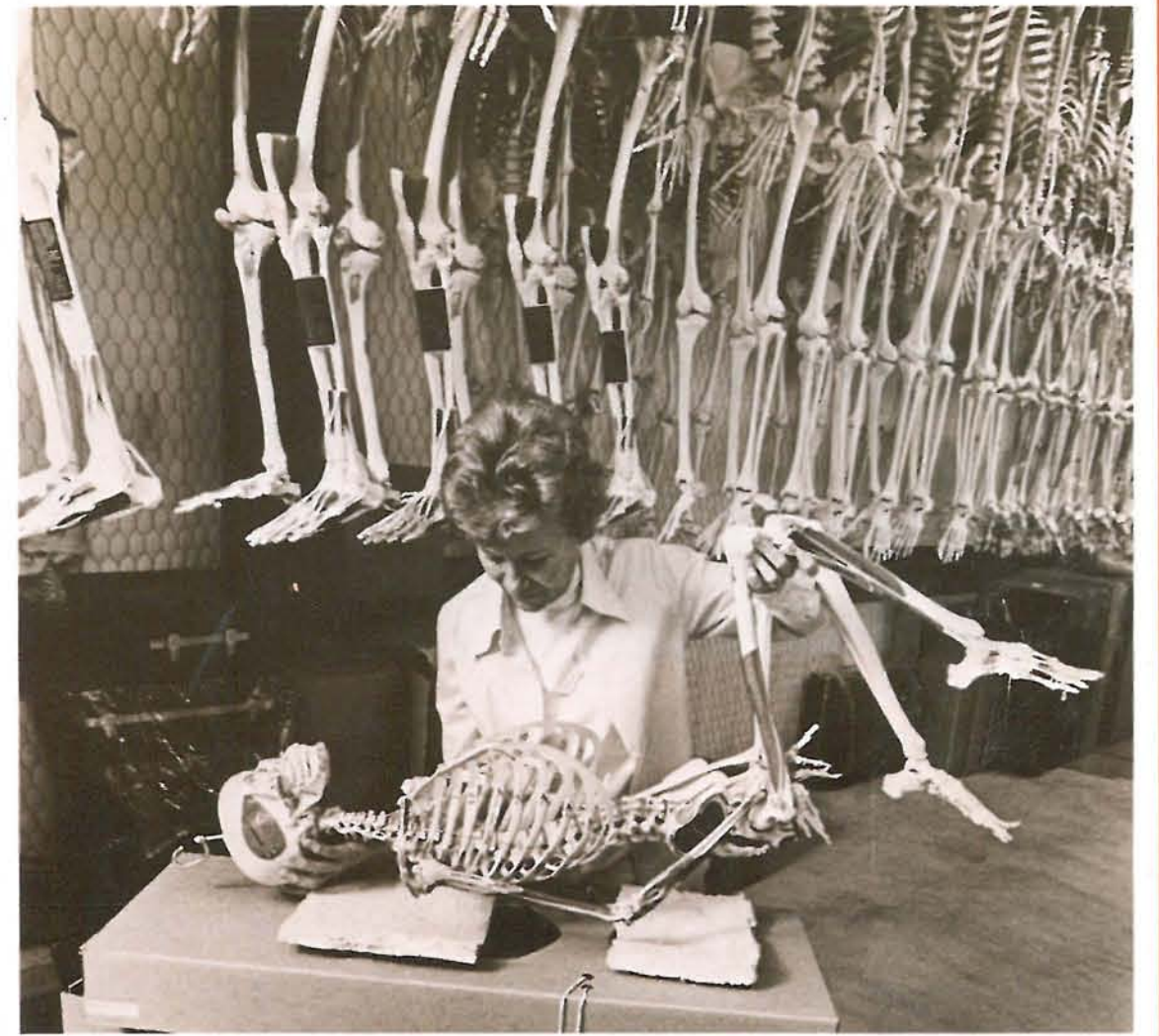


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An award-winning magazine that covers the whole range of your interests — professional and personal.



THE SKELETON FACTORY

TIC

37th YEAR OF PUBLICATION

NOVEMBER 1978

VOL. XXXVII NO. 11

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of the Month: Football coach Woody Hayes discussing drug charges brought against a former player of his, Archie Griffin, said of him: "He doesn't know anything about drugs. He still thinks uppers are dentures". . . Hats off to American technological know-how and to our brainy scientists. We've got zip-open cans, throw-away razors, electric toothbrushes, plastic bottles, roll-spray-pad-and-cream deodorants, and now the scientists at Michigan State University have come up with a dripless ice cream cone. No more ice cream running down the cone producing sticky fingers or stained clothing. Apparently the new ice cream resists the laws of thermodynamics for 20 to 40 minutes, long enough even for a slow ice cream lick to finish his cone. Alas, no more ice cream that's finger-licking good. . . What Can We Expect of An Educated Man Today? "He must keep his head, and use it. He must never push other people around, nor acquiesce when he sees it done. He must decline to be carried away by waves of hysteria. He must be prepared to pay the penalty of unpopularity . . . He must insist that freedom is the chief glory of mankind and that to repress it is in effect to repress the human spirit." — Robert M. Hutchins.

WHAT NOISE CAN DO

Noise pollution is a definite threat to one's health, according to a University of Wisconsin psychiatrist, Dr. Jack Westman. He says: "Noise pollution has become a major health hazard. There is growing evidence that high blood pressure, arthritis, ulcers, depression, gastrointestinal disturbance, and glandular disorders are more frequently found among people who have been subjected to high noise levels." Furthermore, Dr. Westman believes that people cannot get used to high noise levels, so check your office and home and try to keep the noise level down.



The National Health and Medical Research Council in Australia warns, that although there are advantages in sit-down dentistry, the patient's supine position can be hazardous because of the possibility of instruments or drugs dropping on the patient's face, cervical strain for the patient, and foreign bodies passing down the patient's throat when rubber dam is not in use. "Smiles," a public service film explaining the role of proper brushing and flossing in the prevention of periodontal disease, has been released this year and scheduled to appear on more than 200 U.S. television stations. The five-minute production was underwritten by Eastman Chemical Products, Inc.

DIETS AND "SLOW EATING" FOODS

The dieting phenomena continue. There was the high-protein diet, the low carbohydrate diet, water diet, rice diet, drinking man's diet, and every other means to help people lose weight—Weight Watchers, Overweight Anonymous, Diet Control, hypnotism, and even the wiring of jaws to reduce eating. Now a physician and a psychologist have developed a new approach designed to have people lose weight and change their "patterns of eating behavior for a lifetime." The emphasis is on "slow eating" foods—high bulk and low calories. We don't know about "slow eating" foods but eating slowly should do the trick, for if you eat slowly enough you'll never finish what's on your plate and thereby keep the weight off. . . Magellan's voyage that lasted three years was well documented by a crew member who recorded the hardships the men endured, especially the difficulty in obtaining fresh food aboard the ship. In his record, the crew member writes that the diet was so very poor that "The gums of some of the men swelled over their upper and lower teeth, so they could not eat and so died."

