

COLBURN (C.F.J.)

POPULAR DENTISTRY.

PRACTICAL KNOWLEDGE

OF THE

TEETH,

THAT SHOULD BE POSSESSED BY EVERY ONE,

IN ORDER TO

PRESERVE THESE ORGANS

FROM

INFANCY TO OLD AGE.

SURGEON GENERAL'S OFFICE
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BY G. F. J. COLBURN,
Dentist Dental Surgery, Newark, New Jersey.

1881.

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ORIGIN AND PROGRESS OF DENTISTRY.

FROM all accounts in Ancient Egypt, Dentistry seems to have originated as a separate branch of the healing art; and, as in all old countries, the profession or calling of the father descended to the son, there is no reason why this branch should not in time have made great progress under those to whose care it was committed, or at least that part appertaining to tooth extraction. And from the fact that, among Egyptian remains, there have been found forceps made of copper in the offices of those who followed the occupation of barbers, it may be inferred that to those persons, as for centuries after in various countries, the operations on the teeth were entrusted.

From the writings extant of the early physicians and authors of work on anatomy and physiology, it would appear that their knowledge of the structure and diseases of the dental organs was extremely limited and erroneous, and as all knowledge was more or less under the jurisdiction of the seers, prophets and priests, who controlled both the social and religious opinions of those days, we can readily account for such an idea as was advanced by Arætaeus, that the cause of toothache was only known to God. Five hundred years before Christ, Herodotus, the traveler and historian, informs us that the Egyptian physicians divided the healing art into different parts, one taking that of the head, another the eyes, another the teeth, etc. The mode of extracting practiced and recommended by some of the earlier practitioners was to shake the teeth well and then remove them. Others advised the application of the hot iron or boiling oil, to make them exfoliate; but it is unnecessary here to enumerate the absurd practices recommended. And although, during the lives of Socrates, Plato, Aristotle, Herodotus, Thucydides, Eristratus, Celsus, Pliny, Galen, and others, the healing art may be said to have made great advances, the state of Dental Surgery remained nearly the same. Little or no

change, in fact, took place for the better until about the time of the great anatomist, John Hunter, of England, who published his work on the teeth in 1778. He has since been followed by numerous other authors and practitioners, both European and American, who, by their labors and researches, combined with anatomical and physiological erudition and mechanical skill, have elevated Dental Surgery to a high position among the arts and sciences of the present day. The last half century has witnessed the operations on the mouth that were formerly left to the care and tender mercies of the knight of the razor and shears, assumed as a calling by men of education and refinement; and the world at large acknowledges its indebtedness to the Dental Surgeon for that comfort and happiness that only can be derived from a healthy condition of this part of the animal economy, without which the "hell of all diseases" would reign supreme; for who, that has suffered from the pains of an aching tooth, and its direful concomitants, would say that it was the least of all the "ills that flesh is heir to?"

The student and practitioner of this branch of the healing art now takes his position beside the student and practitioner of medicine. Dental surgery has now its colleges and its monthly and quarterly periodicals, presided over and edited by men who, by their learning and skill, take the highest rank among the profession of their choice; and the degree of D. D. S. (Doctor of Dental Surgery) as truly indicates having passed through a regular course of scientific preparation as the degree of A. M. or M. D. in other professions. Twenty-five to thirty years only have passed since the veil of secrecy has been removed from dental operations. Previous to that time the dentist hid his operations from his brother practitioner. His female patients with faces concealed and hesitating steps, groped their way with secrecy to his door, not desiring to have it known that they needed or were obliged to wear artificial teeth. But a few years have passed since a few dentists only were to be found in

any of our large cities; now our city dentists are numbered by hundreds, while every village or country town has one or more as a permanent fixture. The first dental college established in the world had its origin in the City of Baltimore. There are now several others in different portions of the country. These institutions have Professors of Dental Surgery, Dental Medicine, Anatomy and Physiology, Dental Mechanics, Dental Practice, Chemistry, and Metallurgy; also lectures on Microscopic and Comparative Anatomy of the Teeth.

SOME OF THE PRINCIPAL CAUSES OF DECAY.

SO much for the origin and progress of Dentistry. We will now attempt to place before our readers the practical part in such a manner that we hope may enable every individual not only to keep in good preservation his own dental organs, but those of others entrusted to his care. Every one should be familiar with the fact that the decay of the teeth always commences externally, or in other words, decay shows itself upon the enamel, or bony structure of the teeth, and never internally, as was at one time supposed to be the case. It may be said, to be in most cases, the result of chemical action, produced by the decomposition of particles of food that collect or lodge in the interstices or depressions of the teeth while eating. These fissures are caused by the imperfect uniting of the edges of the enamel while the tooth is being formed; any individual can readily detect them on examination. Every one will, therefore, readily see how necessary it is to prevent all particles of food or foreign matter from remaining a sufficient time to produce decomposition.

SUBSTANCES DESTRUCTIVE TO THE TEETH.

NUMEROUS experiments have been instituted for the purpose of ascertaining the length of time necessary for various kinds of food to decompose so as to produce injury. All food in a state of decom-

position generates an acid. From experiments by Professor Amos Westcott, it was found that "acetic and citric acids so corroded the enamel in forty-eight hours that it could be readily removed with the finger-nail." Acetic acid, or common vinegar, is one of our principal condiments, and, he says, is "formed in the mouth whenever substances liable to fermentation are suffered to remain for any considerable length of time."

