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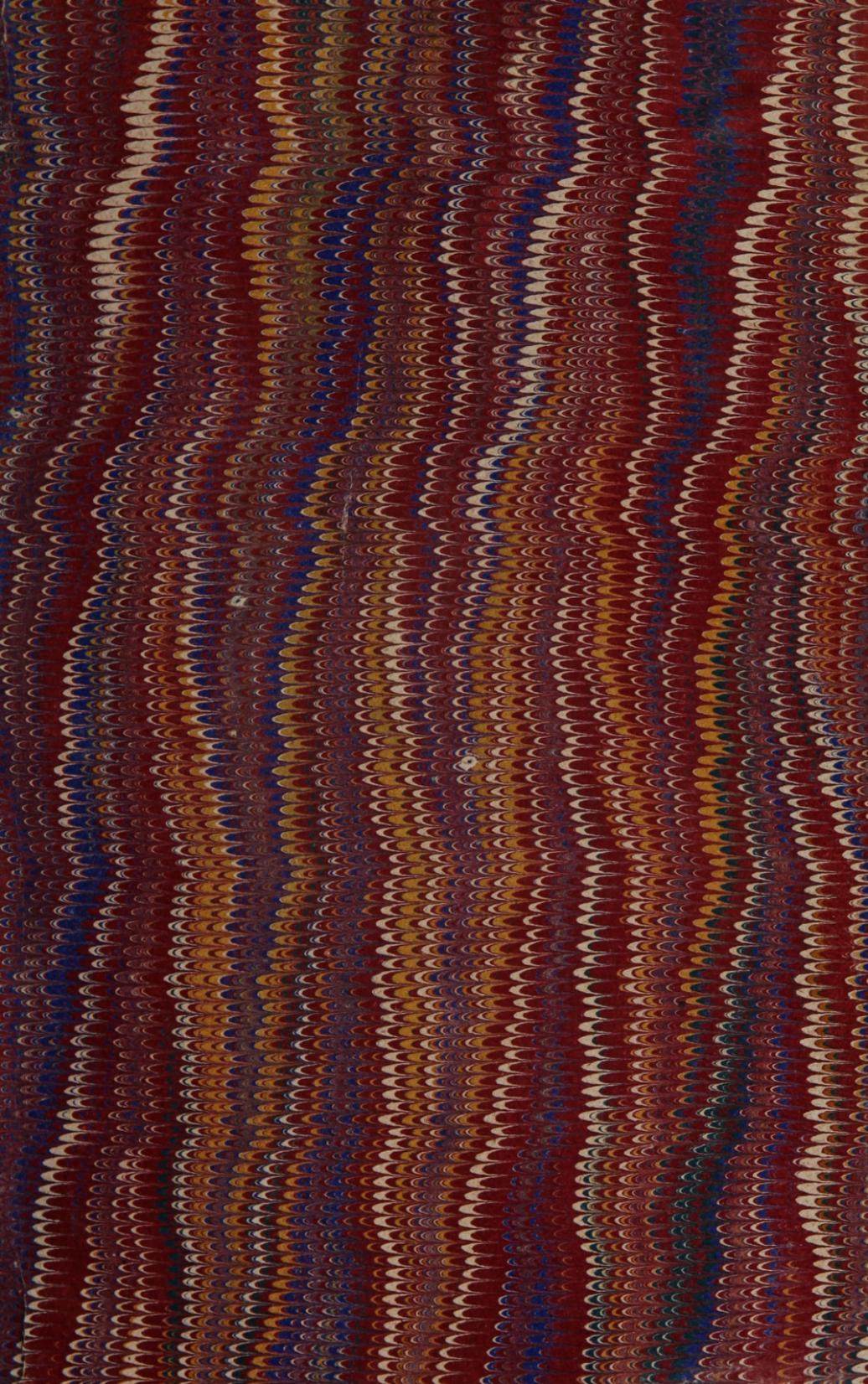
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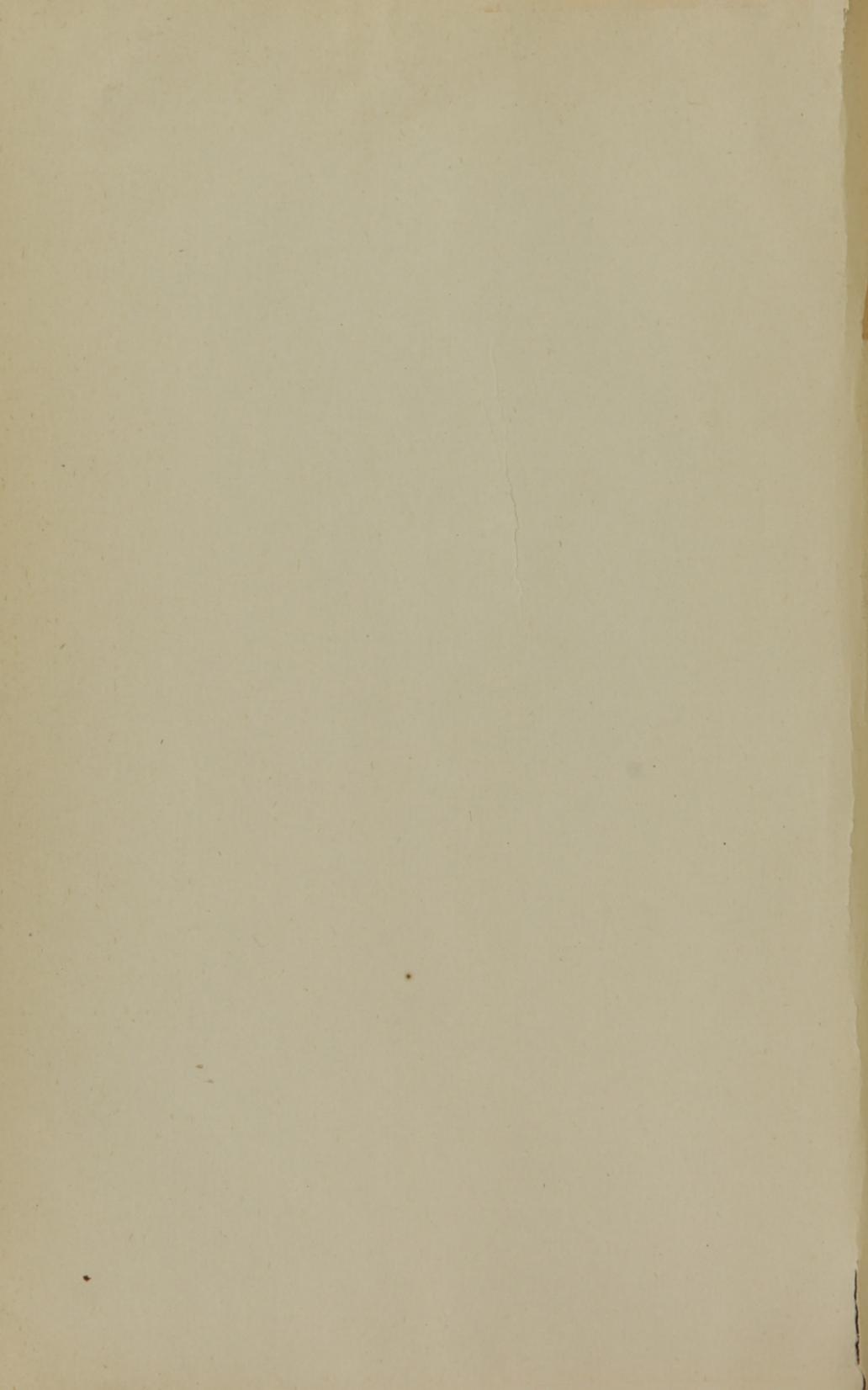
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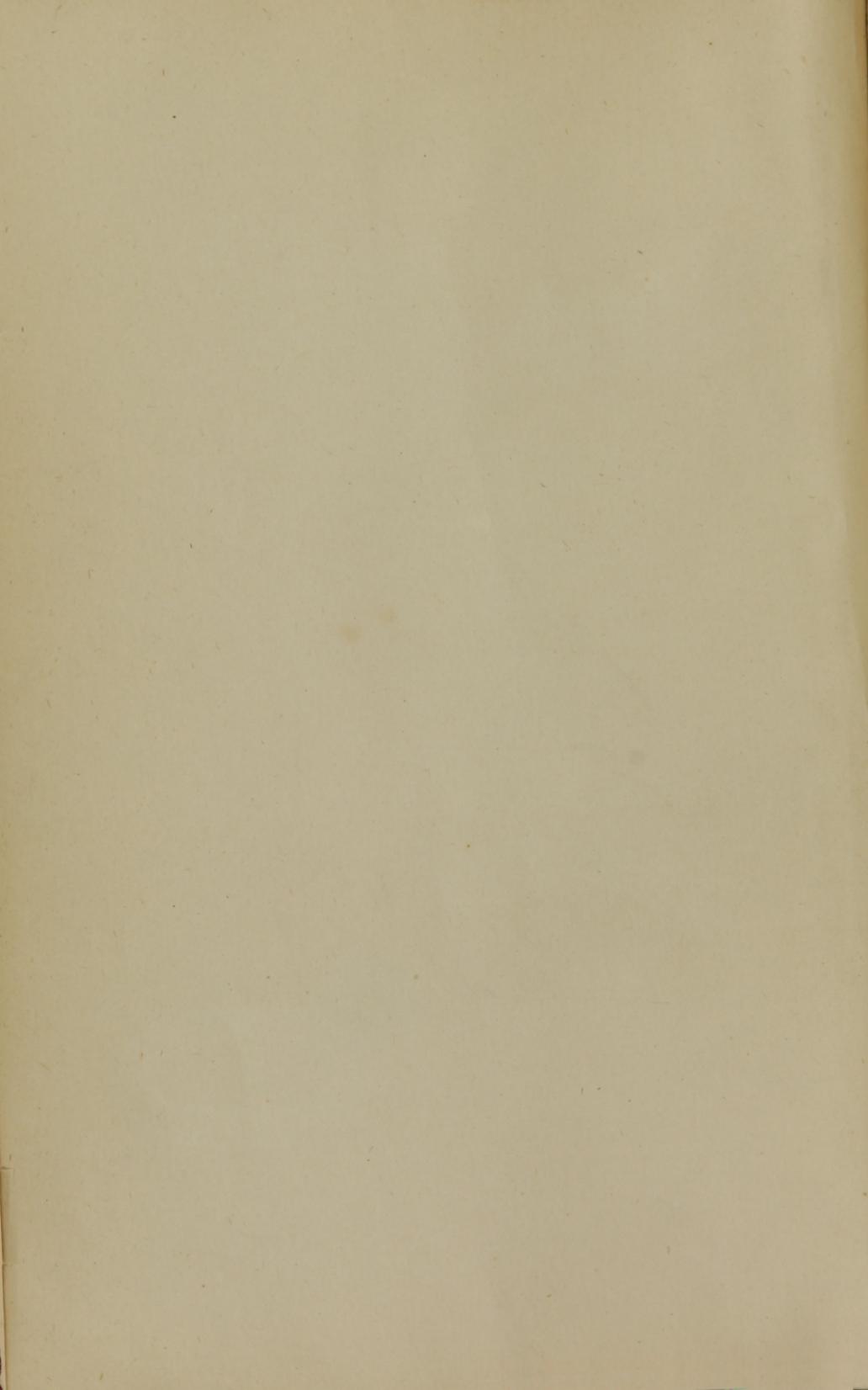
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PRESENTED BY

W. H. Games,
St. Louis







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S. C.
W. H. Eames

MINUTES AND PROCEEDINGS

OF THE

MISSOURI

3

STATE DENTAL ASSOCIATION.

(INCLUDING THE MISSOURI DENTAL COLLEGE ASSOCIATION.)

*From its Organization, October 31st, 1865, to and including the
Eighteenth Annual Session, June 6th, 1882.*

Presented by
W. H. Eames,
St. Louis,

Compiled from the Written Records of the Association,

—BY—

W. H. EAMES, RECORDING SECRETARY.



ST. LOUIS, MO.:
CONTINENTAL PRINTING COMPANY,
418 N. Third Street,
1883.

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1883

Film No. 6273, no. 2

OFFICERS.

FIRST MEETING.

St. Louis, October 31, 1865.

<i>President,</i>	-	DR. H. J. MCKELLOPS, ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	" G. S. MORSE, COLUMBIA, ILL.
<i>2nd " "</i>	-	" M. McCOY, BOONVILLE, MO.
<i>Recording Secretary,</i>	-	" H. JUDD, ST. LOUIS, "
<i>Corresponding " "</i>	-	" J. PAYNE, " "
<i>Treasurer,</i>	-	" A. M. LESLIE, " "

SECOND MEETING.

St. Louis, June 5, 1866.

<i>President,</i>	-	DR. H. E. PEEBLES, ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	" M. McCOY, BOONVILLE, "
<i>2nd " "</i>	-	" G. W. TINDALL, KANSAS CITY, MO.
<i>Recording Secretary,</i>	-	" W. N. MORRISON, ST. LOUIS, "
<i>Corresponding " "</i>	-	" I. FORBES, " "
<i>Treasurer,</i>	-	" A. M. LESLIE, " "

THIRD MEETING.

St. Louis, June 4, 1867.

<i>President,</i>	-	H. JUDD, M. D., ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	DR. E. McCUNE, LOUISIANA, MO.
<i>2nd " "</i>	-	" J. C. GOODRICH, WENTZVILLE, MO.
<i>Recording Secretary,</i>	-	" GEO. CRAWFORD, ST. LOUIS, "
<i>Corresponding " "</i>	-	" W. N. MORRISON, " "
<i>Treasurer,</i>	-	" I. FORBES, " "

FOURTH MEETING.

St. Louis, June 2, 1868.

<i>President,</i>	-	DR. H. JUDD, ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	" J. C. GOODRICH, WENTZVILLE, MO.
<i>2nd " "</i>	-	" HENRY BARRON, ST. LOUIS, "
<i>Recording Secretary,</i>	-	" W. H. EAMES, " "
<i>Corresponding " "</i>	-	" W. N. MORRISON, " "
<i>Treasurer,</i>	-	" H. E. PEEBLES, " "

FIFTH MEETING.

St. Louis, June 1, 1869.

<i>President,</i>	-	DR. W. H. EAMES, ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	" H. E. DEPP. " "
<i>2nd " "</i>	-	" W. E. TUCKER, BUTLER, "
<i>Recording Secretary,</i>	-	" J. R. MATHEWS, ST. LOUIS, MO.
<i>Corresponding " "</i>	-	" L. F. PRINCE, " "
<i>Treasurer,</i>	-	" J. R. PORRE, " "

SIXTH MEETING.

St. Louis, June 7, 1870.

<i>President,</i>	-	DR. J. C. GOODRICH, WENTZVILLE, MO.
<i>1st Vice-President,</i>	-	" M. McCOY, BOONVILLE, MO.
<i>2nd " "</i>	-	" EDGAR PARK, ST. LOUIS, MO.
<i>Recording Secretary,</i>	-	" G. A. BOWMAN, " "
<i>Corresponding " "</i>	-	" J. W. LUCKIE, MEXICO, "
<i>Treasurer,</i>	-	" W. N. MORRISON, ST. LOUIS, MO.

SEVENTH MEETING.

St. Louis, June 7, 1871.

<i>President,</i>	-	DR. J. W. LUCKIE, MEXICO, MO.
<i>1st Vice-President,</i>	-	" T. W. REED, MACON, "
<i>2nd " "</i>	-	" A. C. GRIGGS, WARRENSBURGH, MO.
<i>Recording Secretary,</i>	-	" G. A. BOWMAN, ST. LOUIS, MO.
<i>Corresponding " "</i>	-	" H. JUDD, " "
<i>Treasurer,</i>	-	" W. N. MORRISON, " "

EIGHTH MEETING.

Kansas City, June 4, 1872.

<i>President,</i>	-	DR. J. K. STARK, INDEPENDENCE, MO.
<i>1st Vice-President,</i>	-	" J. A. PRICE, WESTON, MO.
<i>2nd " "</i>	-	" G. A. BOWMAN, ST. LOUIS, MO.
<i>Recording Secretary,</i>	-	" W. H. EAMES, " "
<i>Corresponding " "</i>	-	" H. JUDD, " "
<i>Treasurer,</i>	-	" L. F. PRINCE, " "

NINTH MEETING.

St. Joseph, June 3, 1873.

<i>President,</i>	-	DR. J. A. PRICE, WESTON, MO.
<i>1st Vice-President,</i>	-	" J. F. HASSELL, LEXINGTON, MO.
<i>2nd " "</i>	-	" C. H. DARBY, ST. JOSEPH, "
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, "
<i>Corresponding " "</i>	-	" H. JUDD, " "
<i>Treasurer,</i>	-	" J. C. GOODRICH, WENTZVILLE, MO.

TENTH MEETING.

St. Louis, June 1, 1874.

<i>President,</i>	-	DR. S. B. PREVOST, KANSAS CITY, MO.
<i>1st Vice-President,</i>	-	" G. A. BOWMAN, ST. LOUIS, "
<i>2nd " "</i>	-	" W. W. BIRKHEAD, TROY, "
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, "
<i>Corresponding " "</i>	-	" HOMER JUDD, " "
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, MO.

ELEVENTH MEETING.

St. Louis, March 3, 1875.

<i>President,</i>	-	DR. C. W. RIVERS, ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	" W. F. GRISWOLD, LEAVENW ³ TH, KAN.
<i>2nd " "</i>	-	" H. E. DEPP, SEDALIA, MO.
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, MO.
<i>Corresponding " "</i>	-	" H. JUDD, " "
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, "

TWELFTH MEETING.

Sedalia, June 6, 1876.

<i>President,</i>	-	DR. G. A. BOWMAN, ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	" L. C. WASSON, OTTAWA, KAN.
<i>2nd " "</i>	-	" I. D. PEARCE, KIRKSVILLE, MO.
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, "
<i>Corresponding " "</i>	-	" H. JUDI, " "
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, "

THIRTEENTH MEETING.

Kansas City, June 5, 1877-

<i>President,</i>	-	DR. G. W. TINDALL, KANSAS CITY, MO.
<i>1st Vice-President,</i>	-	" W. N. MORRISON, ST. LOUIS, "
<i>2nd " "</i>	-	" J. C. McCOY, BOONVILLE, MO.
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, "
<i>Corresponding " "</i>	-	" H. JUDD, " "
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, "

FOURTEENTH MEETING.

Sweet Springs, June 4, 1878-

<i>President,</i>	-	DR. A. H. FULLER, ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	" J. C. McCOY, BOONVILLE, "
<i>2nd " "</i>	-	" D. J. McMILLEN, BRUNSWICK, MO.
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, MO.
<i>Corresponding " "</i>	-	" H. H. KEITH, " "
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, "

FIFTEENTH MEETING.

Sweet Springs, June 4, 1879-

<i>President,</i>	-	DR. C. B. HEWITT, KANSAS CITY, MO.
<i>1st Vice-President,</i>	-	" C. H. DARBY, ST. JOSEPH, MO.
<i>2nd " "</i>	-	" D. J. McMILLEN, BRUNSWICK, MO.
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, "
<i>Corresponding " "</i>	-	" J. C. McCOY, BOONVILLE, "
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, "

SIXTEENTH MEETING.

Sweet Springs, June 15, 1880-

<i>President,</i>	-	DR. J. G. HARPER, ST. LOUIS, MO.
<i>1st Vice-President,</i>	-	" J. C. McCOY, BOONVILLE, "
<i>2nd " "</i>	-	" J. W. REED, MEXICO, "
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, "
<i>Corresponding " "</i>	-	" J. J. R. PATRICK, BELLEVILLE, ILL.
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, MO.

SEVENTEENTH MEETING.

Sweet Springs, June 28, 1881.

<i>President,</i>	-	DR. C. H. DARBY, ST. JOSEPH, MO.
<i>1st Vice-President,</i>	-	" J. W. REED, MEXICO, "
<i>2nd " "</i>	-	" D. J. McMILLEN, BRUNSWICK, MO.
<i>Recording Secretary,</i>	-	" W. H. EAMES, ST. LOUIS, MO.
<i>Corresponding " "</i>	-	" J. G. HARPER, " "
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, "

EIGHTEENTH MEETING.

Sweet Springs, June 6, 1882.

<i>President,</i>	-	DR. J. W. REED, MEXICO, MO.
<i>1st Vice-President,</i>	-	" D. J. McMILLEN, BRUNSWICK, MO.
<i>2nd " "</i>	-	" A. J. PROSSER, ST. LOUIS, "
<i>Recording Secretary,</i>	-	" G. L. SHEPARD, SEDALIA, "
<i>Corresponding " "</i>	-	" C. W. SPALDING, ST. LOUIS, "
<i>Treasurer,</i>	-	" J. A. PRICE, WESTON, MO.

Missouri State Dental Association.

OFFICERS OF 1883:

DR. J. W. REED,	<i>PRESIDENT,</i>	MEXICO
DR. D. J. McMILLEN,	<i>1st VICE-PRESIDENT,</i>	BRUNSWICK
DR. A. J. PROSSER,	<i>2nd VICE-PRESIDENT,</i>	ST. LOUIS
DR. C. W. SPALDING,	<i>CORRESPONDING SECRETARY,</i>	ST. LOUIS
DR. G. L. SHEPARD,	<i>RECORDING SECRETARY,</i>	SEDALIA
DR. JAS. A. PRICE,	<i>TREASURER,</i>	WESTON

STANDING COMMITTEES.

EXECUTIVE COMMITTEE.

C. B. HEWITT,	- KANSAS CITY,	C. H. HUNGERFORD,	- KANSAS CITY
E. M. LAVEINE,	-	- KANSAS CITY.	

EXAMINING COMMITTEE.

J. F. HASSELL,	- LEXINGTON,	J. G. HARPER,	- - - ST. LOUIS
J. S. LETORD,	-	- - - NEVADA.	

PUBLICATION COMMITTEE.

W. H. EAMES,	- St. Louis,	A. H. FULLER,	- - - ST. LOUIS
G. A. BOWMAN,	-	- - - ST. LOUIS.	

COMMITTEE ON ETHICS.

W. N. CONRAD,	- St. Louis,	W. H. BUCKLEY,	- - - KEARNEY
E. E. SHATTUCK,	-	- - - KANSAS CITY.	

SUPERVISOR OF CLINICS,

J. A. PRICE,	- - - - -	WESTON
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The 19th Annual Meeting will be held at Sweet Springs, Tuesday, July 11, 1883.

MINUTES AND PROCEEDINGS

OF THE

Missouri State Dental Association.

FIRST MEETING.

St. Louis, Mo., Oct., 31, 1865.

Pursuant to a call made by the St. Louis Dental Society, about sixty Dentists of the State convened at the New Church Hall, corner of 6th and St. Charles Sts., at 10 A. M., to organize a State Association. Dr. J. S. Clarke, St. Louis, Mo., was called to the chair as Temporary Chairman. Dr. G. S. Morse, Columbia, Mo., as Temporary Secretary.

On motion, Drs. I. Forbes, A. D. Sloan, I. Comstock, H. E. Depp and W. H. Eames, were appointed by the chair to draft a Constitution and present to the meeting.

During the absence of the Committee, Dr. Peebles proposed the following query: "Why is it that rubber does not vulcanize to the same extent at all times with the same amount of heat and length of time?"

The subject was discussed at some length by Drs. Jones, Blake, Payne, McCoy, Peebles, Hovey, Morse and others, after which the Committee appointed for that purpose reported a form for a Constitution, which was unanimously adopted.*

*See Constitution.

On motion a Committee of five was appointed to nominate permanent officers for the Association. Drs. Peebles, Samuels, Tindall, Blake and McCoy, Committee.

Adjourned to meet at 2:30 P. M.

AFTERNOON SESSION—2:30 P. M.

Association met and was called to order by the presiding officer.

Committee on Nominations reported as follows: President, Dr. H. J. McKellops; 1st. Vice-President, G. S. Morse; 2d. Vice-President, M. McCoy; Recording Secretary, H. Judd; Corresponding Secretary, J. Payne; Treasurer, A. M. Leslie; who were duly elected. Drs. Leslie and Forbes were appointed to conduct the President-elect to the chair. After some appropriate remarks by the President, on motion of Dr. Peebles it was ordered that the blank in Art. 3, Sec. 1, of the Constitution be filled by inserting the words, *one dollar*.

On motion of Dr. Forbes the Committee was requested to nominate an Executive Committee. Drs. Blake, Sloan, and Samuels were nominated and elected.

Dr. Leslie was requested to furnish a synopsis of the proceedings of the Association to the Dental Journals for publication.

After a short discussion by Drs. Clarke, Hovey and McCoy, upon the use of arsenious acid for destroying the pulp, the Association took a recess to allow members an opportunity to sign the Constitution.

*Thirty-six members subscribed their names and paid into the hands of the Secretary the sum of *one dollar*, the amount required by the Constitution.

The Association was again called to order and the discussion on the use of arsenic continued by different members.

Adjourned to meet at 7:30 P. M., at the rooms of the Board of Public Schools, 5th and Olive Streets.

*Not having the original list of membership, the names of the first members can not be given—[Ed.]

EVENING SESSION—7:30 P. M.

Association met pursuant to adjournment, and was called to order by Vice-President Dr. Morse.

The subject of exposed pulps was taken up and discussed.

The subject of vulcanized rubber was again brought up by Dr. Sloan and discussed by Drs. Sloan and Hale, Jr.

Inflammation of the dental periostium was presented for discussion by the Executive Committee.

Dr. Samuels made some remarks.

On motion of Dr. Leslie, Wednesday, 9 A. M. was set apart for clinics.

On motion the Executive Committee were instructed to fill the vacancy occasioned by the absence of Dr. Blake. Dr. Peebles was appointed.

Discussion on inflammation of the periostium was resumed by Drs. Eames and Judd.

Dr. Payne offered the following resolution: *Resolved*, That it is the sense of the Association that no man is justified in taking a student for a less term than two years, and then only when said student pledges himself to graduate at a dental college before engaging in practice.

Remarks were made by Drs. Sloan, Forbes, Clarke, and others followed by an able speech by Dr. Peebles, after which the resolution was unanimously adopted.

Drs. Forbes, McKellops, Peebles, Payne, Barron and Eames were appointed clinical operators.

Adjourned to meet at 2 P. M. on Wednesday.

AFTERNOON SESSION—2 P. M.

Association called to order by the President, Dr. McKellops. Minutes of previous session read and approved.

On motion a committee consisting of Drs. McCoy, Payne and Jones were appointed to report on the subject of vulcanized rubber at the next meeting.

Dr. Spyer was requested to read his paper on the effects of

disease of the teeth. After the reading the author was requested to furnish a copy for publication with the proceedings.

Letters were received and read from Drs. J. A. Price and J. F. Hassel.

Drs. Leslie, Hovey and Reed were appointed committee to name delegates to the "American Dental Association."

On motion of Dr. Clarke, it was moved that when the Association adjourned it do so to meet at 7:30 P. M., at the rooms of the Public School Board. It was also moved that when the Association adjourned finally, it do so, to meet at St. Louis on the first Tuesday in June, 1866.

Adjourned to 7:30 P. M.

EVENING SESSION—7:30 P. M.

The President called the Association to order. Minutes of last session read and approved.

Dr. McCoy introduced as a subject for consideration, a case of extensive absorption of the lower jaw, and inquired for the best method of retaining a lower plate in its place in such cases. Dr. McKellops recommended the use of springs; Dr. Payne opposed the use of springs. Drs. Hovey, Spyer and McCoy gave their views.

The subject of "fang filling" was then taken up and discussed by Drs. Forbes, Clarke, Hovey, Blake, Morrison, Judd, Eames, Peebles, McKellops and Payne.

Dr. Clarke offered the following resolution: *Resolved*, That the thanks of this Association are due, and are hereby tendered to Dr. H. E. Peebles for his constant labors to effect a full organization of the Dentists of Missouri into a State Association, he having commenced the labor in July, 1864, by extensive correspondence and consultation with the members of the profession. Resolution adopted.

On motion of Dr. Forbes, it was ordered that a preamble and the resolution be written in plain hand, signed by the President and Secretary of the Association, be neatly framed and presented to Dr. Peebles.*

*Being unable to obtain a copy of preamble and resolution presented to Dr. Peebles in accordance with this motion, it does not appear here as it should.

The following named gentlemen were appointed delegates to the American Dental Association :

- Dr. J. K. Stark, Independence, Mo.
- “ Ewd. Hale, Jr., St. Louis, Mo.
- “ E. Hovey, Springfield, Mo.
- “ E. McCune, Louisiana, Mo.
- “ Geo. W. Crawford, St. Louis, Mo.
- “ G. W. Tindall, Kansas City, Mo.
- “ H. Judd, St. Louis, Mo
- “ J. S. Clarke, St. Louis, Mo.

Subject of Failures in Dental Operations taken up. Remarks by Drs. Forbes, Hovey, Sloan, McKellops and Judd.

On motion it was resolved that the Executive Committee be requested to suggest a series of subjects for discussion at our next annual meeting and place the same in the hands of the Corresponding Secretary, to be printed and copies to be sent to each member of the Association.

On motion of Dr. Forbes, it was ordered that the Executive Committee be authorized to draw on the Treasurer to defray the expenses of the meeting.

President appointed Dr. Tash delegate to the American Dental Association.

On motion of Dr. Morrison, a subscription list was opened for the Dental Register.

The following resolution was offered by Dr. Hovey :

Resolved, That the thanks of the Association are due and are hereby tendered to Drs. Forbes, McKellops, Peebles, Payne, Eames and Barron, for the courteous consideration and gentlemanly bearing towards the members of this Association, in kindly opening their offices and tendering their services not only in the clinical exhibitions thus afforded us, but likewise to their readiness to impart any and all professional information at their command.

On motion adjourned to June 5th, 1866.

H. JUDD, *Recording Secretary.*

SECOND MEETING.

St. Louis, June 5, 1866.

Missouri State Dental Association met at Hall St. Louis Medical College, pursuant to adjournment, at 10 A. M., Vice-President in the chair. Minutes of last meeting read, amended and approved.

Dr. A. M. Leslie presented the Treasurer's report, which was referred to the Executive Committee, to be audited.

The following named gentlemen were elected members of the Association:

Dr. J. B. Chess,	Dr. D. W. Eckhart,
“ J. Greene,	“ A. J. Brown,
“ M. Lawrence,	“ E. G. Spalding,
“ R. E. Wear,	“ C. A. Davis,
“ S. Horine,	“ S. H. Anderson,
“ B. Q. Stephens,	“ W. F. Thompson,
“ G. H. Hurd.	

Dr. W. O. Kulp, of Muscatine, Iowa, was elected an honorary member of the Association. President announced the election of officers next in order. Names of officers elected appear in the tabulated list.

Dr. Kulp, of Iowa, presented his thanks for his election as an honorary member of the Association, and also extended an invitation to the members to attend the Iowa Dental Association, which would meet on the 10th of June.

Adjourned to 3 P. M.

AFTERNOON SESSION.

The Association met at 3 P. M., Vice-President in the chair.

On motion of Dr. Judd, the chairman appointed a committee, Drs. Forbes, Tindall and Park, to conduct the President-elect, Dr. H. E. Peebles to the chair. The committee performed the duty, and the Doctor acknowledged in appropriate terms the honor conferred upon him.

The subject of Mechanical Dentistry was taken up and discussed by Drs. Morse, Goodrich, McCoy, Anderson, Horine,

Hurd, Leslie, Kulp and Forbes. Association adjourned to 9:30 A. M., at the hall of the Academy of Science.

MORNING SESSION.

The Association re-assembled according to adjournment, the President Dr. H. E. Peebles in the chair; some fifty members were present; minutes of last meeting read and approved.

On motion of Dr. Leslie, the Secretary was instructed to prepare a synopsis of the proceedings for the St. Louis Medical Reporter.

On motion of Dr. Leslie, Drs. G. V. Black, of Jacksonville, Ill., C. W. Rivers, of Pittsfield, Ill., and L. N. Elliot, of Quincy, Ill., were elected members of the Association. The subject next in order was then taken up, being the question, "What is the result of the premature extraction of Deciduous Teeth?" Discussed by Drs. Kulp, Townsley, Judd, Anderson, Forbes and Clark.

Adjourned to 2 P. M.

AFTERNOON SESSION.

The Association re-assembled according to adjournment, President in the chair. Reports of Dr. Judd, late Secretary, and Dr. Leslie, Treasurer, were received and adopted.

Dr. Judd, Chairman of the Executive Committee, reported the Committee as follows:

On Mechanical Dentistry, Dr. Eames; on Surgical, Drs. Hale, Peebles, Clark, Morrison, Comstock, Payne and Forbes. Adopted. Thursday, 9 A. M., was assigned to clinics.

The subject of filling teeth, the modes and materials, was discussed by Drs. Goodrich, McCoy, Kulp, Black, Peebles, Judd, Forbes and Park.

On motion of A. M. Leslie, the officers of the Association were constituted the Dental College Committee, endowed with plenary power, and instructed to report at the next annual meeting.

Adjourned to 8 P. M.

EVENING SESSION.

Association met at the room of the Public School Board, Olive and Fifth streets, at 8 o'clock, P. M. President in the chair.

The subject of Legislative enactments, relative to the protection of the public and profession against quackery, was taken up; after some discussion, a committee, consisting of Drs. Leslie, Comstock, Eames, McCoy and Anderson were appointed to report upon the subject at 3 P. M.

Adjourned to 2 o'clock, P. M., on Thursday.

AFTERNOON SESSION.

The Association re-assembled according to adjournment at 2 P. M., Thursday, at the hall of the Academy of Science. President in the chair.

Dr. McCoy, of Boonville, of Committee on Legislative Enactment, asked that the Committee be allowed time until the next annual meeting to investigate and prepare a report. Agreed to.

J. S. B. Alleyne, M. D., and O. F. Potter, M. D., editors of the Medical Reporter were received and introduced by the President. The President also commended the St. Louis Medical Reporter to their attention, and spoke in high praise of Drs. Alleyne and Potter, the editors. Dr. Potter returned thanks for the hearty reception of himself and friend, and said that as editors of the Reporter they wished it to fairly and fully represent the curative profession of which the Dental was a part, and would be glad to have contributions to the pages of the Reporter from members of the society, as well as a report of the society's proceedings.

