst its constituents and a primitive circulation system. Periodontal lesions, however, have quantities of gram negative organisms which are resistant to white cells and to antibiotics. It is difficult to achieve any meaningful concentration of an antibiotic where it is delivered by the crevicular fluid (requires 1,500x the normal amount).

Supragingival plaque is subject to mechanical disruption and the salivary immune system; subgingivally nutrients are received from the crevicular fluid and are subject to space limitations and to the tissue immune system components IgG & IgM. In consequence, we have the strategy of introducing chlorhexidine into the sulcus. It is likely that we will eventually have a vaccine against periodontal disease but not against caries.

Players of note in caries are the following streptococci: -
Streptococcus Mutans (C.E.F.)
Streptococcus Sobrinus (D.G.H.)
Streptococcus Cricetus (A.)
Streptococcus Rattus (B.)

Secretions of glucans and levans make the plaque very sticky, and permits attachment to the tooth, acid formation then follows.

Caries infection arrives very early in life from the mother with whom the baby has very close contact, 83% of children were infected by four years of age. Groups were studied, one of which was already prone to caries and another group that was not. The first group (with) received prohylaxis and fluoride therapy, and continued to experience caries. The second group was divided into two, and one half was given full prophylaxis and the other half nothing at all. Both halves of this second group were 'in all wisdom' given a mouth rinse of Streptococcus Mutans. The half group which had received the full prophylaxis proceeded to develop carious lesions whilst the control group remained caries free.

Monoclonal antibodies have been developed that identify S. Mutans with greater accuracy than any test heretofore available. The antibodies are generated by B-cells in mice. Once the B-cell producing the antibody that binds exclusively to S. Mutans is identified, it is subjected to a line of cancer cells producing an immortal cell line that continues to produce the desired antibody. That antibody is then labeled with a marker and used to identify Strep. Mutans. The marker can be a dye (chromophore), a fluorescent molecule, a radioisotope or other constructs. G.C. Corporation currently markets a monoclonal antibody test outside the U.S.A.

Mechanisms to combat the caries problem are various, but fissure sealants will reduce the incidence by 71% and varnishes by 38%. A combination of sealants and fluoride leads to a 91% reduction. This affords huge savings to the party insuring the patient groups.

Strategies are also suggested to selectively replace the bad bacteria with good bacteria in the plaque. Some researchers are working on augmenting

the ability of base producing bacteria to neutralize the acids produced by S. Mutans. They are generally using foods high in arginine to accomplish this.

The use of genetically altered bacteria which instead of producing acid will produce C2/H5/OH or the use of antibiotic-peptides which will beat out the various Mutans Streptocci.

It was decided to assess some of the Traditional Chinese and Indian medicines. It was noted that some of these had been in use for some 3,000 years. Of 2,000 herbs some 400 were selected, and from these, 2,400 herbal extracts were made up. Bioassays of gram positive and gram negative organisms were then made. The extractions were made in both water and alcohol, with the alcohol ones winning out.

An alcohol extraction of liquorice root proved to be particularly efficacious, and when made up into 'lollipops' and used amongst a patient group, who were not able to properly care for themselves, this created mouths that were Streptococcus Mutans free in six weeks.

The peptide-antibiotics act like "mini armed antibodies" with a killing molecule and a target molecule involving some 20 amino acids. In total there are some 1,300 amino acids available in this way.

Predictors of susceptibility to cavities can be assessed by using components of the pellicle. Researchers at USC have identified lectin fraction algorithms that they claim have a high accuracy in predicting who will get cavities.

In conclusion, we will see the end of our traditional type of practice and treatment will, in these new times eventually be taken over for the most part by "Probiotics".

Dr. Wernerk Geurtsen

Do Dental Resins Have the Potency to Cause Systemic Dysfunctions and Disease

Dr. Werner K. Geurtsen

At this point in time we have yet to reach definitive conclusions in regards to the long term effects with the exception of allergies. Specifically, the consequences of long term chemical/biological exposure to low concentrations of resinous substances has to be determined.

During the first 72 hours resin restorations may leach a lot of various compounds, and thereafter they continue to leach small amounts that may well effect the systemic functions. The distribution and metabolic fate of leached materials is not fully documented, but TEGDMA (Triethyleneglycol dimethacrylate) and HEMA (2 Hydroxy-ethyl-methacrylate) are reabsorbed in the intestine and are very likely broken down through toxic intermediary substances, as animal experiments revealed.

Urine analysis (on a group of study patients) at one, seven and fourteen days after insertion of composite fillings/sealants shows a rapid increase in BPA (Bisphenol-A) at 24 hours with a peak at seven days and no return to baseline after 14 days. BADGE (Bisphenol A bis (2,3-dihydroxypropyl) ether) peaks at 24 hours and returns to baseline after 14 days. These estrogen-like compounds may trigger the growth of various cells in the body and stimulate sensitive cells into unwanted growth.

It is well known at this time that these chemicals are distributed throughout the body, but as yet it is not determined whether, or to what extent, and at what time interval, this contact will produce significant systemic effects.

Allergies are known to be increasing particularly amongst dental personnel, and oral lichenoid reactions have been seen and reported in patients. Commonly seen amongst dental personnel are dermal hypersensitivity, but reactions may also take place systemically at a distance from the original site, manifesting as asthma, rhinitis, conjunctivitis and urticaria. Intraorally red zones and reactions may be due to various methacrylates. It may be noted that toxic reactions may be manifested locally or systemically from the release of various substances. Depending upon the level of cure, anything from 20% to 65% of the organic materials may be leached from these materials over time.

Water soluble elements by weight vary between 0.25% and 2.0%. When considering a number of fillings in the mouth, say 8 class 3's and 13 class 2's we may assume that these will weight about 8,000 mgs. We may also assume that some 10% of the 1600 mg of the organic matrix will leach out for a total of 160 mg, and that this will then be distributed around the body.

CURE RATES FOR RESINS
Light cured resins vary between 60% - 80%
Chemical cured resins vary between 35% - 70%
Dual cured resins are thought to be up to 80%

The Initiators, Stabilizers and Inhibitors all have reaction products such as epi-hydroxycamphor that are leached over time. Formaldehyde (which is a potent allergen) is leached from various resins for a period of up to 115 days in case of an insufficiently polymerized resin surface.

In vitro studies have demonstrated the ability of resins to be Mutagenic and Genotoxic, and that they also have an Estrogenic effect. To what extent these chemicals are potentially carcinogenic remains to be seen.