Citric acid, or lemon juice, of which many are so fond, readily acts upon the lime of which the teeth are composed, when brought into contact with them. Malic acid, or the acid of apples, in its concentrated state, also acts promptly; also muriatic, sulphuric, and nitric acids, although greatly diluted. And here let me caution all persons against using any preparation to whiten the teeth; for as the teeth are mostly composed of phosphate and carbonate of lime, anything that produces this effect acts on their material and will ultimately seriously injure or destroy them. Keep the teeth clean, and they are as white as nature intended. Professor Westcott also found that "raisins so corroded the enamel in forty-eight hours that its surface presented the appearance and consistency of chalk." The condition of the saliva is at times very acidulous. In view of what we have above stated it will be seen how careful every one should be to thoroughly cleanse the teeth from all substances remaining in contact with them.

DENTRIFICES—USEFUL AND INJURIOUS.

PREPARATIONS for cleansing and purifying the mouth should be free from all acids, and contain, as one of the principal ingredients, an alkali to neutralize the acids and destroy the animal and vegetable parasites that are secreted by the fluids of the mouth. It has been found by microscopical examination that the secretions of almost every person's mouth contain more or less of vegetable and animal life that will withstand the application of acids and astringents, and

will only succumb to alkalis. The mouths of persons who have been in the habit of using soap freely as a dentrifice are completely free from these productions. Every preparation, then, should contain this substance or its equivalent.

But it must be admitted that many soaps contain an injurious excess of alkali, which should be guarded against. Besides the doubtful cleanliness and even healthfulness of the fatty ingredients of a majority of the soaps that are made is a subject of such unpleasant contemplation as to prevent soap from being at all times a favorite dentrifice, as it is a well-known fact that PUTRID FAT and the fat of animals which have died from contagious diseases are frequently used by the soap-makers of this country, while those of foreign countries often use the fat of such HUMAN BEINGS as become the refuse subjects of the dissecting-rooms, hospitals, almhouses, etc. Soaps made of such materials may be all well enough for outward cleanliness, but for the use of the teeth and mouth must be promotive of disease, and even the very thought is disgusting in the extreme, and the most delicately perfumed and neatly modeled soap, may be partly composed of such materials. But a soap alone is not sufficient properly to cleanse the mouth and keep it in a healthy condition. Some substance should be combined with it that shall produce a gentle friction (sufficient to create a healthy circulation of blood in the gums, and remove from the surface of the enamel any extraneous accumulation that would otherwise disfigure it), such as prepared chalk, and a little orris root to flavor, which makes a simple and at the same time effective dentrifice, all sufficient to answer the purpose for which tooth powder should be used.

By no means use powdered charcoal or pumice stone as a dentrifice. These substances are the same that are used to polish the surface of iron and steel; they are insoluble, and so acrid in their nature that, no matter how fine you may reduce them, their little grains will not only insinuate themselves between the

neck of the tooth and the gum, causing an irritation of the parts, which may result in destroying the investing membrane of the tooth, but scratch the surface of the enamel. Not long since we had to remove the four upper incisors of a young lady who had been in the habit of using charcoal as a dentrifice, because their surface was seamed over with minute black lines that could not be erased, and the teeth loosened, and the gums abraded and irritated from its constant use. It would be well for every one, before using a tooth-powder, to see if it will scratch glass when moistened and rubbed over its surface. If so, it will produce the same effect upon the glossy, glass-like surface with which God has covered the teeth. The use of tooth-powder is to keep the teeth clean, and not to change their natural color. *If the teeth are of dark or yellow hue naturally, they never can be made white except at the expense of the material of which they are composed.* Any powder, then, which whitens such teeth, is only acting chemically, and therefore injuriously, upon their structure.

WHEN A DENTIST SHOULD BE CONSULTED.

WE have remarked that any one, on examination, could detect the fissures or depressions in the enamel. When these fissures present a dark appearance, which the brush or toothpick cannot remove, you may rest assured that decay in its first stages has commenced, and no time should be lost in consulting a competent dentist, who will, by thoroughly eradicating it, and filling the tooth with some suitable material, preserve it. No matter how small the cavity or how little the decay, it should receive immediate attention. The smaller the cavity the better, if it can be filled. Have your family dentist, as you have your family physician, and consult him two or three times a year. His province is to prevent as well as to arrest disease. When you have actually experienced pain from a tooth it can never be preserved with the same certainty as if it had given no

trouble. Many there are who though perfectly conscious that their teeth are decaying, neglect them, simply because they have caused no pain. If the tooth has actually ached, the dentist can do but one of two things: either extract it, or destroy the nerve, if it has one, and fill it. In the first operation a tooth is lost that can never be restored, and the second increases the danger of losing the tooth by inflammation. Toothache does not always originate, as many suppose, from an exposed nerve. In fact, a majority of the teeth that are extracted because they are painful, have no nerve, it having long since died. Inflammation is, in such cases, the cause of the trouble, having attacked the lining membrane of the tooth and socket. A toothache from an exposed nerve is a quick, lancinating pain, or, in common parlance, a "jumping toothache," and is usually caused by the contact of some substance with the exposed nerve. Inhaling cold air, or hot or cold drinks, will also produce it. This toothache immediately subsides when the cause or tooth is removed. On the other hand, a toothache from inflammation is a steady, aggravating pain, overspreading the affected side of the face, sometimes even the neck and shoulders. If allowed to proceed, the gum swelling finally breaks, and discharges pus. If the tooth is removed while in this state the pain still continues, an abscess is produced, and suppuration of the parts more severe than before, and some time elapses before it entirely ceases. As there is no nerve to kill in a case of this kind, the tooth should be treated until cured, or removed upon the first symptoms of trouble. This species of toothache is usually caused by taking cold; yet there are other minor causes, the most prominent of which is tartar, a calcareous deposit supposed to be from the saliva.

TARTAR OR CRUST UPON THE TEETH—TREATMENT.

