Transactions of the North Carolina Dental Society Annual Meeting

Volume 27 (1901)

DOCUMENT NO. NCHH-32-027

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TRANSACTIONS
OF THE
North Carolina
State Dental Association,
AT THE
TWENTY-SEVENTH ANNUAL SESSION,
HELD AT
Morehead City, N. C.,
COMMENCING JUNE 25, 1901.

Publishing Committee: I. N. Carr.

1901:
The Seeman Printery, Printers and Binders,
Durham, N. C.
PROCEEDINGS.

Morehead City, N. C., June 25, 1901.

The Twenty-seventh Annual Session of the North Carolina State Dental Association was called to order in Morehead City, N. C., June 25, 1901, at 11 o'clock by the President, Dr. E. J. Tucker.

The meeting was opened with prayer by Rev. Mr. A. W. Setzer, of the Baptist church of Morehead.

The address of welcome was delivered by Rev. M. H. North, of the Methodist church.

Address of Welcome.

As some of you doubtless have never visited our town before, I will give you just a word as to the geography and the inhabitants of Morehead City. This is comparatively a new town, having been largely built up since the war. There are so far only three sides to it. On the North it is bounded by Calico creek, on the South by Bogue sound, and on the West by the "wire fence" and the United States. It has a population of more than fourteen hundred and is now growing rapidly. It will not be necessary for me to tell you more of the citizens than that they are independent, warm-hearted southerners. And it is as spokesman for these that I come to greet you today. From a child I loved to answer the door-bell and to welcome even a stranger. It always gives promise of something new, and brings with it a thrill of pleasure. So it is with this old time feeling that I open the door to you this morning.

What shall I say to you or of you on this the first day of your annual festival? I have nothing but words of praise for the laborers who come to this week of well-earned rest. There is scarcely a body of men (a Methodist Conference always excepted) that I would more gladly welcome than this society. Let me rejoice with you in this one fact, that there are no political considerations to hamper you in these sessions. There is no office in your power to bestow upon another, neither do you seek for spoils at the hand of any party leader. You stand or fall because of that which is within you, and if you ever reach a station of power it is because of personal merit, and by personal merit it is held.

I do not flatter when I say that it would be hard to find a more sober, intelligent body of men in the State. Familiar with the world's best
literature, lovers of peace, lovers of home, always found at the post of duty, they well be numbered among the representative citizens of our commonwealth.

The dentist is a cheerful man and it is well that he is for he must hold communion with the sad. A man of nerve, of self-control, of sympathy, is indeed a servant of mankind for he ministers unto their necessities. As I meet him after office hours there is not the least suggestion of shop about him, but instead he is the genial, large-hearted townsman. You may always count on his taking in legitimate pastimes, and on lending his support to the development of the natural and social resources of his community.

The dentist is pre-eminently a man of the City: he may spring up in the country but does not often flourish there; but wherever you find the pavement and tower, the brown stone front and the business block, there you will find him in all of his glory with sign over the door-way: "Office of Dr. Blank, second floor, front." His brother, the physician, must seek out his patients in all kinds of weather from the crowded city or in the thinly settled country district, but our friend, the dentist, has but to spin his web and the victim comes of its own accord.

With every ill that visits the body of a man there comes also a measure of sympathy from his fellows, except in the cases of dyspepsia and tooth-ache. People laughingly declare that you could not die with these even though one should make the effort. They tell you furthermore that the soothing terms of the dentist are not expressive of real sympathy, and that he is a friend only for what he can get out of you. Well I say that if he can get that old tooth out of you that he is a friend indeed.

If I were a Raphael and wished to paint the picture of misery, I would take as my model the fourteen-year old lad with the quivering, pulsing nerve, with the swollen cheek leant forward in his hand and a look of despair upon his face. And as companion piece to this I would make another picture and call it "Joy." My model would be this same boy as he descends the stairs from the dental office one hour later, and thrusting his tongue into the vacant place, thereby forfeiting forever the golden tooth, he exclaims in language between a sob and a laugh: "It's out"! If he is called a benefactor to mankind who causes two blades of grass to grow where one grew formerly, what shall we say of him who gives to the body surcease from pain and supplants the frown by a smile.

In consideration of such services rendered to humanity there are accorded to the dentist greater privileges than are usually granted to the common race of men. As for instance they supply their own mouths with bread by forcibly taking from the mouths of others, yet no one says them nay; they are constantly hurting the feelings of their neighbors and think that no apology is necessary, but on the contrary to heal the wound a fee is exacted; and as their patients are not always
men, I would say that if a fellow has a girl in town where there is an unmarried dentist he ought to be mighty thankful if she has good teeth.

I believe that I have never given you my first experience with a western dentist. He was one of these big mountaineers with hair all over his face, broad chested, and an arm like the mainmast of the Gertrude. I had only a "chair acquaintance with him but that was enough by which to remember him. I had been told, by those who ought to know, that one's affections clustered about the heart, and the nerves in the brain, but it seemed to me that at this time both nerves and affections centered in a certain superior central incisor. You never could induce this man to admit that a tooth would hurt. "Oh Doctor" I cried, "how about this one?" "Well" said he "this may be a little "tejus." I warn all sufferers to beware of the 'tejus' teeth. Before he finished with me, I was almost prostrated, and for weeks after this upon taking a seat in a barber's chair for a shave, by an association of ideas my heart would leap faster and I would quiver as an aspen leaf for fear the razor would be tejus.

Since Dr. Harper was a boy there have been many wonderful strides made in the science of dentistry. They used to "plug" a tooth but now it is filled; then they "pulled" them, but now they are drawn, extracted and sometimes even removed. Paraffine and bees-wax have give place to bone-filling and gold; the maul, the sledge and the crow-bar have been supplanted by more humane inventions that kill without mangle; instead of hitting each successive nerve in the gamut as of old, they strike the whole octave at once. Our mothers no longer have to draw the loose tooth with a thread of silk nor to suspend the struggling victim from a nail in the wall, a mere clasp of the fingers and a twist of the wrist and the work is done. An ingenious Frenchman has hit upon the plan of having phonographic attachments for the ears of the patient so that he may be regaled by music while undergoing an operation; but I do not like this idea, it savours too much of a fiddle in a graveyard or a brass band at a hanging.

I congratulate you upon the high standard set by the profession in this State. It speaks well for a people when they insist on thorough preparation on the part of those entering the professions or callings. There are scores of men who would find it difficult to enter the Freshman class of the institution from which they graduated several years since. This is not a reflection upon these men, but it is a credit to the institutions. A sympathetic public has been imposed upon too long by quacks in law, letters, medicine and the ministry. So young men if any of you fail, it may not be because of your weakness, but on account of an increased zeal in the examining board for the highest interests of the people of the State. Far better is it for you to fail a score of times before entering, than having entered to fail once.

We are sorry that owing to our location we can not offer to you the wooded park, the walk-way and spacious drives with coach and four to match; but we do what is better in giving you the freedom of the
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boundless deep. Even now you may hear the Atlantic roaring out its welcome against the shingly beach. For a moment it crouches behind its breakers and then rears aloft as if to enfold you in its surf-like arms; the sou-west winds as they hurry over the banks of Bogue whisper to you their welcome; and in past bar and inlet, there comes, from far-off Diamond and Hatteras, the swell of the mighty sea to greet the swell but newly come from, Greensboro. Every boat in the harbor flaps its sail in welcome, from that of Capt. Bartimaeus Willis, the shell-fish commissioner, to the cat rig of Dr. W. E. Headen. I bid you welcome in the name of the merchants and maidens of our town, in the name of suffering humanity here and elsewhere, in the name of proprietors of the hotels and the cooks thereof, and also in my own name. We are glad to have you all with us, from Dr. Everett with his iron grip and bear-like hug to Dr. Benton with his velvety tread and the touch of a mother, and we only hope that you have left your work-baskets at home.

Response by Dr. J. S. Betts, of Greensboro, N. C.

Response to Address of Welcome.

Mr. President, Ladies and Gentlemen:

Nature is prone to diffusion. For fragrance and beauty we must seek first her flowers; for song, her birds; for daintiness, her jewels and her pearls; for loveliness, her femininity. We expect flowers to cast a pleasing picture upon the retina, and we expect the gentle zephyrs that caress and kiss them to come to us perfume-laden. We expect the choirs that occupy the trees, in unrestrained delight, to exult in concerts of untutored art which embodies the ecstasy of life—an art ignorant of pain and unaware of death or aught that disembodies joy. And, then, the inanimate life, as it is termed, of flower and plant and shrub and jewel and pearl—what acquaintance holds such charm as to know them aright in their inexpressible solace and significance? That is just what we might expect! And the streams, we expect them to allure the hearing and cheer the mind in their exquisite sweetness of compliance with the eternal law that bids them musically to seek the sea. When the frosts of winter have merged into dew, the blighting winds into balmy breezes, and the chided day outstretched to twilights that match the softest sentiments of the heart, from underneath the tangle of sapless vines and the uncanny rustling of its autumn leaves that perished long ago and now flutter about the garden's barrenness like the hopeless memories of a wasted life, we expect to see timidly rearing its head the dainty daffodil, "that comes before the swallows dare and takes the winds of March with beauty"—we expect to see bits of green begin to gleam across the naked wastes, like festoons in a long neglected hall where merriment is to reign.

We expect that as a result of continued association with nature's femininity, love will go abroad seeking whom it may to imbue them
with good instincts, and charity, and kindness, and forgiveness and bringing sudden inspiration into the souls of men; and the song of the new life to be singing in the heart of the youth, and its theme, as always, telling of moonlight, roses, fond eyes, soft lips, and the happiness of coming days.

But we are sometimes disappointed in our expectations, or the unexpected sometimes happens. In this the day of wonderful achievements of startling discoveries, of undreamt-of accomplishments we must not be surprised at anything that records the worlds progress.

It has remained to this glad day, to this auspicious occasion for us, as one man, to witness the issuing forth from the deep and hitherto unexplored bosom of the North a balmy breeze that has melted itself into warm words of welcome imparting at once to this entire association a feeling that we are at home.

I thank you, Mr. North, in the name of this Association for the hearty welcome you have extended. I assure you, sir, that we greatly appreciate it. We expected as much. We have met here before. And had we not, we are not ignorant of the fact that your excellent City by the sea has a reputation, far and wide, for its genuine, Southern hospitality. I am glad that so many of us are gathered here in your city. We have left our homes and offices in the various sections of the State to come here and spend a while in deliberating for the common good of our profession. We come from the West where grandfather mountain rears his head aloft so that his forehead shall catch the first warm kisses of the morning sunbeams. We came from the East where the grand diapason of waves beating upon the shores fills the head of man with an undying melody. While others still, who hail from the progressive Piedmont Section are glad of the respects which this occasion offers of forgetting the noise of the hum and whirl of ten thousand spindles and the clash of a multitude of looms, and drinking in the grand harmony which here strikes upon the enraptured soul.

Like the mariner on you rough sea, it is necessary that we occasion-ally take our latitude, in order that we may ascertain how far the elements of warring forces and influence have taken us—that we may be able to determine "where we are at."

We are at the beginning of a new century—we are at the threshold of wonderful possibilities; and our opportunities are greater than ever before. A new era is upon us. Its problems we must solve. Each generation, each individual is responsible for its solution.

Our inheritance is not only the achievements and the glories of the past, but the responsibility for the opportunities bequeathed to us. More is expected, more demanded of us than ever before. We must rise with the swelling tide of industrial and financial activity that is now sweeping the Southland We must bestir ourselves, and come in intimate touch with the revival of learning in this era of the State's upbuilding. And to this end we have met here to-day. We are proud
of our progress thus far, and we promise you, sir, that when we meet in your hospitable City again we shall have marked many mile-stones on the highway of progress.

Again we thank you, sir, for your hearty welcome, and we extend to you and your good people a cordial invitation to be present at our meetings.

The roll was called by the Secretary, Dr. J. S. Spurgeon, and the following members were found present:


The minutes of the last meeting were read and approved.

Dr. W. B. Ramsey took the chair, and the President delivered his address.

PRESIDENT'S ADDRESS.

Time, in its never ceasing march unto eternity, has another circle completed in the great plan of the universe, and our existence has been vouchsafed through Him whose watchful care is ever with us, and we are again permitted to assemble in annual meeting.

So swift has been its flight it seems as but yesterday since I enjoyed the privilege and had the honor of presiding over this distinguished body at one other annual meeting.

Ill health of our former President at that time was the cause for my being inflicted upon you then; but now the fault lies with yourself wholly that I am before you again in the same capacity, as it was your ballots that placed me in this honorable and high position which I hope has been modestly filled with the earnest desire for the betterment and honor of the Association.
Having come together with hopefulness for the purpose of advancing our profession, and as we come in touch with our professional brother, let us each strive to do him good, for it is a truth that as we help each other we elevate and advance the standard of our profession.

Freed from the tiresome routine of the office and from the constant care and anxieties attendant thereto, we come with gladsome hearts to enjoy and refresh ourselves again in the assembly of loved friends and brothers. Refreshing because among the episodes and incidents of professional life, a convention of Dental Surgeons, inspired by a common desire and animated by a common purpose, will be not only enjoyable and refreshing, but elevating, refining, ennobling and strengthening. In this our loved Association, this dignified and fraternal presence, our aims are broadened, our aspirations stimulated, our eyes brightened, our pulse beats quickened, our hearts are warmed, and our resolves to press on and up to the topmost plane of professional advancement, receives aid and inspiration in our present surroundings.

We have left the busy cares of life, homes and loved ones, to bring to this assembly our contribution that Providence has given us, and laid it on the altar of professional worship and faith, knowing that we shall receive a dividend upon our investment that will more than recompense our sacrifices, reward our labors and earnest endeavors, and leave us rich in acquirements and in added resources. Gems of knowledge that shall stimulate us along the pathway of future research and advancement, so that we may be wealthy in the esteem and approval of our co-professional brethren.

To-day begins the twenty-seventh annual meeting of our Association. With the closing of the nineteenth century we have passed through childhood and youth, and in this, the twentieth century, stand in the full vigor of manhood, with hope and promise of a brilliant future. As we take a retrospective view of our history, the promise is made strong and we contemplate with pardonable pride the wonderful professional strides made in the elevation of our profession in this State.

In my opinion it is not unjust to others to assert that in no section of this or any other country can there be found higher examples of scientific and artistic dentistry, than are wrought by the members of our State fraternity.

PROFESSIONAL STATUS.

Civilization, as we term it, has been secured to us only after many long centuries. I will not attempt to discuss the antiquity of Dental Surgery, as we all know that the wonderful achievements of the profession has been the work primarily of about sixty years.

However, in passing I will say we all speak reverently the two names which will ever stand at the head in American demonstrations of science and art in Dentistry, Hudson and Hayden.

They laid with skilful hands the foundation for this noble, beneficent, scientific, and artistic edifice which we have principally erected within
the past sixty years; within the memory of many practitioners still living, we have risen to the rank of a learned profession and regarded as one of the most beneficial to humanity.

We have contributed one of the most brilliant pages to be found in the history of surgery, the discovery of anaesthesia, by Horace Wells, and the giving of that priceless boon to humanity cannot be taken from us by any power on earth. This would entitle us to the praise and gratitude of the world, if we had done no more.

The achievements and blessings that pass unnoticed and unrecorded are so numerous that it is useless to take your time to specify them, as it is expected that every true practitioner keeps up with the history of his profession.

We have done much for the comfort of the race, and this is the great reason for our rapid progress; we have won from the general public that recognition and support so necessary to our existence, also the recognition of the Medical profession has come to us, as well as other professions.

The efforts of the Dental profession, looking toward recognition from the Government, dates back to July, 1858. Many efforts have been made during the intervening years, and the justice of the demand has at last been legally recognized by the Government, and the act of Congress, approved on February 2, 1901, creating a corps of Dental Surgeons in connection with the military service of the United States, marks another advance step in our professional status. And, while not just what we desire, yet we believe this recognition is generally appreciated by the members of the profession throughout the country, and we can hope that this relation may reach our highest ideals. We will demonstrate our righteous claims of importance and dignity as a scientific profession, rendering service in relieving suffering humanity in the Army and Navy as well as the citizen in private life.

We have used the three great factors in human advancement: "the power to communicate, to record thoughts and experiences, and to coordinate individual powers into harmonious action for the common good of humanity." These three factors must ever remain fundamental and dominant in all progress and civilization. The things man accounts success and the rewards for which he strives are as various as are the powers he brings into use for their attainments. Reduced to their component elements they are the material rewards which give pleasure and enable man to preserve life. The satisfaction resulting from the exercise of man's creative energies, or through the praise and approval of his fellowman, and in the gratification which comes through Divine approval, our conscience teaches us must be reckoned with in our existence. We all must recognize the importance of those rewards which serve the elemental needs of life. Man must have the approbation of his fellowman. It is a stimulous to his honest and earnest endeavors for humanity. It cannot be relinquished with resignation, unless it be in subordination to the higher claims of conscience.
We may call this love of praise from our fellowman a childish vanity, if we will. It is, and more, it is one of the great stimulating, energizing, and fundamental forces in the development of our profession.

"Under the joy that is felt, lie the infinite issues of feeling,
Crowning the glory revealed, is the glory that crowns the revealing;
Great are the symbols of being, but that which is symboled is greater,
Vast the create and beheld, but vaster the inward creator.
Back of the sound broods the silence, back of the gift stands the giving,
Back of the hand that receives, thrill the sensitive nerves of receiving."

"The husbandman fells the forest and drives deep his ploughshare,
not alone for the rich harvest with which mother earth may reward his toils, but for the praise and joy in doing well what others will hail as such." The artist toils through fleeting years and pursues an inviting ideal whose beauty and loveliness never escapes his grasp, not alone that he may preserve her beauty in statuary, or immortal verse, for which men will make generous remuneration, but for that higher reward, that which satisfies our human natures, and that is, that man may proclaim him master of his art, and thus bestow the sweeter recompense of human praise.

Even the scientist is not free from desire in some measure for reward. In some way he, too, must receive recognition, encouragement and sympathy as a partial reward for which he strives.

So, then, the desire of the members of any profession that their efforts shall receive commendation by those they serve, and that their profession may hold a high place in public favor, is natural and landable, and this is one of the sweetest rewards of the true professional man.

INFLUENCE OF THE ASSOCIATION.

Here, as in all human progress, the very bedrock foundation principal of the Association is morality. Without it there could be no civilization, the grand purpose of the world would end, the affairs of men and nations would become chaotic. It is the tie that binds hearts and unites heaven and earth, the true guiding principal in the heart of the universe. The Dental Association stands for this and more. So, then, the Association always exercises a helpful influence upon the young and inexperienced practitioner, restraining, developing and cultivating love of order and enjoining right living, and in a large degree becoming a protection and a source of professional benefit. It teaches professionalism among the profession, thereby keeping down envy, slanders, jealousies and all manner of bitterness.

Again, the influence of the Association teaches us that empiricism, quackery and charlatanism has no place in our profession, and must give place to the broad spirit of humanity and liberality, which is the guiding principal of a learned profession. It teaches us that we owe to our profession competency, and an honorable place in society, to do good and be useful, to possess a refined and cultured mind, broadened by the study of the scientific principles upon which the profession is
founded, a moral sense of duty, humane and noble because I am one of it, and the profession owes the same to us; our profession also demands that we gain knowledge, improve in practice and help weak members, so that in some degree our usefulness may be a stimulating force in broadening and elevating the profession. It is said that true love "gives all, and demands all in return." and so it should be with us in our professional life. We should give our best efforts and energies to our profession, and expect a just reward in return. So, then, let us use the powers within us to foster and build up this great factor in the upbuilding of our profession, who has no interest but those of the profession, which stands as imposing monuments to the unselfish devotion of the men who care to lead the true professional life, remembering always that we who receive and enjoy the benefits arising from membership in a fraternity, take an obligation to be useful and helpful to that fraternity, as binding as if taken under oath. I hope we may fulfill that obligation by being active in all that pertains to the betterment of our fraternity.