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Contributing Editor Arthur H. Levine, D.D.S.
Editors Maurice J. Teitelbaum, D.D.S.
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The Skeleton Factory

Plastic "cloning" of the body's bones

Text and photos by Herm Nathan

A skeleton factory?

A plastic cloning of the body's bone structure? That's what modern technology is doing, almost in assembly line fashion.

The world's first, Medical Plastics Laboratory, Inc., of Gatesville, Texas, contends it is the finest among the world's five producers of replications of the human body's basic structure, from the bone out.

Medical Plastics is the lone producer of skeletons, en masse, in the new world. The four other producers are one in England, two in Germany and one in Red China.

But the Texas company is the first ever to create an exact duplication of the body's bone in plastic in large quantities.

So loyal are they to an exact replication that the molds are cast from original bones and organs.

A prototype of the skeletons that emerge, assembly line fashion, is a five foot-two inch East Indian male, approximately 40 years of age.

The magic of plastic has been able to create an exact anatomical reproduction that is being delivered to dentists, physicians, lawyers, scientists, physical fitness experts, and others across the globe.

Skeletons sell from \$105 for a student bone box to \$2,699 for a complete plastic cadaver.

"Dentists and physicians find MPL's models invaluable and use them in their offices for anatomical reference and to simplify patient explanations concerning diagnosis and pathological condition," says Charles Wise, manager of Medical Plastics Laboratory.

Of particular interest to dentists is a highly detailed skull model, called the "Rolls Royce" of the models produced by the firm.

Carrying a \$310 price tag, it has such items as maxillary sinus opened by a cut through the antrum. The maxilla are held in place with two springs which are easily removed in order to interchange other complete sets of dentition. Windows are also cut into the frontal and sphenoidal sinuses.

It is so structured as to permit replacement of regular dentition with special mandible and maxilla depicting common dental pathology; impacted third molar, retained root tip, periapical abscess, caries, lingual and palatine torus, impacted supernumary in palate, extractions with and without alveolectomy, drifting teeth, periodontal pockets and fenestrations.

Other professional users are claimant attorneys, chiropractors, science teachers, physical therapists and athletic trainers, along with men in research and industry.

Models are used extensively as teaching aids in specialized schools and universities throughout the United States and have been shipped to 38 countries.

The development of the "skeleton factory" represents a sizeable investment in research and development.

A Texas dentist, presently practicing in Gatesville, played a major role in the founding of the firm and in the development of the models which it produces for the dental and medical professions.

The idea for such a firm was first broached in 1949. The use of



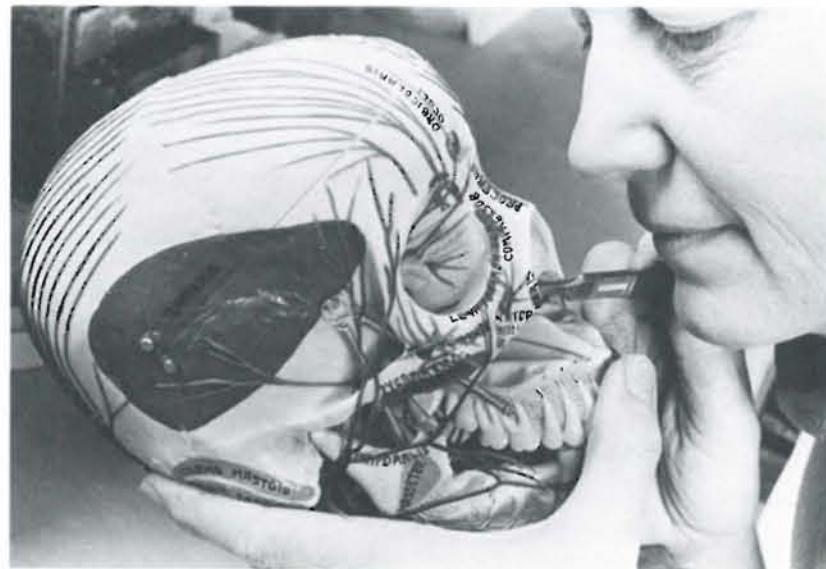
FROM MOLD TO MARKET is the story told by the top and bottom photos.

fragile, natural skeletons for anatomical and pathological reference proved objectionable to patients, particularly, and less than preferred by professionals who had need of them in discussions with lay people.

The need for a substitute motivated an arduous research project that, despite frustrations and their accompanying heartache, managed to develop in three years a working model.

Thomas R. Williams, D.D.S., of Gatesville, was among the pioneers of the project, a participant in the development since the concept was agreed upon.

Dr. Williams, along with two physicians, O.W. and E.E. Lowrey, and an engineer, Jess Blakeley, combined their expertise in search of a replication of a skeletal system which could give shape and support



DENTAL FAVORITE among the many parts of the body is the "Deluxe Skull" above. Florence Brown, technician, checks the sinuses.



"DELUXE HAND" above having arteries glued on by Ms. Brown.



ANGLES & IMPRESSIONS



by Maurice J. Teitelbaum, D.D.S.

THIS AND DATA

Do you find it difficult to work on a patient with halitosis? Well, consider the plight of Dr. Donald Ross, a veterinarian dentist who takes care of cats and dogs who have bad breath. The cause of animal halitosis, he says, is a diet of soft food. That is why he recommends that dogs and cats eat dry foods. Caries, too, are a problem in animals—not on the coronal portion of the teeth but under the gingiva, affecting the cementum and roots. Dr. Ross studied at the University of Texas Dental School, and since he also does orthodontia on dogs he is probably the world's best authority on whether or not a dog's bark is worse than his bite. . . . Automobile accidents are the fourth leading cause of death in the U.S. New York, New Jersey, and Connecticut have the best accident record, while Montana, Wyoming and New Mexico have the worst. On the average, the best drivers in the world are the Swedes, and the worst are in Italy. . . . If you've ever had to remove a pop corn seed lodged in a patient's tooth it should come as no surprise since Americans consume on the average of 30 quarts of pop-corn a year. . . . Having a weight problem? Then consider yourself one of the average American men, for in 1977 the average weight gain for males was 12 pounds. Another note on the average man—he has 15 dress shirts in his wardrobe and four of them are white.

