PROCEEDINGS

OF THE

NEBRASKA

State Medical Society.

SEVENTEENTH ANNUAL SESSION

HELD AT GRAND ISLAND,

May 26–28, 1885.

LINCOLN, NEB.:
STATE JOURNAL CO., STATE PRINTERS.
1885.
CONTENTS.

Officers of the Nebraska State Medical Society 1885-6......................... 3
List of Members added to Society in the Years 1884 and 1885........... 5-6
Constitution and By-Laws................................................................. 7-21
Preface by Committee on Publication .................................................. 24
Minutes of the Seventeenth Annual Session........................................ 25-58
In Memoriam, Dr. George Rightmire..................................................... 59-60
Section on Practice of Medicine—Papers Submitted.......................... 61
Address in Medicine—By Alfred Shipman, M.D., Plattsmouth..............63-71
Cholera Infantum—By D. R. Pelton, M.D., Wahoo.............................. 72-78
Diphtheria—By William Protzman, M.D., Lincoln............................ 79-94
Membranous Enteritis with Abscess in Abdominal Wall, Occurring
after Parturition—By C. F. Ballard, M.D., Grafton.........................95-96
Section on Surgery—Papers Submitted.............................................. 97
Penetrating Gunshot Wound of Abdomen—By J. K. L. Duncan,
M.D., DeWitt.................................................................................. 99-101
Compound Fracture of Skull with Depression. Trephined. Recovery
—By J. K. L. Duncan, M.D., DeWitt...............................................102-104
Case of Depressed Fracture of Skull with Laceration of Dura and
Loss of Brain Tissue—By M. L. Hildreth, M.D., Lyons....................105-106
Case of Severe Concussion of Spine, with Probable (?) Hemorrhage—
By M. L. Hildreth, M.D., Lyons.....................................................107-108
Three Cases of Fracture, with Treatment—By J. S. Leonhardt,
M.D., Seward...............................................................................109-112
The Bi-Chloride of Mercury as a Surgical Dressing—By W. F. Milroy,
M.D., Omaha...........................................................................113-122
A Case of Hip-joint Disease—Operation—By G. L. Pritchett, M.D.,
Fairbury..................................................................................123-128
Section on Obstetrics, Inclusive of Diseases of Women—Papers Submited
.................................................................................................. 129
The Importance of Repair in Perineal Laceration—An Early Operati
on Imperative—By E. M. Whitten, M.D., Nebraska City.........131-137
The Third Stage of Labor—By W. M. Knapp, M.D., York.............138-145
Obstetrical Anomalies—By A. Bowen, M.D., Nebraska City...........146-148
Ovariotomy, Craniotomy, and Other Cases—By A. S. v. Mansfelde,
M.D., Ashland........................................................................149-155
Abortion—By R. M. Stone, M.D., Omaha........................................ 156-167
CONTENTS.

<table>
<thead>
<tr>
<th>Two Cases of Puerperal Convulsions—By E. Smith, M.D., Bur-</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>chard.................................................................................168-171</td>
<td></td>
</tr>
</tbody>
</table>

Section on Anatomy and Physiology—Papers Submitted................. 173
Physiological Evolution—By J. S. Leonhardt, M.D., Seward......175-193
Section on Forensic Medicine—Toxicology—Papers Submitted...... 195
Six cases of Poisoning, with Treatment—By J. S. Leonhardt, M.D., Seward...........................................197-203
Section on Ophthalmology and Otology—Papers Submitted........... 205
Review of Ophthalmology—By J. C. Denise, M.D., Omaha...........207-219
Scrofulous or Phlyctenular Ophthalmia—By D. R. Ball, M.D., Nelson .................................................................220-225
Ocular Hygiene, with Special Reference to School Life—By L. B. Graddy, M.D...................................................226-237
Section on Climatology and Prevailing Diseases—Papers Submitted.. 239
The Climate of Nebraska—By Horace Chapin, M.D., Lincoln........241-254
Section on Nervous Diseases—Papers Submitted........................ 255
A Year's Scientific Progress in Nervous and Mental Diseases—By L. A. Merriam, M.D., Omaha.................................257-263
Reports of the Representatives of Foreign Societies in the Nebraska State Medical Society.............................. 265
California—By Representative A. S. v. Mansfelde, M.D., Ash- | 267-285 |
| land.......................................................... | |

Colorado—By Representative L. B. Graddy, Omaha.................. 286-293
Illinois—By Representative Alice E. Huff, M.D., Ashland ..........294-305
Indiana—By Representative A. S. v. Mansfelde, M.D., Ashland...306-330
Kansas—By Representative L. A. Merriam, M.D., Omaha......... 331-335
Maryland—By Representative L. A. Merriam, M.D., Omaha....... 336-338
Massachusetts—By Representative A. Bowen, M.D., Nebraska City .................................................................339-340
New York State Medical Association—By Representative R. R. Living- | 341-350 |
| ton, M.D., Plattsmouth.................................................. |

Pennsylvania—By Representative Fred D. Haldeman, M.D., Ord.343-350
Report of the Chairman of the Committee on Public Health—A. S. v. Mansfelde, M.D., Ashland.............................351-361
A Bill for a State Board of Health—Drawn by A. S. v. Mansfelde, M.D., Ashland..................................................362-372
A Bill for a State Board of Medical Examiners and Licensers—Sub- | 373-378 |
|mitted by the American Medical Association........................ |

Index ............................................................................... 379
OFFICERS
OF THE
NEBRASKA STATE MEDICAL SOCIETY.

1885-86.

JAMES CARTER, M.D........First Vice President ..........Omaha.
N. F. DONALDSON, M.D.......Second Vice President........North Platte.
A. S. V. MANSFELDE, M.D...Permanent Secretary........Ashland.
R. R. LIVINGSTON, M.D.....Corresponding Secretary......Plattsmouth.
R. C. MOORE, M.D..........Treasurer................Omaha.
<table>
<thead>
<tr>
<th>NAME</th>
<th>ADDRESS</th>
<th>Annual Class</th>
<th>College of Graduation</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albright, R. S.</td>
<td>Beatrice</td>
<td>17th</td>
<td>Rush Medical College</td>
<td>1884</td>
</tr>
<tr>
<td>Allen, A. R.</td>
<td>Bradshaw</td>
<td>17th</td>
<td>Missouri Medical College</td>
<td>1885</td>
</tr>
<tr>
<td>Arbuckle, G. A.</td>
<td>Omaha</td>
<td>16th</td>
<td>Omaha Medical College</td>
<td>1883</td>
</tr>
<tr>
<td>Armstrong, F. J.</td>
<td>Omaha</td>
<td>16th</td>
<td>State University, Iowa City</td>
<td>1879</td>
</tr>
<tr>
<td>Ballard, C. F.</td>
<td>Grafton</td>
<td>16th</td>
<td>College of Indiana, Indiana</td>
<td>1879</td>
</tr>
<tr>
<td>Barker, J. N.</td>
<td>Grand Island</td>
<td>17th</td>
<td>Bellevue Hospital Med. Col.</td>
<td>1873</td>
</tr>
<tr>
<td>Barton, P. L.</td>
<td>Central City</td>
<td>16th</td>
<td>Med. Col. of Ohio, Cincinnati</td>
<td>1879</td>
</tr>
<tr>
<td>Bedal, Marshal</td>
<td>Blair</td>
<td>16th</td>
<td>Miami Med. Col., Cincinnati</td>
<td>1874</td>
</tr>
<tr>
<td>Brady, L. M.</td>
<td>Fullerton</td>
<td>17th</td>
<td>Col. Phys. and Surg., Keokuk</td>
<td>1881</td>
</tr>
<tr>
<td>Bridges, W. O.</td>
<td>Omaha</td>
<td>16th</td>
<td>University Med. Col., N. Y.</td>
<td>1879</td>
</tr>
<tr>
<td>Brosius, F. C.</td>
<td>Kanesaw</td>
<td>16th</td>
<td>Rush Medical College</td>
<td>1883</td>
</tr>
<tr>
<td>Bryant, DeWitt</td>
<td>Omaha</td>
<td>17th</td>
<td>Med. Dep. Wooster Univer</td>
<td>1875</td>
</tr>
<tr>
<td>Bryson, C. W.</td>
<td>Falls City</td>
<td>16th</td>
<td>Col. Phys. and Surg., Keokuk</td>
<td>1882</td>
</tr>
<tr>
<td>Campbell, W. C.</td>
<td>Creighton</td>
<td>16th</td>
<td>Col. Phys. and Surg., Keokuk</td>
<td>1881</td>
</tr>
<tr>
<td>Clark, N. D.</td>
<td>North Platte</td>
<td>16th</td>
<td>Col. Ph's. and Sur., Keokuk</td>
<td>1866</td>
</tr>
<tr>
<td>Clark, M. V. B.</td>
<td>Sutton</td>
<td>17th</td>
<td>Med. Col., Cleveland, Ohio</td>
<td>1869</td>
</tr>
<tr>
<td>Christiansen, E.</td>
<td>Grand Island</td>
<td>16th</td>
<td>Giessen, Germany</td>
<td>1872</td>
</tr>
<tr>
<td>Conrad, A.</td>
<td>Crete</td>
<td>17th</td>
<td>Mo. Med. College, St. Louis</td>
<td>1880</td>
</tr>
<tr>
<td>Cook, E. W.</td>
<td>Plattsomn</td>
<td>17th</td>
<td>Med. Dept. Iowa University</td>
<td>1884</td>
</tr>
<tr>
<td>Coulter, F. E.</td>
<td>Waterloo</td>
<td>17th</td>
<td>Rush Medical College</td>
<td>1882</td>
</tr>
<tr>
<td>Damerell, R.</td>
<td>Red Cloud</td>
<td>17th</td>
<td>Rush Medical College</td>
<td>1882</td>
</tr>
<tr>
<td>Davis, Jno. C.</td>
<td>Omaha</td>
<td>16th</td>
<td>Col. Phys. and Surg., Keokuk</td>
<td>1883</td>
</tr>
<tr>
<td>Dullard, J. P.</td>
<td>North Platte</td>
<td>16th</td>
<td>Bellevue Hosp. Med. College</td>
<td>1876</td>
</tr>
<tr>
<td>Duncan, C. M.</td>
<td>North Platte</td>
<td>17th</td>
<td>Col. Ph's and Sur., St. Joe, Mo.</td>
<td>1881</td>
</tr>
<tr>
<td>Easton, C. M.</td>
<td>Hebron</td>
<td>17th</td>
<td>Rush Medical College</td>
<td>1872</td>
</tr>
<tr>
<td>Elder, C. E.</td>
<td>DeWitt</td>
<td>17th</td>
<td>Indiana Medical College</td>
<td>1878</td>
</tr>
<tr>
<td>Evans, C. D.</td>
<td>Columbus</td>
<td>16th</td>
<td>Col. Phys. and Sur., Baltimore</td>
<td>1881</td>
</tr>
<tr>
<td>Fletcher, E. R.</td>
<td>St. Paul</td>
<td>17th</td>
<td>Rush Medical College</td>
<td>1870</td>
</tr>
<tr>
<td>Galbraith, Wm. J.</td>
<td>Omaha</td>
<td>17th</td>
<td>Col. Ph's and Sur., Cincinnati</td>
<td>1880</td>
</tr>
<tr>
<td>Gydeson, May C. E</td>
<td>Omaha</td>
<td>16th</td>
<td>Woman Med. Col., Chicago, Ill</td>
<td>1884</td>
</tr>
<tr>
<td>Hasson, D. W.</td>
<td>Ponca</td>
<td>16th</td>
<td>Med. Dept. Iowa University</td>
<td>1877</td>
</tr>
<tr>
<td>Hayden, T. M.</td>
<td>Osceola</td>
<td>17th</td>
<td>Col. Phys. and Surg., Keokuk</td>
<td>1874</td>
</tr>
<tr>
<td>Headrick, C. M.</td>
<td>Tecumseh</td>
<td>17th</td>
<td>Col. Phys. and Surg., Keokuk</td>
<td>1876</td>
</tr>
<tr>
<td>Hildreth, M. L.</td>
<td>Lyons</td>
<td>16th</td>
<td>Rush Med. College, Chicago</td>
<td>1880</td>
</tr>
<tr>
<td>Hostetter, Peter</td>
<td>Omaha</td>
<td>16th</td>
<td>Col. Phys. and Sur., St. Louis</td>
<td>1883</td>
</tr>
<tr>
<td>Huff, Alice E.</td>
<td>Ashland</td>
<td>16th</td>
<td>Omaha Medical College</td>
<td>1884</td>
</tr>
<tr>
<td>Hull, Geo. M.</td>
<td>Kearney</td>
<td>17th</td>
<td>Omaha Medical College</td>
<td>1885</td>
</tr>
<tr>
<td>Janss, Jno.</td>
<td>North Loup</td>
<td>17th</td>
<td>Jefferson Medical College</td>
<td>1884</td>
</tr>
<tr>
<td>Jones, J. C.</td>
<td>Omaha</td>
<td>16th</td>
<td>Rush Medical College</td>
<td>1881</td>
</tr>
<tr>
<td>Kelley, E. A.</td>
<td>Omaha</td>
<td>16th</td>
<td>Med. Col. of Ohio, Cincinnati</td>
<td>1878</td>
</tr>
<tr>
<td>Kendall, A. O.</td>
<td>Sutton</td>
<td>17th</td>
<td>Bellevue Hospital Med. Col.</td>
<td>1889</td>
</tr>
<tr>
<td>Knowles, S. H.</td>
<td>Omaha</td>
<td>17th</td>
<td>Omaha Medical College</td>
<td>1885</td>
</tr>
<tr>
<td>Koch, J. W.</td>
<td>Norfolk</td>
<td>17th</td>
<td>Iowa University Med. Col.</td>
<td>1885</td>
</tr>
<tr>
<td>Leisenring, H. G.</td>
<td>Wayne</td>
<td>16th</td>
<td>Omaha Medical College</td>
<td>1883</td>
</tr>
<tr>
<td>NAME</td>
<td>ADDRESS</td>
<td>Annual Year</td>
<td>College of Graduation</td>
<td>Date</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------</td>
<td>-------------</td>
<td>------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Linn, W. I</td>
<td>North Bend</td>
<td>16th</td>
<td>Columbus Medical College, O</td>
<td>1882</td>
</tr>
<tr>
<td>Livingston, T. P.</td>
<td>Plattsmouth</td>
<td>17th</td>
<td>Omaha Medical College</td>
<td>1885</td>
</tr>
<tr>
<td>McCleery, T. C.</td>
<td>Exeter</td>
<td>16th</td>
<td>Rush Med. Col., Chicago</td>
<td>1875</td>
</tr>
<tr>
<td>McKeeby, G. E.</td>
<td>Red Cloud</td>
<td>17th</td>
<td>Bellevue Hospital Med. Col.</td>
<td>1868</td>
</tr>
<tr>
<td>McLean, Jas.</td>
<td>Minden</td>
<td>17th</td>
<td>Fort Wayne Medical College</td>
<td>1877</td>
</tr>
<tr>
<td>Milroy, W. F.</td>
<td>Omaha</td>
<td>17th</td>
<td>Columbia College, N. Y.</td>
<td>1882</td>
</tr>
<tr>
<td>Newkirk, A. B.</td>
<td>Falls City</td>
<td>16th</td>
<td>Rush Medical College</td>
<td>1880</td>
</tr>
<tr>
<td>Norris, U. H.</td>
<td>Greenwood</td>
<td>16th</td>
<td>Omaha Medical College</td>
<td>1882</td>
</tr>
<tr>
<td>O'Connell, J. M.</td>
<td>Ponca</td>
<td>17th</td>
<td>Rush Medical College</td>
<td>1881</td>
</tr>
<tr>
<td>Palmer, W. H.</td>
<td>Blair</td>
<td>16th</td>
<td>Rush Medical College</td>
<td>1870</td>
</tr>
<tr>
<td>Rebert, M. A.</td>
<td>Omaha</td>
<td>16th</td>
<td>University Pennsylvania</td>
<td>1882</td>
</tr>
<tr>
<td>Robinson, E. L.</td>
<td>Clarks</td>
<td>17th</td>
<td>Col. Phys. and Sur., Keokuk</td>
<td>1878</td>
</tr>
<tr>
<td>Sanders, A. J.</td>
<td>Grand Island</td>
<td>16th</td>
<td>Long Island Hospital</td>
<td>1863</td>
</tr>
<tr>
<td>Sanders, J. W.</td>
<td>Holmesville</td>
<td>16th</td>
<td>Med. Col. Indiana</td>
<td>1883</td>
</tr>
<tr>
<td>Schug, F. J.</td>
<td>Columbus</td>
<td>16th</td>
<td>Columbus, O., Med. College</td>
<td>1876</td>
</tr>
<tr>
<td>Smith, E. L.</td>
<td>Shelton</td>
<td>17th</td>
<td>Rush Medical College</td>
<td>1884</td>
</tr>
<tr>
<td>Snider, J. F.</td>
<td>Plum Creek</td>
<td>16th</td>
<td>Med. Dept. Wooster Univ.</td>
<td>1877</td>
</tr>
<tr>
<td>Spickelmier, L. J.</td>
<td>Blue Hill</td>
<td>17th</td>
<td>Col. Phys. and Surg., Ind.</td>
<td>1880</td>
</tr>
<tr>
<td>Stone, R. M.</td>
<td>Omaha</td>
<td>16th</td>
<td>St. Louis Col. Phys. and Sur.</td>
<td>1884</td>
</tr>
<tr>
<td>Sumner, J. B.</td>
<td>Bloomington</td>
<td>17th</td>
<td>University Vermont</td>
<td>1878</td>
</tr>
<tr>
<td>Wait, J. B.</td>
<td>Neilgh</td>
<td>16th</td>
<td>Col. Phys. and Surg., Keokuk</td>
<td>1878</td>
</tr>
<tr>
<td>Wilcox, Wm. P.</td>
<td>Omaha</td>
<td>16th</td>
<td>Mo. State University</td>
<td>1882</td>
</tr>
<tr>
<td>Williams, J.</td>
<td>Kenesaw</td>
<td>16th</td>
<td>Omaha Medical College</td>
<td>1883</td>
</tr>
<tr>
<td>Wilson, C. A.</td>
<td>Omaha</td>
<td>16th</td>
<td>Med. College Ohio, Cincinnati</td>
<td>1879</td>
</tr>
<tr>
<td>Wilson, E. M.</td>
<td>Falls City</td>
<td>17th</td>
<td>Cincinnati Col. Med. and Sur.</td>
<td>1864</td>
</tr>
</tbody>
</table>
CONSTITUTION AND BY-LAWS
OF THE
NEBRASKA STATE MEDICAL SOCIETY,
AND ALL STANDING RESOLUTIONS INTRODUCED FROM
THE 1ST TO THE 17TH ANNUAL SESSIONS,
JUNE, 1868, TO MAY, 1885.