Dr. Lumsden, of London, was present and exhibited specimens of work constructed of black rubber, which he considered superior to that of any other color owing to the absence of foreign material.

On motion, the subject of Nitrous Oxide Gas was taken up and discussed by most of the gentlemen present.

On motion of Dr. Peebles, the thanks of the society were tendered to Professor C. A. Pope and the Academy of Science for the use of their rooms. After some further business, including a vote of thanks to the Democrat for its report, the convention adjourned to meet at 8 P. M., at Dr. Hale's office, No. 26 north 6th street.

EVENING SESSION.

The Association re-assembled according to adjournment. Dr. McCoy occupied the chair.

On motion, the regular order for the evening was set aside to listen to an address from the late President. The address was a tribute to the profession, aptly characterizing its true spirit, recalling its history and portraying its prospects.* At the close of the address, the Association adjourned to meet on the first Tuesday in June, A. D. 1867.

THIRD ANNUAL MEETING.

St. Louis, June 4, 1867.

MORNING SESSION.

The Association met pursuant to adjournment at the rooms of the College Infirmary at 10 A. M., Tuesday, June 4. The President, Dr. H. E. Peebles, in the chair. Minutes of last session read and approved. Treasurer's report received and placed in the hands of the Executive Committee. The Association listened to the retiring address of the President. Report on Legislative Enactments read and discussed by Drs. Rivers, Judd, Forbes and Barron in the affirmative. By Drs. Horine, Silvers and Hibler in the negative.

On motion of Dr. McKellops, the bill was referred

*See Addresses.

back to the committee, with the name of Dr. Hibler added.

Adjourned to meet at 2:30 P. M., in the lecture room of the college.

AFTERNOON SESSION.

Association met at 2:30 P. M., President in the chair. Minutes of last meeting read and approved.

Dr. H. E. Peebles, Chairman of the Committee on Missouri Dental College, read the report of that committee which was unanimously adopted.

The following gentlemen were elected to membership:

Drs. J. A. Lumpkin, L. W. Brown, A. W. Scott, A. C. Griggs, J. R. Mathews, S. H. Smith, G. Hannaman, F. A. Brewer, F. M. Hickerson, L. F. Prince, R. H. Mace, J. F. Hassell, F. Swop, and G. A. Bowman. The names of Messrs. Ludwig and Ulman were rejected.

Election for officers to serve the ensuing year was held. Names of officers elected appear in the tabulated list.

Adjourned to meet Wednesday at 10 o'clock A. M.

MORNING SESSION.

Association met pursuant to adjournment, President, Dr. Judd in the chair.

Minutes preceding session read and approved.

A letter from Dr. J. A. Price was read by the President asking admission to membership. This not being admissible under the constitution the Corresponding Secretary was ordered to communicate it in reply.

Dr. Peebles read a letter from Dr. Battle, of Memphis, showing the hostility in the Central States Association to the Missouri Dental College.

Reading of essays. Dr. Eames read an essay upon "Mechanical Dentistry." Dr. Hibler, an essay upon "The Action of Acids on the Human Teeth." Dr. Griggs read a paper descriptive of an operation in Dental Surgery. Dr. Reid, an essay upon the subject of Neuralgia, read by Dr. Peebles.

On motion of Dr. McKellops, a committee was appointed to investigate and report upon the origin and circumstances attending the founding of the Missouri Dental College. Drs. Townsley, Brewer and Black, committee.

Adjourned to 2:30 P. M.

AFTERNOON SESSION.

Association met at 2:30 P. M., President in the chair. Minutes of morning session read and approved.

Dr. Hale read a paper upon Mechanical Dentistry, detailing his method of taking lower impressions and obtaining accurate fits of inferior dentures. J. R. Mathews read a paper upon the subject of Mechanical Dentistry; Dr. Brewer read an essay on The Need of Popular Education on the Subject of Dentistry; Dr. Peebles on Dental Ethics; Dr. J. R. Mathews a second paper on Preparation of Cavities. At the request of Dr. Peebles, Professor Judd gave an account of his visit to Philadelphia, to attend the College Association. Dr. McKellops moved that such members of this Association, as are not members of the Missouri Dental College Association, be requested to join the same. The motion was carried, and the officers requested to place the names of the members of the Association on the list of Incorporators, excepting the name of Dr. Hassell, who did not desire it, being a member of the Odontological Society.

Adjourned to meet at 7:30 P. M., at the office of Dr. Judd.

EVENING SESSION.

Association met pursuant to adjournment at 7:30 P. M., President in the chair.

The subject for the evening being the examination of teeth, under the Microscope. An hour or more was passed very profitably in the discussion and elucidation of the subject. At the close of the exhibition the Association adjourned to meet at the College, 10 A. M.

MORNING SESSION.

Association met pursuant to adjournment, President in the chair. Minutes of last session read and approved. Dr. Eames, chairman of the committee to whom was referred the bill concerning Legislative enactments, made a report which was adopted. The subject of the paper read by Dr. Peebles—Dental Ethics—was taken up. Dr. Judd made a brief speech.

Mechanical Dentistry passed. Sensitive Dentine taken up. Remarks were made by Drs. Hibler, Jones, Forbes, Judd, Peebles, Horine and others.

Association adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Association re-assembled at 2 P. M., President in the chair.

Minutes of last session read and approved.

Dr. E. McCune offered the following resolution:

Resolved, That the publication of special cases, in public papers by Dentists, claiming remarkable cures and extraordinary skill and sagacity in diagnosing and treating certain cases is a practice resorted to only by quacks, to gull a too credulous public, and is an exact counterpart of such practices resorted to by the meanest class of quack practitioners of medicine, and deserves in the Dental profession, as it deserves and receives in the Medical profession, an unqualified disapprobation; and in the estimation of this Association, entitles those for whose benefit these publications are made to the contempt of all honest men. On motion of Dr. Peebles, Drs. Hassel, McCune and Peebles were appointed delegates to the American Dental Association to be held in Cincinnati in July.

Adjourned to meet at 8 P. M.

EVENING SESSION.

Association met at 8 P. M., President in the chair. Minutes of last session read and approved.

The Chairman of the Executive Committee read a report which was adopted.

Adjourned to meet at 8:30 A. M. Friday.

MORNING SESSION.

Association met pursuant to adjournment at 8:30 A. M., Vice-President McCune in the chair. Minutes of last session read and approved.

Subject for discussion: "Filling Teeth," was discussed by the members generally.

The following resolution was offered by Dr. Rivers:

Resolved, That a committee be appointed by the chair to take into consideration the necessity of the establishment of a Dental Journal in the city of St. Louis, and that said committee make such arrangements as they may deem proper, for the early establishment of such a journal. Adopted.

Committee on Missouri Dental College reported as follows:

First—That according to the best evidence we are able to obtain, the committee appointed by this Association at its last annual session for the purpose of founding a Dental College in St. Louis, and also reporting a law to be adopted by the General Assembly of the State of Missouri, to prevent persons from practicing Dentistry without proper qualifications, if, in their judgment, it should be deemed expedient, have acted in good faith and according to their instructions. For the detailed account of their actions, we would respectfully refer you to the report of the chairman of that committee.

Second—That the charges against the Missouri Dental College have grown out of personal and private difficulties, confined to a few persons upon which your committee feel unable to report.

Third—That it is the opinion of the committee that the Missouri Dental College is acting in good faith and honesty of purpose for the best interests of the Dental profession and all others. All of which is respectfully submitted.

L. M. TOWNSLEY,	} Committee.
G. V. BLACK,	
F. A. BREWER,	

On motion of Dr. Eames, a vote of thanks was tendered Dr. Swop for the donation of a very ingenious gas inhaler to the Missouri Dental College.

The President announced the Committee on Dental Journal: Drs. Forbes, McKellops and Park.

On motion of Dr. Peebles, an assessment of three dollars on membership was made to raise a fund to meet incidentals and sustain educational interests.

Adjourned to meet the first Tuesday in June, A.D., 1868, in the city of St. Louis.

GEO. CRAWFORD, *Secretary.*

FOURTH ANNUAL MEETING.

St. Louis, June 2, 1868.

MORNING SESSION.

Pursuant to adjournment the Association met at the lecture room of the Missouri Dental College at 10 A. M., President in the chair.

Treasurer's report received and placed in the hands of the Executive Committee.

The following gentlemen were elected to membership: Jas. A. Price, G. L. Shephard, R. C. Mowbray, R. J. Porre, J. D. Lealand.

The President read his retiring address.

Dr. Peebles gave notice that he should ask that the Constitution be changed, so as to require the President to hold the chair during the meeting.

On balloting for officers to serve the ensuing year the following result was obtained (Names of officers elected appear in the tabulated list).

Resolution by Dr. Eames:

Resolved, That the Executive Committee be, and are hereby

instructed, to prepare at this meeting, topics for discussion at our next annual meeting, and that two essayists be appointed by the chair, upon each of the proposed topics. Drs. Peebles, Barron and Eames were appointed a committee to make the necessary arrangements for clinics.

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Association met pursuant to adjournment, President in the chair. Minutes of morning session read and approved.

The following gentlemen were elected to membership: Drs. H. S. Chase, H. L. Hewitt, W. E. Tucker and G. P. Bennett.

The subject for discussion: "Cleaning Teeth." The discussion was participated in by most of the members present.

The Executive Committee reported as follows:

We have examined the accounts and vouchers of the Secretary and Treasurer, and find the statements and balances correct. We find a balance due the Treasurer of \$6.50. Report adopted.

The Executive Committee, upon the subject of topics for discussion, reported as follows:

1. Alveolar Abscess—Drs. A. D. Sloan and G. L. Shepard.
2. Atrophy of the Teeth—Drs. J. R. Mathews and Henry.
3. Tumors of the Mouth—H. Barron.
4. Diseases of the Sinus—Drs. Brewer and Porre.
5. Ossification of the Dental Pulp—Homer Judd.
6. Treatment of Cleft palates—Drs. Eames and Morrison.
7. Mallets and Automatic Pluggers—Drs. Forbes and Black.
8. History of Dental Calculi—Drs. Chase and Goodrich.
9. Professional Ethics—Drs. Peebles and Price.

Adjourned to 10 A. M.

MORNING SESSION.

Association met at 10 A. M., President in the chair. Minutes of last session read and approved.

The following named gentlemen were elected to membership :
H. B. Evans, Chas. Henry, C. W. Spalding, Alfred C. Sloan,
L. Thomas, C. H. Sawyer.

Discussion on "Dental Hygiene," Drs. Chase, Judd, Forbes and others participating.

Committee on Dental Journal made a verbal report, detailing progress.

On motion of Dr. Chase, a committee consisting of Drs. Chase, Peebles, McKellops and the President, was appointed to organize a joint stock company to start the Dental Journal.

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Association met at 2 P. M., President in the chair. Reading of the minutes of previous session dispensed with.

Discussion upon the subject of Absorption.

Dr. Chase, Chairman of Committee on Dental Journal, reported a form of subscription list for stock in the Journal. Each share to be six dollars, each member to take as many or few shares as suited him.

We the subscribers agree to take the number of shares of stock set opposite our names, at \$6.00 each, in the Dental Journal, to be published in the city of St. Louis, and to be conducted and controlled by an Association to be hereafter incorporated under the laws of the State of Missouri.

Report of Dr. Chase adopted.

Recess for meeting of incorporators of the Missouri Dental College.

MEETING OF THE MISSOURI DENTAL COLLEGE ASSOCIATION.

College Rooms, June 3, 1868.

Association met pursuant to adjournment, Wednesday, June 3, at 4 P. M., President H. E. Peebles in the chair. Minutes of last meeting read and approved.

Professor Judd stated that at the last annual meeting of the State Association, a called meeting of the incorporators was held on the 3d of June, 1867, and a resolution was offered by Dr. McKellops, which was adopted, making the members of the State Association members of the Board of Incorporators; that the act contemplated in that resolution of merging the two societies into one, should be completed at this time by the officers of the College Association resigning and turning over all books, papers, etc., in their hands belonging to the Association to the officers of the State Association; that from this time, the State Association, as a separate organization from the College Association, ceased to exist; that henceforth the State Dental Association becomes virtually the College Association, and would perform all the duties of that body. This being the desire and understanding of the members present, the officers resigned in favor of the officers of the State Association.

The officers at once assumed their duties, Professor Judd President taking the chair. The Treasurer's report was received and placed in the hands of the Executive Committee. On the nomination by Dr. Peebles, Dr. C. W. Spalding was elected Trustee of the College in place of Dr. W. H. Eames, resigned. Professor Gregory was elected to fill the place of Professor Pope whose term of office had expired. Drs. Forbes, Kulp and McCoy were re-elected to serve three years. There being no further work for this meeting, the Association resumed its legitimate business.

Dr. Peebles offered the following resolution which was adopted:

Resolved, That we notice with deep regret the absence of many of the members of our Association, and that we do hereby commend the acts of all and each of the gentlemen who have closed their offices and traveled distances to attend this meeting, and we do hope none may go away unbenefited, but that each one may leave well satisfied and determined to attend our next annual convocation.

The following resolution offered by Dr. Black was adopted:

Resolved, That in the opinion of this Association it is inex-

pedient for members of the Association residing in the town where the meetings are held to remain in their offices during the sitting of the Association, and by their absence seem to say that they are indifferent to the advancement and elevation of the profession.

Discussion on the course of Office Study.

Dr. J. S. Wilson, of Carlinville, elected to membership. Dr. Goodrich moved that a Committee of five be appointed to carry out the resolution on the report of the Committee on Dental Journal—Drs. McKellops, Forbes, Peebles, Eames and Chase, committee.

Adjourned to meet at 10 A. M.

MORNING SESSION.

Association met pursuant to adjournment, President in the chair. Minutes of last session read and approved.

On motion of Dr. Peebles, Dr. Ingersol, of Keokuk, was elected honorary member of the Association.

Dr. Peebles read a paper on Popular Education ; discussed by several members. The subject for discussion, "The saving of the six year Molars," was taken up.

On motion of Dr. Forbes, a committee of three was appointed to make an assessment—Drs. Forbes, Jones and Morrison, committee.

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Association met at 2 P. M., President in the chair. Minutes of last session approved.

The following report of the delegation to the National Convention was adopted :

The meeting was well attended, the discussions interesting and instructive. Your delegation beg leave to say, that in their opinion there has been too much of the minutiae and details of practice and reports of cases introduced into our National Association. We believe that these details in manipulation belong more properly to the local societies, and that the time of the

Association should be devoted to the discussion of general principles and scientific topics. The delegation also suggest the propriety of the adoption of the Code of Ethics prepared by the American Dental Association. They also beg leave to recommend to this Association the action of the National Association, of inquiring into the status of a Society or College, before admitting them to representation in that body—W. H. Morrison, H. J. McKellops, Homer Judd, W. H. Eames, A. D. Sloan, H. E. Peebles, G. A. Bowman, committee.

The following resolution was offered by Dr. Forbes :

Resolved, That the delegation to the National Association be instructed to present the subject of "Popular Education on the subject of the Teeth, care of the Deciduous Teeth, their number," etc., etc., to the consideration of that honorable body, and urge the propriety of having an article prepared for insertion in the various text books used in the public schools. Adopted.

Dr. Black moved that a delegation of three from this Association be appointed as fraternal visitors to attend each of the neighboring State Associations, and to report at our next annual meeting; carried. Drs. A. D. Sloan and Homer Judd, committee.

Dr. Forbes, chairman of the Assessment Committee made the following report, which was adopted: "In as much as the Missouri Dental College is the creature and property of this Association, it is incumbent on the Association to foster and sustain the same, and as the said college has been so managed by the Board of Trustees and Faculty, aided by the city dentists. as to open and operate two years under adverse circumstances, with small classes and only the small debt of \$85.00 standing against it; it will prove encouraging to the college thus to come up, when aided by a liberal assessment. As the infirmary needs tools and instruments, therefore, to give some aid to the college, we recommend an assessment of \$5.00 on each of the members. Drs. I. Forbes, W. A. Jones, W. N. Morrison, committee.

On motion of Dr. Forbes, the following resolution was adopted:

Resolved, That the Missouri State Dental Association hereby indorse in full the action of the American Association, at its last session at Cincinnati, in relation to the support of the committee appointed by said Association to examine the credentials of the delegates from the so-called St. Louis Dental College, which report justly declares it has no legal existence, and that a diploma from such an institution would be utterly worthless.

Executive Committee report. We have audited the accounts of the Treasurer with the Missouri Dental College and find them correct. Drs Brewer and Porre, committee.

Resolution by Dr. Peebles, adopted.

Resolved, That no member of this Association can hold a diploma from the so-called St. Louis Dental College and be considered a member in good standing in this Association.

Adjourned to meet at 10 A. M.

MORNING SESSION.

Association met at 10 A. M., President in the chair. Minutes of last session approved.

On motion of Dr. Peebles, the Code of Ethics recommended by the delegates to the National Association was adopted. The following gentlemen were appointed delegates to the National Association by the President: H. J. McKellops, H. S. Chase, A. D. Sloan, J. R. Mathews, A. C. Sloan, George P. Bennett, I. Forbes, G. L. Shepard, R. C. Mowbray, E. C. Crane, W. N. Morrison, J. A. Price, C. McCune, C. W. Rivers and J. A. Lumpkin.

Dr. Sloan gave notice that he would ask that the name of this Association be changed to read the "Missouri Dental College Association."

On motion the Secretary was instructed to notify the essayists of their appointment.

On motion of Dr. Porre, it was resolved that each member of this Association keep a record of all the cases of importance and their treatment, and report the same at a succeeding meeting.

Dr. W. O'Hare and O. M. Calhoun were election to membership.

Adjourned to meet in the city of St. Louis, the first Tuesday in June, A. D. 1869, at 10 A. M.

Dr. W. H. EAMES, *Recording Secretary*.

FIFTH ANNUAL MEETING.

St. Louis, June 1, 1869.

Association met pursuant to adjournment at the Polytechnic Institute, President Judd in the chair. Treasurer's report read and accepted.

The following gentlemen were elected to membership: Drs. J. B. Morrison, A. W. Morrison, Henry Fisher, and S. B. Parsons, M. D., as an honorary member.

Election of officers for the ensuing year being the first order of business, the same was proceeded with. (The names of the successful candidates appearing in the tabulated list of officers of the Association.)

Dr. Judd, the retiring President, made a few remarks. Dr. W. H. Eames, President-elect, was duly installed.

On motion two articles of the Constitution were changed so that the election of officers should take place on the last day's session of the convention, and the name of the Association be changed to the Missouri Dental College Association, instead of the Missouri State Dental Association. The suggestion of the Auditing Committee that the accounts of the Dental Journal and that of the State Dental Association be kept separate was adopted. A committee consisting of Drs. Judd, Chase and Depp was appointed to take charge of clinics.

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Association met at 2 P. M., President in the chair. Dr. Judd read a paper on the "Ossification of the Dental Pulp." Sub-

ject discussed by Drs. Kulp, Chase, Peebles, Forbes and Eames. Dr. Eames read a paper on "Cleft Palates."

Adjourned to meet at 10 A. M.

MORNING SESSION.

President in the chair. Minutes were read and approved. Dr. Mathews read an essay on "Atrophy of the Teeth." Drs. Kulp, Black, Spalding, W. A. Morrison and H. E. Peebles participated in the discussion. The subject of "Mallets and Mallet Pluggers" was then discussed by most of the gentlemen present.

Adjourned to 2 P. M.

AFTERNOON SESSION.

President in the chair. Dr. Judd made a verbal report of the condition of the Missouri Dental College Association and Missouri Dental Journal. Adopted.

The election of Trustees for the Missouri Dental College resulted as follows: H. E. Peebles, Edgar Park, J. B. Johnson, C. W. Spalding and G. V. Black, for a term of three years.

Dr. Chase read a paper on "Dental Calculi." Discussed by Drs. Kulp, Morrison and others. Dr. Peebles read a paper on "Professional Ethics."

Adjourned to 8 P. M.

EVENING SESSION.

President in the chair. Minutes were read and approved. The subject of "Filling Teeth" was discussed by most of the members present.

Adjourned to 10 A. M.

MORNING SESSION.

President in the chair. Reading of the minutes of the previous meeting dispensed with. The first order of business was the report of the Executive Committee:

Mr. President:—The committee who were appointed to investigate the financial condition of the Missouri Dental College

and the Missouri Dental Journal report a deficit of \$50 on the part of College and \$120 on the part of the Journal. To meet which they recommend that an assessment of two dollars and fifty cents be made upon each member, to meet the deficit of the College, a few of the city members having agreed to make up the balance, if any.

Should it be found necessary to raise funds in behalf of the Journal, your committee would respectfully suggest that the proper means to be adopted would be by assessment upon the stockholders. All of which is respectfully submitted.

EDGAR PARK,
J. B. MORRISON, } *Ex. Com.*
G. A. BOWMAN, }

Mechanical Dentistry was taken up, and discussed by Drs. Judd, Hale, Peebles and others. Dr. Thomas Turner, of St. Johns, New Foundland, was elected an honorary member of the Association.

On motion of Dr. Judd, the Association adjourned to meet at 2 P. M.

AFTERNOON SESSION.

President in the chair. Dispensed with reading of minutes. Dr. Eames exhibited a steel clamp, a very neat instrument, used instead of the twine or silk ligatures, in holding the coffer (or rubber) dam on the teeth. Dr. Rivers read a lengthy paper on "Diseases of the Maxillary Sinus."

Adjourned to meet in the city of St. Louis, on the first Tuesday in June, at 10 o'clock A. M., 1870.

JOHN R. MATHEWS, *Secretary.*

SIXTH ANNUAL MEETING.

St. Louis, Mo., June 7, 1870.

Dr. Eames, President, called the meeting to order. Reading of minutes of last meeting dispensed with. Dr. John R. Mathews, Recording Secretary, made his report. Accepted.

Dr. R. J. Porre, Treasurer, gave his report. Submitted to an auditing committee. The subject of "Dental Ethics" discussed.

Association adjourned to meet at 2:30 P. M.

AFTERNOON SESSION.

President in the chair. Minutes of previous meeting read and accepted, with corrections. The subject of "Heavy Foils as being more suitable for Filling Teeth than Light," discussed by most of the members. Report of the Auditing Committee on Treasurer's Report submitted.

Adjourned to 10:30 A. M.

MORNING SESSION.

President called meeting to order. Minutes read and approved.

Adjourned to 2:30 P. M.

AFTERNOON SESSION.

President called meeting to order. Minutes read and approved.

Drs. W. A. Jones, Henry Newington and F. F. Majors were elected to membership.

The subject of "Heavy Foils" was again discussed.

Adjourned to meet at 7:30 P. M.

EVENING SESSION.

President called Association to order. Dispensed with reading of minutes.

Dr. W. Cameron Smith was elected to membership.

Subject of "Filling Teeth with Oxychloride of Zinc" discussed.

Adjourned to meet at 8:30 A. M.

MORNING SESSION.

President called meeting to order. Minutes of the two preceding meetings read and approved.

Dr. Park, Secretary of the Missouri Dental College, submitted his report.

The election of the Board of Trustees resulted in Drs. Blake and Rivers being re-elected, and the election of Drs. Goodrich and McCune to fill vacancies.

The subjects "Aluminum for Plates," and "Irregularities of the Teeth" were discussed.

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

President in the chair. Minutes read and approved. Election of officers for the following year next ensued. (For names of officers elected see tabulated list.)

St. Louis was selected for the place of the next annual meeting, to be held in June, 1871. Delegates were selected to attend the American Dental Association to be convened in Memphis.

The following were appointed essayists for the next meeting :

Dr. Judd—Histology.

“ Eames—Chemistry of the Saliva.

“ Goodrich—Treatment of Ulcerated Teeth.

“ Forbes—Irregularities of the Teeth.

“ Black—General Pathology in its Relation to Filling Teeth.

“ Porre—Gold Foils.

Dr. Goodrich installed President.

Adjourned to meet in St. Louis, first Tuesday in June, 1871.

J. R. MATHEWS, *Secretary.*

SEVENTH ANNUAL MEETING.

St. Louis, Mo., June 7th, 1871.

The Association met in the rooms of the Historical Society in the Polytechnic Institute, and was called to order by Dr. Goodrich, President.

Dr. Judd read a paper on "The Status of the Dental Profession."

Dr. Sol. Horine read a paper entitled, "Teachings of the Past and our Duty to our Patients."

The subject of administering chloroform was discussed by all present.

The following gentlemen were elected members of the Association:

G. W. Travis, L. L. Mills, H. R. Sackett, J. P. Eddy, A. H. Fuller, H. H. Keith and H. A. Barlow.

Adjourned to meet at 2:30 P. M.

AFTERNOON SESSION.

The subject of "Nerve Capping with Oxychloride of Zinc" was discussed by nearly all present.

Dr. Bartlett, of Boston, exhibited specimens of Pyroxyline, and gave demonstrations of its merits as a base for artificial teeth.

Clinics at College Infirmary Wednesday morning at 8 o'clock.
Adjourned to 10 A. M. June 8th.

SECOND SESSION.

Owing to the interesting character of the clinics there was no morning session.

AFTERNOON SESSION.

Election of Trustees to fill vacancies in the Board of Trustees of Missouri Dental College, resulted as follows:

Dr. G. A. Bowman elected to fill the vacancy caused by the death of Dr. H. E. Peebles; Drs. Forbes, Gregory, McCoy and Kulp were re-elected.

Resolutions expressive of the sense of the Association on the death of Dr. Peebles passed.

WHEREAS, By the dispensation of an all-wise Providence, Dr. H. E. Peebles has been removed from among us, therefore, be it

Resolved, That we remember our departed brother as an industrious and earnest co-laborer in his profession, a genial companion and Christian gentleman, beloved by those who knew him best.

Resolved, That we tender to his bereaved widow and family our heartiest sympathy, and mourn with them in this the hour of their affliction.

Resolved, That the above resolutions be spread upon the records of the Association, and a copy be transmitted to the family of the deceased.

DR. FORD,	} <i>Committee.</i>
DR. JUDD,	
DR. GOODRICH,	
DR. EAMES,	

Dr. Park read a paper on "Contour Fillings," followed by discussion.

Dr. Forbes read a paper on "Irregularities of the Teeth;" discussion on the subject followed.

Dr. Hale gave notice that he should introduce a resolution at the next meeting of this Association to change the name to Missouri State Dental Association.

Kansas City was declared the choice of the Association for the next annual meeting. An election of officers for the following year ensued. (Names given in the tabulated list.)

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Dr. Luckie in the chair.

Dr. Eames read a paper on "The Reduction of Gold Scraps and Filings to Plate."

Mechanical Dentistry was introduced and discussed by the majority present.

Dr. Goodrich read a paper on "The Treatment of Alveolar Abscess."

Adjourned to meet in Kansas City, June 4th, 1872.

G. A. BOWMAN, *Rec. Sec'y.*

EIGHTH ANNUAL MEETING.

Kansas City, June 4, 1872.

Meeting convened in Kansas City. President absent. Dr. J. K. Stark, of Kansas City, was called to the chair. Minutes of last meeting read and approved. Miscellaneous business transacted. Voted to change the name of the Association to that of "Missouri State Dental Association." The following gentlemen elected to membership:

W. M. Hammond, George M. Saul, S. M. Bradbury, S. B. Prevost, H. C. Massie, C. B. Hewitt and W. C. Griswold.

On motion of Dr. Black, members who have lost their membership by non-payment of dues might be reinstated by paying last year's assessments. By-laws amended accordingly.

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Association met at 2 P. M. Minutes read and approved.

Dr. Eames, chairman of committee for revising the list of names, made his report. There were but 35 members in good standing, according to the Constitutional requirements.

On motion of Dr. Judd, the Secretary was instructed to notify those in arrears that the assessment of 1881 (\$3.00) if paid into the hands of the Treasurer will reinstate them.

The following named gentlemen elected members:

E. M. Stockton, J. C. Cravens, N. M. McClelland and J. S. Moore.

On motion of Dr. Eames, a committee was appointed to revise the Constitution and By-Laws of the Association, and have them, when adopted, printed. Committee, Drs. Judd, Eames and Hammond.

On motion of Dr. Goodrich, the Code of Dental Ethics was ordered printed in connection with Constitution and By-Laws.

Dr. Judd read a paper on "The Philosophy of the Code of Dental Ethics;" adopted by the Association. Discussion followed.

Adjourned to meet at 8 P. M.

EVENING SESSION.

Association met at 8 o'clock. President Stark in the chair. Minutes read and approved. Subject of "Rubber Dam" introduced, and discussed by Drs. Eames, Black, Darby and others. Drs. Cushing and Dean, of Chicago, Dr. Bowman, of St. Louis, and Dr. Cravens, of Kansas City, were appointed clinical demonstrators. Clinics to take place at 9 A. M., Wednesday.

Adjourned to meet at 2 P. M., following day.

AFTERNOON SESSION.

Association met and was called to order by the President. Minutes read and adopted. The subject of "Smooth and Serrated Pluggers" was discussed by Drs. Eames, Goodrich, Black, Dean, Cushing and Judd.

The following were elected members of the Association:

Dr. Darby, of St. Joseph, Dr. Thompson, of Topeka, Kan., and Drs. Wheeler and Patterson, of Lawrence.

The following gentlemen were elected to fill vacancies in the Board of Trustees of the Missouri Dental College:

Drs. G. V. Black, Edgar Park, G. A. Bowman, L. F. Prince and Isaac Comstock.

The use of Burring Engines was next discussed by Drs. Judd, Goodrich, Cushing and others.

Dr. Judd introduced the subject of a new disease of the teeth—a species of green tartar, to appearance. Its pathology has been but little understood. The treatment has consisted mainly in removing it. In almost all cases it returns. With reason, German Pathologists regard it as a vegetable growth.

Meeting adjourned to 8 P. M.

EVENING SESSION.

Meeting called to order. President in the chair. Minutes read and approved. Dr. Goodrich read a paper on "Oxychloride of Zinc for Capping Nerves." Discussed by Drs. Price, Cushing, Dean and Black.

Association adjourned to 10 A. M.

MORNING SESSION.

Association met and was called to order by the President. Reading of minutes dispensed with. Election of officers for the following year ensued. (For names of officers elected, see tabulated list.)

St. Joseph was selected as the next place of meeting.

On motion the Executive Committee was authorized to appoint delegates to the American Dental Association to be held at Niagara.

On motion a committee of three was appointed to confer with S. S. White, upon the proposed league of dentists to be formed to take action in reference to the Cumming's Patent. Committee, Drs. W. H. Eames, G. A. Bowman and H. Judd.

Dr. Griswold was invited to explain his method of applying his new splint for compound fracture of the lower maxilla—a very ingenious and simple apparatus.

On motion a vote of thanks was extended to the College of Physicians and Surgeons, for the use of rooms for this Association during its session.

Adjourned to meet at St. Joseph, on the first Tuesday in June, 1873.

G. A. BOWMAN,
Secretary.

 NINTH ANNUAL MEETING.

St. Joseph, June 3, 1873.

Association met at 2 P. M., and was called to order by the President, Dr. J. K. Stark. Minutes of last session read and approved.

The following named gentlemen were admitted to membership: Drs. W. W. Birkhead, F. D. Fellows, J. F. Hassell, J. M. Austin, J. E. Hewlett, J. C. Eberly, J. W. Meng and H. W. Fosdick.

The report of committee, previously appointed to prepare a new Constitution and By-Laws, was read. Part was accepted as submitted, and a part was amended to read as follows:

SECTION 1. Honorary members shall consist of those who are members of the Dental or Medical professions, or of those who are engaged in scientific pursuits collateral thereto; but such Dental practitioners only as are non-residents of the State, or retired active members of this or other Dental Associations, shall be eligible to honorary membership in this Association.

SEC. 2. All candidates for honorary membership shall be proposed and recommended by some active member when they may be elected *viva voce* by a majority of votes of members present.

Articles V, VI, VII, VIII, IX and X were adopted without discussion.

Article XI was amended to read as follows:

SECTION 1. Any member charged with dishonest or unprofessional conduct, after an opportunity of being heard before a committee appointed for this purpose, if the charge be sustained may be reprimanded, suspended or expelled by a vote of two-thirds of the members present.

Articles XII and XIII were adopted without discussion.

BY-LAWS.

Section 1 of Article I was adopted without discussion.

Section 2 was amended to read: The vote on membership may be taken *viva voce*, a two-third affirmative vote being necessary to entitle the applicant to membership.

Section 1 of Article II was read and adopted.

Section 2, Article III, was recommitted. The balance of the report adopted as read.

Dr. Hammond read an essay on "Galvanism Caused by the Contact of Different Metals in the Mouth." Discussed by Drs. Judd, Wheeler, Reed, Darby, Hassell and Cravens.

Adjourned to meet at 8 P. M.

EVENING SESSION.

Association met. President in the chair. Minutes of last session read and approved.

Dr. Darby, Chairman of the Executive Committee, reported

the names of Drs. H. Judd and J. B. Wheeler, as clinical operators for to-morrow morning. Clinics to take place at the office of Dr. Darby.

Dr. Judd read a paper on "Spontaneous Abrasion." Discussed by most members present.

Adjourned to meet at 2 P. M., Wednesday 4th.

AFTERNOON SESSION.

Association met. President in the chair. Minutes read and approved.

The Committee on Constitution and By-Laws made an amended report on portions of the same, which had been re-committed; which, on motion, was accepted, and the committee discharged.

On motion of Dr. Price, the Constitution and By-Laws, as amended, were adopted.

On motion of Dr. Judd, the Secretary was instructed to have three hundred copies of the Constitution and By-Laws, as adopted, printed, and to send each member of the Association a copy.*

Dr. F. A. Brewer read an essay entitled "Success in the Treatment of Exposed Pulps." Dr. Brewer presented two rare works of antiquity to the library of the Missouri Dental College—Nasmyth's Researches on the Teeth; Life of John Hunter, F. R. S., by Drewry Ottley, once the property of Chapin A. Harris, of Baltimore. A vote of thanks was tendered Dr. Brewer for his donation.