Dr. Leo Sreebny, dean of the dental school at the State University of New York, wants to alert the public to the dangers of sugar to their health. He advocates that foods containing sugar should carry the warning, "Sugar can be dangerous to your health." What we need to satisfy the universal "sweet tooth," he says, is a substitute for sugar that is safe, sweet, cheap, and has few or no calories. The substitute that he feels may fill that need is Xylitol, once it has been shown to be safe. In tune with Dr. Sreebny are the leaders of the West German Dental Association, who have been pushing for a ban on the sale of hard candy in schools and of the use of children appearing in TV advertisements for candy. They are also asking for a "voluntary contribution by the candy indus-

try to a health insurance program." And the candy makers can afford it, for West Germans spent over \$4 billion on candy in 1977. . . . Apparently the Thoroughbred Breeders of Kentucky never heard of Dr. Sreebny or the West German dentists, for they have bestowed the honor of broodmare of the year for 1977 upon the dam of the Kentucky Derby runner-up Alydar, Sweet Tooth.

When a young boy in North Carolina complained of pain caused by a supernumerary tooth his parents were probably perplexed and wondered whether to take him to a dentist or a podiatrist. You see, the tooth was growing out of his foot! A dentist finally removed the tooth, which was full grown and even had roots. Who said there's no "sole" in dentistry? . . . On the average, how much time do you actually spend with a patient? According to the National Center of Health Statistics, physicians see their patients on an average for 15 minutes. Having so little personal contact between physician and patient is one of the chief complaints of patients. As dentists, do we want to contribute to the depersonalization of patients? Would you like to become a number? . . . If you need a bed in a hospital, North Dakota is probably the best place to get sick, for it has more hospital beds per 1,000 population than any other state in the union. Don't get sick in Alaska or Hawaii—they have the least. . . . Researchers at Tufts University School of Dental Medicine in Boston are working on a new method of detecting incipient caries. With the use of an electrical current and meter to record electrical resistance, they claim to be able to pick up caries on the tooth surface undetected by the naked eye or the x-ray. The readings are based upon the fact that a carious tooth records a higher resistance to electrical current. The findings have not been considered positive as yet but those conducting the experiment are very optimistic.

The number of women enrolled in dental schools throughout the nation continues to increase. Over the past year the number of "freshwomen" in dental schools rose 9.7 percent, while the total number of women climbed 19 percent. . . . Dental-Related Quote

How About a Little Help for Our Friends?

By Bill Howard, Managing Editor
Texas Dental Journal*

We talked to a Fort Worth dental laboratory owner not too long ago. He said, "One of my big problems is collecting my fees from some of my dentist customers. They put me last on their list and sometimes they 'run out' of capital before I am paid and I must carry them another month. In many cases I don't really mind because I know that those particular dentists are 'good' for their bill but they bought new chairs or new equipment or lots of the other dollar catchers and they needed them *now*. I have one man who owes me several thousands of dollars. I'm sure he's 'good' but he and his wife went to Europe last year and the cost of that trip was more than he owed me.

"The trouble is, I have to pay my bills regardless."

We talked to a San Antonio dental laboratory owner the other day. He said, "I get a lot of prescriptions for appliances, dentures, etc. and some of them don't really make sense. The prescriptions are vague, am-

biguous, incomplete, and, believe it or not, some are actually in error. I must call the dentists in those cases and ask them for more information. It takes them away from the chair and me away from the bench and my costs go up, while he loses chair time."

Another laboratory owner said, "Many dentists send me one half of the material I need. They send me only an upper impression or a lower impression and ask me to get good occlusion. I know that they know that a good occlusion requires impressions of both occluding surfaces. If I work from what was sent me, I run the risk of being in error when the bridge or crown or partial denture is seated since I had not known about the opposing surface. This takes time out for remakes on my part and explanations to the patients on his. Most dentists don't want to pay for remakes and this lends tension to a situation which could have been avoided."

Whether we like it or not, some of our best friends are our lab men. Many of them work hard and long to see that what they do for us is as near perfect as possible. Some of them have suffered our anger, our whims, our mistakes, our inaccuracies and our "human errors". They almost always look to us as gentlemen and doctors first and as errands second. They need us under present law. We need them in almost every way that they can work with us which includes helping to keep our profession intact and autonomous.

Denturism could never have become the festering sore it is had we not been careless with our laboratory relations once too often. Yet most dental laboratory people are still our friends.

Let's keep them that way. The Golden Rule might help.

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"Insufficient Funds"

(Continued from Page 6)

also request from you a small charge. Ask them for a receipt for the check you give them.

Of course, the best contact with your patient to get good results and recover the amount of his bad check is by telephone (long distance, talk-tough calls are effective) or by face-to-face visit. If you are getting nowhere by personal contact, immediately show your patient your serious intentions. You can write him a letter on your stationery as follows:

Dear Mr. _____:

This is to inform you that your check number _____ dated _____ in the amount of \$_____ has been returned to me marked "insufficient funds."* It is the custom of most banks to inform their customers when a check does not

clear so that it can be made good immediately.

Your failure to contact me within 5 days in regard to this serious matter leaves me no choice but to take other action to protect my interests.

Yours truly,

At this point, after you have exhausted all possibilities by personal contact with banks and patient, you should ask your attorney to write a personalized letter and mail it to your patient with a photostatic copy of the state bad check law. To encourage you to accomplish the personal followup work described, I might say a good attorney will charge you a minimum of \$25 for such service.

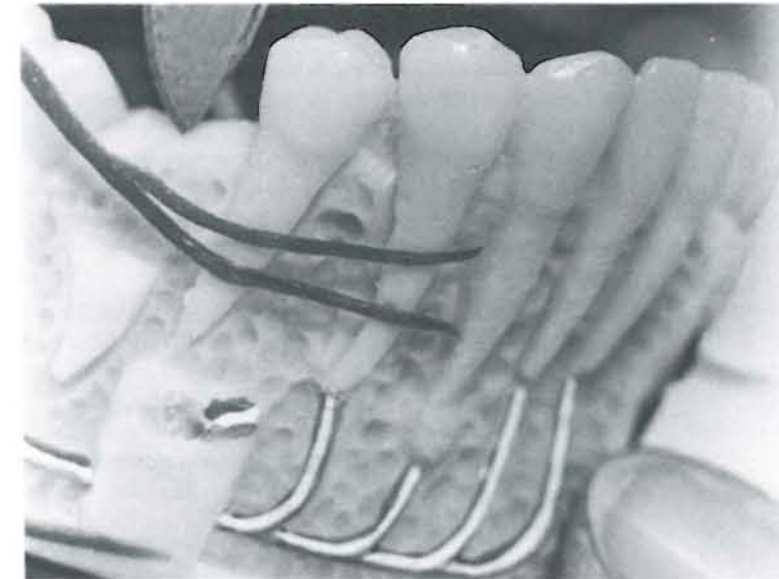
*Here you can insert words "no account" if the check comes back marked "no account."

to muscles and organs, without the fragility and other shortcomings of the natural skeleton.

