

For dentistry, a procession of changes

By ROSEMARY JONES
Of The Morning Call

It's a pleasant room — restful, really. Vertical blinds obscuring the rush of traffic outside match the earth-toned wallpaper, and the massive tan chair which dominates the space looks cozy enough for a snooze. A few warm oak cabinets, a low stool near the chair, complete the furnishings. But as of today, there have been few visitors to appreciate the atmosphere.

This is Dr. Terry Marcincin's new place of employment.

One of only 15 dentists in his class of 109 at the University of Pittsburgh to establish his own practice at the start of his career, Marcincin opened his office in mid-November and admits it will be awhile before his appointment book is filled. But when patients do begin to arrive, the office surroundings they see, deliberately designed to produce a feeling of calm, will be only the outward indication of the changes that have taken place in dentistry over the years.

Every adult can remember the sterile white walls, the drill hanging ominously over his head, the tray of formidable-looking in-

struments displayed at eye level. It's all gone, and so too are many of the reasons for being there in the first place. Because of the many advances in the field, checkups are often no more than a routine twice-a-year tooth cleaning. Filling cavities, especially in youngsters, is becoming less and less a part of the dentist's work.

Said Dr. George Kirchner, who has been practicing in Allentown since his graduation from the Medical College of Virginia School of Dentistry in 1970, "Thanks to fluoridated water and fluoride treatments, we may not be doing as many fillings as before, but

we're certainly not going to be out of a job. There's more emphasis on cosmetic dentistry, for example. Nearly 25 percent of my work is now in that field. Also, there's more adult orthodontic work being done — not just for appearance' sake, but because people are becoming aware that a proper bite is important. If abnormalities are not corrected, they can cause problems in later life. And orthodontic work can also prevent periodontal problems [gum disease]."

One who has seen and participated in

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THURSDAY
DECEMBER 29, 1983

THE MORNING CALL

SECTION D

a.m. MAGAZINE

His craftsmanlike approach led one patient to dub him the 'Michelangelo of dentists' and he considers his work in facial aesthetics to be a person's crowning glory

THE \$15,000 SMILE

By JOE KITA
Of The Morning Call

Like many of us, Dick Dean could never star in an Ultra-Brite commercial. His teeth were the scarred survivors of many years of oral warfare and his smile was anything but dazzling. Friends said he subconsciously lowered his head or covered his mouth with his hand when he grinned. Some even speculated his beard and mustache were worn to distract from those surly whites.

Dr. Thomas Balshi noticed these idiosyncrasies and offered to help.

"A healthy smile is becoming more and more of a necessity today," said the Bethlehem native who practices dentistry in Fort Washington and lives in Gwynedd. "It speaks of the person and shows he has the intelligence to recognize the advantages of having a nice smile. We've worked on businessmen, secretaries, politicians, clerks, race car drivers, movie stars and nobility from India — all people who realize that looking good is important."

Balshi, 37, does much more than yank teeth and fill cavities, however. He is to dentistry what Julius Erving is to basketball, a craftsman in an arena where art is not often recognized. He talks of sculpting canines and painting incisors. In fact, one patient called him the "Michelangelo of dentists." Another speaks of his new teeth as a piece of art, a Balshi creation, that he is privileged to display.

Prosthodontics is the specialized branch of dentistry that deals with the restoration and replacement of teeth, and Balshi is one of its most noteworthy practitioners. One of only 500 board-certified prosthodontists in the world, he is a creator of caps and a builder of bridges. He is an ivory wizard who takes a decayed, unsightly tooth and rebuilds it into a healthy, polished specimen.

"Prosthodontics concentrates all its skills and science on helping make your mouth, teeth and face work right, feel right and look right," stated the dynamic Balshi, who drives a Porsche with CROWNS inscribed on its license plate.