Root canal fillings with resin can cause considerable problems and promote damage to nervous tissue bundles; in the maxillary sinus Zn-releasing materials may promote Aspergillosis. In the mouth they are capable of causing inflammation of the oral mucous membrane and damage to the periodontal ligament. Metharclylates, such as TEGDMA, also may act as a substrate for bacterial growth and by virtue of their porous nature rough surfaces of dentures may increase the release of unbound components and may act as a reservoir of nutrients for bacteria.
Monomers include: UDMA/Bis-GMA/Bis-MA/Bis-EMA
Co-monomers include: EGDMA/DEGDMA/TEGDMA
Initiators include: DMBZ/BZ/DBPO/CQ

IN VITRO INVESTIGATIONS

Cell growth using ED50 concentrations of resin compounds in primary human fibroblasts and immortalized murine 3T3 Fibroblasts, also keratinocytes and SAOS cells (osteoblast-like cells) showed interesting results (compared to untreated control cultures):

In low concentrations sometimes up to	150% growth
In high concentrations only	50% growth
In very high concentrations	5% growth or total death of the cells

It is the effects that have been demonstrated at LOW concentrations that should be the cause for concern. ***Nota Bene*** All concentrations may affect the growth speed of STEM CELLS (e.g. 0.25 mm TEGMA CD 34+ cells, as very preliminary data reveal).

TEGDMA, amongst other chemicals, deplete Glutathione, and thus increase 'indirectly' Reactive Oxygen Species. Glutathione is made from three amino acids and is a dominant anti-oxidant compound in the body which protects each cell. It is one of the body's master anti-oxidant and plays a

MASSIVE role in the cell's ability to fight FREE RADICAL damage. Glutathione maintains the normal functioning of the immune system, and plays an important role in the multiplication of lymphocytes; it also acts as a chelator to bind to heavy metals (that source the damage caused by free radicals) and the conduct them out of the body.

REACTIVE OXYGEN SPECIES are molecules like hydrogen peroxide, Ions like the hypochlorite ion. They are also radicals (free) like the hydroxyl radical (this one has an unpaired electron) and the Superoxide Anion which is both ion and radical. Beckman And Ames (two highly reputated mutation researchers) hypothesize that ROS are associated with as much as 50% of human cancers! Through their actions radicals damage cell structures of which they are a part, and particularly the fatty acid side chains in the various membranes of the cell and most notably the Mitochondrial membranes.

Where chemicals like TEGDMA bind to Glutathione we see a depletion in glutathione levels and a corresponding increase in ROS. The ROS may generate 'abasic sites' in DNA which can lead to breakage of the strand. This breakage of the strand may in turn promote gene mutation leading to uncontrolled cell growth "How much further has yet to be determined".

These findings in relation to ROS would certainly suggest that we should be careful with our Xenobiotics (read H202) as we cannot at this stage be certain exactly how safe they are. Certainly we know that it is potentially capable of adversely affecting the DNA.

Proceeding to pulp capping it was also suggested that with the traditional Ca(OH)2 therapy

A dentine bridge would appear in between 60-90 days, whilst with the dentine boding techniques there was no healing (Costa et al). It was further noted that the smear layer is our friend regarding pulp protection and that is better left in situ. This latter is also in concurrence with Dr. Woody Rupp who also suggested that the smear layer should be retained.

Dr. Wendell Foltz

Direct Gold in the Mesial of First Permanent Molars in Adolescents

Dr. Wendell Foltz

We were treated to a beautiful and extremely conservative clinical treatment for the mesial of a first molar which would certainly stand the test of time. It has long been shown that a well placed gold restoration placed conservatively in an initial lesion can last almost indefinitely, and prevent the cascade effect (leading to a full crown) that we so often see with lesser techniques and materials.

Dr. Alex Jeffries published in the Journal of The American Dental Association (May 1st 1947) a suitable design for these situations. It was noted that Dr. G.V. Black suggested in his earlier days that the restoration should be extended on to the occlusal surface. Both men insisted upon extension for prevention and more extension to the gingival, concepts that were widely considered necessary during the caries pandemic. We may now be rather more conservative due to the advent of fluorides.

It was stressed that of great importance is the preservation of an intact marginal ridge. The preparation was commenced using a high speed hand piece and a suitable round bur of small size and the cavity form developed being essentially a wide trapezoidal form, refined using the standard Ferrier hand instruments from Suter Dental. Extension was to be more towards the palatal or lingual aspect of the tooth, but it can be held within the embrasure space. Revisiting the direction of the enamel rods in the incisal margin means that to maintain a strong margin entails the placement of a bevel on this margin. Further, it was noted that there would be no staining with the foil technique as opposed to the use of alloys which whilst incomparably improved in this regard with the new copper alloys could still give rise to later straining, and by virtue of their different co-efficient of expansion to the tooth, precipitate cracking at a later date. A brief discussion followed in regards to cracked teeth and Pink triad gel which could be used to mark primary teeth and disclose cracks in teeth.

The instruments utilized in the packing and finishing of the foil were the typical Ferrier gold foil instruments from Suter. It was also noted that given the position of the foil the use of discs was both practical, easy and rapid.

A final wash of sodium fluoride whilst the tooth is desiccated completes the scheduled treatment for a happy patient and a satisfied parent. Timing of the procedure has been sometimes a little tricky, and it was suggested that we would be better advised to remove the primary at a time of our own choosing to avoid loosing the field of operation to the erupting premolar.

Dr. Wendell Foltz and Mrs. Gloria Foltz. The hard working team who produced another superb "clinical slides and critique". Congratulations and Thank you both!

Grant me an opportunity to improve and extend my training, since there is no limit to knowledge. Help me to correct and supplement my educational defects as the scope of science and its horizon widen day be day. Give me the courage to realize my daily mistakes so that tomorrow I shall be able to see and understand in a better light what I could not comprehend in the dim light of yesterday. Bless me with a spirit of devotion and self-sacrifice so that I can treat and heal Thy suffering servants and prevent disease and preserve health to the best of my ability and knowledge.

Maimoniades

1200 A.D.

A Celebration Of A Noble Career And A Great Ambassador For Dentistry

Dr. Richard V. Tucker

A dinner in honour of Dr. Richard V. Tucker was held by the University of Washington on the occasion of the annual meeting of the Academy in Seattle, Washington on Thursday October 26, 2006 A "Captains Chair" was presented at the conclusion of the speeches to honour 'Dick' and to represent not only everyone's appreciation for his tremendous contribution to dentistry, but as a recognition of his favourite hobby.

