Three years after the first experimentation, a model skeleton had been put together. Research refined and improved the process and in the immediate months after the initial success, they were able to capture the exact color, texture and intricate detail of each bone in plastic. The plastic molds are cast from original bones and organs.

The firm was incorporated in 1951 and today, 35 years after the initial step was taken in search of a professionally viable and marketable plastic skeleton, Dr. Williams and the two Drs. Lowrey continue to serve as directors of MPL while conducting busy pri-

(Continued on Page 13)



HUMAN JAW above is a "special" for dentists.



FINAL TOUCHES on a torso are made by shipping clerk Jackie Loerr in the top photo and by Joe Chambliss, research and development technician, on the lymph systems of a large heart model in the bottom photo.



ANOTHER DENTAL FAVORITE is a skull that features normal dentition with special mandible and maxilla depicting common dental pathology; impacted third molar; retained root tip; periapical abscess; caries; lingual and palatine torus; impacted supernumary in palate; extractions with and without alveolectomy; drifting teeth; periodontal pockets, and fenestration.

The Dentist-Patient Relationship Problem

by ALBINO JOSE MARCHON, Prof. Dr.*

by JULIO DE MELLO FILHO, Prof. Dr.*

The problem of oral treatment is as old as man himself, and only very recently more satisfactory solutions have been advanced due to the technological progress of the twentieth century. And this brings suffering both to the patient, who is already traumatized by previous treatments and to the dentist who is conscious of his limitations as well as of the repercussions upon his patients of the negative psychological aspects which follow oral treatment for millennia.

This work aims the applications in the fields of dentistry of the teaching of medicine relating the value of professional-patient relationship as basis, from which may depend even the success or failure of treatment.

Human relationship has been studied and understood in a more deep and dynamical way especially after the advent of Psychoanalysis, which, in giving emphasis to the unconscious motives that rule individual behaviour has made possible to arrive at a much more wide understanding of the meanders and subtleties of human relationship. We are really concerned with the *personal factors of the interaction*, that is, the exchange of the flow of emotions, interests, tensions, expectations, conflicts, pleasures, well-being and frustrations that come inevitably when two persons interact.

In our specific case the patient's emotional pattern stands out prominently and this is easy to understand if we keep in mind that oral treatment always, or nearly always, represents a situation of pain and suffering. This comes from the fact that men have been conditioned to associate dental treatment with suffering, vestige of an era, in the past, when the resources of dentistry were excessively crude. Also patients are conditioned to an afflictive expectation and a tendency to hostility to the dentist, unconsciously represented with the characteristics of a true hangman. Without any doubt recent progresses have a tendency to mitigate the situation, but only slowly such conditioning factors of cultural and psychological character will be replaced by others in which unpainful therapeutic activity and everlasting physiologic results play a significant role.

*Dr. Marchon is professor of dentistry, Dental Institute of Pontifical Catholic University and Dental School of Valença; and editor of the Brazilian editions of Quintessence International and Quintessence of Dental Technology.

Dr. Filho is professor of dentistry, Medical School of Federal University of Rio de Janeiro.
Address of both authors: Av. N.S. Copacabana, 807-803 Rio de Janeiro, Guanabara, Brasil.

Emotional meaning of mouth and teeth

In order to better understand the gamut of emotional reactions of the patient in oral treatment we must restrict ourselves to the very special meaning that mouth has for man, since his birth. This is important because the mouth is principal mean of communication with the environment. In order to convince ourselves of this importance it will be enough to keep in mind that we are living an evolutionary phase of mankind in which communication is the key factor for progress. It is worth mentioning that the mouth is a sensor organ of major importance even if we don't insist on its meaning for the affective-sexual life of an individual.

Another basic aspect of mouth and teeth is the aesthetic one, being both fundamental elements of good individual presentation. It is worth remembering that we live in an era in which beauty and its cultivation, narcissism, are both more and more valued by human beings.

And if we keep in mind the enormous importance that is attached to the mouth in early childhood, when the activity of sucking sustains the individual's life and at the same time the mouth operates as the principal source of pleasure and means of touch with the outside world, and further if we remember the decisive meaning of this stage in the individual's life, we will be adding data of equal value.

It can be stated that the relationship between the baby and its mother through the mouth-breast is the central relationship that rule all the future relationship of the adult because it takes place at a stage when the human being under consideration, the child, is wholly dependent of another who resumes everything and is indispensable to the survival. It should also be brought to attention that children make use of the mouth to the exploration of the environment. Through the mouth they recognize forms and other characteristics of the objects with which they deal and this way they form the first rudiments of their ego, identifying the things which belong to them and the things of the outside world.

We see then, that to the mouth converge very important functions, such as instinctive (suction, pleasure), intellectual (speech) and nourishing which are improved as the teeth make their appearance.

Another meaning which comes from infancy but impregnates us for the whole life is the one which relates teeth and aggressiveness. In fact, teeth are the first weapon for attack and defense of the child in a

dentistry has advanced."

The gap between the instruments of the 1860's, as collected in Dr. Hamlett's century old chest, and those of today's dental office is a measurement of the advances of the hundred intervening years.

But, not all of the dental chest's contents are that "old."

Just because they were used in the 1860's doesn't necessarily mean they are useless in the 1970's.

For example, extraction instruments. The forms remain recognizable and functional for today's dentist.

Dr. Hamlett observes that "I could take one down to the office and probably use it."

What the people saw when the chest was opened was meant to reassure them and to impress them with the dentist's expertise. "Dentistry before the turn of the century was more show," he says. "A lot of it was not so much gimmickry but if you had a beautiful set of instruments, patients thought you were very knowledgeable."

The interior of the chest is covered with red velvet and the top drawer contained gold instruments with elaborately carved mother-of-pearl handles. "This is what the people saw and these instruments were very rarely used," he said. The gold foil scissors and mirrors are among the showy instruments. "A mirror to see how beautiful they looked afterwards," Dr. Hamlett commented.

Other drawers in the chest contain the more practical instruments, including a "tooth file." The file was used for complete removal of decay or preparation for filling. The drill engine had not been invented, so the chest contains a hand drill with a swivel on the end. "This is how they did most of their cavity preparations with a hand drill. It was very slow," he said. "An electric drill was constructed in 1874 and manufactured by S. S. White Co."

A chest of crown molds dates from about 1910. "Gold casting was not developed until the turn of the century, around 1907," he said. "They would take thin gold metal, force it over the crown, crimp it, and put it on a tooth."