Dr. Eames made a verbal report of the "Status and Management of the Missouri Dental Journal."

On motion it was decided to hold the next annual meeting in St. Louis, at the time of the meeting of the Mississippi Valley Dental Association.

Adjourned to meet at 8 P. M.

EVENING SESSION.

President called the meeting to order. Reading of minutes dispensed with.

*See Constitution and By-Laws.

An election of officers resulted as follows: (Names of officers elected appear in tabulated list.)

The next order of business, election of Trustees for the Missouri Dental College to fill vacancies, was entered upon, with the following result: Drs. A. H. Fuller, Henry Newington, J. C. Goodrich and C. W. Rivers.

Adjourned to meet at 9 A. M.

MORNING SESSION.

Association met. President in the chair. Minutes of the two preceding sessions read and approved. Officers for the following year installed. Reports of the retiring officers submitted and adopted. Dr. Eames moved that a new book be procured, for the use of the Treasurer, in which the names of the members in good standing should be entered, and that, hereafter, the Treasurer should receive and collect all monies due the Association.

On motion of Dr. Eames, delegates were appointed to the American Dental Association.

Dr. Eames gave a brief history of Gutta Percha and its use as a substitute for rubber.

Filling teeth was introduced and discussed till the hour of adjournment arrived.

Adjourned to meet in St. Louis at the time of the meeting of the Mississippi Valley Dental Association in March '74.

W. H. EAMES, *Sec'y.*

TENTH ANNUAL MEETING.

St. Louis, Tuesday, March 3, 1874.

Association called to order by the President, Dr. J. A. Price. The following resolution in regard to members in arrears was passed:

Resolved, That any member of this Association, now more than two years in arrears for dues, shall be reinstated to full membership upon the payment of \$5.00 to the Treasurer for such arrears.

A paper entitled, "The Sixth Year Molar," by Dr. F. A. Brewer, was read by the Secretary.

Adjourned to meet in joint session with the *Mississippi Valley Association*, March 4th, at 10 A. M.

Association called to order by the President, Dr. J. A. Price. The following named gentlemen were admitted to membership: Drs. F. T. Grimes, G. W. Goodrich, Geo. N. Hoffman, John J. R. Patrick, W. C. Jocelyn and M. A. Bartleson.

Adjourned to meet Friday, 6th, at 2 P. M.

A. H. FULLER, *Secretary pro tem.*

AFTERNOON SESSION.

Association met and was called to order by the President. Minutes of previous sessions read and approved. Treasurer's report received and adopted. The election of trustees to fill vacancies resulted as follows: Dr. Isaac Forbes, re-elected; Dr. W. F. Griswold, re-elected; Dr. H. Judd, in place of Dr. McCoy; Dr. James A. Price, in place of Dr. Kulp. Election of officers to serve the ensuing year resulted as follows: (See tabulated list.)

St. Louis was selected as the place for holding the Eleventh Annual Meeting, commencing the first Tuesday in June, 1875. Adjourned.

ELEVENTH ANNUAL MEETING.

St. Louis, June 1, 1875.

Association called to order by the President, Dr. C. W. Rivers. Reading of minutes of last session.

The following named gentlemen were elected to membership: Dr. J. C. McCoy, Boonville; I. D. Pearce, Kirksville; J. W. Reed, Macon City; J. W. Whipple, Dr. C. W. Spalding and J. E. Brecht, St. Louis, as active members, and Drs. C. B. Rowland, Alton; H. R. Rutledge, Hillsboro, as honorary members of the Association.

On motion, the name of Dr. F. A. Brewer was changed from the roll of active to that of honorary members. Drs. N. C. Stark, St. Louis, and Joseph Bowman, Shelbyville, were elected active members of the Association.

Adjourned to 2 P. M.

AFTERNOON SESSION.

Association called to order by the President, Dr. C. W. Rivers. Minutes of last meeting read and approved. Topic for discussion "What are the benefits derived from a proper care of Deciduous Teeth?"

Adjourned to meet at 8 P. M.

EVENING SESSION.

Association called to order by the President, Dr. C. W. Rivers. Minutes of last session read and approved. Subject for discussion, "Best Material for Filling Roots," participated in by Drs. Judd, Morrison, Bowman, Park and others.

Adjourned to meet Wednesday, at 2 P. M.

MORNING CALLED SESSION.

Dr. Rivers in the chair. Reading of minutes of last meeting deferred. Dr. Judd read a paper entitled, "Is it worth it?" Next subject: "Rubber as an Irritant to the Tissues of the Mouth; what shall be done with it?" Discussed by most of the members present.

Adjourned to 2 P. M.

AFTERNOON SESSION.

Association called to order by the President, Dr. Rivers. Minutes of last two sessions read and approved. The topic "Celluloid" was taken up and discussed. An election to fill vacancies occurring in the Board of Trustees of the Missouri Dental College resulted in the following gentlemen being elected: Drs. G. V. Black, Edgar Park, G. A. Bowman, W. H. Eames and W. N. Morrison.

Dr. Sol. Horine read a paper entitled, "The Mouth and its Appendanges."

Adjourned to Thursday, 2 P. M.

AFTERNOON SESSION.

Dr. Rivers, President, in the chair. Minutes read and approved.

An election of officers to serve the ensuing year resulted as follows: (Names of officers elected appear in tabulated list.)

Sedalia was selected as the place for holding the next annual meeting in 1876.

On motion of Dr. Judd, the Association voted to pay the Secretary \$25.00 per year for services.

Dr. Patrick read a paper entitled, "Closure of the Jaws."

Treasurer's report read and accepted.

Adjourned to meet at Sedalia on Tuesday, June 6th, 1876.

W. H. EAMES, *Sec'y.*

 TWELFTH ANNUAL MEETING.

Sedalia, Mo., June 6, 1876.

The twelfth annual meeting of the Missouri State Dental Association convened on Tuesday, June 6th, 1876, at Sedalia, Mo. Meeting called to order at 10 A. M. by Dr. S. B. Prevost, President. Reading of minutes of last session dispensed with.

The following gentlemen were elected to membership: J. P. Gray, L. O. Ellis, L. C. Wasson, Samuel A. Milton, A. McCune and W. K. Christian.

Dr. Judd introduced the subject of "Finishing Fillings," which was discussed at some length.

Adjourned to 2 P. M.

AFTERNOON SESSION.

Association called to order by the President. Reading of minutes omitted. The subject of "Finishing Fillings," introduced by Dr. Judd, was discussed by most members present. A paper on "Oral Electricity" was read by Dr. Judd for the author, Dr. Chase. The question of "How should the filling

of a cavity extending under the free margin of the gum be commenced?" was answered by Drs. Judd, Park, Pierce, Bowman and others.

Adjourned.

AFTERNOON SESSION.

President called meeting to order. Minutes of preceding meetings read and approved. Dr. Park, in describing the method he employed in grafting a crown on the root of a lateral incisor, said: "A gold tube, with a screw cut upon the outer surface to which a gold pivot had been fitted, was inserted in the root, after having been prepared by dressing down as much as desired and filling the apex. A rubber tooth was selected and fitted to the root, leaving a space between the crown and the root upon the lingual surface, the dam was applied, the pivot placed in the tube, and the crown adjusted and held in place by gutta-percha. The crown and pivot were then removed and soldered, the pivot to the pins. Two screws were inserted in the lingual wall of the root, the crown replaced in position and attached firmly to the root by building up and restoring the lingual surface of the tooth with cohesive gold. A channel of about one millimetre in width is then made along the margin of the tooth, on the labial surface, with a fissure drill; this channel is then filled, and the filling dressed off completing the operation."

Dr. Bowman read the report furnished by Dr. Chase of the experiments conducted by the "Experimental Club" of St. Louis. Papers were read by Dr. Pierce on "Cylinder Fillings;" Dr. Bowman, on "Filling Roots;" Dr. Eames, on "Absorption." The evening was occupied by public lectures—Drs. Eames and Judd—subject: "The Development and Care of the Teeth."

Adjourned to 2:30 P. M.

AFTERNOON SESSION.

Association called to order by the President. Minutes of previous session read and approved.

On motion of Dr. Milton it was resolved that Sec. 2, of Art.

1, of the By-Laws be changed so as to read: "The vote for membership shall be taken by ballot."

An election to fill vacancies occurring in the Board of Trustees of the Missouri Dental College next followed, resulting in the re-election of Drs. Rivers, Newington, Fuller and Goodrich.

An election of officers to serve the following year resulted as follows: (Names of officers elected appear in tabulated list.)

Treasurer made his report, showing the financial condition of the Association. Total amount of funds in treasury, \$65.85.

Resolved, That the names of all members more than two years in arrears be stricken from the roll of membership unless their dues be paid within six months from date, the Treasurer being instructed to notify all such members.

On motion a committee of three was appointed to draft and present to the Legislature at its next session, a bill regulating the practice of dentistry. Drs. Jas. A. Price, W. H. Eames and S. B. Prevost were appointed committee.

A committee of two were appointed to draft resolutions of respect to the memory of Dr. A. W. Morrison. Drs. Judd and Prevost, committee. Committee reported as follows:

Resolved, That in the death of Dr. A. W. Morrison, this Association has lost an active, useful and energetic member, and we hereby express our sympathy with the friends and relations of the deceased.

Resolved, That a copy of these resolutions be sent to the family of the deceased, and to the Dental Journals.

Adjourned to meet in Kansas City on the first Tuesday in June, 1877.

W. H. EAMES, *Rec. Sec'y.*

THIRTEENTH ANNUAL SESSION,

IN JOINT SESSION WITH

THE KANSAS STATE DENTAL ASSOCIATION.

Kansas City, June 5, 1877.

The Missouri State Dental Association convened in Kansas City, June 5th, 1877 Meeting called to order by Dr. G. A. Bowman, President. Minutes of last session read and approved.

The following were elected members of the Association: Drs. C. B. Hewitt, W. H. Buckley and J. B. D. Worley.

Adjourned to meet at 2 P. M. in joint session.

MORNING SESSION.

Meeting called to order by Dr. Patterson, of the Kansas Association. Dr. Thompson read a paper entitled, "Conservation of Pulpless Teeth."

Adjourned.

EVENING SESSION.

Meeting called to order by the President. The subject of Dr. Thompson's paper was taken up and discussed. A paper on "Dental Alloys," by Dr. H. S. Chase, was read by Dr. Price.

Adjourned.

MORNING SESSION.

Meeting called to order by the President. Dr. Wasson read a paper entitled, "Pulp Capping." A paper on "Dental Education" was next read by J. Campbell.

On motion of Dr. Morrison, the Trustees of the Missouri Dental College were instructed to extend the term of two years as soon as practicable, and make such other changes in the curriculum as they might deem necessary to place the College in the front rank as an educator.

Adjourned to 8 A. M.

MORNING SESSION.

The Association met at 8 A. M. and was called to order by Dr. Bowman, President. Minutes read and approved. The following were elected members: Drs. A. J. Prosser, D. J. McMilien and Alfred Reed.

Resolutions of respect to the memory of Drs. Isaac Comstock and F. D. Fellows adopted.

An election of trustees for the Missouri Dental College to fill vacancies in the Board followed. Drs. Judd, Price and Forbes were elected. Dr. Henry Fisher was elected to fill the vacancy caused by the expired term of Dr. E. H. Gregory.

The committee on Legislative Enactment made their report, which was adopted.

Dr. I. D. Pierce was transferred, by request, from the roll of active to that of honorary members.

The following amendment to the By-Laws was passed :

Resolved, That no member shall speak more than twice on any question or for more than five minutes at a time, without special permission of the Association.

An election of officers resulted as follows : (Names of officers elected appear in tabulated list.)

Sweet Springs was declared the choice of the Association for the next place of meeting.

Adjourned to 8 A. M.

MORNING SESSION.

Convention called to order by the President, Dr. G. A. Bowman. Treasurer's report submitted. The following were appointed essayists for the next annual meeting :

Wasson—Treatment of Exposed Pulp.

Shultze—Treatment of Pulpless Teeth.

D. J. McMillen—Mechanical Dentistry.

W. N. Morrison—Irregularity : Cause and Treatment.

W. H. Eames—Dental Education.

Homer Judd—Dental Literature.

G. A. Bowman—Status of Dentistry.

H. H. Keith—Cleft Palates.

G. V. Black—Microscopy and Histology.

Adjourned to meet at Sweet Springs the first Tuesday in June, 1878.

W. H. EAMES,
Recording Secretary.

FOURTEENTH ANNUAL MEETING.

Sweet Springs, June 4, 1878.

Association convened at Sweet Springs at 10 A. M. Dr. Tindall, President, called the meeting to order.

The following were elected and declared members of the

Association: Drs. J. G. Harper and Christian Mathiason.

A committee to draft resolutions of respect to the memory of Dr. C. W. Rivers was appointed.

Order of business for the following days adopted.

Adjourned.

EVENING SESSION.

Meeting called to order by the President. Minutes of previous meeting read and approved.

The following elected to membership: Dr. J. S. Latord.

The subject of "Irregularity: Cause and Treatment," taken up, and discussed by Drs. Eames, Keith, Fuller, Price, Stevens and others. An interesting discussion on "Pyorrhea Alveolaris, or Rigg's Disease," introduced by Dr. Eames, followed.

Adjourned to meet at 9 A. M.

MORNING SESSION.

Association called to order by the President. Minutes of last meeting read and approved. Dr. J. S. James was elected to membership.

The subject of "Mechanical Dentistry" opened with an essay by Dr. D. J. McMillen. Discussion followed, participated in by most members present.

Adjourned to 7:30 P. M.

EVENING SESSION.

Meeting called to order by the President. Reading of minutes dispensed with.

W. J. Barnett and F. H. Lane were elected members of the Association.

On motion, Section 2 of Article I of By-Laws was amended by striking out the first clause and making the said section read as follows: "A two-thirds affirmative vote shall be necessary to entitle the applicant to membership."

The committee appointed to draft resolutions of respect to the memory of Dr. C. W. Rivers reported as follows:

In Memoriam.

To the Officers and Members of the State Dental Association :

We, your committee—appointed to draft resolutions expressive of the sense of this Association on the death of Dr. C. W. Rivers, would most respectfully offer the following as our report, viz :

Since our last meeting, this Association has sustained an irreparable loss by the death of Dr. C. W. Rivers, who, after a long, lingering and painful illness, departed this life on the 16th day of September, 1877, in Atlanta, Ga. Dr. Rivers was one of the first, and remained a faithful member of this Association until the day of his death. His wise council and genial manner will be most sadly missed. He was a man who loved his profession, and did much to elevate its standard, and was ever ready to lend a helping hand to his professional brothers. He was one of the first Trustees of the Missouri Dental College, and at his death still a member of said board. At one time he was Professor of Operative Dentistry, and Dean of the Faculty of that institution. He leaves a wife and four children to mourn his loss. Therefore, be it

Resolved, That in the death of Dr. C. W. Rivers, this Association has lost one of its oldest and most faithful members ; the church of which he was a member, a most exemplary Christian, his wife and children, a kind, devoted, and loving husband and father. While it is not in our power to do or say anything to soothe their sorrowing hearts, we do most earnestly tender to them the heartfelt sympathies of this Association in their most sad affliction.

Resolved, That the foregoing be spread upon the records of this Association, and the Missouri Dental Journal be requested to publish the same, and the Secretary instructed to forward a copy to the wife of our lamented brother.

JAS. A. PRICE,	}	<i>Committee.</i>
D. J. McMILLEN,		
L. O. ELLIS.		

The subjects of “ Exposed Pulps ” and “ Cleft Palates ” were taken up and discussed.

Adjourned to meet at 9 A. M. Thursday morning.

MORNING SESSION.

President in the chair. Minutes of last two sessions read and approved.

An election for Trustees of the Missouri Dental College followed with the following result: Drs. W. H. Eames, Edgar Park, W. N. Morrison, G. A. Bowman and G. V. Black, re-elected. G. W. Tindall, elected to fill the vacancy caused by the death of Dr. C. W. Rivers. Dr. J. C. McCoy elected to fill the vacancy caused by the resignation of Henry Fisher.

The name of Dr. J. B. Morrison was transferred from the list of active to that of honorary members.

Dr. Price offered the following resolution, which was adopted:

WHEREAS, The Dental Profession in this State has long felt the necessity of a good journal; and,

WHEREAS, Messrs. A. M. Leslie & Co. have taken charge of, and with great care, attention and expense, made the *Missouri Dental Journal* not only first-class, but second to none in the country; therefore, be it—

Resolved, That this Association, fully realizing and appreciating the efforts of Messrs. A. M. Leslie & Co. to furnish a good journal, by which much valuable information is communicated, and the profession enlightened, we therefore recommend it to the profession generally for their support.

The following were elected officers of the Association to serve the following year: (Names of officers appear in tabulated list.)

Treasurer's report submitted.

Adjourned to meet at Sweet Springs, June 3rd, 1879.

W. H. EAMES, *Sec'y*.

FIFTEENTH ANNUAL MEETING.

MORNING SESSION.

President Dr. A. H. Fuller called the meeting to order.

The following were presented and declared elected members of the Association: Drs. W. T. Stark, Charles Hungerford, S. S. Harris and O. A. Jones.

The President, Dr. Fuller, read his annual address.

Dr. Goodrich made some remarks on "Dental Legislation," and called attention to the violation of the Code by members of the Association.

The following amendment to the Constitution was adopted:

Resolved, That Section 2 of Article VI. be amended, as follows: Strike out in first line of said section all after the word "*shall*" to the word "appoint," in third line, so that said section shall read as follows:

SEC. 2. The Executive Committee shall appoint essayists, issue notices of meetings, secure room or place of holding meetings, and such other duties as appertain to this office.

Add a new section to said article, as follows:

SEC. 3. There shall be elected, annually, a Committee of Censors, whose duty it shall be to examine all applicants for membership, and report the result of such examination to the Association.

An essay by Dr. Ottify on "The effect of Arsenic upon the Pulp" was discussed by Drs. Eames and Morrison.

Adjourned to 2 P. M.

AFTERNOON SESSION.

President in the chair. Minutes of previous sessions read and approved.

The name of Dr. Cress was presented for membership.

Drs. Forbes and Judd were transferred from the roll of active to that of honorary membership.

Adjourned to 9 A. M.

MORNING SESSION.

Association called to order by the President. Minutes of previous meeting read and approved.

A paper entitled "Mixed Fillings," by Dr. Prosser, was discussed by Drs. Goodrich, Eames, McMillen, Ellis, Patrick, Spalding, McKellops, McCoy and Hewitt.

Dr. Morrison gave some interesting sketches of his trip around the world.

The Secretary presented specimens of Caulk's "Diamond

Cement;" also a monograph by Dr. C. S. Smith (Celluloid Co.) entitled "Artificial Teeth."

Adjourned to 8 P. M.

EVENING SESSION.

Association called to order by the Vice-President, Dr. Mc-Millen. Minutes of morning session read and approved.

Dr. Thomas Flint was elected a member of the Association.

Dr. J. J. R. Patrick read an essay entitled "Dental Fallacies." Discussed by Dr. Spalding.

A committee of three members was appointed to examine and report the condition of the teeth in the mouths of the colored help about the Springs. Morrison, Fuller, Stark, committee.

Adjourned to 2 P. M.

AFTERNOON SESSION.

Meeting called to order by the President. Minutes of last session read and approved.

Dr. McKellops called attention to the filling of roots with carbolized cat-gut and gutta percha. Desired the profession to make a trial of it.

Dr. Eames read a paper on "Dental Education."

The subject of "Dental Schools" was discussed by most of the members present.

The following were elected members of the Board of Trustees of the Missouri Dental College: Drs. J. C. Goodrich, J. J. R. Patrick, W. G. Eliot, D. D. and C. W. Stevens, M. D.

Adjourned to 8 P. M.

EVENING SESSION.

Meeting called to order by the President. Minutes of last session read and approved.

The following were admitted to membership: Drs. J. Ward Hall and A. Noland.

Treasurer's report submitted, audited and adopted.

The following officers for the ensuing year were elected.

(Names of officers appear in tabulated list.) Sweet Springs declared the choice of the Association for the next place of meeting.

Adjourned to 9:30 A. M.

MORNING SESSION.

Meeting called to order by the President. Minutes of preceding session read and approved.

Dr. McKellops tendered his resignation as a member of the Executive Committee. Resignation accepted. Dr. J. G. Harper was elected to fill vacancy.

Dr. Hall made some remarks on replantation. Discussed by Drs. Goodrich, Keith, McCoy, Eames and Fuller.

Dr. Darby, 1st Vice-President, was installed. Minutes read and approved.

Adjourned to meet at Sweet Springs the first Tuesday in June, 1880.

SIXTEENTH ANNUAL MEETING.

Meeting convened in Sweet Springs Hall, and was called to order by Dr. C. H. Darby, 1st Vice-President.

With a view to carrying out the suggestions of the Secretary, Dr. Price moved that all papers and essays read before this body be regarded as the property of the Association, and be placed in the hands of the Secretary for publication, and that copies or extracts should not be given to any other party for publication, until after their publication in the transactions of the Association. Motion carried.

At the request of Dr. Patrick, a committee of three was appointed to witness some clinical experiments, showing the effect by contact of some of the elements found in the oral cavity, on the constituents of Amalgams. Drs. Darby, Fuller, Harper, McCoy and Hassell, committee.

On motion of Dr. Price, a committee was appointed to revise

the Constitution and By-Laws. Drs. Price, Fuller and McCoy, committee.

Adjourned to 2 P. M.

AFTERNOON SESSION.

President called Association to order. Minutes of morning session read and approved. Committee of Censors reported favorably on names presented for membership, and they were elected members. Drs. James McKee, C. F. Wright, W. N. Conrad, E. N. LeVeine, R. R. Vaughan and J. G. Hollingsworth.

Dr. Hewitt, President, read his annual address.

A committee was appointed to draft resolutions of respect to the memory of Dr. S. S. White. J. A. Price, J. G. Harper, J. F. Hassel, committee.

Dr. Bowman read a paper entitled, "Artistic and Expressional Dentistry."

The use of gold and platinum foil for restoring the contour of teeth and for grinding surface fillings was discussed by most of the members present.

Adjourned to 8 P. M.

EVENING SESSION.

President called meeting to order. Minutes of previous meeting read and approved.

Adjourned to 10 A. M.

MORNING SESSION.

President in the chair. Minutes of previous session read and approved.

Dr. J. C. McCoy offered a resolution as an amendment to the Constitution, Art. IV., establishing two standing committees, named respectively, Publication Committee, consisting of three members, and a Committee on Ethics, of five members. Passed.

Dr. Conrad read an essay entitled, "Anesthetics."

Adjourned to 8 P. M.

EVENING SESSION.

President in the chair. Minutes of previous meeting read and approved.

The following resolution was passed.

Resolved, That it is the sense of the Association that institutions of learning should choose the members of their own "Board of Trustees," and therefore that the filling of vacancies in the Board of Trustees in the Missouri Dental College be and is hereby referred to the College.

The committee to draft resolutions of respect to the memory of Dr. S. S. White, made the following report, which was adopted:

In Memoriam.

To the Officers and Members of the Missouri State Dental Association:

WHEREAS, Death has called from our ranks our beloved friend, Dr. Samuel S. White, who for so many years has been closely identified with the advancement of our profession, and whose name wherever met is ever a practical guarantee of the earnestness of his efforts to lighten our labors and advance our art; and

WHEREAS, We feel that in his death we have lost not only a professional brother, but a man whose nobleness of character, purity of mind, and generosity of hand and heart, should ever make him to be remembered as one worthy of being humbly followed in our lives. Therefore, be it

Resolved, That, by the death of Samuel S. White, this Association and the entire profession has lost one of its most useful and honored members, whose beneficent acts shall ever hold a green place in the memories of his admiring and appreciating brethren, who are left behind to enjoy the fruits of his labors. Be it also

Resolved, That this Association hereby tender his bereaved family its heartfelt sympathies and condolence in this their sad bereavement; and may that God in whom he so implicitly trusted speak peace to their sad hearts in their distress. And be it further

Resolved, That the foregoing be spread upon the minutes of

the Association, a copy sent to the family of the deceased, and the *Dental Cosmos* be requested to publish the same.

J. F. HASSELL, }
 J. G. HARPER, } *Committee.*
 J. A. PRICE, }

Dr. Patrick read his paper, "Oral Electricity and the New Departure," and received a vote of thanks. The paper was placed in hands of the Publishing Committee.

Adjourned to 10 A. M.

MORNING SESSION.

Association called to order by the President. Minutes of last session read and approved. Dr. A. H. Fuller read a paper entitled, "Materials for Filling Teeth." Dr. Milton read a paper on "The Conservation of the Pulp."

Adjourned to 2 P. M.

AFTERNOON SESSION.

Meeting called to order by the President. Minutes of last session read and approved. Sweet Springs was declared the unanimous choice of the Association for the place of the next annual meeting. The following officers were elected to serve for the years of 1880 and 1881: (Names of officers appear in tabulated list.) Treasurer's report submitted, audited and accepted.

Adjourned to meet at Sweet Springs, in June, 1881.

W. H. EAMES, *Recording Secretary.*

SEVENTEENTH ANNUAL MEETING.

Sweet Springs, June 28, 1881.

Association called to order by the President, Dr. J. G. Harper. Minutes of last session read and approved. The following gentlemen answered to roll-call:

Drs. James A. Price, G. A. Bowman, G. W. Tindall, J. W. Meng, R. R. Vaughan, L. O. Ellis, C. Prevost, C. B. Hewitt,

E. N. LaVeine, A. H. Fuller, J. S. Letord, C. H. Darby, W. N. Conrad, O. A. Jones, J. J. R. Patrick, J. G. Harper and W. H. Eames.

Dr. W. N. Conrad presented the name of E. B. Crane, of California, Mo., for membership. The Executive Committee asked for further time to make their report. (Allowed.) Special committee to revise Constitution and By-Laws were granted further time to make their report.

The charge against Dr. H. S. Chase, submitted to the Committee on Ethics, was called up. Dr. Ellis reported that nothing had been done by the committee. As the Committee on Ethics was not present, on motion of Dr. Price, the matter was taken out of the hands of said committee and referred to a special committee, consisting of Drs. Price, Ellis and Meng.

Dr. Eames, chairman of Publishing Committee, made a verbal report, which was received. Dr. Eames, on the part of A. M. Leslie, agreed to publish the transactions of the Association free of charge, and suggested that the offer be accepted, and the transactions published in book form. The suggestions were adopted, including the offer of Mr. A. M. Leslie.

On motion of Dr. Patrick, a vote of thanks was tendered Mr. A. M. Leslie for his generous offer.

The following resolution of Dr. Patrick was passed: That the Secretary (with such assistance as he may deem necessary) furnish the daily press with an abstract of the proceedings of this Association from time to time.

Adjourned to 2 P. M.

AFTERNOON SESSION.

Association called to order by Dr. A. H. Fuller. Minutes of last session read and approved. Dr. J. G. Harper, the President, read his annual address. Dr. Conrad moved that a vote of thanks be tendered the President for the same. (Carried.)

Adjourned to 2:30 P. M.

AFTERNOON SESSION.

Association called to order by the President. Minutes of last session read and approved. Board of Censors reported favor-

ably on the application of E. B. Crane, and recommended his election to membership. On ballot, Dr. E. B. Crane was duly elected. Dr. Bowman being called on, explained, orally and by illustration, his morning clinic, describing his method of performing it. The clinics of Drs. Bowman and Darby were discussed by most of the members present. On motion of Dr. Fuller, Dr. Conrad's paper was made the order of business for the ensuing session. The order of business for Thursday morning was changed to that of clinics.

Adjourned to 8 P. M.

EVENING SESSION.

President in the chair. Minutes of last session read and approved. Communications from Drs. H. S. Chase and J. C. McCoy were read by the Secretary, received and ordered to be placed on file, and the Secretary instructed to convey to Dr. McCoy the regrets of the Association. Dr. Conrad's paper on "Irregularity," being the order of business, was read, and listened to with marked attention.

Adjourned to meet at 2 : 30, Thursday.

AFTERNOON SESSION.

President in the chair. Minutes of last session read and approved. Report of Executive Committee received. Dr. Price reported upon the revision of the Constitution and By-Laws, recommending that the Association proceed to procure a charter. Dr. Goodrich moved that the committee be continued as formed at last session, and instructed to procure a charter and draft by-laws to be presented at next annual meeting. Carried. Dr. J. W. Reed, Mexico, Mo., read a paper entitled, "The New Departure."

Adjourned to meet at 10 A. M.

MORNING SESSION.

President in the chair. Reading of the minutes dispensed with. Dr. Meng moved that a committee be appointed to recommend some student as a beneficiary from this Association

to the Baltimore College of Dentistry—Drs. Stevens, Bowman and Darby, committee. Communications were read from Dr. H. S. Chase, and, on motion of Dr. Goodrich, the report of the committee on the case of Dr. H. S. Chase was ordered to be published, as an explanation of the notice given by the reporter as the action of the Association in this matter.

On motion of Dr. Gray, a committee was appointed to draft a bill for a dental law, to be presented to the Legislature, and to report at the next meeting. Committee—J. P. Gray, G. L. Shephard and L. O. Ellis.

Dr. Latord exhibited a cast gold plate for the consideration and opinion of the Association. Dr. Ellis had cast a plate by the method suggested by Dr. Latord with great satisfaction, the adaptation being very good, and it is being worn with comfort. On motion of Dr. Shephard, Dr. Latord was requested to give a clinic at the next meeting, demonstrating his method of casting gold plates.

Dr. Patrick gave some explanation of a microscopical specimen of a grain of wheat, showing the arrangement of the different constituents.

On ballot, Sweet Springs was selected as the place for holding our next annual meeting, June, 1882.

Adjourned to 2 P. M.

AFTERNOON SESSION.

Association called to order by the President. Minutes of last session read and approved.

On motion of Dr. Fuller, Dr. Patrick's name was transferred from the roll of active to that of honorary membership.

Election of officers for 1881-'82 resulted as follows:

President,	Dr. C. H. DARBY,	St. Joseph, Mo.
1st Vice-President,	" J. W. REED,	Mexico, "
2nd Vice-President,	" D. J. McMILLEN,	Brunswick, "
Recording Secretary,	" W. H. EAMES,	St. Louis, "
Corresponding Sec'y,	" J. G. HARPER,	" "
Treasurer,	" J. A. PRICE,	Weston, "

Executive Committee—L. O. ELLIS, G. L. SHEPHARD, J. P. GRAY, Sedalia.

Board of Censors—G. A. BOWMAN, St. Louis; G. W. TINDALL, Kansas City; C. W. HEWITT, Kansas City.

Committee on Ethics—E. N. LA VEINE, Kansas City; J. C. GOODRICH, Wentzville; B. Q. STEPHENS, Hannibal; R. R. VAUGHAN, Glasgow; J. S. LATORD, Nevada.

Publishing Committee—W. H. EAMES, St. Louis; G. A. BOWMAN, St. Louis; A. H. FULLER, St. Louis.

The Treasurer made the following report:

To the Officers and Members of the Missouri State Dental Association:

GENTLEMEN—I have the honor to submit the following report of monies received and paid out since my last report to date, viz: from 1880 to 1881 (June):

June, 1880, To cash on hand last report.....	\$40.50
June, 1881, Received for dues.....	50.00
Received for fee.....	2.00

Total.....	\$92.50
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Cr.

June, 1880, By amount paid Dr. Eames' salary.....	\$25.00
June, 1881, By amount paid Executive Committee.....	12.00
By amount paid Dr. Eames' postage, etc....	1.50

Total.....	\$38.50
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Balance on hand.....	54.00
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Total.....	\$92.40
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Bills of expenses for clinics, etc., not yet paid.

All of which is respectfully submitted.

J. A. PRICE.

Report approved.

Committee appointed to recommend or name some student as a beneficiary to the Baltimore College selected the name of R. R. Vaughan, Glasgow. Report approved.

Adjourned to meet on the First Tuesday in June, 1882, at Sweet Springs, Missouri.

W. H. EAMES,
Recording Secretary.

Resolutions passed at Sweet Springs by the Missouri State Dental Association, in June, 1878.

WHEREAS, The Missouri State Dental Association has been regally entertained as invited guests by the Sweet Springs Company during its present annual session; and—

WHEREAS, We regard the waters of the “Saratoga of the West” as of great value to the invalid, possessing medicinal properties which render them eminently superior as a correction for indigestion and dyspepsia, and the place, by its pleasant surroundings, fitted for a resort for health and recreation; therefore—

Resolved, That the thanks of this Association are hereby tendered the Sweet Springs Company for their generous and hospitable entertainment, and especially to Messrs. Leslie Marmaduke and Joseph Huckins, for their polite and courteous attention during our stay, making this meeting an occasion to which we shall ever recur with pleasure.

Resolved, That this Association hold its next annual meeting at Sweet Springs, and that we, the attendant members, will use our influence to induce our friends and professional brethren to join with us in a grand reunion in 1879.

Resolved, That a copy of these resolutions be furnished the Sweet Springs Company, and a copy sent to the journals for publication.

JOHN C. McCOY, }
 JAS. A. PRICE, } *Committee.*
 A. H. FULLER. }

EIGHTEENTH ANNUAL MEETING.

Sweet Springs, June 6, 1782.

Association called to order by the President, Dr. C. H. Darby.