Banquet Happy Hour























Dr. Bob Keene introduced head table

Banquet Gathering

Head table from left to right: Dr. Robert Keene, Dr. Allan Osborn, Mrs. Kathy Saucy, President, Dr. David Thorburn, Dr. David Bridgeman, Mrs. Hazel Osborn, Dr. Dan Saucy and Mrs. Jean Keene















Announcements

Dr. Scott Barret to present new member certificates to Dr. Susanne Grinnell and Dr. Jody Brennan

A proud father welcomes his son, Dr. Bob Bridgeman

Dr. Elain Neal welcomes Dr. Terrill Brown

Dr. Dick Tucker Welcomes Dr. Del Crowe

President, Dave Thorburn welcomes Dr. Chris Hacker

Dr. Scott Barret presents Dr. Maxwell Anderson a set of Suter Instruments, courtesy of Mr. Mark Ziemkowski of MS. Anne Pellegrin of Jensen Industries

Distinguished Member Award 2006
Dr. Allan G. Osborn

Born in Mount Vernon, New York into a medical family, Allan moved to England in 1938 immediately prior to the war.

In his early years he attended Repton Preparatory School prior to enrolling in Epsom College south of London in 1947 from which he left in 1952 to spend two years in college in Derby, in what is now the Derby University.

In 1954 Allan was a freshman at Sheffield University enrolled in the Dental Degree programme for the six year course. The final three years were without a break apart from the annual three weeks holiday, but entailed clinical and hospital work throughout. During the normal University school periods lectures continued on all subjects. Following graduation he spent a year in oral surgery and orthodontics.

Allan moved to Canada in 1962 and spent time travelling throughout the far north for the Federal Government, including a four month period on the Icebreaker C.D. Howe which went as far north as Grise Fiord on Ellesmere Island.

Allan has served in many positions in A.A.G.F.O. including the education committee, served as President in 1987-1988 and has also operated frequently, and contributed lectures to the didactic sessions on many occasions. He was responsible for the organization of four International Gold Foil Meetings in Europe, including Germany, Italy and Switzerland.

Allan taught with Dr. George Brass at the University of Manitoba for some eight years, and states that this was one of the true highlights of his professional career. George Brass was a long time member of AAGFO and a hard working and brilliant teacher with great strength in all aspects of gold work.

In 1967 Allan was introduced to Dr. Gerry Stibbs in Edmonton, and a lifelong friendship developed as a result of the two week Ferrier Course. Dr. Stibbs played a tremendous part in mentoring and assisting Allan in his career. This in turn led to a lifelong friendship with Dr. Bruce Smith who was another inspiring and helpful mentor.

Twenty five years ago Dr. Norman Ferguson of New Westminster, BC asked Allan to take over as Editor of the Gold Leaf newsletter, something that has been a joy and a contribution to the success of the Academy.

Allan has given numerous continuing education courses in both direct and cast gold, and also several for porcelain inlays using the Bruce Smith rapid firing technique. He was both the Founder and the Mentor of the Winnipeg Ferrier Society which was a gold foil study club for 20 years and is now a cast gold study club in the Tucker Academy of study clubs.

In 1976 he organized the two week Ferrier Course in Winnipeg, and along with Bruce Smith as senior mentor a great course was held. Again in 1981 this time with Dr. Norman Ferguson a two week course was organized and was equally successful.

Allan served as President of the Canadian Academy of Restorative Dentistry and Prosthodontics in 2004 and is also a member of the American Academy of Restorative dentistry. He served as a Board Member of The Operative Academy, and also on the executive for operative for the American Associati of Dental Schools. In addition, he served on the Council on Education for the CDA., the body involved with school accreditation.

Allan and his wife Hazel have two daughters living in BC, one is teaching whilst the younger one has degrees in Marine Biology and Veterinary Medicine.

Dr. Richard Hoard introduced Distinguished Member Awardee, Dr. Allan Osborn

Dr. Richard Hoard presents The Distinguished Member plaque

Allan thanks the Academy for this great honour

Allan and Hazel share the moment together

Secretary Treasurer, Dr. Bob Keene presents Dr. Allan Osborne with a "Suspiciously Light" box with all 50+ Gold Leaf Newsletter Issues

Announcements

New Board, Left to Right: President, Dr. David Bridgeman, President – Elect, Dr. Andy McKibbin, Vice-President, Dr. Edward Kardong, Secretary Treasurer, Dr. Bob Keene, Councilors, Dr. Henry St. Germain, Dr. Joseph Newell and Dr. Richard Nash

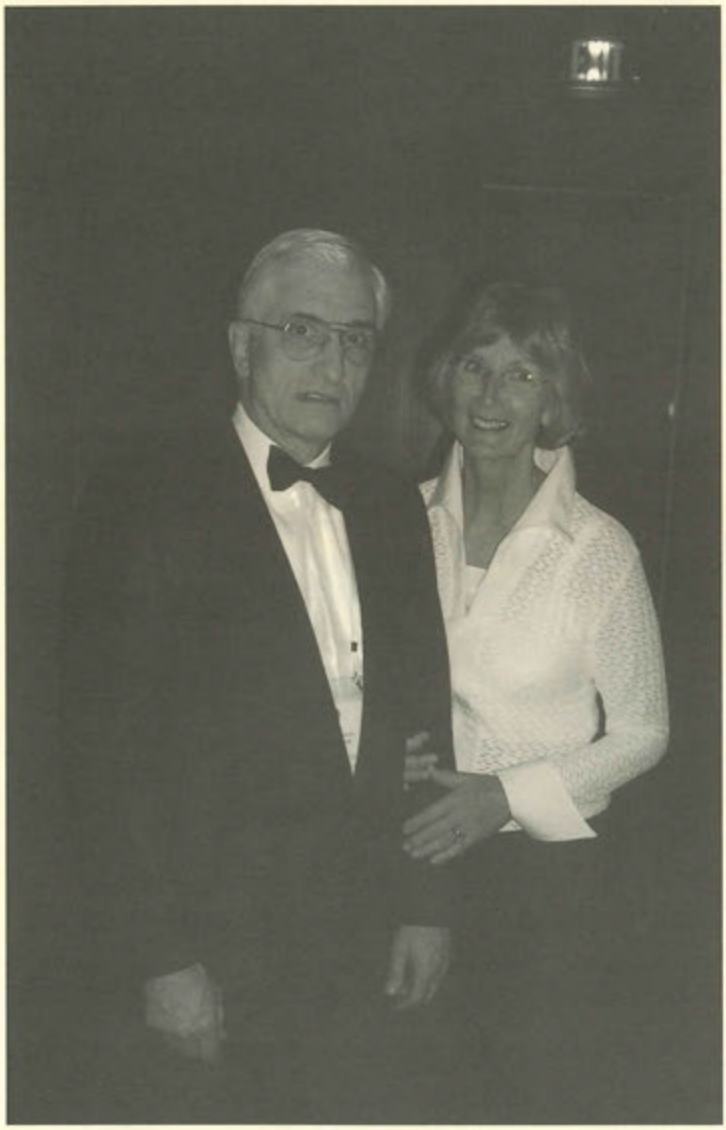
The Bow Tie Academy

The Bow Tie Academy in honour of President, Dave Thorburn

President, David Thorburn thanks the Academy for the honour to serve as President