IN its soft state this is of a creamy consistency and color, accumulating around the necks of the

teeth, where they enter the gums, and if allowed to remain any length of time it becomes hard and dark colored, and almost imperceptibly pushes away the gum from the tooth, and by insinuating itself between it and the tooth, deprives it of its support, and by allowing irritating substances to come in contact with the investing membranes, produces a looseness of the tooth and inflammation, with its accompanying results. This substance also causes a bad breath, and by loosening the gums from the teeth causes them to present, oftentimes, an unsightly appearance. All these effects can be guarded against by a thorough use of the brush and powder and such dentifrices as are described in another part of this work.

Many persons for years suffer this substance to collect around their teeth, supposing it to be a part of their structure, entertaining the idea that its removal would injure the enamel. After awhile the teeth becoming loose and the gums tender and inflamed, they consult a dentist, and are surprised to learn that it has no more connection with the teeth than a lump of clay has with the leather of the boot to which it adheres. Tartar in its soft state can readily be removed by the brush and powder, but when it becomes hard it requires the aid of the dentist.

Our remarks relative to the origin and cause of the decay of the teeth are intended to be taken in a general sense, and must not be understood to mean that decay never originates from any other source than from the effects of decomposed food, acids and tartar. These, however, are the most prominent, and more completely under the control of the dentist and patient. There are many minor causes, such as constitutional predisposition to disease, malformation, a crowded state of the teeth, imperfect structure, as well as the indirect effects of constitutional derangements, all of which are little understood by individuals not belonging to the medical or dental profession. Our remarks thus far have been mostly intended to apply to the permanent or second growth of teeth.

We will now offer some suggestions in relation to the care necessary for deciduous or first growth.

CHILDREN'S TEETH—HOW TO BE TREATED.

THE same care and attention required for the preservation of the permanent teeth is necessary for the deciduous teeth. Nature never intended that the teeth of children should be lost or removed by decay, but that they should remain to fulfill their offices until she should hang out her signal for their removal by causing them to become loose, and give way for the permanent ones by the absorption of their roots. If nature had her course, we should seldom witness a case of irregular or deformed teeth or mouth, now so common. The principal reason of this deformity is, that some of the temporary teeth have been removed, on account of pain and decay, before their time, in consequence of which the space that nature had reserved for a permanent tooth becomes so contracted that when it does appear it is crowded from its position, and is either left thus crowded (in which case it is not only unsightly, but tends to destroy the symmetry that nature intended), or a sound tooth has to be sacrificed to make room for it. Scarcely a week passes that the dentist is not called upon to correct some such irregularity. Children have twenty temporary or deciduous teeth, the germs of which, as well as of the permanent, exist in the jaw even previous to birth, and begin making their appearance about the sixth or seventh month, although the time varies in different children. The period of the eruption of these teeth is the most dangerous and troublesome of the child's existence, and every parent would do well to consult a competent dentist, who will, by proper remedies, palliate the disorders incidental to this period. About the second or third year the temporary teeth are complete and are fully developed, and require the same care to preserve them, both for usefulness and beauty, as is exercised toward the permanent set. All parents should be impressed

with the importance of this fact, as they value the health, comfort and beauty of their offspring. Protect the first set of teeth from the spoiler. Rather let the face or hands of your child remain unwashed than allow him to suffer from unclean or decayed teeth. Early initiate the child into the mysteries of the dental toilet by teaching him to use powder and brush, and that it is necessary that the mouth should be clean to eat his morning meal. Have the tooth-pick (an instrument more requisite at times than the brush for healthy teeth)—see page 16—brought into requisition after eating, so as to remove all particles of food that remain lodged between the teeth. Many a child would be saved from untold suffering, and the parents spared an endless amount of trouble, if these rules were obeyed.

IMPORTANCE OF EARLY ATTENTION TO THE TEETH AS TO PERSONAL APPEARANCE.

ABOUT the sixth year, or soon after, four permanent molar, or double teeth, make their appearance. Let every parent remember this. It is generally supposed that these four teeth belong to the first set, and if they decay or are removed, they will come again. This is a mistaken idea. They are permanent teeth, and if lost, will be lost forever. No teeth that come after the sixth year are ever shed. At twelve years the second set is usually complete, with the exception of the *dens sapientiae*, or wisdom teeth, which make their appearance from the eighteenth to the twenty-fourth year. During the eruption of the second set, the beauty and character of the child's countenance is completed, and everything depends upon proper care and attention at this time, to see that the teeth come with regularity, and without being crowded. Should this be the case, the parent may expect a finely-formed mouth; and not, as we often see, a rabbit-narrowness of the mouth and projecting chin, etc., contracting the lips, and altering the whole expression of the face.

EFFECT OF EARLY NEGLECT OF THE TEETH UPON THE VOICE OF ADULTS.

ANOTHER very important reason why the teeth should, early in life, receive the utmost care and professional attention, is the effect they exert upon the articulation. The loss of a single tooth affects the utterance, and invariably produces a hissing or lisping sound in articulating certain words, containing the dental vowels, such as *t, d, s, g,* and *j*. All public speakers, especially lawyers, clergymen and actors, should, as they value a correct enunciation and articulation, remember that the teeth were placed by nature to form a certain arch for the express purpose of giving force and purity of utterance. The modulation of the voice also is, in a great measure, dependent on the shape of the mouth and healthy condition of the teeth and their contiguous parts. Dr. Hill, in his valuable and interesting paper on the "Teeth and Voice," says that "the experience and observation of every thinking man may be called to our aid in support of this position; for it cannot have escaped them that many individuals of profound intellects and brilliant parts make but a sorry figure in their fruitless attempts at oratory and elocution. Every one who has had experience in regard to matters of this kind must have been conscious of great disappointment in not realizing his expectations in regard to certain distinguished men with whose writings he has been long familiar. Having fancied to himself that because they could wield a pen so successfully, they must, therefore, be accomplished speakers, and finding himself sadly mistaken, he is at a loss to account for a circumstance so strange and apparently contradictory. But where lies the difficulty? Certainly not on the score of intellect, for their acquirements are demonstrable from their writings; nor is it because they have never enjoyed the advantages of tuition where elocution was taught. What, then, is the obstacle? We answer, it is to be found in the peculiar