DENTAL EDUCATION.

This subject lies near my heart. It must share, in a large part, the development of our Association and profession. Our role is not confined to the office, it extends beyond the limits of practice, and is exercised wherever intellect, knowledge, and influence of men contribute to the glory, greatness and upbuilding of their countries. No one thing in Dentistry shows so surely the advancement in our specialty as the demands of its advocates for higher educational qualifications. The thought finds sure expression everywhere that to fill the popular ideal hereafter the Dental Surgeon must possess an educational equipment far in advance of that which he possessed in the past. Public opinion echoes the cry that originated within the ranks of the profession for a higher standard, and it is now potent and evident that we must adequately meet the demand. With pride and hope we prophetically peer into the future and contemplate the thought that our profession shall at an early day occupy that place prepared for it among the high learned and liberal professions. As we are to have an essay from the section on Dental Education, I will not say more than give expression to one other desire; that is, I hope, yea, long for the time when the holder of a diploma will be a guarantee that he is truly learned in his profession, and also an assurance of good moral character, pure motives, holy aspirations and worthy ambitions. Then it would mean something, carry out aims desired, and be a veritable badge of nobility.

DENTAL ETHICS

The true definition of ethics is comprehensive and good. "The doctrine of man's duty in regard to himself and the rights of others." I know that there are those of our profession who do not advocate a code of ethics and scorn the idea that "gentlemen" "must be obligated before
they can perform the duties of professional life," and say that professional issues are but the offspring of professional patriotism, based upon principles, and that the life of any organization is short whose uppermost desire emanates not from an unwritten law that should govern and control men's acts, and in this sentiment I fully concur if the appellation "gentleman" could be given to all who belong to our Associations.

It is true that mankind are brothers in truth, and equally true that many of our fraternal brethren are absolute strangers in the underlying principles of true ethical manhood that should cement us in one glorious brotherhood, whose united efforts could but result in the elevation of humanity and inspire right living.

The profession, like the church, will take in bad men sometimes, not "gentlemen," and it is for these that our laws, our code of ethics must be made strong and binding so that the quack and the charlatan may be gotten rid of, and we should enact laws to do this, for they are among us degrading the profession in every conceivable manner. Take the Dental Parlor practitioner for example (who, I am sorry to say, has made his appearance in our State and will, to some degree, impede the progress of our profession among us), this board of junk shop practitioners tacked on to a learned ethical scientific profession.

The pioneers of our profession, in laying the foundation for a grand, noble, and learned fraternity, dreamed not of this adjunct.

I am not here to reprimand, but to admonish. I am grateful for our heritage, and I thank God that when we remember those who passed through hardships and endured sacrifices to win, that I catch reflected inspiration from the heart of these great benefactors to humanity. I feel like saying that we will continue until we have fulfilled the almost divine conceptions they had of a profession.

But how are we to deal with the violators of the code of Dental Ethics? is the question. I hope to see the National Dental Association and colleges take action in this matter at an early day.

I would suggest to our Examining Board that each applicant be required to sign a printed pledge, to faithfully comply with the Code of Ethics of our Association before issuing to him a State license, and in violation thereof the party be tried before the State Board of Dental Examiners as a court of justice, the President of the State Dental Association acting in conjunction as chief justice, and if found guilty that said offender's license be revoked.

I hope the Examining Board will think this over, and if this is not practical, formulate some plan to be enacted into a law that will reach the end desired along this line.

Let us remember that "he who would vitiate public taste for worthy merit by envy's insinuating poison lived only to bury his own success and cultivate the appreciation of his associates for the lofty profession which he disdains to honor."
I might discuss Operative and Prosthetic Dentistry, but as we will have essays on these subjects, I will just mention them in passing and not trespass on their field of research. Prosthetic Dentistry is a beautiful specialty, combining both science and art.

Art is the life expression of man's joy in his work, applied science, an unfolding, a development. Life is to have a free field for the powers within you, where the higher aspirations may be satisfied. Nature teaches us this lesson in its beauty of harmony of colors, harmony of sounds, and inspiring thoughts. Who can bind the sweet influences of nature? Our souls hunger and thirst for them. In Prosthetic Dentistry man finds expression of his individuality through the perfect union of hand and brain, and beauty is the result. True art is the summit of our attainments.

It is said that with tireless research the science of medicine has sought to make nature's secret thought her own, and impart to mankind that knowledge by which they may at least be saved from ignorance, violation of her mandates and her attendant penalties.

In this beneficent labor Dentistry has taken a fitting part, and has given to humanity the results that do not fear comparison with those achieved by any profession. But while we are thus assembled to learn more of the blessings which science teaches, we must not be unmindful of the broad fact which history teaches, that in the moral as in the physical world, there can be no sin without its penalty.

I wish to call your attention to the list of committees and plan for preparation and discussion of papers. This plan was suggested by myself and acquiesced in by your executive committee. I hope it will inspire interest, be a success and meet your approval.

In the past we have had such large committees that one member would wait for another, and consequently a very small number would prepare papers. So we reduced the number on each section to three, requesting the chairman of the section to appoint one member to write a paper and have a copy sent to him and the other member, some time in advance of the meeting, so that he might think over the subject, and open the discussion of the paper with a five or ten minute talk. The discussion then becomes general, and is closed by the chairman of the section. In this way we hope to know what to expect from each section. The approval of the plan and responses from members have been encouraging. This plan, after the sections are finished, will be before you for your approval or rejection.

I have a communication from the President of the South Carolina State Dental Association, which the Secretary will read in your hearing, to be disposed of as you think proper. It is in regard to forming a Tri-State Dental Society. I will not express my views in the matter, knowing that it would not be right for me to do so, while occupying my present position. The States suggested for this organization are South Carolina, Georgia and North Carolina. The first meeting to be in the city of Asheville, N. C. The matter is with you.
It is with a deep feeling of sorrow that I mention the loss of our beloved Dr. E. K. Wright. We shall miss him. His death was a shock to us and brought sadness to all who knew him. I shall appoint a committee to introduce suitable resolutions on his death, and recommend that three-quarters of an hour be set apart to offer our last tribute to the memory of our departed brother. If there is no objection, this will be the order at the proper time.

Hoping that all present may cultivate the professional spirit, be benefited, enjoy social intercourse, be punctual and attend every session, and as Matthew Arnold says, "Drift towards righteousness," keep abreast with civilization that we may make the saying of Emerson true, "That civilization carries with it a cure for all ills," and especially those that come in our specialty.

In the harbor of hope the twentieth century dawn invites us from the advances of the nineteenth century, so grand, glorious and wonderful, to enter her portals, wafted on the rousing winds, where we may catch whispered prophecies of the bright and coming day, with inspiration from achievements in the past let us turn our faces to its revealing radiance and go forward into the full light.

Hoping that the duty assigned us may be fulfilled wisely and bravely as becomes a noble fraternity, lovingly and mercifully as becomes humanity.

On motion of Dr. Fleming, the following committee was appointed to consider the President's address: Drs. V. E. Turner, A. P. Liverman and I. N. Carr.

On motion of Dr. Everett, Drs. D. E. Everett, R. H. Jones and J. M. Parker were appointed a special committee to form resolutions on the death of Dr. E. K. Wright.

The annual Essay by Dr. N. G. Carroll, was then read.

**PROFESSIONAL HONESTY AND DECISION OF CHARACTER IN THE PRACTICE OF DENTISTRY.**

In Dental practice, there are many small attentions apparently trivial in themselves, that impress your patients with your care and consideration for their comfort, and as far as the eye can influence, they are assured of cleanliness and neatness of operating. I refer principally to the essentials of proper personal appearance, clean office and instruments, which is often accepted as indicative of the character of a practitioner. But I wish to go back of this and throw out a few hints as to "Professional Honesty and Decision of Character" in the practice of Dentistry. As you follow me along, bear in mind "Honor and Glory" are not nourishing, but to the true professional man, dearer than wealth.
As our guide, let us choose the motto: "The best Capital is Character."

I suggest this guide because it is an unselfish one. It will tell you every Dentist has two reputations. One among his professional brethren and one with the public. Character is one of the greatest motive powers in the world. In its noblest embodiments, it exemplifies human nature in its highest forms, for it exhibits man at his best. Men of Honor and Character are the conscience of the society or profession to which they belong. Martin Luther said, "The prosperity of a country depends, not on the abundance of its revenues, nor on the strength of its fortifications, nor on the beauty of its public buildings; but it consists in the number of its cultivated citizen, in its men of education, enlightenment, honor and character; here are to be found its true interests, its chief strength, its real power." The practice of Dentistry is one of the most noble callings of this advanced age, and yet, I know of no other calling or vocation, of which the outside world or people in general have so limited a knowledge as to its detail and minute practice and operations. It may be safely said that every man who occupies a professional position, discloses to the world that he possesses as much knowledge and skill as may be necessary for the accomplishment of any operation within the sphere of his calling. This truth applies as well in the law as in common sense. In a trade the article is sought, it can be examined, and its value estimated, while in a profession the public seeks the individual, having confidence in his honesty and ability. Therefore, when patient seeks or asks for your services, it is a declaration of confidence and truth. Hence, a man who follows the profession should be made of fibre tough enough to stand by principle and maintain the Professional Honor and Decision of Character that so nobly, justly, and truly belongs to this profession in which providence has placed him. This doing of ones duty embodies the highest ideal of life and character. He will then have served his gifts and profession—not abused them. But while our ablest and most energetic members of the profession, our geniuses full of enthusiasm for the progress and advancement of Dentistry, are continually advancing and are striving to lead us to a broader sphere of usefulness and to a higher scientific knowledge, and we as a professional body with sincere motives and earnest desire to be useful to our fellow man and honor to our profession, striving on, falling short in many respects, though possibly doing as well as should be expected; what about the advertising strugglers, quacks and scabs, who shirk the principles of Professional Honesty and with dominant sense of right and wrong, with stifled conscience and no regard for ethics, but are eager to rush in and push themselves into an injurious prominence. The question of advertising is one that must be decided on entering practice and often with the young graduate the question of immediate gain, or future gain, with professional honor and respectability, are trying ones.

The man who is seeking the road to wealth is misdirected when he chooses the Dental profession, though the average Dentist lives well
and comfortably, spends money freely, but dies without attaining great wealth. I hope I am not cynical on the subject of advertising, and I see no objection to a man doing so in a professional manner. To have been heard of, if only once, is a great advantage with the new practitioner, and the young man just entering the profession realizes this fact, and while it is his desire to conduct himself in a professional manner and live up to the code of ethics, he may feel some necessity to bring his name before the public. Should the young man desire to simply advertise his name, calling and address in some reputable daily or weekly paper which is not used by the quack, I can see no special objection. Such advertising cannot be expected to yield immediate or direct results, the effect or desire is simply that the community or public become familiar with his name, calling and address. But be sure and stop with the name and address, do not so much as to say examinations free. While I say there can be no serious objections to this form of advertising, the reputable Dentist, feeling there must be a dividing line between him and the incompetent, refuses to advertise at all. The advancement of Dentistry has not come through the advertising offices; they are simply parasites, who live on the work of others, pulling them down by deceiving the public; they contribute nothing to the upbuilding or advancement of the profession or the investigation of new problems. The man who advertises a "Dental parlor" and superiority over all his professional brethren, is to be avoided—likewise, the man who seeks the medium of advertising cheap work through the daily papers and theatre programmes, for if his services were worth more, he could command a higher fee. Distribution of hand-bills, bragging in the daily papers and classing yourself as a Cheap John will perhaps bring more immediate results, but not a desirable or appreciative patronage, and will in the end be less profitable than a practice conducted on an honorable, a dignified and professional basis. We should remember that for steady illumination a lamp is better than a rocket, and that it is a lamentable fact, that low priced Dentistry is synonymous with cheap and shoddy work. Unfortunately it seems that this class has flourished and multiplied, and has also grown bolder, more injurious, and more unscrupulous. While the best and highest element of the profession has continued to advance, the lowest element has grown in numbers and descended to lower and more injurious methods. While the present law gives us a Board of Examiners, which in one sense gives us protection, yet, in another sense I think it fails short of its purpose. The Board of Examiners, fill their positions in a creditable way and according to law. I commend their ability but regret their restrictions. A man may pass the necessary examination, as the present law requires a certain knowledge of theory, etc. Here the power of our board ceases. No man is infallible, and so long as this is true, no body of men or examining board can seize or stop every unworthy man who seeks to practice our noble profession. As the law
intends that our Examining Board should protect the public—they should have some authority to withdraw certificates from those who indulge in malpractice, as a license from the board not only gives a man the privilege to practice but assures the public, in the sense of law, that he is worthy and competent. As the law stands, there is an element of the profession which needs the greatest possible amount of legal supervision and against which the public stands in the greatest need of protection. There should be adequate legal restriction placed on the grossest malpractice even though you have a certificate from the State Board. I do not mean that you can or any one can enact a law that says any man shall not do cheap work or advertise in newspapers, or on hand bills, but it can protect the public against flagrant malpractice, at any price, or even free of charge. It can say you shall not advertise false statements, nor can you advertise the same thing under different names and at different prices. It is a mistaken idea with a young man when he enters practice that he is forced to offer some unethical inducement to people to patronize him and he fails to give value to himself, the profession or others, as he has power to give, when he announces to the public in heavy type that his prices are the very lowest and his work the very best to be had. With our largely increased numbers, which must of necessity greatly increase competition, I am sure much good and little harm would have resulted had it not been for the man who claims every virtue in his advertisement and performs but wreck and ruin in his work. Through this method a vast multitude of the human race are slaughtered by deception and incompetency. The fact that he is not in our class professionally, or that our patients seldom go to him, does not help the situation. His advertisements continually injure us all, by educating the public mind down to a scale of prices, to which no man can adhere, do good work and make a living all at the same time. Such being the condition of a patients mind what courses are open to us? Very often by explaining the facts and the difference between the two operations, we may be able to show our patient that our operation is worth every cent we propose charging—and that it is to their advantage not to patronize a man simply because he advertises the very lowest prices, as the idea of economy would be a gross deception. We may fail to convince them of this fact and allow them to go in search of some dentist whose prices are more in accordance with those they have seen advertised in the newspapers, or worst of all, we may weaken and when the prospect of loosing a patient presents itself, we may come down from our previously stated price, with the request that as this is a special price, they must not say anything about it. This is the worst method because it directly tends to lower the standard of work of every one who resorts to such unprofessional methods. If we possess Professional honesty we named as near as possible an estimate and fair price in the first instance, and to accept less, means to be underpaid for the work. No man puts forth his best efforts or uses the best material for an operation when he feels that his compensation is not adequate.
There are two conditions relative to Dentistry which have a tendency to encourage the quack and apparently make his way easy, while they have the opposite effect on the conscientious practitioner. They are the facts, that ship-shod and superficial work inflicts a minimum of pain on the patient, and that our work is slow to find us out. The individual does not realize the harm he is doing himself or the dishonor he visits upon the profession—the desire of accumulation has eaten into him and dwarfed his conscience until his life is not worth living, but is a curse to the profession. Habit becomes law to a very great extent, and bad habits prevent the action of beneficial laws. It is impossible for us to keep the organs of Professional honesty and decision of character at work if we persistently ignore their promptings and turn our backs on their necessities. There is no just law that demands that a man should drive business away from himself, even though he be a Dentist. Yet, our guide has told us we have two reputations, namely, one with the public and one with our professional brethren. As we often have to deal with patients of others, ethics form a very prominent link in the chain of our professional duties. Very often a layman having grievances comes to consult you without giving the name of his regular Dentist. Very often the grievance is in the imagination and not in the quality of work and a few words prompted by Professional Honesty will send the patient back to their regular Dentist in a much better frame of mind. You can often do this without exceeding the demands of fraternal duty. There are many instances where the patient of another brother comes under our observation and influence. Very often they come into our own office in company with our own patient, both ethics and justice with a small portion of common sense demands that we should make no remarks of insinuation or accusation against our professional brother, nor in any manner should we endeavor to win the patient by alienating him from his regular Dentist. Sometimes another practitioner entrusts his patient to our care for some special service, we should be scrupulous not to undertake any work other than that specified. Our fellow Dentist has displayed his confidence in our integrity and it would be a poor return to deliberately alienate the patient. It would be well to refrain as far as possible from criticising the work of others, as we do not always know the circumstances under which the work has been done, nor how much of the patient's tale is to be believed. Our first duty is to be true to ourselves, then we will be true to others, and to be ready to always give our best service and at the same time be ready to give warning against incompetency, as the rule of ethics would be broken and we would forfeit all Professional Honesty if we should attempt to protect the quack or any one who should be guilty of malpractice. Let us all bear in mind the best way to advertise is to join your local and State Dental Society and take an active part. No man is sufficient unto himself; if he be a superior Dentist he owes it to his profession to join the society and demonstrate his superi-
ority; if he feels himself deficient he should join the society that he make himself more proficient by exchanging ideas with his fellow-man. Honor and Character always commands admiration and secures respect. It is natural to believe in such men and have confidence in them.

The public can always better understand and appreciate a man's real character and ability by the manner in which he conducts himself towards his professional brother and competitor and by his transaction of the seemingly common place details of daily duty, than by his public exhibition of himself as a genius, a superior operator or a "Cheap John." It seems to me that this lesson ought to teach a man to strive that he might possess Professional Honesty and Decision of Character that will make him a man that knows the commercial value of being honest and a gentleman, not a quack. Such decision will warrant success professionally, and means success as a man. Lacking in this respect means failure as a citizen and will in the end mean defeat. That which we obtain through false pretence and negligence is always far less ours than that which we acquire by honest and diligent persevering effort. It is not ease, but effort, not facility, but difficulty that makes a deserving Dentist. There is, perhaps, no station in life, in which more difficulties have to be encountered and overcome before any decided measure of success can be achieved than Dentistry. Those difficulties are, however, our best instructors, as our mistakes are often our best teachers. Wherever there is difficulty, the individual man must come out for better or worse. If a man be a man of determination, the difficulties will fall away of themselves. Often you hear a man say he would like to act differently and be more professional, but his competition is of a nature it will not permit it. The desire must ripen into purpose and effort; and one energetic attempt is worth a thousand hesitations. Facility and ease will come with practice, and strength and fortitude with repeated effort. Encounter with difficulties will end only when life ends.