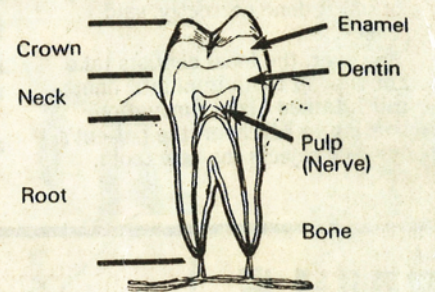
What makes Balshi's work unique is not the actual process of restoring and capping teeth (that's been practiced for many years) but rather the way he uses existing materials and his attentiveness to detail. Your family dentist can make a respectable set of crowns or an acceptable bridge but he probably won't take the time to make those false teeth exactly match your originals in color and size, going as far as to simulate cracks or wear areas in the teeth and installing a fake filling or two.

Although some dentists use nickel and chrome for economic reasons, Balshi insists on gold, platinum and porcelain for his reconstruction. In addition, and most importantly, through meticulous measurements

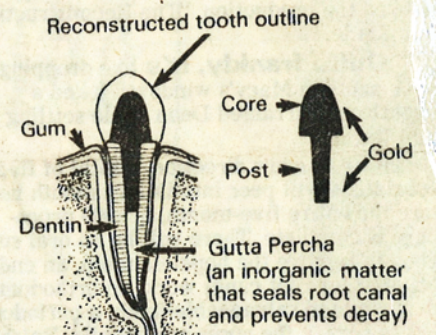


Morning Call photo
— Dick Dean

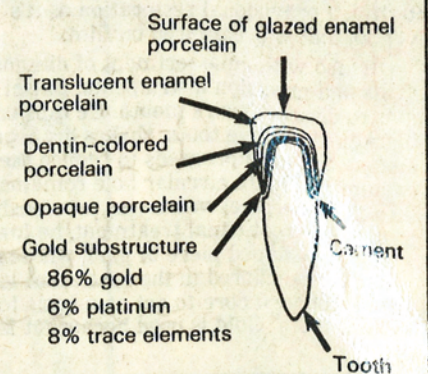
PARTS OF A TOOTH



REBUILDING A LOST TOOTH WITH A GOLD POST AND CORE



LAYERS OF A CROWN (Porcelain fused to gold)



Porcelain is fired at 1800 degrees F. There are four layers of porcelain, beginning with opaque porcelain fused to a gold substructure. Then comes the dentin-colored layer to match patient's teeth, a translucent layer to give it vitality and finally a glazed-enamel porcelain for protective shine.

and fittings Balshi will make his non-removable dentures feel like your own. And since they incorporate no plates or metal hooks there is a degree of comfort, he says, many patients never reach with their family dentists. Once his work is complete, he'll even recommend hairdressers, cosmetologists and plastic surgeons to complete your new look.

Yes, rather than running a simple dentist's office, Balshi likes to think of his headquarters as a center for facial aesthetics.

"There is a lot of personalizing that goes on here," explained Balshi, a clinical associate professor at Temple University who will be teaching a course on aesthetics in crown and bridge next year. "Everything is custom made. I have more than a dozen technicians working for me in our own laboratory. It's the only way I can guarantee myself the kind of work I need."

Naturally, perfection has its price and, in this instance, it is quite high. According to Balshi, costs can range from \$500 for the restoration of a single tooth to \$30,000 for a completely rebuilt mouth. Interestingly, it is not the gold or porcelain that raises the price but rather, Balshi says, the vast amount of research that goes into building a smile. Balshi uses four different cameras to take pictures of a patient's teeth and makes a plaster cast of each mouth. Involved in the actual construction of the crowns are 72 steps, ranging from the initial making of the molds to their final cleansing. None of it

Dr. Thomas Balshi, above, says spending big money for your mouth is just a matter of priorities. At right, Dick Dean, feels his smile was well worth the price.



Morning Call photo
—Joany Carlin

comes cheaply. Mr. and Mrs. Charles Hartman of Ambler paid \$25,000 for their dual smiles, and Alvin A. Clemens of Harleysville paid nearly \$18,000 for his crown jewels. In most cases, such work is covered only partially by dental insurance.