Incoming President, Dr. David Bridgeman presents the past President's plaque to Dr. David Thorburn

New President, Dr. David Bridgeman declares the meeting adjourned



Dr. Allan Osborn and Mrs. Hazel Osborn

A Short Retrospective

One of the advantages of being in practice for a considerable number of years is that one is able to see the wood for the trees. To see just what is working well and conversely to see where trends that are making rounds are less than ideal, or are not based upon sound principles.

The principles espoused by Dr. G.V. Black, more than 100 years ago remain as valid today, in a refined form that would undoubtedly have been set forth by him in today's circumstances, as they were in those far away days that led to a legitimate genius founding the basis for a fine profession. This I personally witnessed in areas where a toothbrush has, to this day, failed to penetrate, and where, even after almost 10 years, restorations in the most 'trying' circumstances remained sound and fully functional. In good circumstances I now witness many amalgams between 30-35 years old.

My association with Gold Foil has been the most meaningful aspect for me, and has contributed immeasurably to both the effectiveness of, and the satisfaction derived from the profession of dentistry. The members of the foil groups to which I have belonged have eskewed 'fanciful trends' and have always remained true to professional ideals that benefit the patient and prove their worth in longevity of service, and patient loyalty. Particularly helpful has been the knowledge base that it is possible to generate by simple association with, and discussion with, this group of consummate professionals.

Currently we are seeing a trend to excessive therapy aimed at lifestyle improvement. Like may previous endeavours this too shall fade, but it does not take a great imagination to understand that there may be serious consequences from this latest vogue. We all remember the 'high priest' syndrome where the dentist blessed the patient with a turbine and was then followed in quick succession by an assistant who placed the material of choice and dismissed the patient. Lack of refinement will in no circumstances lead to longevity, and GVB would surely turn in his grave were he to witness some of the vogues that have passed in the last 40-50 years.

Finally, I would like to salute all members of the American Academy of Gold Foil Operators for their support and recognition during the last 25 years. It has been a pleasure to help to further this great organization, and to associate with all of you whether past or present members of this Academy.

When Dr. Bruce B. Smith had the vision to found this Academy he performed a dramatic and wonderful service for mankind and equally importantly for dental education. Let us hope that there will always be dedicated men and women to carry forward the beautiful vision of our Founding Father.

Allan Osborn,

Past-Editor

Technical Assistance

Allan Osborn's Visit to General Electric Sensing Plant in Billerica

Mr. Dave Spielman documenting the day's work

In September the Academy received an urgent call from G.E. to see whether we would know where they would be able to obtain a source for the supply of gold foil cylinders for their sensing department. Unfortunately Ivoclar had thrown out the machinery that they had bought from Williams Gold and there was no apparent replacement.

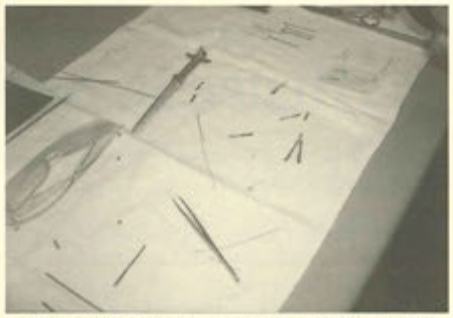
Allan Osborn sent e-mails and made phone calls to determine exactly what they would require, and particularly how great the volume would need to be. The volume turned out to be considerable, and there was no one at the plant with the knowledge to form the cylinders. As a result I made a visit to Boston and thence to Billerica to help solve their problem. With me I took an annealing lamp and the various little tools needed to roll the cylinders in the manner that we utilize. It was necessary to determine exactly what thickness would work for the application on hand, and that was a matter of trial and error which soon proved to be a success.

I enlisted the help of Victor Williams in attempting to track down the original machinery at Ivoclar (no luck) and through Vic was able to talk briefly with Mr. Clyde Ingersoll who was formerly the Chief Metallurgist for Williams Gold. His phone number was then passed to G.E.

The whole day at Billerica G.E. was a delight. The staff were most helpful, enthusiastic and friendly. The plant itself is truly impressive and, as one would expect, is spotlessly clean. We had a little celebratory evening meal afterwards and I have since been in contact with the plant and have been able to determine that the visit has proven to be a great success, and that they are on track to be able to mass produce the cylinders exactly as required.

Allan Osborn

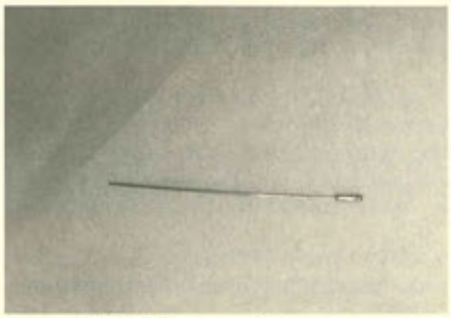
Gold Foil Annealer



The work station – learning the fine art of gold foil manipulation

Assembly of the foil stage

Mr. Wayne . . . reviewing some of his forming sensors



Gold foil prepared for sensor

Enjoying the fruits of our labour

No Caption for 145

Tour

Visit To The Boeing Factory In Everett Washington

Most of those who attended the meeting took advantage of the possibility of a tour around the Boeing Aircraft Factory. This was a very interesting plant, unfortunately they would not allow for any photography so that member participation in the event was not documented in the normal way. During the course of the tour, everyone was encouraged to take part in a survey of new interiors for their forthcoming aircraft.

Boeing by the numbers

• More than 12,000 Boeing airplanes—nearly three-fourthsof all those flying—are in service around the world.

• The Everett main factory is listed in the *Guinness Bookof World Records* as the largest building in the worldby volume. The original factory, completed in 1968,was built to house the assembly line for the 747. It was expanded in 1980 for the 767 assembly line, andagain in 1993 for the 777.