To help yourself honestly, you must have hands to help others. Take into consideration the fact that the vast majority of those who make the dominant idea of the profession money getting, always fall far short of affluence. Practice founded on Professional Honesty and Decision of Character and a sufficiently high conception of the true spirit of professional ethics, a true regard for the actual public welfare, and so large a measure of sound, practical common sense as to refrain from a "Blind Tiger" method of practicing Dentistry, will soon win for itself the approval of the intelligent portion of the community and in due time will be generally respected and appreciated. But so long as the profession is unprotected from persons who are willing to deceive the ignorant and prevail on them to accept in return for money work instead of proving a lasting benefit is but the product of unskilful hands hastily put together, the better element of the profession will remain at a disadvantage. The best men do and always will maintain the standard of an honest and scholarly profession and it is unfair to them and
every honest member of our profession to compel them to meet and overcome prejudices created by ignorance and fraud, which is practiced by those who will allow the reflection of a silver dollar to blind the influence of conscience and honesty. Through the profession the certificate is given to practice, therefore, we are supposed to see the danger first and to demand that the profession be closed against those unworthy of the calling, and the public look to us for protection against these barnacles of ignorance and greed. If this was not a fact, our profession would have no legal recognition, and legal recognition makes this a fact. Lack of professional qualifications in the few, engenders lack of confidence in all and the public and profession both become loosers. Honorable contest for public preferment makes all better by bringing into active operation the very best of our energies and skill. But this is true only when the competition is honest. There is a field for usefulness to humanity in our profession, the breadth and future possibility of which is not equaled by any other profession. And now having assembled together for the purpose of the advancement of our profession, let us each, as we come in touch with our professional brethren, strive from the first to do him good; for it is an undisputed fact, that as we help each other, we advance the standard of our profession. Remember we are paid in good coin when we adhere to ethical principles and unflinching honesty of action. Now, can you afford to do slip-shod, evasive, hypocritical work? Can you afford to shrink, or make believe or practice pretence in any act of life? No, no, for all the time you are moulding yourself into a deformity and drifting away from professional honesty and what is right. What the world does and says about you is really no matter, but what you think and what you do are questions vital as fate.

In conclusion, I will say, I have referred mainly to the mere pecuniary and worldly advantage of Professional Honesty and Decision of Character.

In closing, I will merely say, I believe there is an advantage beyond this. I do not believe any achievement can be higher or any reward greater than that of the man after living a long life of professional activity, and when life's sun is almost set, he can look back and see there nothing but honest work honestly done, high ideals of professional honesty and dignity of character lived up to, and in spite of disappointments, failures and mistakes, activities that resulted from the purest and most honest intentions and principles.

On motion of Dr. Harper, the following committee was appointed to consider the essay: Drs. Fleming, Harper and Patterson.

At a later session they offered the following, which was unanimously adopted:
REPORT ON ESSAY.

Your Committee has carefully examined the essay presented by Dr. Carroll and find it so full of good suggestions that they think it best to order a full publication of the essay in our proceedings, and urgently ask its careful consideration by every member of the Society.

Respectfully submitted,

H. D. Harper, Sr.,
G. B. Patterson,
J. Mortin Fleming,
Committee.

Dr. Delia Dixon Carroll was unanimously elected an honorary member of the Society.

Following are names of applicants for membership in the North Carolina State Dental Society, who were voted on and elected:


Dr. J. H. Johnson, of Georgia, and Dr. J. L. Bogle, of Nashville, Tenn., were elected honorary members of the Society.

Dr. L. B. Henderson, of Durham, sent in his resignation as member of the Society, which was accepted.

Dr. Carr made a few remarks concerning the faithfulness and loyalty of Dr. Henderson to the Society, having known him for six years, and made a motion that he be elected an honorary member of the Society.

The motion was carried.

Dr. Alexander moved that Dr. Charles Turner, on account of his continued absence from the State, be elected an honorary member.

The motion was carried.

The Society adjourned to meet at 3 o'clock p. m.
FIRST DAY—Afternoon Session.

Pursuant to adjournment, the Society was called to order at 3 o'clock by the President.

The regular order of business was then taken up. The first subject on the programme for discussion was Prophylaxis.

Dr. J. H. Benton, Chairman, read the following paper:

PROPHYLAXIS.

By prophylaxis is meant preservative or preventive treatment. Within every individual is fixed an incentive to strive to maintain his earthly existence, even when surrounding circumstances make it apparent that it would be better to let life pass away. The prolongation of life has ever been and ever will be a question for rumination. Naturally the young might seem to be the only legitimate claimant for prolonged life, but we see the old grasping just as ardently for existence; and as the years go passing rapidly by the aged person will strive to restrain the wasting of the vital forces and employ every so-called specific that may offer hope of longer earthly existence. To-day, as it ever will be, we see in earnest solicitation everlasting life if not endless youth. The inclination to cling to life is not effected by the changes of time, and the followers of Brown-Sequard using for the perpetuation of human life and powers the Elixir of Life, and those using the Phospho-Albunen treatment, are as enthusiastic as are those hoping to reach the fount of endless youth. Recently it has been stated that some great electrician has promised an electric treatment which shall practically banish death till the time when it may be sought voluntarily.

Early in the 19th century Medical Science turned away from the study of theory to the study of life—Anatomy, Physiology, Pathalogy and Sanitation, and in later years are giving attention to the study of Physiological and Pathological Chemistry. "The proper study of man is man." With the discovery of bacteria there has been accomplished such miracles in Medicine and Surgery as had never been dreamed of by mortal man.

From all progressive countries have been successfully excluded Cholera, Yellow Fever and the Leprosy plague; and Typhus Fever, which was formerly the scourge of every great city, is a disease now rarely named in the catalogue of causes producing death; and even Typhoid Fever for the past decade or two has been rapidly retreating before the advances of science. The mortality of Diphtheria has diminished wonderfully since the introduction of the Anti-toxic treatment in 1892. In well governed countries Smallpox is almost unknown except in the slums of seaport cities: a rare disease now and scarcely ever epidemic—a grand triumph for preventive medicine. Consumption, by far the
worst of all human plagues, is now yielding to the skill of the practitioner and sanitation, and it is hoped will eventually be driven out of existence.

It is now a well established fact that outside of imperfection of development and structure, micro-organism are the cause of decay of the teeth.

Another fact equally as well established is that the destructive action of bacteria can be arrested, and the bacteria themselves destroyed by the use of suitable anti-septics and germicides. The broad statement has been advanced that if the mouth could be at all times kept anti-septically clean no teeth would decay. The truth of this no person can gainsay, but unfortunately such a condition cannot be maintained. If the dental profession expects or hopes to occupy a prominent position among the professions, workers along this line must spring from our ranks—men whose lives and unceasing efforts shall be directed to the discovery of a system of Dental Prophylaxis. Within a quarter of a century marvelous achievements have been made by bacteriologists, whose enduring efforts have been constantly encouraged by progress and success. The number of this noble band of workers should be annually increased from the young members of the dental profession, and those who have no talent for such work should give their aid, encouragement and approval.

The prevention of disease may be attempted, it is very evident, in two different ways. We may attempt to avoid or remove the cause of disease, or we may try to make the body less susceptible to the action of such agents as produce disease. The success which has been attained in modifying plants and lower animals by regimen and breeding makes it more than probable that man can in a similar manner be improved; physically he is nothing more than a specialized animal, and his relation with the forces of the universe are not altogether unlike those of less specialized animals.

Among the many conditions requisite to retain and enjoy the blessings of health and immunity from disease, and that may be mentioned as of importance from a hygienic point of view, local habitation or home of the individual, drainage of grounds, thorough ventilation of the premises, clothing suitable to the season and climate and the degree of exposure of the person, sufficient bodily outdoor exercise taken daily in sunshine if possible, food of proper quality and quantity. "And God said, behold, I have given you every herb bearing seed." That is all the cereal plants, such as wheat, corn, rye, etc., whose peculiar distinction and characteristic it is to produce seed. "And every tree in the field which is the fruit of a tree yielding seed; to you it shall be meat." In these words God assigns and points out to man the food most suitable for him. It is plainly intended that he shall subsist on vegetable food—herbs, grains and fruits. These only were allowed to and used by man in his first estate. The abstinence from animal food is preserved in the traditions of all nations as one of the characteristics of their
golden age or the age of innocence. All food should be properly prepared and properly masticated, and taken with regularity, followed by rest, repose and sleep. The process of nutrition and restoration of the nervous and muscular systems takes place mainly during sleep. Cleanliness is most essential to hygiene; cleanliness of the person, especially of the mouth; cleanliness in all things pertaining to ourselves, our work and our surroundings. A clean conscience will exercise a wonderful influence for good.

DISCUSSION.

Dr. Harper opened the discussion, as follows: "It has been a question in my mind ever since I have been in the practice to know just how to enforce the rules suggested there by Dr. Benton upon patients. If we could thoroughly impress upon the children the necessity of keeping their mouths in proper condition, I dare say that prevention of decay would result. I believe that you will bear me out in the suggestion or the idea that much of the disease, much of the impurity of the blood is produced by the impure secretions of the mouth resulting from the diseased gums and the mouth being in an uncleanly condition, and that being taken into the stomach and into the circulation, tends to derange the whole organic system by making the blood impure. Now, how shall we impress this upon the children? We may impress it upon their fathers and mothers, and urge that they insist upon it, and it may be done for a while, but soon it is forgotten. We may take the little fellows and clean their teeth, as they say, and put their mouths in nice condition, and urge upon them the necessity, from all the standpoints that we can bring to bear to impress them, and perhaps in a few months we see them and they do not seem to have used a brush since we operated upon them. This is one of the conditions I would like to have some light upon if some of you know better how to impress it. I think that 'prevention is better than the cure' in this as much as anything else that comes under our natural practice."
Dr. Turner: "I fear very much that I will not be able to enlighten our brethren on the subject, but it strikes me that caries is a preventable disease. It is a disease that every dentist comes in contact with daily. When we say that caries is an affection that attacks the external tooth, there are certain agents which are involved in this operation and there are certain agents which destroy them. We all understand that there are certain preparations which cleanse the mouth thoroughly, and prevents for the time the action of the agents which destroy the enamel. Would it not be well for us to put our minds on this particular point and see if we cannot institute that degree of vigilance which would convince our patients that we are not here simply to repair the lost structure, but to prevent the loss of structure. It seems to me that that is one of the most important branches of study in our profession—to prevent disease and injury; and knowing that this is not something which comes in the atmosphere, it is not contagious in the ordinary sense of the word, but it depends solely upon the habits of the individual. It is a subject which has been neglected by our profession, and it is a work worthy of the most active and advanced thought in the profession."

Dr. Bogle: "Possibly one thing that we err in is, we do not impress upon the parents the importance of cleanliness; sometimes we find that the parents do not impress it upon the children." He told of a custom of Dr. Crowder, that when a patient comes to him, whether child or adult, if their teeth have not been thoroughly brushed he dismisses them and tells them to go home and attend to them and then come back, and charges them for the visit just as if he had operated on them. Dr. Bogle says: "I think we can largely impress our patients by giving them instructions at the chair as to the proper use of the tooth brush. I believe that very
few use their tooth brush properly, and some use it too much. Of course the use of antiseptic mouth-washes is indispensible.'

Dr. Carr, speaking along this line, told of a case of one of his patients who had, by the constant use of the tooth brush, so worn away his teeth that they were cut half in two. He said that the constant use of the tooth brush, as generally used, would not only wear the teeth away, but cause recassion of the gums. We should brush the teeth from above downward, and on the lower jaw, from below upward.

Dr. Parker: "I recognize the fact that we ought to be able to do something as a Society on the line of prophylaxis. The paper that Dr. Spurgeon read strikes me that the author is working along the right line. We do not seem to be making any progress along this line. I remember the last time we met here Dr. Morgan, of Tennessee, had right much to say on this subject, and read to us a paper that the dentists of Tennessee had submitted to the Board of Education, and they were to try to get prophylaxis inserted in text-books of the public schools. It struck me at the time that it was just the right thing. It looks like we just go along from year to year and do not make any progress along this line. There is nothing that appeals to me more in dental practice than the importance of the care of the teeth by the people. I believe that proper care of the teeth will prevent dental decay. I do not believe that one member out of ten of the human family uses the tooth-brush. That is a bad state of affairs.'"

Dr. Parker spoke of a lady whom he had tried to impress with the importance of the proper use of the tooth-brush for a long time, and was surprised, on her returning to his office, to find her teeth in such a bad fix. He told her that she had not been using her tooth-brush. She said she could not think of it. Dr. Parker
made an impression on her such as he had never been able to do before, by saying to her, "Don't you think of washing your face?" He also spoke of pyorrhea; that there was no hope of curing it without the assistance of the patient, though it is possible to effect a temporary cure for a day, a week or a month.

Dr. Liverman asked for information as to how to treat pyorrhea.

Dr. Johnson, of Atlanta, was asked to speak on the subject. He said: "I hope to live long enough to see how to prevent decay rather than how to correct it. Whether this hope will be fulfilled or not I am not able to say. To a very large extent I am sure it will sometime in the near future. We are working on the right line and we are making progress. There are more tooth-brushes being used to-day than there ever was in the history of the world. They are being used more scientifically than ever before. People's teeth are being attended to better than ever before. In Georgia, at the last meeting of the State Society, we adopted a book to be used in the public schools of the State. This book is now being published and will be introduced in the public schools, and we look for great results. At one of the annual meetings of the Teachers' Association a few years ago, we had Dr. Weaver, President of our Society, to go before this Association and make an address and an appeal that the introduction of this book be impressed upon the people. We believe there will be no trouble in securing its adoption. The subject of brushing the teeth is a very important one. People will have to be taught to brush the teeth properly from the dental chair. I do not believe there is any other way to do it except by actual demonstration at the chair. Teach them that there are about five sides to be touched; not only outside, but inside; the up and down motion, as mentioned by Dr. Carr, is the best. I believe that
the time will come when people will have better teeth, when they understand how to take care of them.'”

Dr. Alexander urged that this Society take steps in the direction that the Georgia dentists have taken, and to imitate their example.

Dr. Patterson expressed his opinion that some teeth in their natural state were beyond the power of toothbrushes and mouth-washes to save, and asks for information as to how to save such teeth.

Dr. Everett, in reply to Dr. Patterson, says that he has found very little trouble in controlling little girls just budding into womanhood, by appealing to their vanity. He says you can appeal to them nine times out of ten in this way, but boys—nothing but the hickory will do them any good. If the parents would control their children, and have them eat mutton, beef, brown bread, and let alone pastry, and take plenty of outdoor exercise, regular habits, plenty of sleep, and plenty brushing, of course, there will be more help in building up the teeth than anything else.

Subject passed.

**HISTOLOGY.**

Paper read by Dr. I. N. Carr, of Durham:

*Mr. President and Gentlemen:*

As Chairman of your Committee on Anatomy, Histology and Microscopy, I regret the necessity of having to report my utter failure to induce either member of it to write a paper for this meeting, but in order that the subject may be brought to your attention for discussion, I have jotted down a few thoughts upon Histology, the study of which is as interesting to me to-day as it was nearly thirty years ago, when I first began the study of cell formation in Harris's Principles and Practice. The thought has been revolutionized though since then, and now we know very much more of the physiological structure of an organ than we did then. The word Histology, as you know, is derived from two Greek words, histos, meaning “organic,” and logos, a word, a study, so that we have a word meaning in its literal interpretation, “the study of an organ,” or *organical study.* That part of Histology which interests the dentists especially, is the organical or physiological structure of the human tooth. We who have to operate upon this organ should
know its structure in its minuteness, in order that we may do so without fear or danger of injuring its life. Close observation and study with clinical experience has been of great value to us in learning of its structural characteristics, but it has remained for the improved microscope to reveal its marvelous complexity of structure and its wonderful growth and development. By its use we are enabled to study the tooth from the time it begins its formation. It is just as necessary for us to know how and when a tooth (temporary or permanent) is formed, as it is to know when it is erupted. We are told by the Histologist that a human tooth begins its formative process at about the sixth week of embryonic life. At this time we have noticed that there is an upgrowth of the oral epithelium, and at about the same time, a dipping down of the under layer of mucous membrane. As it continues dipping down, it gradually assumes an irregular shape and becomes the shape of a bell. The concavity of the bell is filled in with the dentin organ, which organ is formed from the sub-mucous tissue. The layer of cells lying immediately against the dentin organ becomes somewhat elongated and nuclei are formed in the end of the cell farthest from the dentin organ, which is underneath this layer of cells. These cells are known as adomantoblast cells and form the enamel. There is a rounded layer of cells just above the stratum interium known as the stratum intermediate. The mass of cells lying between the stratum intermediate and the outer layer of cells, or stratum exterium, is known as the enamel jelly. When the enamel organ assumes the bell form, there is a thickening of the sub-mucous tissue lining the concavity of the bell, and these cells are known as the odontoblast cells, and from them the dentin organ is formed. The study of specimens of these different cells under the microscope, is one of the most interesting I know of, and I have been particularly fortunate during the past year in getting slides nicely mounted for this purpose. Taking them one by one, and having them properly labeled, one can almost see a tooth develop under his own eye. Would that I had the time and opportunity and the means to satisfy my quest for knowledge along this line, but alas, there are too many exacting duties, too many other things to do in this brief life, to gain more than a superficial knowledge of this and many other things we would like to master.

Now that we have spoken in a general way of the tooth as a unit, let us for a few moments examine the structure of its component parts, in order that we may more thoroughly understand the functions and the structure of the individual parts. First, the Dentin. This is formed from the odontoblast cells but is generally spoken of as being formed from the membrane eboris, which derives its nourishment from a rounded layer of cells lying underneath which makes up the dentin pulp. In describing the manner in which the dentin is developed, we must, of course, start with its cell life. As stated above, from the odontoblast cells we have the dentin. Each cell, we find, has three processes: the superior, lateral and inferior. The superior is known as
the Dentinal Fibrillar, and from this process the dentin begins its formation. The lateral unites the cells into a layer. The inferior connects the odontoblast cells with those lying underneath. At about the time the dentin begins to form, there is an upgrowth from the bottom of the dentin organ which slowly envelopes the tooth germ, and is known as the dentin capsule, from the inner layer of which the cementum is developed, also nasmyth's membrane. The outer layer of this capsule continues through life as the peri-dental membrane. After the dentin is formed, the nerves and blood-vessels are gathered into one or more fasculi, which later becomes the roots of the teeth.

Now briefly as to the Enamel. It is formed by a continual deposition of lime salts on the sides and periphery of the adamantoblast cells upon their inner aspect, and is gradually built outward. It is made up of hexagonal prisms thoroughly calcified and run at right angles to the dentin. These prisms are not arranged homogeneously and are much softer in the center than at the periphery. They do not run in straight lines from the dentin, but are wavy. Their prisms are held together by a soft cement structure. We might go on now and write of the formed dentin, how it consists of a well calcified matrix pierced by the dentinal tubes containing the protoplasm; how the matrix is itself the formed dentin, etc., but time forbids.

A few words as to the Cementum, and I am done. It resembles dentin quite closely. It is made up of a laminated matrix and lacunae, and aids in the nourishment of the tooth in connection with the pulp, which is also a matrix consisting of a soft gelatinous substance containing cells abundantly, they being more numerous near the periphery. You all know from experience how exquisitely sensitive it is, being full of blood vessels and nerves. If my efforts to describe a tooth will have a tendency to remind us of the importance of having a thorough knowledge of its every stage of development, and will be the means of stimulating us to a greater effort to save it from the ravages of decay, I shall feel fully repaid for consuming this much of your time.

DISCUSSION.

Discussion was opened by Dr. Jones: "I do not feel competent to discuss that subject, but I do not think it ought to be passed without at least thanking the author of the paper for presenting it to the Society. It is very important that every man know something about the anatomy of the teeth. He told of an incident in which he removed a filling that had caused a great deal of trouble. Said the man who had filled the tooth had no more idea what he was doing than a carpenter. He didn't seem to know there was any nerve there at all.
We should try to keep up with the practical part of this work, and know something about the structure of these organs which we come in contact with every day. I think it a good plan to have a dentist experience having a tooth filled about every two months. I think he would better appreciate the position which his patient occupies."