conformation of the mouth and the wretched condition of the teeth, giving rise to impediments and difficulties which constitute their misfortune, and of which they are most painfully conscious. Let any one visit a dentist's laboratory and view the casts of different mouths, and he will readily see one reason why people have voices and articulation so various and unlike each other. Some casts represent a mouth not unlike a squirrel's, very narrow and contracted, the upper jaw projecting far over the under, giving a squeaking, effeminate intonation to the voice. Such a shaped mouth is incapable of producing perfect language. We have in our possession two such casts, having the appearance of having been pressed together in a vise. The possessors of these mouths never actually talked, but rather squeaked. No amount of learning or talent, or study of elocution, could ever enable the possessor of such a mouth to become an orator. The whole cause of such deformity was owing to the neglect of the parents while the teeth were being shed. Had a dentist been consulted, the crowded condition of the teeth could have been remedied. There were too many for the space to be occupied, so they became irregular, pressing each other, and thereby deforming the mouth. The above case of deformity is but one in thousands that could be related. But even allowing that all due care has been exercised to preserve the symmetry of the dental arch, by having at the proper time the teeth removed, so that there is no crowding or malformation, still, unless the teeth are preserved from decay by proper attention to their health, there will be a difficulty of articulation and enunciation."

Dr. Hill relates a case that occurred in his own practice: "The Rev. Mr. S. was deeply afflicted with a diseased tooth, on the right side of the upper jaw. He called at our office for relief. We advised extraction, and it was removed. On the following Sabbath, while engaged in the performance of divine service, he became so annoyed by the loss of that tooth, and so difficult was his enunciation, that he was compelled

to stop in the midst of his discourse, and to explain the cause of his difficulty to his congregation. And this from the loss of a single tooth." If such a case of inconvenience arises from the loss of a single tooth, what must be the effect where, from neglect, almost all are lost? A clergyman not long since called upon us to have some slight operation performed, who had, by inattention and neglect, allowed tartar to collect and remain around his teeth, so that his breath was not only very offensive, but a number of his teeth were lost from this cause, and others were loose. Such was the condition of his mouth that when he spoke in the pulpit a hissing sound was audible throughout the church. The teeth cannot have too much room. If they were a little separated they would be less liable to decay. Such men as Henry Clay, Daniel Webster, Patrick Henry and others, had broad, well-formed mouths. It behooves every one, especially public speakers, to seek to remedy, as far as possible, any deformity that may arise from the loss of the teeth. In a great measure this may be effected by artificial substitutes. In this age of Dentistry there is no deformity or loss that cannot be readily remedied and supplied by the competent dental surgeon, in such a manner that, after a little practice, the artificial teeth may be said to make up the deficiency occasioned by the loss of the natural, and fulfill, to a wonderful degree, all purposes of mastication, articulation and beauty.

ARTIFICIAL TEETH.

ARTIFICIAL teeth are now made and set on various materials, principally on gold, platina and rubber. Those on gold are mostly parts of sets; for whole upper or under sets, Dr. John Allen's invention of continuous gum-work, or, in other words, a porcelain body baked on a base of platina, is now considered the purest and most artistic. One of the principal reasons is that the materials are perfectly pure, being porcelain, pure gold and platina, so constructed

that no impurities of the mouth can tarnish or penetrate them; then again, it is in one piece, and can be so enameled and carved as to almost defy detection or awaken the suspicion that they are artificial.

The use of false teeth is very ancient. Although we have no reliable information in what country or among what people they originated, there are accounts of these appliances in the works of Grecian and Roman authors; but they must have been of the rudest kind and of far different make and material than those of the present day. It was not until the present century that anything like perfection and comfort were attained in their manufacture and use. It is, in fact, but a few years since the principal material of which artificial teeth were composed was either that of various animal or human teeth—all of which answered but partially, as all such material was more or less liable to decay, and become offensive in the mouth. Then, again, the metal and other attachments were of the rudest kind, soon wearing and injuring the teeth to which they were attached. Within a few years this branch of Dentistry has advanced with rapid strides, so that now artificial teeth of the purest material and perfect adaptation to the mouth can be obtained, answering all purposes for which they are needed.

THE TOOTH-BRUSH AND TOOTHPICK.

SOME little art is required in the proper use of the brush, which should be applied in a manner best calculated to produce the desired effect. The aim should be to use it in the way best adapted to remove all extraneous matter from the crowns and sides of the teeth near the gums. In selecting a brush it had better be rather stiff or hard than soft, as there need be no fear of inflicting injury by employing such a one; it may make the gums sore for a few days, but the result will be that in a short time the gums will become tougher, and the friction will impart to them that rosy hue caused by a free circu-

lation of blood, which is so coveted. Then, again, the brush, no matter how hard it is at first, by frequent use becomes soft, whereas, if a soft one is selected, it soon fails to produce the required friction to cleanse the teeth and keep the gums in a healthy condition. "Fourteen years," says Mr. George Waite, an eminent English practitioner, "I have brushed my gums and teeth harder than any person in England, and I may say that I have endeavored to rub them away, but in vain. Nothing is more adapted to give the gums strength and health than repeated friction."