- Today, the factory covers 98.3 acres (39.8 hectares)under one roof. That's 4.3 million square feet (morethan 399,000 square meters) - big enough to fit 911basketball courts. Its ceiling is nearly nine stories—90 feet (27.4 meters) - above the factory floor.
- Each of the hangar doors is nearly the size of a U.S.football field. The smaller doors are 87 feet (26.5meters) by 300 feet (91 meters); the two larger doorsare 87 feet (26.5 meters) by 350 feet (107 meters).
- The building is so large that the factory once created itsown weather-warm air and moisture accumulated nearthe ceiling, forming clouds. The problem was correctedby an air circulation system installed in the ceiling. Thesystem forces the warm air (created by equipment,thousands of employees, and 1 million lights) back tothe ground, keeping the temperature on the factory floorat about 68 degrees Fahrenheit (20 degrees Celsius).
- To make it easier for employees to get around the space,Boeing has 1,300 bicycles on the factory floor.
- The Everett site has its own security and fire departments, afully staffed medical clinic, a childcare center for employees'children, four telephone prefixes, a water treatment plant,its own electrical substations, and 19 cafeterias that serveabout 17,000 meals daily.

Making a difference

- Boeing, the world's largest aerospace company, had$54.8 billion in revenue in 2005, and employs a diverseand innovative team of 150,000 people in 48 states and67 countries. It is the largest exporter by sales in theUnited States, with customers in approximately 140countries. Its commercial division, Boeing CommercialAirplanes, has nearly 900 operators worldwide who ownor lease Boeing airplanes.
- Boeing's charitable contributions in 2005—grants, in-kinddonations, gift-matching programs, and disaster relief-totaled $57.7 million.
- Boeing employees gave $46.5 million to charity in 2005—almost $32 million through their employee-owned charitablefund, nearly $6 million to victims of Hurricane Katrina and theSoutheast Asia tsunami, and another $8.5 million throughBoeing's gift-matching program.

Visit us at www.boeing.com

Secretary Treasurer, Dr. Bob Keene and President, Dave Thorburn introduces and thanks The Father of the Academy, Dr. Bruce B. Smith

Bruce B. Smith, D.M.D., B.Sc.

A native Seattlite, graduated from North Pacific College (University of Oregon) in 1942 with Omicron Kappa Upsilon affiliation.

Taught at North Pacific College (University of Oregon) for one year before entering the Navy in World War II.

After the war, going into private practice with is father, Dr. Nathan H. Smith and taught part time at the new University of Washington, being one of the original faculty, teaching crown and bridge, operative and ceramics for over 25 years.

He served as chairman of the section of Operative Dentistry of the American Dental Association and made a movie on rubber dam application with Dr. Gerald D. Stibbs, now in video tape form in the A.D.A. library.

He is presently in Seattle and was active as leader of the John Kuralti Study Club of Oregon for 20 years. He is currently mentor of a crown and bridge and gold foil study club in Seattle. He was founder of the American Academy of Gold Foil Operators, and served as president, later as president of the American Academy of Restorative Dentistry. He was president of the American Academy of Operative Dentistry and was selected to be a charter member of the American Board of Operative Dentistry. Various papers and publications include: Gold Foil in Everyday Practice, Porcelain Inlays for the General Practitioner (Rapid Firing Technique).

He is a fellow in the American College of Dentists, the International College of Dentists, and the C.A.I.C.

He used to enjoy sailboat racing but now power boating has (almost) taken its place.

From the Archives

Excerpts From an Address Given by Dr. John Mclean Before the American Academy of Restoratiave Dentistry In 1986

In the 1920's we saw the development of what in Europe was actually termed "American Dentistry" in which the gold inlay, the gold foil restoration and porcelain jackets reigned supreme. The pursuit of excellence was epitomized by a slide that I still show of Dr. Walter K. Sproule's work which was already 35+ years old, and in which his immaculate foil and inlay restorations look as good today as when they were inserted.

Dr. John McLean

Turning now to more technical matters, a great deal of 'junk dentistry' is now being done in the name of cosmetics and many teeth are being sacrificed upon its altar. Endodontists have never been busier as the turbines race around their "pencil-sharpener" course and the metal-ceramic restoration has been a bonanza for the commercial laboratory to the detriment of the conservative gold inlay and porcelain jacket crown which demand more skill.

Enamel is still our finest restorative material and who have preserved it more than the Gold Foil Operators? I can understand, to some extent, the pressure upon Deans and their advisors to eliminate gold foil restorations for economic reasons, but they have thrown the baby out with the bath water. The one thing that meticulous foil operating taught the student was micro-preparation using magnification and rubber dam, and today we can add fiber-optic lighting.

One of the main reasons for the International Prestige held by American Dentistry in the immediate pre- and post- war period was their pursuit of excellence using long-lasting and proven materials such as gold or porcelain. In addition, operative dentistry was taught with verve, optimism, faith and perfection. High quality dentistry is cheap, and if I look at my own practice the long term restorations have been the gold inlays and porcelain jackets that were placed around 1950.

Dr. Clifford Miller, Past President of A.A.G.F.O. and Associate Deal of Northwestern Dental School, in a lecture before the Academy stated that the resistance to foil was NOT in the student body but rather the Academic's reluctance to teach something that they had not been able to master themselves.

Honoring the Memory of W.I. Ferrier Essayist Bruce B. Smith

Probably the man to most influence operative or restorative dentistry procedures since G.V. Black was W.I. Ferrier.

Born in Vader, Washington, February 7, 1886, Ferrier passed away November 11, 1965 leaving a great heritage to dentistry. His writings were not great in number but were very informative often requiring further study to absorb the finer details. However, the writings of his students were many and continue to appear today.

Through the use of the #212 Ferrier Class V retainer (one could call it an unbalanced retractor) all Class V operations are rendered much cleaner, clearer and with better operating fields than before.

Another great step forward was the Ferrier Separators. A set of six was designed by him to fit the teeth from the centrals to the large molars. He spent months, even years in their careful design, trying and rejecting time after time. These separators are difficult to obtain today in the complete set. However, through the efforts of Dr. Gerald Stibbs, some are produced in Oregon by the Almore Co. Dr. Stibbs is also responsible for the publishing and editing of the book "Gold Foil Operations" by Dr. Ferrier (University of Washington Press), much of the material in it was originally published in C.N. Johnson's "Operative Dentistry: published by the National Medical Book Co., Inc. N.Y." Both books are now out of print and sought as collector items.

Recognizing Ferrier's unique leadership abilities and his far beyond average operating skills, when the Seattle Dental Study Club was formed in the early 20's, he was called upon to be their mentor. As such he so inspired the men that more gold foil study clubs were founded in Seattle, Vancouver, B.C., Portland, San Francisco and Los Angeles areas. One of his disciples Ernest M. Jones became head of the department of operative dentistry of the University of Southern California, later to become Dean of the University of Washington Dental School. Another, John Ryan, became head of operatives at North Pacific College (University of Oregon).