Dr. Hawes: "What Dr. Jones has said in regard to the knowledge of the anatomy of the teeth impressed me very much. I have had several cases like the one he spoke of, where the filling was put in almost into the nerve. I have in mind now one which was put in by a man who had been practicing a good deal longer than I have, but it was astonishing to see the condition of that filling. It had gone up between the three roots, and the amalgam was packed almost up to the edge. The patient came to me, suffering a great deal; I removed the filling and treated the tooth. After treating it for ten days, didn't do any good, but got worse. I extracted the tooth and found this condition. I think the knowledge of the anatomy of the tooth very essential."

Dr. Osborne: "I don't know anything about this subject, but it seems to me that a fellow that knows anything about dentistry ought to know how to fill a tooth. Of course I have seen patients who would let me go ahead and fill his tooth just for fun. So far as histology of the dental tissue is concerned, I don't know any more about that than heaven. I never saw it but once or twice, and didn't know then what I was looking at. I don't see how a fellow could get down in there so far and the patient not know anything about it."

Dr. Carr: "There is nothing prettier than the structure of a tooth as revealed by the microscope, and there is not a man here who would not find great pleasure and profit by it. You can obtain slides already mounted and labelled, which, together with your text-book on
Histology, would enable you to do effective work. If you have not a microscope, you can borrow one from your medical friend; or, what is better, buy one. The study of tooth-structure will enable us sooner or later to operate upon a tooth absolutely painless. We are approaching that very closely now. I believe as we understand tooth-structure more thoroughly we will be able to find something that will be a safe agent to employ for doing this work."

Subject passed.

PROSTHETIC DENTISTRY.

Subject passed temporarily.

OPERATIVE DENTISTRY.

Dr. J. R. Osborne read the following paper on this subject:

A great many advances have been made in the practice of dentistry within the last quarter of the century just ended. Perhaps to no one branch of this great healing art does this saying more aptly apply than to that of operative dentistry. Thousands of busy brains have been at work with the result that the status of operative dentistry of to-day, compared with that of twenty-five years ago, is truly astounding. This, however, applies to tools, appliances and methods only. The materials used in the saving of teeth to-day are the identical ones employed by our practitioner forefathers fifty years ago. A great deal of thought and energy has been expended in pursuit of the discovery of the ideal filling material, and all the while the profession has been star-gazing and listening with bated breath for some genius to announce to the world—eureka! but he hasn't announced up to the present writing. Whatever good results followed the employment of the materials at that period was due to great skill, and therefore must at this time satisfy our consciousness as to our ability to save these most useful organs. From time immemorial, we have had gold. From away back in the thirties we have had amalgam. For forty years we have had cement, fifty years ago we first used rubber, and we have not had anything else since. But we have been getting along right well anyway, and the fact that these materials have not been supplanted is almost proof positive that they are well nigh perfection in the use for which they are intended. The cow-bell manufacturers' product is exactly as it was fifty years ago because it is the perfection of the idea for which it was manufactured. The violin has ever been, and will always be, the king of musical instru-
ments, was made one hundred years ago identically as it is to-day, so far as its anatomical structure is concerned, and for no other reason than that it is a perfect instrument. True, no one of these materials or a combination of any of them, constitute the ideal filling, but to the conscientious practitioner whose highest purpose is to save teeth that need saving, and who is not prejudiced against any of these materials—there lies in the judicious employment of them the possibility of being a very useful servant as a tooth saver. To employ these materials, each when indicated, implies a knowledge of conditions and environments that comes alone with observation and experience.

What I shall in this paper say on this subject, proceeds principally from these sources. Of course it means as I see it. My deductions may be wrong, but that is not my fault. I am honest in seeing it this way. As to cements: the uses to which I would put them is, first of all, the filling of young folks' front teeth, especially those of poor structure, as a temporary measure. I would expect after this treatment to find the cavities in better condition than they would have been had they been at once permanently filled. I would also expect to find my patient in better shape to undergo the trying ordeal of long sittings under gold operations. I like to use cements in deep cavities when I am filling permanently with alloy. The nerves it is accused of destroying are the ones, I think, that were going to die in spite of all the doctors in Christendom.

As to rubber as a filling material—it is a short story with me. As a stopper for the retention of medicaments, it is best of all, and it is a fact, in my opinion, that it is the best saver of an old shell where the patient is too poor or stingy, or both, to pay for a crowning operation. Then, of course, it is used more than all else for the capping of nerves and the filling of root canals.

This brings us to the consideration of gold. A great many of us dentists stand aghast and disgusted in the comparison of these baser materials with the royal metal. But we must not forget that the important subject of the salvation of the teeth is at stake, nor the fact that the merits of filling material lie not in what they are worth in dollars and cents per ounce avoirdupois, but in their adaptation and ability to save teeth when judiciously and skilfully manipulated. Gold has been used to save teeth a long, long time—hundreds of years longer than anything else. The use of it for this purpose was born of necessity on the mother's side, and was daddied by the same spirit that prompts the savage to paint his face and wear rings in his nose. But it is a good thing to fill teeth with. Anything that is used for hundreds of years for the same purpose, has come to stay. It is not ideal—not perfection for our use, but it's one of the four materials used in a great work—a work, by-the-way, that is our excuse for existence, to-wit: operative dentistry. In the use of this material, I think it best not to use foils or cylinders or mats or any of the different preparations of it, to the exclusion of others. I believe I am safe in saying that the tendency of late
years among a great majority of dentists, has been the adoption of a
too universal practice of working gold cohesively, neglecting the possi-
bilities that lie within the province of this material when worked as
soft gold in ropes or ribbons.

Where the original shape of the tooth is to be restored in any or all
the conditions that present, cohesive gold is the sine qua non if gold is
indicated in the case. Where we have simple cavities with walls intact,
I am sure there is great possibilities in the protecting qualities of non-
cohesive or soft gold. I base my judgment in this matter as much on
what my eyes have seen, as I do on my actual experience in working it,
having for the last ten years been situated in my practice to see and
examine the work of a retired dentist who worked gold this way exclu-
sively. I see work from the hand of this operator—with gold manipu-
lated as soft—saving the teeth right along yet, having been inserted
thirty years ago, fillings, too, that looked like, ten years ago (when I
first saw them), ought to have been taken out and filled with cohesive
gold.

This brings us to amalgam. It is a subject we dentists have to con-
sider, no matter how much we may wish to ignore it. It is black, and
black is not a favorable color in dentistry. It possesses some properties,
however, essential in the saving of teeth that to some extent kinder
“knocks the black out.” The principles which underlie its manipula-
tion are as different from that of the working of gold as principles
which have for their object the same result, can possibly be. The nature
of it from other view points makes it a very useful material. I would
use it wherever it could be kept out of sight. We all know where that
is. I would use it for its good qualities in crown cavities, and in prox-
imal cavities, and just any and everywhere if the tooth needed saving
badly, and I could hide my work. Sometimes I would not be so partic-
ular as to that either. I often fill front teeth with it, and know that I
am giving my patient the very best service, everything considered. I
would use it in disto proximo surfaces of superior cuspids, lining the
labial wall with cement. I do that because it is hard to make this
filling feel comfortable, and do good service with anything else. But
why particularize? I have found out that every one of these materials
have distinct places in the work, and that brings me back to the main
idea I wish to emphasize in this paper, viz: no one of these materials, or
any of them in combination, constitute ideal dentistry, but the judicious
and skillful use of them from the diagnosis of the case, the selection of
the material for filling, to the final finish of the work, comes very near
reaching the same result. It behooves us as dentists to study our work.

To know teeth—their anatomical structure, their variableness in
different individuals and the effect of environment on their organization.
To study cement: how to mix, to spatulate, to adapt to walls, to polish,
to study the disposition they have, if any, of divitalizing nerves when
placed adjacent. To learn to manipulate rubber and to note the work
it fails to do in our practices. Practice! Practice! Practice! The way
to learn to play the violin is to play it. The way to learn to pack gold is to get up eight hundred and fifty-four different points for packing, and then pack. Be sure and practice at packing. This, however, applies to all kinds of work in dentistry, but more particularly in working cohesive gold. Don't forget to pack. Learn to work soft gold; learn how to mix alloy, if you don't know; learn that the ground work of saving teeth by filling is to remove all the decay and shape it so as to retain the material. Learn that it's best to do this work early in the progress of decay. No harm to teach the patient this, if you can. Learn to give the cavity the same preparation for the reception of one material as another, and don't neglect to use the correct points in adapting amalgam to the walls of the cavity. Be sure to finish alloy fillings after crystallization. Do good and you'll be happy.

DISCUSSION.

Dr. Jones opened the discussion by saying: "I read this paper sometime ago, with a great deal of pleasure, and while there is a good deal of 'Osborne' in it there is a good deal of good in it. I just take issue with him with reference to using gutta-percha. I wish to emphasize the efficiency of gutta-percha fillings. I do not believe there is a better filling for young people from twelve to fifteen years of age. Dr. Osborne underestimates the value of gutta-percha. In regard to cement filling, he makes the characteristic remark that, if a nerve will die under a cement filling it will die any way. I believe that a good many nerves have been killed under cement fillings. I believe the young man who is just starting out, unless he covers the cavity up with some good structure will have several funerals in his dental work. In his reference to amalgam and gold, I agree with him exactly. I think we underestimate the importance of soft gold filling. I do not think they last so well on crown surfaces, but I have one that I have had for thirty years, filled with nothing but soft gold, and it has been used a good deal in that time. As regards amalgam fillings in front teeth, after lining nicely with cement, I endorse what he says."
Dr. Hawes: "I would like to ask Dr. Jones to explain his method of making guttapercha fillings. I notice that some of his, last four times as long as those filled by other people. I would like to know how he does it."

Dr. Jones: "I never put in a guttapercha filling without putting the rubber on. You must certainly get the cavity dry, and not work with a hot instrument; heat it over the lamp and put in a small piece at a time. If you work the filling in carefully, take my word for it, they will be there eight or ten years after."

Dr. Harper: "I examined a guttapercha filling a few months ago which had been in about eighteen years, and so far as I could tell it was as perfect as when it was put in. That is the strongest argument in favor of guttapercha as a filling material that I have ever known. My experience with it has been very satisfactory.

"With regard to nerves dying under cement fillings, when the tooth has give trouble enough to require then chances in filling with cement or anything else, my practice is to devitalize and remove the nerve, and fill the roots, then the trouble is over. But from years of experience and observation, I do not believe there is anything in a cement filling that has a deliterious effect on the nerve to cause death. If the nerve is sufficiently congested it may die perhaps in a few weeks or months or years. My experience has been that it is better to devitalize and remove them than to take the chance."

Dr. Jacobs gave his testimony in favor of guttapercha fillings as a tooth preserver.

Dr. Everett spoke very heartily in favor of the use of guttapercha, and also of amalgam.

Dr. Liverman says that his experience with rubber has not been very satisfactory, probably because he did not know how to use it. He spoke of a case in which
he exposed a six year upper molar early in his practice, and he didn't know what to do with it. He said he simply dried out the cavity, thoroughly sterilized it with creosote and put a cement filling in it, expecting to refill it or remove it in a short while. The man returned several years afterwards, and the tooth was in perfect condition and the pulp perfectly healthy. Speaking of gold fillings, he said there were some places in the mouth which he could not get at to fill with gold. He said one of his teacher's once told him that any man who could not fill any cavity in the mouth with gold was not a dentist. He said if that is to be the line to judge a dentist by he would not even get a start. He fills his root canals with gutta-percha, but said he never could get a gutta-percha filling to last. Speaking of non-cohesive gold, he said he did no believe he could fill a hole in a post with non-cohesive gold; he had tried two or three times and made a failure. He told of his experience in filling two teeth at one sitting, and one filling lasting for two years and the other washing out. He wanted to know what caused this difference.

Dr. Everett testified that it was the fault of the manipulator; that if the same cement was used in filling two teeth, the first one filled would last, but the other would not. Cement ought not to be used after setting a certain length of time.

Dr. Carr agreed with Dr. Everett on the subject.

Dr. Jacobs was called on to make some remarks. He said he believed every filling material in use to-day had its place, but he frankly confessed that he had not found a place for all of them. He emphasized the importance and necessity of thoroughly drying the cavity before filling the tooth.

Dr. Jones then gave an instance in which a tooth in his own mouth was filled without any regard to moisture; water was standing all around the tooth when it
was filled, but it had given perfect satisfaction for the past twenty years.

Dr. Johnson spoke of the different varieties of gutta-percha used. He said Dr. Garfield uses the common old red gutta-percha; said he had seen fillings which he (Dr. G.) had put in children's mouths, and after they had matured the fillings were still in place. In regard to the death of a pulp under cement fillings, he said he believed anything else would have killed it just the same.

Speaking of extension for prevention, he said he did not believe in it to any great extent. He said he had never yet seen a sound gum margin where the decay or filling extended below the gum margin. He is a great believer in tin-foil, and thinks that tin-foil and gold together makes a good substance.

The Society adjourned to meet at 9 o'clock a.m.

SECOND DAY—Morning Session.

Pursuant to adjournment, the Society was called to order at 9 o'clock by the President.

The Secretary was authorized to send a telegram of sympathy to Mr. Selby, and regrets that he was unable to be present with the Dental body on account of sickness.

Morehead City, N. C., June 27, 1901.

To Dr. J. W. Selby, Atlanta, Ga.:

The North Carolina State Dental Society sends its sincere sympathy and deep regrets that you cannot be with us, and an earnest prayer for your speedy recovery.

J. S. Spurgeon, Secretary.

Drs. Fleming, Smithwick and Liverman are appointed a committee to audit the Treasurer's Report.

Dr. Fleming made the report of the Publishing Committee, as follows:
As Chairman of the Publication Committee, I report that the Committee have edited and had published the Proceedings of the last annual meeting. The work speaks for itself. There are some mistakes, but typographical rather than otherwise.

The Constitution, By-Laws, and Code of Ethics was also turned over to this Committee, with instructions to edit same and make contract for its publication. This has also been done and only waits the final action of the Society before publication. Respectfully submitted,

J. Martin Fleming.

Report was adopted.

Secretary read amounts of indebtedness to Noel Bros. and E. M. Uzzell, printers, and expense for postage, etc. The bills were ordered paid by the Treasurer.

Report of the Finance Committee was made as follows and accepted:

TREASURER'S REPORT.

Amount on hand at last report .................. $122 81
Received for membership fees ................... 76 00
Received for dues ................................ 197 00

DISBURSEMENTS.

Paid Dr. Spurgeon, salary, postage, etc. ........ $ 74 32
Paid Miss Ellington ................................ 41 00
Paid American Bonding and Trust Co. .......... 10 00
Paid Dr. Wyche, Supervisor of Clinics ......... 12 38
Paid Dr. F. S. Harris, for prosecuting .......... 10 00
Paid Dr. J. Martin Fleming, Publishing Committee ... 75 32
Paid Treasurer's salary ......................... 25 00

Total ............................................. $395 81 $248 02
Disbursements ................................... 248 02
Balance on hand .................................. $147 79

D. L. James, Treasurer.


The subject of Operative Dentistry was again taken up. Dr. Everett opened the subject for discussion. He said: "The extension of the filling for the prevention of decay has caused a good deal of interest in the profession throughout the country. But there are two sides to the question. Being in a position to see operations
coming from the hands of dentists not only through this State, but through adjacent States, I observe very often that the majority of dentists are not as careful in the preparation of cavities as they should be. They leave the walls very frail instead of trimming them down and having them strong enough to consolidate their fillings; and where the fillings are made under the margin they seldom decay there, you will find a new decay around the outer wall, whereas the filling is absolutely safe and substantial down at the point where you would naturally expect it to give way. I admonish the young dentists to use the disk freely. If they will observe this they will find a marked improvement in their work. I have had some failures, and I reckon I will have many more because I did not have the walls prepared as they ought to be."

Dr. Turner, of Atlanta, Ga., was elected an honorary member of the Society.

Dr. Jones emphasized the importance of not overheating guttapercha; it is often ruined by burning too much before using. He spoke of the importance of carefully preparing a cavity by the use of the rubber dam, and be careful to get all the decay cleaned out, and leave the tooth white before filling it. His idea is that if the filling extends below the gum, and the gum is in a perfectly healthy condition above the filling, that the tooth will remain good and the filling perfect for fifteen years.

Dr. Turner spoke in favor of extension for prevention. He said: "It simplifies the operation; it lays open the cavity so plainly that manipulation is very much easier, and it is possible to make it very much more perfect, and I believe the gentlemen who have spoken before me will agree that where this extension has been made it is the safest operation that can be made on the approximal surface. Very often you will find on the cervical wall
what we call a powdered wall, and any man who undertakes to make a joint on the powdered wall is going to make a failure.

"Another point to which I wish to call attention is this: I do not wish to criticize colleges, but the average student in a majority of cases use the engine too much. There are a great many reasons why the engine should not be used before all that leathery decay is cleaned out. The danger of the exposure, particularly of the cervical wall, should be looked into. Some students go into the cavity right from the front with the bur. They expose a lot of gold in front of the tooth, which is in bad taste. If the operator has got to cut away the wall at all, he should cut away the lingual wall instead of the labial wall. I have seen them go into the wall with a bur about the size of the cavity. That is a mistake."

Dr. Liverman: "As to the theory of extension for prevention, I believe it depends entirely upon the cavity. In preparing a cavity I go until I find solid tissue. When I have found solid enamel, if it is half way to the gum margin, and have made it slightly over, I stop. If I have to go to the gum, I go there; if I have to go under the gum, I go there. The point in making your manipulation is to go as far as possible. I would not cut down under the margin of the gum if I had to cut solid enamel, however."

Dr. Smithwick: "The initial step in the filling of cavities is space. My idea in getting space is in using rubber strips. I use the rubber strip between the teeth an hour or two before filling, and then I put on the rubber dam and go right on with the filling. The patient does not have to suffer with the soreness that comes from wearing the rubber between the teeth."

Dr. Bogle: "My favorite method for separating is by the use of cotton or bibulous paper. It is better than that continuous pressure of rubber, where the rubber
remains in for a considerable period and causes soreness. The rubber crowds down on the gum tissue and produces tenderness on that tissue. I take a piece of bibulous paper and floss silk (slip the silk between teeth); wrap the paper and make it cone shape and then draw it through the V shape space; then you draw it down, and if possible put an additional piece of cotton on the other side and tie a knot and separate them. It is seldom that this produces any soreness in any great degree. I think molars can be separated in this way also. I have not used rubber for separating for a long time on account of its extreme elasticity. I believe we all use too much arsenic in teeth. I think there are other methods that we can use and get along very nicely without using arsenic. I prefer the use of cocain and an immediate removal of the pulp. After the exposure is made, place over that a very small amount of cocain, then, with a piece of warm common beeswax, sufficiently large to fill the cavity, place it over the cavity and press it home with the index finger. We have no after effects of the soreness which often occurs after the use of arsenic."

Dr. Crawford, of Atlanta, made quite an interesting and lengthy talk. He said if the North Carolina State Dental Society had but one subject to discuss at this time, that of extension for prevention, it would be worth their while to leave their homes and come here. In his attractive style of speaking, he continued: "Do you know what this subject of extension for prevention is to-day? It belongs to that subject of fanaticism and radicalism which was instituted many years ago to get down to the cervical walls and aspects of the cavity. Following it came along the introduction of gold screws. I hope I will never again see a dental surgeon putting in gold screws. God forbid. Mr. President, do you know what filling a tooth means? It is an art. You
cannot learn it like learning to bore a hole in a plank. It is like combatting disease in the body. You must meet the issue like a man; be prepared to meet the situation upright, downright and alright."