In selecting a toothpick care should be had that it is composed of some elastic and tenacious substance, so that it can be readily inserted between the teeth. Collections of food and foreign substances will surely decay the lateral surface of the teeth that are in contact unless this little instrument is thoroughly used, especially after eating. The quill is best adapted for a toothpick, and no one need go without one on the score of price, as they can be found in almost any drug or fancy store, already made and put up in bunches of twenty-five each, for about six or eight cents. When a quill is not attainable, a piece of whalebone, or in fact a piece of any tough wood, makes a very good substitute. The Brahmins of India, who are noted for their beautiful teeth and the care they take of them, are in the habit of rubbing them while repeating their prayers, which is a number of times a day, with a soft stick split into shreds at the end, and which not only acts as a brush, but as so many little toothpicks, effectually removing by its action all impurities from around and between the teeth. Floss silk is also well adapted for this purpose by carefully passing it between and around the crowns of the teeth. The result to be aimed at is to keep the teeth thoroughly cleansed from all impurities.

VAN BUSKIRK'S

Established 1859.

Peerless Liquid Dentifrice,



The word "SOZODONT" is derived from the Ancient Greek words SOZO, *to preserve*, and ODONTES, *the teeth*—SOZODONT, *a Preserver of the Teeth*.

The Standard Tooth Wash of the Age. All its Ingredients are Vegetable and Anti-septic

This remarkable Dentifrice may be described as a pure transparent liquid, delightfully perfumed, a few drops of which, applied to the toothbrush and rubbed on the teeth, produce a most agreeable foam, which penetrates all the interstices of the teeth, and cleanses the mouth in a refreshing and pleasant manner. Discolored teeth are rendered white by its use. The BREATH derives fragrance from its aroma. It prevents and arrests dental decay. The gums become rosier and harder under its operation, and a sensation of perfect cleanliness of the teeth and mouth is produced.

All the Liquid Dentifrices seen by the public since 1859, claiming the remarkable properties of SOZODONT, are but abortive attempts to imitate this original and genuine article, not one of which has ever approached SOZODONT for utility, efficacy and excellence.

SOZODONT has become justly popular throughout the United States, Canada, Europe and other parts of the world, and has received the most flattering testimonials from many distinguished Dentists, Physicians, Clergymen and others, who have carefully tested its merits, and from long and regular use are enabled to recommend it with confidence. It has also been most favorably received in Germany, Denmark and Sweden, where a large and increasing sale is being obtained. At the Convention of Scandinavian Dentists, held in Copenhagen in 1872, after the article had been subjected to a very careful analysis, it was unqualifiedly endorsed as a most efficacious dentifrice. In fact, wherever it has been introduced it has given entire satisfaction.

THE FAIREST ORNAMENTS.

Fairer than brooches of silvery sheen;
Fairer than ear-rings of diamonds I ween,
Fairer than all else the heavens beneath,
For Beauty's adornment, are beautiful teeth.

Fairer than flowers on her bosom that nod;
Fairer than aught that her fair feet have shod;
Or than gray plumes, her dear head that enwreath,
Are those fairest of ornaments, beautiful teeth.

And all may possess this coveted boon,
Buy a bottle of SOZODONT---utilize soon,
And fragrant and gleaming, your red lips beneath,
Shall shine forth those ornaments, beautiful teeth.

TESTIMONIALS

in relation to the merits of
VAN BUSKIRK'S

FRAGRANT SOZODONT,

For Cleansing and Preserving the Teeth and Hardening the Gums.

Imparting a delightfully refreshing taste and feeling to the mouth, removing all tartar and scurf from the teeth, completely arresting the progress of disease, and whitening such cavities in the teeth as have already become black by decay.

Although Tooth Powders and Pastes are occasionally useful as dentifrices, so far as pertains to their friction or erasive power to remove tartar and scurf from the enamel, few or none of them possess the valuable property of cleansing the cavities, or the interstices between the teeth, from the food which becomes lodged therein, and which is the greatest source of decay. It is the power possessed by SOZODONT to dislodge all such deposits, and thus prevent decay, that gives it its greatest value. But in connection with this power *is combined an embalming or antiseptic property and a delicate aromatic fragrance*, which makes it really a *toilet luxury*, as it removes all disagreeable odors, even that of tobacco, and keeps the mouth fresh and agreeable. It imparts such a delightful sensation to the teeth and mouth, as to make it a pleasure for both children and

adults to use it as systematically as they are in the habit of performing their daily ablutions—a practice which is essential, in order to preserve the teeth in a healthy condition during life.

SOZODONT has been found a highly useful wash for the mouths of invalids, and particularly those who are suffering from fevers, as a few drops, added to a mouthful of water, and well agitated in the mouth, will relieve the tongue and surrounding parts of their dry and feverish coating, and will impart a sensation of coolness to the mouth for several hours thereafter. The above process may be repeated several times a day, or as frequently as desired.

FRAGRANT SOZODONT has withstood the tests and prejudices of the skeptical public for the past *twenty-nine years*, and has grown in public favor each year until it is now sold in every civilized country on the globe, its sale being larger than that of any other like preparation. We are sometimes told that certain envious persons, who have tooth preparations of their own to sell, and finding that SOZODONT is taking the place of them, speak disparagingly of SOZODONT, and don't approve of it, etc. It is natural that they should dislike it, since its popularity interferes with the sale of their wares, and therefore their motives are too transparent not to be seen by every intelligent person. Many eminent members of the profession, however, in all parts of the world indorse it. Subjoined will be found a few testimonials from among the most distinguished Dentists, Chemists, Physicians, Clergymen, and citizens in high standing of the United States, who speak from practical knowledge of SOZODONT. Very many more could be added thereto, but we have selected such names as are the most familiar to most Americans:

[From G. F. J. COLBURN, *Doctor Dental Surgery,*
Newark, N. J.]