The following members answered to roll-call at this meeting :

JAMES A. PRICE,	Weston,	Mo.	G. A. BOWMAN,	St. Louis,	Mo.
FRANKLIN SWOP,	Boonville,	“	J. P. GRAY,	Clinton,	“
GEO. L. SHEPARD,	Sedalia,	“	C. B. HEWITT,	Kansas City,	“
W. H. BUCKLEY,	Kearney,	“	D. J. McMILLEN,	Brunswick,	“
A. J. PROSSER,	St. Louis,	“	A. H. FULLER,	St. Louis,	“
JOHN R. JAMES,	Brownsville,	“	J. S. LETORD,	Nevada,	“
C. W. SPALDING,	St. Louis,	“	C. H. DARBY,	St. Joseph,	“
O. A. JONES,	Aullville,	“	J. J. R. PATRICK,	Belleville,	Ill.
JOHN G. HARPER,	St. Louis,	“	J. F. HASSELL,	Lexington,	Mo.
J. W. MENG,	Lexington,	“	E. N. LA VEINE,	Kansas City,	“
JAS. S. MCKEE,	Brownsvi le,	“	W. N. CONRAD,	St. Louis,	“
W. H. EAMES,	St. Louis,	“	J. REED,	Mexico,	“
J. G. HOLLINGSWORTH,	Kansas City,	“	R. R. VAUGHAN,	Glasgow,	“
B. Q. STEVENS,	Hannibal,	“	EDWARD B. CRANE,	California,	“

During the four days' meeting the following named new members were duly elected and qualified:

JOHN W. PLUMMER,	Fulton,	Mo.	E. E. SHATTUCK,	Kansas City, Mo.
JAS. F. MCWILLIAMS,	Mexico,	"	GEO. P. HOLMES,	St. Louis, "
E. W. STEVENS,	Cameron,	"	B. F. DUNN,	Miami, "
J. W. BURTON,	Gallatin,	"	W. M. CARTER,	Sedalia, "
M. C. MCNAMARA,	St. Louis,	"	S. S. ROWE,	Moberly, "

Reading of minutes of last session dispensed with.

Dr. Shepard, Chairman of Executive Committee, made a verbal report, which was received, and the Doctor requested to make a written report.

Committee of Censors and Committee on Ethics had no report to make. Dr. Eames, Chairman of Publishing Committee, reported verbally, and asked further time, which was granted.

SPECIAL COMMITTEE REPORT.

Dr. Price, Chairman of Committee on Revision of Constitution and By-Laws, made a verbal report, and asked for further time. Granted. Order to report at Wednesday evening session at 8 P. M.

Dr. Gray, Chairman of Legislative Committee, made a verbal report, and on motion, was granted till Thursday afternoon, the report being made the third order of business.

Motion to fill vacancies in Board of Censors, caused by absence of Drs. Tindall and Hewitt was passed, and Drs. Hassell, of Lexington, and Reed, of Macon, appointed.

Dr. Gray suggested a question-box—questions to be read and discussed under head of miscellaneous business at the close of each session. Suggestion adopted.

A communication was read by the Secretary from Dr. W. H. Hoffman, Secretary of Southern Dental Association, which was received and placed on file—action on it being postponed until later in the session.

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Association called to order by the President. Minutes of last session read and approved.

On motion of Dr. Eames, the name of Dr. James, of Booneville, was changed from the roll of active to that of honorary membership. Dr. Darby read his annual address, which was received with a vote of thanks. Discussed and passed.

Dr. Eames made a brief report on the Illinois State Dental Society meeting at Quincy. Dr. Bowman reported a clinic by Dr. Mattison at the same meeting, describing the Doctor's method of putting in a gold crown.

Adjourned to 9 A. M., Wednesday.

MORNING SESSION.

Association called to order by the 1st Vice-President, Dr. Reed; Dr. Conrad, Secretary *pro tem*.

Reading of minutes of last session.

Dr. J. G. Harper read a paper entitled, "Children's Teeth." Paper discussed by several members and passed, and regular order of business was suspended to receive report of the Board of Censors.

A communication was received from Dr. C. Prevost requesting the Association to drop his name from the list of active members. On motion Dr. Prevost's dues were remitted, and his name dropped from the roll.

Dr. Conrad read his essay entitled, "Mercury and its Effects upon the Teeth." A lively discussion followed to the hour of adjournment.

Adjourned to meet at 2 P. M.

AFTERNOON SESSION.

Association called to order by the President, Dr. Darby. Minutes of last session read and approved.

On motion, Dr. James' dues to the Association were remitted.

Dr. Letord, being called upon to explain his method of casting gold plates, said he had nothing to offer on the subject at this time, but expected at some future meeting to give a demonstration of it before the Association.

On motion, the subject of Dr. Conrad's paper was passed.

On motion, the order of business referring to the reading of

essays was changed so as to have the reading of Dr. T. C. Conrad's paper on "Tumors of the Oral Cavity" next in order. Paper read by Dr. W. N. Conrad. Passed without discussion. A vote of thanks was tendered the author, and Dr. W. N. Conrad instructed to convey the same to his brother.

Dr. Patrick's paper, "Irregularity of the Teeth," was read, and his appliances for correcting such cases were exhibited.

On motion the subject was passed, and a vote of thanks tendered Dr. Patrick for his very able paper.

Adjourned to 8 P. M.

EVENING SESSION.

Association called to order by the President. Minutes of last session read and approved.

Report of Committee on Revision of Constitution and By-Laws was read by the Secretary and accepted.

On motion the amendments recommended in the report were taken up, *seriatum*, and adopted.*

Resolved, That Art. IX of the Constitution stand as it is until a new code of ethics be adopted by this Association, and that a committee consisting of three members be appointed to make a revision of the Code, to report at the next annual meeting. Adopted.

Adjourned to meet at 9 A. M., for clinics and for an afternoon session at 2 P. M.

AFTERNOON SESSION.

Association called to order by the President. Minutes of the last session read and approved.

The revision of the Code was referred to the Committee on the revision of the Constitution.

Dr. Eames made a report on the publication of proceedings of the Association and suggested that the proceedings of the present session be published with those now in print.

On motion the matter was referred to the Publication Committee.

Dr. Conrad explained his method of putting in a porcelain crown.

*See Constitution and By-Laws.

Dr. Hassell's paper being next in order, was read by the author and discussed by several members.

Dr. Price made a supplementary report of Committee on Revision of Constitution and By-Laws.*

Dr. Reed's paper being next in order was read by the author.

On motion the report of the Legislative Committee was made by Dr. Gray. Report accepted and adopted.

On motion Dr. Spalding was placed on the committee to fill the vacancy occasioned by the removal of Dr. Ellis from the State.

EVENING SESSION.

Association called to order by the President. Reading of minutes of last session dispensed with.

Dr. Patrick read a very interesting paper. He also explained his method of putting on a gold crown at the morning's clinics.

Adjourned to 9 A. M., Friday.

MORNING SESSION.

Association called to order by the President. Minutes of last two sessions read, amended and approved.

On motion the sum of fifty dollars was donated by the Association towards defraying the expenses of sending a committee to examine the Archilogical Cabinets of this country as proposed by the Illinois Dental Society.

The Secretary read a paper by Dr. Fuller, entitled "Progress of Dentistry." Paper received with a vote of thanks.

Dr. Bowman described a new method of holding the rubber dam by means of a rubber ring, suggested by Dr. Swazey, of Chicago.

Selection of place of holding next annual meeting being in order, Sweet Springs received the unanimous vote of the Association.

On motion it was decided to convene for the next annual meeting, Tuesday, July 11, 1883.

Election of officers for 1883. (See tabulated list.)

AFTERNOON SESSION.

Association called to order by the President. Minutes of the morning session read and approved. Drs. Spalding, Conrad, Hewitt, McNamara and McMillen were appointed dele-

*See Constitution.

gates to the American Dental Association. The Executive Committee were instructed to fill blanks for other members to fill vacancies.

REPORT OF EXECUTIVE COMMITTEE.

Mr. President, and Gentlemen of the Missouri State Dental Association:

Your Executive Committee respectfully submit to your consideration the following report:

When your committee were elected they unanimously resolved that the work intrusted to them should be punctually and faithfully performed, and to further this end monthly meetings of the committee were decided upon, and carried out with considerable regularity, until the loss of their chairman, Dr. L. O. Ellis, whose removal from the State rendered a change of plan necessary.

Then, no member of the Association seeming available as a substitute, and the members of your committee being called upon to serve both as an Executive and a Legislative Committee, they decided that a division of labor was desirable, and the work of one committee was assigned to one member and of the other committee to the other member, each helping the other as occasion required.

The Executive Committee, about February 15th, issued circulars announcing such facts as then could be ascertained regarding the next meeting; also a list of subjects for essays and postal cards with printed questions for the assistance of the members, trusting that by this means the materials for a programme would be speedily available.

The result did not meet their expectations, the end of the first month finding less than one-fourth the number of cards sent out returned to the committee. A second urgent appeal brought a response from another fourth, while a few were returned too late to be of use in preparing the programme. Your committee deemed it advisable to further test the plans introduced last year of appointing a Supervisor of Clinics. Accordingly, Dr. Jas. A. Price was selected, and to his hands committed full power to select operators and patients.

About May 1st the programme was prepared, and six hun-

dred copies printed, four hundred being mailed to the members of the profession in this State, and about fifty copies to dentists in the adjoining States of Illinois, Iowa, Nebraska and Kansas.

In reviewing the proceedings of this, the eighteenth meeting of our association, your committee desire to return their sincere thanks, first to those members who have by prompt and hearty response to letters of invitation and inquiry, rendered valuable assistance in preparing for this meeting. Second, to those who have shown the results of their labors in the interesting papers which have been read in your hearing, and lastly to all, who by your presence and spirit of harmony which you have manifested have made this a pleasant and most profitable meeting.

Your committee would warmly commend the plan adopted by the supervisor of clinics of appointing a committee to examine operations performed at previous sessions of the association and would recommend its continuance. They would also suggest that provision be made in the future, for a better supply of operating chairs, or the use of movable head rests so that a much larger number of clinical operators be employed.

They would emphasize the necessity of each operator coming prepared with his own instruments, thereby much embarrassment may be avoided.

They also introduce the plan of making the question box a feature of our meetings, with the hope and expectation that it will prove a means of affording information to many, who may be reluctant to avail themselves of the privilege of speaking upon the same subject.

Your committee have incurred the following items of expense in the performance of their duties which they desire the Treasurer to be instructed to pay.

Printing 100 copies, circulars, postals, etc.....	\$ 3.00
“ 600 “ programme	10.00
Postage stamps and postal cards.....	7.00
Printing Delegates certificates.....	2.25
Stationery.....	1.75

Total.....\$24.00

Respectfully submitted,

G. L. SHEPARD, }
J. P. GRAY, } *Ex Com.*

REPORT OF LEGISLATIVE COMMITTEE.

Mr. President and members of the Missouri State Dental Association.

Your committee beg leave to submit the following report: At the first meeting of the committee held Tuesday, August 2, 1881, it was decided to ascertain if possible the good and also the weak points of the various laws regulating the practice of dentistry in the different States, where said laws have been enacted. To this end correspondence was opened with many prominent dentists among whom we mention the following: Prof. Jas. A. Taft and H. A. Smith of Cincinnati, Ohio; Prof. F. J. S. Gorgas, Baltimore, Md.; Prof. Frank Abbot, New York; Dr. G. W. Klump, Penn.; J. E. Cravens and T. C. Eddelman, Ind.; Drs. Edgar Noyes and George H. Cushing of Ill.; Dr. E. L. Clark of Iowa, and Albion M. Dudley of Mass., from whom many valuable suggestions were received. The general opinion was expressed that the bill herewith annexed, is superior to any dental law now in operation.

Your committee therefore recomend that said bill with such modifications as you may deem advisable, be presented to the next Legislature and the united effort of the profession throughout the State be solicited to secure its passage. All of which is respectfully submitted,

J. P. GRAY, }
G. L. SHEPARD. } *Committee.*

AN ACT TO REGULATE THE PRACTICE OF DENTISTRY IN THE
STATE OF MISSOURI.

Be it enacted by the General Assembly of the State of Missouri as follows:

SECTION I. It shall be unlawful, for any person to practice Dentistry or Dental Surgery for a fee or reward in this State, without first having received a diploma from a reputable Dental College, or the Dental department of a University duly incorporated or established under the laws of the State or country in which the said College or University is situated; Provided,

That nothing in section 1 of this act shall apply to any bona fide practitioner of Dentistry or Dental Surgery in this State, at the time of the passage of the act; and provided that nothing in this act shall be so construed as to prevent physicians, surgeons or others from extracting teeth.

SEC. 2. Every person who shall hereafter engage in the practice of Dentistry or Dental Surgery, in this State, shall file a copy of his or her diploma with the clerk of the county court, in the county in which he or she resides, and in the city of St. Louis with the city register, which copy of diploma shall be sworn to, by the party filing the same and said clerk shall give a certificate to the party filing the same with the seal of the court attached thereto, and shall file and register the name of the person, the date of filing and the nature of the instrument in a book to be kept by him for that purpose; and as a compensation for his services; the said clerk for filing and registering the same shall receive a fee of one dollar to be paid by the person filing the same.

SEC. 3. Every bona fide practitioner of Dentistry or Dental Surgery residing in this State at the time of the passage of this act and desiring to continue the same, shall file an affidavit of the facts with said clerk of said county court, or with the city register, and the said clerk shall register the name of and give a certificate to, the party filing the affidavit in like manner and of like effect, as hereinbefore provided; and said party, filing said affidavit, shall pay said clerk a like fee of one dollar for his services.

SEC. 4. All certificates issued under the provisions of this act, shall be *prima facie* evidence of the right of the holder to practice under this act, which right it shall be incumbent on the holder to prove, in all prosecutions under the same.

SEC. 5. Any person violating the provisions of this act, shall be guilty of a misdemeanor, and upon conviction shall be fined in any sum not less than ten dollars nor more than one hundred dollars for each offence, and all fines so collected, shall belong to and be paid into the common school fund of the county where assessed.*

*The bill passed the Legislature at its last session and is now the law of Missouri.

The report of the Treasurer was submitted to the Executive Committee, amended and approved.

TREASURER'S REPORT.

To the officers and members of the Missouri State Dental Association.

I have the honor to submit the following report of monies, received and expended during the fiscal year, viz :

Dr.

July 1st, 1881, To balance on hand.....	\$ 54.00
June 9th, 1882, To cash received for fees.....	16.00
June 9th, 1882, To cash received for dues.....	46.00
	<hr/>
Total receipts.....	\$116.00

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July 1st, 1881, By cash paid Executive Committee for clinics.....	\$ 4.50
June 9th, 1882, By cash paid printing receipts, etc....	5.00
Postage, etc.....	1.75
Executive Committee clinics, etc.....	1.50
Executive Committee bill.....	24.00
Dr. Eames bill,.....	3.00
Dr. Eames' salary.....	25.00
	<hr/>
Total paid out.....	\$ 64.75
Balance on hand.....	\$ 51.25

Respectfully submitted,

\$116.00

JAS. A. PRICE, *Treasurer.*

Drs. Bowman and Hewitt, conducted the President elect Dr. J. W. Reed, to the chair.

Dr. Jas. A. Price was elected Supervisor of Clinics. A vote of thanks was tendered the Executive Committee for the very able manner in which they had performed their duties during the past year. Adjourned to meet at Sweet Springs, July 11th A. D., 1883.

W. H. EAMES, *Recording Secretary.*

VALEDICTORY ADDRESS.

BY H. J. MCKELLOPS, D. D. S.,

First President of the Missouri Dental Association.

READ JUNE 7th, 1866.

Gentlemen:—In retiring from the honorable position to which I have been elevated by my colleagues of the Missouri Dental Association, I feel it a pleasing duty to address you a few words in reference to the position, advancement and progress of Dentistry in relation to the social scale.

In an address of this kind, I do not propose to make it an opportunity of saying anything new, but to offer some general remarks upon the relation that Dentistry holds to society at large, in order that we may more clearly appreciate the character and extent of that useful mission in which we have all embarked.

A few years ago, and within the memory of many of us, the science of Dentistry was wholly unknown; and it occupied neither position nor status in the world of medical progress, and was considered a mere appendage of questionable value in the life of the professional man. Since then, step by step, it has advanced, gathering strength by every movement, until now, it justly claims a position, ennobled by the practical applications and vivifying influences of those who have labored for its advancement.

Much has been done, and much more remains to be accomplished, before our art shall have reached that degree of perfection which awaits patient and progressive research in the unexplored fields of experimental philosophy.

To discharge conscientiously the implied contract entered into with our patients, to effect the most perfect specimen of our handicraft, is nothing more than is expected in *every* commercial transaction.

If nothing more than this were done, Dentistry would hardly

rise above the level of the numerous trades and callings of life. But it has gained an honorable position in the profession of medicine and surgery, by the aid of those illustrious men who have devoted energy, industry, and perseverance to its development as a science.

It should be our aim and ambition, then, to perfect the possession of that inheritance which the genius, the philanthropy and the devoted industry of others have accumulated, and not content ourselves with merely performing a piece of artistic workmanship.

It should be a special object of the members of this society to still further augment the sphere of its usefulness, and by acquiring an intimate knowledge of physical and biological science which truly belongs to the domain of odontologic art.

It is the study and application of the laws and principles that govern matter, and the influences they exert upon the vital organism, that marks the advancement of medicine as a science, and which equally pertains to the department of Dentistry, a distinctive branch of the profession. If we begin to study the phenomena and laws of life in man, we shall soon be irresistably attracted to extend our observations to the successive orders of creation, and so on down to the lowest type of animated matter. As we advance in this study, the beauty, harmony and correlation of organic and inorganic forces open up to our vision. We see the adaptation of those mysterious principles in the vegetable and mineral kingdoms so potent in the consulting room and laboratory, and the knowledge of each plant or mineral becomes more perfectly understood by the multiplying beams of intelligence reflected at every step.

As lovers of our art, let it be our chief pleasure to elevate it, year by year, until it shall have occupied a position prominent among the most dignified specialties in the medical profession. This is to be effected, not merely by the aid of mechanical skill in remedying deformity and relieving suffering, but in applying the principles of biology and physical science to the prevention of disease, preservation of the teeth, rather than their destruction by mechanical agents.

Our object should be to comprehend the effort that nature is making in combating the adverse influences under which she is laboring. Let us seek to aid her in the conflict, observing and following her laws that we may minister to her short-comings. If we deviate from this path; if losing sight of the beacon of observation, we chase the *ignis fatuus* of speculation, we shall just so surely miss our aim, and fail to benefit our patient. He who would minister to nature must learn to interpret her. It is by the exercise of this prerogative that the educated and accomplished dentist excels the mere mechanic, whose chief merit consists not in preserving the teeth, but in making close imitations.

Besides the channels of investigation just pointed out, the successful practitioner of dentistry is required not only to understand the anatomical construction of the teeth, and whatever pertains to their growth, position and relation to other parts of the mouth, but he should continue his research into what constitutes the domain of Physiology—a research which carries its investigations in quest of analogies and illustrations into the widest latitudes of the animal and vegetable kingdoms, as well as into the most minute inspection of the structures, the functions and the attributes of their several productions.

In the practice of Dental Surgery a profound knowledge of the anatomy of all the parts contained within the buccal cavity is absolutely necessary to success. Anatomy is also the foundation of the diagnosis of diseases that fall under the observation and treatment of the dentist. It demonstrates the normal condition of structures in health, and supplies the means of comparison in the study of Dental Pathology. Neither anatomy nor any power of ocular investigation, however accurately it may be conducted, can enable the dentist to obtain a correct knowledge of the constituent formations of the teeth and modifications they undergo in their alveoli. These things must be learned through the aid of a microscope, and this adds another auxiliary branch of investigation to the perfection of Dentistry as a science.

The art of Dentistry, then, comprehends a perfect knowledge

of Anatomy, Physiology, Pathology, the continual use of the microscope and an understanding of the laws and principles that pertain to biological and physical science. Let each one of us learn as much of them as we can, always bearing in mind the great object for which they are studied, and never neglecting the purpose to which they are to be applied. We should remember that Dentistry, as a science, was founded and raised upon the natural sciences. All that is beyond a mere empirical art it owes to its dependence upon, and its association with these. It would be difficult to find any one in our ranks who has attained great eminence in the dental art, or who, by his writings and precepts has advanced our knowledge in the treatment of diseased teeth, or other parts within the mouth, who did not lay the foundation of his successes in the distinction which he earned by his researches in the natural sciences.

We have met here to-day to furnish our quota towards the advancement of our profession, and its elevation among the liberal and learned professions. It is the animus that stimulates our energies, and the energies of all those who truly love their calling. We come here to labor for its continued prosperity, and to communicate whatever of interest we may have learned since the last session of this society. We come here imbued with the spirit of progress, and to lay before our professional brethren our views and observations on those subjects most calculated to improve and instruct them, and benefit our patrons. Let all participate in the deliberation of the session and whatever of surgical or mechanical interest may have been learned during the past year, let it be given to the society, for the honor of the profession and for the benefit of suffering humanity. If any improvement in Mechanical Dentistry has been made or new operations devised, let the inventor be induced to spread it upon the records of the society and receive the meed of praise due him in contributing his share towards the elevation of his chosen profession. The selfish and empirical fashion of secreting improvements, of whatever nature, pertaining to our calling, for the sake of individual aggrandizement, is unworthy the fellowship of honorable men, and must, sooner or later, re-

coil in shame and odium upon its author. It is to be hoped that such members of our society are, like "angels' visits, few and far between." Let me invoke the profession in Missouri to enter their protest against acts so derogatory to our high calling as benefactors of the human family, and let me impress upon them the necessity of instructing their delegates to the National Convention to guard well the portals of the profession and shut out such harpies from all deliberation and association in such assemblage.

Finally, gentlemen, let me call your attention to the importance of aiding, with your money and influence, our only educational institution in the west. I refer to the Ohio Dental College, which is doing a good work in extending the usefulness of the profession and advancing its importance in the social scale.

In conclusion, permit me to thank you for the honor conferred upon me in selecting me as your presiding officer for the past year, and the zeal and interest you have manifested in keeping our science "pure and spotless in the world."

ANNUAL ADDRESS

BY JOHN G. HARPER, D. D. S.

President of Missouri State Dental Association.

Gentlemen and Members of the Missouri State Dental Association:

It becomes my duty to address you upon this occasion. We as members of the dental profession come together at this time to exchange ideas and give them fully to our brothers. It is to be hoped that each and every member now present has advanced a few paces in his chosen calling since last we met. If such is not the case, he is behind the times, for the simple reason that the profession of dentistry is on the forward march, and all laggards will find themselves far in the rear.

To-day we are better able to save the natural organs of masti-

cation than we were a very few years ago. At this time we do not condemn a tooth, even should there be nothing left of it except the healthy root. But we do not have to go back very far in the history of dentistry to see aching teeth pronounced as fit only for extraction. We are better prepared to replace the loss of the natural teeth, by means of artificial ones, making dentures more nearly resembling those lost, than could be done a few years ago. The old rule in making artificial plates was to exercise care not to change the surface of the model; now we use a little brains and art to build up and shave down, in order to relieve too great pressure on hard parts, or procure greater pressure on soft localities. We can all remember our experience in learning to finish up celluloid or rubber plates. This now is a thing of the past, for we are enabled to bring forth our work from the flask of the proper thickness, and with the desired polish, except on the margins.

Every year's practice gives us opportunities by which we may judge what is the best practice to pursue in any given case. Our failures teach us what not to do, and our successes what is the best course to follow. Let us look to some of our failures to advance the standard of our members, and bring into our society those of whom we hope to be proud.

I wish to refer to the qualifications of applicants for membership. At our meetings each year are presented the names of parties who go before the Committee on Membership, and are recommended as worthy of recognition by this Association, Let us look at the result of this policy. The new member returns to his friends and announces to them that he is a member of the Missouri State Dental Association, therefore worthy of their esteem and patronage. He perhaps has reached perfection in the eyes of the community, he sees no use in attending a Dental College, and we may never see him again at our meetings.

At the last meeting of the Iowa State Dental Association, this same subject was up for discussion. I can set forth some of my views by borrowing from their proceedings.

Dr. Dickinson, President of the society, says: "First of

all, it seems to me that one who would be a respectable member of a respectable profession, must be possessed of a sterling character, which comprises all the qualities of honesty, uprightness and trustworthiness; he should also have a good education, an unsatisfiedness with present attainments, a love for study, with a determined purpose to excel, sound judgment, nerve, a kind heart and gentle hand; and last, but by no means least, it is absolutely essential to have mechanical taste and ingenuity."

"The time is approaching when to receive recognition as a professional man, one must be possessed with the knowledge to entitle him to such recognition; and I think the time *now is* when the standard of recognition should be much higher than it has been heretofore. With the college for special education, that now call for co-operation and support the old methods of office studentship and teaching can hardly be apologized for. * * * The Committee on Membership should perform their duties without fear or favor, recommending only such as earn their right to membership. Then will it be an honor to be passed by them, and the incentive will be greater to all who look forward to association with us in our organized capacity."

I am not finding fault with the committee on examinations, but I do oppose the policy of taking in men for the purpose of elevating them. Our Association is not a Dental College. We are glad to have students and others attend our meetings and learn all they can; but they should first graduate, then they can present themselves for membership. If the committee deem them worthy of recognition, let us take them into the fold. A diploma should not be sufficient recommendation, as some of the worst characters hold degrees from reputable schools.

At the proper time I shall offer an amendment to the constitution, requiring a diploma from a reputable college as one of the qualifications for admission to this Association. During the last meeting of the law-makers of this State a bill was prepared, and, no doubt, would have become a law had it been presented, which required a diploma as a qualification to prac

tice dentistry in Missouri. Gentlemen, I ask you, as a member of this Association, to be consistent and require a diploma as one of the qualifications for admission into this society.

We can take another forward step by refusing to take into our offices students, and compel them to come into the profession by going through a dental college where they will have the advantage of the teaching of a number of professional men, and not be tied down to the narrow limits of one man's experience. The members who are in the habit of attending dental meetings, and who read our dental journals, know the advantages to be derived from the experience and observations of a number of studious practitioners. The time for a dental student to enter a practitioner's office to pursue the study of his chosen profession is after he graduates; then, if he can spend a year or two with a good dentist, he will be greatly benefited by the post-graduate private instructions.

Our mission is to keep the oral cavity in a healthy condition, and in order to do so the general system must also be in a normal state. Now, in order to eradicate any pathological disturbances, the dentist must understand the treatment of such pathological conditions, and this leads into general medicine; and I contend that the dentist should be able to combat constitutional disorders, to a degree, the same as the oculist, aurist, the surgeon, and so on through the whole list of specialties. Let us look a moment at the course any of the specialists take to prepare themselves for the practice of their specialty.

First, they take up general medicine, and, after graduating, pursue studies upon a special branch.

The dental student has the advantage in having dental colleges, into which he can step, and there, under a full corps of teachers, pursue his chosen branch of the healing art. Dentistry has advanced so far that it now seems necessary for the above course to be pursued, and we have no *right* to call ourselves medical specialists until we pursue the same course as the surgeon, the oculist, and others who pursue the practice of a special branch of medicine.

The signs of the times indicate that the leading minds in

medicine desire to make dentistry a specialty of medicine. The sign may be seen by reviewing the action of the American Medical Association for 1881.

During the first and second days of the session the matter was talked over by such prominent members of the profession as Prof. Gross, of Philadelphia; Davis, of Chicago; Sayer, of New York; Dunster, of Ann Arbor; Stone, of St. Paul, and others.

Without exception, the suggestion met with most cordial approval, and all the assistance which they could render was generously proffered.

On the third morning of the session, just after the reading of the minutes, Prof. Gross stepped upon the platform, and, in his usual impressive manner, moved for the suspension of the regular order of business, "with a view," as he said, "of offering an amendment to one of the by-laws, contemplating the formation of a new section, to be known as the Section on Dentistry." In support of this amendment, Prof. Gross said:

"When we consider, Mr. President, the value of dentistry, and the fact that it is universally regarded as one of the necessities of civilized life, it is surprising that such a section was not established long ago.

"Dentistry is the oldest of all the specialties. It has been practiced from time immemorial, and in modern times has acquired a degree of importance not exceeded by any one branch of the healing art. There are, at this moment, not fewer than fourteen or fifteen dental colleges in the United States alone, and thousands of educated dentists in the enjoyment of a successful practice. Dentistry has a copious literature; many journals are published in its interest, and numerous associations attest the ties by which its members are cemented together. If these things be true—and I vouch for their accuracy—it is, it seems to me, eminently proper that this Association should, without delay, form a section such as is contemplated by my motion. The Association has long had a section on ophthalmology, one on otology, and one on larynthology; and surely if these specialties are entitled to such a distinction,

it is not difficult to find reasons for placing dentistry upon a similar footing. Every man, woman and child in the civilized world requires the services of the dentist; whereas, comparatively few persons require the services of the oculist, the aurist or the larynthologist.

“The claims of Dentistry, when properly practiced, to an elevated professional status, are everywhere recognized, while the social status of the dentist is steadily progressive. If Dentistry was once an art, it is now an art and a science—practiced in all enlightened communities by educated and refined men. I hope, therefore, that the sanction of the house will be given to my motion.”

Professor Sayer, of New York, also being upon the platform, arose and said: “This motion meets with my cordial approval, and I second it with all my heart.”

Professor Davis, of Chicago, also seconded the motion in the following very appropriate remarks: “Oral or dental surgery is as much a legitimate department of medicine as ophthalmology, otology or gynecology, and as there are at present enough members of the Association who are practicing Dentistry to commence a good section, I hope the proposition to create one will be cordially sustained by the Association. Its practical effect will be to increase the number of fully educated dentists, and, by bringing them into closer relation with the great body of the profession, greatly advance the mutual interests of all parties.”

The motion being warmly urged by these veteran members of the profession, and Ex-Presidents of the Association, it was adopted without a dissenting vote. * * * “Thus, it will be seen that the long hoped for but never expected recognition of the treatment of the teeth, and the diseases incident thereto, as a special department in medical practice has been established by the assembled representatives of the medical profession in the United States. And in future all practitioners of dental surgery holding a medical degree, will, with proper credentials, be admitted to membership in the American Medical Association, upon an equal footing with the practitioners of any other

department of medicine. Thus the year of 1881 marks an important era in the history of Dentistry.”*

In conclusion, let me wish each member a happy and profitable experience, at this Seventeenth Annual Meeting of the Missouri State Dental Association, and many returns of the same, for these gatherings are of incalculable value in the interchange of thought and experience. “In Union there is Strength.” Therefore we have banded ourselves together in a common brotherhood, feeling that there is in every brother “a willing heart and helping hand to bear the cross in the cause in which we are engaged.”

It is a means to stimulate us to higher attainments in professional excellence, and aid us to simplify and make more skillful and effective the operations we are called upon to perform.

Let us congratulate ourselves that we are able to meet at this time an unbroken band. The grim gleaner has not touched our ranks since last we met. Gentlemen, I have now set the ball rolling, and invite you to carry out the programme which the Executive Committee has placed before you.

Sweet Springs, Mo., June 28th, 1881.

NEW DEPARTURE.

J. W. REED, D. D. S., MEXICO, MO.

Read June, 1881, before the Missouri State Dental Association, at Sweet Springs, Saline County, Mo.

Mr. President and Gentlemen of the Missouri State Dental Association:

My reasons for consenting to present a paper upon the subject, “New Departure,” are not that I have anything new or startling to offer, but being prompted by the conviction that if we make our meetings interesting and profitable, we should not one wait for another, but every one add his mite, be it ever so small. It is by the interchange of thought in these meetings that more

*Missouri Dental Journal.

light is thrown about our pathway, and the brighter the light, the plainer are our duties made.

The profession of Dentistry, I am proud to say, is day by day growing brighter and brighter, rising higher and higher up the scale among the learned and scientific professions. It can be no longer charged that we are a selfish, secret-loving fraternity. All things of value known to the profession are now common, and we pursue our labor of love with that spirit that should actuate every profession.

All of our investigations should be thorough and impartial, so that the very best known methods and materials may be selected by us for the preservation of the teeth. Men prominent in the profession differ widely as to the best system of practice. One will tell you that gold is the only material that should be used; that any tooth that can be saved at all can be saved as well with gold as any other material.

Another (the New Departure Doctrine:) "That in proportion as teeth need filling, gold is the worst material to use;" "that a filling may be the best known for the tooth and yet leak badly."

My observation and experience teach me that both are in error. Whilst I believe that gold is the best material yet known to the profession for the preservation of the great majority of the teeth, and feel that it is my duty, with earnestness, to set forth its superiority and excellencies above all other materials, I am not willing to admit that every tooth can be saved as well with gold as with some of the plastic fillings.

As to the other two above-mentioned declarations, I should not deem them worthy of notice had they not emanated from men hitherto prominent in the profession.

How, in this day of light and reason, in the face of the myriads of witnesses that have stood the test of time for thirty, forty and fifty years, any observing mind can believe that in proportion as teeth need filling gold is the worst material to use, is a *mystery I cannot solve*. That a filling may be the best known for the tooth, and yet leak badly is absurd. You all know that a leaky filling is often worse than no filling at all. Such asser-

tions as these, and others now being advocated by the so-called New Departure, have a hurtful influence upon the young and inexperienced in the profession.

Too much stress cannot be put upon the importance of making fillings that will not leak.

It is from that lack of care to make moisture-tight fillings that nine-tenths of our failures originate. Let, therefore, no labor nor care deter us from thorough work in this direction, and the saving of more teeth will be our reward. The sluggard and bungler in due time will be found out, and find abundant rest for his soul.

Some men condemn gold on account of lack of manipulative ability; others on account of pure laziness; others because they must have some hobby to ride. But the practitioner who can lose sight of that system of practice which will put the greatest number of dollars in his pocket, and who has a desire in his heart to do for his patrons the very best service, and has liberality and impartiality enough in his soul to apply the old maxim, "Prove all things, and hold fast to that which is good," is the man who will do the greatest service, and be honored and loved by his patrons.

Let us be conservative; the truth is not all on one side.

Dr. Patrick says: "When an individual, either by bad counsel or false economy, has been subjected to mercurial or amalgam treatment for diseased teeth, we find that fifty parts of the mercury out of sixty used in forming the amalgam is vaporized by the heat of the body in a few years and taken into the system in small but regular quantities." If this be true, my teaching has been false. My teaching has been, and I believe it to be true, that a higher degree of heat than that of the body is required to vaporize mercury. If Dr. Patrick's theory were true, one-half of the population of Missouri would be slobbering from the effects of Ptyalism. I have given about one-third of my life to the practice of dentistry, and have never yet met with a single case approaching salivation that could be traced directly to amalgam used in filling teeth. But I am not here to praise amalgam. I am a gold advocate wherever the vital energies and the pocket book of my patients are not at fault.