"Sure it's a lot of money," said Thomas Force, a doctor of obstetrics and gynecology who wears 23 of Balshi's crowns, "but I consider it an investment which has returned peace of mind and comfort."

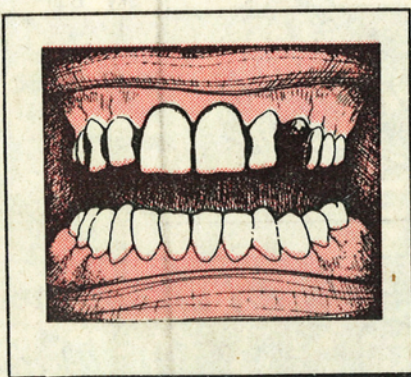
"Compare your teeth to a new car which you drive 24 hours a day through vanilla ice cream and chocolate fudge car washes," explained Balshi. "Then you grind on it. How long do you think that car will

last? People gasp at spending \$10,000 on their mouths but yet they'll spend \$12-14,000 for a car and trade it in for another three or four years later. It's a matter of priorities."

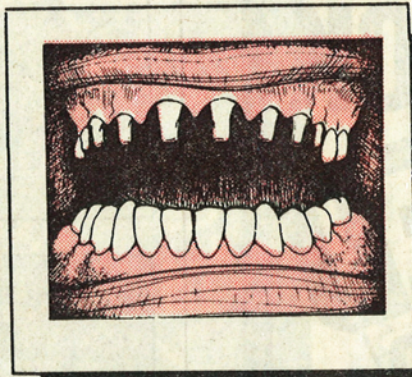
After many years of procrastination, Dick Dean shuffled his priorities and decided that an attractive smile was important. The station manager at Channel 69, he met Balshi on "Talk With Your Doctor," a weekly medical discussion program which he hosts. Dean was impressed by Balshi's enthusiastic approach to dentistry and intrigued by the idea of recording the restoration process on film. Thus, he found himself in Balshi's

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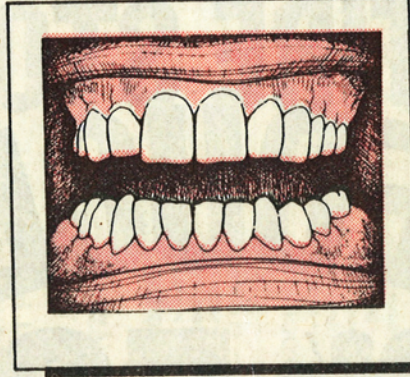
The science — and art — of crafting better teeth



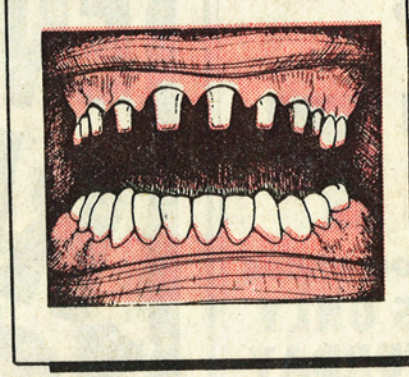
1 When Dick Dean came to Dr. Balshi his upper teeth had major problems. Crowns on the two middle teeth were old and discolored. The two teeth adjacent to them were decayed and discolored. The canine on the right side was decayed to the gum. Previous fillings had darkened two teeth beyond canines. The lower teeth were in better condition and needed less drastic work.



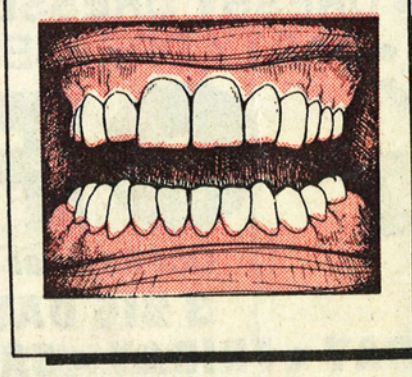
2 To correct the problems, first the old crowns were removed. Then the decayed areas of the teeth were filed away. In the right canine tooth, where decay reached the gum, a gold post and core were inserted into the root canal as shown in accompanying illustration.