The popular Dentifrice known as VAN BUSKIRK'S SOZODONT, besides being a very pleasant addition to the toilet, contains ingredients that, if used accord-

ing to the directions, will prove of the greatest utility to the health of the mouth and teeth.

C. F. J. Colburn

[From MR. C. B. THURSTON, *Dentist, Newark, N. J.*]

I most cheerfully bear testimony to the unrivaled excellence of VAN BUSKIRK'S SOZODONT for the teeth. During my practice in dentistry, for a number of years past, I have not only used it personally, but have recommended its use to my customers, as being the most efficacious, as well as delicious, dentifrice in use, any well calculated as a preservative for the teeth.

C. B. Thurston

[From MR. A. T. JOHNSON, *Dentist, Lowell, Mass.*]

DEAR SIR: Two years since, a friend of mine from New York sent me a bottle of your dentifrice, very properly called SOZODONT, with the request that I should give it a trial. I did so, and was convinced it was destined to take the place of all preparations for the teeth. I have been engaged in the practice of dentistry for the past seventeen (17) years, and during that time, among all the preparations for the teeth offered to the public, I must say that, from personal experience, the SOZODONT bears off the palm. For my own use, I would not be without it for any consideration.

A. T. Johnson

(From MR. J. R. DILLINGHAM, *Dentist, Boston, Mass.*)

Having used personally, and in my practice, for some time past, the dentifrice called VAN BUSKIRK'S

SOZODONT, I find it the best preparation I have yet seen for hardening the gums, and cleansing and preserving the teeth. It gives to the mouth a cleanness, thereby correcting any disagreeable odors arising from decayed teeth, which I have been unable to obtain in any other preparation. It is an elegant toilet article, and well worthy the encomiums it has received.

J. R. Pennington

[From HON. EX-GOVERNOR PENNINGTON, Newark, N. J., Late Speaker of the House of Representatives at Washington.]

I have used, as a cleanser of the teeth, a preparation made by MR. R. VAN BUSKIRK, of this city, called SOZODONT, and have found it very beneficial. It has a good effect upon the teeth, and purifies the breath. The character of MR. VAN BUSKIRK, as a chemist, is a guarantee of merit in all articles bearing his name.

Wm. Pennington

[From HON. EX-CHIEF JUSTICE HORNBLLOWER, Newark, N. J.]

Among the most valuable preparations for the toilet which have fallen under my notice, is an article properly called SOZODONT, made by MR. R. VAN BUSKIRK, of this city, which, I am satisfied, is in all respects what its title indicates—a *Preserver of the Teeth*. It has been used in my family for some time,

and proved to be a very serviceable cleanser of the teeth, as well as a very pleasant and cooling wash for the mouth. Besides the testimony of several of our most eminent physicians in its favor, the high standing of MR. VAN BUSKIRK in our community as a gentleman of integrity, as well as an experienced chemist, should be sufficient evidence of its efficacy and value.

Is. C. Howblower

[From PHILEMON DICKINSON, Esq., Pres. Trenton Banking Co., Trenton, N. J.]

DEAR SIR: I have used your SOZODONT for two years past with pleasure and advantage. My family prefer it to any other dentifrice they have tried.

Philemon Dickinson

Having used VAN BUSKIRK'S FRAGRANT SOZODONT personally and in my family daily since 1860, or for a period of over twenty-four years, and being familiar with all of its ingredients, both the liquid and powder—knowing them all to be purely vegetable and unadulterated, can and do most cheerfully commend their combined use on the basis of their æsthetic merits.

J. B. Ackerman
639 Pacific St., Brooklyn, N. Y.

[From JOHN S. DARCY, M. D., of Newark, N. J.]
VAN BUSKIRK'S SOZODONT has been used by my family for a considerable length of time, and is regarded as a valuable appendage to our toilet.

Its composition having been made known to me, I can confidently assert that it contains nothing injurious—on the contrary, the ingredients with which it is composed, and its deterstive powers are such as are well calculated to exercise a preservative influence over the teeth.

John S. Davy
Physⁿ & Surgeon

[From ALEXANDER N. DOUGHERTY, M. D., Newark,
N. J.]

Having been made acquainted with the composition of the preparation known as VAN BUSKIRK'S SOZODONT, I have, for some time past, permitted its use in my family, where it has given entire satisfaction. It is an elegant toilet article, well worthy of the encomiums it has received.

Alfred B. Dougherty

[From JAMES MAIRS, M. D., 35 Clinton Place, New
York.]

MR. VAN BUSKIRK.

DEAR SIR: For some time past I have been making use of your SOZODONT. At the time I began to use it, my gums were very tender and painful to the touch, and had been so for a considerable length of time. After using the SOZODONT a few times, they were entirely relieved, and have remained so ever since. I consider the SOZODONT the most convenient,

efficient, satisfactory, and pleasant dentifrice in use—
indispensable to all well regulated toilets.

Yours, etc., most respectfully,

James Mair, M.D.

BROOKLYN, N. Y., Feb'y. 28, 1882.

I have used VAN BUSKIRK'S FRAGRANT SOZODONT
for several years, and take pleasure in giving it the
benefit of my commendation.

D. A. Gorton, M.D.

*Editor of the late National Quarterly Review, corner
Clinton and Schermerhorn Streets.*

I have used SOZODONT for years in my family, and
consider it the best and most efficient means of keep-
ing the teeth clean and free from injurious accumu-
lations, besides being the most agreeable and conven-
ient tooth and mouth wash ever brought to my
knowledge.