CONSTITUTION.

PREAMBLE.

WHEREAS, The Medical Convention, held in the city of Omaha, Nebraska, on the eleventh day of May, 1868, have declared it expedient to institute a State Medical Society, and inasmuch as an institution, organized and conducted so as to give frequent, united, and emphatic expression to the views and aims of the medical profession in this state, must at all times have a beneficial influence, and supply more efficient means than have hitherto been available here for cultivating and advancing medical knowledge; for elevating the standard of medical education; for promoting the usefulness, honor, and interests of the medical profession; for enlightening and directing public opinion in regard to the duties, responsibilities, and requirements of medical men; for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those who are engaged in it; therefore

Be it Resolved, In behalf of the Medical Convention of the state of Nebraska, that the members of the Medical Convention, held at Omaha on the eleventh day of May, 1868, and all others who, in the pursuit of objects above mentioned, are to unite with or succeed them, constitute them a State Medical Society, and that for the permanent organization and management of the same, they do hereby adopt the following

REGULATIONS.

I. TITLE OF THE SOCIETY.

SECTION 1. This institution shall be known and distinguished by the name, style, and title of the “Nebraska State Medical Society.”
II. MEMBERS.

SECTION 1. The members of this Society shall collectively represent and have cognizance of the common interests of the medical profession in the state of Nebraska, and hold their membership either as delegates from local medical institutions, as members by invitation, or as permanent members.

SEC. 2. DELEGATES.—The delegates shall receive their appointments from permanently organized Medical Societies, Medical Colleges, Hospitals, or other permanently organized medical institutions in good standing in the state of Nebraska.

Each delegate shall hold his appointment for one year, and until another is appointed to succeed him, and shall participate in all the business and affairs of the Society.

SEC. 3. REPRESENTATION.—Each local society shall have the privilege of sending one delegate to the Society's meetings for every three of its regular resident members, and an additional delegate for any fraction of its regular resident membership.

The faculty of every regularly constituted Medical College or chartered School of Medicine shall have the privilege of sending two delegates.

The professional staff of every chartered or municipal hospital, and every other permanently organized medical institution of good standing shall have the privilege of sending one delegate.

SEC. 4. MEMBERS BY INVITATION.—The members by invitation shall consist of practitioners of reputable standing from any part of the United States. They shall receive their appointment by invitation of the meeting, after an introduction by any of the members present, or from any of the absent permanent members. They shall hold their connection with the Society until the close of the session at which they were received, and may participate in the discussions without the right of voting.
CONSTITUTION AND BY-LAWS.

SEC. 5. PERMANENT MEMBERS.—The permanent members shall consist of all those who have served in the capacity of delegates, and of such other members of the profession resident within the state of Nebraska, as may receive the appointment by unanimous vote.

SEC. 6. PERMANENT MEMBERS' RIGHTS.—Permanent members shall at all times be entitled to attend the meetings, hold office, and participate in the affairs of the Society, so long as they shall conform to its regulations, and when not in attendance they shall be authorized to grant letters of introduction to reputable practitioners of medicine residing in their vicinity, who may wish to participate in the business of the meeting; as provided for members by invitation.

SEC. 7. PERMANENT MEMBERS' DUTIES.—Every member elect, prior to the permanent organization of each annual meeting, or before voting on any question after the meeting has been organized, must sign these regulations, inscribing his name and address in full, specifying in what capacity he attends, and, if a delegate, he must present his credentials in due season, to the proper committee, setting forth the title of the institution from which he received his appointment.

STANDING RESOLUTION I.—That every recommendation for permanent membership shall be referred to a special committee of three, and said committee is instructed to make all necessary investigations as to eligibility. F. Renner, 2d session, page 33.

RESOLUTION II. REQUIREMENTS FOR MEMBERSHIP IN NEBRASKA STATE MEDICAL SOCIETY. Each delegate and candidate for membership must execute and sign the annexed blank (to be furnished by the Secretary upon application):

APPLICATION FOR DELEGATE OR PERMANENT MEMBER TO THE NEBRASKA STATE MEDICAL SOCIETY.

Date ............... , .......
Name of applicant, ............... , Age, ...... Years. Present location:
Town ............... , County ............... , Congressional district ............... .
Time of graduation ............... , Name and location of college granting degree ............... . Places and time of practice at them since gradu-
Positions of professional trust held since graduation

To what medical organizations, if any, has applicant belonged

... ....... .........

(Signature of applicant.)

If applicant is a delegate, name of organization represented

Names of officers (President and Secretary) signing credentials

If for election to permanent membership, the following recommendation must be signed by a permanent member of the Society:

The undersigned, being personally acquainted with the applicant, Dr. ............ ............, and cognizant of the correctness of the statements made by him in this application, as well as his compliance with the ethics of the profession, takes pleasure in recommending him to membership in the Nebraska State Medical Society.

............. ........., M. D.,

Permanent member N. S. M. S.

DR. P. S. LEISENHING, 14th annual session, page 56.

RESOLUTION III. Minimal qualifications for membership in Nebraska State Medical Society. No applicant for membership in the Nebraska State Medical Society shall be received who is not a graduate of a school, the requirements of which embody the following conditions:

1. Creditable certificate of good moral character.

2. Diploma of graduation from a good literary and scientific college or high school; or lacking this

3. A thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy.

4. Branches of medical science to be included in the course of instructions: Anatomy, physiology, chemistry, materia medica, and therapeutics: theory and practice of medicine, pathology, surgery, obstetrics, gynaecology, and medical jurisprudence.

5. The time occupied in the regular courses or sessions from which students are graduated shall not be less than five months, or twenty weeks.

6. Two full courses of lectures not within one and the same year of time shall be required for graduation with the degree of Doctor of Medicine.

7. Regular attendance during the entire lecture courses shall be required, allowance being made only for absences occasioned by the student’s sickness, such absences not to exceed twenty per centum of the course.
8. Regular examinations or quizzes to be made by each lecturer or professor daily, or at least twice each week.

9. Final examinations on all branches to be conducted, when practicable, by other competent examiners than professors in each branch.

10. Each student shall have dissected during two courses.

11. Attendance during at least two terms of clinical hospital instruction shall be required.

12. Time of professional studies before graduation shall not be less than three full years, including the time spent with a preceptor, attendance upon lectures, or at clinics and hospitals.

13. The college must show that it has a sufficient and competent corps of instructors and the necessary facilities for teaching, dissections, clinics, etc.

DR. M. W. STONE, 16th annual session, page 52.

RESOLUTION IV. Resolved, That every physician who may hereafter become a member of this society shall be required to pay the sum of five (5) dollars as a membership fee. 4th Ann. Sess., page 333.

RESOLUTION V. That the sum of $2.00 shall be assessed annually upon each delegate and upon each permanent member for the purpose of raising a fund to defray the expense of printing the transactions. The payment of this assessment shall be required of all delegates and members in attendance, previously to taking their seats and participation in the business. 5th Ann. Sess., page 53.

RESOLUTION VI. That any member failing to pay his dues and assessments for two years in succession, is hereby dropped from the records of this Society. 5th Ann. Sess., page 53.

RESOLUTION VII. Resolved, That any member who refuses to pay his assessments and dues shall, after sufficient notification by the Treasurer, be dropped from the rolls. 12th Ann. Sess., page 127—Dr. Moore.

RESOLUTION VIII. Resolved, That the dues of all absentees from the state be remitted, and that no further dues be required from them while absent. 9th Ann. Sess., 28—Dr. Peabody.

III. MEETINGS.

SECTION 1. TIME.—The annual meetings of the Society shall be held on any Tuesday in the month of May or June.

SEC. 2. PLACE.—The place of meeting shall never be the same for any two years in succession, and shall be determined for each succeeding year by a vote of the Society, in which
vote a majority of all present entitled to vote shall be a sufficient decision, and shall designate the place.

IV. OFFICERS.

SECTION 1. The officers of the Society shall be a President, two Vice Presidents, one Recording Secretary, one Corresponding Secretary, and one Treasurer, and shall be elected by ballot without nomination.

Each officer shall hold his appointment for one year, and until another is elected to succeed him, save the Recording Secretary, who shall hold his office until he resigns or is removed from office for inefficiency or other good cause.

SEC. 2. PRESIDENT.—The President shall preside at the meetings, preserve order and decorum in debate, give a casting vote when necessary, and perform all other duties that custom and parliamentary usages may require, and deliver an address at the expiration of his term of office.

STANDING RESOLUTION IX. That it shall be the duty of each succeeding President of this Society to give fifty dollars prize money to the successful competitor for the best essay upon some medical subject to be designated by him after his election, said prize to be awarded in accordance with the method commonly practiced by Medical Societies. Dr. George Tilden—3d Annual Meeting.

SEC. 3. VICE PRESIDENTS.—The Vice Presidents, when called upon, shall assist the President in the performance of his duties, and during the absence or at the request of the President, one of them shall officiate in his place.

SEC. 4. RECORDING SECRETARY.—The Recording Secretary shall keep the records of the Society, give notice of Annual Meetings, superintend the publication and distribution of the transactions, and preserve the archives of the Society.

RESOLUTION X. That the Permanent Secretary be and is hereby instructed to prepare a printed programme annually, in which shall be specified the order of the sections and time devoted to the same.

That it is the sense of this Society that members should not only
prepare such papers as are required of them, but in the event that they cannot be present, such papers should be sent in and read by the Secretary or other person present, that no part of the programme be omitted, and the members be not thereby disappointed; also

Be it Resolved, That voluntary papers should be mentioned to the Secretary in time to occur in the programme, and that said programme be furnished to each member of the Society at least four weeks before the Annual Meeting. 15th Ann. Sess., page 28—W. O. Henry.

Resolution XI. Resolved, That a per capita sum of fifty cents be taken annually from the treasury and tendered the Permanent Secretary as an expression of some slight acknowledgment of the Society's appreciation of the Secretary's valuable services. 15th Ann. Sess., page 19—J. B. Ralph. See also 15th Ann. Sess., page 23—W. S. White.

Sec. 5. Corresponding Secretary.—The Corresponding Secretary shall have charge of the correspondence of the Society, and perform the duties usual to that office, and shall be Chairman of Committee on Foreign Correspondence.

Resolution XII. Resolved, That the President and two Secretaries of the Society are hereby empowered and required to designate suitable gentlemen, members of this Society, to represent all Medical Societies with which this body has fraternal relations, and notify the proper officers of foreign Societies of this action, requesting said foreign Societies to designate suitable persons to represent this Society at their respective meetings, and that said foreign Societies be requested to issue commissions to the gentlemen designated from our membership to represent them; the President and Permanent Secretary being hereby authorized to issue similar commissions to those gentlemen selected from the membership of foreign Societies to represent this Society in their respective bodies.

Resolved, That the commission provided for in the foregoing resolution shall clearly define the duties of the representation to whom the same shall be issued, and a failure to comply with the requirements of said duties shall forfeit said commission. 15th Ann. Proc., page 18—J. B. Ralph.

Sec. 6. Treasurer.—The treasurer shall have the immediate charge and management of the funds and property of the Society, and shall be a member of the Committee on Publication, to which committee he shall give sufficient bonds for
the safe keeping and proper use of the funds at his disposal, and through the same committee he shall present his account, duly authenticated, at every regular meeting of the Society.

Resolution XIII. Resolved, That the Treasurer of this Society be required to keep a ledger account with all members and all other persons with whom the Society may have any business transactions, and that his annual report be based upon said account. 9th Annual Meeting, page 20—Dr. Livingston.

Resolution XIV. Resolved, That the officers of the Society are hereby constituted the trustees of the Nebraska State Medical Society. 11th Annual Session, page 70—Dr. Moore.

V. STANDING COMMITTEES.

Committees.—The following Standing Committees, each composed of three members, shall be organized at every annual meeting for preparing, organizing, and expediting business for each next succeeding year, and for carrying into effect the orders of the Association, not otherwise assigned, namely: A Committee on Credentials, a Committee of Arrangements, a Committee on Foreign Correspondence, a Committee on Ways and Means, a Committee on Publication, a Committee on Grievances, and a Committee on Necrology.

VI. DUTIES OF COMMITTEES.

Section 1. Committee on Arrangements.—The Committee on Arrangements shall, if no sufficient reasons prevent, be mainly composed of members residing in the place at which the Society is to hold its next annual meeting, and shall provide suitable accommodations for the meetings, shall act as a Committee on Credentials, and verify and report upon the credentials of membership.

Sec. 2. Committee on Foreign Correspondence.—The Committee on Foreign Correspondence shall review the transactions of all sister societies with which this Society may be in communication, and present a resume of the condition
of the science of Medicine as represented in Foreign Transactions.

Sec. 3. Committee on Ways and Means.—The Committee on Ways and Means shall ascertain and report the amount of moneys necessary for the use of the Society, presenting a written statement of the same through the Treasurer, stating the amount of assessment against each member.

Sec. 4. Committee on Publication.—The Committee on Publication shall consist of the Secretaries and Treasurer, and shall have charge of preparing for the press, and of publishing and distributing through the Corresponding Secretary, such of the proceedings, transactions, and memoirs of the Society as may be ordered to be published.

The Secretaries shall act as agents of the Society, hold the bonds of the Treasurer for the faithful performance of his duties, and shall annually audit and authenticate his accounts, and present a statement of the same in the annual report of the committee, which report shall also specify the character and costs of the publications of the Society during the year, the number of copies still at the disposal of the meeting, and the funds on hand for further operations. They shall also furnish the Committee on Ways and Means with a duplicate copy of the same report.

Sec. 5. Committee on Grievances.—The Committee on Grievances shall have referred to them in writing, all complaints of lack of etiquette or violation of Medical Ethics, preferred by a member against any other member of the Society. If, upon examination, they shall find no cause for action, the complaint shall be dismissed and their action be final. If a majority of the board think there is just cause of complaint, they shall report in writing upon the case at the next annual meeting, and give at least thirty days' notice to all parties concerned of their intention.
VII. SECTIONS.

SECTION 1. NAME OF SECTIONS.—The transactions of the Society shall be classed under the following sections, each section to consist of three members to be appointed annually for the ensuing year, namely: A section on Practical Medicine, inclusive of Medical Pathology and Special Therapeutics. A section on Surgery, inclusive of Surgical Pathology, Operative Surgery, and Surgical Therapeutics. A section on Obstetrics, inclusive of diseases of women. A section on Materia Medica and General Therapeutics, inclusive of new remedies. A section on Anatomy and Physiology. A section on Forensic Medicine and Toxicology. A section on Ophthalmology and Otology. A section on Climatology and prevailing diseases. A section on History of Medicine.

SEC. 2. DUTIES OF SECTIONS.—The sections shall report annually the progress in the particular branches of their respective sections, particularly in the state of Nebraska, but not exclusively so. They will receive all essays and memoirs voluntarily contributed to their respective sections, and include the same, if found worthy, in their annual reports.