Dr. Jones: "I do not believe in cutting the tooth from the labial surface. You get the space from the labial surface of the tooth and thus destroy that which you can never replace. I do not believe there is anything superior to the tooth itself. I am opposed to cutting the cavity and showing the gold. I know some approve of it, but I believe dentists should avoid it whenever possible. If the fillings are put in on the under side it is an advantage in every respect."

Dr. Crenshaw, of Atlanta: "I could not hear all that Dr. Crawford had to say in his talk a few moments ago, but if he means to say that the extension for prevention is a fad and a fallacy, I should have to take a little bit of issue with him. This idea of Dr. Black’s, of prevention by extension, has a good deal of truth in it, in my judgment, because we have all observed long ago how rapidly cavities proceed from the point of contact toward the gum. We have all observed that they almost always check up when they get to the gum. If you extend the cavity a little beneath the gum, and there make your margin, Dr. Black’s idea is, I think, founded on a good deal of truth—that you have a better prevention of the recurrence of decay than if you stopped a thirty-second of an inch or any distance above the gum. Extending a cavity laterally is good sound practice. We have all noticed that the point of contact is the point of the beginning of decay. Take two eggs: just immediately where they touch we are taught that is not the actual beginning of decay, but a small circle just around the place. If your margins are cut far enough away to have a curved surface, to have a point of contact where the gold itself touches, you have pre-
vented the recurrence of decay by extension. As I understand Dr. Black, this is about his idea and theory, and I must say I think there is a great deal of truth in it.

"I very greatly regret when a patient wants gold in the front of the mouth. I think the dentist's judgment ought to be taken and acted on. But there are some cases where the under wall is stronger, but nine-tenths of the time it is weaker. I have often quoted what I heard Dr. Osborne say in Raleigh, that a man ought to be put in the penitentiary when he puts a gold crown in from of a man's mouth. I do not believe that you can make an invariable rule, though."

Dr. Osborne: "I do not know that I have anything to say. I agree with Dr. Crawford in what he said about getting all the decay out of the tooth. I do not believe in going any further than where the tooth is sound. There are some teeth that I do not believe all the doctors in Christendom could save. Dr. Jones says they can be saved. Some say it can be done and some say it cannot be. But you can't try it both ways. There are lots of things in dentistry that we cannot agree on, but we get along all right. But let's go slow and not take up these fads, Christian Science treatments, etc. Turner, he made a good point there. You know he does not usually do that. He emphasizes this point, and it is a good one, too. He said, in cleaning out a cavity after you have burred it, go around it with the excavator. Some bur too much."

At this point, a half hour was devoted to a memorial service in memory of Dr. E. K. Wright, deceased.

The Secretary read the Resolutions of the Committee, which was adopted by a rising vote.

Since our last meeting we have been called upon to mourn the death of our most honored and esteemed associate, Dr. E. K. Wright, of Wilson, N. C., who died on the 24th of March, 1901. He had for many years been an active and helpful member of this Association, and by
his many noble qualities, has endeared himself to us all. A staunch friend, a generous, high minded gentleman. He attracted all who knew him. A skilful and accomplished member of his profession. He justly acquired and held the confidence of the community, in which he lived, and the members of the profession of his choice.

Whereas. Our Heavenly Father in his all wise providence has called to rest the spirit of our beloved brother, Dr. E. K. Wright, who was an honored and faithful member of our Association, be it resolved:
1. That we, the members of the North Carolina Dental Association, are saddened by the thought that he will be with us no more in our meetings, yet we sorrow not as those without hope.
2. That we are thankful for his Christian character, the example and influence of his life will be an inspiration; we will cherish his memory, and try to follow his example.
3. That we extend to the bereaved wife and little child our deepest sympathy, and commend them to Him who never makes a mistake.
4. That a copy of these resolutions be spread upon the minutes of our Association, and a copy be sent to Mrs. Alice B. Wright, and also a copy to be given the professional journals, and to the local paper at Wilson.

D. E. Everett,
R. H. Jones,
J. M. Parker,
Committee.

Dr. Tucker read a Memorial from Dr. Wright's church paper.

Mr. President:

This is the time appointed to render our tribute to the memory of our lamented brother, Dr. E. K. Wright. I take this summary from his Church paper, written by his Pastor.

Dr. Edward Kendall Wright was a son of Prof. J. L. and Cynthia Wright, and was born in Timmonsville, S. C., Sept. 21, 1868. He was reared in a home of such rare excellence, taught and trained by that almost matchless pair, his father and mother, that to have been anything except a good boy, with the promise of a good man in him, would have been strange indeed.

Few children ever have such parents, and none were better than the late Prof. Wright and wife. Edward spent his young life under his father's instruction, being thoroughly grounded in academic courses, and afterwards attended Vanderbilt University, from which he graduated in February 1888, in the Art of Dental Surgery. After practicing his profession in Raleigh with Dr. Everett for a few years, he then about twelve years ago came to Wilson, N. C., where he, through energy and uprightness, built up a practice that taxed his time and strength, and included many of the best people of this and other counties.
He professed conversion in early life, joined the M. E. Church, South, and was ever a faithful, useful and efficient member, and for a number of years a most successful steward of the Wilson church.

On November 29, 1893, he was married to Miss Alice Barnes, daughter of Capt. F. W. Barnes and wife, of Wilson, N. C. Their wedded life was one of love and peace, and being admirably suited to each other, their life together was as beautiful as it was useful. His wife and little son, Edward, live to feel the loss of as good a husband and father as ever lived.

We shall miss him in our meetings. His character was strong, his feelings tender, his faith was sublime, and his hope was bright.

I am thankful for the privilege of speaking feeble and inadequate words of praise and affection for the true citizen, the cultured and refined gentleman, the tender and faithful husband and father, the charitable and devout Christian, "our gentle and loving friend who has gone before us to the spirit land."

"He never made a brow look dark,
Nor caused a tear, but when he died."

Blessed be the God of love for making man in his own image, and all nature in accord. It is love which adds brightness to the sun beam, beauty and fragrance to the flower, turns despair into hope, and takes the sting away from death. May we, who mourn his loss, have this love for our fellow-man as he did. Then we shall hold the key that will open the golden gates, and enter us into the joys of Paradise with him.

The Infidel, the Agnostic, the Skeptic, and the Evolutionist (the worst of all) dispute the divinity of the holy scriptures, refuse to trust in a Saviour, and try to evolve a future ending somewhere, some how, in some way he knows not of. In this belief he dies without hope, and is no more. Not so with the Christian—with him in the end the realities are God, love, and Heaven. Death is the fruition of the Christian's hope, and our loved friend was this fair example. When the last year had its circle completed, and his body bending to mother earth from whence it came, he "wrapt the drapery of his couch about him, and lay down to pleasant dreams."

And when we finally part with our loved ones, whose presence fill us with joy, whom we can still see with our eyes of mental vision, our faith in immortality is made strong.

If there were not a life beyond, this life would be a sham—a mockery of human hope. Oh no, it is not all of life to live in this sinful world. The grand purpose of the Creator is beyond this. The wrongs of this life are to be made right in a future state. The ransomed of the Lord shall come to Zion, sorrow and sighing shall flee away, and the souls redeemed through the blood of the Son of God shall be saved, and enjoy eternal happiness promised the children of men.

Ah yes, faith prevails, and hope exists eternal in the human heart. There is an existence beyond this life, where all shall be made clear,
where we shall see our loved ones, and shall know even as we are known. Yes, know the wonders of the visible Heavens, how and why the sun rules the day and the moon governs the night, and what makes the innumerable stars shine that dot the sky. The problems that tax our minds and souls shall there be happily solved.

"Not now but in the coming years,
It may be in the better land,
We'll read the meaning of tears,
And there sometime we'll understand."

With hope in God, we await the summons to join our friend we loved here in the Glory land.

Several of the members made very fitting and touching talks in remembrance and praise of the much lamented brother. Dr. Everett spoke first: "I simply state that if possible, I knew Dr. Wright better than any member of the Association. My acquaintance with him was when he was attending his course of lectures at Vanderbilt. After his first session there he came to me to pass his interim between his sessions, to get any information I could give him. He passed his vacations with me until he graduated. After he graduated he came to me as an assistant, and remained there for two years, with the understanding that whenever I saw an opening for him he was to accept it. All the time Dr. Wright remained in my office I found him a pure, upright Christian character; he never knew what it was to engage in gossip. He was a faithful member of this Association and won the confidence of everyone. He was always ready to serve on any committee, and never hesitated to work in any department. It was a pleasure for him to be with us."

Dr. Harper: "The human organism is so perfect in its structure that no member of it can suffer without the whole body's suffering therewith. A wound of the smallest member is felt by the body. The loss of the finger impairs the usefulness and beauty of this great structure that God has given to us all. Through this
beautiful figure may we look at the North Carolina Dental Society: a wound to any member thereof is felt by the body. The loss of a member is felt more keenly. He was one of the strong pillars of this Society. He was one whose genial nature warmed us when he greeted us; one into whose eyes it did us good to look; one whose hand-grasp was strengthening, because there was love and sympathy in it. This Society has lost one of its pillars, and therein this body to-day feels it most keenly, more keenly, doubtless, than if that pillar, from our standpoint, had existed long enough to fill its mission here on earth. A life young, strong, buoyant, hopeful, magnetic, in the midst of its prime and usefulness, it was cut down, and therein, gentlemen, lies a sad, suggestive lesson to us all. We know not when the time is coming, and it is well for us to do as our dear departed brother, be ready, so that when we shall have departed the North Carolina Dental Society may feel as we feel to-day, that a power for good has been taken from us."

Dr. Carr: "I knew our lamented brother very well, and lived within a few miles of his home for a good many years. My acquaintance with him began at the time of his entering the practice of dentistry, and there was nothing I so much admired in him as his character. Such character as he had built up for himself is only exhibited in a genuine Christian manhood. Men read it as they read no written volume, men listen to it as they listen to no other eloquence, men admire it as they admire nothing else, and by admiration, grow into its excellence and become like it. We, as members of this Association, could not do better than emulate his many virtues."

Dr. Turner: "I take the opportunity to endorse most heartily the high tribute that has been paid to our deceased friend. I knew him as a boy in the office of my
friend and neighbor, Dr. Everett, and his genial, warm-hearted face was always very prominent, and on all occasions he was a bright, hopeful boy, and he seemed to be always straightforward and correct in all his habits. I watched him very closely as he merged into manhood, and when he moved away from Raleigh we all felt a great interest in him. I felt particularly interested in him, because of his marriage with a daughter of a friend of mine in Wilson. I can say that he was one of the most progressive members of our Society. He was always attentive and always in earnest, and showed that degree of enthusiasm which would bring success in any one, particularly in as gifted young man as he was."

Dr. Parker: "I would be glad to make a few remarks, and can say truly that everything that has been said is so very true, so very true. I lived very near Dr. Wright about eight or ten years, and I have never heard aught against him in any respect, and I have found him a good friend and a man I loved. He was a man of big character and great determination; a man of honesty in his profession. I do not believe anything would have prevented his doing what he conceived to be his duty to his patient. He would take three hours if necessary to fill a tooth. He was conscientious. I do not believe he could be swerved from what he thought to be right. I think such a character will do us good, although he is dead. Dr. Wright will be sadly missed by us all."

Dr. Betts: "I count it a privilege to add a little tribute to Dr. Wright. I did not know him very well, but he impressed me as being a man of great character and manhood. I do not know a man here whose life in every way I would rather emulate."

Dr. Hilliard: "With the single exception of Dr. Everett, whose tribute has just been spoken, I knew Dr. Wright more intimately, perhaps, than any one in this assembly. While my acquaintance with him was con-
fined to a few meetings annually, it extended over thirteen years, and when I say the world is better for his having lived in it, no higher tribute can be written on the shifting sands of this life.

"Only a short time before our friend was called to the higher life, Azreal's wing hovered o'er my own household, and there was taken our son, an only child, a mother's joy and pride, and a father's hope, who was only a few years Dr. Wright's junior. So it was that when I wrote his heart-broken wife words of sympathy, my hand trembled with sincere sorrow and deep regret for he who was gone was my friend, and I knew had reached Heaven and been welcomed by my own loved and lost; and so it is now that I can say little.

"That 'death loves a shining mark,' has always been true, and how sadly exemplified in this case all know whose fortune it is to be thrown with the knightly, pure, debonair Wright, a gentleman in the fullest acceptation of the term, who never had an evil thought and who lived so the veil that divides ours from the Life Eternal was so thin the gloom of the grave could be pierced by him, and his every prayer echo in Heaven. He will live in the hearts of the members of this Society, and his memory abide with us

"Until the sun grows cold,
And the stars are old,
And the leaves of the Judgment Book unfold."

Dr. Jones: "I was not so intimately acquainted with our friend and brother as some who have preceded me, but what I knew of him I admired and loved him. He was a man of sunshiny disposition. I think I never saw him when he was not in a good humor. He was what we call an honest man, and added to that, he was a christian, and I think when you have combined those two you have said it all. He was a man that reflected honor on the profession."
On motion of Dr. Fleming, the courtesy of the floor was extended, on behalf of the Association, to Dr. Skinner, of Raleigh.

Dr. Skinner acknowledged the honor in a few words, as follows: "There is no department of human labor that I appreciate more highly than I do that of your profession. I appreciate the honor of your courtesy very much."

PROSTHETIC DENTISTRY.

In the absence of Dr. Harris, Dr. Smithwick read the following paper which Dr. Harris had prepared:

Your Committee, to whom this subject was assigned, feel keenly their inability to add anything to the general fund of information concerning this branch of our profession, but we venture to offer a few reflections, by way of opening up the subject, which we know is important enough to claim your consideration, even though nothing of special value may emanate from the Committee. There are some here who are competent to teach, and we are looking to them not to let the hour assigned to this subject pass unimproved.

The surgical definition of prosthesis is "the addition of an artificial part to supply a defect of the body." Or, more elaborately defined, "the process of adding to the human body some artificial part in place of one that may be wanting."

Dental prosthesis would limit its application to the teeth simply, since a dentist is defined as "one who makes it his business to clean, extract and repair natural teeth, and to insert artificial ones." I am happy to say, however, that we have outgrown the definition, and, feeling that the term does not really set forth the importance of our high calling, we have been casting about for a new name, and "stomatology" seems to satisfy, in a measure, our ambition.

For the purpose of our paper, however, we will consider only the restoration which may be accomplished by the insertion of artificial teeth on various bases, eliminating the restoration of teeth or parts by the use of crown and bridge work, since this has been awarded a special section.

It would seem like a work of supererogation to name the various substances that have been used as a base for artificial teeth. Some of these have a very narrow range of preference and mostly it is narrowed down to about three or four. By far the most employed of all is the rubber or vulcanite base, and this for various very good reasons. One of these is that it lends itself, by its plasticity, to the most thorough adaptation. Second, it is less expensive, being a very God-send to thousands of our
population who must needs suffer the pangs of dyspepsia with its attendant train of diseases incident to malnutrition, to say nothing of the vapid, vacant, contracted expression which settles down upon the face and features of those who are early in life deprived of their natural dental organs, had we not this substitute with which to restore, in some measure, the loss.

We hear a great deal about the degeneracy of the times and the decadence of fine mechanics on account of this cheap base, and we will readily accede that, since we are not shut up to the use of the nobler metals, many are not learning so much about metallurgy and the fine mechanism necessary to be employed in first-class work in gold. Notwithstanding all this, much more artistic results are being obtained now in the restoration of facial contour and in the preservation of the natural expression, and prosthetic dentistry is now more than the mere high mechanical finish of a gold plate with its clasps and springs and various devices answerable many times for the loss of sound teeth to which they were fitted.

So far as the aesthetic is concerned not so much is lost, when we consider that we can reproduce with exactness a plate from trial base of wax paraffine or gutta-percha, or their combinations, which, with the varied patterns of porcelain teeth and their exquisite shadings, forms and colorings, enable one with artistic perceptions to work wonders in the restoration of this most important part of "the human form divine."

We must not be understood as advocating or encouraging the neglect of the highest mechanical training necessary to the most artistic results in materials most expensive and in technics most refined and delicate. Some are so situated that they may gather about them a clientele that will thoroughly appreciate and are able to pay for the finest productions of the dental office and laboratory; but since the great mass of our population cannot and will not pay for these things, we must serve them well with the materials at hand which may be brought within the range of their pecuniary ability. And let us ennoble these simpler things by the exercise of our highest perception in bringing out their inherent excellencies and earn the gratitude of thousands who are appreciative, albeit they may not be able to command the more expensive productions of our skill.

The fight need not be so much against rubber or the cheaper bases, but for the higher study of dental prosthetics, so that we may aim at and secure the really aesthetic in dental prosthesis.

We need not be discouraged on account of the facility with which the "bush-whacker" yanks out and ere long "puts up" a set of teeth "while you wait." He is in too big a hurry—for the almighty dollar—to strain after very artistic effects.

Let us study physiognomy and learn what are the lines that give character to that most expressive part of the human face and then mold along those lines with the care of the sculptor and with the rare perception of the portrait painter, yielding not to the importunity of the sallow
maid of forty or thereabouts who wants those pretty pearly teeth, all unconscious as she may be that they will certainly betray their artificiality.

We need, with bold hand oftentimes, to depart from that picket fence regularity which has so largely obtained and which is so much more rarely met in nature. We need to study the effect of little departures from the strictly symmetrical which is sometimes most unnatural, and disarm suspicion by our fidelity to nature and natural forms.

We will accede that it takes an artist to do this, but we are pleading for higher things and we believe there is no department of our work that is more important than this.

Had we regular and thorough control of our patients through childhood and youth we might avert, in most cases, this real disaster of the loss of the natural dental organs, and it should be our higher aim to do so. We are not of those who claim never to extract a tooth or root. We find it necessary to do so in many cases and then, you know, "the other fellow" has very little scruples about it and they come to us for replacement. We know how to repair the loss in the best manner possible. Doubtless many more natural teeth are preserved than formerly, but we are confronted with blank vacuity sometimes and we must not lift up our hands figuratively "in holy horror," giving the work mostly over to the assistant or office boy, but let us redeem it from the low plane to which it has fallen and give it our best talents and most careful study.

To this end we should provide ourselves with a thorough equipment for the prosecution of this department, modelling and studying each individual case presenting

Only consider it is entrusted to us to preserve individuality of form, of feature, of expression; or of restoring that naturalness which has been lost, so that one may at least be recognized by one's intimate friends. While it may not seem so serious a matter to us, it is much to the home folks who have long carried an image of the loved one in their heart. We appreciate the fact that sometimes a woful lack of taste prevails among our patrons. Giddy vanity seeks to secure something entirely out of harmony; conceiving of these restorations as ornaments to be put on and not, as it were, a part of one's very anatomy, under which forms one has been known and has preserved identity. We are aware, too, that these changes come on very gradually sometimes by the-occasional loss of a tooth, so that it might be hard to determine what is natural, but this emphasizes the more the necessity of study and of the proper application of principles governing these things.

We are not meekly to yield to every demand that may be made upon us as to how the thing is to be, nor hand out to the patient, as is sometimes done, a tray of teeth for inspection and selection of forms and shades to be used; at the same time we are not to despise any information we may obtain from them as to general form and length of the
natural teeth, amount of exposure, etc., explaining the limitations in the case and cheerfully encouraging while not raising too high expectations.

We believe we will not be misunderstood when we advocate that we are to slavishly adhere to nature in all reproductions or restorations, for we may sometimes materially improve the appearance and bring about more normal conditions, reducing, if not entirely eliminating, malformations and earning the lasting gratitude of our patients.