Dr. Hamlett has a large collection of turnkeys, "probably one of the more complete collections out-of-the-Smithsonian." "They were used from the 1700's up to the 1800's, although other instruments were developed in the early and mid-1800's" he said. "Some of them came with different size hooks, and you had a way to interchange them. The problem with turnkeys was, of course, that they removed more than just the tooth—bone and tissue were extracted too."

While Dr. Hamlett's drill engine might look like a lot of hard work, it was a marked improvement over the hand drill. "James B. Morrison developed a foot treadle drill in 1871, until that time all cavities were made by hand-held instruments," he said. "The foot-pedal drill in principle was not to be superseded

for many years. The old belt-driven instruments were used until the high speed drill was developed in 1957."

A French hygiene kit in the collection dates from about 1800. The mother-of-pearl toothbrush, toothpick, and other objects are contained in a small case. An old form of dental floss is included.

"Good News for the Poor" was a dental supply's advertisement on vulcanizing dentures. Dr. Hamlett dates this about 1860: "Vulcanite dentures were developed around 1855-1860. Before that time, all dentures were made of either precious metals, wood, ivory, or porcelain, and were very expensive. When Goodyear developed a vulcanizing technique and applied it to the use of denture-making, it brought the price of dentures down to where the average person could afford them."

Trade cards on tooth powder and paste and toothache remedies promised help with their products. A card for a New London, Ohio, dentist advertises: "Teeth fixed in an approved style."

A fine dental chest might have convinced patients of those days that all was well, and the dentist knew what he was doing. In any case, patients who compared a turnkey with an extraction instrument of 1860 knew that they were viewing progress.

The Skeleton Factory

(Continued from Page 3)

vate practices in dentistry and medicine.

An example of the cost of developing a final mold for casting is the large heart, a plastic model that is two and a half times normal size. It has openings into auricles and ventricles for detailed study of the valves and other internal anatomy.

This large heart with all of its 35 important structures painted and coded sells for approximately \$325. An actual size model sells for \$90.

The development costs for these models ranged from \$8,000 to \$10,000.

The research and development of the production process has been a meticulous, step-by-step process that skipped no detail to produce "the finest authentic anatomical reproduction on the world market," Wise claims.

And MPL, he points out, is also the only manufacturer that produces an authentic plastic cadaver, the "Skele-Torso," complete with skeleton, viscera, nerves, arteries, ligaments, etc.

Unique patient simulators, such as the "I.M. HIP," the "I. V. Arm," and "Mr. and Mrs. Catheter," now are in the forefront of the growing list of MPL reproductions.

For example, "Mr. Hurt," a replication of a man, from the neck up, is a patient simulator with eight different injuries. The model is used to train doctors and paramedics in dealing with head and neck injuries.

DENTAL ARTIFACTS:

A Measurement of Progress

There is a more practical way than the history book to measure the progress being made in dentistry.

For dentists, the contrasting ways of treating teeth, from year to year, from decade to decade, from century to century, are a fascinating illumination of the dark years between yesterday—whenever that might have been—and today.

The instruments of the profession tell a more dramatic story of the dentist of long years ago than the functional description of textbook commentaries.

As a result, dental artifacts have more than the value added by age and scarcity, they have an historical worth.

The measurement of progress is immediate because of contrast between the seemingly crude instruments of a century ago and the more efficient instruments available to today's practicing dentist.

Six years ago, Dr. Kenneth Hamlett Jr., at that time a dental student at Baylor College of Dentistry, became interested in the instruments that dentists before him had used.

Since his first acquisition in 1972, the collection has grown and the story they tell about dental history grows in fascination.

A century-old dental chest, from the then wild west—Colorado—tells the story of the itinerant dentist, riding horse back from town to town, his entire office contained in that single chest.

The chest was short on technical competency, but long on glitter and gold that offered psychological reassurance to the pain-struck patient who was to be treated by these instruments.

It was a matter of "show" rather than "use" which was critical to convincing the western pioneers, far from the comforts of Eastern "civilization" that the dental practitioner who owned the chest was qualified to treat their hurting teeth.

Dr. Hamlett bought this chest from an antique shop in Georgetown, Colorado. It is a rosewood piece, with numerous pull-out drawers, dating back to 1860.

Used by an itinerant dentist, it obviously was a self-contained dental office that crossed the mountains and the plains to wherever the patient might be.

There was more than the pragmatic need to have a central and safe storage place for the dental equipment. It was also necessary and used as a psychological "instrument" to reassure skeptical and scared patients.

At first look, they are seen as the crude and primitive predecessors of the highly efficient instruments of today's advanced dental technology.

But the important story they tell is: "Look how far



Dr. Hamlett and his dental chest.



Crown molds, turnkeys, and hygiene kit.



A drill engine.

stage of life when everything is instinctive. And this function, that along with love constitute the basic emotional polarity of men, imprints a mark in our unconscious and as a result oral treatment presents itself as an agent interfering with our aggressiveness. This interference brings about its associated connotations of fear, repression and guilt feeling. In this way the loss of the teeth may have the same meaning as losing strength aggressiveness for an individual. On the other hand, the identity between strength and aggressiveness may be easily demonstrated by the classical dreams in which are transparent the symbolisms for guilt feelings in adults or children brought about by the assumptions of misuse of their aggressiveness or power. The fear of punishment is one of the most common factors in the phobias for dental treatment. Such identities stand out clearly in the customs of primitive people which concentrate magically enormous powers of courage and vigour in strings of teeth. There is a coincidence between the period in which the fear of castration in children is more intense (it is just when incestuous unconscious desires get to their climax, as demonstrated since Freud first pointed it out) and the epoch of dentition change. The last phenomenon becomes, then, the substitute for the intensively feared castration. It is in this period of life that the identity between strength and teeth may become deeply rooted in one's personality.

Oral character

All the aspects focused above open way for the understanding of what in psychology is conventionally known as the oral character. The individual who was excessively frustrated or, otherwise, excessively gratified, or both, during his childhood, develops a fixation on the mouth and everything which concerns the mouth. For his whole life the mouth will have for such an individual enormous significance. In this category fall those people which we call voracious who live to get things, to receive things or even those which make of the mouth their way of life, such as singers and announcers. Habits such as smoking, chewing, eating and drinking frequently (and this can be found in nearly all of us) refer to the oral phase of evaluation which affects everyone. The exaggeration of the so-called oral phase constitutes the pathology.

It is clear that for individuals which present a strong oral fixation, dental treatment has great meaning. They are extremely sensitive to any oral suffering or to any difficulty which may occur during their acquaintance with the stomatologist. At the same time, the dentist becomes an element of great importance for them, because he is both feared and idealized due to the fact that the dentist deals with a part of their own of great emotional meaning. □

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“Insufficient Funds”—

Worse than a Patient with Garlic Breath

by Lipman G. Feld, B.S., J.D.*

Part I of a series on checks

A dentist takes on an emergency case for a suffering patient from out-of-town, who drives up in a Mercedes crying from the pain in her mouth. After two hours' work, the lovely lady gives the dentist her check, drawn on a Kansas City, Missouri, bank. When the dentist asks for identification, she produces a driver's license without a picture. She is almost indignant that the dentist should be so crass as to require identification.