The discussions that followed and the analysis of the operations led Ferrier to seek out Otto Suter who had an instrument shop in Rainier Valley. To create better operations he designed a study club set of delicate cutting instruments. A set of foil condensing instruments was made in the same careful diligent manner to fit the cavity preparations.

Ferrier's parents were of French extraction and moved from Missouri to the state of Washington. Possibly it was then he learned that success must come from one's own individual initiative and effort.

His dental education was secured in Portland, Oregon at North Pacific College, now the University of Oregon. Upon graduation in 1908 he received the degree of Doctor of Dental Medicine. He was an average student yet always had a soft spot in his heart for the school and upon his death directed that his books be sent to their library.

He practiced first in a small town in northern Washington called Burlington. With only $7.00 and student equipment he set up his office in a hotel. There is a story about an Indian mother nursing a child while he was doing her dentistry. He moved later in 1919 to Seattle, the study clubs and a very successful practice.

His Mercer Island home was beautified by 50 varieties of Rhododendrons which he collected over the years. A beautiful display with varied blooming times.

Going for the Ideal

By Wilmer B. Eames, DDS; 1989 Callahan Award Winner

Following is the speech presented by Dr. Eames at the 1989 Callahan Awards luncheon held during the ODA Annual Session, September 14, 1989.

After reading all the hype from manufacturers in our journals, I am still not sure that I know whether "bonding" is permanent, or merely something to impress my patients.

I never did have much cash flow, so I am not an authority in that field.

And, what are ethics? Who establishes the boundaries without being judgmental? Does being nice have anything to do with integrity? Does smiling a lot give us credence? I suppose that being vague, appearing professional and using scientific jargon in a case presentation may make us appear more knowledgeable.

I would like to respond by giving only the most profound and intellectual answers to these questions.. .but all I can come up with are more questions.

After 50 years in our profession, I can relate to research, but especially to experience as my teacher, rather than dogma.

After 22 years of practice, 1 was invited to become a teacher. I was appalled at how much I had forgotten! I had forgotten that we have a sharp explorer to find "catches" in fissures and dull ones to receive a grade for a restoration.

I had forgotten that an ideal State Board case may not have really needed a restoration at all.

I had forgotten that a few teachers are inflated when they are with their less fortunate students and that students have favorite teachers—those who will punch your slip the first time—without doing anything remedial. To learn something, one didn't necessarily ask a teacher.. .that would make us look dumb! To learn something takes experience —if you are a good learner.

Amalgam

You might recall that 30 years ago we published a paper after five years of experimental and clinical study, suggesting that alloy and mercury be proportioned to an optimum ratio, rather than arbitrarily wringing out excess mercury. It was a simple premise, was accepted cautiously, but it finally enjoyed success as a standard technique.

Some years ago I was invited by the proud owner, to see his office. As I walked through, I watched him condense an amalgam in a pool of saliva. He was completely oblivious to this tragedy. I prefer to think that he was naive, because he was so blatantly innocent. He wouldn't do it if he had thought that he was denigrating himself.

I want to change the tempo for a few moments, to pass on some clinical facts that I have learned about a variety of topics, through experience:

You can improve your amalgams significantly by condensing laterally. Just think "scrub" while condensing.

Use serrated condensers, scrub an increment of amalgam back and forth, against the walls and into the surface of the preceding amalgam to prevent layering. Packing vertically traps voids —a major cause of corrosion and failure. Make every thrust a lateral-scrubbing thrust—and it doesn't require any more effort to get the most out of our most predictable filling material.

The spurious amalgam toxicity fraud that has permeated our profession has no more validity than my claim that I can cure the incurable common cold. Every patient who ever came to me with a common cold was cured within ten days or so after I placed an amalgam filling.

Residual Caries

During the years that I practiced, 1 saw patients who had received the services of one of the kindest and best-liked fellows that I have known. He was gentle and served the community for many decades before retirement. I never heard him criticized by his patients. He placed shell crowns without contouring them, and the contacts were open.

Although I found residual caries under most of his fillings, he had told his patients that he was going to "leave just a little cushion of decay, to protect the nerve of the tooth" —I was never taught this in school, and no one teaches it to this day. But studies have shown that we sometimes leave caries unknowingly, and that even the school instructors didn't see it much of the time.

But 1 learned from experience and from credible research investigators that slowly progressing caries stimulates sclerotic dentin —there isn't anything else that will —not calcium hydroxide or any known treatment that will stimulate nature's best protection, sclerotic dentin. But for the record, I am not, of course, advocating leaving decay.

Smear Layer

Some authorities' believe that the smear layer is at least as effective to clog and protect the tubules as the use of varnishes. And yet, some researchers have provided you with irritating substances that will dissolve the smear layer, so that the bonding agent will enter the tubules, and thereby gain retention and prevent leakage. There are no long-term clinical studies to support this conclusion, even if the pulp survives. In primate studies of our own, many years ago, we found that a couple of smear-layer removers killed pulps. So, don't use them on monkeys.

All of us have been producing the "smear layer" for all these years, and now its presence is accepted by some, as an entity in preparing a tooth, but as a detriment by others. So, 1 have decided that if I garnered only half the market, it would be worthwhile to sell smear in tubes, and call it "Schmeer" and promise the dental consumer that it would do everything that it had been reported to do. As sales zoomed and competition from entrepreneurs became stiff, I would provide New and Improved Schmeer. Then, I would hit the circuit and put on continuing education courses, worth six hours of credit.

Price List of the Dentists of Jacksonville.

OPERATIVE DENTISTRY.

Filling with Gold, smallest crown cavity	$ 3
Large and more difficult cavities	$4 to 10
Nerve cases, and those requiring treatment, from	$5 to 20
Filling with other material than gold	$1,50 to 5
Extracting Teeth	1

MECHANICAL DENTISTRY.

Single Tooth	$8 to 10
For additional teeth, each	4
Full Upper and Lower Sets, on Rubber	65
Full Upper or Lower Sets	35
Full Upper and Lower Sets, (temporary)	35
Full Upper or Lower Sets, (temporary)	20

Signed,

Postoperative Pain

If our patients come to us for the purpose of receiving a restoration in a tooth that has been without symptoms, and he leaves our office with a tooth that is hypersensitive, we will have to know that the tooth was traumatized by something that we did.