Sometimes marked prognathism, by the shrinkage of gum, etc., may be greatly reduced or modified, and a restoration made by careful selection from the many artistic forms that are now presented by our best manufacturers of such materials.

It was a great revelation to me on carefully studying the catalogue of a great manufacturing concern (which enjoys probably the largest patronage of any among the members of this Society) to note the wonderful adaptability to our needs, of the different forms and shades of teeth.

Number thirty, shade eleven, will not fill the requirements of every case that comes along now, but the most discriminating taste and judgment may be exercised so that the minimum amount of grinding and fitting may be necessary and the nearest approach to natural conformation may be secured and much time saved. We would commend to every one the careful study of his catalogue of artificial teeth that he may learn how to get the best services therefrom.

We would suggest to the manufacturers of teeth that most blocks are too thick for the majority of cases and that the distal end of the incisor block of three upper is too much extended along the gum border, so that, almost invariably, it has to be excessively ground in jointing, (Illustrate on blackboard).

In conclusion, your Committee is well aware that they have presented nothing specially new or startling, but if any one may be incited by this report to strive for higher things in this department of our noble calling we shall feel amply repaid for our endeavor to fill the task assigned to us.

We invite and urge that anything new in this department, or any different or better way of doing anything in prosthetic dentistry be brought out in the discussion and let no one hesitate from modesty or the consideration that it is hardly worth mentioning.

Everything is not learned from text-books, and if any idea has dawned upon us in the recesses of our laboratory let us bring it out and contribute it to the common fund, and by so doing enrich our store of knowledge and enhance the comfort and pleasure of our patrons.

DISCUSSION.

The discussion was opened by Dr. Smithwick. He said: "I want to call your attention to the careless way in which people expect to do prosthetic dentistry. A
great many begin with a laboratory poorly equipped. You are never going to do prosthetic dentistry until you have a nice office and instruments that you can work with. You cannot do prosthetic dentistry with bad instruments."

Dr. Parker: "One reference in Dr. Harris' paper I think very good is, that in the manufacture of teeth we make the blocks a little thinner; make the molar a little thinner, so it will not necessitate so much grinding."

Dr. Jones: "I do not think that, as dentists, there are two more important subjects than the one we have just discussed, Operative Dentistry, and the one we have now before us, Prosthetic Dentistry. I think this just as important as operative dentistry in a great many respects. It is a very serious thing to put up a substitute to take the place of the material which ought to be used in doing this kind of work."

Dr. Boyette: "You will often see the contour of the face almost deformed by using block teeth when they could use a thin face. My experience is that the new mould for plate teeth is about as thin and light as can be made to give proper strength."

Dr. Betts: "I wish I could get hold of somebody that could talk like Dr. Crawford or Dr. Crenshaw to express what I want to say myself. If you cannot get the new mould do not try to use the block teeth. I think we err in making the plates too thin around the gum. I have seen people wear teeth whose face did not fill out enough. If we cannot find teeth thin enough to suit the case in hand do not use block teeth, but use thin teeth."

Dr. Crenshaw: "Inasmuch as the paper deals with prosthetic dentistry in a general way, I have just this observation to make: I believe I have said before, that a good deal of destruction is going on in the mouths of people by too much bridge work being done. Where
we have mouths that can take a full bridge, for instance, where there may be present the canine root on one side and a bicuspid on the other side, or indeed, where we find two teeth on one side, an anchor plate properly fitted and adapted will prove the most satisfactory. These plates can be made of rubber, and we can obtain results which I believe will be infinitely more satisfactory. This work can be done for about one-half for what bridge work can be done. These plates can be removed and cleaned as often as you please. If it should break at any time, it is fun in comparison with repairing the other plate. The work of anchor plates has been before the profession for a number of years, but it has taken hold upon the profession very slowly. I believe those of you who are not doing that class of work, if you will get to doing it I believe you will be thankful for the change in your practice."

Dr. Ramsay: "Our brethren speak a good deal of plain teeth for plate work, and it is more desirable, of course, to use plain teeth whenever we can. There are many instances where we cannot use plain teeth and make an artistic piece of work that will look well after it is in the mouth. People who have short mouths look hideous who wear plain teeth. In such cases the block teeth are always preferable, I think."

Dr. Turner: "I recognize the importance of what Dr. Crenshaw said about anchor plates, and I have very frequently employed this method myself, even when there was one tooth, especially on the lower jaw. I think dentists make a great mistake by pulling a tooth when it could be utilized to fit on a plate. I remember a case of an old lady seventy years of age; she had two teeth—an upper and a lower tooth, and they did not hit each other, and she asked me if I thought I could make her a plate that would give her any comfort or satisfaction. I told her I thought I could. I did not
disturb those teeth at all except to put them in good condition. Both of these teeth were on one side. I made her a plate, and she came to me years afterwards to thank me for the good she had derived from those teeth."

Dr. Liverman said that his experience in making plates with one or two teeth has been very unsatisfactory. Whenever he put a clasp on a tooth sufficient to hold the tooth in place, it caused irritation very soon.

Dr. Johnson: "I am very much interested in this subject. I am sorry to see prosthetic dentistry taking a back seat, and the principal reason is that we do not get well paid for it, and the reason we do not get pay for it is because we do not raise the standard of our work high enough to get pay for it."

Dr. Johnson spoke in favor of the anchor plates, but said it was a mistake to extract several good teeth in order to put in an anchor plate. In constructing an anchor plate, Dr. Johnson suggested that when you put the last crown on before taking the impression, to put a little wax there to keep the plate from running down and to protect the tooth. He also spoke of the too perfectness of false teeth. They do not look natural. He said there are no natural teeth that ever grew that are as perfect as artificial teeth; they are usually too light. He suggested taking the teeth from the manufacturer and mar them, grind off the sharp points and make them square. He said teeth could be made out of china you get in china stores, and paint gold fillings with paint you can get from the store, and make the artificial teeth look natural.

At 12:30 o'clock Dr. Bogle gave a clynic.

The Society adjourned to meet at 2:30.
SECOND DAY—Afternoon Session.

The Society was called to order at 2:30 o'clock.

Dr. Fleming read the Constitution and By-Laws by Articles.

The Articles were adopted as a whole.

Dr. Spurgeon read a telegram from Mr. J. W. Selby, expressing his sincere thanks for the message sent him.

Also a telegram was read from Dr. J. M. Ayer, expressing his wish to be with the Society.

The Secretary read a communication from Mr. Colston, of Charleston, S. C., inviting the North Carolina Dental Society to attend a Tri-State Convention of the States of North Carolina, South Carolina and Georgia.

Dr. Carr read report of Committee on the President's Address, as follows:

The Committee on the President's address desire to make the following report: The address abounds with many good and valuable suggestions, is full of hope and encouragement for the future of the profession in North Carolina. We would direct especial attention to what he says of "the influence of the Association, how it stands, first for morality, professional courtesies, or professionalism among the profession"—his abhorence of quackery, charlatanism, and his love of the principal and spirit of humanity and liberality; his advocacy of the refining and ennobling influences of a cultured mind, by the certainty with which it defines itself in any company, by the ease and grace with which it will take the general level, and abate none of its charming dignity; the cultivation of the love of scientific study, and the acquirement of knowledge, not for selfish purposes, but that we may dispense it with a lavish hand, that others less fortunate may be helped along the rough places in professional life. We heartily endorse all he says along these lines, and especially the earnestness with which he insists upon higher educational qualifications for those who seek admission into our profession. His plea for a higher standard than we now have, is in accord with the best thought of the thinking men of to day. His entire address is replete with living thoughts, and we unanimously endorse the spirit of it all.

Respectfully submitted,

V. E. Turner,
A. C. Liverman,
Isaac N. Carr,
Committee.
Dr. Everett made a motion that the report of the Committee be adopted. The report was adopted.

CROWN AND BRIDGE WORK.

Dr. Crawford opened the discussion. He said: "I think a dental surgeon ought to be a specialist and not a tooth puller. The work we are doing now will not any more compare with what we are doing twenty years from now than what we did twenty years ago. Do not be satisfied to plug a tooth and plug it well; do not be satisfied in pulling a tooth and pulling it well; but go home as dental surgeons, and those of you who have not become interested in modern crown and bridgework, take it up and help it along. During the last twenty years crown and bridgework has increased the volume of practice and business in this country almost two-fold, and when the profession has gone far enough to have appreciated the full value of what can be accomplished in crown and bridgework it will increase the practice of dental surgery two-fold. The most marked improvement in modern crown and bridgework is the substitution of a crowning substance for gold. He then gave an illustration of a man who had lost every tooth in the upper jaw and six or eight teeth in the lower, with the wisdom tooth slightly tilting back, and the tooth leaning forward pushing the plate forward. Instead of putting the ordinary gold crown on these teeth, he used a good strong gold crown front and back and a porcelain crowning surface to stand guard over."

Dr. Johnson: "I believe that the introduction of crown and bridgework in the profession is one of the greatest strides in a mechanical way that we have made. It has also been a stepping-stone to the worst character of abuse the profession has ever known. You can make a piece of bridgework and disguise the mechanical imperfections to a greater extent than in any other
kind of work. If you make an imperfect plate the patient cannot wear it; but if you make a crown the patient can use it any way. I had a case just before I left home; it was a lower bridge with the second bicuspid and second molar. The patient objected to a display of gold. The tooth had an exposed nerve, so I resorted to this method, which I think will be successful: I trimmed the tooth up—it needed raising 1–16 of an inch, and fitted a platinum band to this bicuspid. I then procured one of these little porcelain cusps with one single pin in the bottom of it. They have recently introduced them in the aid of the development of crown and bridge-work. I fitted this cusp, took some gold foil, pressing it down and making a backing, and now I have a platten crown with the entire cusp made of porcelain."

ORTHODONTIA.

Dr. Spurgeon read the following paper on the subject of Orthodontia, prepared by Dr. Rominger:

Orthodontia is the correct position of the teeth in the jaw. This subject is supposed to deal with the moving of teeth, by mechanical appliances from a mal position to a correct position in the mouth. It is the purpose of the writer to mention, in this paper, certain general principles which govern the correction of irregularities of the teeth, for the details of such a discussion can hardly be made plain without good illustrating diagrams.

The importance of this subject can hardly be overestimated, when we consider how much the appearance of the human face is marred by mal-position of one or more teeth. A face which might be called beautiful when at rest, may become really repulsive, or even hideous by the exposure of irregular teeth in the act of speaking or laughing.

It behooves us to study well each case brought to us with the eye of an aesthetic and with the mind of a philosopher, that we may render the service that we owe to our patients.

Let us put it down in our note-book, never to be forgotten, that we must always have room in the arch for the teeth we expect to move. If the arch is too contracted, it must be expanded. Much labor and expense has been lost by many dentists by overlooking this basal principle. If the arch is large, and the features well proportioned, it may be necessary to sacrifice some tooth, or teeth, to make room for malposed teeth which are of greater importance than others.
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One of the bicuspids on each side can be sacrificed, probably, with less loss and disfigurement than any other, and if this is done in the development period of the patient, many irregularities will correct themselves.

Great judgment and care should be given before doing this; for if a tooth is removed from one side of the mouth alone in the adolescent period, in most cases it will make a onesided appearance of the mouth in adult age.

As a rule, I would say, when a bicuspid is taken on one side for correcting an irregularity, take the corresponding tooth from the other also. However, this is subject to exceptions. Each case must be decided on its own merits. Then we come to moving the teeth. The first thing to be determined is the anchorage of the appliance from which the force is to be applied to the movable tooth. If this is not decided on good principles, failure will be sure to follow; for the anchorage may move instead of the tooth aimed at. It is best to take more than one tooth for the anchorage from which pressure is to proceed.

As to how the movement is to be accomplished, I would say the screw stands par excellence. Positive action is what is needed, and by the screw you can go just so far and stop, and you know just what you have accomplished. Where continued traction is made, as with rubber, the tooth gets sore, but where the screw is used, and the tooth is held firmly in one position, there is little or no soreness. There is almost no limit to use of the screw and bands in the mouth, and the appliances need not be cumbersome either.

Of the screw and bands, the profession has been well served in the Angle and Knapp systems. The operator can buy the separate parts of this to suit almost any case that can be brought, but we should never overlook the great advantage one has who can make his own appliances. To this end we would urge that each one should have his inventive wits alive, and a ready and skilful hand to obey his will. He who has this is always master of the situation, and will never be forced to furl his flag.

A tooth should never be allowed to move backwards as this interferes with the osseous deposits, on which the permanence of the work depends. Hence when a tooth has been moved to its desired position, the traction appliances should be removed, and a neat and delicate retaining appliance should be substituted therefor. This should remain until the parts are thoroughly solidified, so that there will be no changes when it is released. It might be well to say that the correction of an irregularity will always be twice as large a job as the novices will estimate it to be. It often occurs that when traction is made for a few days, some unforseen condition arises, that makes it necessary to change the appliance, or make a new one to overcome the difficulty which we did not see in the beginning.
Another difficulty often occurs, and one also, which the best operators cannot always avoid, nor overcome, and that is the control of the patient. It is necessary that the patient should come at regular intervals, and co-operate with the dentist as far as possible, but this often cannot be attained.

I would suggest to the young dentist that this be clearly stated to the patient, or parents, and fully agreed upon before the case is undertaken. This is of the utmost importance, and cannot be too positively stated. You can accomplish nothing with an irregular patient, or one who wants you to take off the appliances for every party at Grandma's, or every German at the club. The only way to deal with such a patient is to get your money before hand, and charge for the time and not for the work accomplished. Let me add this one important item just here: And that is, you will rarely ever charge enough for correcting an irregularity, if you make your estimate before you begin.

Now to bring the matter down to a point, let me epigramatically recapitulate the points included in this paper.

1. This paper deals only with the general principles, and not with the details.
2. The subject is one of great importance, and cannot be ignored.
3. Study well each case before you begin.
4. You must have room for tooth in the arch.
5. If extraction is necessary, the bicuspids are usually the ones.
6. Anchorage must be secure and substantial.
7. The screw is the best means of traction.
8. Be skillful enough to make your own appliances.
9. Never let a tooth move backwards.
10. Retaining appliances must be used.
11. Have a perfect understanding that you are to have perfect control of the patient until the work is done.
12. Charge enough for your work to justify you and the patient.

Dr. Betts opened the discussion. He gave an illustration of a case—a ten-year-old child. The parents of the child insisted on his drawing back the laterals, and almost abused him because he would not do it. He contended that tampering with those teeth would cause trouble. He treated the case according to his judgment, and one of the laterals is now in place and the other coming in place.

The Society adjourned to meet at 8:30 p. m.
Pursuant to adjournment, the Society was called to order at 8:30 p.m.

Dr. Bogle opened the discussion on orthodontia. He took issue with the writer with reference to extracting corresponding teeth. It is a mistake to extract a temporary tooth when the corresponding tooth has to be extracted. He also impressed the importance of parents encouraging their children in the care of their teeth, and when a patient has an appointment, the appointment should be charged for whether the patient comes or not, and this way force the patient to not neglect having the work done and keeping the case in hand.

Dr. Hilliard next spoke. He said he had never heard of anybody paying for an appointment. He said you may charge them, but they don't pay. In speaking of extracting teeth, in the case of six year molars, if you have to extract them, make a bridge and keep them from contracting the lower jaw. Nine times in ten if that is not done the upper teeth will wear away all the inferior incisors.

Dr. Spurgeon told of a case in his experience, of a boy about eight years old; his front teeth were straddled, and he made a perfect mouth by putting a silver band on those teeth.

DENTAL EDUCATION.

Dr. Biggs read a paper on this subject:

There has been during the past few decades wonderful inventions and marvelous progress along all scientific lines. This development has not come to us in the chapter of accidents, but is the result of untiring efforts and unceasing toil.

The progress in dentistry has been as wonderful as it has been rapid. The opportunities which the dental student has to-day for preparing himself for the practice of his profession are far in advance of those of earlier years. These advantages have not come to us by accident. We enjoy our present opportunities because of the great sacrifice, against untold obstacles, of some of the most learned men our country has ever
produced. They have put into our beloved profession their time, energy, money and brains, and have by their efforts wrought out for us the educational system in dentistry of to-day. They have given dignity to dentistry, and every worthy member joins with them in a pardonable pride in our honored profession. We doff our hats to them; we thank them heartily for the advantages their earnest efforts have made possible.

And yet, notwithstanding the dental training given, the dignity of our profession, the enlarged opportunities offered, the splendid progress made, I believe we may justly ask ourselves, are the graduates of to-day any better equipped than those of years gone by? If they are not, they ought to be, and some one is to blame. Who is it?

We can, we think, point out some of the sources of these defects, show some of the weak points in our educational system of to-day, and we do so not in the spirit of fault-finding or criticism, but in the spirit of love for the profession, and with the earnest desire for its further growth and prosperity.

The first of these we cite is the requirement for entrance to our colleges. Many of those asking to matriculate are deficient in training in the schools of high grade and colleges. They are not prepared to grasp and assimilate the instruction given. Foundation work has not been done. They expect to erect a magnificent structure on a sandy foundation. They are not masters of the art of acquiring knowledge through personal application. They are indifferent, and as yet, no process has been discovered by which the professor can pour information into the passive mind, consequently the student who is not prepared for the work of our colleges, whatever his dreams of the future may be, will in his professional life rise very little higher than the foundation laid.

These students are not prepared because of the dental educational requirements. While the requirements of to-day may be far in advance of that in the beginning of dentistry, still it is by no means satisfactory.

There has been a general uplift along all educational lines, the masses are being educated, the country is filling up with educated men, and if the dental student shall be able to hold his own with college-bred men with whom he shall certainly come in contact in his professional life, he must avail himself of the best training possible.

But the average student will not do this unless our colleges demand it. The ever broadening course of study in our colleges demand that the standard of entrance be raised.

Our college curriculum is sufficient to meet the needs of the present. In addition to the course of study, dental educators have kept pace with the times. But the average per cent. required is too low and it seems to be the nature of the majority of students to do no more than is necessary in order to pass. The present requirements are responsible for laxness in application and result in a superficial knowledge, which reacts upon the dignity and usefulness of the college itself. We believe
all will readily concur that higher averages should be required and that examinations should be more frequent.

We can heartily subscribe to the truths expressed by Dr. Faught in a paper before the National Dental Association regarding Dental Ethics and History in which he said: "The subject of ethics is of vital importance, and needs no argument to convince you that many of the flagrant transgressions apparent in the professional life of to-day are a failure of the head rather than the heart. They do no better than they know, and many willingly do better when they do know. Why not so teach them as to save them from themselves? The subject is very broad and when properly considered would point out pitfalls into which the unwary too often come.

"As to dental history, inquire of the younger men of the profession and see how meager is the information. Is it natural to have strong ties of family pride and affection when the strings which bind one do not dip deeply into the past? How many of the young practitioners of to-day are familiar with the literature of the profession issued during their term at college? The number is not large, and still less the number of those familiar with it for five years preceding the date of their matriculation; and very few there be who claim an intimate knowledge dating back to 1840.

"Let an effort now be made which shall not be dependent upon the personal inclination of the proposed novitiate, but which shall by its own requirement compel a knowledge of the past sufficient at least to become a bond with the present of its possessor not easily broken. Surely from such union must flow to the public a better type of professional spirit."