A. Van name M.D.

Physician and Surgeon.
188 Remsen St., Brooklyn, N. Y., March 2d, 1882.

[*The following eminent physicians of New York City together with a few of the many prominent citizens, having been made-acquainted with the composition, have used it for some years past, both personally and in their families, give it their hearty approval and recommendation.*]

- J. P. BATCHELDER, M. D., 53 Amity St.
E. J. BUMSTEAD, 162 West Twenty-third St.
DAVID S. CONANT, M. D., 27 East Twenty-fourth St.
JOHN J. CRANE, M. D., 31 West Twenty-first St.
H. P. DEWES, M. D., 791 Broadway.
STEPHEN HASBROECK, M. D., 162 West 27th St.
JARED LINDLEY, M. D., 22 Lafayette Place.
JAMES MAIRS, M. D., 35 Clinton Place.
B. W. MCCREADY, M. D., 43 East Twenty-third St.
H. D. RANNEY, M. D., 139 West Twenty-fourth St.
J. W. RANNEY, M. D., 17 East Forty-sixth St.
WILLIAM C. ROBERTS, M. D., 41 East Thirteenth St.
J. S. THEBAUN, M. D., 9 East Thirteenth St.
GEORGE WILKINS, M. D., 28 Laight St.
M. F. READING, Manhattan Bank, 40 Wall St
BENJAMIN FISH, Marine Bank, 90 Wall St.
ISAAC E. BOGART, Union Bank, 34 Wall St.
H. W. FORD, Bank of the Republic, cor. Broadway
and Wall St.
W. P. PALMER, President Manhattan Fire Insurance
Company, 68 Wall St.
J. C. HARRIOTT, Secretary Brevoort Fire Insurance
Company, 70 Wall St.
JOHN ANTHON, Attorney-at-Law, 16 Exchange Place.
F. E. DANA, Attorney-at-Law, 67 Wall St.
GEORGE C. GIBBS, Banker, 207 Broadway.
GEORGE W. CULLAN, Banker, 8 Wall St.
D. P. BAKER, Merchant, 177 Broadway.
HENRY VAN BERGEN, Merchant, 207 Broadway.
D. P. WEBSTER, Merchant, 212 Broadway.
J. M. JACQUES, Merchant, 207 Broadway.
F. EGENTEN OSTRANDER, Merchant, 197 Chambers St.
G. H. MARAMORE, Merchant, 59 Warren St.
JOHN S. PATTERSON, Merchant, 146 Broadway.
WM. B. MINER, Merchant, 67 Exchange Place.

[The following Clergymen and their families having used VAN BUSKIRK'S SOZODONT, are convinced of its excellent qualities, and give it their cordial commendation:]

- JAMES W. ALEXANDER, D. D., Pastor of Presbyterian Church, Fifth Avenue, New York.
- REV. B. M. ADAMS, Pastor M. E. Church, Duane St., New York.
- REV. HEMAN BANGS, Pastor Centenary M. E. Church, Brooklyn, New York.
- REV. SAMUEL COOKE, D. D., Rector of St. Bartholomew's Church, Lafayette Place, New York.
- REV. E. H. CHAPIN, D. D., Pastor Fourth Universalist Church, Broadway, New York.
- REV. THOMAS DEWITT, D. D., Pastor Collegiate Reformed Dutch Church, Lafayette Pl., New York.
- REV. WILLIAM F. MORGAN, D. D., Rector of St. Thomas' Church, cor. Broadway and Houston St., New York.
- REV. J. B. WAKELEY, M. E. City Missionary, 29 Grove St., New York.
- REV. N. J. MARSELUS, Pastor R. D. Church, Bleecker, cor. Amos St., New York.
- REV. W. S. MICKELS, Pastor Baptist Church, Sixteenth St., New York.
- REV. J. P. NEWMAN, Pastor Bedford St. M. E. Church, New York.
- REV. SAMUEL OSGOOD, D. D., Pastor Church of Messiah, Broadway, New York.
- REV. D. S. PARMELEE, Pastor Union Baptist Church, Twenty-second St., New York.
- REV. GEORGE POTTS, D. D., Pastor Presbyterian Church, University Place, New York.
- REV. E. E. RANKIN, Pastor Presbyterian Church, Forty-second St., New York.
- REV. PETER STRYKER, Pastor R. D. Church, Broome, cor. Greene St., New York.
- REV. A. VERREN, D. D., Rector Church du St. Esprit, Franklin St., New York.
- REV. T. E. VERMILYE, D. D., Pastor of Collegiate D. P. Church, Lafayette Place, New York.

[*Eminent Chemist's Opinion.*]

489 BROADWAY, NEW YORK, July 5th, 1866.

I have made a chemical analysis of the preparation for the teeth known as SOZODONT, for Messrs. Hall & Ruckel, the object of the analysis being to ascertain whether it contains substances detrimental to the teeth or gums. An impartial sample of the SOZODONT was purchased by me personally, from a leading drug house of this city, and carefully analyzed for acids and other corrosive or injurious ingredients likely to have a detrimental action on the teeth or gums, but nothing of an objectionable character was found in its composition. SOZODONT contains ingredients that, in my opinion, must be beneficial to the health of the teeth and gums.

JULIUS G. POHLE, M. D.

Analytical Chemist, Late of Dr. Jas. R. Chilton & Co.

ACTORS and Actresses are most generally remarkable for the whiteness and brilliancy of their teeth. When the charm of the mouth is destroyed or even impaired, all mere personal beauty disappears. The following testimonials, from some of the most distinguished cantatrices, are selected from hosts of similar documents:

Her Majesty's Opera.