We must have regard for the vital energies of poor, suffering humanity that falls into our hands. Where hours of torture can be saved to a weak, nervous patient, and good service rendered, in the name of mercy do it, remembering that a heaven awaits a dentist who deals honestly, kindly and tenderly toward his patients. In the middle of the current is the greatest safety.

One faction ascribes all failures to imperfect manipulation; another to incompatibility of the material used with tooth bone. The fact is, neither are correct. The Creator made teeth that will decay, and must be sacrificed to the merciless steel, just as he created man with disease that all the skill of the medical world fails to cure. We have arrived no nearer the point of saving all teeth than has the physician of curing all diseases. But let not this fact put a check to our efforts for greater attainments. Teach the people that if they would derive the greatest benefit from our services, they must co-operate with us, keep their teeth clean and in perfect order, without which our most exhaustive and pains-taking efforts must prove failures.

IRREGULARITY OF THE TEETH.

BY WM. N. CONRAD, D. D. S., ST. LOUIS.

Read before the Missouri State Dental Association, June, 1881.

In the developement and growth of the human body, there occurs numerous deviations from the normal standard, and in no other part or organ do we find such a variety of interesting anomalies as in the teeth of the human being.

If you ask me which of the two sets of teeth are the most liable to, or show the greatest number of these strange peculiarities, I should say without hesitation, the permanent set.

It is a subject the dental practitioner should be thoroughly informed upon, as it becomes his duty to correct such troubles, and if not to correct, at least to give advice how to prevent so far as possible these anomalies.

It has been said by a regular member of our profession in the City of St. Louis, that the subject of irregularity had been exhausted when Norman W. Kingsley wrote his paper on "The Cause of Irregularity in the Development of the Teeth.

Now last summer I received such a variety of opinions upon a case of irregularity that I come to this conclusion, if the dental profession, or any other profession, art or science, arrived at that state of perfection, through the medium of one person, then we had obtained the millenium of our desires—that is, perfection—and it is high time for us to seek that undiscovered country, "where the dentist ceases from troubling, and the patients are at rest."

There is no department in our practice which gives so much vexation as regulating teeth. The unsatisfactory results of the usual methods employed is like a mill-stone hung round the neck of those who attempt to cope with the intricacies of this special kind of practice. Then the want of appreciation on the part of the patient adds to the discomfiture from a monetary point of view, the remuneration being always inadequate, when compared with the amount of labor and thought expended upon a given case.

The best classification is that made by Wedl. It is irregularity in *size, number, arrangement, position and structure.*

Irregularity in size is a great disfigurement. It is seldom presented in more than two or three of the teeth, usually the central incisors. Sometimes they are very large, while the laterals are as small in proportion, as the centrals are large. Then again the teeth may be small or large compared with the size of the maxilla.

Irregularity in *number.* J. Tomes asserts that the excess of the normal number is more common than a deficiency, but this in practice will not be found to be the case. The proper number may be present, and still there may be a deficiency, the normal number being made up by one or more deciduous, or supernumerary being present.

Supernumerary teeth are of two kinds, those which resemble one of the two sets of teeth and the conical teeth. Those which

resemble the natural teeth are usually the incisors or bicuspid, and when they are regular in the arch will escape observation for a long time.

Wisdom teeth are duplicated sometimes, the supernumerary is, according to Wedl, the one outside the arch. Supernumerary molars are rare, but it is still more rare to find them arranged in the arch in a regular manner.

The conical teeth resemble no others, unless it is the canine, but there is no danger of mistaking them for these teeth. The three dental tissues are well developed, they are conical both in crown and in root, hence their name. The canal is elongated and single. Sometimes these teeth are short and thick but usually they are slender.

There may be a difference in size in different individuals. Those having large permanent teeth usually have large conical teeth. Their location is variable, they may be found in almost any part of the mouth except in the vicinity of the lower incisors, where they are never found. They are more frequently found between the superior central and lateral incisors. They may occur in either the temporary or permanent sets, but most frequently among the permanent ones. They are developed from independent germs and do not originate like permanent teeth from secondary germs. J. Tomes relates two cases of conical teeth in children five years of age. As they erupt with the permanent teeth they are liable to produce a deformity, by interfering with the natural articulation. If in the palate they may inconvenience the tongue, if in close proximity to other teeth they may be the indirect cause of caries. They should as a general rule be extracted as they are of no benefit, and are often of considerable harm. Their extraction is not difficult as their roots are favorable for the operation.

Sometimes a number of the teeth are missing, and there are cases on record where all the permanent teeth failed to appear, but these are rare. It is not rare for a single tooth to be missing, this may be caused by a want of development, or from insufficient space, whereby the tooth although properly developed could not take its normal position.

There are said to be cases where all of the deciduous teeth were wanting. J. Tomes in his extensive investigations has failed to report a case, either in the living subject or prepared specimen. In such cases it is supposed the face would resemble an infants, both in form and expression, that is, the lower part of the face.

The want of teeth in scrofulous children may be accounted for, when we take into consideration the probability that the tooth had been destroyed by ulceration of the alveolus or dental sac.

Irregularity of *arrangement*. There are a great variety of irregularities produced by abnormal arrangement.

The first is where the six front teeth are placed side by side, so as to meet the bicuspid at, or nearly at a right angle, producing what is called a *flat mouth*. Sometimes this disfigurement is caused by the lower teeth over-lapping the upper.

The second class is what is called the *negro mouth*, the front teeth are placed obliquely, and not having pressure and counter-pressure, these teeth elongate and are lost from want of proper articulation.

The third is what might be called the *grinning mouth*, on account of the mouth having a grinning appearance.

The fourth is the *underhung*, the lower-jaw and teeth are prominent, the lower process is very well developed, and the upper teeth are concealed by the upper lip.

The fifth is where the teeth articulate end on end, this is called the *upright set*, and is considered a very strong articulation.

Another variety of the above is where the teeth meet end on end, but the front teeth are everted, and a channel is formed into which the lips fall, this together with the prominence of the chin in such cases, gives it the name of the *senile mouth*, or that of old age.

A very disagreeable and troublesome deformity is where the articulating process of the lower jaw is short, causing the front teeth to stand apart, sometimes the only teeth in contact are the second and third molars. The evil cannot be remedied by filing the crowns of the molars as they are usually found to be very short.

When there is a want of relationship, either jaw may develop in proportion to the rest of the body while the other remains unusually small, this is the case sometimes with giants, the lower jaw when the cranium is small may develop in proportion to the rest of the body, then the lower maxilla shuts outside the entire upper jaw.

Then again one side of the jaw will develop too rapidly for the other, this is called unsymmetrical development.

Irregularity in the *position* of the separate teeth. It has been shown in connection with the growth of the jaw, that the anterior portions of the maxilla grows comparatively less than the posterior portions of the arch, for which reason the irregularity of the anterior teeth is of much more frequent occurrence than that occurring with the teeth of the posterior portion of the maxilla.

From the interruption in the process of shedding the deciduous teeth, or the permanent tooth takes its place prematurely, the adjacent incoming permanent tooth is forced out of its true position. From the too early removal of the temporary teeth, the sockets become obliterated, and the teeth are compelled to erupt in the direction of the least resistance. Exostosis of the alveolar process, or abscess of the alveoli of the temporary teeth, or from the presence of tumors within the jaw.

Irregularity in *structure* may involve all the teeth in common, or only a part of them. The crown or root may be affected, or it may involve the entire tooth. There may be growth in an abnormal direction, stunted or excessive development, the union of the crowns or the blending of the roots of two or more teeth.

Under monstrous mal-formations, we will have flexion or torsion of the crowns or roots. Excessive growths, as enamel nodules, or ridges of the same. Excess in the number of roots, etc.

Teeth effected by hereditary taint, mercury, vaccination, or the eruptive fevers, would naturally come under this head, but as I intend to prepare a paper upon this subject will not consider it in this connection.

Irregularity of the temporary teeth is not of enough importance to justify interference on the part of the dentist. It is no indication that the permanent teeth will be irregular if there is a mal-arrangement of the temporary set.

It would be impossible to describe the great variety of irregularities it is possible for the teeth of the human being to assume. There is no arrangement the mind can conceive which has not its counterpart in nature.

These are deformities only as they are departures from a normal standard, which is, according to Norman W. Kingsley, a perfect arch, without the least tendency to form an angle at the canines. There may be a narrow or wide arch, large or small teeth, which are dark or light in color, just as the peculiarities of the person may demand, and still the mouth may be perfectly normal. Therefore, a perfectly normal arch is a curved line expanding as it approaches the ends, and the teeth all standing on that line.

Up to a very recent time the answer to all questions, as to the causes of irregularity was, *the premature extraction of the temporary teeth*. This answer holds good to this day, as well as it ever did, but perhaps in a modified sense. Of course it does not produce irregularity in all cases, but it does in a great many, in fact it may be taken as a fact that it does, and not as some would have us believe, produce no effect one way or the other.

It may not produce contraction of the maxilla, still it will in many cases produce a want of developement, or a moving together of the teeth, that may be in the mouth at the time, and also the blood supply is cut off, there being a want of exercise, which vigorous mastication would give as a stimulus.

The practice of removing the deciduous teeth without fear as to the result, simply from the fact that they will be replaced by the permanent ones, is not only dangerous, but it is almost criminally wrong. If for no other reason, it is bad because it removes the stimulus to the healthy developement, and we have in its stead a tardy developement with all of the long train of evil consequences which follow in most cases.

If the teeth have to be removed for any reason, the canines

and second temporary molars should be retained if possible, that the health and appearance of the child might not be injured by their removal.

The presence of the temporary teeth may cause irregularity, but I think the original mal-position of the permanent teeth is the cause of retention of the temporary ones.

Irregularity is in many cases caused by inheritance, that is, transmitted peculiarities. The tendency is for "like to produce like." It has been stated by some one, I have forgotten who, that the tendency is so strong for "like to produce like" that if the wisdom, bicuspid, or any other tooth, should be extracted from the mouths of the children of one family for several generations, that there would be created a class of beings without such teeth, provided the removal of such teeth has been kept up with perfect regularity and faithfulness.

The premature extraction of deciduous teeth has been considered from the time denistry had an existence, one of the most potent causes of irregularity of arrangement by causing a contraction of the dental arch, thereby lessening the space and causing the permanent teeth to assume positions more or less abnormal.

In the first place, it is a practice which all good dentists should try and frown down to remove, by educating their patients up to standard where they will appreciate these temporary organs, as valuable adjuncts in promoting perfect health, and not to consider them as most people do as so many pegs stuck in a living arch, the sooner they are removed the better, as then these troublesome things will give no more annoyance, their place being filled in the course of two, four, five or six years, as the case may be, by a more lasting set of teeth.

They do not take into consideration that these organs are placed in the jaw by the Creator for a purpose, and that purpose is the thorough mastication of the food, so the growing child can receive it properly prepared for assimilation.

There is no time in life when the body requires more nutritive food prepared in a correct manner, than at the period when the deciduous teeth perform their part of the digestive function.

Therefore I think that the care of the deciduous teeth should be insisted upon, if for no other reason than that they are required as a part of the digestive system.

They are required to be retained, in order to prevent a tilting or falling together of the teeth that remain in the mouth, this is most apparent in the case of the six year molar, where the second temporary molar has been removed prematurely. When the canine has been removed it allows the permanent lateral and bicuspid to come together and close the space which should be left for the permanent canine.

There is no doubt in my mind but that the teeth do move bodily forward, and occupy a place which ought to be filled by another tooth.

But in regard to this matter of contraction, it is not exactly contraction, but it is a want of development, produced by a want of exercise. This want of exercise necessitates a deficient supply of blood, which causes the part to become feeble, stunted and oftentimes to atrophy.

The same holds good with the jaw that holds good with other parts of the body. When you remove a tooth you take away a source of exercise, you therefore cause a less amount of blood to flow to a part, and for that reason you have the so-called contracted arch, produced by a want of exercise, a want of blood and consequently a want of development is the result.

I have spoken of the premature extraction and the evil results which follow such a course, what shall I say as to the undue retention. There can be but little if any harm produced by the retention, provided the teeth are in a healthy condition. The time when the retention of such teeth will do harm is where the pulps are devitalized or the teeth are, or have been ulcerating.

The V shaped mouth is an undue prominence of the anterior part of the superior maxilla. It may be inherited or acquired. The first is due to a transmitted peculiarity, the second is produced by mechanical causes. The trouble sometimes exists where the molars are too short, or a prominent lower maxilla brings the lower teeth in contact with the upper ones producing what is presumed to be a V shaped arch.

Other reasons are the tardy developement or eruption of the molars, or the premature loss of such, etc.

Want of space produces irregularity of arrangement, or at least it is the most common producing cause. It is very uncommon among savage people, but among the upper and the middle classes of civilized communities, it becomes quite common. It is more general in cities and large towns than in the rural districts. It is claimed by some that this can be accounted for by a species of "selective breeding." Everybody knows the effect of continued intermarriages among persons related by consanguinity; it tends to break down the nervous system by a general disintegration of the nerve centers, which can account for the teeth of such persons being the first organs to be affected by this mingling of cognate blood, unenriched and unstimulated from other fountains, soon breeds *weakness, disease and imbecility*. The tendency of our age and generation, is to breed in and in, which cannot fail to produce an increase of nervous troubles. Kingsley says: "I do not hesitate to place myself upon record that the next generation will see more of abnormality in dental developement, and an increase of nervous and cerebral diseases, and that the two are correlated, and spring from the same cause." He also says: "Regard man as an animal, dismiss all cognisance of his intellect, and his affections, mate him to a woman, with sole reference to the physical developement of the race, and it would take but a few generations to see disease and deformity swept from the face of the earth, but to call the inter-marriage of families whose brains have been stimulated to their highest capacity, whose physical and nervous systems have been deranged by the habits of modern civilization, to call such a mixture high and selective breeding is a perversion of the term. If the application of these principles produce a delicacy of form in the whole physique, we should naturally expect to find a corresponding delicacy and refinement in the condition of the dental organs. That the process of selective breeding should tend to or end in deformity is manifestly inconsistent with the prime object, which is the elimination of everything which tends to degeneracy or deformity."

The mixing of different nationalities next to this exalting of the nervous system is the most powerful cause of irregularity. The animal mates with his kind, but man does not follow this good example set by the animal world.

When the offspring is the result of a union of two types, one possessing a large jaw and large teeth, the other a small jaw with small teeth, may inherit the large teeth of one and the small jaw of the other, or *vice versa*, this mixture cannot be called high and selective breeding. This mixing without blending or harmonizing, always results in a deformity of some character.

McQuillen, of Philadelphia, says: "It is a surprise that the teeth ever assume a regular position, judging from the crowded condition observed in the permanent teeth while the temporary set is in position." The reason for this crowded condition is that the diameter of the crowns is as great as it will be in the adult, but the jaw has not developed to its full and normal proportions.

In the case of a dwarf or giant, if the teeth are in conformity with the rest of the body then you may depend it is a race of dwarfs or giants, but if the teeth are out of proportion to the rest of the body, then you may conclude it is a freak of nature.

What effect does diet, hygiene or climate have upon the development of the teeth? There is a change of face as the result of such conditions, why could not the teeth be equally changed as the result of like influences. The skull increases in size to accommodate an increase in the quantity of brain. Such changes would not be to my mind irrational, when considered from an anatomical or physiological standpoint.

Now under what conditions would you regulate teeth. We know that bone will be resorbed and reproduced, teeth can be moved and they will become firm in their new position. The moving of teeth is not due altogether to resorption and reproduction, but in many cases there must be a moving of the alveolar process as well as moving of the teeth themselves. For instance, in the moving of the anterior teeth, if the plates of process had to be resorbed and reproduced, we could not move them as rapidly as we do. Movement to a great extent depends upon the elasticity of the alveolar process.

The contraction of the jaw cannot be accomplished with as much ease as expansion, because in the former case there is a greater thickness of bone to be moved or resorbed, and the elasticity is not as great in the one as in the other.

It has been claimed, that the teeth cannot be moved faster than resorption and reproduction takes place. This idea is fallacious. But it is a known fact, that the process of resorption and reproduction varies under different systemic conditions, also with the period at which it takes place. In some individuals, and at some periods it would place the organs in jeopardy to operate at that time or under those conditions.

At what time shall we commence to regulate irregularities? I might begin as soon as a tooth has erupted, if it is a very marked case, but would prefer to have all the teeth in position before commencing, as then you can the more positively determine what the result will be. If a central incisor should articulate inside the lower ones, then even at the age of eight years, correct the trouble. In very marked cases do not lose any time, as it may be the means of saving you much annoyance and expense.

As a general rule do not interfere before all the teeth have erupted, wait until you *see* the necessity, and do not anticipate *unseen* dangers, as it is in a great many cases only an *imaginary* trouble.

Up to the seventeenth year you may move teeth with comparative ease, and the position given them will more than likely be retained, after this time the movement becomes more and more difficult and the surety of their remaining in their new position less decided.

It may be regarded as a fact, that hardly a limit can be conceived as to the time when teeth can or cannot be moved, particularly if the articulation would favor the new position.

After a tooth has been moved to a desired position, then it must be held in place by a retaining plate, the length of time it is necessary to wear it must be governed by circumstances, and the judgment of the dentist.

Kingsley gives it that, "hereditary cases of an extensive

character which have been delayed until at or near maturity, we can never feel certain but the original tendency to mal-position so long unbroken will assert itself at any time that we abandon retaining fixtures."

As to pressure, what kind shall we use? constant or intermittent? The best examples, are the elastic rubber, and the jack-screw. I prefer the jack-screws, as I think they can be used in most cases with the best results, and the pressure is not constant but is interrupted or intermittent giving time for the recuperative process to assist materially in arriving at a favorable termination.

The most critical time is when the teeth have been loosened by the pressure, and for this reason the patient should be seen as often as the urgency of the case requires.

The utmost cleanliness should be demanded of the patient, the saying that "Cleanliness is next to Godliness," can be aptly applied in the treatment of these cases. This is not Scriptural but it is scriptural, and should be born in mind.

Sometimes these details may be left to the patients themselves, but most always it will be necessary for the dentist to superintend these matters himself, and if he does not do the manual labor himself, he must at least have it done under his own personal direction.

Complete removal of the pressure after the teeth have become loosened would be prejudicial to the teeth and surrounding parts.

Badly fitting appliances are to be avoided, as the cleanliness cannot be as complete, and if for no other reason, they should be considered with caution.

The apparatus should be so arranged and applied as to be removed by the patient when desirable.

Antiseptic and astringent washes may be of advantage.

The forces used are screws, wedges, levers, inclined planes and elasticity.

The screws are the most valuable, but all are of value, care and judgment must be exercised by the dentist in the selection, sometimes one can be used to a better advantage than another,

while at another times two or more of the forces may be combined with the most admirable results.

But in conclusion, when you have a poor person who has neither the time, money nor inclination, then the question arises, what is the best to be done in such a case?

When there is a possibility of the case regulating itself and the patient is young extract the *right* tooth in all cases. I am almost of the opinion that where the proper selection is made and the extracting done in time, almost any simple case, and some that are not so simple, can be remedied by this means.

Instead of expanding the lower jaw where the upper is too full, extract from upper jaw such teeth as the upper should lose. When the lower jaw is full do not expand the upper jaw unless the contour of the face demands it, but extract from the lower jaw.

ANNUAL ADDRESS.

BY C. H. DARBY, D. D. S.,

President of Missouri State Dental Association.

READ JUNE 6, 1892.

It is ever a most pleasing duty to speak the unanimous voice. One year ago I had the honor of being elected to deliver the annual address before you. To-day we are permitted to meet again for the purpose of fostering fraternal feeling and professional regard among ourselves, and to become better acquainted with the most approved methods practiced in our chosen profession. With the termination of this session the MISSOURI STATE DENTAL ASSOCIATION will have entered upon its 19th annual meeting. To say that it is an occasion for congratulation would but feebly express the sentiment of those who have watched the growth and prosperity of our association from its foundation to the present time. It is my pleasure to congratulate its founders, some

of whom are permitted to meet with us in the enjoyment of strength and health, upon the grand triumph achieved as the result of their labors in the face of many difficulties. Of the thirty whose names appear upon the treasurer's book as having been members during the first year of the society's existence, eight have been taken away by death, two of whom were ex-presidents, others have allowed their names to drop from the roll, while some have removed to other States or engaged in different occupations; thus leaving but ten of the original number on the list. The positions of trust and honor that have been assigned to those who have been or are members of this body by other medical and scientific organizations are many and varied. Many of our members have at various times been the recipient of the highest honors from other dental societies, two of our number have been called to the highest office in the gift of the American Dental Association, while others have occupied positions of honor and responsibility either as lecturers, instructors, professors or demonstrators, in dental or medical colleges. These brief statistics show that thus far our progress has been in the right direction. We have placed ourselves on a common footing with the medical, surgical, clerical and legal professions, and by their leave will stand side by side. The question naturally arises how has this advancement been brought about? How have we arisen from the ranks of the village blacksmith and barber to one of the most learned and honorable professions? Simply by close application and diligence combined with hard work. If we wish to succeed in life we must work. It evokes discipline, obedience, self-control, attention, application and perseverance; giving a man deftness and skill in his special calling, and aptitude in dealing with the ordinary affairs of life. Work is the law of our being, the living principle that carries men and nations onward. The greater number of men have to work with their hands as a matter of necessity in order to live; but all must work in one way or another, if they would enjoy life as it ought to be enjoyed. Labor may be a burden and a chastisement, but it is also an honor and a glory. Without it nothing can be accomplished—all that is great in man comes

through work, and civilization is the result of it. Were labor abolished the race of Adam would be at once stricken by moral death; it is idleness that is the curse of man, not labor. Idleness eats the heart out of men, and consumes them as rust does iron. When Alexander conquered the Persians and had an opportunity of observing their manners he perceived that they did not seem conscious that there could be anything more servile than a life of pleasure, or more princely than a life of toil. Nothing but constant toil and labor maintained the power and extended the authority of the Roman generals. Ours is a profession of tools—they grow out of our structure. "Man is the meter of all things," said Aristotle. The hand is the instrument of instruments, the mind is the form of forms, the human body is the magazine of inventions—the patent office where are found the models from which every hint is taken. Men love to wonder, and that is the seed of our science. And such is the mechanical determination of our age, and so recent are our best contrivances, that use has not dulled our joy and pride in them, and we pity our fathers for dying before the use of the rubber dam. Improved plastic fillings, dental engines with their water moters, electric pluggers and a score of other useful inventions have cheated them out of half of their estate. These inventions open great gates of a future promise to make the world plastic, and to lift human life out of its beggary to a godlike ease and power. How excellent are the aids brought to bear in our mechanical department, and the many and varied improvements in prosthetic dentistry and in the wonderful aid of chloroform, ether and nitrous-oxide, as if improving upon the beautiful sleep of nature. In a review of the past as compared with our attainment at the present time, I feel that we are but on the stepping stone to a still larger field of usefulness. It is for this very reason we are gathered here to-day, and I trust the time is not far distant when every dentist in the whole length and breadth of the land will feel it incumbent upon himself to attend the convention of whatever State he may be practicing in. We are men of

many minds, and it is by the summing up of our different views and ideas that we are able to arrive at the right conclusion. In the past our growth has seemed rapid but like all rapid growth it has been rank. In the future it must be a growth which bears the fruit of intellect, of culture and of refinement. To the student of dentistry I know of no better advice than that given by one of America's grandest statesmen, "that the room is all taken at the bottom but there is plenty of room up higher for able conscientious men." But how are we to supply the demand with this class? Only by a broader and more liberal education. I think the time has fully arrived when the great State of Missouri, with her thousands of intelligent people, should be protected from the charlatans and quacks, that are entering upon the practice of dentistry. Our sister States have been obliged to resort to legislation in order to protect themselves, which naturally makes the exodus large in our midst. It would seem advisable to change our constitution so that applicants for admission into our society shall first have graduated from some respectable medical or dental college, or have received a license from a board of examiners appointed under State laws. Other societies have seen the wisdom of placing these restrictions upon applicants for membership and have had the pleasure of witnessing good results therefrom. Those among us who have been to the expense of qualifying themselves to the full extent of the opportunities afforded by our colleges, find but little encouragement in being obliged to contend with the unqualified who are classed as dentists in every hamlet in the length and breadth of the land. I trust that our constitution may be speedily changed so that we may occupy a higher, more consistent position. In selecting our students in the future for the practice of dentistry we should be more careful to select young men of good attainments, young men who have had the advantages of home influence, young men of liberal views and good education. I anticipate neither contradiction nor controversy when I say that the education of the youth who is intended for the medical or dental profession should be essentially that adapted for the well

educated gentleman. It is a prevalent belief, and as erroneous as it is prevalent, that a less degree of talent is required for a physician or dentist than for a lawyer, and strange enough we sometimes hear a parent speak of placing a son, of the strength of whose intellectual powers he has some doubt, to the study of medicine or dentistry, because he is apprehensive that his talents might not enable him to succeed in the practice of the law. Occasionally, too, we hear the remark, that a certain individual has a natural turn for physic and is born, as it were, a physician, or that he has a natural mechanical tact and would make a fine dentist. The other professions doubtless require some capabilities which that of medicine or dentistry do not. To the same extent, at least no department of science demands, greater judgment, a higher reach of intellectual qualifications, or deeper preparation by physical and moral culture than our own chosen profession. Some persons will take greater delight than others in study, some may attain a knowledge of facts and principles with greater facility than others, but it need hardly be said that he who has not a mind adapted for reasoning on other difficult topics, both physical and moral, cannot possess these powers in reference to the intricate machinery and actions of the human frame; and it may be laid down as incontrovertible, that he whose intellectual manifestations are generally feeble, can not carry with him the necessary qualification for a successful practitioner of medicine or dentistry. Much has been written and said on the subject of a thorough medical education being one of the requirements for the completion of a dental education, it can certainly do us no harm. The more familiar we are with the human frame, the better prepared we are to cope successfully with the difficult cases that are constantly presenting themselves in our everyday practice. But I will not discuss this subject at greater length. My earnest trust, however, is that the two factions may speedily meet upon one broad table-land of a more liberal education, so that the practitioners who are to follow in our foot-steps shall at least be capable of properly

diagnosing any case that may present itself, and if not disposed to treat, to recommend to those who make a specialty of the different branches. In conclusion, gentlemen, I summon you to an honorable profession, to a field of usefulness, to a harvest of plenty ; I summon you to a life of activity, to a mission of mercy, to a reward of fame ! Let us go forth then from these halls full of hope, full of courage, full of confidence ; let us go forth to engage in that calling which, henceforth, is to occupy our attention, enlist our energies and call forth the genius and talent of our lives !

CHILDREN'S TEETH.

BY JOHN G. HARPER, D. D. S., ST. LOUIS.

Read before Missouri State Dental Association, June 7, 1882.

GENTLEMEN :—In treating the subject of Children's Teeth I will proceed in the following order: 1st. The teeth previous to birth. 2d. Deciduous teeth after birth. 3rd. Permanent teeth.

THE TEETH PREVIOUS TO BIRTH.

If we make an examination of the jaws of a nine-month's fœtus we will find all of the deciduous teeth partly formed and should they be defective, the damage is irreparable, hence the necessity of proper treatment previous to birth. It should be our aim to arrive at such knowledge as will enable us to lessen the liability of the formation of defective teeth. We should give such instructions to mothers as will tend towards the development of dental tissues, more reliable in material and more nearly perfect in organization than those of the present generation.

A very frequent form of deterioration is what is known as

honey combed teeth. Here we have the best indication as to what treatment would be most likely to prove beneficial. We observe that the portion of the tooth which earliest calcifies is that which has suffered most; and further that those teeth which were developed earliest suffer more than those which were developed later. We have teeth perfect in outline, but imperfect in organization, others are not united in their various parts, so that they may form at last a perfect whole. Examples of this departure we see almost daily in the various fissures resulting from imperfect fusion of the separate cusps of bicuspids and molars.

I will give some observations upon this subject furnished by Oakley Coles, he says: "We find that these conditions are not (at any rate in England), confined to any one class or locality, or at least the boundary lines both of class and locality are not so clearly defined as to be reliable for the purpose of argument. But in Scotland and Ireland the reverse is the case; there we find those who live in cities and have accepted to the fullest extent the doubtful blessing of high civilization are the people who give the most marked symptoms of deterioration of the dental organs, whilst those who live in the country and on the coast of Ireland and Scotland having as a rule well developed jaws and perfect teeth. The care they take of their teeth does not enter into the case as a factor of sufficient value to be worth considering * * * We observe, too, that simplicity of diet in the North of Scotland and in most parts of Ireland (except in cities) is the rule and not the exception; and, moreover, that in Scotland especially oatmeal in some form or other enters very largely into the diet of the masses of the people; and so strongly marked is the influence exercised upon the bones and teeth of those who eat oatmeal that in various isolated districts and families in England its effects can be clearly recognized.

"(a.) It thus seems that we have a certain article of diet, or perhaps it would be wise to say a certain form of a class of food, that when taken for one or two generations is found in its influence to be associated with well-developed teeth and bones.

“(b.) That where it is not used we have inferior teeth and bones and greater liability to caries.

“(c.) That the use of oatmeal and other whole meal is beneficial even in individual cases, when adopted in early life, independently of either locality or nationality.

“Having thus endeavored to establish the fact of the influence of whole meal diet upon the dental tissues, both by positive and negative evidence—evidence moreover, which is capable of most ample proof or denial if it be inaccurate,—it only remains for me to point out the measures that I think should be adopted with a view to improving the teeth of the next generation.”

The benefit to be derived from the use of whole meal after birth is comparatively small, since those teeth that are ready for eruption are all in advanced stage of development and calcification has proceeded to a great extent with the rest; and although we may recognize the influence of the circulation upon every part of the organism it is not clear that in the case of the dental tissues we can hope at all perfectly to build up structures of such a dense character that have been in the first instance imperfectly developed. We are, therefore, by force of circumstances compelled to rest our hopes upon a dietary treatment, to be adopted by the mother during child bearing; and I cannot but think we shall be wanting in our duty to our patients if we fail to point out either directly or through our medical friends the importance of ordering such a diet during pregnancy as shall supply the mother with the necessary salts for the osseous system of her offspring. “The use of whole meal bread instead of flour, deprived as flour is of so many of its valuable ingredients, offers a simple way of accomplishing the end in view: whilst oat-cakes and oat-meal porridge offer an attractive diet for those who prefer the meal in the latter forms. We might thus, I think, do more to prevent decay of the teeth than we can ever hope to accomplish by any of the prophylactic measures that can only be adopted after birth.”

The above treatment would also greatly reduce the mortality from dentition, as robust healthy children seldom have any trouble in teething.

It is estimated that the miller takes out of every barrel of flour forty pounds of the mineral elements, which were put there by nature to form strong bones and teeth. It is also calculated that on an average every child in a year consumes one half barrel of flour; hence the child is deprived of twenty pounds of phosphate and carbonate of lime.

Dr. John J. Allen, of New York, says: "I have many families tenacious to have their children fed on the proper materials, and find that these children usually have sound teeth." I think that if the Doctor should make inquiry he would find that the mothers of these children were in the habit of using the proper food themselves. Food bears two relations to the teeth, nutritive and mechanical. The teeth like other organs require proper exercise, and no doubt the want of exercise deprives the teeth and surrounding organs of the proper stimulus which is required to give a full and healthy flow of blood to the parts, preventing the deposition of tooth substances and preventing the absorption of the roots of the deciduous teeth. I would have the child provided with some food in a solid form, as well baked cakes of whole flour; the Graham crackers found at the grocers are relished by most all children. I do not wish to be understood as advocating a diet exclusively of whole meal, but would have the child furnished with pure milk, vegetables and rare beef. Raw beef scraped and the fibres removed is relished and agrees with small children. Coffee and tea drinking are injurious, being too stimulating and also being liable to lead the child into the habit of washing down partially masticated food. Children should be taught to eat slowly and masticate the food thoroughly, as throwing into the stomach a crude mass of food irritates that organ and in time will render it incapable of performing its proper functions; sour eruptions will be thrown into the mouth destroying the teeth.

The food question has led us a little ahead of our story, and we will go back to the deciduous teeth previous to eruption. During the time included between the fifth and thirty-sixth month the first set of teeth are erupted and is a time filled with

anxiety for the mothers, when by far the greatest number of deaths take place among children, whether the immediate cause be in the head, the chest or the abdomen. The majority of ills afflicting children at this time are due to reflex action, the initiatory point being in the gums, which have become congested by the irritation of an erupting tooth. Gum lancing is clearly indicated in such cases and the relief afforded by a free incision through the gum in many instances in which there was acute pain, has given immediate relief, the child immediately falling asleep.

Many have gotten the erroneous impression that lancing the gums may cause callous afterwards and become so hard that the tooth cannot get through so easily as if left alone. It is a well known fact to surgeons that the new formation, cicatrice, is more easily broken down than the normal tissue. This is sufficient to answer that objection to gum lancing.

The vaccination of the child is an operation of which the physician and mother soon think, and the thought is generally followed by action, especially if there are any reports of small-pox circulating in the vicinity.

“Has vaccination anything to do with the degeneration of human teeth?” is a question worthy of profound thought and thorough investigation, and the proper time to vaccinate determined.

The teeth are dermal appendages; their first germs are discernible at a very early period of fœtal existence, and in its primitive stage each tooth is in the condition of a soft impulsive mass. At birth, and for some time after, nature is more busily engaged in building the different organs of our complex bodies *than at any other period*, and should not be disturbed. The infant's system should be kept in a state of repose. The liability of a child being attacked by small-pox is very small, whereas vaccination is direct and immediate. Let us dentists, acting in the interests of our patients, look well into this matter so that we may be able to prevent mischief. I should advise deferring vaccination until three or four years of age had been attained.

A child is seldom brought to the dentist until its teeth show signs of decay, and more frequently not until they are painful. When a child is first presented to you, endeavor to win the confidence of the child at its first visit, and should you succeed the future will be bright, the child will not hesitate to visit you when necessary. Should it be necessary to resort to an anesthetic, the plan followed in the infant hospitals in France seems worthy of trial. At eight o'clock the sister administers a dose of chloral and the child goes to sleep in twenty minutes; at nine o'clock the dentist passes through the ward and pulls the teeth, and when the child wakes up, after three or four hours, it is minus the tooth or teeth without suffering or having seen the dentist.