SEC. 3. SECTIONS, HOW APPOINTED.—At the opening of each annual session the President shall appoint a committee of three, whose duty it shall be to nominate from the members present a chairman for each of the different sections, who shall promise to furnish an epitome of progress in the sections they represent; and further that said committee, with the chairman so appointed, shall complete the membership of the sections.

RESOLUTION No. XV. That the chairman of each section is hereby instructed and directed to prepare and circulate among the profession such questions as will secure full and complete reports upon all matters of interest in charge of said sections, and that it is the sense of this Society that the gentlemen composing said sections should make their reports without fail at each annual meeting. 6th Annual Sess., page 9.
CONSTITUTION AND BY-LAWS.

RESOLUTION XVI. That from this session reports of chairmen upon sections covering more than twenty minutes in their reading shall be presented by abstract only, and published in full in the proceedings 16th Ann. Sess., page 52—Dr. Mansfield.

RESOLUTION XVII. Resolved, That hereafter no member of the Society be permitted to print any cuts or illustrations in connection with papers presented before the Society unless the cuts or illustrations be first submitted to the Society for inspection and approval. And no member shall be permitted to publish any paper presented to this Society until after it has been published in the annual proceedings, except by permission of the Society. 14th Ann. Sess., page 64, 65—Dr. P. S. Leisenring.

RESOLUTION XVIII. That a committee of two, to be called the committee on Ophthalmology and Otology, be appointed by the President, and that one member of this committee will be expected at the next annual meeting of the Society to submit a report of the progress made in Ophthalmology, and the other on the progress made in Otology during the year. Offered by Dr. Moore, on motion by Dr. Tilden adopted, 7th An. M., page 22.

VIII. FUNDS.

SECTION 1. Funds shall be raised by the Society for meeting its current expenses and awards from year to year, but never with the view to creating a permanent income for investments.

SEC. 2. HOW OBTAINED.—Funds may be obtained: First, by levying an equal assessment upon each of the members. Second, from the disposition of charters to county societies. Third, by individual, voluntary contributions for specified objects. Fourth, by the sale and disposal of publications or works prepared for publication.

SEC. 3. USES.—The funds may be appropriated for defraying the expenses of the annual meetings; for publishing the proceedings, memoirs, and transactions of the Society; for enabling the standing committees and sections to fulfill their respective duties, conduct their correspondence, and procure the materials necessary for the completion of their stated annual reports; for the encouragement of scientific investi-
gations, by prizes and awards of merit; and for defraying the expenses incidental to specific investigations under the instructions of the Society where such investigations have been accompanied by an order on the Treasurer to supply the funds necessary for carrying them into effect; but no funds will be used unless ordered by the Society and recorded by the Recording Secretary, who is authorized to draw orders on the Treasurer when so directed by the Society.

IX. CODE OF ETHICS.

The revised code of ethics of the American Medical Association shall be the rule and guide for the members of this Society in their intercourse with patients, with irregular practitioners, and with their professional brethren.

X. PROVISIONS FOR AMENDMENTS.

Amendments.—No amendment or alteration shall be made in any of these articles except it be in writing and at the annual meeting next subsequent to that at which such amendment or alteration was proposed; and then only by the voice of three-fourths of all members in attendance.

And in acknowledgment of having adopted the foregoing propositions and of our willingness to abide by them and to use our endeavors to carry into effect the objects of this Society as above set forth, we have hereunto affixed our names.
CONSTITUTION AND BY-LAWS.

BY-LAWS.

I.

Order of Business.—The order of business at the annual meetings of the Nebraska State Medical Society shall at all times be subject to a vote of three-fourths of all the members present; and until permanently altered, except when for a time suspended, it shall be as follows, viz.:

1. The temporary organization of the meeting preparatory to the election of officers for the ensuing year.

2. The report of the Committee of Arrangements on the credentials of members, after the latter have registered their names and address, and the title of the institution which they represent.

3. The calling of the roll and noting of the present and absent.

4. The reading of the minutes.

5. The reception of members not present at the opening of the meeting, and reading of notes from absentees.

6. The reception of members by invitation.

7. The reading and consideration of the stated annual reports of the sections in the order in which they are enumerated in the Constitution.

8. The choice of permanent members by vote.

9. The new appointments to fill the standing committees and sections.

10. Resolutions introducing new business and instructions to standing committees and sections.

11. The reading and discussion of voluntary communications introduced through the committees or sections.

12. Unfinished and miscellaneous business.

13. The awarding of prizes or awards of merit by the President.
14. The election of officers, address of retiring President, inauguration of newly elected officers, and the new appointments to fill the Standing Committees and Sections.

15. Adjournment.

II.

CREDENTIALS, TO WHOM SUBMITTED. The credentials of delegates from local societies and institutions privileged to be represented in this Society and the qualification of individuals proposed for permanent membership, shall be submitted to the Committee of Arrangements, who shall report the result of their deliberations thereon.

III.

RULES OF ORDER. Roberts' Rules of Order governing the business of deliberative bodies shall, in so far as they do not conflict with the Constitution and By-Laws of this Society, be adopted for the regulation of its business.

IV.

CHARGES AGAINST MEMBERS. Any member against whom any charge shall be preferred as set forth in the Constitution may, if found guilty, be censured, suspended, or expelled, at the pleasure of the Society. A vote of two-thirds of the members present shall be required to censure or suspend, and one of three-fourths to expel.

V.

CHARTERS. The President is authorized to issue Charters to any Medical Societies within the State of Nebraska, organized under the auspices and control of this Society. The fee for the same is fixed at ten dollars.

VI.

FEES. All permanent members shall pay a matriculation fee of five dollars, as soon as notified by the Secretary that they have been elected members, or as soon as they become
such by attending as delegates, and annual dues of two dol-
lars thereafter.

VII.

DELEGATES TO FOREIGN SOCIETIES. The Society may elect
delegates to such Medical Societies as the members present
may see fit.

VIII.

MOTIONS IN WRITING. All motions and resolutions brought
before this Society shall be furnished to the Recording Secre-
tary in writing.

IX.

CALLED MEETING. The President and any three officers of
the Society may call a meeting of this Society by giving thirty
days' notice through the various newspapers.

X.

AMENDMENTS. These By-Laws may be amended, added to,
or altered at any annual meeting of the Society, by a vote of
two-thirds of the members present, if notice of the intended
change shall have been submitted in writing at a previous an-
nual meeting; but the operation of any or all of these may be
temporarily suspended, during any session, by a majority of
the members present.
Minutes of the Seventeenth Annual Session

of the

Nebraska State Medical Society

held at

Grand Island, Nebraska.

May 26-28 1885.
INTRODUCTION.

The Nebraska State Medical Society does not assume responsibility for the utterances of anyone who may have contributed to these proceedings, except when expressly so stated; nor does the Committee on Publication deem itself holden for the appearance of any and all papers in these proceedings, since the society has not clothed them with editorial privileges. The Committee have simply put into print what was referred to them for publication.

A. S. v. MANSFELDE, M.D.,
.............................................., M.D.,
RICHARD C. MOORE, M. D.,

Committee on Publication,
Neb. St. Med. Soc
MINUTES
OF THE
SEVENTEENTH ANNUAL SESSION.

GRAND ISLAND, May 26th, 1885.

The Society was called to order by the Permanent Secretary, at 10 a.m., May 26th, 1885, at Liederkranz Hall, Grand Island. Dr. F. G. Fuller, President, being detained at home by his father's serious sickness, the Secretary introduced Dr. M. J. Gahan, 2d Vice President, who took the chair.

The Committee on Credentials, by its chairman, Dr. Christiansen, reported next.

To the President and Members of the Nebraska State Medical Society in session at Grand Island:

Your Committee on Credentials, respectfully submits:

First, That the following permanent members are in attendance and entitled to the privileges of the meeting:

Malick, Bloomington; N. F. Donaldson, North Platte; M. L. Hildreth, Lyons; T. E. Mitchell, Ogden, Utah; J. S. Leonhardt, Seward; M. W. Stone, Wahoo; F. D. Haldeman, Ord; D. H. Walden, Beatrice; L. J. Abbott, Fremont; D. T. Martyn, Columbus; C. D. Evans, Columbus; L. H. Robbins, Lincoln; E. M. Whitten, A. Bowen, Nebraska City; H. Link, Millard; D. S. Woodward, Hampton; P. J. Chidester, Western; Chas. S. Hart, Lincoln; A. H. Sowers, Hastings; C. T. Dildine, Kearney; W. Ackley, Juniata; C. F. Ballard, Grafton; and A. S. v. Mansfelde, Ashland.

We also submit and recommend for membership the following:

E. W. Cook, graduate of Iowa University, 1884, Plattsmouth.

Wm. Jas. Galbraith, graduate of College of Medicine and Surgery, Cincinnati, 1880, Omaha.

E. M. Wilson, graduate of College of Medicine and Surgery, Cincinnati, 1864, Falls City.

Frank E. Coulter, graduate of Rush Medical College, 1882, Waterloo.

W. F. Milroy, graduate of College Phys. and Surg., New York City, 1882, Omaha.

Sidney H. Knowles, graduate of Omaha Medical College, 1885, Omaha.

Theodore P. Livingston, graduate of Omaha Medical College, 1885, Plattsmouth.

C. M. Easton, graduate of Rush Medical College, 1872, Hebron.

James McLean, graduate of Medical College of Fort Wayne, 1877, Minden.

L. J. Spickelmier, graduate of Central College Phys. and Surg., Cincinnati, 1880, Blue Hill.

Austin R. Allen, graduate of Missouri Medical College, 1878, Bradshaw.

T. M. Hayden, graduate of College Phys. and Surg., Keokuk, 1874, Osceola.
G. E. McKeeby, graduate of Bellevue Hosp. Medical College, 1868, Red Cloud.

Robt. Damerell, graduate of Rush Medical College, 1882, Red Cloud.

Martin V. B. Clark, graduate of Cleveland Medical College, 1869, Sutton.

Chas. E. Elder, graduate of Indiana Medical College, 1878, DeWitt.

James B. Sumner, graduate of University of Vermont, 1878, Bloomington.

Arthur Conrad, graduate of Missouri Medical College, 1880, Crete.

J. N. Barker, graduate of Bellevue Hosp. Medical College, 1873, Grand Island.

J. M. O'Connell, graduate of Rush Medical College, 1881, Ponca.

Chas. M. Headrick, graduate of College of Phys. and Surg., Keokuk, 1876, Tecumseh.

DeWitt C. Bryant, graduate of Medical Department Wooster University, 1875, Omaha.

E. R. Fletcher, graduate of Rush Medical College, 1870, St. Paul.

Geo. M. Hull, graduate of Omaha Medical College, 1885, Kearney.

The following application cannot be recommended on account of non-payment of membership fee: Benjamin N. Bond, Papillion.

Your Committee further respectfully submit the name of L. Loda, Hastings, to the vote of the Society; the applicant being licensed by the Illinois State Board of Health, but no graduate in Medicine.

E. Christiansen, M.D.,
M. J. Gahan, M.D.,
A. J. Sanders, M.D.

Received and adopted, on motion of Dr. Mansfelde.
Motion by Dr. Graddy: That the report of the Committee on Credentials be reconsidered. Carried.

By Dr. Mansfelde: That that part of the Committee's report referring to gentlemen recommended for membership be adopted. Carried.

By Dr. Mansfelde: That that portion of the report not in harmony with the constitution be laid upon the table. Carried.

Motion by Dr. Mansfelde: That the consideration for application for membership shall be in order at any time during the meeting. Carried.

Reading of the minutes, by Dr. Duncan, Assistant Secretary.

By Dr. Christiansen: That the further reading of last year's minutes be dispensed with. Carried.

REPORT OF COMMITTEE ON ARRANGEMENTS.

The Committee of Arrangements respectfully states that the accommodations will be more adequate for the members in the hotels of the town, to-day, than last evening. That the proprietors were under the impression that there would be no members arriving before Tuesday morning, consequently made but little preparation. The Committee also states that the banquet will take place at the Railroad Hotel, at 9 P.M. on the 28th, when the Committee hopes to meet as full an attendance as possible.

E. CHRISTIANSEN,
A. J. SANDERS,
M. J. GAHAN.

Accepted with thanks, and adopted, upon motion by Dr. Mansfelde.
Mr. President, Ladies, and Gentlemen:

My seventh annual report at this your seventeenth annual session reminds me of Pandora and her box. Of Pandora, because just as she was so is this report, the carrier of good things, which I am proud to relate. Of her box, because my report seems to have emptied out upon it the disagreeable things which it contained before the husband’s, Epimetheus, curiosity had opened it.

I submit for your adjudication the request of members to insert in the printed proceedings or minutes certain things, or to leave them out, which reach your Secretary soon after his return home. Sometimes these requests are in the form of persuasive arguments; at others, in the shape of the most arbitrary commands. A case in point: The report of a chairman of a section contains some remarks which are objectionable to a member or members; the motion to strike this out is carried; and in the discussion of the matter a motion is made which contains this objectionable feature, not as a basis of the motion, but, in fact, as a means to re-insert the objectionable matter somewhere—which, in this case, would go into the minutes—giving thus the matter which, by a majority vote, was quashed more notoriety than it would otherwise have received, plainly destroying the object of the majority. In this case, upon consultation with some of your officers, who agreed with him, the secretary did refuse to insert the objectionable matter. Had he a right or was it his duty to act thus?

A communication from the secretary of the American Medical Association was received, which gave notice of the manner of procuring its journal and membership. The matter was deemed sufficiently important to the Society to justify the expense of printing and mailing information to the members concerning it. I ask your approval of my action in the premises.

The following members asked for and received credentials
as delegates to the American Medical Association: Drs. F. G. Fuller, J. S. Leonhardt, R. C. Moore, Geo. B. Ayres, L. F. McKenna, P. S. Leisenring, E. M. Whittin, A. Bowen, S. D. Mercer, T. E. Mitchell, J. K. L. Duncan, D. S. Woodward, Alice E. Huff, W. S. White, G. W. Johnston, and C. F. Ballard. In connection with this, I draw your attention to the necessity of impressing, by whatever means you deem best and most effective, upon the individual members the need of more consideration for the rights of their fellows. The Society was entitled to seventeen representatives to the Am. M. Assoc. I know quite a number of those who intended to go did not go, presumably for very good reasons, yet only one or two of the number saw fit to notify the Secretary to this effect; only sixteen applications were made, therefore no harm was done; but suppose four or five more applications had been received—would it have been right to debar these gentlemen from the privileges which the others did not improve, when a postal card addressed to the Secretary, or even a telegram, would have prevented it?

The same is true in regard to the transmission of valuable documents to the members by the Secretary. Seldom an acknowledgment of the receipt of such matter is vouchsafed. Your Secretary assures you that he would often have sent a postal card paid for by himself, if it would have secured him information of the whereabouts of matters of importance to himself, the Society, and its members; though it would be unjust did I not allude to the fact that we do not stand isolated in regard to this want of courtesy.

Of thirty-nine letters addressed to the secretaries of the different State Medical Societies, containing a printed slip with the request for an answer, eight or ten deigned to respond.

If you find no better method to cure this evil, let it be understood after this that the Secretary shall assume assent to all of the contents of his letters when they are not returned to him or he receives no answer to them.
A request to be dropped from membership is received from Dr. J. H. Crabbs, formerly of Fremont, now of Hot Springs, Arkansas. The Doctor is free of any charges, and his wish should be complied with.

It has been your Secretary's opinion, and he has acted in accordance therewith, that no member of this society loses his membership except by death, by resignation, or by expulsion, and that he may be dropped for non-payment of dues. In the two latter instances he cannot again become a member of another state society, except, in the last case, by fulfilling his obligations to our society.

I also maintain that the same relationship exists between members of county societies affiliating with the State Society, and their own society. This is certainly true in regard to our members, and their relation through us to the American Medical Association. Am I correct?

I am pained to announce the death of one of our members, which occurred this year—Dr. Geo Rightmire, of Wymore.

Passes were again obtained from the Union Pacific, the B. & M., the Missouri Pacific, and the Sioux City & Pacific railways at one and one-fourth fare—a saving of a large sum of money to the members in attendance annually, though necessarily causing a great deal of expense and work at the Secretary's office.

A programme of this meeting was printed, and is in your hands for criticism. Two members have been slighted by it, though not in consequence of any mistake by your Secretary.

One avers that he did not receive the circular letter, therefore did not forward his subject early enough for publication. In answer to him it may be said, that he is an old member, the chairman of his section resides in the same city with him and has his office on the same street; had the member been anxious to have his paper noticed he had all the facilities for such purpose. The other member had sent title of his paper early in the spring to the chairman of the section. The chair-
man forgot the notice or mislaid it, therefore its non-appearance in the programme. I made good the wrong by issuing the postal card you have received, and it remains with you to say who shall pay the expense for the same.

A communication received from the New Jersey Medical Society is herewith submitted; its consideration respectfully asked for.