The spirit of commercialism and greed for gain is seen on every hand. The dental colleges and not a few of the practitioners have fallen in line with this policy. A great many of our colleges seem to be more desirous of the money they can get out of the students than they are to fit them for their profession. They seem to be in this great enterprise simply for the money that is in it. The commercial spirit in any profession is the lowest consideration Those who attain the greatest heights in any pursuit, and are of the most service to their calling and to humanity, are those who enter their profession for love and a desire to uplift, and not merely for a livelihood. There is no objection to the desire to accumulate wealth, but this should be of secondary consideration. The thing of first importance is growth and development. This evil stands athwart the pathway of our colleges and professional life, dimming their glory and hindering the progress of dentistry. If our dental colleges had liberal endowment as some of the great universities and colleges, it would have a tendency to remedy this evil. If this spirit is corrected in college life, we have nothing to fear in the life of the alumni, for the professional life of the student is shaped largely by the college.
We have briefly pointed out what to our minds are some of the failures in dental education, but we now face the future. We are living in the greatest age of the world's history.

"We live in an age on ages telling,
When to be living is sublime."

These mistakes will be corrected; these weak points are going to be strengthened; for the watchword of our profession is "Forward," and we will press forward to yet higher and nobler things. Indeed it is difficult to even imagine the future of dentistry.

The Pilgrim Fathers landed at Plymouth, Mass., under the most untoward circumstances. The forests were untouched by the woodman's axe and this country inhabited only by savages. With the desire for civil and religious liberty burning in their bosoms and a splendid faith in God, they faced the future. No one knew what the result would be, no one could foretell it, no one even dreamed that from this small beginning we would behold the America of to-day.

From the simplest methods and very limited advantages, dental education has in a few years attained its present proportions. We are still climbing higher, and no one is able to anticipate that degree of perfection which the future shall reveal.

**DISCUSSION.**

Dr. Turner opened the discussion by saying: "I have been a member of this Association for twenty-seven years, and I am very proud of this paper. I do not think I have heard a paper in many years that has exactly expressed my sentiments with regard to students studying dentistry. He takes the ground that there has been the disposition of colleges to expect young men who are not sufficiently educated to receive the instruction which is necessary for them to receive in the various branches of dentistry.

"There is another point in that connection which strikes me as being very important: It is very difficult for a man without an education even to comprehend the terms and language used in scientific descriptions and in the text-books which are used in the colleges; and in addition to that, the mind of the person who proposes to study dentistry is totally untrained, and the result is that he cannot master these various subjects which are
necessary for him to become an efficient practitioner. I think the paper deals with the subject in a fair and open way, and his criticisms are just. His decisions are thoroughly tenable in regard to the future dentist, and there is this thing to be considered in this connection, and that is that the dentist of to-day is a very different man from the dentist of twenty years ago. Those entering the profession to-day are very differently prepared from those who entered twenty years ago, because of the advancement along all the lines of dental subjects. Hence I say, in entering the profession of dentistry it is necessary for young men to have more education.'

Dr. Osborne: "I do not rise to discuss the paper so much, but I want to say this much, that that is certainly an able paper. In the first place, it is a good paper, a deep paper, and a practical paper; and in the second place, that young man is a good reader, and that has a good deal to do with putting a paper before the Society. It is a very difficult thing to read a paper before a meeting, and there are very few of us who are fixed up to do that. That fellow can write a paper and he can read a paper.'"

Dr. Jones: "It gave me a great deal of pleasure to listen to the reading of that paper. I think the gentleman is on the right line, and I believe that if there is any mistake made in the education of young men to-day for dentistry, that it is being remedied and that pretty fast. I do not think that we who graduated twenty years ago and more had the advantages that the young men have to-day in colleges. I believe there is one mistake made: too many young men neglect their education before going to college. They go sometimes when they ought not to be allowed to enter, but they do pretty well. The young men of to-day have so many superior advantages to what we had they ought to turn out better than we. The most important thing for a
dentist is to know how to do a thing and then do it. The most intelligent man sometimes cannot make an operator, because he has not got it in him. They say that dental education is an old theme, and ought not to be discussed. That is a live question, and it is not going to down. We are going onward and upward, and the dental profession is going to see that dentists are going to be educated; and the college that is not going to keep up with the procession had better get out of it."

Dr. Fleming: "A number of students go to college and try to do just so much and get through, and they are satisfied. I believe that the standard at dental colleges is too low. Any common school boy could stand the examination that I stood when I passed. If a boy studies just enough to pass and that alone, he will fail. You will find that nine out of ten will be lost in the shuffle, and the tenth one will come out whole. The man that does all he can while he is there is the man that succeeds, and the man that does as little as he can will be left in the procession."

Dr. Hilliard said if a young man were to go in a dental office under a preceptor it would do him more good than a year in college.

Dr. Liverman: "As I look around me to-day and hear the criticisms brought against my profession, I can but bow my head in shame and say they are just. Why are they just? Because we find in our ranks and possibly in our office, if we look at ourselves, men who have not had the foundation to build this technical structure upon. Some people go so far as to say that the dental profession is not scientific: all you can do is to make a tooth, build a bridge or put in a set of teeth. In some cases they are correct and in some they are not correct. In my observation, there is nothing in the world that will broaden a man but education. If we will educate a man and instill in him high ideals of life, then the day
of the charlatan and the day of the dental parlor and the quack is forever gone.'"

Dr. Harper: "Under existing circumstances in North Carolina as well as other States, there is no excuse for a man not being educated if he so desires. The inducements are ample and the facilities are ample. This is a question that has come before us annually, and I am glad to see that our Society is moving forward along the line every year.'"

Dr. Parker emphasized the importance of a thorough college education and discussed the subjects at length. He closed by saying, "Let the dental profession stand side by side with the medical brother so that the M. D. may look upon the D. D. S., and feel that there are a great many things in our profession that they do not know just as there are things in their profession that we do not know. We should accomplish this, and then dentistry will stand out as it deserves to stand.'"

Dr. Smithwick said that the individual dentist was largely responsible for the degree of education which a young man entering college receives. Almost all young men contemplating entering college applies to some dentist for instruction and advice, and then is the time to insist upon a thorough education, and in this way elevate the standard of dental education.

Dr. Betts expressed his hearty endorsement of what Dr. Smithwick said, and thought he had struck the keynote. He also complimented the paper on the subject very highly.

Dr. Bogle: "I believe the best safeguard against quacks and advertisers is a thorough course in ethics. Get them under the care of the Dental Society in the State to which they go. I do not believe anything acts with such a stimulus as to be connected with a dental association. It stimulates one to a great action, and instills in him high ideals."
"I want to congratulate the Essayist on that valuable paper. I believe it has given us much food for thought."

Dr. Whitsett read the following paper on the subject of Dental Education:

Standing on the threshold of the new century with the dead ones still at our feet, we deem it not amiss to glance over the past and perchance learn a lesson for the future. A thrill of pride ought to fill the heart of every dentist when he contemplates the strides made by the profession during the last half century; indeed, our whole country has gone forward with great leaps and bounds, and progress has been the watchword of all trades and profession.

Amid the din and rush of material success we stand in great danger of becoming too material, for the progress of the nineteenth century has been almost wholly along this line. Material progress has forged to the front while Moral progress has lagged far behind; and while we boast of our great nineteenth century, there are many lessons for us to learn from our failures. The marvelous increase of productiveness and wealth has served to cultivate the sentiments of selfishness, ambition and jealousy, which appear to lie at the root of the worst of human hatred. An era of great material advancement must be accompanied with a like progress in moral advancement or moral degeneracy will follow. It is a poor compliment to the past century that its most astounding discoveries of force have been enlisted in the destruction of human life. Therefore, standing amid the events of to-day, let us turn our minds to some yesterday and learn a lesson for to-morrow.

Medicine stands next to religion in the betterment of the human race, and looking backward we can but feel proud that each century, in modern history, has been marked by some great discovery in the field of medicine for the amelioration of human suffering. In the seventeenth century Harvey told us about the circulation of the blood, the eighteenth century brought with it vaccination, and when the eighteenth gave birth to the nineteenth its great natal gift in medicine was anaesthesia, whereby that prince of terrors, pain, can no longer rack body and limb and call forth groans, shrieks and writhings till the poor sufferer, possessed with a dominating agony which displaces all thoughts of life, memory of friends, and love of God, breaks down in unutterable distress and prays for death and oblivion. To this poor sufferer, insensibility is next to heaven; and he feels like breaking forth in the words of Prof. Truman when he said: "We cannot deify thee as the ancient Greeks would have done, but we give the most hearty thanks, and in our heart of hearts we enshrine thee, O Anaesthesia, goddess of our modern civilization, though not the first born, the loveliest of all the children of discovery in this our nineteenth century," and for this great boon the world must thank a dentist, Horace Wells.
Our profession represents modern progress and it behooves each and every member to put forward his best efforts for the advancement of the profession. History teaches us that nations have passed from sight and civilizations have passed into oblivion simply because those immediately in the current failed to note the course or the rapidity with which the water was running. We must prepare to build for the years to come, by improving the opportunities which are now ours.

"New occasions teach new duties; time makes ancient good uncouth; They must upward still, and onward, who would keep abreast of truth."

Egyptian mummies may have had gold fillings in their teeth, and George Washington no doubt wore an artificial plate, but it remained for the nineteenth century to establish dentistry as an art. Our first college was established in 1840, since which time we have fully demonstrated our usefulness to humanity and our importance as a separate and special branch of medicine.

Our profession is not blessed with an over supply of confidence in the public mind, and in the same proportion in which we prove our usefulness to the public, in that same proportion will our profession be elevated. In considering dental education we have divided the subject into three heads: Educating Ourselves; Educating the Public, and Education as applied to Colleges. We will speak only of the first two divisions.

First, Educating Ourselves. A dentist's life is necessarily a very prescribed one. Our duties from day to day are very similar, our minds are not brought into contact with stronger minds, and we are not forced to fight life's battles as the business man, consequently we fall into a groove, become narrow-minded, jealous, disagreeable to ourselves, our neighbors and all mankind. It is, or ought to be, one of the duties of our Society to shake its members up at least once a year, by giving them something to think about, something to talk about, and something to do.

But is it not a fact, our Association has taken on the hue of its individual members, and we have fallen into an easy, slip shod way of doing things, instead of a determined, energetic advance towards the highest and best.

We have been a member of this Association for fifteen years; change the names on the programs of fifteen years ago, and they would serve admirably for to-day. We think the fault is in trying to do so much at our meetings, we usually succeed in doing nothing of permanent value. For instance, a program is sent to each member of the Association with a regular college curriculum printed thereon, the member sees his name under a certain section and knows he is expected to prepare a paper on the subject. He is energetic and studious, and devotes much time and thought to his subject and presents a splendid paper. After reading the paper, discussions are called for and the silence is painful until some one, out of the goodness of his heart, gets up and compliments the paper and the subject is passed.
Result—A live, energetic member has been discouraged, and when next year he sees his name on the program under a different section, he simply pigeon-holes the program and thinks no more about the matter. Couldn't our Committee on Programs give us fewer sections, appoint two or three members to prepare papers on live, up-to-date subjects, appoint a like number to discuss these papers and so arrange it that the papers be in the hands of the members to discuss it a month before the meeting. The writer will do his best because he knows others are studying the same subject. Those discussing the paper will give us something worth listening to, because they have studied the subject. The members will return to their homes feeling that they have learned something new, and with a desire to come again. Thus, by keeping our Association alive, the members will not stagnate.

Education as applied to the Public. One object of hygiene is to teach man that disease is very often caused by his own neglect. The day has arrived when the dental profession owes suffering humanity something more than extracting teeth and filling cavities. We must show that we are working for the betterment of human health and happiness, not merely for the dollars in sight. That people are giving more attention to the preservation of health than formerly, we see from our extensive sewer systems, public baths, sanitary plumbing and many other things being done for the public health, but true improvement will not be secured until we give more attention to the human body, no nation can be stronger than the men composing that nation. Could Hobson have sunk the Merrimac if he had spent the night before the deed with an aching molar? We, as dentists, know the value of teeth, and through our profession the public ought to be enlightened on the importance of hygienic treatment of the mouth. Micro-organisms of all kinds enter the mouth. If they find this mouth in an unclean and unhealthy condition, they soon penetrate into the salivary glands, lungs, and general circulation, and then we have an unhealthy body with all the accompanying diseases. This is true in regard to adults, but applies more strongly to children from the simple fact that the child's organism is more delicate and cannot resist as can the adult's. If a child's health is neglected in early life, can that child develop into the noble manhood that God intended it to be? If our children are allowed to suffer from decayed, broken-down and aching teeth, causing them to chop up their food on their front teeth, mix it with a lot of unhealthy saliva before deglutition, can we, and do we, expect that child to develop into a strong, healthy man? We have all seen the sad consequences which results from the negligence of the deciduous teeth. After the suffering of the child has driven the parent frantic, they both land in the dentist's office and then it is hard to say who has the hardest time, the parent, the child, or the poor dentist. We know the ounce of prevention, but it is applied to a limited few. Would it not be well for this Association to take some action for the purpose of acquiring a more complete knowl-
edge of the frequency and ravages of caries among children's teeth and of instilling into the public mind the necessity of oral hygiene? We see some of the foreign countries and, we are glad to say, some of our sister States are inaugurating a plan to have the children's teeth in our public schools examined and a systematic report of the condition made at their Society. When this report is published we believe it will do good by awakening interest on a now dormant subject. For by presenting statistics showing the condition of the children's teeth through the ravages of decay, the teacher will see his duty to teach more oral hygiene, the parent will gain some knowledge about teeth, and the child started on the right road to permanent health.

**DISCUSSION.**

Dr. Crenshaw remarked: “I agree with you in the sentiments expressed here to-night, that students should have a good foundation before they enter into the practice or study of dentistry. The schools, I believe, are trying to meet the demands. It cannot be done in one year, at one sweep or one leap; it has got to be done gradually. Sometimes I have thought that the demand for so much education on the part of young men was really not a sincere one. I have at times questioned in my mind whether that, for the sake of education this demand is, or whether it is for the purpose of stopping so many men coming into it. Let that be as it may, we must have and we desire to have a better educated profession. On the other hand, we cannot keep a man from studying dentistry unless we put the examination so high that he cannot pass it. Again, some men who go to dental colleges and apply for matriculation, who are well educated and bring certificates from literary institutions, and have passed certain branches without any trouble at all, go through a three years course and make a high rank, and make the poorest possible practical dentist. We have a woolly-headed boy come in, that you would think could not possibly get through school, and he turns out the very best practical dentist. I had a man write to me three or four years ago, asking for the expense of the full course, and asked me what
the expense of the *fool* course was. I wrote him what the *fool* course would be, and wrote it so plain he caught on to what I meant, and he came and took off the best medal in the college. The Examining Boards in Mississippi, Alabama and other States have been licensing men at the end of one session—that is, giving them permission to practice after having attended one session, and give them a certificate that graduates them. Yet these very young men are pressing down on the colleges for a three years course and educational requirement before young men can come into schools; and these very Boards who are practicing this are filling up their States with under-graduates. It is difficult to say what is best, and how to accomplish it. I think the profession is working North, South, East and West and trying to get a solution of this question. I have great faith in the outcome of it. Just how soon we will have what we want and are expecting I cannot say; but it is a matter devoutly wished and hoped for by us all, I am sure.”

Dr. Osborne: “I do not look on the dark side of this question. We have got good colleges, good examining boards, and everything is happy and ‘the goose hangs high.’ You cannot down dentistry. The day is coming when she will be where she belongs. I like the signs of the times in dentistry. It looks like she is looking up a little. I have shed tears as big as horse apples over the outlook of dentistry in the past. There is no use to drink branch water and cry over nothing.”

Dr. Jones: “I am sure we have all at least gotten this much from these discussions—it has made us think about it. We have done ourselves good by the discussion of the educational question, as Dr. Crenshaw said, it is a live one. We all believe that. There is not a man who has ever gone to college who does not feel grateful to that college. We do not criticise the colleges. I know they do their best with the material they
have and with us. There is no fight between us at all. We just want to see the profession advanced. I do not believe there are any students kept from entering the profession in this State because there are too many of them. I can say truthfully, when I examine a paper I do not care whether that man is first or second course or a graduate. I have no business to think about that. I believe it would be better for the young man and better for the profession if he were not allowed to go up without an education. But as it is with the law, there is no requirement against it."

Dr. Crenshaw: "I would like to say this, along the line of Dr. Whitsett's paper, that three years ago our State Society in our own State took up the question of taking the children through the public schools, and ordered by appointment three members of the State Society to prepare a text-book to be introduced into the public schools of our State. That text-book has been prepared, has been accepted by the Association and has been ordered published; and we have heard from various superintendents of public schools throughout the State, and believe that the book will be introduced in the public schools. I think the day is not far distant when this matter will assume shape in all of our States, and I hope to be living when this has been adopted in the schools of almost all of our States."

Dr. Smithwick read a resolution that a committee be appointed to prepare a text-book for the public schools in North Carolina to be submitted to the Board of Examiners who are to select public school books in the State similar to those which Dr. Crenshaw has in Georgia.

The resolution was adopted as follows:

Resolved, That the North Carolina Dental Association now in session at Morehead City, June 28, 1901, appoint by the president or by vote of body three of its members to prepare a text book upon the care of the teeth to be introduced into the public schools of the State.
Resolved, Further, that the text for the book shall be suited to youths of ten to fifteen years of age and that the subjects covered shall be Dental Anatomy, Dental Pathology and Dental Hygiene.

V. E. Turner,
R. H. Jones,
J. H. Benton,
F. S. Harris,
D. T. Smithwick,
Committee.

The subject of Pathology and Therapeutics passed without discussion.

CHEMISTRY AND METALLURGY.

Dr. Watkins read a paper on the subject.

Mr. President and members of the North Carolina State Dental Society:

Chemistry and metallurgy of to-day are very little like they were a few years ago. We look with ridicule and pity at the efforts of the alchemists as they tried to turn mercury into gold, forgetting that our own chemists wrought infinitely greater magic when they discovered the process, whereby at will, they could extract from foul, filthy coal-tar all the colors of the rainbow, and all the sweet perfumes of Arabia. Chemistry of to-day has gone forth into the highways and hedges of industry and commerce, working magic all along its course. There is no art and no manufacture, however insignificant, that has not come under its beneficent influence to a greater or less extent.

One of the most important factors in bringing about these great improvements is the marvelous development of electricity. We are now familiar with the telegraph, the telephone, the electric railway and automobile, the X-ray apparatus, the electric light, the new system of wireless telegraphy, and many other kinds of electrical appliances.

We think it would not be inappropriate to speak of electricity as applied to chemical and metallurgical processes. In doing this, we will mention a few of these practical changes, which are likely to prove of interest, as well as of great importance in our profession.

Most of the very very little that has actually been accomplished in electro-chemistry has been done by the use of electrolysis and electro-synthesis. We will describe the preparation of one of our important dental medicines that is prepared by these methods, which will give us a practical idea of the modus operandi.

IODOFORM.

Ethyl alcohol, in an alkaline iodide solution, by the aid of electrolysis, gives us Iodoform, which is represented in the following equation:

\[
\text{CH}_3\text{CH}_2\text{OH} + \text{IOI} + \text{H}_2\text{O} = \text{CH}_3\text{I} + \text{CO}_2 + 7\text{HI}.
\]
This electrolysis is best performed with 10 to 15 calcined soda, and 10 potassium iodide in 100 cubic centimeters of alcohol, which are placed in a porous earthen cylinder with a platinum anode. The cathode of nickel is surrounded by a strong solution of sodium hydroxide. A temperature of 70 degrees C. is required with a current density at the anode of 1 amp. per 100 square centimeters, and is continued for 2-4 hours. After standing for several hours Iodoform crystallizes from the solution. Sodium iodide remains in the mother liquor as the principal secondary product.