I use SOZODONT, and find it an exquisite toilet article. Besides cleansing the teeth, it imparts a refreshing effect to the mouth.

Yours truly,

ALWINA VALERIA.

Her Majesty's Opera.

I take pleasure in recommending the delightful dentifrice, SOZODONT, as the most efficient preparation of the kind I have ever used.

MARIE ROZE.

Her Majesty's Opera.

I regard SOZODONT as a charming and most efficacious dentifrice.

EMILIE AMBRE, Clarendon Hotel.

Wallack's Theatre, New York.

MESSRS. HALL & RUCKEL.

Dear Sirs:—Having used your SOZODONT for many years and finding it most beneficial to the teeth, I take great pleasure in recommending it to the public and my professional friends.

Truly yours
ROSE COGHLAN.

Wallack's Theater, New York.

MESSRS. HALL & RUCKEL.

Gentlemen:—It affords me much pleasure in informing you that I have used your Fragrant SOZODONT with most satisfactory results, and pronounce it a very agreeable preparation; indeed I consider it far superior to any other like preparation I have ever used, and recommend it to all desiring a delightful d'ntifrice.

Very truly yours,

ANNIE ROBE.

From Marie Aimee.

MESSRS. HALL & RUCKEL.

Gentlemen:—I have used your SOZODONT and find it an exquisite toilet article, which every lady should have on her toilet table

It has a delicious flavor, cleanses and preserves the teeth, and imparts a refreshing effect to the mouth.

Yours most respectfully,

MARIE AIMEE.

From Emma Abbott.

MESSRS. HALL & RUCKEL.

Gentlemen:—I find your SOZODONT a most delightful and agreeable preparation for the teeth.

Faithfully yours,

EMMA ABBOTT.

For the lip there is no brightness,
For the teeth there is no whiteness;
Where SOZODONT has ne'er a place;
But those who use it, know full well,
How bright and beautiful the spell
It throws o'er man or woman's face.



SOZODONT COMPANION PERFUME. SOZODONT COLOGNE.

We introduce to the public our new SOZODONT COMPANION PERFUME, a delightful and refreshing concentrated extract for the handkerchief (see illustration above, one-third size.) It has the most lasting qualities, and its popular bouquet being made from a choice collection of the odors of favorite flowers, blended with much skill and precision, in such a novel manner that it is sure to please the most fastidious and refined tastes, and will meet with the critical approbation of the public.

This perfume cannot be excelled, if equaled, at home or abroad, and will prove worthy of the meritorious reputation which its renowned companion SOZODONT achieved after thirty years' trial.

Put up in an artistic and unique style, in bottles containing two ounces, making quite an attractive as well as useful adjunct to the toilet.

Can be obtained from the leading Druggists. Price, 75c.

There has been for a long time past a demand for an exquisite and refreshing, as well as durable, Cologne Water.

The article illustrated above (one-third size,) SOZODONT COMPANION COLOGNE, we are confident will meet this demand, and at the same time will become increasingly popular upon its intrinsic merits, being superior to foreign makes.

This Cologne is prepared from the choicest and finest materials, from a selected receipt, no expense being spared to add to its excellence, attractiveness and durability.

Each Bottle, containing four ounces of the Cologne, is packed in a handsome carton.

Can be procured through Druggists. Price, 50 cents.

ANTISEPTIC.



ANTISEPTIC

(One-half size.)

—FOR THE—

TOILET and all SKIN DISEASES.

Containing chemically pure THYMOL—the recently discovered CRYSTAL of WILD THYME—pronounced by eminent chemists of Europe to be far superior to *carbolic acid*, and possesses the great advantage of being *perfectly harmless* and *non-irritant*.

The THYMOLINE SOAP is made from the choicest materials and contains, combined with emollient oils, the proper proportion of Thymol, which, in addition to its valuable medicinal properties exhales a delightful *fragrance*, rendering its use agreeable as well as salutary. Its habitual use as a Toilet Soap will keep the complexion free from the deleterious effects of the extremes of temperature.

It is unequalled for the cure of Pimples, Chaps, Chilblains, Sunburn, Eczema, and all cutaneous affections.

It removes Dandruff and Scurf, and produces a healthy action of the scalp, thereby promoting the growth of the hair, and preventing its falling out.

It is invaluable for use in the *nursery*, and may be used with impunity upon the most delicate skin.

It may be used as a *salve* by scraping it fine, and mixing with sufficient water to make a stiff paste, and will be found highly efficacious for the cure of Ringworm, Tetter, Cuts, Burns, etc., pure soap being a much better medicinal vehicle than the common cerates generally used, which are more or less irritating.

PRICE 25 CENTS FOR 4.OUNCE CAKE.

Can be sent by mail or obtained from all Dealers in **BOZONONT**.



Attention is invited to the illustration above (two-thirds size) being a correct representation of a large box of Fragrant Sozodont Tooth Powder, put up for the convenience of those who desire the Sozodont Tooth Powder in larger proportions than is contained in the box accompanying the Sozodont Liquid—The genuine Sozodont Powder is sold only in boxes as shown in the cut (and not in bulk, or in any other form), and can be procured through any druggist, or will be mailed to any address on receipt of the price, 25 cts.

IMPROVED DIRECTIONS.

Dip the Tooth Brush in water; then sprinkle five or six drops of Liquid SOZODONT on it; again dip the brush very lightly in the SOZODONT Powder taking care that a small quantity of the latter adheres on the surface of the brush. Rub on the teeth; the froth that is formed by rubbing should be allowed to penetrate every crevice in the teeth and mouth, after which rinse out the mouth with water.

HALL & RUCKEL,
 DRUGGISTS and PERFUMERS,
 NEW YORK.