In connection with this subject I submit a bill introduced as Senate File No. 5, by Dr. Buckworth, at our late session of the legislature at my request. The measure would have certainly carried had it not been for the unasked for interference of members of the regular profession, and of members of this society in particular. They represented the anomalous attitude of objectors to a bill, which they claimed asked too high a standard for the profession of Medicine in Nebraska, a something your secretary cannot comprehend. An examination of the defects and good features of this measure is earnestly solicited.

At the last session of the society fifty dollars were put to my credit for postage and stationery, and perhaps printing. The membership of the society has of late increased so rapidly that writing of communications to all of the members is entirely out of the question. The expense of printing has become, therefore, a large item of late, and is not likely to be lessened materially in the future, if the office of secretary is to be a useful one to the society and its members.

An itemized account of my expenditures is herewith submitted and a settlement respectfully asked for.

Your secretary has in his possession the names and professional histories of over eight hundred physicians in the state of Nebraska, of nearly 40 of the most populous counties. A very small expenditure of money and a good deal of labor, which I am willing to do, would correct and complete the list. I am of the opinion that this society could do more for the advancement of our profession in the state, by the publica-
tion and distribution of such a list—each person being labeled in accordance with the standard adopted by the Illinois State Board of Health—than by any other procedure. You would thereby afford the public an opportunity to inform itself as to the professional standing of any person who may offer his services.

Now if your Secretary in his year's work with you and for you has made mistakes, it is your prerogative to correct them.

If they are mistakes of judgment, either of head or heart, pardon them. If they are errors of omission or commission, point out the way to avoid them in the future, and I will cheerfully comply.

But, ladies and gentlemen, remember also my device, which has crept into your seal—"Suum cuique."

Very respectfully yours,

A. S. v. Mansfelde,
Permanent Secretary.

Motion by Dr. Kelley: That a committee of three be appointed to report on Secretary's report.

Committee: Drs. Kelley, Duncan, and Ball.

REPORT OF SPECIAL COMMITTEE ON SECRETARY'S REPORT.

GRAND ISLAND, May 27th.

Mr. President, Ladies, and Gentlemen of the N. S. M. S:

The Committee to whom your worthy Secretary's Annual Report has been referred, after careful reading and consideration of the same, beg leave to submit the following:

We, your committee, heartily commend the untiring energy and faithfulness of our worthy Secretary, and feel that the thanks of this Society are due him for his labors. On the point of personal communications from members requesting alterations in the minutes and manuscript in the hands of the Committee on Publication, we heartily recommend strict
adherence to the provisions of the constitution covering this point.

We approve the recommendations of the Secretary concerning attendance at the American Medical Association, and suggest the exercise of more discretion in the matter of application for credentials.

Concerning the request of Dr. J. H. Crabbs to be dropped from membership, your committee beg leave to call the attention of the society to his disregard of Ethics, as shown in the letter-head on which his communication is presented.

We recommend that, owing to the death of Dr. George Rightmire, the further collection of his annual dues be discontinued.

We heartily endorse the recommendations of the Secretary concerning the communication from the New Jersey Medical Society.

Your committee has examined the itemized financial account of the Secretary, and recommend that it be accepted, and we respectfully submit the following resolution pertaining to the financial portion of the Secretary's report, viz:

Resolved, That the sum of sixty-one dollars and seventy-one cents ($61.71), the balance due the Secretary for funds advanced by him, be paid by an order on the Treasurer for said amount.

We recommend that the sum of ($50) fifty dollars be again set aside for the use of the Secretary in defraying incidental expenses, and that fifty cents per capita of membership be allowed him as in previous years. Concerning the collection of statistics bearing on the medical profession of the state of Nebraska, the classification, publication, and distribution of such lists when thus prepared after the manner of the Illinois State Board of Health, your committee respectfully invite the attention of the Society.

 Recommending that the Secretary's Report be carefully considered by the Society, and the many wise suggestions he has offered be duly recognized by an earnest expression of
gratitude for his thorough performance of the laborious duties of his position, this report is

Respectfully submitted,

E. A. Kelley,
J. K. L. Duncan,
D. R. Ball.

Special Com. on Permanent Secretary’s Report.

Committee on Ways and Means, by special appointment to fill vacancies:
Drs. Coffman, Knapp, and Cox.

AFTERNOON SESSION.

The Society was called to order by the 1st Vice President, Dr. G. H. Peebles.

REPORT OF COMMITTEE ON CREDENTIALS.

Your Committee on Credentials further submits the following gentlemen for membership:

Dr. L. M. Brady, graduate of College of Physicians and Surgeons, Keokuk, 1884, Fullerton; E. O. Svenson, University of Nebraska, 1885, Gothenburg; John Janss, Jefferson Medical College, 1884, North Loup; Edwin L. Smith, Rush Medical College, 1884, Shelton.

Elected to membership, upon motion by Dr. ———.

Dr. A. Shipman, Chairman, made his report upon Practice of Medicine, which is referred, upon motion by Dr. Lynn, to Committee on Publication.

Dr. Pelton read a paper on Cholera Infantum.

Motion by Dr. Shipman, that the paper be referred to Committee on Publication.

Reading of Dr. Merriam’s paper “On Recent Progress of Pathology.” Referred to Committee on Publication, by motion of Dr. Knapp.
Motion by Dr. Shipman, that we now take a recess of ten minutes. Carried.

4:10 o'clock, P.M.

Motion by Dr. Mansfelde, that the regular order be dispensed and the section on Practice have the use of the remaining time of the afternoon. Carried.

Dr. Protzman read his paper on "Diphtheria," which, upon motion by Dr. Shipman, was referred to Committee on Publication. Adjourned.

EVENING SESSION.

Society was called to order by Vice President Dr. G. H. Peebles.

REPORT OF COMMITTEE ON CREDENTIALS.

Your committee respectfully recommend for membership Dr. R. S. Albright, graduate of Rush Medical College, 1884, Beatrice; Dr. E. L Robinson, graduate of College of Physicians and Surgeons, Keokuk, 1878, Clarks; Dr. John W. Koehn, graduate of Iowa State University, 1885, Norfolk.

The application of Dr. A. O. Kendall, graduate of Bellevue Hospital Medical College, 1869, Sutton, is referred to the Society for adjudication.

Motion by Dr. Carter, that the gentlemen favorably reported on by committee be admitted to membership. Carried.

By Dr. Knapp: That the application referred to Society be now considered. Carried.

By Dr. Knapp: That the applicant be elected to membership. Carried.

Invitations were received from Mr. Martin Schinmer for a garden concert, and from Mr. Aug. F. Sothman, for an evening concert, the former to take place Thursday afternoon, and the latter Thursday evening, May 28th.
Motion by Dr. Knapp, that the invitation be received and thanks returned. Carried.

By Dr. Carter: That the appointment of Committee on Sections be postponed until end of this meeting. Carried.

This motion being in direct violation of the constitution, the presiding officer appoints as such committee, Drs. Coffman, Knapp, and Stone.

By Dr. Carter: That the Treasurer's report be now read. Carried.

Read in the absence of the Treasurer by the Secretary.

TREASURER'S REPORT, 1885.

OMAHA, Neb., May 26, 1885.

Gentlemen of the Nebraska State Medical Society:

I have the honor to transmit for your information the following report of the transactions of the Treasurer of your Society for the past year:

RICHARD C. MOORE, TREASURER,

In Account with Nebraska State Medical Society:

<table>
<thead>
<tr>
<th>Dr.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>To cash received from Ex Treasurer</td>
<td>$364 20</td>
</tr>
<tr>
<td>&quot; &quot; during the year</td>
<td>466 87</td>
</tr>
<tr>
<td></td>
<td>$831 07</td>
</tr>
</tbody>
</table>

By cash paid as shown by enclosed vouchers (receipted)...$587 91

By cash in Treasury                        | 243 16  |

|                                          | $831 07 |

The Society is financially in good condition, but I would respectfully call your attention to the fact, that while considerable effort has been made to collect in back dues, and I have
succeeded in collecting more money than in any previous year since the organization of the Society, the expenditures have exceeded the receipts $121.04. At this rate, in two years you will find the Treasury empty and the Society in debt. I would therefore respectfully suggest that the expenses be confined for the next year within the amount received during the past year, namely, $466.

The expenses of the Treasury department have been, as shown by enclosed receipts, $10.09.

The cash on hand is on special deposit in the Omaha National Bank.

Very respectfully,

RICHARD C. MOORE,
Treasurer Nebraska State Med. Society.

Audited:

A. S. V. MANSFELDE,
Per. Secretary.

Motion of Dr. Denise, that the Treasurer’s report be referred to a committee of three for consideration.

Drs. James Carter, Knapp, and Stone, committee.

REPORT OF COMMITTEE ON TREASURER’S REPORT.

To the N. S. M. Society:

Your Committee to whom was referred the Treasurer’s report respectfully submit the following, to-wit: We find the Treasurer’s statement and accompanying vouchers correct.

Your Committee would recommend that there be, during the coming year, a more economical expenditure of the funds of the Society in the matter of printing circulars, cards, proceedings, etc.

We believe there can be saved in the expense of printing as follows:
SEVENTEENTH ANNUAL SESSION.

Printing of proceedings..............................................$100 00
" lists, officers, and members, etc......................... 17 50
" copies bound blanks for board of health,
returns of "The Neb. State Medical
Society's State Board of Health"...... 52 50

$170 00

Add to this expense of stenographer saved............ 26 10

Total ..........................................................$196 10

Total expenses of last year.........................$587 91
Deducting amount that can be saved........... 196 10

Leaves a balance of..............................$391 81

An amount which is $75.00 less than the maximum sum
($466.87) which the Treasurer suggests should not be ex­
ceeded during the coming year.

JAMES CARTER,
W. M. KNAPP,
M. W. STONE.

Motion by Dr. Sowers, that the report of the Committee
be accepted and go on file. Carried.

Motion by Dr. Denise, that the Secretary read the pro­
posed new Constitution, preceding its adoption. Carried.

Dr. Duncan reading.

Motion by Dr. Carter, that the draft for a Constitution,
which I herewith present be substituted for the one under
consideration.

Motion by Dr. Coffman, that Dr. Carter's motion be laid
upon the table. Carried.

Motion by Dr. Graddy, that Dr. Carter's motion be taken
from the table; lost by a vote of 14 to 31.

This, according to the ruling of the Chair, disposed of the
original motion and the substitute.
Motion by Dr. Mansfelde, that Dr. Duncan be made Assistant Secretary for this session. Carried.

Motion by Dr. Knapp, that the special order of business at 9 a.m., next Wednesday, be the report on Secretary’s report. Carried.

Report of Committee on Necrology. Dr. Duncan.

By motion of Dr. Denise, referred to Committee on Publication.

Adjourned.

MORNING SESSION.

May 27th, 1885.

The Society was called to order by Vice President Dr. G. H. Peebles at 9 a.m., Wednesday, May 27th.

Committee on Secretary’s report (special order of business) asked more time. Granted.

Committee on Credentials reported the name of Dr. C. L. Cook, graduate of Jefferson Medical College, 1851, North Bend, for membership. The doctor was vouched for by Drs. Abbott, of Fremont, and Blair, of North Bend, when, upon motion of Dr. Knapp, Dr. Cook was elected to membership.

Motion by Dr. Merriam, that Dr. Geo. Halley, of Kansas City, be made a member by invitation. Carried.

Dr. Hildreth now read a report of “case of depressed fracture of the skull, with laceration of dura mater and loss of brain tissue,” which was referred, upon motion by Dr. Denise, for publication; also report of a “case of severe concussion of spine with probable hemorrhage.” Referred, by motion of Dr. Knapp, to Committee on Publication.

Dr. Leonhardt read his paper on “Three Cases of Fracture, with Treatment.”

Motion by Dr. Denise, that Dr. Leonhardt’s paper be referred to Committee on Publication. Carried.

Motion by Dr. Mitchell, that the thanks of the Society are
hereby tendered Dr. Leonhardt for the ingenuity and originality displayed in his paper. Carried.

Motion by Dr. Denise, that Dr. Stephenson be allowed ten minutes for the presentation of a case of malignant disease of upper jaw, particularly in reference to the ingenious construction of a plate by the dentist for the deformed jaw. Case exhibited.

Dr. Milroy’s paper upon “The Use of Bichloride as a Surgical Dressing” was now read, and by motion of Dr. Shipman, referred for publication.

Report of Special Committee on Secretary’s report was now read by Dr. Kelley, and upon motion of Dr. Knapp, received and adopted.

Adjourned.

AFTERNOON SESSION.

MAY 27th, 1885.

Society called to order by Dr. Peebles.

Report upon Obstetrics by the Chairman, Dr. Knapp; referred, upon motion by Dr. Mansfelde, to Committee on Publication.

Dr. E. M. Whitten read a paper on “Early repair of perineal lacerations;” referred, by motion of Dr. Mansfelde, for publication.

Dr. Shidler reported a case of difficult labor and autopsy; referred, upon motion by Dr. Knapp, to Committee on Publication.

Dr. Knapp read a paper upon the “Management of third stage of labor;” referred for publication, by Dr. Coffman.

Dr. Mansfelde read a paper entitled “A case of ovariotomy, craniotomy, and other cases—a year’s work;” referred for publication, by motion of Dr. M. W. Stone.

Dr. R. M. Stone read a paper entitled “Abortions;” referred, on motion by Dr. Knapp, for publication.
(Here the report of the committee on Treasurer's report was made; see Treasurer's report et intra.)

Motion by Dr. Coffman, that Dr. Mansfelde be reimbursed for money expended for the Society. Carried.

Adjourned.

EVENING SESSION.

MAY 27th, 1885.

Society called to order by Vice President, Dr. Peebles, at 7:30 p.m.

Submission of Corresponding Secretary's report.

OFFICE OF THE CORRESPONDING SECRETARY,

PLATTSMOUTH, NEB., MAY 26th, 1885.

To the Officers and Members of the Nebraska State Medical Society:

Gentlemen—I have the honor to report that this society maintains pleasant relations with all the regular State Medical Societies in the United States. During the past year I have received the following transactions of other societies:

Connecticut State Medical Society, 1 vol., pp. 190, containing 11 articles.

Illinois State Medical Society, 1 vol., pp. 395, containing 86 articles.

Maine State Medical Association., 1 vol., pp. 148, containing 13 articles.

Massachusetts State Medical Society, 1 vol., pp. 84, containing 5 articles.

Massachusetts State Medical Society, 1 vol., pp. 93, Triennial Catalogue and Directory.

Michigan State Medical Society, 1 vol., pp. 192, containing 16 articles.

Mississippi State Medical Association, 1 vol., pp. 190, containing 43 articles.
New Hampshire State Medical Society, 1 vol., pp. 213, containing 19 articles.

New York State Medical Association, 1 vol., pp. 654, containing 54 articles.

Ohio State Medical Society, 1 vol., pp. 264, containing 12 articles.

South Carolina State Medical Society, 1 vol., pp. 131, containing 18 articles.

Texas State Medical Association, 1 vol., pp. 246, containing 34 articles.

Vermont State Medical Society, 1 vol., pp. 151, containing 14 articles.

Delaware State Medical Society, 1885, 1 vol., pp. 64, containing 9 articles.

In all making a total of 2,920 pages and 284 articles.

Many of these articles are evidences of the rapid strides towards fixed facts which medicine in all its branches is making. The profession is to be congratulated upon the very universal sentiment now so prevalent in favor of a liberal education to enable students to matriculate. Let us hope that the day is not far distant when, owing to the growing intelligence of communities, charlatans will have to subside upon back seats and educated physicians will lead.

It has always been the impression of the writer that the remedy for the illiteracy of medicine was not so much in legislation as in the profession itself. When respectable medical gentlemen will take the trouble to induce their students to go only to colleges where admission is based on education, we may hope for better things. As long as medical teachers admit illiterate candidates to their classes, we shall suffer the stigma so often thrown at the profession.

The effort made by our Society to establish reciprocal relations between this and all other regular societies has been well received by all with whom we have corresponded. Several have already accredited representatives to our society, while
we have appointed selected members in theirs to represent us. Others have taken the matter under favorable consideration and will bring the matter before their respective societies at their annual meetings this year.

The following list shows those state societies which have established representatives:

**Iowa State Medical Society**, represented in Nebraska State Medical Society by Prof. James Carter, M.D.

**Colorado State Medical Society** and **Oregon State Medical Society**, represented in Nebraska State Medical Society by Prof. L. B. Graddy, M.D.

**Virginia State Medical Society**, represented in Nebraska State Medical Society by Alexander Bear, M.D.

**Illinois State Medical Society**, represented in Nebraska State Medical Society by Alice Huff, M.D.

**Massachusetts State Medical Society**, represented in Nebraska State Medical Society by A. Bowen, M.D.

**Ohio State Medical Society**, represented in Nebraska State Medical Society by Chas. T. Hart, M.D.

**Minnesota State Medical Society** and **Missouri State Medical Society**, represented in Nebraska State Medical Society by Prof. George B. Ayers, M.D.