It is not necessary to dwell upon the importance of preserving the deciduous teeth until they are replaced by the permanent ones, but I will call your attention to the evils which may result from the premature removal of the second deciduous molars. The early loss of these teeth allow the six year molars to come forward and take up a part of the room belonging to the bicuspid, and they will come in irregular or at least crowding upon the other teeth, increasing the liability to decay on the approximal surfaces. The prolonged retention of the temporary set of teeth is frequently the cause of irregularity in the permanent ones. Premature extraction of temporary teeth should be avoided. What will be the future of this case? is a question the dentist should study well before undertaking operations in children's mouths.

We should study prognosis as well as diagnosis, the former being more important in the case of a child. When we are called upon to treat deciduous teeth we must ask ourselves how long should these teeth last? and treat according to the answer.

As a rule deciduous teeth will not require filling, if taking in time. Separate and polish approximate surfaces, making self-cleansing. The grinding surfaces, when slightly decayed, may be converted into saucer shaped and self-cleansing.

In deciduous teeth the enamel is thinner and the decay advances more evenly in dentine and enamel, forming shallow

cavities, requiring considerable excavating in order to secure properly formed cavities. Should the tooth be sensitive and the child nervous, it is very difficult to make a good filling, as pain should be avoided if possible. Should the decay expose the pulp treat the same as in permanent teeth, and fill the roots in case the pulp is killed. In many cases where the decay is extensive the roots should be filled and the surface of the tooth may be ground to a saucer shape and left so. The deciduous molars are first in importance as organs of mastication, and to keep in place the first permanent molar. Canines are second in importance and centrals third.

(To be continued at our next meeting.)

MERCURY AND ITS EFFECTS.

BY WM. N. CONRAD, D. D. S.

Read before the Missouri State Dental Association, June 8, 1882.

Mr. President and Gentlemen:

In considering this subject I will not go into details and write an elaborate paper upon the chemistry, preparations and general medical aspect of the mercurial manifestations, but it shall be my endeavor to present a few points for the members to discuss if they so desire; if not, let it drop as unworthy the time and attention of a body of professional gentlemen.

There is no room for discussion upon the beneficial or injurious effects of mercury as used in certain cases by the medical practitioner, but it is for us to decide, if we can, whether the effects of mercury used in making an amalgam, or whether the mercury in rubber plates acts injuriously upon the tooth structure, mucous membrane, bones, or the system generally—which it must do if it effects every tissue and every cell of every tissue as a poison.

At the outset I may as well say that I have failed to see any

of the baneful results often referred to by so many of our leading brother dentists. I do not hold to my opinion as to the effects of mercury from so prejudiced a stand-point as to preclude the possibility of an entire change in my convictions; I am open to conviction, and am willing to receive evidence from whatever source, no matter whether it supports my position or not. My hope is for honesty and not for clap-trap buncombe to act as an advertisement of quackery in high life for those who seek a notorious notoriety. The only method for us to investigate is the evaporation, as metallic mercury does not act injuriously. When taken into the stomach it acts by reason of its weight, mechanically. But evaporated mercury is another thing, and may, if taken into the system in sufficient quantity, produce deleterious effects. The use of mercury in the arts and sciences has been known to produce disastrous results upon the human body, but in that case the amount approximates that used by Dr. Talbot in his experiments upon roaches, and does not compare with the minute quantity used in mixing amalgams applied to the filling of the teeth, or to the amount used as a coloring matter for rubber, as applied to making plates. But since the rubber license has been done away with we do not hear much, if anything, about its bad effects when used in connection with rubber. Therefore, we will let one-half of the subject drop as settled by the removal of the license, and we only have left to investigate its use in the making of a filling material for teeth. The durability of filling materials of this character need not occupy the time of this society. The test of from five to forty years has settled that question and needs no argument on my part to have it accepted as a fact. But the real question at issue is "whether the mercury used in the making of amalgams manifests itself as a poison?" If so how do we know it is taken into the system and produces the poisonous effects attributed to it by some of the honorable men in our profession? Is it a poison when so used? Is the combination chemical or mechanical? Why do not these same men continue the war they waged some time ago against the use of rubber for making plates? Is the mercury

used by the manufacturers now any the less injurious than it was during the years that are past?—when our dear and sainted brother Josiah Bacon, was in the land of the living instead of being among the chosen singing psalms in paradise. Now gentlemen, I think the mercury of the present is the same as the mercury of the past, exerting no deleterious influence upon the mucous membrane and surrounding tissues. Dentistry without a rubber plate would be like dentistry without amalgams, neither can be discarded and we remain honest to ourselves and honest to our patients. Do not understand me to be an advocate of any special line of practice, my idea is that nothing can be discarded which has been proven of utility by years of successful trial. Gold, amalgam, gutta percha, oxy-chlorides, ox-yphosphates, tin—all have been tried and have been found of great value in certain cases. A very worthy member of our local society said upon one occasion that teeth should be filled with other than these material substances I have mentioned, namely: brains, conscience and judgment. This I admit and hope that none of us will ever perform an operation without them. This is only one of the many good ideas I have received at his hands, and I consider the association with so conservative a member of our profession both a pleasure and a great benefit to me individually. It has been said that the mercury in amalgams has a deleterious effect upon tooth substance, that it produces a disintegration of the tooth so that it crumbles away from the filling, also that it effects the gums, mucous membrane, bones, in fact the entire system feels the impress of the poison. Is that so? I do not believe it, having failed to have it demonstrated to me, and by demonstration I mean some facts that can be relied upon, not the bare assertion made by men, who are incapable of making a scientific demonstration of any subject however important. I have had some light, and desire further light upon a subject, which to me is a matter of honesty or dishonesty in the practitioner. We have heard it said that our profession would have been benefited had amalgams never been introduced, that the professional standard would have been elevated. This would lead us to infer from

the status of the subject that mercury not only salivates, but has the power to degrade the professional standard as well. What a subtle power this mercury must possess! When an amalgam plug has been removed the entire surface has been found oxydized. Does the mercury produce the discoloration? The ease with which an amalgam plug can be introduced is mentioned as another one of the deleterious results of the use of mercury in the composition. How about the destructive oxy-chlorides, or destructible oxy-phosphates? The contraction of amalgam fillings I suppose might be cited as another evidence of the systemic manifestation of mercurial poisoning. How about the fillings that are known to have been in the mouth from twenty to forty years? Amalgams can be used by reason of its cheapness and adaptibility where gold cannot be used as a permanent filling material, and for that reason if there is a risk (which I do not believe) some chances might be taken even if we had to remove a proportion to remedy the supposed evil. But gentlemen, the bad effects are due to defective manipulation and not to the injurious effects of the mercury used. The records of death from the poisoning of the system by mercury evaporated from amalgam is a delusion and a snare, without any adequate proof. The causes of dead bone, sore mouths, crumbling teeth, etc., etc., should be looked for in another direction, and one in which the administration of a little mercury in conjunction with idoide of potassium would produce wonderful results in removing these disorders. Another one of the bad effects is the enormous profits the manufacturers realize upon the investment. One of the most important reasons why amalgam should be used is that thousands who have their teeth preserved by its use would be compelled to lose them. We as a class are not much pleased at the idea of becoming professional givers—allowing a person six dollars worth of work for two or three, or twelve dollars for four or five, etc., etc. If we did, we would be a class of fools unworthy the name of professional gentlemen. A physician who would give inferior medicine would lose caste. A dentist who would give bad advice, *should* lose caste. The same cry was raised twenty

years ago that is raised now, and still it is used ; without it many teeth would be lost. If it does nothing else than preserve the roots for the operations of more competent men it has served a very valuable purpose and should be used. Give the devil his due, amalgams save the teeth, while rubber plates give teeth to those who have failed to have it used, without either thousands of good but poor people would be without aid. Toothless with no means to help them. If one in every ten were poisoned to salivation, then we could not do without them, as there is no substitute for either as a cheap material for poor people. There are but two substances for filling teeth that we can designate permanent—*Gold* and *amalgam*—and those who do not use both must be either dishonest to themselves or dishonest to their patients, and one is as bad as the other. In making members capable of belonging to an elevated profession, it is not necessary that they be gold men, amalgam men or putty men, but that they possess brains, conscience and judgment. Bartholow in his “*Materia Medica*” says: “When extremely severe cases of salivation were not uncommon, permanent damage to the osseous structures often occurred and globules of mercury could be shaken out of the dry bones of such subjects. Happily nowadays such cases do not occur. The moderate use of mercury short of ptyalism does not appear to effect the human system injuriously.”

TUMORS OF THE ORAL CAVITY.

BY TOM CONRAD, M. D., NEW YORK.

A tumor is an unnatural circumscribed enlargement of a part of the body. It differs from hypertrophy in that it is circumscribed, yet the difference is hardly distinguishable, for we have chronic enlargement of the tonsils, or hypertrophy of the parotid or maxillary glands, and they are in fact tumors. Still, calling a hypertrophied gland a tumor will in no wise conflict with my definition, as it will be seen that they are circum-

scribed, while the hypertrophy of the gums, tongue and other parts of the mouth are not. Therefore, in this essay I will seek only to explain such morbid growths and masses of the *oral cavity* as come strictly under the definition heading this paper.

Tumors are essentially of three kinds: First, the *innocent* or *benign*; that is, those which do not interfere with the functions of the parts affected, except by weight, and which do not endanger the life of the patient.

Second, *malignant*, or those which may not only destroy the part where it is situated, but also the life of the patient.

Third, *semi-malignant*, which are a class that at first appear as *innocent*, but afterwards develop into malignant.

To distinguish these varieties is sometimes quite difficult. Still, the examiner may be aided by remembering the following points of difference:

First, in the *innocent* and *semi-malignant* tumors the structure partakes of the natural tissues, while in the *malignant* it does not, being generally formed out of material entirely distinct from the part in which it develops. It usually begins in a cell.

Secondly, the innocent tumor is not prone to softening or ulceration; the malignant is very apt to soften and ulcerate, and the semi-malignant is not liable to ulcerate till it is developed.

Thirdly, innocent tumors do not affect distant parts or different tissue from that in which they originate; malignant tumors are liable to affect distant parts or adjacent structures; semi-malignant tumors transfer their malignancy to distant parts, but only to the same kind of tissue.

Fourthly, innocent tumors will not return when entirely removed; malignant growths will always come back, and semi-malignant ones are exceedingly prone to recur.

Fifthly, in the innocent tumor we may have an overflow of the normal tissues, but it remains in its original tissue; a malignant tumor is apt to overflow, but it attacks all kinds of tissues; in the semi-malignant tumor, the parts are not hypertrophied,

as in the benign affection, but there may be an overflow of the parts.

It will be seen by the foregoing that, in diagnosing a morbid growth, we must first consider its physical properties; next, the relation it bears to the surrounding parts, and third, its history.

In regard to the *physical properties*, we have to consider: 1st. The situation, as adipose tissue, skin, cellular tissue, liver, bones, mucous membranes, etc. 2d. The form, as globular, flat, pedicellate, conical, or whether the surface is regular and even, as is generally the case in benign, or irregular, as in malignant growths. 3d. The volume. 4th. The consistence, as soft, hard or semi-solid. 5th. The color, as red, livid, purple, transparent, opaque, etc. 6th. The mobility of the tumor. 7th. The sensibility.

As to the *relation* the mass bears to the adjacent tissues, many things are to be noticed. First, the way it is held down or inclosed. Second, the tendency of the tumor to ulcerate; also the tendency of the neighboring lymphatics to swell and ulcerate; and lastly, the sympathetic relation between the development of the tumor and the general health. Malignant growths have been stopped for a considerable time by simply giving attention to the health and hygienic mode of living, with an antiseptic and antiphlogistic treatment.

The *history* of the case gives us many points of comparison, and often furnishes important clues to the correct diagnosis of the growth.

Tumors occur at all ages, but some forms of malignant ones are more common at certain periods of life, viz: *Schirrous* is most usually found in old people, while *encephaloid* is most common at the ages of 20 to 50; scrofulous tumors are generally found in youth and childhood. Innocent tumors are most usually met with in people from about 20 to 30 years of age.

We must also notice the time of development. Benign growths, as a rule, grow very slowly, while malignant ones develop rapidly, attain large size, affect the neighboring lymphatics and produce general constitutional disorder. Innocent

tumors do not tend to return, but malignant growths are very prone to repullulate.

It is rare that a tumor disappears spontaneously, still there are several ways in which it might occur, namely, absorption, ulceration, gangrene or enucleation.

Having thus prepared ourselves by a review of the qualities and characteristics of tumors in general, we will now turn our attention to the consideration of the kinds of morbid growths that are liable to affect the individual parts of the oral cavity, commencing with the soft parts and finally taking up the hard structures in the following order: palate, uvula, tonsils, tongue, salivary glands, gums, teeth, superior and inferior maxillary bones.

The first portion of the mouth that we will consider will be the palate. Solid, semi-solid and cystic tumors are sometimes found here. They may attain such size as to seriously hinder respiration, mastication and deglutition, and sometimes completely fill the mouth; still, this last is rare. The form of tumor most frequently met with in this part of the oral cavity is the recurring *fibroid*. It is of a light yellow color, of firm consistence. Its structure is of a wavy, fibrous nature, with an occasional oil cell. While this growth is of a general benign character, yet it is seldom cured by excision, and generally returns after extirpation. It is very rarely that we find any malignant disease of the palate. It is characterized, as usual, by rapid growth and the accompanying pain.

The only treatment is early extirpation. This operation being greatly facilitated by the use of a volsella, or stout hook to draw the tumor forward. There is no need to fear hemorrhage, as no large blood vessels are involved; but styptics may be used, should it become troublesome, or recourse may have to be had to actual cautery.

A most uncommon tumor of the vault of the mouth is the *vascular erectile*. This form usually appears as a soft, reddish, bluish, or pale growth, from the size of the end of the little finger to that of a Missouri hickory-nut. It is smooth, of a round shape, and pulsates synchronously with the heart; that is, if it is

of an arterial character. If it is composed of a net-work of veins, then we generally have an absence of pulsation, and it is of a darker hue. This kind of tumors occasionally ulcerate. There is a case on record where there was a periodic hemorrhage from a tumor of this kind, which seemed to act vicariously with the catamenia.

Diagnosis of this class of growths is extremely easy. The history of the case, and the color and absence from pain, all tend to distinguish it from an abscess of the roof of the mouth, which is the only disease of this part for which it is likely to be taken.

If the tumor is venous in character, excision would be the most proper remedy; but if it is of an arterial character, then ligation or actual cautery. If the tumor is arterial and very large, nothing should be done without due precaution.

A genuine *aneurism* in this region will seldom be found, but should one be found, the only way to treat it is to lay open the tumor and ligate both ends of the artery. A cure of an aneurism in this part by actual cautery is reported by Teirling.

Encysted tumors of the palate are extremely rare. Saucerotte reports one that he cured by puncturing, and injecting it with tincture of iodine.

The only affection of the uvula that can be likened to a tumor is the hypertrophy of the same, caused generally by frequent attacks of cold. This affection is generally accompanied with enlarged tonsils, inflamed fauces, palate, &c.

The remedy is extirpation. It is best to make it complete, for if part is left it is liable to recur.

We next come to that most important organ, the tongue. This organ is liable to almost every kind of tumor.

We sometimes find an *erectile* tumor here. It being almost always located at the anterior extremity, where it has the appearance of a soft, bluish, elastic growth of various size and shape. There is no pain accompanying it. It very rarely attains any great size, though occasionally it is of sufficient bulk to force the teeth out of position, and even expanding the lower jaw. Under mental excitement it is liable to become temporarily enlarged.

The best treatment is to apply the Vienna paste, which is made of equal parts of quicklime and potassa mixed with spirits of wine. The diseased part to which it is to be applied is circumscribed by a hole cut in a piece of sticking plaster. The paste is left on ten or twenty minutes, according to the depths of the eschar required. If the tumor is small and conveniently situated it may be removed by means of ligature. Some authors suggest ligating the lingual arteries, but this is rarely advisable, as there is danger of fatal sloughing.

We have also *epithelial* tumors, or wart like excrescences on the tongue. This form of growth is most commonly found on the sides and tip of the tongue, of a red color, and painless. They increase in size very tardily, rarely getting larger than a large gooseberry. They are attached to the tongue by a small pedicle.

They can be removed by ligature if hemorrhage is feared; but generally, if they are small, they can be snipped off with a pair of scissors, or they may be destroyed in their earlier stages with chromic or carbolic acid.

Cystic tumors are very seldom found on the tongue, and then it is hard to determine accurately their nature, which can only be done positively when they approach near the surface. Should they be suspected, the exploring needle should be used. Once in a while a single cyst of some size is seen, but most generally there are a number of small ones scattered over the tongue, none of them ever getting much larger than a pea. Incision and injection, or a seton are the remedies, depending on size, structure and age of tumor.

Fibroid tumors are sometimes found in the substance, or on the surface of the tongue. They are generally round, or oval in shape, very firm, and of tardy painless growth. Those that are on the surface are most commonly of a polypoid appearance, being joined by a narrow pedicle to the tongue. This specie of tumors is sometimes said to be congenital. They should be removed in the manner suggested for polypoid growths in other parts.

We have some instances of *fatty tumors* being found on the

tongue, but they are very few. The most common seat of this form of growths of the tongue is immediately over the sublingual gland. They may attain the size of a large toy marble, or even of a Missouri hickory-nut, and greatly interfere with mastication and speech. Their removal can be successfully accomplished with but very little trouble or hemorrhage, by exercising an ordinary amount of care.

Encephaloid of the tongue is so extremely rare that it need hardly be mentioned. The only malignant disease with which this organ is commonly affected is a form of *epithelioma*.

The tonsils may enlarge to such an extent as to form a tumor completely filling the pharynx. This disease if taken soon enough may be remedied by applications of the tincture of aconite root, applied with a camel's hair brush, or pieces of cotton held by a pair of dentist's pliers. Nitrate of silver in solution may also be used. Gargles of mucilaginous, acidulous, or slightly astringent liquids may be used by the patient to enable him to discharge the viscid mucous that lines the fauces. When the enlargement has become chronic then little can be done short of extirpation. This is a very simple operation and is done by means of one of the various kinds of tonsillatomes.

Although as a general rule there will be but little bleeding, yet in some cases it will be quite alarming. In such cases use must be had of the various styptics, as Monsel's solution, sulphate of copper, powdered alum, etc.

The tonsils may be, though very seldom are, the seat of a serous *cyst*, a thin aqueous fluid, or a translucent substance like the white of an egg, being its contents. It is usually very small, and can only be suspected when the tonsils are of a whitish, translucent appearance, and the sense of fluctuation is felt on application of the finger. The only inconvenience it affords is its interference with the act of swallowing.

It should as soon as recognized be punctured and, as soon as its contents have escaped, be thoroughly injected with either carbolic, or chromic acid, tincture of iodine, or *argenti nitras*.

Once in a while a fibrous growth of a *polypoid* nature will be observed growing on the tonsils. They should be removed.

by grasping them with a pair of polyp-forceps and twisting them off.

The tonsils are so rarely affected with encephaloid, or other malignant growths as to hardly deserve to be mentioned. When they do occur, however, they are recognized by the characteristics common to these kinds of growth in other structures, and they generally exist in connection with similar affections elsewhere.

Treatment is of little avail, and the only justifiable cause for interference is where the gland is so large as to obstruct the passages to the lungs and stomach, and then only temporary relief can be hoped.

The salivary glands, owing to their protected situation and the peculiarity of their function, are very rarely the seat of accident or disease. Still we sometimes meet with morbid growths of these parts most of which are of a malignant form. They will be noticed separately in the following order, sublingual, submaxillary and parotid glands.

The most common affection of the *sublingual* glands is an encysted tumor, which on account of its supposed resemblance to the belly of a frog has received the name of *ranula*. The cause of this growth is the closure of the orifices of the excretory canals of the glands, either by some foreign substance, or adhesion of the walls. The secretions accumulate, causing the gland to increase in size. The pent up fluid undergoes very important changes, generally assuming the appearance of the white of an egg, but it may be thin and aqueous, or of a thick pappy consistency, or like the synovial liquor of the joints, yellowish and oily.

They generally occur in young people, the ages between 18 and 30 being the most prolific, still they may occur at any age. They rarely get larger than a robin's egg, though they may assume such size as to force the tongue against the roof of the mouth, thereby preventing eating and drinking as well as speech. The teeth may be also crowded out of place and the chin caused to elongate, as in the case of *erectile tumors* of the tongue.

The diagnosis is easily made out. Its tardy development, little or no pain, its peculiar appearance, and its situation under and by the side of the tongue leave little doubt as to its nature. Should, however, any doubt exist, an exploring needle will soon settle the question.

The treatment will, of course, depend much on the size of the tumor and age of the patient. If the case is of recent origin, relief may be given by introducing the probe, thereby removing the obstruction; still while this may be successful, it is such a very tedious operation as to hardly recommend its use. The most satisfactory treatment is to cut out a part of the sac with hook and scissors. The part will gradually heal by granulation. Some surgeons depend a great deal on the seton, or the sac may be injected with the tincture of iodine or carbolic acid diluted. Sometimes the *ranula* is a hard, gristly mass; in that case, it must be extirpated. This is easily done by making an incision along the side of the tongue, the mucous membrane reflected and the tumor enucleated with the handle of the scalpel.

Carcinoma of the gland is of extreme rarity, but it possesses all the characteristics of this disease in other parts.

The *submaxillary* glands are very rarely the seat of disease, but we occasionally find an ordinary tumor here as an enlarged lymphatic ganglion. They rarely need excision, generally yielding to anti-strumous remedies in connection with hygienic treatment. But where there are serious symptoms, then the tumor must be removed. This operation does not require as much skill as it does anatomical knowledge of the region in which it is located. The easiest way is to make an incision along the base of the jaw, having an assistant hold the facial artery out of the way with a blunt hook, then take the fingers, or handle of the knife and gradually extract the mass through the opening. Sometimes, however, the tumor is immovably fixed, in this case it requires a tedious and careful dissection.

The malignant disease to which this gland, in common with the parotid, is subject, is *schirrous*. Yet this affection very rarely exists. This gland may become involved with carcino-

ma of the lower lip, or epulis, or encephaloid of inferior maxillary.

The only remedy is excision, which unfortunately is seldom curative. The operation requires some dexterity, as the facial artery is necessarily involved. By tying this artery, which will be found posterior to morbid growth, the operation may be comparatively a bloodless one, taking care to avoid the sublingual artery and hypo-glossal nerve. Make the incision directly over the middle of the tumor, or if it is of much size, a T incision may be required.

As the malignant diseases of this gland can not always be diagnosed, with any degree of certainty, from the simple enlargement and induration, it will be seen that we must thoroughly investigate the case prior to subjecting the patient to so serious an operation. If the swelling is from ordinary causes, the simplest methods are often sufficient, as for instance the removal of a carious tooth, or piece of necrosed jaw bone.

The *parotid* gland is subject to fibrous, schirrous, melanotic, and encephaloid tumors, either in the gland itself, or the tissues surrounding it. The exact nature of tumors in this locality is hard to diagnose; they generally originate in the lymphatic ganglions, and are of slow development, but accompanied with most severe pains on account of their pressure on the adjacent nerves. They vary in size, from a walnut to that of a squash, sometimes producing the most hideous deformity, the patient being unable to open his mouth.

The *schirrous* and *fibrous* variety seldom gain much size, but the *encephaloid* and *melanotic* grow very large. The usual tendency is to produce death, either by constitutional irritation, or ulceration and copious discharge. When these growths show themselves at an early period, they usually run their course in from a year to a year and a half. The *encephaloid* being the most common.

The *schirrous* tumor is most usually found in elderly subjects, and is known by its great firmness, slow growth and usually small size. The *melanotic* is easily told by its lobulated and peculiar colored surface, and its development, which is

between the schirrous and encephaloid. This form of morbid growth is usually found in young adults.

The only treatment where these affections become troublesome is the knife. The removal of the parotid gland is not an easy thing to accomplish, even in the cadaver, on account of its peculiar situation. But it is more easily done in a diseased condition than when it is healthy, as in the latter case it is a soft indistinguishable mass, while in the former it is well defined. The patient should be laid with the unaffected side to the table, head and shoulders well up. An incision is then made, where the tumor is small from the zygomatic arch in front of the ear to about an inch below the angle of the jaw; this will afford usually enough room; but if the growth is of any size, then the incision must be crucial, T shaped, or elliptical. The flaps are dissected back and the tumor lifted out from below upwards, in preference to from above downwards, as in the former case there is less danger of wounding the important blood vessels and nerves while detaching the deep seated parts of the mass. Great caution should be exercised here, more reliance being placed on the handle of the knife, or the fingers which will easily separate the tissues where they are thin and brittle. But even then care must be observed lest too great a degree of inflammation be superinduced. The *internal carotid* artery and *jugular vein* with concomitant nerves are to be avoided; the *digastricus* muscle must sometimes be divided on account of its being over the tumor.

The antiseptic method must always be used in all operations of this character, which should only be performed by a person having a complete knowledge of the anatomy of the parts. The operation is always followed by complete paralysis of that side of the face in consequence of the motor branch of the seventh pair of nerves being divided. This paralysis may in part disappear after a time. A rather unique operation is given by Prof. Garretson to remedy this kind of mishap. (System of Oral Surgery, p 990.)

The treatment of the wound requires the utmost care and watchfulness. The patient may die from loss of blood, shock,

or inflammation of throat and larynx. If the disease is malignant, it will recur in from two to eight months after the operation.

We are apt to have all the tumors that affect the gland proper, occur in the enveloping tissue, but the most common is an enlargement of one or more of the lymphatic ganglions, which enlarge sufficiently to cause the gland to shrink and waste away. As much care must be exercised in the excision of these masses as of the gland itself; and the unwary may on removing one of these growths be led to suppose that he has also removed the gland. The operator must guard against injuring the branches of the *porta dura* and also the integrity of the duct of steno.

The next part in order is the *gums*. We have several varieties of tumors in connection with this structure, yet they are of a secondary nature, generally caused by the extension of the disease from an adjacent part. The most common form of morbid growths of the gums, and we may say of the month, is the *epulis*, which more correctly belongs to affection of the inferior maxillary in which connection it will be discussed. The *carcinoma* of the gums are also generally of a secondary nature, being an extension of the disease.

We now come to those organs in which the dentist is more immediately interested. The only tumor directly connected with the *teeth* is a fungous growth very erroneously described by Prof. Garretson as *epulo fungoid tumor*. This growth has nothing to do with the gum, but develops directly from the pulp chamber of the tooth. It is very vascular, caused by the enlargement of the blood-vessels of the diseased pulp. This kind of tumors occasionally have periodic hemorrhages seemingly in connection with the menses. They are generally the seat of most excruciating pain and the usual course pursued is the extraction of the tooth. Yet this is not at all necessary, for the growth can be excised, and the diseased pulp treated and capped, and the tooth filled and made to do service for many years. The best way to do is to insinuate a spoon-shaped lancet between the mass and the walls of the cavity, gradually work it down to the pedicle, then with a quick cut sever the con-

nection and the tumor can easily be removed. Great care has to be exercised in getting the lancet to its base, as it is generally productive of some pain and the knife is liable to cut the tumor, thereby producing profuse bleeding. After the removal of the tumor the hemorrhage may be controlled by *liquor ferri persulphatis* (Monsel's solution), then the cavity should be filled with a plug of cotton saturated with carbolic acid, dilute and tincture of iodine. When it is supposed that inflammation has subsided, the nerve can be capped and tooth filled as the operator sees fit. A good way is to cover the stump of the pulp with collodion, then fill the bottom of the cavity with a very thin solution of one of the many preparations of *phosphates* used by dentists, and after this hardens fill with some plastic material which can at some future time be partially removed and a gold cap put on. A good way to get rid of this tumor where hemorrhage is feared, is by applying *argenti nitras fusus* (lunar caustic).

There is also an ivory wart-like excrescence found on some teeth. We also have an exostosis of the roots of some teeth. These, as a rule, cause no trouble, and are best not interfered with.

Polyps of the *maxillary sinus* is of very rare occurrence, a great many growths have been falsely called under this name, the most common of which is *sarcomatous*. It is very difficult to describe this form of tumor, its elements are so various and multiform. Its most ordinary character is fibrous which the name signifies, still we leave an intermixture of other elements as cartilaginous, minute cysts containing serous, sanguineous, glairy, or other fluids, serve to make them compound in character. Few vessels appear in their composition, and so they rarely attain much size, yet they sometimes reach the size of a man's fist; neither is there much bleeding when they ulcerate, or we remove them. Their color varies, some pink, some oyster-like, opaquely white, some livid. The mucous membrane lining the sinus is usually the seat of the origin of this class of tumors, yet they sometimes spring from the bone which is gradually broken down and lost in the new product. Middle age seems to be the time they most frequently appear.

These growths are easily recognized by their spherical, ovoidal, or pyramidal shape, their indisposition to ramify through neighboring tissues, being firm and tense in consistence, painless, the neighboring lymphatics being unaffected, and their tardy growth. These tumors have but slight tendency to ulcerate; the mouth retains its natural florid appearance. There is no bloody nasal discharge as in *encephaloid*. The general health is not impaired, and the countenance is free from the sallow appearance common to malignant disease.

In removing these growths, entrance should always, if possible, be made through the mouth, as then no unsightly scar will be left on the face. The cheek should be carefully dissected away from the bone, an entrance made into the antrum just above the roots of the teeth. When the walls are thin only the knife should be used, but they may be so thick as to require gouge and mallet. If the growth is unusually large the entrance will have to be made through the cheek.

There is an *erectile tumor* of the geny-antrum which appears to be an anastomatic aneurism of the branches of the superior maxillary artery. It is of the same variety as *nævus* of the face. Whether it originates in the mucous membrane or long walls of the maxillary sinus is uncertain. The walls of the antrum are absorbed as the tumor increases in size and it appears as a blue, purple, or bright red subcutaneous growth, pulsating in unison with the left ventricle of the heart. The tumor is liable to produce great deformity by encroaching on the nose, mouth and eye. This tumor is easily recognized by its steady, and almost painless growth, its livid color both internal and external, soft, spongy, pulsating mass. The general health is very rarely affected till the sanguinous discharge from the nose commences, which will sooner or later set in.

When the tumor is recognized early, it is best to expose it by careful dissection and apply actual cautery, *liquor hydrargyri nitratis* (acid solution of nitrate of mercury) or Vienna paste, or a part may be ligated as in hemorrhoids. Where the tumor has assumed a very large size, Prof. G. S. Patterson's plan of ligating the common carotid artery may be tried, but with little prospect of success.

We now come to the most common as well as the most formidable affection of the *antrum of Highmore*. The *ostecephaloma*, or soft cancer, occurs in both sexes and at all ages, although the most usual time is between 20 and 40 years of age. Its most common point of origin is the mucous lining of the sinus, though sometimes it begins in the cancellated structure of the alveolus of one of the molar teeth, in the gum, or periosteum. Where it commences in the *geny-antrum*, it generally fills the chamber and forces its osseous parietes against the adjacent parts. It, of course, advances more rapidly anteriorly than in any other direction on account of the slight resistance the thin wall can make to its progress, thus early forming a prominence on the cheek. The mass also proceeds down towards the nose, closing the corresponding nares, upwards to the floor of the orbit, forcing the eye out, down towards the palate, displacing the tongue, encroaching on the mouth and fauces, thus preventing mastication, deglutition, respiration and articulation. The patient at this stage of the disease is truly an object of commiseration, on account of his horrible deformity. The disease sometimes progresses rapidly, and at other times quite slowly, it seems to be more rapid in children and youths than in middle or aged people.

The *encephaloid* of the superior maxillary bone is easily recognized, the rapid development of the tumor, its soft elastic feel, livid look of its buccal part, sharp darting pains. In its latter stages the character of the ulcer and its discharges, together with the sallow cadaverous face, and the affection of the lymphatics of the ear, temple, etc., leave no doubt as to it. Then the history of the case, and the knowledge that this disease occurs at any age, while other growths occur only at certain ages. Should doubt exist, then the exploring needle must be used; if it is a cyst, then we will have an escape of serum, or mucous-sanguineous fluid; but if it is encephaloid, then the smallest particle will, under the microscope, reveal the cancer cell.

This disease is generally of a local character, and seldom exists in connection with other malignant disease in other parts

of the body. This is probably why early excision has been rewarded with a cure. Yet, as a rule, an operation will barely do more than afford temporary relief.

Schirrous of superior maxilla is rarely seen; encephaloid being often mistaken for it. Should it occur, it will usually be in advanced age, as a hard tumor. Yet this must not be confounded with the induration which succeeds inflammation, although the two states are at times so complicated as to bear the relation of cause and effect. When the surgeon is satisfied as to its nature, he should remove it as once.

Exostosis may affect the superior maxilla at any part and gradually involve the whole bone. It is purely a local, and mostly a benign affection, generally found in old or middle aged people. It results from external injury, syphilis, scrofula, rickets, gout, etc. In such cases it is best to get rid of primary cause.

It can easily be told by its tardy and painless development, its extreme hardness; the adjacent tissues being healthy, general health unaffected. There will be no sanguine or mucous discharge, no pus, no ulceration, nor disfigurement of face, or alteration of the lining membrane of the oral cavity. The size which sometimes is very great, is the only inconvenience. A very small exploring needle will decide as to its nature, should doubt exist.

Medical treatment will do but little good, unless when the tumor is small, the internal use of iodine might effect some good. If syphilis, or other taint is its cause, then these must be gotten rid of. But usually nothing short of extirpation will avail, which fortunately, is easily accomplished.

Encysted tumors are sometimes found on the upper jaw, but they are extremely rare. There is a very nice specimen of the remains of one on a skull in the possession of my brother, Dr. Wm. N. Conrad, of St. Louis. The tumor evidently originated in the cancellated structure just above the left lateral incisor and cuspid teeth, and grew to be about as large as the end of a man's thumb.