**ALUMINUM.**

Thirty eight years ago, Aluminum was a chemical curiosity. Through the efforts of Deville, it first acquired a commercial character, and its extraction became a metallurgical process. But now, the development of electro metallurgy has enabled us to produce Aluminum economically.

In 1889, the Aluminum produced in this country was mainly obtained from Greenland cryolite. The Pittsburg Production Co., in this country carries on the extraction of Aluminum from its oxide, Alumina, by means of electrolysis. The principal is, that the Alumina is decomposed in the presence of a melted fluorspar, by the electric current, and metallic Aluminum is liberated.

The furnace used in the extraction of Alumina is an open, iron-cased box, which is thickly lined with carbon and is provided with a spout at the bottom for “tapping off” the aluminum. The Alumina is dissolved in the “fused flux,” consisting of fluorspar of Aluminum and sodium, which serves as a vehicle for the Alumina. A large block, or series of bars of carbon, carried on an adjustable support, and arranged to dip into the center of the furnace, forms the anode; the furnace, itself, forming the cathode. After the flux and Alumina are introduced, the carbon anode is brought well down into the furnace, and the current is turned on. Considerable resistance is at first offered, but as the materials in the furnace become highly heated, this decreases, and the anode can be raised slightly.

Decomposition soon begins, and the oxygen is liberated at the anode, where it unites with carbon, forming CO2, which passes off, while the Aluminum remains. The metallic Aluminum is heavier than the melted bath, and as it sinks to the bottom is “tapped off” from time to time, while fresh Alumina is added.

The uses of Aluminum are varied and without end. It is used for drinking utensils, smokers’ sets, watch cases, umbrella handles, billiard cues and an endless variety of souvenirs.

Then again, we have often seen references in the newspapers to the Swiss steam launch of Aluminum. As early as 1894, an Aluminum lifeboat was constructed in Prussia. In the German army, Aluminum canteens and military equipments are used. We are also familiar with the many dental uses of Aluminum, the more important of which are for
impression trays, air chambers, Aluminum combination dentures and plates. In operative dentistry, we meet with Aluminum crowns and bridges.

Aluminum is a splendid conductor of electricity and is now largely used in electrical appliances. The hardness of Aluminum varies according to its purity; the purest being the softest. Like gold, it hardens on being worked, and annealing makes it very soft. In hardness, Aluminum stands next to gold.

In ductility, Aluminum ranks sixth among the metals. Aluminum is very malleable, standing second only to gold. Aluminum can be rolled into sheets of only from 5-7 ten thousandths of an inch in thickness, and such sheets can be beaten into leaf nearly as thin as any gold leaf. This Aluminum leaf is largely used in decorative work, and is it not possible that it can, some day, be substituted for gold foil in operative dentistry?

For a long time it was thought Aluminum could not be soldered, and for this reason its practical use was somewhat retarded. We know that Chloride of Silver will act as a solder for Aluminum, and the Pittsburgh Reduction Co. claims that there are preparations that will nicely solder Aluminum. If this be true, may we not predict that in the near future, we will see a great many Aluminum dentures?

CARBORUNDUM.

Ten years ago, Mr. Edward G. Acheson, of Monongahela City, Pa., carried to commercial success his invention of Carborundum. Within these few years Carborundum has rapidly risen until it stands in the front rank of abrasives.

Many of us, in the preparation of teeth for Crown and Bridge work, as well as in Prosthetic Dentistry, use Carborundum with a great degree of satisfaction, for we can, with it, cut much faster than with the other abrasives.

At first there was some hesitation, on the part of the profession, in adopting Carborundum. Among other objections, was the fact that it was very expensive; but now, the time saved, the lessening of "torture" to the patient, (and those who have live teeth prepared for a crown, know that it is torture), give it a fixed place in Dentistry.

This new material stands next to diamond, not only in composition but in its internal and external properties. Its crystals are wonderfully brilliant, and its extreme hardness makes it an efficient and powerful abrasive material.

This wonderful product is obtained by heating a mixture of 100 parts sand, 25 parts salt and 25 parts coke in an electric furnace. It has been found that the addition of saw-dust to the mixture, renders it porous, which allows the gas to escape. The output of the first furnaces was ½ pound Carborundum a day; now, a single furnace yield is about 7,000 pounds of crystalline Carborundum.
From time to time, improvements in the furnaces have been made, until to-day the works at Niagara Falls, under the direction of Mr. Acheson, have gigantic furnaces, of which we will speak later.

We now turn our attention to the manufacture of Carborundum. The crude materials are received in the stock building, and with the exception of the coke, are ready for immediate use.

The coke is passed through a grinder, carried to the top of the building, where it is poured through successive screens, from which the powder is passed on for the mixture, while the kernels of a certain size are landed into the core-bin, and are used in making the core.

The sand, coke, saw-dust and salt are conveniently conveyed into the scales, from which they are elevated to the mechanical mixer. All the work of preparing this mixture is so systematized and mechanically done, that it requires the labors of only two men.

The furnaces, of which there are fourteen, are built of brick, in the form of an oblong box, the approximate interior dimensions being 16 feet in length, 5 feet in width, and 5 feet high. The ends of the furnace are the only permanent part, as the remainder is built up each time the furnace is used. The ends are about 2 feet thick, and through their centers pass the terminals, which consist of 60 carbon rods, 30 inches long and 3 inches in diameter. "The outer ends of the carbons are enclosed in a square iron frame, to which is screwed a stout plate, bored with sixty holes, corresponding to the ends of the carbons. Through each of the holes is passed a short piece of \( \frac{3}{8} \) inch copper rod, fitting tightly to a hole drilled in the carbon.

Finally, all the carbons are tightly packed with graphite. Each plate is provided with four projections, to which the cables conveying the current may be bolted."

We now look at the furnace proper. The side walls are built up about four feet. Pieces of sheet iron are so placed as to keep the mixture four inches from the inner ends of the carbon terminals. The furnace is then filled about half full of the mixture. Between the ends, a semi-circular trench, with a radius of about 10 feet is made, into which the proper amount of the carbon kernels is placed, and they are rounded with the hand to form a cylinder 21 inches in diameter.

Between the terminals and sheet irons, finely ground coke is packed; the sheet irons are then removed, which completes the connection. The walls of the furnace are built up about 5 feet in height, and the mixture is heaped on until it is about 8 feet, when you are ready for the electric current.

The Niagara Falls Power Company furnishes power that has an electro motive force of 2,000 volts, but as this is too high for use in the furnace, it is reduced in a transformer, that has a maximum capacity of 1,100 horse power, and reduced the 2,200 volt current into one of only 185 volts. The circuit is completed and is regulated by a volt-metre and an ammètre. Of course, the resistance of the core, is very great, at first, but after a while it becomes sufficiently low to allow 1,100 horse power to be steadily employed.
After the circuit has been on about half an hour, we notice the peculiar odor of escaping gas. After three or four hours, the sides and top of the furnace are completely enveloped by a lambent blue flame, which is that of carbon monoxide. At the end of about 36 hours, the current is cut off and the furnace allowed to cool for a few hours. After taking down the side walls and removing the unchanged mixture, we reach the outer crust of amorphous carborundum. This is easily removed with large steel bars, and can readily be separated from the inner crust of amorphous carborundum, which is removed with a spade, and we now find carborundum crystals. The carborundum is then taken to the crusher, where large rollers break apart the mass of crystals. These crystals are then taken to large wooden tanks, where, for several days, they are treated with diluted sulphuric acid to remove impurities. They are then thoroughly washed, dried and passed through screens which grade them from No. 8 to No. 200.

Care is used that "nothing be lost." and the water that washes the crystals is passed through a series of tanks, where the powder, "flours", is obtained. This is graded F, FF, and FFF.

The vitrified process is used for forming the carborundum crystals into wheels. The carborundum is mixed with a certain proportion of kaolin and feldspar, and after the mixture is placed into a mould, hydraulic pressure is applied.

The vitrification of the wheels is carried out in kilns similar to those used in baking porcelain. The operation of firing lasts about seven days, after which the wheels are "trued up," tested, and then they are ready for the market.

Carborundum costs from two to five times as much as emery, but in tests with emery, it has proven that the same results can be obtained at less expense with Carborundum than with emery.

The uses of Carborundum are varied, and we will only mention a few. Carborundum is used in the manufacture of steel, as a substitute for Ferro Silicon; it is also used by the watchmaker, the roll-grinder, and pearl-grinder, and, in fact, wherever an abrasive is required.

Already the Carborundum Company is prepared to furnish 80,000 different wheels, not including dental wheels and other specialties.

Before concluding, we must mention some of the leading characteristics of Carborundum. In hardness, it is between 9 and 10 degrees—near 10—which is the hardness of diamond. It cuts emery or corundum with ease. It is not as tough as diamond but is brittle, closely resembling corundum. It is infusible in the highest attainable heat. Carborundum is insoluble in all the ordinary solvents, acids, oils, water, and not even hydrofluoric acid will dissolve it.

It is composed of Silicon and Carbon in equal atomic proportions and its chemical formula is SiC.

The color of pure Carborundum is white. In commerce, we meet many colors and shades, the prevailing ones being blue, green and black;
these are partly the result of impurities and partly owing to the surface oxidation, but this has no effect, whatever, upon its hardness.

Chemistry and metallurgy, by the means of electricity, during the last ten years, have brought us so many new and important products that after a thoughtful consideration of the remarkable achievements of the past century, it might seem to the laity that the limit of scientific research had almost been reached. But the thinking man knows this work is not done; in fact it is but commenced. There is an infinity of problems yet to be solved, and let us await with eager anticipation what the Twentieth Century may unfold.

DISCUSSION.

Dr. Jones opened the discussion: "I am gratified to see that so young a member as Dr. Watkins has so promptly responded to the Chairman of the Committee, and has given us so excellent a paper. Chemistry is a study that we are not very familiar with, and we should know more about it. I am glad to see the young men of the profession taking an interest in those things. We need men who will make investigations along these lines, and take up the subjects as the Doctor has spoken of in that good essay, and will develop them."

Dr. Spurgeon: "I, like the gentleman who has just preceded me, know that I am not competent to speak on that subject, but I do wish to say that from that paper I have learned more about metallurgy as applied to dentistry than perhaps from any other source since I left college. The preparation of that paper shows that we have one member in our Society who has given the matter considerable attention, and that he is well posted and well prepared to carry out investigations on this line, and I do hope that this will not be his last paper, and that he will not be embarrassed by our failure to discuss it, for I believe it is a lack of knowledge on the part of most of us that we do not feel able to discuss it."

Dr. Turner: "I was greatly interested in the detailed account of aluminum and all these metals which he described, and as Dr. Spurgeon says, I have been greatly instructed upon these subjects, and I am very sorry that
I am not able to enter into the discussion on the subject on account of my utter ignorance and neglected education.

Dr. Osborne, Dr. Everett and Dr. Carroll spoke in high terms of the paper, but expressed their inability to discuss the subject.

Dr. Parker took issue with Dr. Watkins as to the use of aluminum; his experience with it had not been very satisfactory.

Subject of Material and Appliances passed without discussion.

The report of the Committee on the Tri-State Association was heard.

It was moved and carried that the Secretary of this Society be appointed a Committee of one to correspond with the Committee from the States of South Carolina and Georgia, and report to this Society at its next annual meeting.

Dr. Liverman spoke with much feeling of his appreciation of the action of the Society at its last meeting regarding his sickness which prevented his being present and filling the President's chair.

Dr. Turner was elected to represent the Society at the National Convention.

The Society adjourned to meet at 9 o'clock a.m.

THIRD DAY—Morning Session.

The forenoon was devoted to clinics.

The following Committee on the Resolutions on Education was appointed: Drs. V. E. Turner, R. H. Jones, J. H. Benton, F. S. Harris, D. T. Smithwick.

The Society was called to order at 12 o'clock.

Dr. Tucker rose and expressed his appreciation and gratitude to all the members of the Society, and
especially Dr. Everett, who had promised to stand by him and help him in his efforts to fill the President's chair, for their kind support and sympathy. He said his heart and hand were the Society's, ready at its command.

Treasurer's report read and adopted.

Dr. L. S. Fox and Dr. J. H. White asked to be withdrawn from membership in the Society, which was granted.

The following members were suspended for non-payment of dues:


The following motion by Dr. Everett was adopted: "Hereafter the Board of Examiners be allowed three days in which to conduct their examination, and that in future the Convention will meet on Thursday morning, to continue in session three days—Thursday, Friday and Saturday—and the Board of Examiners have Monday, Tuesday and Wednesday to make examinations."

REPORT ON CLINICS.

Report of the Supervisor of Clinics was read by Dr. Harper, as follows:

Dr. M. E. Turner, of Atlanta, Ga., gave a very interesting clinic with a few practical points useful in the laboratory, in the way of making pins for crowns by means of a loop of platinum wire filled in with gold plate; flowing backings of porcelain teeth without investing; making solid bicuspid or molar dummies by the Hollingsworth system without the need of an investment to hold the cusp and buccal facing intact; staining porcelain teeth to match cases needing shades not found at the dental depot; baking gold fillings or porcelain teeth instead of weakening them by cutting cavities; the effect of gold and platinum on the shades of porcelain facings, showing that platinum changes the shade less than gold, also that neither have any noticeable effect upon shades of a greenish cast; reinforcing cusps of gold crowns to get a uniform thickness in cases where the tooth structure is too sensitive to admit of enough grinding to allow solid cusps; backing facings without the use of a plate punch, etc.
Immediate Extirpation of the Pulp, by Dr. R. Boyd Bogle, of Nashville, Tenn.: A slight exposure of the pulp was made in the left superior central incisor's mesial cavity; after the cleansing of the cavity, a paste of the crystals of hydrochlorate of cocaine, mixed with very little water, then applied to the exposure; a small piece of beeswax, having previously been warmed so as to work easily, was forced into the cavity, forcing the cocaine into the pulp and pulp cavity; this was allowed to remain less than one-half minute. The pulp chamber was then punctured and the pulp removed, the patient stating that it was painless. Cottonoid was used to keep the cavity dry.

Practical Demonstration in the Administration of Nitrous Oxide and Oxygen, singly or in combination, by Dr. A. H. Esterly: It is to be remembered that the anesthesia is produced by the nitrous oxide alone, the office of oxygen being merely that of a modifier of the effects of the nitrous oxide. Thus, with a proper addition of pure oxygen to the nitrous oxide as administered, there is claimed to be no danger of asphyxiation. The method is in effect simply a scientific application of the principles which have been most successful in the hands of nitrous oxide administrians. Mr. Davis was operated on very successfully, Dr. G. B. Patterson extracting the teeth, and A. H. Esterly handling the nitrous oxide and oxygen apparatus. The patient experienced no difficulty, although he had been suffering with heart trouble.

Dr. William Crenshaw, of Atlanta, Ga., presented and explained the use of a new matrix invented and perfected by himself, which may be used between molars and bicuspids, which is adaptable to large and small molars and bicuspids. The matrix has the features of rigid fixedness wherever placed and easy adaptation to large and small teeth; so also may be removed from between the teeth after having gold, amalgam, gutta-percha and cement fillings placed on either side of it without dragging or breaking up or otherwise disturbing the same. The device will, when ready for the market, be offered in three widths, covering the usual needs of the dentist.

Dr. H. H. Johnson, of Macon, Ga., gave a clinic from models showing a method of baking gold fillings on porcelain teeth with decorative china paint. He also demonstrated a method of making a perfect occlusion and adaptation of a gold crown from a carving process. He has in his possession a set of artificial gum section teeth, which had been literally worn out by attrition within ten years' time.

Dr. J. Y. Crawford, of Nashville, Tenn., explained his method of immediate extirpation of the nerve by the use of carbolic acid and the orange wood stick. He also filled a right superior first molar grinding surface, preparing four fissures to a limited extent, placing in bottom of cavity tin to act as an insulator in order to lessen the effect of thermal shock; filled the cavity with Abby's No. 5 non-cohesive gold in the form of mats, using one and one-half sheets of gold.

Dr. D. T. Smithwick's clinic was placing a Davis crown with gold band on superior central, beautifully restoring the expression of the
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mouth. He also filled root of lateral incisor and filled cavity with cement.

Dr. M. D. King, of Chapel Hill, presented a patient for examination who seemed to be suffering from necrosis of the inferior maxillary.

The Society extended a vote of thanks to Dr. Harper for the great interest and great success in his efforts under such difficulties.

The selection of the time and place of the next meeting is left with the Executive Committee, to be decided on during the winter, before next December. Southern Pines and Asheville are not to be considered in the selection of places.

ELECTION OF OFFICERS.

Following are the officers elected for next year:
President: Dr. J. S. Spurgeon.
First Vice-President: Dr. J. D. Biggs.
Second Vice-President: Dr. J. H. Benton.
Secretary: Dr. J. M. Fleming.
Treasurer: Dr. B. L. James.
Essayist: Dr. Joe Betts.

Drs. Matthews and Bland were elected to succeed themselves on the Examining Board.

Following are the delegates elected to the Southern and National Association:

Dr. Everett introduced resolution of thanks to Drs. Tucker and Turner for a delightful sail.

RESOLUTIONS.

Resolved, That the thanks of the North Carolina Dental Society are hereby tendered to the Messrs. Scoville for the splendid entertainment given to the profession and their friends, and other courtesies, and for the elegant service, etc., rendered.

Resolved, That the thanks of the Society are tendered to Drs. J. V. Crawford and Bogle, of Nashville, Tenn.; Drs. Crenshaw and M. E. Turner, of Atlanta, Ga., and Dr. Johnson, of Macon, for their admirable and instructive clinics.
Resolved, That the thanks of the Society are tendered to the various railroads for courtesies.

Resolved, That the thanks of the Society be tendered to Mrs. Alice B. Wright, of Wilson, for her kindness in tendering the use of the Assembly Hall for the Society meetings.

Resolved, That the thanks of the Society be tendered to the White Dental Manufacturing Company, Consolidated Company, and Harvard Company for the splendid exhibits made by them.

Resolved, That the thanks of the Society be extended to the S. S. White Company for the donation of materials for the clinics and the use of their chairs and engines. Also to the Consolidated Company for the use of a chair.

The Secretary is requested to send letter of sympathy to Dr. T. M. Hunter, of Fayetteville.

Treasurer authorized to pay janitor $5.00, and Dr. Harper $1.50 for expense of clinics.

INSTALLATION OF OFFICERS.

Dr. Liverman and Dr. Everett conducted the new officers to their chairs. Each of them expressed their appreciation of the honor bestowed upon them in a graceful and appropriate manner with a little speech.

Publication Committee: Dr. I. N. Carr.

Under the head of Miscellaneous Business, Dr. Crenshaw exhibited a model and sample of matrix, giving a full explanation of the use and benefit of the device.

Dr. Benton read extracts from "Items of Interest" regarding the National Association.

The Society adjourned to meet at the time and place selected by the Executive Committee.

E. J. TUCKER,
President.

J. S. SPURGEON,
Secretary.
LICENSES GRANTED.

The following are the names of the successful applicants for license before the Examining Board at Morehead City:

F. M. Johnson . . . . . . Farmington.  J. D. Croom . . . . . . . Maxton.
## LIST OF MEMBERS.

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<th>Name</th>
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## ERRATA.

Owing to oversight in proof reading the following names were omitted from the original print:

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