**Kansas State Medical Society** and **Maryland State Medical Society**, represented in Nebraska State Medical Society by Prof. L. A. Merriam, M.D.

**New York State Medical Association** and **New York Academy of Medicine**, represented in Nebraska State Medical Society by R. R. Livingston, M.D.

**Indiana State Medical Society** and **California State Medical Society**, represented in Nebraska State Medical Society by Prof A. S. v. Mansfelde, M.D.

By above statement it will be seen that fourteen states have already designated their representatives and accepted our plans for mutual interchange of professional courtesies and protection of interests germain to medicine.
We have appointed the following named gentlemen to represent us before the Medical Societies of the states named below:

Iowa, Prof. Donald Macrae, M.D. at Council Bluffs, Iowa.
Minnesota, F. A. Blackmer, M.D. at Albert Lea, Minn.
Oregon, Prof. James Browne, M.D., LL.D., at Portland, Oregon.

Several other state societies have adopted our system and designated representatives in our society, but have not yet named the gentlemen in their own societies who are to represent us. Thus it will be seen that this idea is gaining ground, and your Corresponding Secretary hopes that the plan will be fully perfected by the annual meeting of 1886.

All of which is respectfully submitted,

ROBT. R. LIVINGSTON,
Corresponding Secretary.

Upon motion by Dr. Carter, referred for publication.

The report of the Committee on Publication was now submitted by the Chairman, Dr. Mansfelde.

REPORT OF COMMITTEE ON PUBLICATION.

Mr. President, Ladies, and Gentlemen:

Your Committee on Publication beg leave to report:

That they have complied with your wishes in receiving bids for the publication of your proceedings for 1884. Two printing houses sent prices for work, letters attached hereto. The State Journal Company's was the lowest, and did the work, furnishing 300 copies for three hundred and twenty-four dollars and ninety-seven cents. In how far the publishers and your Committee have done their duty in their respective spheres, you are amply able to judge. Each member received his copy; sixty-five copies were sent to the Corresponding Secretary for distribution, and a few copies were sent to
parties who asked for them; the remaining copies are in the possession of the Permanent Secretary.

Your Committee advise the passage of a resolution which shall in future publications be invariably prefixed, namely, that this Society, although formally accepting and publishing the reports of the various Standing Committees and the papers of voluntary contributors, holds itself wholly irresponsible for the opinions, theories, criticisms, and statements therein contained, except when otherwise decided by special resolution.

Your approval of our action is respectfully solicited.

A. S. V. Mansfelde, M.D.,
Chairman.

Upon motion by Dr. James Carter, accepted.

Submission of the report of the Chairman of the Committee on Foreign Correspondence, Dr. R. R. Livingston, which, upon motion of Dr. James Carter, was referred for publication, as also accompanying reports of representatives of the different states.

REPORT OF CHAIRMAN OF COMMITTEE ON FOREIGN CORRESPONDENCE.

Plattsburg, Nebraska, May 26th, 1885.

To the Officers and Members of the Nebraska State Medical Society:

Gentlemen—As Chairman of the Committee on Foreign Correspondence, I have received reviews from representatives of several State Societies, which I prefer the authors should read to you. Those representatives who do not present reviews to you at this session have notified me of the non-receipt of Transactions, and hence their inability to review them.

I desire to say, further, that one year's experience in the work we have laid out for representatives convinces me that
it will prove a success and redound to the credit of the profession in all the States and Territories of the Union.

All of which is respectfully submitted.

ROBT. R. LIVINGSTON, M.D.,
Cor. Sec. and Chairman Com. For. Correspondence.

Report of the Chairman of the Committee on Public Health. Referred, by motion of Dr. Mansfelde, for publication.

Motion by Dr. Carter, that the order of business be suspended and report of Committee on Ways and Means be received. Carried.

REPORT OF COMMITTEE ON WAYS AND MEANS.

The Committee on Ways and Means beg leave to submit the following:

Money on hand.................................................$518.00
Indebtedness to Secretary........................................ 196.00
The probable cost for publishing Proceedings............ 350.00
The current expenses and indebtedness exceeding the amount on hand........................................... 28.00

which will be met by collections of past dues of members in arrears.

We therefore recommend the publishing of Proceedings of this year.

V. H. COFFMAN,
W. M. KNAPP,
H. M. COX.

The Committee on Nomination for Chairmen of Sections was now granted leave to report, by suspension of the order of business.
REPORT OF COMMITTEE ON NOMINATION FOR CHAIRMEN OF SECTIONS.

Your Committee on Nomination for Chairmen of Sections beg leave to report:

Section I. PRACTICE OF MEDICINE—
   Dr. William Protzman, Chairman.
   Dr. L. J. Abbott.
   Dr. J. J. Porter.

Section II. SURGERY—
   Dr. E. W. Lee, Chairman.
   Dr. J. S. Leonhardt.
   Dr. M. W. Stone (Wahoo).

Section III. OBSTETRICS—
   Dr. L. H. Robbins, Chairman.
   Dr. R. M. Stone (Omaha).
   Dr. W. O. Bridges.

Section IV. MATERIA MEDICA AND THERAPEUTICS—
   Dr. James Carter, Chairman.
   Dr. N. F. Donaldson.
   Dr. Milton Lane.

Section V. ANATOMY AND PHYSIOLOGY—
   Dr. E. Christiansen, Chairman.
   Dr. R. S. Albright.
   Dr. J. W. Koehn.

Section VI. FORENSIC MEDICINE AND TOXICOLOGY—
   Dr. A. H. Sowers, Chairman.
   Dr. M. W. Wilcox.

Section VII. MENTAL DISEASES—
   Dr. L. H. Merriam, Chairman.
   Dr. E. O. Svenson.
   Dr. E. A. Kelley.

Section VII. OPHTHALMOLOGY AND OTOTOLOGY—
   Dr. L. B. Graddy, Chairman.
SEVENTEENTH ANNUAL SESSION.

Section IX. CLIMATOLOGY AND PREVAILING DISEASES—
Dr. J. K. L. Duncan, Chairman.
Dr. J. S. Leonhardt.
Dr. Alfred Shipman.

Section X. HISTORY OF MEDICINE—
Dr. A. B. Newkirk, Chairman.
Dr. A. B. Anderson.
Dr. A. S. v. Mansfelde.

Dr. M. W. Stone moves the adoption of the report of the committee. Carried.

Motion by Dr. Mansfelde, that the regular order of business be taken up, and that we proceed to the election of officers. Carried.

RESULT OF ELECTION.

Dr. W. M. Knapp, of York, the unanimous choice of the Society for President, and, upon motion of Dr. M. W. Stone, is so declared.

Dr. James Carter, of Omaha, the unanimous choice for 1st Vice President, and, upon motion of Dr. M. W. Stone, so declared.

Dr. N. F. Donaldson, of North Platte, the unanimous choice for 2d Vice President, and, upon motion of Dr. Christiansen, so declared.

Motion by Dr. Coffman, that the Secretary cast the vote of the Society for Dr. R. R. Livingston, of Plattsmouth, as Corresponding Secretary. Carried.

Motion by Dr. Knapp, that the same action be had in case of Dr. R. C. Moore, of Omaha, for Treasurer.

Both the latter gentlemen were re-elected.

Motion by Dr. Coffman, that, as heretofore, members may make application to the Secretary for credentials as delegates to the American Medical Association, or to other societies. Carried.
Motion by Dr. Abbott, that the next session of the Society be held at Lincoln, and that the committee on arrangements is expected to furnish only accommodations for the holding of meetings. Carried.

Dr. J. H. Cleaver is made a member by invitation, upon motion by Dr. Merriam.

Motion by Dr. M. W. Stone, that we now proceed with the installation of officers. Carried.

Drs. Knapp, Carter, and Donaldson were installed in their respective offices.

The President, Dr. W. M. Knapp, in the chair.

Motion by Dr. Coffman, that all papers not having been submitted hitherto be read by title and referred to Committee on Publication. Carried.

Motion by Dr. Christiansen, to reconsider the motion of Dr. Coffman. Carried.

Motion upon reconsideration. Lost.

Submission by Dr. James Carter of subjoined constitutional amendment:

Dr. J. Carter offers to amend the constitution by striking out the whole and substituting the following in its place:

CONSTITUTION.

ARTICLE I. NAME AND OBJECT.

SECTION 1. This Society shall be named the "Nebraska State Medical Society."

Sec. 2. The objects of this Society shall be the promotion of medical knowledge, and the encouragement of social and harmonious relations within the profession.

ARTICLE II. QUALIFICATIONS OF MEMBERS.

SECTION 1. The members of this Society shall consist of permanent members and members by invitation.

Sec. 2. The permanent membership of this Society shall
be composed of such persons as have complied with the following requirements:

1. They must be regular physicians, in good standing, graduates of regular recognized colleges, and residents of the state of Nebraska.

2. If they reside within the jurisdiction of a regular county or district society they must first come to this Society as delegates from such local society.

3. If they reside without such jurisdiction they must be recommended to membership by two permanent members of this Society.

Sec. 3. Each applicant for permanent membership shall fill out and sign the following blank application:

**FORM OF APPLICATION FOR PERMANENT MEMBERSHIP IN THE NEBRASKA STATE MEDICAL SOCIETY.**

(Date) ....................................

I, ................................., aged ......., residing at ........................., a graduate of ............, class of 18........., a member of ......................... Medical Society, hereby make application for membership in the Nebraska State Medical Society.

(Signature.) ..............................

Sec. 4. A two-thirds vote of all the members present shall constitute an election to membership.

Sec. 5. Members by invitation.—This Society may invite to participation in its meetings, without the privilege of voting, any reputable physician who may be introduced by a member of this Society.

**ARTICLE III. OFFICERS.**

**SECTION 1.** The officers of this Society shall be a President, two Vice Presidents, a Recording Secretary, a Corresponding Secretary, a Treasurer, and these officers shall constitute the Board of Trustees.

**ELECTION OF OFFICERS.**

**Sec. 2.** The nominations of officers shall be by informal ballot.
The election shall be by ballot, a majority of all votes cast being necessary to a choice. The officers of the Society shall hold their office for one year, and until their successors are chosen.

DUTIES OF OFFICERS.

SEC. 3. The President and Vice Presidents shall discharge the duties belonging to their respective offices.

The Recording Secretary shall keep a record of the proceedings of the Society and of the Board of Trustees, of which latter he shall be ex-officio clerk.

He shall superintend the publication of the transactions of the Society under the direction of the Board of Trustees.

He shall attest all orders drawn upon the Treasurer.

He shall prepare a report at the close of each year.

He shall prepare a programme of exercises of the annual meeting, which shall include the titles of all papers which he has been notified will be presented to the Society, with the names of their authors, and forward it to members of the Society at least two weeks prior to the annual meeting.

The Corresponding Secretary shall review such transactions of other medical societies as he may receive, and present at each annual meeting a report of such matters contained in these transactions as he may deem of interest to this Society.

He shall deliver to his successor in office all transactions in his hands.

The Treasurer shall have charge of the funds of the Society.

He shall keep a ledger account with each member of the society, and with all other persons with whom the Society may have business transactions.

He shall make an annual statement of the finances of the Society.

He shall give a bond in the sum of $1,000.

He shall pay orders voted by the Society, signed by the President and Secretary.
The Board of Trustees shall hold the bond of the Treasurer, have general supervision of all the property of the Society, shall have the power to collect all moneys due the Society, shall sue and be sued for the Society, and perform the duties that usually devolve upon boards of trustees.

ARTICLE IV. MEETINGS.

The annual meeting of this Society shall be held on the first Tuesday of June. The place of meeting shall be determined by a majority vote of the Society, and shall not be the same for any two consecutive years.

ARTICLE V. AMENDMENTS.

This Constitution and the following By-Laws may be amended by a two-thirds vote of all the members present; Provided, That notice of the proposed amendment has been given in writing at the annual meeting next preceding, and the same has been printed in the programme of exercises of the meeting at which the vote is to be taken.

BY-LAWS.

1. QUORUM.—Twenty-five members shall constitute a quorum.

2. STANDING COMMITTEES.—The President shall appoint, at the annual meeting, the following standing committees, each composed of three members, except the Committees on the Progress of Medicine, which shall be eleven committees of one member each:
   - Committee on Credentials,
   - Committee of Arrangements,
   - Committee on Grievances,
   - Committee on Necrology,
   - An Auditing Committee; and the Committees on the Progress of Medicine.
DUTIES OF STANDING COMMITTEES.

(a) All applications for membership shall be referred to the Committee on Credentials, who shall report thereon.

(b) The Committee of Arrangements shall be composed as far as possible of members resident of the city in which the annual meeting is to be held. They shall make suitable arrangements for the meeting.

(c) The Committee on Grievances shall constitute a board of trial for all offenses against the Constitution and By-Laws, or for conduct unbecoming an honorable physician, and shall have the sole power of moving the expulsion of a member. The vote on the expulsion of a member shall be by ballot, and an affirmative vote of three-fourths of the members present shall be necessary to expel. All charges against members of the Society shall be in writing, and the Committee on Grievances shall furnish an accused member with a copy of the charges preferred thirty days prior to the annual meeting.

(d) The Committee on Necrology shall report upon such deaths as may have occurred among the members of the Society, together with such resolutions as they deem proper.

(e) The Auditing Committee shall examine and audit the Treasurer's report.

(f) The President shall assign to each of the eleven Committees on the Progress of Medicine one of the following departments of medicine, viz.:

1. Practice of Medicine.
2. Surgery.
3. Obstetrics.
5. Nervous and Mental Diseases.
6. Anatomy and Physiology.
8. Materia Medica and Therapeutics.
9. Medical Jurisprudence, Medical Chemistry, and Toxicology.
10. Pathology and Histology.
11. Public Hygiene and Medical Legislation.

These committees shall report at the ensuing meeting on the year's progress in the department assigned.

3. Membership.—All applications for permanent membership shall be accompanied by the membership fee of $5.00, returnable if the application is rejected.

All permanent members shall, after the first year, pay as annual dues $2.00. Failure to pay the annual dues for three years will subject the member to loss of membership.

6. Code.—The Revised Code of Ethics of the American Medical Association shall be the rule and guide of the members of this Society.

7. Robert's Rules of Order shall govern the Society in all cases not provided for by the Constitution, By-Laws, or Standing Rules.

STANDING RULES.

The following shall be the order of business at the meetings of this Society:

1. Organization of the Society.
2. Payment of annual dues.
4. Signing of the Constitution by the newly elected members.
5. Reading of the minutes of the last annual meeting.
8. Report of the Corresponding Secretary.
10. Selection of next place of meeting.
11. Appointment of standing committees.

13. New business:
   Report of special committees.
   Report of the Board of Trustees.
   Report of the Committee on Grievances.
   Report of the Committee on Necrology.


15. Election and installation of officers.


The reports of the committees on the progress of medicine and the literary work of the Society, the reading of papers, addresses, etc., shall be interspersed between the orders of business at the pleasure of the Society.

The annual meetings of the Society shall not continue more than three days.

The Society may elect, at its pleasure, delegates to other medical societies.

All resolutions introduced to the Society must be furnished to the Secretary in writing.

Motion by Dr. Albright, that the unread papers of Dr. Merriam be referred to Committee on Publication. Carried.

Motion by Dr. Coffman, that Dr. Denise’s report as chairman of section on Ophthalmology be referred to Committee on Publication. Carried.

Motion by Dr. Denise, that Dr. Ball’s paper be referred for publication. Carried.

Adjourned.
MORNING SESSION.

THURSDAY, May 28th, 1885.

The President, Dr. W. M. Knapp, in the chair.

Announcement of standing committees by the president:

COMMITTEE ON ARRANGEMENTS.—Drs. S. M. Lane, L. H. Robbins, and F. G. Fuller.


COMMITTEE ON GRIEVANCES.—Drs. Horace Chapin, R. C. Moore, and A. Shipman.

COMMITTEE ON FOREIGN CORRESPONDENCE.—Dr. R. R. Livingston, Plattsmouth.


Motion by Dr. Mansfelde, that all papers not otherwise provided for go into the hands of the Committee on Publication. Carried.

Motion by Dr. Gahan, that the Committee on Publication publish the Constitution in the Proceedings, and 100 extra copies for the use of the Secretary. Carried.

Motion by Dr. Christiansen, that the Secretary be instructed to procure a short-hand reporter for our next session. Carried.

Motion by Dr. Gahan, that fifty dollars, in addition to the amount allowed the secretary for the expenses of his office, by recommendation of the special committee on Secretary’s report, be set aside for like purposes. Carried.

Dr. Ballard made a verbal report of a case, and upon motion was requested to furnish the Committee on Publication with a written report of the same for publication.

Dr. Graddy’s paper upon Ocular Hygiene, with special
reference to school life, was read by title, and ordered published.