A simple remedy for this is supported by our own studies and by experience: Cut the tooth with high-speed and light pressure, intermittently—on a half-second and off a half-second. And, to prevent tremendous heat build-up, use 16 ml of water spray per minute. It is easy to measure. And then, without over-drying, coat the preparation with a very thin varnish, covering the dento-enamel junction, because that is where the pain is most intense. Try it on an un-anesthetized tooth: run an instrument over the dentin and you will elicit virtually no pain —until you hit the DE junction, and that will send him up the wall.

So, for much less post-operative pain: Cut intermittently, using 16 ml of water/minute and coat the dentin and DE junction with varnish.

A Couple of Unrelated Topics

There are two important truths, which may be controversial, but are thoroughly tested, and are worth considering on behalf of your patients.

1. Home care instructions:

[redacted]ral bristle brushes and the vigorous use of toothpicks daily will prevent, and often serve as treatment of, periodontal disease. Bleeding "gums" are not caused by these procedures, but "bleeding" is simply a symptom that this daily course of treatment is needed. The manufacturers have long held that their brand of soft-bristled brushes are kind to the tissues, but the gingival tissues suffer from lack of stimulation. Toothpicks were banned when I was in school. We now know positively that when used early in adulthood, the daily pumping action of interdental stimulation will prevent periodontal disease, even though toothpicking is not thought to be acceptable socially.. .excepting behind closed doors.

2. The casting misfit:

Castings cannot seat unless relief is provided (internal etching) or die-spacing is used. There are no exceptions, and there is sound data and clinical experience to support this. Burnishing, "rolling," and "adjusting" any elevated margin is a fruitless procedure in an attempt to overcome a built-in error that is always present during the wax-up, investing and casting procedures. Die-spacing is the most commonly used, successfully.

The Aught Series Bur and the Pogrin Tider

There is much to be said for the conservative cavity preparation. Markley and others have described the use of the #329 pear-shaped bur. I want to briefly describe the ultimate Aught Series bur, designed years ago and which has been proven to be the nostrum of our age. Burs are generally made for specific needs and for specific teeth.

Consequently, I designed the Aught ("0") bur, which is without a head and is used for congenitally missing teeth. We have never had this before. It is also useful for geriatric teeth —Geriatrics is very big in research circles [redacted]—which have never exhibited carious lesions and is useful prior to using [redacted]ants unnecessarily. This is a practice-builder, and a detailed description of this ignominy in dentistry is contained in the referenced publication.

Advertising

G. V. Black was an advertiser. A friend of mine said, "Don't tell me that!" But here is an example (Figure 1). The ads with the dentures at the top were posted around Jacksonville for all to see. He wasn't giving discounts to seniors or claiming to be "gentle" in the yellow pages. And, Dr. Black and his colleagues fixed fees, as seen here Figure 2). They agreed to hold together and the ambience and character of their work are depicted in this elegant border.

The final line is, of course, that Dr. Black learned through experience and study that he found it exciting to be a perpetual student. He became our hero because he knew that integrity, dedication and honoring his own unselfish beliefs were most rewarding.

Dr. Black found that giving of himself was right, and that made him feel good. Passing his techniques and philosophies on to his fellow dentists, he gave away so much of that which he learned—through experience.

Your Own Clinical Research

When I first began to teach, after years of practice, Dr. Eugene Skinner said to me most emphatically and earnestly, "I would give a lot if I could get into the files of those dentists out there. There is a wealth of information in those files!"

So, I am respectfully suggesting that you, as individuals, could find your dentistry extremely rewarding if you would keep records of every procedure (some of you do) making notes or charts of the manufacturers of materials, [redacted] the procedure was done, and the post-operative follow-up of observa[redacted]s—even including photographs. You could build an enormous volume of information that would be extremely valuable to you and your profession. Those of you who enjoy our profession would gain great satisfaction by sharing your efforts.

Didactics

Our schools are suffering a dilemma. Educational institutions often demand additional degrees as a prerequisite for employment. The wealth of experience from practicing dentists may often be overlooked. These experienced professionals can't compete in rank and tenure, in some instances, because of their lack of academic training. This is highly controversial, but perhaps too much research is being done in the name of science. Manufacturers may not be capable of providing us with well-documented and unbiased information.. .but you can, and you can encourage your fellow professional teachers to accept the years of experience that you have to offer.

It isn't enough for our students to graduate with the necessary "requirements." They have the right to expect truly dedicated and knowledgeable people to train them, and perhaps, many of them need more time.

Long ago, I realized that our students needed an additional year of clinical experience, like an internship, to give them time to develop those skills necessary to fully cope with the demands of our profession and not with the stigma of being "held-over." This thought has been resoundingly dismissed, of course.

Perhaps most of all, we have the responsibility of ingraining the essence of that treasure of integrity in the students and thus into the profession.

And, we can no longer blame a faltering profession, when we have the total capacity of 'going for the ideal" ourselves. So, only we, within ourselves, will know this.

Dr. Eames is Professor Emeritus of Emory University

The Case for Gold Foil

Opening address at Fourth Annual meeting of American Academy of Gold Foil Operators, Oct. 14, 1955 - San Francisco, California.

ALLISON G. JAMES, D.D.S. Beverly Hills, California

It was one hundred fifteen years ago this next month of November 1955 that the first group of students entered collegiate discipline for training in dentistry. In March of 1840 the Maryland legislature authorized the founding of the Baltimore College of Dental Surgery. With the fulfillment of this act, dentistry emerged truly as a profession in America.

In this 115-year span, the emphasis during the first 55 years was primarily upon the physical and mechanical features of restorative dentistry. This element predominated in the teaching of dentistry in the colleges of the country, and even in the face of warnings, persisted into the 1920's. Exceptional practitioners of dentistry over the years had felt the lack of training in the basic sciences and a deficiency in their knowledge of the biochemistry of the human organism as it affected their dental activities. The thirst for wider knowledge of dentistry among the upper echelon of practitioners led to the formation of study groups. One such group, founded in 1912, soon learned the limitations of their self-directed seeking for knowledge and felt compelled to employ for instruction the services of a qualified

biochemist. When the speaker entered dental college in 1922, the student interest and attention was primarily concentrated on technics and clini-ical units in operative and prosthetic procedures. The rapid advances which had occurred and were occurring in various technical procedures had made American dentistry unsurpassed in the world in that phase. Nevertheless, the paucity of sources

* Opening address at Fourth Annual Meeting of American Academy of Gold Foil Operators, College of Physicians and Surgeons, Oct. 14, 1955. (Meeting held jointly with American Association of Dental Examiners). San Francisco, Calif.

of instruction in the basic sciences of histology, histopathology, growth and development, biochemistry, etc., caused the colleges to turn to Europe for teaching staffs in these subjects. Dental medicine in Germany and Austria had advanced far beyond the general American level, but restorative dentistry in all its phases had lagged sadly behind this country. Most of our European importations occurred in the two decades 1920 to 1940, and their influence is today at its peak in effect upon the profession. Great advances are occurring in pe-riodontia, understanding of growth and development, and allied subjects. There appears now a trend allowing the biologic concept to overshadow restorative procedures and to relegate them to the less important position. Nutritional enthusiasts have seemed to feel that a dietary control plan for dental caries was ample excuse for faulty restorative procedures, and inferior but temporarily esthetic filling materials.