3 A provisional restoration made of acrylic was cemented into place for one to two months. The temporary teeth matched the original healthy teeth.



4 When provisional teeth are removed and cement cleaned away, platinum crowns are fitted over what is left of the teeth. Then crowns are taken to lab where 1 to 2 millimeters of porcelain are fused to them in a kiln. For rigidity, all eight porcelain teeth are fused as one bridge and anchored by the patient's own teeth.



5 Final restoration is cemented into place after hours of careful measurements for a proper bite. From then a patient must spend about 15 minutes daily on oral hygiene including flossing to keep the gums healthy.

SMILE

►Continued From Page D1

fices recently surrounded not only by dental assistants but by a WFMZ camera crew, which recorded the proceedings for a future edition of "Talk With Your Doctor" and an educational documentary. Balshi fondly dubbed the production, "The Reconstruction of a Smile."

"Quite frankly, it's like dropping your pants in Macy's window," joked a slightly embarrassed Dean while settling into the chair.

Under Balshi's direction, a total of five specialists will peer into Dean's mouth before the entire five-month, \$15,000 procedure is complete. There will be an oral surgeon to remove the hopeless teeth, an endodontist for root canal work, an orthodontist to straighten salvageable teeth, a periodontist to survey the gums and, finally, Balshi himself, the prosthodontist, who will install the new teeth. Dean had three appointments readying him for the actual 90-minute on-camera treatment in addition to some preparatory oral surgery and root canal work. It was the placement of eight new teeth by Balshi, a provisional restoration as it's called, that was captured on film.

Armed with an assortment of diamond drills and precision instruments, Balshi begins to dissect Dean's mouth. He taps on a blackened left eye tooth, shakes his head in dismay and then proceeds to reduce the decay until a small, circular hole remains. Into that aperture, which was previously prepped by root canal treatment, he lowers a teardrop-shaped piece of gold, whose slender post is anchored in the root canal leaving the rounded core to act as a basis for the new tooth. Gold is used because it is a

biocompatible material which is both strong and non-toxic. Mixed with a little platinum it will withstand the high temperatures required to bake the porcelain over it. Warning Dean not to be alarmed, Balshi taps the apparatus into place with a small mallet and waits for the cement to harden.

Next Balshi moves to a front tooth, one that was chipped in a childhood bicycle accident and subsequently covered with a plastic veneer crown. Balshi cuts through that cap as if it were a piece of cream cheese and continues to reduce the existing tooth until it is of sufficient proportion to build a new crown upon.

"Am I hurting you?" Balshi continually asks, being prompt to apply more local anesthesia if needed.

Balshi diverts his attention to Dean's right lateral incisor, a broken tooth but one that has a healthy root. After a bit of canal preparation, he screws a delicate gold post into that root and cements it into place. Using this pin as a framework, the doctor uses a resin-based bonding material to rebuild the broken tooth, forcing the putty-like substance into the cracks and layering it where the tooth is particularly shattered. A small light is then directed at the plastic to harden it. When cured it will act as reinforcement for the existing tooth.

"My grandfather used to carve little animals out of peach stones," commented the steady-handed Balshi of his curious blend of art and science. "Maybe that's what influenced me."

The rest of Dean's top eight teeth are prepped in a similar manner, a bit of burnishing here, a smidgen of shaving there. After they are cleansed with peroxide, the one-piece provisional restoration is slid into place, its sharp edges slipping just under the gum line. Balshi checks the fit, removes

it and files some more.

"This is where I try to show the real Dick Dean in his teeth," explains Balshi, who worked his way through college building bridgework for other dentists. "This is where the customizing comes in, where the perfect imperfections are created. Nobody has teeth lined up like tombstones although I'll never forget a professional gambler I worked on once. He wanted his teeth capped bone white, so white it would distract his opponents when he smiled at them."