Resolutions of thanks were ordered spread upon the minutes to the Assistant Secretary, Dr. J. K. L. Duncan, for services rendered; to the profession and citizens of Grand Island for their hospitality and entertainment; to Dr. Peebles, 1st Vice President, for his courteous presidency over the deliberations of the 17th annual session, and to the railroads of the state for reduction of railroad fare.

Upon recommendation of Dr. Gahan, of Committee on Credentials, Dr. C. M. Duncan, a graduate of the College of Physicians and Surgeons, St. Joseph Mo., North Platte, was elected a permanent member of the society.

Upon motion of Dr. Mansfelde, the Society adjourned sine die.

A. S. v. MANSFELDE, M.D.

Permanent Secretary.
In Memoriam.

GEORGE RIGHTMIRE, M.D.,

On the morning of April 14th, 1884, at his home at Wymore, Neb., after long suffering, passed "over the river of Death," to be of earth no more.

He had been a resident of Wymore nearly two years. His remains were taken to Corning, Iowa, his former location, for interment.

The following is a brief sketch of his life, as furnished us by Dr. C. C. Gafford, one of his co-laborers.

Dr. R. was born near Ithaca, New York, January 11th, 1848. He was left an orphan at the age of sixteen years; having a younger brother to support, and with but little means, the contest for an education was embarrassing. With three years of toil, privation, and closest economy, he graduated at the Ithaca Academy.

Stimulated and sustained by his own ambition, and with this preliminary preparation, he entered the private office of Dr. Henry B. Chase, Jacksonville, N. Y., in June, 1868, to engage in the study of medicine, supporting himself by teaching school four months of each year.

In 1870 he entered the Buffalo Medical College and graduated therefrom, 1872. With honors of graduation fresh upon him, he returned to Ithaca, and was received as a partner by his former preceptor.
After two years he was appointed U. S. Pension Examining Surgeon for the 28th N. Y. Congressional District. From 1872 to 1879, he was County Physician of his (Tompkins) county.

In 1876, he was elected President of the Tompkins County Medical Society.

In 1879, he moved to Corning, Iowa, and at once entered into a large practice, remaining there three years.

Led on by his ambition he came to Wymore, Neb., and since his location here he has continued with unabating energy the practice of medicine, and had established a high reputation for his skill as a practitioner. On the 22d day of May, 1883, he became a member of the Nebraska State Medical Society.

The Doctor has been in delicate health for several years, although he was always cheerful. In his last illness he bore his suffering without complaint, and when told that death would soon end his suffering, and as there was a question as to the location of the true seat of his disease to himself and his physicians, he asked that when he was dead an examination be held for their own satisfaction and the good it would do the profession at large.

He died at fifteen minutes past three of the morning of the 10th of April, of passive dilatation of the heart.

J. K. L. Duncan, M.D.,
William Protzman, M.D.,
Committee on Necrology.
SECTION
ON PRACTICAL MEDICINE,
INCLUSIVE OF MEDICAL PATHOLOGY AND SPECIAL THERAPEUTICS.

ALFRED SHIPMAN, M.D., CHAIRMAN.

THE ADDRESS IN MEDICINE.
ALFRED SHIPMAN, M.D., PLATTSMOUTH.

CHOLERA INFANTUM.
D. R. PELTON, M.D., WAHOO.

DIPHTHERIA.
WILLIAM PROTZMAN, M.D., LINCOLN.

MEMBRANOUS ENTERITIS WITH ABSCESS IN ABDOMINAL WALL, OCCURRING AFTER PARTURITION.
C. F. BALLARD, M.D., GRAFTON.
Mr. President and Gentlemen:

The successful treatment of the various diseases which afflict mankind is based upon sound conception of pathology, while pathology has for its basis an absolutely correct knowledge of physiology. In the formation of pathology, physiology is indispensable.

In order to reach a correct diagnosis we must have a correct system of pathology.

Were the physiological conditions and principles always clearly known and understood, our system of pathology might approach perfection, but physiology is not an exact science, perhaps never will be. Absolute knowledge in regard to all and every physiological state and condition may never be attained.

Physiology may be said to be one of the least mature, because one of the most complex of the sciences. Therefore our pathology may remain defective, and if so, the practice of medicine will continue to be an imperfect art, medicine will continue to be a progressive but not an exact science.

I am one who believes that medicine is a progressive science, and that in many of its departments it already approaches a precision scarcely realized by many practitioners.

Contrasting the difference in the practice of to-day with the practice current even twenty-five years ago, and who will say no advance has been attained.

Reduce the time to a review of the progress made during the past society year, and even during this short period the accumulation of material for consideration covers such a vast field of thought that to properly present the same for your
consideration in the short space of time allotted to us becomes an impossibility.

I am free to say that there is a fashion among many of regarding change of any kind progress. A simple change in the manner of treating a particular disease is not always evidence of medical progress. We sometimes follow false lights, but not for any great length of time.

Actual improvements, and progress in medical practice are the result of careful research. Patient investigation, careful physiological research, and abundant experimentation furnish the ground work for all forms of advancement in our art. The over confident assertion of one man may prove nothing, but the co-joined experience of many physicians may establish a principle in practice. From that day when the fathers in medicine began to record their experience and relate their plans of treatment, down to this, our day, medicine has been progressive.

Although it may not take the recorded experience of thousands to establish a period in practice, yet it is necessary for each individual member of the profession to give voice to his convictions in order that what little knowledge he may have gleaned may become useful to the profession at large.

It is the duty of every physician to patiently, persistently, and scientifically investigate those diseases he is called upon to treat. In no other way can he become a competent practitioner, and in no other way can he so well promote the best interests of his patients, himself, and the profession.

Actual progress in medicine is necessarily slow. All the numerous theories advanced must be patiently investigated. Investigation must be made in more than one direction. After discovering the etiology of disease, we must master its therapeutics.

Theories may be worked out in the pathological laboratory, but these theories must be proven by clinical demonstrations before they can be accepted by intelligent physicians.
During the past few years investigations in the department of etiology have been interesting and very instructive, but perhaps not as profitable as they might have been had more attention been given to clinical observations.

It has been said, and the statement still holds good, "that the place to study disease intelligently is at the bedside."

Persistent investigation in the biology of germs has certainly yielded some important results, and leading members of the profession now admit that micro-organisms are the exciting cause of numerous diseases.

It is quite generally admitted that diphtheria, scarlatina, rubeola, and tuberculosis are germ diseases, while Koch's comma bacillus presents admirable claims for recognition as the one and only factor in the production of Asiatic cholera.

The investigations of Koch in relation to cholera have thrown light in dark places, and it is thought that he has established some facts.

He asserts, and has apparently proven, that a certain parasite is present in all cases of true cholera. Specimens of his cholera bacillus have been exhibited to several local medical societies, and converts to his etiological views are numerous and influential.

Investigations conducted by Pasteur, Koch, Cohn, Klebs, Wood, Formad, and others have been conducted principally with the view of proving or disproving the presence of micro-organisms in certain diseases, and the revelations of the microscope have added much to our knowledge of the apparent cause of many individual diseases.

The uniformity with which certain parasites are found in connection with certain pathological conditions clearly establishes the fact that these germs are either the exciting cause of the disease existing, or else are a product of diseased action.

It may be said that the profession is divided in opinion regarding the influence of germs in producing diseases.

But it is a fact that a great number, a vast majority, are
favorable to the view that the multiplication of infinitesimal parasites is the cause of nearly all the so-called zymotic diseases.

The idea that a specific poison may be a living organism is certainly in accordance with common sense at least.

It will be of little value, however, for our microscopists to hunt up these parasites, unless we can have more accurate more definite clinical observations, and thereby acquire more positive knowledge as to their pathogenetic value.

It may be said that although the theory of Koch in regard to the cause of Asiatic cholera has received the endorsement of many leading men in the profession, we should understand that further investigation is necessary before we can declare that the comma bacillis is the sole cause of cholera.

Some doubt is thrown around the assertion of Koch and others from the fact that no clinical proof is forthcoming. Although the comma bacillis has been inhaled, swallowed, and injected it is said not a single case of cholera has been produced.

Probably, we should remember, because the pathological state or condition upon which development of the disease to a certain extent depends was not present in those upon whom experiments were made.

The production of a single case of cholera from the immediate introduction of the comma bacillis would do more to establish Koch's claims than would the assertions of ten thousand men unsupported by clinical proof.

In medicine we do need more facts and less theory. We also need more exact observations of clinical and therapeutic facts. The rank and file of the profession should not be dazzled or confused by the brilliancy appearing in the investigations of a Pasteur or a Koch; should not accept, without question, their opinions in regard to any supposed discovery which is unsupported by any clinical proof.

Gentlemen, it appears to me that humbler members of
the profession are losing interest in clinical observation, and delegating investigations entirely to that enterprising branch of the profession represented by the microscopist. We cannot investigate disease intelligently with the microscope alone; it is true that this instrument has given us much valuable information, but the time has not yet arrived when we can diagnose disease by it alone.

The profession should not lose sight of the great and good example of clinical work given us by Trousseau, Watson, Flint, Roberts, Da Costa, and other safe guides in medicine. Neither should any of us abandon our efforts to solve the problem of diseased action by close and accurate observation at the bedside.

The need of more accurate bedside investigation of disease was never more apparent than it is to-day.

The promulgation of what we call the germ theory of disease needs closer investigation, not only further microscopic test, but more careful experimentation.

Undoubtedly we are on the eve of an important epoch in medical advancement. Especially is this the case in regard to a class of diseases which the profession have long regarded as being caused by some special infection.

Is there a special infinitesimal parasite, one kind of which originates cholera, another diphtheria, and so on?

A particular organism for each one of the zymotic diseases, or are these germs simply one of the morbid elements in the pathological condition present?

Gentlemen, it would add much to the credit of our profession if this perplexing question of the part that microorganisms play in the production of disease could be settled once.

But it is not given to man to know all things, and it is probably a fact that the more deeply we enter into the invisible constitution of matter the more confusing the problem will become.
For instance, it is impossible to recognize some of these micro-organisms with our highest magnifying power unless they are first passed through a staining process.

The manipulation necessary in the hunt after these germs certainly requires the exercise of great, of exceptional skill, and the possibility of error is present in every examination.

Nevertheless, although a positive indisputable demonstration in regard to germ influence may be impossible at this time, there may, happily, be further clinical proof forthcoming.

Koch’s theory of special infection is borne out in the past history of cholera, and therefore his investigations have given us still stronger ground for our former belief in the especially infectious nature of this disease, has furnished more evidence that the infectious matter is propagated from the excreta of the patient, and strengthens the belief that prevention through thorough disinfection is possible.

The evidence in favor of the theory that cholera, diphtheria, scarlatina, variola, rubeola, and in fact all of the so-called zymotic diseases are caused by micro-organisms is rapidly increasing. The literature of germs is becoming voluminous, and extremely interesting.

In a recent letter to your chairman, that eminent teacher, Roberts Bartholow, makes use of the following language: "The battle of the bacilli is still raging with the odds in favor of Koch’s comma bacillus. Kline, of London, a pupil of Stricker, of Vienna, denies the agency of the comma bacillus in causing cholera. It is alleged on the one hand that in a few instances cholera has been induced by the culture of the comma bacillus, and on the other hand Kline swallowed some without any effect.

"As Koch represents the Berlin school and Kline the Vienna, an agreement of views is not probable. If in any instance it is found that Koch’s comma bacillus induces a cholera paroxysm his position is proved, for any number of
negative facts cannot overcome one positive fact. As yet the evidence in favor of the comma bacillus is not sufficient to decide the question, but there is an increasing probability in favor of the view of its pathogenetic value.”

In regard to Dr. Kline’s opposition to Koch’s theory, I would say he has practically abandoned his views formerly expressed, and very recently made the following statement:

“What while the comma bacillus in and of itself is harmless, yet it does produce a virus which causes cholera.”

Speaking of the bacillus tuberculosis, the veteran professor, Austin Flint, says: “The presence of a parasite in tuberculosis has been demonstrated. The great preponderance of evidence is in favor of the view that it is uniformly present in product recognized to be tuberculous, the conclusion which he reached was, that there was some essential connection between the presence of the parasite and the tuberculous disease, believes other causes may co-operate in the production of tubercle. But the presence of the specific parasite is essential.”

It will be noticed that this is a modification of the opinion expressed by Prof. Flint something over a year ago, and may be said to embody the prevailing opinion of a majority of the profession in regard to tubercle bacilli.

In the department of special therapeutics we have to note the increasing tendency to hunt after specifics. In the opinion of some this practice is condemned, we think rather it should be commended.

This restlessness in regard to and desire for improvement in our materia medica has been productive of much good.

It has given us, I might say, nearly all our valuable remedies and among them the last, but not the least, is the pain destroying cocaine, which latter remedy, although yet an infant, promises to speedily become a giant power for the relief of pain.

A great effort toward more efficient therapeutical management of diseases characterizes the work of the profession dur-
ing the past year and undoubted advancement has been at­tained.

The many revelations of the microscope have greatly added to our knowledge of the etiology of certain diseases, and have had the effect of remodeling our therapeutics to a certain ex­tent. We all know that a belief in the germ doctrine has been productive of clean surgery, and thereby the saving of thou­sands of lives annually. That the use of antiseptics has made successful life saving operations that were formerly imprac­ticable. The great principle in antiseptic surgery is the ex­clusion of micro-organisms, and therefore may mean simply perfect cleanliness. Thorough preventive medication is the principle involved, and implies the use of germicide reme­dies, the most popular of such remedies at the present time being the bi-chl. mercury. How well germicides have served surgery any good surgeon can tell you.

How much anti-germ remedies may do in preventing or controlling disease, is yet a subject for further consideration and experimentation.

While it is well known that we have but few remedies that should be regarded as specifics in any particular disease, we do know that so far as the destruction of infectious mat­ter is concerned, we have remedies within the reach of all. When the same rules of cleanliness surround our patients suffering with a zymotic disease, as surround the patient of a Lister, then, and not till then, may we know what the prac­tice of strict antisepticism may do for suffering humanity. It is true that all recognized that there was some necessity for cleanliness before the germ doctrine was advocated, but its promulgation has led to wide spread knowledge in regard to the origin of many diseases, and never before were whole communities so well versed in the knowledge necessary to the prevention of what are now known to be preventable diseases to prevent the occurrence is better than to cure a disease.

In the great advance in sanitary science, shines forth the
the grandeur of the work done by such investigators as Koch, and such experimenters as Lister. And now what lessons may be learned from the investigations already made in the biology of germs. We may say that the idea of life in its simplest acceptation is that of vital activity. The increase of life of one particular form or sort may undoubtedly be destructive to life in other forms. The multiplication of organisms under certain conditions may, and probably do, give rise to the development of certain pathological conditions. What the laws of nature may be in regard to the development of infinitesimal organisms can only be learned through patient microscopic investigation. What the effect of the multiplication within our bodies of these micro-organisms is, can only be learned by the most careful, painstaking clinical observations.

I think that we are now able to understand more fully that the history of life is a contention amid its various forms, and that all life, be it of whatever sort, has associated relations, and that these relations are of an important character.

We may now believe that some facts have been presented which lead us to realize that further investigation may give a bright light upon the pathway of pathological knowledge.

That another milestone has been set upon that crooked pathway that will eventually lead mankind up the hill of science to a perfected system of pathology. That with better knowledge in regard to all the various forms of life, our physiology will be greatly improved, our pathology approach perfection, and medicine finally become an exact science. In order to assist in bringing about this happy consummation, it is necessary for us all to continue to observe and work.
GENTLEMEN—It is not with a view of producing something wholly original that I bring this paper before you, but with a view of stimulating us to the work which is soon to be before us, viz., the treatment of the bowel disease of the summer months; and as experience has taught us that following simultaneously with cholera comes the choleric diarrhoea I have thought it not amiss. Knowing that upon the infant—its life and health—depends the prosperity, longevity, and I may say the happiness of the human race.

The subject of treatment of children has often been by the profession given little attention in the general practice, and has been often left to the elderly women and nurses, either from a lack of confidence of the physician in himself to handle the frail bark on life's sea, or for a lack of appreciation of the good effect of medicine upon the child. And with the final denunciation that medicine is not for children, or that an old woman is better than a physician, they leave the little one born of sorrow to the hands of nature and to the many prescriptions of over kind friends who have searched the meadow, fields, and woodland, and found as they think the panacea for all infantile diseases.

And as statistics show a large per cent of deaths in early life, should not our greatest human efforts be put forth to ward off the great event of this world that creeps slowly upon all, but comes with a crash that gives little time for forethought in the diseases of infantile life?

One of the most fruitful sources of death in the child of early life is cholera infantum, sweeping, as it were, sometimes, the little patient from our grasp in a few hours of time.
We see it generally commencing with the warm weather, and subsiding in the autumn season, and especially with the coming of frost.