Prof. Gross describes a similar one, the cure of which was

effected by being cut open and application being freely made with chromic acid.

The tumor most common to the inferior maxilla is the *epulis*. It is a fleshy tubercle generally found proceeding from the sockets of one of the molar teeth. It afterwhile ulcerates and a bloody discharge takes place accompanied with great pain. It is of a malignant character and produces death in from one to three years.

The only treatment is to make a resection of the jaw bone to a considerable extent on both sides of the seat of the affection.

The lower jaw is also subject to a *cystic* tumor, but it is very rarely seen, and is of a benign character. It may attain great size, thereby disfiguring the face considerably, and it may so encroach on the mouth as to impede eating, drink, speech and, perhaps, respiration. It usually affects only one part, but the whole jaw may gradually become involved. It is usually composed of a number of cells united. The diagnosis is very simple, one peculiarity about this growth is on striking it, where the cells are large, there is a sound given like that produced by striking a dice-box.

The treatment is usually, after its contents have been removed, to inject it with iodine and water, or carbolic acid and water, then apply pressure. If there is much tendency of the cyst to refill, then cut it open and put in a tent saturated with iodine or carbolic acid. If the tumor is very large and thick, then dissect down to it and chisel away part, or all. There is no danger of its recurring when thoroughly removed.

There is a form of cyst which, on account of the peculiar nature of its structure is called *hematoid*. Same treatment as for a cyst. *Encephaloid* is found here as elsewhere, and produces death in about one year after its origin.

This ends the list of important tumors of the oral cavity. I have but merely touched on this most important subject, but no doubt have made my paper too long for the good of the society. Yet but a few words more and I am through. If the tumor is benign, stationary, painless, and does not interfere with any of the functions of the mouth, it is best left alone.

Erysipelas is a frequent sequence of operation, so where one is determined on, the system should receive previous preparation. Care should be taken in removing the tumor to injure the healthy surrounding parts as little as possible; therefore, the blade should be used as little as possible. All diseased tissues must be removed with the tumor. The incision must be so made as to favor drainage; that is, one extremity must be at the most dependent part of the growth. None of the healthy integuments over the tumor ought to be removed unless the growth is of great size, due allowance being made for the skin's wonderful contractile power, as there may be a deficiency when the flaps are being approximated. When all oozing of blood has ceased the edges are nicely brought together by suture and adhesive straps, the object being to get union by first intention. It is generally best to let the first dressing remain unchanged for at least three days, unless there are some unfavorable signs.

In malignant disease it is best not to disturb the growth, as it only, as a rule, aggravates the difficulty. The patient should be put on hygienic treatment, bowels kept regular, and sleep produced by anodynes and narcotics where the pain will not allow of natural rest, besides the anti-septic and the anti-phlogistic treatment.

Where extirpation is decided on, then it must be thorough, as the smallest cancer cell may reproduce the malady. Therefore, the incision must be made through the healthy tissues some distance from the growth, and if part is left on the removal of the main mass, it must be traced out and removed. Where only a part of an organ is affected, it is a good rule to remove the whole organ.

Whatever you do, do with precision and firmness, let there be no tremulousness, no hesitancy in your operations.

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THE TREATMENT OF CERVICAL WALL.

BY J. F. HASSEL.

Read before the Missouri State Dental Association, June, 1882.

In presenting this subject to the Association, I would say that it is my honest conviction, based upon an experience of 35 years constant practice, that operations required upon the proximal surfaces and especially the cervical wall are by far the most difficult, the most laborious and at times the most discouraging of any we are called upon to perform.

Very few practitioners, whether attempting the restoration of the contour of the tooth or not, properly prepare and fill cavities and finish fillings upon the proximal surfaces.

The vast majority of operators, and I will say some of those reputed first-class, fail to remove every part of disintegrated enamel and dentine, and also leave that part of the filling and the cervical wall very defective, although such fillings may have the appearance of having been properly inserted and finished. Result.—Many of our grandest efforts on these walls are but golden monuments and pyramids of magnificent folly and brilliant failures.

Now I do not profess to know much about the formation and action of acids, polarization, galvanic action, incompatibility of gold, and a thousand and one other things, said to take place through their agency between metals and calcium. I am positive, however, that failures in dental operations are attributable in a large majority of instances to another cause than those just referred to, viz: the very imperfect manner in which such operations are performed.

How strange it is that none of us ever have failures, and still more strange we never tell of these failures. But when these failures present themselves, which they do sometimes, we are

very apt to say the cause is chemical action, or something to that effect.

Ever since our illustratious kinsman, Adam, ate the first fruit in the garden of Eden and laid the blame on our grand and beautiful old mother Eve, man has been turning the world upside down to find something or somebody, besides himself, to lay his faults and sins upon, or to find some way to get out of the responsibility of his own failures and faults.

I tell you, gentlemen, we may censure the material, this or that, and lay it to the tooth substance or something else, but when the truth, the whole truth, and nothing but the truth is told it is us, it is I. It is the manner and the way the filling is made, that makes all gold fillings fail that do fail, it is not the gold or tooth substance that is at fault, not by any means. If gold will prevent decay on the grinding surface, it certainly will accomplish the same object on the cervical wall.

Any one with half an eye can see just where the fault is. It certainly is not between gold and dentine, but between dentine and untutored and unskilled brain and hands to carry out the simple law of adaptability. Now what is adaptability as applied to our specialty? I will cite a case or two. If any one still doubts the perfect adaptability of soft gold foil, let him make a few light scratches on a smooth ivory surface and press a pellet of soft foil upon them, he will be surprised to see the accuracy with which every mark is reproduced.

It is a well established fact that tartar will arrest decay, it certainly is not owing to any peculiar preservative power that it possesses, not at all. But here is the secret, it is deposited while soft, thereby receiving and partaking, in the strictest sense of the word, the impression of the surface beneath it. It adapts itself to the teeth in health and teeth in decay. It cares nothing for the acid or burns, excavators, files and such like, in preserving teeth, but in lieu thereof and without any preparation of cavities, deposits its life preserving properties without stint or grudgingly over decayed teeth, filling cavities, and strange to say, but nevertheless true, arresting and holding in check the decay within. Will wax preserve a tooth? it certainly will. Will

gutta percha preserve a tooth? it certainly will. This is truly very strange. Is not this remarkable? What then is the solution to all this seeming great mystery? My reply is, that by perfect adaptability every agent that will cause a tooth to decay has been excluded.

In the year 1850, while in Santa Fe, N. M., I saw natural teeth attached to plates made of thread, on which deposits of tartar had taken place to such an extent, that instead of a plate of thread to be seen, there was a solid plate of phosphate of lime. A rock fitting the gum, forming springs around the teeth to which it was fastened, filling cavities of decayed teeth, and in every case arresting decay, making a decidedly better fit of plate, than art at that early day could accomplish. I asked who did this. The reply was, El Senor Francisco la Dentisto. Once more, I have often admired that beautiful gold tint which we sometimes see through the enamel, and we don't see it often when it should be seen, it is by no means any easy matter to get this color. But let us see, when operations have been so performed as to entirely prevent fluids from entering between gold and the tissue against which it is placed, and all discoloration has been removed, and your gold perfectly condensed against the wall of your tooth, then the gold tint may be seen. Now some of us, I fear, fail to get such results with cohesive gold and mallet. To all meeting with such trouble, in all kindness, permit me to say, try soft gold foil No. 4, and a good heavy strong burnisher, my word for it you will find just what you were hunting for—that tint of gold and perfect adaptability. But why should I thus go on with these illustrations of adaptability. I must believe that we are all familiar with these facts. Taking the above as facts, for argument sake if nothing more, why should we not be eclectic in the use of gold. I hold that the manner of using it and the preparation of gold ought and should be adapted to the case that is under your treatment, so that you can make the filling absolutely tight at every point, then you will succeed in every case. A filling coming up to this standard, in my humble, judgment never fails. In preparing cavities for fillings on proximal surfaces no mere

routine is to be followed. A wide range exists here for the exercise of common sense and discretion, for it is in the management of this class of cavities, possibly to a greater extent than any other that a knowledge of principles may be made available.

Enough cutting must be done to give the cavity a positive retaining shape, and no margin of doubtful strength should be left standing to jeopardize the success of the operation by subsequent crumbling. Your cavity must be so prepared that no disintegrated tissue remains, except a little over the pulp, when nearly exposed, which should be left for its protection. Touch this entire surface with a little carbolic acid, it serves as a disinfectant, it also coagulates the protoplasm of the ends of the fibrils in the dentinal canaliculi, and will also obtund sensation, in all cases where the pulp is nearly exposed, use oxy-phosphate of zinc as a non conductor, which will prevent that unpleasant feeling of heat and cold. The margin of enamel should be slightly beveled when gold is to be placed over it, and it should always be made smooth with files, emery cloth or any other means at your command. A groove, where it is possible, should be cut along each wall of the cavity, and must be made in the dentine within and near the line of both the buccal and palatal or lingual portion of enamel, the cervical wall inclined a little, a very little, inward. The cervical walls of these cavities, especially those that approach the neck of the tooth, must be examined with great care. They often approach very close to the margin of the enamel, where it meets the cementum, and is very apt to splinter off while inserting the filling or after it is finished. I prepare this wall mostly with excavators, cutting inward. I think it is a good practice when there is but a small remnant of enamel left at this point, to cut it all away, cut until you are well under the free edge of the gum.

Much has been said in this paper about adaptability; now for the application.

The first few pieces of gold that are laid against this wall (cervical) in making a filling usually seal the fate of the tooth for better or for worse; for better, if gently yet firmly and

thoroughly adapted; for worse, if the pieces be clumsily tumbled in, or too heroically forced to position.

The cervical wall, to preserve it, requires the most perfect adaptation of the filling. In many instances it is remote, in darkness and exceedingly difficult to reach with absolute certainty. The attempt to cover it with cohesive gold, point by point, has been found by ample experience to give numerous failures—failures without number—while no gold fillings stand so well just here as those of soft foil, because it can be gradually carried across the whole breadth of the cavity until the mass perfectly fits the wall.

The class of cavities which pre-eminently bring forth the nobler qualities of soft gold are such as we find on the posterior proximal surfaces of bicuspid and molars reaching far up under the gum—cavities the most uncertain, exhausting both to operator and patient, and of necessity very expensive.

I will now attempt to give you in brief my manner of preparing and filling this class of cavities. My cavity being prepared, tooth guarded against moisture, my soft gold cylinders in readiness, I pick up with my pliers one of these cylinders, place it in position, one end resting firmly against inner back wall, the side on bottom of cavity and the other end protruding and in contact with the wall of the adjoining tooth. My object in letting my gold extend to the adjoining tooth is to allow for surface condensing.

Pressure in the direction of the wall against which the cylinder rests is then made with the closed points of the pliers, and afterwards with a condensing instrument having a smooth, wedge-shaped point. When this cylinder is secure, others are introduced in like manner until this wall is covered with gold. This being done, if the gold has not gone beyond the enamel, add another layer, and so on. I will now condense this gold by pressure. First, condense cylinder next to buccal wall; treat cylinder next to palatal or lingual wall same way (I will state that I do not fully at this time condense these two cylinders). This gives the gold somewhat the shape of an

arch; now go over this gold with gentle, very gentle, pressure, beginning at the buccal or palatal wall, no matter which; say, by way of illustration, begin at palatal wall; press the gold gently until the centre of the arch is reached, barely touching the keystone or central cylinder; stop right there. Now go to the buccal and treat same way. Continue to go over the gold in this way, increasing the pressure each time. After making this gold as dense as I can with hand pressure, I finish with my mallet, not using any heavy blows, but light and prolonged tapping, the better to unite the particles of gold and also cause it the more readily to adapt itself to the interstices in the walls of the tooth. When used thin and soft and introduced with gentle force into the cavity, gold needs a good deal of patient coaxing. I now commence with my cohesive foil and mallet, putting in enough to secure these cylinders from injury while finishing this wall and gold; and let me modestly impress upon your minds that this is the time to finish this wall and gold in a proper manner. Here are the ends of all these cylinders protruding beyond my cavity; what shall be done with them? I take my heavy burnisher, put on about a thousand pounds pressure, more or less; condense it as much with this instrument as is possible, then file a little, then burnish, file and burnish again, continuing this until the gold is flush with the margin, finishing with the burnisher. How to polish the tooth substance at this point has troubled me not a little, because I have always contended that the polish should be as near the polish of the enamel as possible—equal with it if possible. Seeing the perfect polish that chemical and mechanical abrasion leaves on the dentine, the thought was suggested that I might by experimenting produce something like it. I had experimented with various things, and had almost given up hope of ever accomplishing my object, but am happy to say that my last experiment was attended with better results. It consisted of a small piece of window glass and water, and by friction I gained this result. I am firmly of the opinion that if I had discs and slips of polished glass, I could put quite as fine a polish on dentine as we find on the enamel.

I say finish the gold and proximal wall perfectly, let it be free from the slightest indentations which may afford lodgment for extraneous matter. Exhaust all your skill and patience; make the tooth substance and gold as brilliant as a mirror, make it scintillate, make it cast a halo of beauty about, make it as beautiful as apples of gold in baskets of silver. This being accomplished, you need not fear the result.

To all—especially to my young fellow-practitioners—I would say :

“ To show our simple skill,
That is the beginning of our end ;
Follow the first design with earnest will,
For Nature’s form doth strength with beauty blend.”

DENTAL LEGISLATION.

BY J. W. REED, D. D. S., MEXICO, MO.

Read before the Missouri State Dental Association at Sweet Springs, Mo, June 8, 1882.

In 1840 the legislators of Alabama, in their high wisdom, saw fit to enact the first laws regulating the practice of medicine and dentistry in the United States, thereby guarding her people against the inroads of ignorant quacks and impostors, since which time fourteen other States of this Union have thrown around their citizens like protection by a wise system of dental legislation; and since it will not be denied, that the action thus taken by the several States, has proven to be a great blessing to the people, it affords a reasonable ground for hope that the people of the great State of Missouri may ere long receive a like protection.

Perhaps there never was a time in the history of any State, when so great a necessity for dental legislation existed, as there is to-day in Missouri. She has not only her full quota of her own quacks, but is becoming an asylum for those of other States

who, by reason of dental legislation, must, of a necessity, seek new fields and new victims to prey upon.

Here the field is wide and free. No restrictions; no standard of qualification whatever required; no guards thrown around honest unsuspecting people. When the ignorant quack is told in Illinois, Iowa, or any of those States that have passed laws regulating the practice of dentistry, that some qualification is necessary before he can practice, what does he do? Comes to Missouri and goes like a tramp from house to house, spreading pain and destruction along his pathway, and bringing disgrace upon an honorable profession. Many good, honest, unsuspecting people know but little about dentistry—think there is but little in it, anyway; that one is about as good as another; are ready to let any one operate for them who sees fit to call himself a dentist, especially when a little inducement, by way of cheap dentistry is offered. In this way many not only lose what they pay out but their teeth as well. It is to put a stop to this system of quackery that legislation is so much needed. And if we expect to ever command, as a profession, that degree of respect and recognition by other learned professions that we all so much desire, there must be a line drawn—*a weeding out*—a standard of qualification of no mean degree made; and this can only be done in our legislative halls. And I think the time has come when every member of this body should feel himself called upon to work to that end that will most speedily elevate our standing as a profession.

The reputation of a profession depends much upon the kind of material of which it is composed; therefore, all who take students into their offices should see to it, that proper and worthy material be selected and a binding pledge given that before assuming the responsibility of practice they complete the course in some dental college of high standing.

Dental colleges, with ample facilities for thorough training, have sprung up in almost every large city throughout the United States, and there should be no longer any *lawful* excuse for a young man entering the profession unqualified, but this will be done until we have legislation. Far better that practice

be delayed a little longer than to enter the profession a bungler, and infinitely better for those who fall into their hands.

The degree of D. D. S. is just as legally conferred as M. D., and should receive equal legislation. These self-styled M. D.'s by legislation are denied the right to practice, and whilst I would not be in favor of depriving any worthy man now in the dental practice, who has never availed himself of the advantages of a collegiate training, the right to continue—I know there are worthy men and good operators in our ranks who never saw inside of a dental college. But thus far, and no farther, is my doctrine.

It would be better for the people, better for the individual practitioner, better for the profession at large, that we have a law that will admit no man in the future who does not come with the proper credentials from some dental college of reputable standing, *and not*, as some of the States have it, from some medical or dental college.

The average medical graduate is but little better qualified to practice dentistry than a graduate from any other institution of learning would be. At the rate the dental colleges are turning out graduates they will be found more than equal to the demand, without calling upon unqualified medical material. If any medical man wishes to become a dentist let him take a dental course. There is more to be learned in dentistry than many physicians imagine, and all the medical knowledge a man brings with him is all the better for him and his patients. A lack of knowledge has been a great drawback to our professional progress.

In conclusion, Mr. President and gentlemen, allow me to say we have much cause for congratulation. With the wonderful improvements in our art, the high recognition already gained, with a higher education, a higher standard of moral and intellectual worth, a little judicious legislation, then, with clean hands and pure hearts, let us work with an untiring diligence to uphold and sustain the honor and dignity of the profession, and a professional standard of which no man need be ashamed will soon be ours.

PROGRESS OF DENTISTRY.

BY A. H. FULLER, M.D., D. D. S.

While taking the foregoing for my subject, it is not my intention to enter into the history of the science of dentistry, further than to show that we are, as a profession, advancing in the right direction, and at a very satisfactory pace.

I will confine myself to a period of time covered by my own personal experience in the profession, and embracing the last twelve years.

The standing of any calling or profession is determined more by the intelligence of its members than by all else combined, and any steps toward the advancement of the dental profession intellectually, will necessarily be progressive.

Within the last few years any one desiring to study dentistry was allowed to matriculate and enter upon a course of lectures regardless of educational acquirements. Now all *reputable* dental schools require a satisfactory preliminary examination before they will matriculate a student.

Students were received into offices and turned out as practitioners, the only conditions to be satisfied being wholly pecuniary. The By-Laws of this Association, Art. III, Sec. 1, indicate the advance in this direction. It reads as follows: "No member of this Association shall receive a student except upon his agreeing to spend two years as a student of dentistry before commencing practice for himself." Now I will state it as my belief that if students were compelled by law to pass a satisfactory preliminary examination in the English branches and to receive two years' instruction in an office before being allowed to practice dentistry in this State, it would have a better effect than most of the legislation at present in force in neighboring States. I further believe that the members of this Association can advance the profession more by accepting only those for students who have acquired a good education, and show upon their face that they will be more likely to *honor* than disgrace the calling, than by any effort at legislation.

The Dental Colleges have added to the respectability and advanced the general standing of the profession, more than any other cause, and the gradual advance in the curriculum of the schools will continue to add to the good effect they now exert.

There are at present in the United States, twenty Dental Colleges or Dental Departments to Medical, Colleges and Universities, namely :

Baltimore College of Dental Surgery,	Ohio College of Dental Surgery,
Boston Dental College,	Pennsylvania College of Dental Surgery,
Dental Dept. of the University of Tenn.,	Philadelphia Dental College,
Dental Dept. of Vanderbilt University,	New York College of Dentistry,
Harvard University Dental Dept.,	University of Michigan Dental Dept.,
Indiana Dental College,	University of Pennsylvania Dental Dept.,
Kansas City Dental College,	Western College of Dental Surgeons.
Missouri Dental College.	

There have been organized during the year :

University of Iowa Dental Department,	Dental Dept. Rush Medical College,
University of California Dental Dept.	Dental Dept. Chicago Medical College,
University of Maryland Dental Dept.	

The following schools have been at different times abandoned or incorporated with others that have been mentioned, namely :

New York College, Syracuse,	New Orleans Dental College,
Maryland Dental College,	St. Louis Dental College.

There have graduated from the schools above named as follows, receiving the title of D. D. S., or D. M. D. :

	ORGANIZED.	BY CURRICULUM.	HONORARY.
Baltimore College of Dental Surgery,	1840	830	152
Boston Dental College,	1867	188	...
Dental Dept. University of Tennessee,	1878	60	...
Dental Dept. Vanderbilt University,	1879	29	...
Harvard University Dental Dept.,	1869	99	...
Indiana Dental College,	1879	28	1
Kansas City Dental College,	1881	.....	...
Missouri Dental College,	1866	93	2
Ohio College of Dental Surgery,	1845	390	20
Pennsylvania College of Dental Surgery,	1855	897	7
Philadelphia Dental College,	1863	682	...
New York College of Dentistry,	1866	252	...
University of Michigan Dentistry Dept.,	1875	147	...
University Pennsylvania Dental Dept.,	1878	133	...
Western College Dental Surgery,	1877	16	2
New York College,	.....	11	...
Maryland Dental College,	.....	51	...
St. Louis Dental College,	.....	37	...
New Orleans Dental College,	.....	31	1

Making a total of thirty-nine hundred and seventy-four by curriculum, and one hundred and eighty granted honorary degrees, most of the latter from the Baltimore College of Dental Surgery, during the early days of its organization.

There have graduated from the different schools this spring by curriculum, three hundred and forty-three, which, with the class from the Harvard school, with nine candidates for the degree, will probably bring the total up to above three hundred and fifty. A large majority of these will no doubt exert their influence for good in the profession, and while some may fall from grace, all cannot help but be better men and practitioners from having attended the schools from which they have received their degree.

The relation of the Dental to the Medical profession has greatly changed within the last twelve years. The schools of dentistry at that time, with the exception of one, or possibly two, were entirely distinct from those of medicine. Now, of the twenty colleges in the United States, thirteen are directly connected with medical schools, and many of the balance so connected that tickets are allowed to apply toward a medical course for the chairs of Physiology, Materia Medica, Chemistry, Surgery and Anatomy.

From my own observations I will state that dental students, as a class, are fully as good students as those of medicine in the branches common to both, and in personal appearance and general intelligence, equal if not superior. The relations between the students of medicine and dentistry have always been the most cordial, and the fact in many cases that they were taking a dental course instead of medical, was not known to the professors occupying the chairs in common, until their names were proposed for graduation.

As to the recognition of dentists by doctors of medicine, I will state it as my belief, that in proportion to the intelligence of either will the recognition be mutual, and just in the same manner, a lack of intelligence prove antagonistic. There are fully as large a proportion of M. D.'s who do not receive the cordial recognition of their own profession as there are of den-

tists, the only complaint that I have ever felt like making, or ever have made, or heard made in conversation, has been the recognition, by medical men, of those who you gentlemen would not admit into this society.

The International Medical Congress, held in London, England, last year, did not require the degree of M. D. to entitle dentists to representation in the dental section. The American Medical Association does not, by any means, admit delegates from all medical societies. There are Homeopathic M. D.'s, and medical societies, Eclectic M. D.'s and medical societies, and they are not recognized or represented. How could one expect a D. D. S. to be admitted, where, as you must all know, in many cases, or some at least, the degree was conferred upon the recommendation of professors in Homeopathic, or other schools, not admitted to representation in the Association. The progress, made by the profession, in the means and methods of practice, has been great. Among the many appliances, remarkable for their ingenuity and adaptability, are the different burring engines, the electric pluggers, clamp for holding the rubber dam, etc., the improved forms of gold and other filling materials, engine equipments, laboratory equipments, etc., etc. In the treatment and filling the roots of teeth, the restoration of roots to service by attaching gold crowns, and by improved methods of pivoting teeth, means of removing roots and methods of filling, etc., etc., in fact, in a thousand ways have we added to our means of preventing human suffering, and adding to the comfort of the race.

In summing up our record for the past twelve years, I would congratulate each and every one of you, that you belong to a progressive and liberal profession, and would suggest that, in as much as we are indebted to our profession, that we strive in some manner to repay our obligations, if not by invention and investigation, by conducting ourselves as intelligent, Christian gentlemen.

CONSTITUTION
OF THE
Missouri State Dental Association.

ADOPTED OCTOBER, 1865.

ARTICLE I.

SECTION I. This society shall be called the Missouri State Dental Association.

ARTICLE II.

SEC. I. The officers of this Association shall consist of a President, two Vice-Presidents, a Recording Secretary, a Corresponding Secretary, a Treasurer, and one Executive Committee of three members.

SEC. 2. The officers shall be elected by call, at each annual meeting and hold one year, and until their successors are duly elected.

SEC. 3. The officers shall discharge all the duties belonging to their respective offices.

ARTICLE III.

SEC. I. In the formation of this society, every practitioner of Dental Surgery, present in person, shall, by enrolling himself, and paying the sum of one dollar to the Recording Secretary, become a member.

SEC. 2. After the permanent organization, every Dentist, desiring to become a member, shall present his name, through some member, accompanied with the initiation fee of one dollar, whereupon, a two-thirds vote, and the signing of the Constitution, he shall be a member in full connection.

ARTICLE IV.

SEC. 1. Members shall pay the assessment, and upon the failure for two years, a forfeiture of membership shall ensue.

ARTICLE V.

SEC. 1. A member may be suspended or expelled for immoral or unprofessional conduct, malpractice, or any other gross offense, by a two-thirds vote.

SEC. 2. Any member in good standing, and square on the Secretary's books, may withdraw from the Association by notifying the Secretary in writing.

ARTICLE VI.

SEC. 1. The meetings of the Association shall be held at such time and place as shall be determined, at a previous meeting, not less frequent than once a year.

ARTICLE VII.

SEC. 1. Seven members shall constitute a quorum for the transaction of business at any meeting.

SEC. 2. In the event that a quorum be not present at any meeting, the President is hereby authorized to call a meeting at such time and place as he may deem proper, and give notice thereof by a circular.

ARTICLE VIII.

SEC. 1. Students of members shall be permitted to attend our meetings free of charge, but not to participate in the discussions or business.

ARTICLE IX.

SEC. 1. This Constitution may be altered or amended by a two-thirds vote at any stated meeting, notice having been given at any previous meeting.

BY-LAWS.

ARTICLE I.

SEC. 1. The Constitution of the Missouri State Dental Association shall be deemed the fundamental law of the society.

ARTICLE II.

SEC. 1. This Association shall be governed by parliamentary usage.

ARTICLE III.

SEC. 1. Order of business :

- 1st. Reading minutes.
- 2d. Reports of officers, embracing the President's retiring address.
- 3d. Reports of committees.
- 4th. Election of members.
- 5th. Election of officers.
- 6th. Reading of essays.
- 7th. Discussions.
- 8th. Miscellaneous business.

ARTICLE IV.

SEC. 1. No member shall speak twice on the same subject, without permission of the society.

SEC. 2. These By-Laws may be altered, extended or amended, at any stated meeting, by a two-thirds vote of all the members present.

AMENDED CONSTITUTION,

ADOPTED JUNE, 1873.

ARTICLE I.

Name.

SECTION I. This organization shall be known as the Missouri State Dental Association, and shall consist of active and honorary members.

ARTICLE II.

Objects.

SEC. I. The objects of this Association shall be: to cultivate the science and art of dentistry, and all its collateral branches; to elevate and sustain the professional character of its members, and to promote among them social intercourse and good feeling.

ARTICLE III.

Membership.

SEC. I. Active members shall be or shall have been engaged in the practice of dentistry; shall be elected by ballot, and shall sign the Constitution.

SEC. 2. No one shall be eligible to membership in this Association unless he be a graduate of a reputable dental college, or has passed a satisfactory examination before the Executive Committee.

ARTICLE IV.

Honorary Membership.

SEC. I. Honorary members shall consist of those who are members of the dental or medical profession, or of those who are engaged in scientific pursuits collateral thereto, but such dental practitioners only, as are non-residents of the State, or

retired active members of this or other Dental Associations, shall be eligible to honorary membership in this Association.

SEC. 2. All candidates for honorary membership shall be proposed and recommended by some active member, when they may be elected *viva voce*, by a majority vote of the members present.

ARTICLE V.

Officers.

SEC. 1. The officers shall consist of a President, two Vice-Presidents, Recording Secretary, Corresponding Secretary, and Treasurer, whose duties shall be governed by parliamentary usage.

ARTICLE VI.

Standing Committees.

SEC. 1. There shall be an Executive Committee, consisting of three members, who shall be elected annually by ballot.

SEC. 2. The Executive Committee shall constitute an Examining committee for the examination of applicants for membership; appoint essayists, issue notice of meetings, secure rooms or places of holding meetings, and such other duties as pertain to this office.

ARTICLE VII.

Election.

SEC. 1. The officers of this Association shall be elected by ballot, to serve one year and until their successors are duly elected.

ARTICLE VIII.

Meetings.

SEC. 1. The meetings of this Association shall be held annually, at such time and place as shall be determined at the previous meeting.

ARTICLE IX.

SEC. 1. If at any annual meeting a quorum be not present, the President shall appoint a meeting for the election of officers, and cause the Recording Secretary to give the members notice.

ARTICLE X.

Quorum.

SEC. 1. Seven active members shall constitute a quorum.

ARTICLE XI.

Conduct of Members.

SEC. 1. Any member charged with dishonest or unprofessional conduct, after an opportunity of being heard before a committee for that purpose, if the charge be sustained, may be reprimanded, suspended, or expelled by a vote of two-thirds of the members present.

ARTICLE XII.

Ethics.

SEC. 1. The Code of Ethics adopted by the American Dental Association, shall be the fundamental law of this Association.

ARTICLE XIII.

Amendments.

SEC. 1. This Constitution may be amended or altered by a vote of three-fourths of the members present at any annual meeting.

Amendment to Section 2 Article VI., as follows: Strike out in first line of said section all after the word "shall" to the word "appoint," in third line, so that said section shall read as follows:

SEC. 2. The Executive Committee shall appoint essayists, issue notices of meetings, secure room or place of holding meetings, and such other duties as pertain to this office.

SEC. 3. There shall be elected annually a Committee of Censors, whose duty it is to examine all applicants for membership, and report the result of said examination to the Association.

SEC. 3, ARTICLE IV. There shall be elected annually a Committee on Ethics, whose duty it is to examine into all cases of the violation of the Code and other charges preferred against members.

SEC. 4, ARTICLE IV. There shall be elected annually a Publishing Committee, whose duty it shall be to publish the transactions and papers of the Association.

BY-LAWS.

ARTICLE I.

Members.

SECTION I. Applications for membership in this Association shall be made through an active member, and such applications shall be referred to the Executive Committee, who shall make a report thereon to the Association.

ARTICLE II.

Initiation Fee.

SEC. I. Each member, on signing the Constitution, shall pay into the treasury of the Association two dollars as initiation fee, which shall be the annual dues for that year.

ARTICLE III.

Pupilage of Students.

SEC. I. No member of this Association shall receive a student except on his agreeing to spend two years as a student of dentistry before commencing practice for himself.

ARTICLE IV.

Dues.

SEC. I. Each member shall pay as dues two dollars annually.

SEC. 2. Any member two years in arrears for dues may be suspended or expelled by a two-third vote of the Association.

ARTICLE V.

Holding Elections.

Holding elections for the officers of the Association, and for the trustees of the Missouri Dental College shall be held on the evening immediately preceding the last session of each annual meeting.

ARTICLE VI.

Installation of Officers.

The installation of officers shall be the first order of business at the closing session of each annual meeting.

ARTICLE VII.

SEC. I. The report of the officers of the Association shall be made immediately preceding the close of the last session at each annual meeting.

ARTICLE VIII.

Amendments.

SEC. I. These By-Laws may be altered or amended, at any regular meeting, by a two-thirds vote of the members present.

AMENDMENT I.

Section 2 of Article I. of the By-Laws was amended so as to read: "The vote on membership shall be taken by ballot."

AMENDMENT II.

No member shall speak more than twice on any subject, or for more than five minutes at any time without special permission of the Association.

AMENDMENT III.

Section 2 of Article I. of the By-Laws was amended so as to read; "A two-third affirmative vote shall be necessary to entitle an applicant to membership."

AMENDED CONSTITUTION.

ADOPTED JUNE 8, 1882.

ARTICLE I.

Name.

SECTION I. This organization shall be known as the Missouri State Dental Association, and shall consist of active, corresponding and honorary members.

ARTICLE II.

Objects.

SECTION I. The objects of this Association shall be to cultivate the science and art of Dentistry, and all its collateral branches; to elevate and sustain the professional character of its members, and to promote among them social intercourse and good feeling.

ARTICLE III.

Membership.

SECTION I. Active members shall be or shall have been engaged in the practice of Dentistry; shall be elected by ballot, (and in no case shall a general ballot be dispensed with) and shall sign the Constitution.

SEC. 2. Any graduate of a reputable Dental College shall be eligible to membership in this Association. All other applicants shall pass a satisfactory examination before the Examining Committee.

ARTICLE IV.

Corresponding and Honorary Members.

SECTION I. Corresponding or honorary members shall consist of those who are members of the dental or medical professions or of those who are engaged in scientific pursuits collateral thereto, but such dental practitioners only as are

non-residents of the State or retired active members of this or other dental associations, shall be eligible to corresponding or honorary membership in this Association.

SEC. 2. All candidates for corresponding or honorary membership shall be proposed and recommended by some active member, when they may be elected *viva voce* by a majority vote of the members present.

ARTICLE V.

Officers.

SECTION 1. The officers shall consist of a President, two Vice-Presidents, Recording Secretary, Corresponding Secretary, and Treasurer, whose duties shall be governed by parliamentary usage.

ARTICLE VI.

Committees.

SECTION 1. There shall be an Executive Committee, a Committee on Ethics, an Examining Committee and a Committee on Publication, each composed of three members who shall be elected annually by ballot.

SEC. 2. The Executive Committee shall appoint essayists, issue notices of meetings, secure room or place of holding meetings, and such other duties as pertain to this office.

SEC. 3. The Committee on Ethics shall examine into and report upon all charges and complaints against members for violating the Constitution and By-Laws of this Association. The Examining Committee shall examine and report upon all applicants for membership in this Association.

SEC. 4. The Committee on Publication shall examine all papers, and proceedings and publish such portion thereof, as they may deem for the best interest of the Association.

ARTICLE VII.

Elections.

SECTION 1. The officers of this Association shall be elected by ballot, to serve one year and until their successors are duly elected.

ARTICLE VIII.

Meetings.

SECTION I. The meetings of the Association shall be held annually, at such time and place as shall be determined at the previous meeting.