The doctor studies Dean's facial features, asks him to smile and then decides the lateral incisors need to be shortened. After removing the provisional, he outlines each false tooth with a diamond disk to make it look separate and distinct. He even creates a small space between the front teeth, something Dean had throughout his life. Finally, with a delicate artist's brush he paints the teeth, adding a touch of orange to the necks and a bit of darkness to the canines. The final step of the procedure involves filling the inside of the provisional with cement and installing it.

Actually, this is only a temporary set of teeth or a "diagnostic tool" as Balshi calls it. Dean will wear it for two months during which time he will be periodically checked for comfort and fit. The permanent restoration then, which will resemble a row of eight, individual, porcelain-covered gold thimbles, will be as custom as possible. They will look and feel completely natural besides being permanent. They will mimic the real teeth in hardness and delicacy.

According to Balshi, who had his mouth completely rebuilt 15 years ago, there are 30 million to 60 million people in the United States who wear full or partial removable bridgework. He says 75 percent can be helped by fixed prosthodontics enabling

them to do away with the metal hooks and plates, the Poly-Grip, the nighttime denture soaking and the restricted diet. "The problem," he says adamantly, "is that 99.9 percent of them don't know this option is available."

"A lot of people in the dental profession are dubious of implants and elaborate crown and bridge work," explained Dr. Richard H. Shulman, an oral surgeon practicing in Lansdale and Ambler. "They haven't had a lot of experience with them so, understandably, they are a bit skeptical. Many dentists are quite qualified and routinely do work like this competently but for elaborate and optimal aesthetics, specialists are needed. Naturally, there's a lot of money for general dentists in caps and because of that many of them will take on this type of work."

"I've never recommended any of my patients to a prosthodontist," said Stephen Eingorn, a general practicing dentist in Bethlehem. "I went to the University of Penn and we had very extensive training. I'm not dubious of what Dr. Balshi's doing. He's an excellent practitioner and it's an excellent procedure but only if it needs to be done. Most general dentists can do crown and bridge work competently."

"It's not a panacea for everybody," pointed out Dr. Robert Azarik of Perkasio.

According to Balshi, the entire situation is analogous to visiting a family doctor after you break your arm. If the break is simple, Balshi explains, he'll be able to set it successfully, but if it's complex you should seek the expertise of an orthopedic surgeon.

Balshi says an operation like Dean's can help people with removable partial dentures, missing teeth or existing teeth that are in bad condition. He contends that in ad-

dition to the evident physical problems stemming from bad teeth, like improper chewing and gastro-intestinal disorders, there are numerous psychological and emotional problems that can arise. "Businessmen tell me they think if they look better they'll have a better chance at advancement," explained Balshi, who was recently asked by the Indian government to lecture their dentists on prosthodontics. "Plus with bad teeth they feel older, less virile or feminine."

While Balshi, who is the national public education chairman for the American College of Prosthodontics, refers to his work as permanent there is a chance that it might wear out and have to be redone. That's why he stresses attentive maintenance which includes 10-15 minutes of mouth cleaning a day. "You wouldn't have a pacemaker installed and then forget about it," he says. "Nothing will happen to the gold and the porcelain but the gums and teeth underneath are still alive and you have to keep them healthy."

"It's quite an uplifting feeling to see the change that comes over some people," continued Balshi, who has worked on Mario Andretti and Joni Sledge of Sister Sledge. "I get a bang out of it."

"I used to wear a mouth appliance," remembered 39-year-old Marion Messick somewhat painfully. "Food collected in it, the bands cut the side of my mouth, I kept Poly-Grip in business, and it gave me headaches and neck spasms. I finally came to see Dr. Balshi and when he put my new teeth in I actually cried. It's a high price to pay [\$12,000 in this case] but even if it took a lifetime to pay for it, I'd do it again."

"This means I can start smiling again," said Dean, while grinning proudly into a mirror which aptly reads: "Hollywood, here I come!"