The dentist, two weeks later, discovers that he is the one with the pain when the gorgeous lady's check bounces “insufficient funds.” A real headache develops when he telephones me and learns that driver's licenses issued to residents of Kansas City, Missouri, are laminated cards with the driver's picture. The Kansas City woman has used an out-of-state driver's license to clutter up her identity trail.

Another dentist completes extensive replacement of half-decayed teeth for a long-time patient who has always been good pay. After the \$1,200 statement is mailed, the dentist, as usual, promptly gets his patient's check. Ten days later the check returns, “insufficient funds.” A telephone call to the patient reveals that the phone number is out-of-service. A visit to the patient's home results in information that the patient has moved to Indian Lake, New Jersey. Where is Indian Lake, New Jersey?

Usually when a patient does a trick like those described, he or she is very hard to find. Once found and the collection case is turned over to me as a lawyer, I write a tough legal letter, letting the culprit know I mean business in no uncertain terms. A printed form is no good. A photostat of the state law on bad checks shows the lawyer means business. No form collection letter is used. Each letter is personalized.

If the patient telephones me, I talk tough.

Of course, if your patient is a professional deadbeat or potential bankrupt very little will scare him. If he is the ordinary run-of-the-mill credit risk, the cold-blooded letter from the lawyer I described can often bring results. But lawyers cost money, and there are a number of steps a dentist can first take for himself to cut down bad check losses.

*The author's latest book is *Bad Checks and Fraudulent Identity*, published by the National Association of Credit Management, 475 Park Avenue, New York, N.Y. 10016. Soft cover, \$6.50.

You do not need to request your attorney to act immediately on bad checks where there are insufficient funds on deposit in the patient's account to pay. If you act quickly, often you can collect the funds yourself. **IT IS VERY IMPORTANT TO ACT QUICKLY.**

If the check is marked “closed account,” call the patient and demand he bring in cash in exchange for the check. Talk strong! You may want to write the letter suggested at the end of this article.

If the check is marked “returned for insufficient funds,” redeposit it.

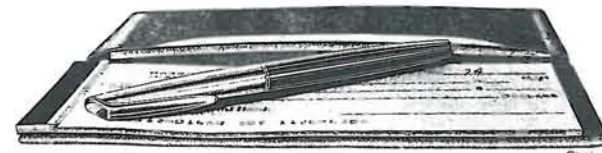
If the redeposited check comes back marked “insufficient funds” several days after you redeposited it, you should again contact the patient. If no results, you should immediately telephone your patient's bank to verify whether the patient's check will now clear at this late date. A deposit may have been made in the meantime about which your patient does not want you to know, or arrangements may have been made to take care of overdrafts of your patient, or someone at the bank may have goofed. Now the bank may be willing to cover the check.

If the original bad check will clear at this late date, go to the patient's bank taking the check marked “insufficient funds” and pick up certified funds (certified check). You can often do this from six months to a year after the turndown, although some employees of some banks will refuse cooperation at a later date. If so, request help from a bank officer.

TAKE NO CHANCES. Act quickly to get the bad check exchanged for certified funds. If the check will not clear the patient's bank, take the check to your own bank with which you do business and ask your bank to place it as a collection item with the patient's bank. There is a small charge for this. This way your check should be applied against the first deposit your patient makes.

If you get nowhere with your own bank, send the bad check for collection directly to the bank where your patient makes his deposit and upon which the bad check you received was drawn. This bank will

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WORK—RECREATION

(Continued from Page 7)

tists (28%) and chemists (21%), and least popular with professors (11%). More dentists (16%) than chemists or professors selected hunting.

The dentist's role is considered relatively “tight” in structure. The general practitioner must be exact in detail, care, orderliness, and cleanliness; his appointment schedules are adhered to as closely as possible, and he adheres rigidly to standards of technique. He operates in a small physical space for most of the day, and has little opportunity for interaction with colleagues and for discussion of professional problems.

Recreational Activities of Professors, Chemists, and Dentists

Activity	Professors	Occupation	
		Chemists	Dentists
		—Percent—	
Camp	15.6	16.5	11.3
Hunt	2.7	4.2	15.5
Boatfish	11.4	21.0	28.3
Other Fish (Shore, Pier)	4.4	2.2	1.5
Hike	11.3	5.8	1.4
Sightsee	15.6	14.0	5.6
Nature Study	1.7	3.3	0.0
Motorboat	.9	1.6	5.6
Sail	5.2	6.6	1.4
Swim	12.2	9.9	8.4
Waterski	.0	1.6	2.8
Picnic	4.3	4.2	2.8
Drive (Pleasure)	6.9	3.4	2.8
Other	7.8	5.7	15.5*
Total	100.0	100.0	100.0

*Other for dentists includes: golf, horseback riding, farming, snowskiing, cycling.

Dentists' recreational activities revealed this same pattern. They did not generally favor the rather loosely structured activities of sightseeing and hiking; rather, they chose the more structured recreational activities of fishing and hunting. [Reeves, Joy B., and Reeves, Hershel C. Stephen F. Austin State University, Nacogdoches, Tex. 75961. The interrelationship of work and recreation: a case study of the dentist. *Tex Dent J* 94:14-16 July 1976]

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“third major cause”

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close abnormalities within the brain's blood vessels.

After the results are evaluated, patients may be treated with medication to decrease the clumping of particles, or with surgery.

Up, Up and Away

President Carter may be calling for tax cuts, but the Federal Government will cost your family 18 percent more by 1979, according to Tax Foundation computations.

Total Federal tax receipts in fiscal 1977 were \$345,417 million, amounting to a \$4,637 tax bill for each household in the country. This year, each family's tax bill for the Federal government will increase by \$467, for a total of \$5,104. Estimated taxes per household in fiscal 1979 will climb again, up \$391, for a total per household share of \$5,495, an increase of \$858 in just two years.

In 1978, families in Mississippi pay the lowest share of the Federal tax burden, says Tax Foundation. Each household in that state is assessed \$3,532.

By contrast, Alaskans supply the largest slice of this year's Federal tax pie, \$11,607 for every family in our largest state.

The new Federal budget gives the total Federal tax burden for 1978 as \$388,022 million. That averages \$5,104 per household nationwide. A state can pay high taxes per family without carrying a large portion of total U.S. taxes. Hard hit family by family, Alaska ranks forty-second as a state in its share of the Federal tax burden, paying only \$1,538 million, this year.