SEC. 2. If at any annual meeting a quorum be not present, the President shall appoint a meeting for the election of officers, and cause the Recording Secretary to give the members notice.

ARTICLE IX.

Quorum.

SECTION I. Seven active members shall constitute a quorum.

ARTICLE X.

Conduct of Members.

SECTION I. Any member charged with dishonest or unprofessional conduct, after an opportunity of being heard before a committee appointed for this purpose, if the charges be sustained, may be reprimanded, suspended or expelled by a vote of two-thirds of the members present.

ARTICLE XI.

Ethics.

SECTION I. The code of ethics adopted by the American Dental Association shall be the fundamental law of this Association.

ARTICLE XII.

Amendments.

SECTION I. This Constitution may be altered or amended, by a vote of three-fourths of the members present at any annual meeting, provided that notice of such alterations or amendments shall have been submitted in writing at a previous meeting.

BY-LAWS.

ARTICLE I.

Members.

SECTION 1. Application for membership in this Association shall be made through an active member, and such application shall be referred to the Examining Committee, who shall make a report thereon to the Association.

SEC. 2. The vote for membership shall be taken by ballot, a two-thirds affirmative vote being necessary to entitle the applicant to membership.

ARTICLE II.

Initiation Fee.

SECTION 1. Each member on signing the Constitution, shall pay into the Treasury of this Association two dollars as initiation fee, which shall be the annual dues for that year.

ARTICLE III.

Pupilage of Students.

SECTION 1. No member of this Association shall receive a student except upon his agreeing to spend two years as a student of dentistry before commencing practice for himself.

ARTICLE IV.

Dues.

SECTION 1. Each member shall pay, as dues, two dollars annually.

SEC. 2. Any member two years in arrears for dues may be suspended or expelled by a two-thirds vote of the Association.

ARTICLE V.

Holding Elections.

SECTION 1. The election of officers of the Association, shall be held during the session immediately preceding the last session of each annual meeting.

ARTICLE VI.

Installation of Officers

SECTION I. The installation of officers shall be the first order of business at the closing session of each Annual Meeting.

ARTICLE VII.

Reports of Officers.

SECTION I. The reports of officers of the Association shall be made immediately preceding the close of the last session at each annual meeting.

ARTICLE VIII.

Amendments.

SECTION I. These By-Laws may be altered or amended, at any regular meeting, by a two-thirds vote of the members present.



CODE OF DENTAL ETHICS.

ARTICLE I.

The Duties of the Profession to their Patrons.

SECTION 1. The dentist should be ever ready to respond to the wants of his patrons, and should fully recognize the obligations involved in the discharge of his duties toward them. As they are, in most cases, unable to correctly estimate the character of his operations, his own sense of right must guarantee faithfulness in their performance. His manner should be firm, yet kind and sympathizing, so as to gain the respect and confidence of his patients; and even the simplest case committed to his care should receive that attention which is due to any operation performed on sensitive tissue.

SEC. 2. It is not to be expected that the patient will possess a very extended or a very accurate knowledge of professional matters; the dentist should make allowance for this, patiently explaining many things which may seem quite clear to himself, thus endeavoring to educate the public mind so that it will properly appreciate the beneficent efforts of our profession. He should encourage no false hopes, by promising success where, in the nature of the case, there is uncertainty.

SEC. 3. The dentist should be temperate in all things, keeping both mind and body in the best possible health, that his patients may have the benefit of that clearness of judgment and skill which is their right.

ARTICLE II.

Maintaining Professional Character.

SECTION 1. A member of the dental profession is bound to maintain its honor, and to labor earnestly to extend its sphere of usefulness. He should avoid everything in language and conduct calculated to discredit or dishonor his profession, and

should ever manifest a due respect for his brethren. The young should show special respect to their seniors; the aged, special encouragement to their juniors.

SEC. 2. The person and office arrangement of the dentist should indicate that he is a gentleman, and he should sustain a high-toned moral character.

SEC. 3. It is unprofessional to resort to public advertisements, cards, hand-bills, posters or signs, calling attention to peculiar styles of work, lowness of prices, special modes of operating, or to claim superiority over neighboring practitioners, to publish reports of cases or certificates in the public prints, to go from house to house to solicit or perform operations, to circulate or recommend nostrums, or to perform any other similar acts.

SEC. 4. When consulted by the patient of another practitioner, the dentist should guard against inquiries or hints disparaging to the family dentist, or calculated to weaken the patient's confidence in him; and, if the interest of the patient will not be endangered thereby, the case should be temporarily treated, and referred back to the family dentist.

SEC. 5. When general rules shall have been adopted by members of the profession practicing in the same localities, in relation to fees, it is unprofessional and dishonorable to depart from these rules, except when variation of circumstances requires it. And it is even to be regarded as unprofessional to warrant operations or work as an inducement to patronage.

ARTICLE III.

The Relative Duties of Dentists and Physicians.

SECTION I. Dental surgery is a specialty in medical science. Physicians and dentists should both bear this in mind. The dentist is professionally limited to diseases of the dental organs and the mouth. With these he should be more familiar than the general practitioner is expected to be, and while he recognizes the superiority of the physician in regard to diseases of the general system, the latter is under equal obligations to respect his higher attainments in his specialty. Where this

principle governs, there can be no conflict or diversity of professional interests.

ARTICLE IV.

The Mutual Duties of the Profession and the Public.

SECTION I. Dentists are frequent witnesses, and, at the same time, the best judges, of the imposition perpetrated by quacks, and it is their duty to enlighten and warn the public in regard to them. For this and the many other benefits conferred by competent and honorable dentists the profession is entitled to the confidence and respect of the public, who should always discriminate in favor of the true man of science and integrity, and against the empiric and impostor. The public has no right to tax the time and talents of the profession in examinations, prescriptions, or in any way, without proper remuneration.

ACTIVE MEMBERS.

JAMES A. PRICE,	Weston,	Mo.	T. H. LANE,	Carrollton,	Mo.
S. B. PREVOST,	Kansas City,	"	W. I. BARNETT,	Brownsville,	"
EDGAR PARK,	St. Louis,	"	T. W. REED,	Macon City,	"
G. A. BOWMAN,	St. Louis,	"	C. H. DARBY,	St. Joseph,	"
JNO. C. MCCOY,	Boonville,	"	J. C. GOODRICH,	Wentzville,	"
N. C. STARK,	St. Louis,	"	O. A. JONES,	Aullville,	"
G. W. TINDALL,	Kansas City,	"	S. B. HARRIS,	Waverly,	"
F. M. HICKERSON,	Arrow Rock,	"	H. J. MCKELLOPS,	St. Louis,	"
W. E. TUCKER,	Butler,	"	H. H. CRESS,	Warrensburg,	"
FRANKLIN SWOP,	Boonville,	"	JOHN G. HARPER,	St. Louis,	"
J. P. GRAY,	Clinton,	"	W. T. STARK,	Kansas City,	"
L. O. ELLIS,	Sedalia,	"	C. L. HUNGERFORD,	Kansas City,	"
H. E. DEPP,	"	"	G. A. McMILLEN,	Edwardsville,	Ill.
GEO. L. SHEPARD,	"	"	W. N. MORRISON,	St. Louis,	Mo.
L. C. WASSON,	Ottawa,	Kan.	J. F. HASSELL,	Lexington,	"
JOHN K. STARK,	Kansas City,	Mo.	A. NOLAND,	Monroe City,	"
SAM. A. MILTON,	Clinton,	"	C. MATHIASON,	St. Louis,	"
A. MCCUEN,	Columbia,	"	J. W. MENG,	Lexington,	"
W. K. CHRISTIAN,	Moberly,	"	E. N. LA VEINE,	Kansas City,	"
C. B. HEWITT,	Kansas City,	"	JAS. S. MCKEE,	Brownsville,	"
J. B. D. WORLEY,	Clinton,	"	CHAS. F. WRIGHT,	Springfield,	"
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D. J. McMILLEN,	Brunswick,	"	W. H. EAMES,	St. Louis,	"
A. J. PROSSER,	St. Louis,	"	J. W. REED,	Mexico,	"
A. R. REED,	Pleasant Hill,	"	J. G. HOLLINGSWORTH,	Kansas City,	"
J. D. PATTERSON,	Lawrence,	Kan.	R. R. VAUGHAN,	Glasgow,	"
J. M. AUSTIN,	St. Joseph,	Mo.	THOMAS FLINT,	Mexico,	"
A. H. FULLER,	St. Louis,	"	J. D. LELAND,	Fayette,	"
W. W. BIRKHEAD,	Louisiana,	"	E. HOVEY,	Springfield,	"
JOSEPH S. LETORD,	Nevada,	"	B. Q. STEPHENS,	Hannibal,	"
JOHN W. PLUMMER,	Fulton,	"	EDWARD B. CRANE,	California,	"
JAS. F. McWILLIAMS,	Mexico,	"	E. E. SHATTUCK,	Kansas City,	"
E. W. STEVENS,	Cameron,	"	GEO. P. HOLMES,	St. Louis,	"
J. W. BURTON,	Gallatin,	"	B. F. DUNN,	Miami,	"
M. C. McNAMARA,	St. Louis,	"	W. M. CARTER,	Sedalia,	"
C. W. SPALDING,	St. Louis,	"	S. S. ROWE,	Moberly,	"

HONORARY MEMBERS.

I. D. PEARCE,	Kirksville,	Mo.	F. A. BREWER,	San Francisco,	Cal.
HOMER JUDD,	St. Louis,	Mo.	C. B. ROWLAND,	Alton,	Ills.
J. B. MORRISON,	New York,	N. Y.	H. R. RUTLEDGE,	Hillsboro,	Ills.
J. J. R. PATRICK,	Belleville,	Ills.	JOHN R. JAMES,	Brownsville,	Mo.

MISSOURI DENTAL COLLEGE,

SAINT LOUIS, MO.

The EIGHTEENTH Annual Session of this College will commence on Monday, Sept. 24th, 1883, and continue until March 1st, 1884.

The regular course of instruction begins promptly at the opening of the session and students will find it greatly to their advantage to be in attendance at that time.

F E E S .

Matriculation (Paid but once),	- - - - -	\$ 5 00
Tickets for the Full Course,	- - - - -	90 00

No additional charge for Demonstration Tickets or Diploma.

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No. 500 North Jefferson Avenue, St. Louis, Mo.

OHIO COLLEGE OF DENTAL SURGERY.

CINCINNATI, OHIO.

This Institution is *pre-eminently a School of Dentistry*. The property is owned and controlled by an association of dentists numbering nearly one hundred. The college building was erected and is used exclusively for the purposes of dental education. The Faculty is composed of dentists in actual practice, whose purpose it is to give a thorough course of instruction in the theory and practice of dentistry. To this end the Lectures in all the branches taught, including Anatomy, Surgery, Physiology, Pathology, Materia Medica, and Chemistry, are arranged with a view to thoroughly qualify the student to *practice the profession of Dentistry*.

Recognizing the value of clinical instruction to the dental student, the regular Course of Lectures will be supplemented by a thorough course of training in the Infirmary and Laboratory, under the direction of the professors and demonstrators. Clinics for instruction in Practical Dentistry will be given in the College Infirmary each afternoon (except Sundays) during the entire session.

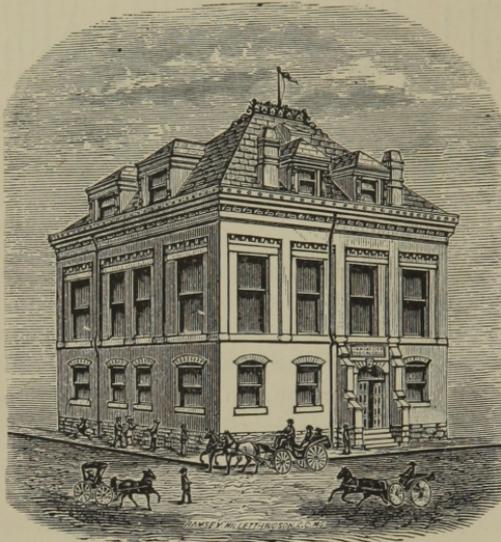
Cincinnati, through the medium of her numerous educational establishments for the promotion of the arts and sciences, her hospitals, dispensaries, libraries, public and private lectures, etc., affords superior advantages for a thorough education in any of the branches of the healing art. The large manufacturing interests of the city, which give direct employment to over one hundred thousand persons, makes the location of the Ohio College of Dental Surgery especially favorable for teaching practical dentistry. This large population furnishes the greatest variety of cases for clinical instruction, and a supply of patients in excess of the demand for practice in the College Infirmary.

The Thirty-eighth Annual Session will begin the first day of October, 1883, and continue till March following.

For information regarding fees, terms of graduation, etc., address,

H. A. SMITH, D.D.S., Dean,

KANSAS CITY DENTAL COLLEGE.



(Dental Department Kansas City Medical College.)

FACULTY:

- DR. J. K. STARK, Dean of Faculty.
 J. D. PATTERSON, D.D.S., Prof. Dental Pathology and Oral Surgery.
 W. T. STARK, D.D.S., Prof. Mechanical Dentistry.
 C. L. HUNGERFORD, D.D.S., Prof. Operative Dentistry.
 J. D. GRIFFITH, M.D., Prof. of Anatomy.
 J. BLOCK, M.D., Prof. of Physiology.
 GEORGE HALLEY, M.D., Prof. of Surgery.
 J. D. THOMPSON, M.D., Prof. of Materia Medica.
 L. W. LUSHER, M.D., Lecturer on Chemistry.
 R. WOOD BROWN, D.D.S., Lecturer on Dental Anatomy and Histology.
 C. B. HEWITT,
 E. N. LA VEINE,
 A. C. SCHELL,
 H. S. THOMPSON,
 J. S. LETORD,
 T. K. AITKIN, D.D.S., Demonstrator of Continuous Gum.

} Demonstrators.

Clinics and Demonstrations in Operative and Mechanical Work will be given daily. Candidates for graduation must have attended *two full courses* of instruction, the first of which may have been in any accredited School of Dentistry, or Medicine, and must pass a satisfactory examination in all the branches taught.

During the continuance of the course, the student may, if he so desire, take one full course of medical instruction in the Kansas City Medical College, without extra charge, except the Dissection fee, \$10, and Hospital fee \$3; and having completed his dental course, and having paid for and attended *one more* full course of medical instruction, will be admitted to examination for the degree of Doctor of Medicine. The curriculum is so arranged as to favor such a plan of study.

Matriculation fee.....	\$ 5
Tuition, full course.....	60
Diploma.....	20

The Session begins on Wednesday, the 3rd of October, 1883, and continues until the first Tuesday in March, following. For further particulars, or for an announcement, apply to
 DR. J. K. STARK, Dean, Kansas City, Mo.

Established in St. Louis 1868.

Removed to Kansas City 1883.

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That we are not Druggists or Practicing Dentists, carrying a small stock for our own convenience and selling what we do not use, but are a DENTAL DEPOT, carrying the Largest, Freshest, and best selected stock of Dental Goods west of the Mississippi.

## REMEMBER

Also, that our Mail and Express facilities are unsurpassed, in consequence of which we can get your goods to you as soon as any other House, and in many instances from twelve to forty-eight hours sooner. Try us and see.

J. L. BREWSTER, JR.,

Kansas City Dental Depot,

KANSAS CITY, - - MISSOURI.

# KANSAS CITY DENTAL DEPOT,

J. C. BREWSTER, JR.,

543 DELAWARE STREET, - KANSAS CITY, MO.

THE LARGEST <sup>AND</sup> MOST COMPLETE STOCK OF DENTAL GOODS IN THE WEST,

COMPRISING IN PART

CHAIRS,

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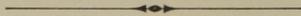
ENGINES,

VULCANIZERS,

GAS APPARATUS,

LATHES, ETC., ETC.

IN FACT EVERYTHING USED BY THE DENTAL PROFESSION.



Our stock of Teeth is very large, and the gentleman in charge of that department has had an extensive experience in filling orders by Mail, consequently we can guarantee satisfaction.

TRY US AND SEE.

# GAS! GAS! GAS!

We are prepared at all times to fill orders for Gas, either in one hundred or five hundred gallon cylinders.

Send us your Orders.

No Express Charges on empty Cylinders sent to us to be Refilled.

J. L. BREWSTER, JR.,

Kansas City Dental Depot.

.....OZ. TROY. PRICE \$3.00.

**CRESCENT**

TRADE MARK.

**AMALGAM.**

MANUFACTURED BY

**J. L. BREWSTER, Jr.**

KANSAS CITY, MO.

A GOLD and PLATINA ALLOY. WILL NOT SHRINK OR DISCOLOR.

In offering to the Dental Profession our CRESCENT AMALGAM, we are aware of the many difficulties we will have to surmount in consequence of a great number similar preparations already in the market. Yet so sure are we of its ultimate success that we ask but a trial of its merits at the hands of the MOST CRITICAL, to convince them that we have the MOST RELIABLE and UNIFORM GOLD and PLATINA ALLOY that has ever been produced. The metals used in its manufacture are all carefully refined and combined in such proportions as to render it FREE from SHRINKAGE or DISCOLORATION.

**J. L. BREWSTER, Jr., KANSAS CITY, MO.**

# MODELING COMPOSITION,

—FOR—

TAKING IMPRESSIONS OF THE MOUTH, OR ANY  
OTHER PURPOSE WHERE A PERFECT IM-  
PRESSION IS REQUIRED.

—:O:—

74 Commonwealth Ave.,  
BOSTON, May, 1880.

Messrs. HOOD & REYNOLDS:

*Gentlemen*—I imported the first lot of “modeling compound” that found its way this side of the Atlantic, and have used it ever since, preferring it to plaster for almost every kind of an impression. The objection to it is that tender mouths are apt to be scalded by it. Yours, while in every other way as good as the old, is better in this, that it does not require so great a heat, and can therefore be manipulated more rapidly, and with less discomfort to the patient.

Yours truly, THOS. H. CHANDLER.

—:O:—

## No. 0—Extra Soft.

This grade is for restoring any of the other grades which have become hard by frequent use; they may be mixed in hot water.

## No. 1—Soft.

This grade is for use in cold weather and in tender mouths, and softens at a low heat; hardens in two minutes.

## No. 2—Medium.

This grade is mostly used, and requires a higher heat to soften than No. 1, and sets quicker.

## No. 3.

For use in hot weather, and requires a higher heat to soften than No. 2, and hardens quicker.

No. 2 will always be sent, unless other numbers are specified.

Put up in half-pound boxes. Per pound, \$1.25.

—:O:—

MANUFACTURED BY

# HOOD & REYNOLDS,

DENTAL DEPOT,

74 Tremont Street, - BOSTON, MASS.

# HOOD & REYNOLDS, DENTAL DEPOT,

74 TREMONT ST., BOSTON, MASS.

MANUFACTURERS OF

Gold Foil, & Dealers in all kinds of Dental Goods.



## GOLD CYLINDERS.

STYLE A, Flattened, Nos.  $\frac{1}{2}$ , 1,  $1\frac{1}{2}$ , 2.

STYLE A, Loose, and can be used as Pe lets, Nos.  $\frac{1}{2}$ , 1,  $1\frac{1}{2}$ , 2, 3.

STYLE B, Loose, but more compact than Style A, Nos.  $\frac{1}{2}$ , 1, 2, 3, 4.

STYLE C, Compact, but not Hard; used as Cylinders only,

Nos. 2, 3, 4, 5, 6.

These numbers are to denote that No.  $\frac{1}{2}$  is a half sheet of No. 4 Gold Foil, cut into strips and rolled into cylinders; No. 1, one sheet; No.  $1\frac{1}{2}$ , one sheet and a half; No 2, two sheet , etc.

Two Patents Sept. 19, 1876. Patent Sept. 25, 1876. Patent April 17, 1877.

These cylinders are made from Soft Foil, otherwise called Accommodation Foil, and can be made cohesive by annealing. The advantages over sheet foil is, that they are ready for use, and therefore save the time consumed in preparing foil; also, loss in scraps. As they are made from Soft Foil, and cut by machinery into strips, and then rolled into cylinders, without any handling with the hands, they are in the most favorable condition for use. In making these cylinders our best 1000 Gold Foil is used.

We sell ten times as many Flattened Cylinders as we do of all the rest.

The Round Cylinders are mostly used for old style wedge fillings

### PRICE-LIST.

#### GOLD CYLINDERS.

Per ounce, \$30.

Per  $\frac{1}{2}$  ounce, \$15.

Per  $\frac{1}{8}$  ounce, \$4.

#### CRYSTALLINE SURFACE.

Per ounce, \$30.

Per  $\frac{1}{2}$  ounce, \$15.

Per  $\frac{1}{8}$  ounce, \$4.

#### COHESIVE, NON-COHESIVE, OR SOFT FOIL.

Per ounce, \$30.

Per  $\frac{1}{2}$  ounce, \$15.

Per  $\frac{1}{8}$  ounce, \$4.

**DENTAL GOODS AT MANUFACTURER'S PRICES.**

# CAULK'S FILLING MATERIALS.

## CAULK'S PAR-EXCELLENCE ALLOY.

(GOLD AND PLATINA.)

With one exception we were the first to manufacture an amalgam containing Gold and Platinum, although we did not call it such—simply our trade name PAR-EXCELLENCE ALLOY; which fully expresses the superiority of this combination of metals over others. It has always contained the requisite quantity of these precious metals in conjunction with Silver and Tin, mixed upon scientific principles in their proper chemical relations to each other to make it just what it has long since proven to be,—the best alloy for filling teeth in the market. The large and increasing sales during the past few years have conclusively demonstrated this fact.

It is the result of a long series of experiments, has been in constant use for several years and SAVES teeth, where others fail. By our new method of manufacture there is no *guesswork*, the molecular change is controlled, making each and every ingot always and absolutely alike in its properties.

|       |           |                      |        |
|-------|-----------|----------------------|--------|
| Price | - - - - - | per ounce,           | \$3.00 |
| "     | - - - - - | per one-half ounce,  | 1.50   |
| "     | - - - - - | per one-third ounce, | 1.00   |
| "     | - - - - - | two ounces for       | 5.00   |

## CAULK'S WHITE ALLOY FOR INCISOR TEETH.

This alloy is made expressly for front teeth, is of a peculiar grayish-white color, which will retain its brightness under all circumstances. Price same as Par-Excellence Alloy. Two ounces, one of each, for \$5.00.

## CAULK'S HYDRAULIC PEBBLES.

This Cement differs from others, it being in the form of pebbles or granules. It is a chemical combination of some of the constituents of the Natural Tooth, and when properly manipulated has the bony-like characteristics of such material. It is harder, tougher, and stronger, resists the fluids of the mouth to a greater degree, and after *one year's trial* is more of an *insoluble compound* than most cements have proved to be.

Its *hydraulic* qualities render it invaluable for setting pivot teeth. It is so pliable that it can be moulded or shaped into various forms, and when crystalization is complete, can be carved and polished, same as the sculptor does his marble.

|                      |           |        |
|----------------------|-----------|--------|
| Price, large package | - - - - - | \$3.00 |
| Price, small         | - - - - - | 1.50   |

## CAULK'S DIAMOND POINT STOPPING.

The stopping is put up in *sealed envelopes*, and the Pellets and Cylinders in *sealed boxes*, each bearing a fac-simile of our signature.

Price, in 1-8, 1-4, and 1-2 ounce packages, - - per ounce, \$4.00.

We make a specialty of manufacturing these materials for filling teeth.

They are standard and reliable, used and endorsed by the profession generally. They have won upon their merits, and the constantly increasing demand, attests their superiority and excellence.

If your Dealer or Agent does not have these materials, send your order to our address and it will receive prompt attention.

**L. D. CAULK, Manufacturer and Proprietor,**  
**CAMDEN, DELAWARE.**

 SOLD AT ALL DENTAL DEPOTS.

# CAULK'S FILLING MATERIALS.

---

## Caulk's Diamond Cement.

---

THIS COMPOUND NOW STANDS WITHOUT A RIVAL.

---

From two to four years test by Leading Dentists throughout the world has proved it to be all that has been claimed for it.

It has met with a very large sale during the past four years, and the demand for it increases. It differs very materially from the Phosphate Cements, being a step in advance of them. It is easily manipulated, yet hardens rapidly, and receives a very fine polish. For pivoting teeth it has been highly recommended, is non-irritating, non-conducting, in harmony with tooth structure, has no shrinkage or expansion, and excellent for lining cavities and capping pulps.

Fillings that have been standing in the mouth *over* three years, in comparison with other plastic material in the market, show not only its SUPERIORITY, but it has proved to be *more insoluble* than many of the so-called insoluble cements.

We have increased the quantity fully one-third, and all bottles will be lettered with "CAULK'S DIAMOND CEMENT." This Cement can be made in all shades and colors.

---

### PRICE.

(Two colors,) gray and yellow, - - per package, \$2.00  
(One color,) gray, yellow, medium, light, " " 1.00

---

### A FEW REPORTS AFTER TWO AND THREE YEARS USE.

---

NORRISTOWN, PA., August 8, 1882.

I have been using your Diamond Cement for THREE YEARS, and think it *superior* to any other in use.

BENTON MALONEY.

NEW ORLEANS, July 3, 1882.

We have been using your Diamond Cement nearly two years, and are more than pleased with it. Having built up shells of teeth, and used it in many cases where we would have been unable to accomplish as good work with other white fillings. It requires a little practice in the mixing to get the right proportion, but when *properly mixed* we have found it *harder* and more *durable* than any other cements used by us.

F. A. KNAPP & SON.

BATAVIA, ILL., August 19, 1882.

I have used your Diamond Cement for about two years almost exclusively, and find it excellent for capping exposed pulps, as it never causes pain, no matter how sensitive the tooth may be. For temporary filling could wish for nothing better. Have used it for filling permanently to some extent, and know of some fillings two years old, in good condition, showing but little wear.

C. W. COX.

**L. D. CAULK,**  
Manufacturer and Proprietor,  
CAMDEN, DELAWARE.

DEPOTS.

# TEETH.

---

## A FEW FACTS CONCERNING THE MOST IMPORTANT BRANCH OF OUR MANUFACTURES.

---

IN SHAPE, COLOR, TEXTURE, TRANSLUCENCY, LIGHTNESS, VARIETY OF ANATOMICAL PECULIARITIES, RANGE OF ADAPTABILITY, AND TRUTHFULNESS TO NATURE, OUR TEETH SURPASS ALL OTHER MAKES, AND WHEN WEIGHT AND BULK ARE CONSIDERED, THEY ARE THE STRONGEST MADE. THE STOCK AND VARIETY ARE THE LARGEST IN THE WORLD.

---

Whenever and wherever they have been placed on exhibition in competition with others, they have uniformly received the highest indorsement, and as a well-merited reward for the care and constant attention devoted to their manufacture, we have now in our possession

### 91 FIRST PREMIUMS,

including one from each of the *Great World's Fairs*, from the first held in London in 1851, to the latest held in Melbourne in 1881, and the *Grand Diploma of Honor* from Vienna in 1873.

This extraordinary aggregation of awards, which in itself is sufficient to establish the superiority of any manufacture, together with the constantly increasing demand for our Teeth, and the recognition of their excellence by the profession throughout the globe, justifies us in styling them

### THE WORLD'S PREMIUM TEETH.

We are continually adding molds of new forms, making our already very large assortment still more complete, and giving us advantages quite unequaled elsewhere for suiting special and difficult cases.

We have recently added many very useful patterns of TEETH FOR PARTIAL CASES,—centrals in pairs, a central and lateral (right or left) in pairs, two centrals and a lateral (right or left), and bicuspidis in pairs.

Our assortment of PLAIN TEETH for CELLULOID work is very fine.

Our stock of sizes and forms of the old style PIVOT TEETH has been largely increased.

We would call special attention to our large and varied stock of TOOTH CROWNS, now coming into general use,—the Bonwill-Gates, Weston, Foster and others. We are prepared to meet the increasing demand for these crowns with a great variety of forms and shades.

PORCELAIN CAVITY STOPPERS, which we have recently commenced to manufacture, have been found very useful, and they are having an extensive sale.

## The S. S. White Dental Manufacturing Co.,

PHILADELPHIA,

NEW YORK,

BOSTON,

CHICAGO,

BROOKLYN.

SAMUEL S. WHITE'S  
SPECIALTIES IN GOLD.

GUARANTEED TO BE ABSOLUTELY PURE.

QUARTER CENTURY GOLD FOIL,  
*TWO VARIETIES.*

GLOBE GOLD FOIL,  
*FOUR VARIETIES.*

*GLOBE GOLD FOIL—Rolled.*

PACK'S GOLD CYLINDERS,  
*SIX VARIETIES.*

PACK'S CRYSTAL GOLD PELLETS,  
*TWO VARIETIES.*

KEARSING'S OLD-STYLE GOLD FOIL BLOCKS,  
*TWO VARIETIES.*

KEARSING'S PLASTIC-SURFACE GOLD BLOCKS.

Prices uniform throughout all varieties, viz.:

|                                     |               |
|-------------------------------------|---------------|
| Per $\frac{1}{8}$ -ounce, . . . . . | \$ 4 00       |
| “ $\frac{1}{2}$ “ . . . . .         | 15 00         |
| “ 1 “ . . . . .                     | 30 00         |
| In 2-ounce lots, . . . . .          | per oz, 29 00 |

THE S. S. WHITE DENTAL MANUFACTURING CO.

PHILADELPHIA,

NEW YORK,

BOSTON,

CHICAGO,

BROOKLYN.

GIDEON SIBLEY,  
DENTAL DEPOT,

S. E. Cor. 13th & Filbert Sts., PHILADELPHIA, PA.,

MANUFACTURER OF

SUPERIOR ARTIFICIAL TEETH,

NOTED FOR THEIR

STRENGTH, ADAPTABILITY and LIFE-LIKE APPEARANCE.

SEND FOR PRICES.

---

ALSO MANUFACTURER OF

Sibley's Gold and Platinum Alloy,

Superior to any other Alloy or Amalgam in the Market,

PRICES: One oz. \$3.00; Two oz. \$5.50; Four oz. \$10.00.

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ALL THE LEADING DENTAL GOODS KEPT IN STOCK.

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ALSO PUBLISHER OF THE

*DENTAL PRACTITIONER,*

PRICE, FIFTY CENTS A YEAR.

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*Address all Orders for Goods and Subscriptions, to*

GIDEON SIBLEY,

S. E. Cor. Thirteenth and Filbert Streets, PHILADELPHIA, PA.

# GEORGE E. HODGE,

—MANUFACTURER OF—

## DENTAL SPECIALTIES, AMALGAMS AND RUBBER DAM.

I include in specialties my HAND-PIECE for the Dental Engine, and HONED BURS.

I am supplying from my own factory a full Dental Engine Equipment, Burs in all the shapes and sizes, such as are in general use. Our Honed Burs are of a very SUPERIOR QUALITY; and already in great demand.

|                                        |        |
|----------------------------------------|--------|
| Price of Ordinary Burs, per dozen..... | \$2 40 |
| “ Honed Burs, “ “ .....                | 4 00   |
| “ Hand-Piece.....                      | 10 00  |

Our Hand-Piece is a universal chuck worked by a thread nut. It runs upon stout taper or cone-bearings. It has required many months of labor and study to arrive at its present state of perfection. Now the large and increasing demand for it is sufficient proof of its excellence.

We have aimed to produce a tool, which, while it should be perfectly simple, yet should have **absolute steadiness** in the carriage of the bur, drill or other instrument; and at the same time should have endurance without any **weak points**. We know now that we have succeeded in our effort.

Letters are constantly coming in which give the most ample testimony in favor of our Hand-Piece. We append four of them:

25 WEST 27TH STREET, NEW YORK, July 20, 1881.

Dear Sir: After having used your Hand-Piece constantly for several months, it is but justice to tell you how much I am pleased with it. I think the principle upon which it is made, is without exception the best principle for such an instrument, and I believe that a Hand-Piece made in this way will run steady and true longer than by any other method. I have used various other hand pieces, and I regard them all as inferior to yours. The objection which I at first felt of its being too large, has entirely passed away, and its size does not now disturb me.

NORMAN W. KINGSLEY.

BOSTON, July 22, 1881.

I have thoroughly tested your Hand-Piece for the Dental Engine and find it to be excellently well made, holding the points **securely**, with no prospective wear, by which so many hand-pieces **soon** become useless. It is the best Hand-Piece now in the market.

ISAAC J. WETHERBEE, D.D. S., President Boston Dental College.

NEW YORK, December 21, 1881.

Dear Sir: Allow me to say, after using your “Universal Chuck” Hand-Piece for over twelve months, that it is the best I ever saw, and gives me an opportunity of using any and all of my old burs. It is, I believe, well made, and to-day runs as well or better than the first day I used it.

Very truly,

A. L. NORTHRUP, 44 West Forty-sixth St.

NO. 100 BOYLSTON STREET, BOSTON, Jan. 30, 1882

MR. GEO. E. HODGE: Dear Sir—It has been my custom for years to get all the Engine Hand-Pieces as they are put upon the market. I have thus had your several forms, and have been familiar with the changes and improvements. I am happy now to authorize you to use my name in commendation of your latest form. It runs smoothly and evenly, holds the bit firmly and is easily managed. The principle of the Universal Chuck is very advantageous and economical, and the placing of the set nut at a distance from the mouth end of the tool is admirable. From my knowledge of mechanism, and an experience of many months, I consider it very durable. It is also very cleanly.

Yours truly,

L. D. SHEPARD.

GEORGE E. HODGE,

161 West Twenty-ninth Street,

P. O. Box 29, Station D,

NEW YORK CITY.

RANSOM & RANDOLPH,

PUBLISHERS OF

OHIO STATE JOURNAL OF DENTAL SCIENCE.

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DENTAL

AND

SURGICAL INSTRUMENT DEPOT,

83 JEFFERSON STREET,

TOLEDO, - - - OHIO.

3

**RECORDS OF THE MISSOURI  
STATE DENTAL ASSOCIATION,  
FROM ITS ORGANIZATION,  
1865 TO 1882.**



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*Presented by*

*W. H. Eames - St. Louis.*

*Dec. 5/83*

*A. D. B. 24*