A great exciting cause of the disease is the process of dentition, which accounts for the old saying among the nurses and old ladies that the diarrhoea must not be checked, but let it continue as it is only a symptom of dentition.

We meet it in various forms or conditions, so much so that our stores of therapeutics are searched in vain for that which would seem to meet the indications of the disease.

Often an attack is ushered in with vomiting, so persistent as to preclude the administration of medicine per orem followed soon by frequent watery stools which may hardly stain the diapers.

Or the watery stools may precede the vomiting, and both continue unabated until the fatal collapse or the convulsions are ushered in and make the prognosis of the case very unfavorable.

Even if the case is controlled, and the stools become less frequent, and the vomiting less persistent, then we are not always sure of a speedy recovery, for the trouble may relapse into a chronic form of inflammation.

Also changes in the portal circulation, which may result in dropsical effusion, well represented by a case which was in my charge of late, and where the general anasarca was so great that the cuticle was broken in long fissures, and serous fluid exuded to that extent as to saturate the wraps around the extremities.

Again it may take the form of intermitting or remitting diarrhoea, responding favorably to the use of opiates and astringents, and then return with renewed force and explosive action, due, I think, to the portal congestion and temporary contraction of the capillary circulation in the vessels over the intestinal tract.

And we may have another feature where the child relapses
into a semi-comatosed state in a few hours after the attack, or lay with its head rolling or boring into the pillow with an occasional cry. As Prof. Smith calls it, the cephalic cry, strongly indicative of irritation of the nervous centers by the withdrawal of the serous fluid from the circulation, or from the irritation of the sympathetic nervous system, and reflex action on the brain, as examinations after death in this class of cases no sign of inflammation is generally present.

Then if the largest mortality exists in early life, and the hopes of posterity are resting upon the infant and child, shall we bestow our skill and labor upon the middle age and the old, and leave the great question of infantile diseases partly or wholly to the uneducated and superstitious, to nature, and to nurse, as well as our homeopathic friends who pride themselves on their visionary medication. Or shall we study the constitution of the child, measure its strength and vitality, its susceptibility to medication, and give it a systematic application in quantity and quality as may be indicated in the various diseases to which they are subject.

**CAUSE.**

Cholera infantum arises from several causes singly or combined, viz., solar heat, dentition, ingesta, impure air.

Dentition of itself would hardly seem a sufficient cause, for during cool weather the process of teething goes on without any untoward results and no derangements of the digestive functions.

Also the same ingesta or quality of food have no such influence in the cool season of the year.

Animal and vegetable decomposition do not take place to the same extent at this season of the year as in summer months, consequently the air is more pure.

Therefore, to my mind, a greater influence exists in solar heat, although much more effective under these other influences, and is the great factor in developing the germ when at
times it prevails as endemic, and I think is the motive power in this fatal disease of children.

It is not necessary that the child should be exposed to the direct rays of the sun to receive this influence, but the atmosphere, rarified by the sun rays and acting upon the nervous system, and thus affecting the vasomotor nerves so as to produce relaxation of the capillary vessels and allow a very rapid transudation of serous fluid to pass into the intestinal tract.

The bottle-fed infant is more liable to this complaint than children at the breast.

But, passing over the cause in a few words, I would call attention for a few moments to the indications for treatment, which will be of more interest to those in practice.

1st. Vomiting. Much annoyance is given us by the persistent vomiting, which interferes with medicine, to meet the other indications, and so hasten the time of the fatal collapse which may in a short time close the scene.

To meet the demands in this case, after making use of sub nit. bismuth, hydr. sub mur., aro. syr. rhei, and various preparations of opium, I have found speedy relief in the use of small doses of carbolic acid in pure water, given immediately after each emesis. This not only served to check the fermentative change, but to have a paralyzing influence upon the pneumogastric nerve, and the reflex action also producing favorable results on the chemical changes in the digestive tract, and have reason to believe lessen the frequent motions. Also, a sinapism to epigastrium will aid materially in controlling the vomiting.

I might say here that during the frequent vomiting the thirst seems almost unbearable by the little patient. The great drain upon the fluids of the blood would argue the necessity for a restoring of the equilibrium by the introduction of water. But to attempt to give it by the mouth is generally only to increase the difficulty, and fails to be absorbed, and is
ejected almost instantly, carrying with it the medicine given to overcome this symptom.

If introduced into the bowels, you meet with the same reception, for the bowels will immediately eject it, for there is a reverse action of the absorbents.

To meet this difficulty, I have been used to the administration of the warm bath, or, what I like better, a wet bandage arranged about the body and kept sufficiently wet that the absorbents may take up as much as possible of the moisture to supply the deficiency. This seems to relieve, to a great extent, the demand for water in the blood.

Then the diarrhoea demands our immediate attention, for a few hours sometimes are sufficient to pass the little patient beyond human aid.

In addition to the mild preparations of opium and astringents, I rely most upon the secale cornutum, in doses proportionate to the age, and have seldom failed to see it produce a controlling effect upon the evacuations, and would account for its effect by its action upon the vasomotor nerves, constricting the blood vessels, and thus lessening the transudation. It bears the same relation here to the cases of hemorrhage from the various mucous membranes.

This has proved so useful in my hands that I am pleased to recommend it to those of the profession who have not made trial of the same; and, as far as I am acquainted, it is not in general use in this disease. Also, in effusion into the ventricles of the brain from passive congestion, and where cerebral trouble has commenced to make its appearance in the first stage, have found it very useful, and use it in proper cases as a preventive of this trouble in connection with other medication.

Next in order is nervous irritation, which is liable to make its appearance at any period, from the reflex action upon the cerebro-spinal system, and should be guarded against and met in its earliest period by anti-spasmodics, after cleansing the
intestinal tract of any irritating substance (if not freely evac­uated) which may have acted as an exciting cause, by a laxative. The anti-spasmodics which have been most useful in my hands are the mono-bromide of camphor, about every four hours, followed in the intervals withaconite or gelsemium, or the two combined. Also, potassic bromide, given in proportionate doses, watching carefully the effect and diminishing in quantity and frequency, as the action of the drugs were per­ceived.

In many cases the stage of collapse has been ushered in when we are called to see the case, or before we can produce the desired effect upon the system, and this will demand a speedy relief by the aid of stimulants, diffusive and cardiac— or the case soon slips from beneath our hands like a shadow—in which case I use brandy, or arom. spr. ammon.; but what is most needed is a heart stimulant and tonic which will in­crease the ventricular contraction, and, by so doing, restore a more equal circulation. For this purpose I would recommend the fluid ext. of the convallaria majalis in proportionate doses, which I have found, in small doses in heart-failure, to increase the force of the ventricular contraction; also, where no spas­modic contraction is present, the tr. of nux may be given to advantage to increase the tone of the nervous centers.

Warmth to the feet is also very useful in restoring warmth and tone.

In some cases, where the disease does not prove fatal in a few days, there is a tendency to become chronic by establish­ing chronic inflammation of the glands and mucous membrane

of the intestines, taking the form of entero-colitis, character­ized by green stools and mucus or muco-pus, also mucus and blood, which may continue and exhaust the little patient.

Thus continuing, I have seen the complication of general anasarca or effusion into the serous cavities, in exceptional cases arising from portal congestion; at other times, a general marasmus, so the skin would lay in folds over the bones and
have the appearance of a sheep-skin, tanned—brown, rough, and dry.

My management of these cases has been with various medicines, according to the nature of the case. To aid digestion, increase assimilation, and unlock the portal system are the general indications. Small doses of hydrarg. sub mur. and lactopeptine I have often used with good result; and, again, salicin, bismuth and hydrastis, with lactopeptine, preparations of rheum and magnesia, etc., and have found them far superior in this class of cases to opiates and astringents.

There are many incidental circumstances which will vary the treatment and require the physician to be watchful, thoughtful, and careful.

And, one word in view of medication: I believe there is not, as a rule, care enough given to the dose as compared to the age of the child; especially is this true in opiates, and should claim our utmost caution.

The application of medicine in diseases of children is much the same as eye surgery is to the major operation. They demand a careful mind, a steady hand, and an experienced eye.
Mr. President and Gentlemen:

The history, causes, and treatment of diphtheria with a histological description and differentiation between the various germs according to late mycological investigations, is the subject to which I shall call your attention to-day. By way of introduction allow me to say that this is a subject that is of more than ordinary importance, not only to the physicians of this society, not only to the physicians of the state of Nebraska, but to every physician throughout the land. The ravages of this disease, that not only defies the ignorant but the learned with all the advantages of late microscopic investigations, pronounces its death sentence upon the human family uninterrupted. Its presence in our midst is not of unusual occurrence. We therefore feel the necessity of a better understanding of its causes, pathology, and treatment, so as to be in a condition to counteract its extreme ravages among the human family; but with our present limited knowledge of this disease, when the physician is summoned to the bedside of a patient, and perhaps unexpectedly finds this ivory canine monster of death defiantly sapping the vital powers from the old and robbing the cradle of the young, when the physician with an aching heart and tremulous hand brings all his mental powers to bear, he finds himself unarmed; he consults his text-books, but finds no remedy; he turns to his journals in vain; he finds himself standing upon the threshold of ignorance fighting the battles of death, lonely and in darkness, no one to pity him.

What is diphtheria? I answer it is an adynamic germ disease, a disease that the microscope of a thousand diameters is
shedding its impartial light to the scientific world through a
Koch, Cohn, and a Pasteur. But go back with me a few
years when diphtheria was regarded by Bratanno, of Tours,
and other scientists of his age, as a variety of croup, owing to
the adventitious membrane found upon the mucous surfaces
of the throat. Dr. West, in his treatise on diseases of chil-
dren, says: "I nearly always found diphtheria complicated
with one of the eruptive fevers, more especially scarlet fever."
He therefore claimed that diphtheria was one of the sequels of
those diseases; those opinions were adopted by a majority of
the scientific world until the lens of the microscope—the morn­
ing star and satellite of scientific investigations—was brought
into the visual field, and that dethroned this fallacious doc­
trine. But the morphological description of the various germs
by Koch, Cohn, Klebs, Pasteur, Wood, Formad, Marcy, and
others, as they appear under the lens of the microscope, I do
not have time to narrate in this paper, but that their investi­
gations have thrown much light upon the causes of germ
diseases no one dare deny. Diphtheria, more than any other
ergum disease, is yet in dispute, not upon the grounds that it
is not a germ disease, but the kind of germ this disease is due
to. One says the disease is microcci, another that it is bacilli,
and still another that he has found both microcci and bacilli
in diphtheria. Koch, Cohn, and Pasteur say the disease is
microcci, and which is adopted by a majority of the scientific
world up to the present time.

One of the distinguishing characteristic phenomena between
the coci and bacilli, according to Koch, is, in the former we
have the sour, in the latter we have the fetid odor. We there­
fore have one of the strong proofs in favor of the coci in this
disease. The question is frequently asked, "what are germs
of bacteria, and where do they have their origin?" This is
a question for the investigation of future generations; yet I
am well aware that we have men in the profession who claim
that bacterial germs have their origin in fermentation and de-
composition of both vegetable and animal substances; but it would only be a waste of time for me to prove the absurdity of this doctrine. I will simply say, that it is just as probable for either fermentation or decomposition to produce the germs of bacteria, as it would be to produce the egg of the chick. Yet I do not deny that germs have been found in fermentation, but from accidental causes only, and suppuration with very few exceptions is caused from the presence of bacterial germs. It does not require a strain of the imagination to believe that this lower order of fungi is not unlike the higher order in either vegetable or animal kingdom, are subjected to the same immutable laws of creation, "where like begets like;" therefore the germ or microcci in diphtheria that germinate into living bacteria must have been subjected to the laws of fertilization, must contain germinal powers within the protoplasmic cell, without which it is nothing but a lump of protoplasm.

But before we enter too far into the histological description of this subject it may be well to prove that diphtheria is a germ disease. Oertel found the "diphtheritic microcci" in the pseudo-membrane of the throat, in the heart, lungs, liver, kidneys, spleen, and blood. Trendelenburg placed "diphtheritic matter" into the trachea of rabbits, and succeeded eleven times in fifty-two in infecting the animals; but in these experiments upon the lower animals it may be well for us to remember the aptitude and degrees of susceptibility upon the lower animals when inoculated with human culture. Klebs found in the pseudo-membrane of diphtheria, microceus diphtheriticus in microcci balls or zoogloea. Wood and Formad inoculated pure culture into Guinea pigs, resulting in the death of the animals from "microceus diphtheriticus." Marcy found in a number of investigations upon Guinea pigs after the death of the animals "diphtheritic microcci in zoogloea form." I am well aware that we have scientists in the field who claim to have found the identical diphtheria microcci by
scraping the tongue of healthy persons; but according to late mycological investigations the healthy system does not contain germs, and I hope before anyone will accept this theory as true he will remember that morphological similarity does not prove a physiological identity. Koch, Cohn, and Pasteur claim that "diphtheria is due to microcci," also that there are many species of cocci, exemplified under the lens of the microscope, in the various germ diseases. They are found to contain 85 per cent of water, 8 per cent of albumen, and 7 per cent of fats; they are also found to contain less nitrogen than other albumen. Their faculty for forming albumen synthetically is one of the reasons why they are assigned to the vegetable kingdom. Thirty-eight degrees of heat combined with moisture are essential requirements for their germination, and 150° above or 110° below zero, will prevent their germination. Germs are found in food, air, and water; therefore gain admission into the system in three ways, and whenever they come in contact with soil that contains the necessary environments they develop into living bacteria. These micro-organisms are variously distributed throughout the system in diphtheria; sometimes "scattered and distinct, at other times in chains, torula and zoogloea-form," but are always found without flagellum or organs of locomotion; their movements are therefore passive, a side to side or vibrating motion; they also show different sizes and stages of development under the lens of the microscope. Germs that are taken into the stomach and bowels with food or water are not unlike the germ that is found upon vegetation, that is said to be in a dry state, that infect the throat, require nutritive soil to germinate in. Germs that are in a dry state are carried in wind and dust storms over the high and low lands, over the rich and poor alike, respecting neither race, color, nor positions in life, and wherever they come in contact with the proper amount of heat and moisture, such as the mouth, throat, and nose contain, they germinate into living microcci
that are in all stages of development ready to destroy tonsil, uvula, soft palate, surrounding tissues, blood vessels, and lymphatics. Germs that are sown upon nutritive soil, according to Cohn's observations, show that a bacterial generation can arise in an hour or less, and that where bacteria double every hour for three days, they will increase to the inconceivable number of "4,742 billions." Again he says, "assuming the specific gravity of the bacterial body to be that of water, it would require 636,000 millions of bacteria for the weight of one millogramme of water, and that a single bacterium could raise a colony in twenty-four hours equal in weight to \( \frac{1}{40} \) millogramme, and in three days time would balance the scale of seven and one-half millions killogrammes or 7,500 tons in weight." These micro-organisms appear very poisonous to the human system, exemplified by their virulence from the first inception of the germ; but if I were asked in what manner the germ infects the system, I would have to answer, I do not know; whether by irritation of the sympathetic and vaso motor nerve or by robbing the system of nutrition, or by an excretion of poisonous matter from the germ that is deposited in the tissues, I do not pretend to say. Mycologists say that germs require heat and moisture to germinate in, but it does seem to me that they require more than heat and moisture; if they did not they would germinate upon vegetation. Clinical observations have taught us that their germination requires a condition the opposite of health, as exemplified when four out of five in a family become infected, the fifth escaping without a symptom of the disease. The term bacteria germ disease, as it is applied to diphtheria, anthrax, consumption, small-pox, and other germ diseases, in a strict sense is misleading. These terms are used by mycologists in the generic sense, which includes all the varieties of germs that are as numerous almost as the amœba in undifferentiated protoplasm.