California carries the heaviest state load, with a share totaling \$43,420 million. Each household in the Golden Gate State, however, is only slightly above the national average, paying \$5,241.

U.S. taxes are highest for families in Alaska, Connecticut, New Jersey, Hawaii and Delaware, in that order. They are lowest in Mississippi, Arkansas, South Dakota, Alabama and South Carolina.

The Federal tax burden in fiscal 1978 will amount to \$1,784 for each man, woman and child living in the United States, according to Tax Foundation computations.

Surgery is the more common alternative and is considered to be the most effective treatment. During a procedure called a carotid endarterectomy, surgeons open the affected artery and clean out the diseased material.

Dr. Hummel stressed that if patients' symptoms are recognized before a major stroke occurs, the risk of mortality due to carotid endarterectomy is less than 1 per cent.

Some patients, only about 3 per cent, may require microvascular bypass surgery.

Dr. Hummel describes these surgical procedures as a sort of “preventive medicine.” He adds, “Few patients who are treated in time have strokes.”

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TRAVEL RIGHTS

(Continued from Page 7)

rives at the airport to find he is "bumped." He has a valid ticket and a confirmed reservation. But airlines sell more tickets than the plane has seats, in order to protect themselves against "no-shows." Although the odds against being bumped are 2,000 to 1, the chances are greatly increased during vacation periods.

If a passenger is bumped, the airline is required to arrange transportation. It must get the traveler to his destination within four hours of his originally planned arrival time on international flights or within two hours on domestic flights.

If these conditions can't be met, the carrier must pay Denied Boarding Compensation (DBC). This is equal to the one-way value of the ticket, up to \$200. DBC is a penalty paid by the airline; the passenger's ticket is still valid for reuse or a refund. However, this rule doesn't apply to charter flights, delayed or canceled flights — only to bumping. And the best way to avoid being bumped is to arrive at the airport allowing plenty of time to check in.

Another nuisance is lost or damaged luggage. This happens to most seasoned travelers at some time. Dr. Harold Weinberg, a New York orthodontist, and his wife arrived in London on December 23, 1976, at night. They found that their luggage, though, had gone on to Hong Kong. Several days passed before the bags reached London. Although carriers pay a limited amount of compensation for emergency purchases, this didn't help the Weinbergs. All the stores were closed on Sunday. They were also closed on Monday because it was Christmas, and on Tuesday and Wednesday because of Boxing Day. This meant wearing the same clothes for several days; it also meant washing underwear at night and finding it not-quite-dry in the cold morning. To avoid the Weinbergs' dilemma, airline passengers should carry with them a change of underwear, nightclothes, a toothbrush, and of course any important medication.

When luggage is permanently lost or damaged, the airline is liable for \$9.07 per pound. The maximum liability for carry-on baggage is \$400 per passenger. The traveler's best self-protection is to carry his valuables with him. But if the passenger does have a legitimate loss, he must file a claim for lost baggage within 21 days. For damaged baggage, the limit is seven days. Otherwise, the carrier can deny the claim.

Another CAB regulation states that passengers must pay the fare in effect the day of transportation. If the fare has been raised since the ticket was bought, the traveler pays the increase. If, however, the ticket price has been lowered, the airline must refund the difference to the passenger.

Should a passenger lose his ticket, he must be given

a refund after a waiting period, usually 120 days. Some carriers deduct a \$5 service charge first. Unfortunately, the purchaser is liable for the ticket if it has been used by someone else. So hold onto all tickets!

It's important that the traveler knows his rights in order to protect himself. If he should have a problem, he should report it to the supervisor of the airline involved. If the passenger receives no satisfaction, he should write to the CAB at the following address:
Office of the Consumer Advocate
Civil Aeronautics Board
1825 Conn. Ave., NW
Washington, D.C. 20428

For more immediate information, he can call 202-673-5526, even after office hours.

This office reviews cases to decide whether any CAB regulations or the Federal Aviation Act have been violated. If so, these cases may be called to the attention of the CAB Bureau of Enforcement for appropriate action.

On a recent flight to Spain, a highly nervous woman couldn't take advantage of the additional amenities offered by the carrier. The travelers were delayed two hours before boarding. Once on the plane, they waited another hour on the ground. Then the passengers were told to debark, since the problems hadn't been overcome. They would board another plane as soon as it could be readied. In the meantime, the airline would bus the passengers to a restaurant and provide them with a delicious dinner.

Before boarding the plane, however, the nervous passenger had fortified herself with several sleeping pills. When the passengers debarked, she was so deeply asleep she couldn't be awakened. Her husband had to carry her off and stretch her out on a baggage conveyor belt to sleep while the other travelers enjoyed their dinner.

138 Concourse East
Brightwater, New York 11718



"BASED ON YOUR DENTAL X-RAYS, MR. FAROUT, I'D HATE TO BE YOUR CLONE."

KNOW YOUR AIR TRAVEL RIGHTS

Imagine 200 dentists, at two a.m., racing to the airport motel shop to buy toothbrushes. This unlikely incident occurred when the flight of a dental society-sponsored trip to Italy was delayed. Passengers had already been waiting five extra hours in the terminal before boarding their plane. When the airline spokesman announced that the travelers would be put up for the night in a motel, most of them realized they didn't have night clothes or clean underwear with them. They didn't even have toothbrushes.

In this instance, the air carrier met its obligation to the passengers by providing overnight lodging, since the delay exceeded four hours. This is one rule of the Civil Aeronautics Board (CAB), the government agency which regulates United States-certified airlines and foreign carriers which operate to and from the United States.

And while airlines often can't compensate for the inconvenience caused, they have certain legal obligations to their passengers. Travelers familiar with these regulations run less risk of being victimized.

Sometimes a flight is unavoidably delayed because of bad weather or a mechanical breakdown. If the delay is expected to exceed four hours, the CAB ruling is that the airline must provide a meal, limited ground transportation, and some form of communication. This is usually a telephone call or telegraph so a traveler can notify his hotel or a person awaiting his arrival.

However, if the delay or a cancellation occurs between the passenger's point of origin and his destination, carriers are required to furnish overnight lodging as well. This is what happened to the dental group. Unfortunately, the day that was lost was the only day that had been available for a side trip to Switzerland.

A more distressing experience occurs when, because of a flight delay, a passenger misses a connecting flight. In this case, the airline is obligated to reroute the traveler. But that can't lessen the frustration of a missed appointment.

The traveler gets deservedly irritated when he ar-
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Life Styles for Dentists

The dentist's work and recreation behavior

Research data indicate that work and leisure are interrelated. If work is a central life interest, the direction of influence tends to be from work to leisure rather than from leisure to work. Furthermore, the nature of the work-leisure interrelationship tends to be complementary. In this study, we investigated the work-leisure activities of professors, chemists, and dentists.