Dentistry has not been alone in this trend. Alert medical hospital staff officers some time ago recognized that the introduction of sulfonamides, antibiotics, wonder drugs, was encouraging less meticulous surgery, especially in abdominal fields, with consequent postoperative complications. This led to a general sharpening up of surgical procedures.

In Dentistry the pendulum has swung from the early mechanistic extreme to the opposite, and it is time now to re-examine the status of dental practice. Dentistry is concerned with the control and prevention of dental disease, which primarily consists of dental caries, a disease of the hard tissues of the tooth, and with pe-riodontal lesions, affecting the supporting and investing structures of the teeth.

Paffenbarger in a recent article stated that because enamel has little or no ability to repair tissue destruction—as do all other body tissues with the single exception of the lense of the eye—much of dental therapy consists of surgery of the hard tooth tissues and of artificial repair with inert materials. These constitute the only known methods to repair the gross ravages of dental caries. These biomechanical procedures, which constitute the overwhelming majority of dental health service procedures, are both reparative and preventive.

The heart of dentistry lies in restorative procedures. The ideal of dentistry lies in prevention. Masterfully effected restorative dentistry constitutes one of the great factors in prevention.

This brings us to the Case for Gold Foil. No dentist would have the temerity to contradict that a gold foil restoration, where properly indicated and where properly placed and finished, constitutes the most permanent and enduring restoration of missing tooth substance possible. It must be realized, however, that gold foil fillings as propounded and practiced today are not identical with the procedures taught some thirty and more years ago. The basic principles outlined by G. V. Black many years ago still hold as true as ever. There have been, however, marked advances in cavity design and preparation. This has been made possible through the designing and manufacture of instruments of delicacy, refinement, and quality unknown many years ago. Added to these, the development of improved condensing instruments has facilitated and expedited the placement of enduring gold foil restorations. The result is one of the most economically satisfying procedures for both dentist and patient.

Indiscriminate use of gold foil through over-enthusiasm may well result in failures. But it is a well noted fact among practitioners habitually using gold foil where definitely indicated, that patients after experiencing their first such operation become as enthusiastic as the operator. When it is discovered that gold foils can be made relatively inconspicuous, the feeling of security and perfection offsets previous conceptions. The gold foil situation is very similar to that of patients faced with the necessity of full dentures: they have only seen the bad dentures—the good ones are never noticed. When their fears are proven groundless, they become staunch advocates for good dentistry and good dental health.

What of the dentist and gold foil? It has been the speaker's observation, and the view has been substantiated in all discussions with other observers, that the operator adept in gold foil invariably is an expert in all other operative procedures. It is a matter of common note that practitioners entering gold foil study clubs and receiving adequate and ample instruction in cavity preparation very quickly sharpen up their cavity procedures for all types of torations accordingly. It has been very interesting to note in so many cases observed, the improvement in inlay margins in finished cases produced by practitioners after their participation in gold foil study clubs. It is almost axiomatic that a good gold foil operator is a good dentist.

What of gold foil and the student? An enthusiastic professor of operative dentistry —a superb operator in his own right, and one who has the ability to instill enthusiasm not only in his staff but in his students —has stated that he has found gold foil to be the most valuable instrument at his disposal for:

1. The teaching of refinement in restorative procedures.
2. Instilling a lasting respect for tooth structure in the minds of young preprofessional men.
3. A means of increasing digital dexterity and skill in the use of delicate cutting instruments.
4. The best means of teaching application and usage of the rubber dam, and proper adjustment of cervical and posterior clamps.
5. The imbuing of young men with an artistic sense and the type of idealism so essential to the ethical practice of the health profession, which in itself justifies the teaching of gold foil.2

It has been the speaker's pleasure to observe numerous operators in action who have been trained by this teacher quoted and his staff. The perfection, speed, and facility attained by these operators has been most impressive. Furthermore, the same characteristics have extended to all other procedures undertaken by these dentists. Similar results have been produced by teachers in other parts of the country, and the effects of gold foil study clubs upon the practice of dentistry have put their stamp upon the character of practice in those areas where they exist and progress.

It is the intention of this American Academy of Gold Foil Operators today to demonstrate for your interest the procedures of gold foil operative dentistry as practiced today. This is not pure demonstration: it represents the actual types of operative procedures carried on daily in the offices of those demonstrating. You will note the facility in placing the rubber dam each of these men will demonstrate. It is likewise notable that operators accustomed to the use of the rubber dam for gold foil use it for almost all other operative procedures in the mouth. The late Jimmy Prime manufactured a pamphlet giving 57 reasons for using the rubber dam: it would appear that he had to labor and occasionally resort to repetition to produce this number but at the same time he had in there a great many valued points. There is one, however, which in the memory of the speaker at least, is absent, and it is one perhaps more important than many others: that is that there is light available on the actual field of operation almost three times that available in the same area when there is no rubber dam in place. This statement applies to the use of the dark rubber. Many of us have experimented with light, medium, and heavy weights, and varying opinions exist in this, each substantiated by the operator's individual preference. It has, however, been found advisable to use the dark rubber, since the light colors reduce the contrast and tend to produce a glare, fatiguing to the operator as well as obscuring to detail.

In summary, then:

1. The purpose of the practice of dentistry is the treatment and prevention of dental disease.
2. Since much of dental practice must be reparative in nature, only the most effective, most enduring, and most preventive measures should be used. The permanent improvement and maintenance of the patient's dental health is paramount.
3. Gold foil most nearly fulfills these requirements in the largest number of cases; but should only be used where positively indicated, and within the capabilities of the operator.
4. Every measure contributing to the development of better dentists should be employed in the schools, should be encouraged by the profession, should be fostered by the Boards of Dental Examiners. To that end, the American Academy of Gold Foil Operators sincerely solicits your continued interest and approval of gold foil technic as an examining measure for competency to practice dentistry.