Data were obtained through the use of a mailed questionnaire to 200 dentists, 300 chemists, and 200 professors, randomly selected from the Houston metropolitan area. The return rate was 44%, 46%, and 63.5% respectively. Each respondent was asked to indicate and rank his three favorite recreational activities and those in which he had participated in the past year and while on vacation.

Results are shown in the chart. Only 7% of the dentists participated in hiking and sightseeing, whereas 29% of the professors and 19.8% of the chemists participated. Fishing was most popular among den-
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"TRY TO LOOK CHEERFUL FOR THE DOCTOR. HE'S TERRIBLY WORRIED ABOUT YOUR CASE."

POWERFUL AND SIGNIFICANT

"Life, freedom from defect and disability, growth, development, health, vigor, successful reproduction, longevity: these are universal and paramount aspirations and goals in life. The evidence is conclusive that nutrition exerts a powerful effect on the attainment of them. Indeed, these are the recognized functions of nutrition. That is its significance."

(H. D. Kruse, M.D., in *Nutrition, Its Meaning, Scope, and Significance*; 1969; Charles C Thomas, Springfield, Ill.)

* * *

Some time ago, when the well-known nutrition authority Dr. Jean Mayer was at Harvard University, he said that nutrition was a non-subject in the medical curricula. Following a study to learn what the average physician at Harvard knew about nutrition, he is credited with the following comment:

"What we found in this — the average doctor at Harvard knows a wee bit more about nutrition than his secretary, unless his secretary has a weight problem, in which case the average secretary knows a wee bit more about nutrition than the average doctor."

* * *

E. Cheraskin, M.D., D.M.D., and W. M. Ringsdorf, Jr., D.M.D., M.S., trailblazers in nutrition, in their best-seller *Psychodietics* (Bantam Books), say: "The most glaring example of malnutrition by prescription occurs in women who take birth-control pills *without supplementing their diet*. Oral contraceptives often cause widespread derangement of nutrient metabolism, and long-term use frequently results in some evidence of psychological upset. A number of scientific studies have shown mild to moderate depressions as well as symptoms of neurasthenia (lethargy, fatigue, insomnia, and restless sleep) to be the most common emotional response following reliance on the pill. New psychiatric symptoms or worsening of old ones occur in at least *one-half* of all pill-users.

"Why? At least four essential brain-cell nutrients are adversely affected: vitamin B₆, folic acid, vitamin B₁₂, and vitamin C."

* * *

"Variety is literally the spice of life in matters of nutrition," says Laurence E. Morehouse, Ph.D., physical trainer of astronauts and others, in his popular paperback *Total Fitness in 30 Minutes a Week* (Pocket Books). "It's dangerous to eliminate any type of food from your diet. The danger far outweighs the benefits you might gain from emphasizing one particular type of food. A red warning flag should go up any time you read of a diet that calls for the elimination of any kind of food. You're inviting deficiencies. 'Avoid' diets are for patients with allergies or other pathological abnormalities. If you adopt one for yourself it's just like going to a sick person's medicine cabinet and eating his pills."



The Worlds Outside



The Bank Pays You for Your Mortgage!

Instead of making monthly payments to the bank for your mortgage, the bank will pay you!

That day may come soon, if and when the Congress develops proposed legislation that would authorize banks to give mortgages-in-reverse.

The scenario, in shorthand, is something like this.

Many older individuals and couples find it difficult to get by on their social security and small pensions, if any. However, they have homes free and clear of mortgages, or with small mortgages. In these inflationary times, their houses are worth much more than they paid for them. They are faced with the problem of selling their homes to get the funds they need to meet their increasing bills — only to realize they would have to buy another house whose price is also inflated. Or seek an apartment at reasonable rent — another problem, in addition to facing up to the income taxes they would have to pay for the profit they made over the initial cost of their homes.

(Unless the \$100,000 profit exemption proposal becomes law.)

Under the proposed new legislation, savings-and-loan institutions and savings banks would be authorized to make monthly payments to older homeowners and, in lieu of such payments, acquire proportionate equity in their property. This arrangement would make it possible for needy older citizens to obtain the funds they need to live without hardship, and would safeguard the payments by lending institutions through such mortgages-in-reverse.

Congressional committees are trying to work out answers to such problems as how to avoid a situation in which the mortgagors might end up by exhausting the bank payments and, to boot, lose their house because they have outlived the terms of the mortgage-in-reverse.

Interesting stuff.



"the third major cause"

(Physicians at the University of Oregon Health Sciences Center have begun a campaign to warn doctors and the public about symptoms of stroke.)

When grandpa complains of having "spells," those around him may be inclined to take his ailment lightly.

However, according to the University of Oregon Health Sciences Center physicians, if his complaints include temporary paralysis and difficulty in speaking or seeing, relatives and the family doctor should be on the alert.

These transitory episodes could be a warning signal of stroke, the third major cause of death in the U.S., after heart attacks and cancer.

Neurosurgeons and neurologists at the Health Sciences Center are in the midst of a campaign to inform Oregonians about these "little strokes."

Known as transient ischemic attacks — or "TIA's" — little strokes occur when a tiny particle temporarily obstructs an artery going to the brain.

TIA's may last up to several minutes and may cause temporary paralysis on one side, loss of speech, and impaired vision.

According to Dr. Errett Hummel, assistant professor of neurosurgery, more than 60 percent of the patients who have major strokes have had one or more of these warning episodes at some time in the past.

Even as recently as 15 years ago, physicians were not aware of the correlation between TIA's and major strokes. Last year, HSC faculty began a concerted effort to warn medical students, physicians throughout Oregon, and the public about this easily recognizable symptom of stroke.

Dr. Hummel explained that the tiny particles responsible for causing TIA's are usually either cholesterol, fatty tissue, or platelets or leukocytes from the patient's blood.

These particles can cause trouble when they coagulate on the hard arteriosclerotic material which tends to form at the bifurcation of the carotid artery in the neck. (One branch of the artery goes to the scalp, and the other branch to the brain.)

A stroke occurs when this debris loosens and is carried up into the brain, obstructing blood flow. In the case of TIA's, the obstruction is temporary, and the particulate matter breaks up. Blood flow is reestablished before brain cells die from lack of oxygen. But if blood flow is interrupted for more than a few minutes, permanent paralysis or loss of speech can result.

If patients who have suffered TIA's are identified, there is a good chance that physicians can ward off a catastrophic stroke.

Patients considered to be at risk are hospitalized and undergo a cerebral angiogram. During this test, dye is injected into the blood stream, and X-rays dis-

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