Mycologists are now confining their microscopic investigations to three varieties, viz.: "Microcci, bacilli, and spirilli."
More scientifically speaking, "sphero-bacteria, micro-bacteria, and spiro-bacteria." The sphero-bacteria or microccii are found in the following diseases, viz., suppuration, erysipelas, typhoid fever, small-pox, measles, scarlet fever, diphtheria, syphilis, gonorrhoea, and croupus-pneumonia. Bacilli or micro-bacteria are found in septicemia, glanders, malarial fever, cholera, leprosy, whooping cough, and consumption. Spirilli or spiro-bacteria are found in pools and stagnant waters; it is not known that they exert any action upon the soil in which they vegetate. The microccii are the smallest of the three varieties, measuring from one to two mm. in diameter, and are said to be almost imperishable in their germ state, and according to Koch, Cohn, and Pasteur, are the destructive parasites found in diphtheria; therefore, if those investigations are true, we are compelled to believe that diphtheria is an acute, specific, and contagious disease, propagated by a specific germ poison, exemplified by local manifestations and characterized by swelling and redness of the tonsils and mucous membrane of the throat, with an exudation of plastic lymph found upon the inner surface of the tonsils. Clinical observations have taught us, that when the inception of the germ manifests itself in the throat, that in a very short time an exudation will be found upon the inner surface of the tonsils; this exudation is said by mycologists to be mainly composed of microccii that are in all stages of development, and the disease purely a local affection, and that by prompt treatment in this stage it may be prevented from becoming constitutional; but it should not be forgotten that, unless local treatment is energetically applied, in a very short time constitutional symptoms will make their appearance. When diphtheria is ushered in by constitutional symptoms, it exemplifies itself by rigors, headache, aching of back and limbs, pyrexia, constipation, with many other symptoms denoting constitutional infection. These symptoms may supervene several hours, or days, before throat symptoms make
their appearance. If this be true, it seems reasonable to sup­pose that the germ was taken into the system in either food or water, and, being already in a moist menstruum, passed into the stomach and bowels, where it came in contact with nutritive soil, in which it germinated into living bacteria. In support of this theory, Koch, Cohn, and Pasteur claim that the germ has a tenacity for moisture—so tenaciously adhering to a moist menstruum that even wind and storms do not dislodge it; therefore the germ would not be so likely to adhere to the mucous membrane of the throat, whilst the germs that are carried by wind and dust storms, that are in a dry state, will attach themselves to the mucous surfaces of the throat, or any other moist membrane they come in contact with, more especially when the moisture is combined with heat, such as is found in the throat.

The germ that is taken into the system with either food or water, when it reaches the stomach it comes in contact with the fluids of this organ, in which, according to late authority, it can not germinate, but is passed on into the pancreatic digestion in which it must come in contact with nutritive soil, such as indol and phenol, to germinate in; in the absence of those hydrogen compound gases, according to Kuhn, germs are pushed on into the bowels and external world, on the hunt of nutritive soil; or they may be taken up with proteids, fats, and carbo-hydrate foods, and carried into the general circulation and distributed to the various organs and tissues in the body that contain the necessary environments for their germination into living bacteria. The stage of incubation in diphtheria is not always the same. This no doubt is attributable to constitutional susceptibility of the patient; the average duration of this stage is about five days from date of exposure, and is one of the strong proofs that the disease is due to germs or animate, and not to chemical or inanimate, causes.

Symptoms. There may be constitutional symptoms one or
two days before we can perceive manifestations in the throat, and *via a versa*. The redness and swelling of the tonsils are usually unilateral, yet sometimes bilateral, with a grayish white fibrino-plastic exudation distributed over the entire tonsil; at other times it involves uvula and soft palate, extending into the nares, and upon close examination, after the removal of the exudation, small projections or papilla can be seen without the aid of the microscope; those projections are said by mycologists to contain pus, germs, and living microcci. The pseudo-membrane is said to be composed of layers of delicate fibrin, in which and between which are found microcci in all stages of development.

The microcci in the field of the microscope are found restless, performing continuous passive movements from side to side (unlike the bacilli or spirilli that have flagellum or organs of locomotion). Through their passive movements and laws of gravitation they work their way into deep tissue, also between the mucous membrane and adjacent tissues of the throat down into the larynx and bronchial tubes, or upward into the nares, where they destroy cartilage and bony tissue. Cartilage and bony tissue in the nares being sparsely supplied with soft tissue, the cocci soon begin their destructive work upon the hard tissues, where they not only destroy those tissues, but crowd the surrounding tissues and capillary blood vessels and lymphatics in the part, attacking red corpuscles in zoogloea, from which result emboli. The cocci have been found in lymphatics, parotid, sub-maxillary, and sub-lingual glands, also in the cortical portions of the kidney, malphigian bodies, contorted tubules, heart, spleen, liver, and brain, from which we sometimes have paralysis of the voluntary muscles. They have also been found in the blood, but, according to Koch, they can not germinate in this fluid. The treatment of the various germ diseases, whether microcci or bacilli, has not kept pace with morphological microscopic investigations. It is true, mycologists have given us various
germicides, such as the bi-chloride m., iodine, bromine, with many others. Yet in the treatment of germ diseases, remedies that have been found to contain germicidal properties outside of the body to a germ culture, may not prove to be germicides after being subjected to the various juices and chemical changes in the body. And now, in concluding my histological description of bacteria, and their relation to the various germ diseases, allow me to say, that I hope the time has passed when the disbeliever can content himself by calling the germ a speculative theory. Certainly no scientific physician will attempt to deny the invaluable information the scientific world has derived from the investigations of Koch, Cohn, Pasteur, Klebs, Heidelhein, Kuhn, Wood, Formad, Marcy, with many others, in the treatment of the various germ diseases. But the success of mycological investigations in the treatment of the various germ diseases depends in a great measure on the intelligent practitioner at the bedside of his patients, testing the various germicides recommended by mycologists.

Mycologists are yet employed with their microscopes upon the morphology of the various kinds of germs, after which, perhaps, they will direct their attention more to germicidal remedies, and their application to the various germ diseases. But during the interval can we afford to sit down with the Homœopaths, and other disbelievers of the germ theory, and await the entire solution of this important subject by a Koch, Cohn, and a Pasteur? I answer, no.

Treatment. The treatment of diphtheria has been very unsatisfactory, not only on account of the great mortality among the human family, but because there are no two authors that recommend the same treatment. Not only is this great diversity of opinion found among authors of text-books, but among practitioners living in the same city, town, and neighborhood, as well as those who contribute to medical journals. For illustration allow me to call your attention to the Therapeutic...
peutic Gazette: During the summer of 1882, when the editor asked his subscribers for their opinion whether "diphtheria was a local or constitutional disease," answers came from the East, West, North, and South, and about two to one that it was purely a constitutional disease; usually their treatment accompanied their diagnosis, and I think I am safe in saying that there were no two physicians who gave the same treatment. This certainly shows a want of knowledge in the causes, pathology, and treatment of this disease. Clinical observations have taught us that the pathological indications and treatment of this disease are not unlike other adynamic diseases. When a physician finds a pseudo-membrane on the tonsils he should at once make local applications to the part and destroy the false membrane, whether constitutional symptoms are present or not. But I am sorry to say that I have met physicians who were so imbued with what I call constitutional misgivings that it overpowered, in my opinion, their better judgment. They would prefer to stand by and see the false membrane in the throat, portions of which are torn off perhaps every half-hour in the day and swallowed into the stomach, containing millions of bacteria that are in all stages of development, while the germ beneath the pseudo-membrane in the bottom of the ulcer is permeating the deep tissues, blood-vessels, and lymphatics, destroying uvula, soft palate, and mucous membrane of the throat; but because this constitutional doctor has a prejudice against local treatment, claiming that escharotics destroyed the healthy tissue and mucous membrane around the ulcer, and opened up a more extensive field for the cocci to multiply in, he will stand by and see the multiplication of germs go on and on and let his patient die for want of local treatment; a loss of twenty per cent of his patients does not deter him nor change his procedure, but he persistently justifies his local therapeutic nihilism to a diphtheritic sore throat for reasons already stated, and clings with an abiding faith to constitutional remedies, viz., whisky and quinine, and if his
patient dies he makes himself and his patient’s friends believe that he has performed his whole duty in the treatment of the patient. But then we have the opposite extreme, the doctor who claims that diphtheria is purely a local disease, and that local applications are all that are required, save some mild laxative, with a little quinine and whisky; he claims that by curing the local, constitutional symptoms will subside, and that constitutional symptoms are brought about through nervous influence from a local cause, etc. Either position, according to late scientific investigations, is wrong, as I have already tried to prove in my descriptive history of bacteria by Koch, Cohn, Pasteur, and other noted mycologists. I have found in my own practice that both local and constitutional treatment in severe cases of diphtheria is indispensable. In local applications I have always found the best results from the direct application of nitrate of silver, followed by gargles composed of chlo. pot. and hydrastis canadensis. But, Mr. President, the temptation is so great that I cannot at this point refrain answering the objections against local treatment, more especially the nitrate of silver, in this disease. Yet I do not deny the escharotic effects upon healthy tissue, nor that they denude the mucous membrane of the throat; but, let me ask, does this increase the multiplication of germs in the throat equal to compensate for the number that are swallowed with the pseudo-membrane, perhaps every hour in the day, or the number that are confined in the ulcer beneath the pseudo-membrane, that are burrowing into the deep tissues, blood-vessels, and lymphatics? I think not. Viewing this subject from a clinical, as well as from a scientific standpoint, it is surely not the multiplication of germs upon superficial surfaces in the throat that makes diphtheria a grave disease. Death is seldom, if ever, due to the entire destruction of tonsils, uvula, nor soft palate; neither to metastatic nervous influence from a local cause, but from germs that are carried into the circulation and deposited in the various organs and
tissues of the body, germs that gain admission into the system either from swallowing the pseudo-membrane, or by food, air, and water, or by burrowing through the deep tissues, bloodvessels, and lymphatics from a diphtheritic ulcer. If denuding the mucous membrane upon superficial surfaces with escharotics will induce the microcci to leave the deep ulcer, then, according to Bartholow, "fatal diphtheria would be the exception and not the rule." Therefore I stand ready to defend the judicious application of the nitrate of silver, or the bi-chl. of m., or any other efficient escharotic in the treatment of diphtheria, not only from my own success with some of these remedies, but from late scientific investigations. Koch tells us that nitrate of silver ranks second only to bi-chlo. m. as a germicide. We therefore argue that if by the application of the nitrate of silver or the bi-chlo. to a diphtheritic ulcer we destroy one bacterium—that would have otherwise passed into the digestive organs and raised perhaps a thousand million bacteria—or, if denuding the mucous membrane of the throat with escharotics will relieve the deep ulcer by inviting the microcci into superficial soil, then, for the sake of our patients, for the sake of humanity, and our noble profession let us not proscribe escharotics in the treatment of diphtheria. Bartholow's objections to escharotics are "that we cannot reach the germ in the bottom of the ulcer." Yet he does not object to scientific cauterization, but he says "that heroic measures, in his opinion, are not more successful than milder ones." The application of local remedies are not for the purpose of counteracting the inflammation of the throat, because the inflammation is not the disease that brings about the fatal results, but the germ is what invites our attention. Unless local applications prevent absorption of the germ into the circulation, they should be proscribed, but by cauterizing a diphtheritic ulcer we not only kill the germ in the part, but we also harden the sides and bottom of the ulcer, forming a cicatrice that prevents the burrowing and spreading of the germ through
the adjacent tissue, the cocci being unarmed with flagellum or organs of locomotion cannot eat their way through hard cicatrical tissue and get into the circulation, and thus we prevent constitutional infection. I have gone through epidemics of diphtheria in Southern Ohio, where I learned from an extensive experience not to confine my treatment to either local or constitutional treatment alone. I also had the disease myself that I aborted in less than twenty-four hours through the persistent application of local treatment and the internal use of heroic doses of calomel and chlorate of pot. My advice in the procedure in the treatment of diphtheria is: 1st. Calomel, 10 to 20 grs. to an adult every three hours, until the patient has taken three or four doses; children, twelve years old or less, from 3 to 8 grs., continued the same as in the adult. Chlo. pot. from 2 to 20 grs. (the size of the dose will depend upon the age of the patient) every three hours, alternated with from 2 to 30 drops of the tinct. of the chl. of iron. Also inhalations of equal portions of the tinct. of iodine and sulph. ether every three hours, whisky and quinine in extreme debility. cauterize with some efficient escharotic at least once every two hours, in severe cases every hour. The cautery should be continued until the false membrane is completely cooked, always being careful to make the application directly to the ulcer.

Gargles composed of clo. pot. and hydrast. canadensis should be used after each cautery, and for days after discontinuing the cautery. By a strict adherence to this procedure, the loss of a patient when seen in time will be the exception and not the rule. The only change that I would recommend in this procedure, one that would correspond with late scientific investigations of to-day, is, to supplant the calomel with the bi. ch. of m., and the addition of salicylic acid. My success with salicylic acid has been very satisfactory. It is true, perhaps, that my own experience has been too much limited to pronounce the remedy a germicide. Salicylic acid, according
to Kuhn, prevents the formation of hydrogen compound gases such as indol and phenol in the pancreatic digestion. "Those compounds," says Kuhn, "prepare a nutritive soil in the pancreatic digestion for the germs of bacteria." Again he says, that "indol is not a product of healthy pancreatic digestion, but to decomposition of organized ferments, and that a pancreatic digestive mixture soon swarms with bacteria in spite of careful precautions; but that neither indol nor bacteria are produced in the presence of salicylic acid." Therefore, when the germ reaches the pancreatic digestion in the absence of indol, it remains in its germ state. It has also been found that salicylic acid prevents both animal and vegetable substances in the heat of summer days from fermentation and decomposition. It also prevents the destruction of tripsin in the pancreatic digestion, that is said to be a solvent to germs of bacteria, and that is highly recommended as a local application in diphtheria. But before closing my subject, I wish to call your attention to the indiscriminate use of alcohol and quinine by the medical profession in the treatment of diphtheria. According to physiological investigations, alcohol increases carbonaceous matter in the blood that tends to produce heart clot; it locks up secretions from which we have increased fibrin as well as excrementitious substances in the blood that render the liver, kidneys, and bowels inactive; it stimulates the brain and nerve centres, dropping germs in those important organs from which we sometimes have paralysis of the voluntary muscles. Alcohol, according to Koch, does not contain germicidal properties, but may prevent germination so long as the system is under its influence. If this is true, we would have to keep the system under its influence indefinitely. But it may be asked how long does the germ live? Or might we not keep the system under the influence of alcohol until the germ dies from old age? Mycologists tell us that the germ of microcei are almost life-proof, that it requires a heat of 150° C., and cold 110° below zero to pre-
vent their germination, and that bacilli anthrax live upon vegetation many years, and whenever subjected to nutritive soil, spring into active life. I do not deny that alcohol is sometimes beneficial, but not as a germicide.

Quinine is a germicide to bacilli, but not to microcci. Its action upon bacilli in intermittent fever is as positive as the bi. chl. of m. is upon microcci. The only advantage to be derived from quinine in the treatment of diph. is where bacilli happen to be present (exemplified by the foeter of the patient's breath), and for its tonic effect upon the system, if it has any.

But I hear some one ask, "Is the bi. chl. of m., a germicide?" I answer, yes. But as this is comparatively a new remedy in the treatment of diphtheria, it may be well not to jump at conclusions. I do not believe that we should adopt any new remedy merely to correspond to late advanced ideas at the expense of old and reliable remedies, not until it can be shown by clinical evidence and demonstrations at the bedside of the sick, before we should change one for the other. In proof of its germicitic properties, allow me to direct your attention to the April number Therapeutic Gazette of 1884, in which you will find the following procedure to test the germicitic properties of various remedies: "A fine thread is soaked in germ culture, after which the thread is dried and again subjected to germinal soil to test the germinating qualities of the germ." This test has proven beyond a doubt that carbolic acid, alcohol, boracic acid, and many other remedies that are claimed to be germicides, contain very little if any germicitic properties, whilst the bi. chl. m., according to Koch, one to 330,000, or one gr. to a pint of water, will destroy their germinating powers by simply moistening the thread. It has also been found by this and similar tests that iodine, bromine, iodoform, chlorine, nitrate of silver, with many others, are germicides, but in less degree than the bi. chl. In further proof of its germicitic properties, I refer you
to the January number *Ther. Gazette*, 1884, in the value of the bichloride in diphtheria illustrated not by deductions, but actual demonstrations at the bedside of patients by Drs. Linn, Herr, Dunot, Gerhard, and Coover, of Philadelphia.

But as I have already worried the patience of this society almost beyond charitable endurance, I will close by saying that it should be the duty of every physician to make himself familiar by diligent study, not only upon the progress in the investigation of germ diseases, but on the progress of medical science, with a corresponding knowledge of medical systems of treatment, so as to be in a condition to resent the epithet of retrogression when flung at us by other professions as an insult (barren of truth) to our noble profession. The physician who lives off of the misfortunes of his friends, and who is recognized as the guardian of the sick, certainly owes to his patient all the advantages of late scientific investigations. Therefore, he who practices the art of old and worthless ideas of medicine, and who is always ready to denounce demonstrations as well as deductions of late scientific investigations, not only brings disgrace upon himself but reproach upon our noble profession, robs the qualified physician of his bread, and the patient of his life.
MEMBRANOUS ENTERITIS WITH ABSCESS IN ABDOMINAL WALL, OCCURRING AFTER PARTURITION.

A CASE FROM PRACTICE BY C. F. BALLARD, M.D., GRAFTON, NEB.

March 26th, '85, Mrs. W., aged 21, of nervous temperament, and delicate, was delivered of her first child. There was nothing abnormal in labor. After the delivery of the placenta, there was felt, very much to the right of the linea alba, the firmly contracted uterus. At seven o'clock in the evening, patient was resting comfortably, with tendency to sleep. Early the following morning I was called to relieve "after pains." Removed a small clot from the os, and rest was again enjoyed.

March 29, contracted uterus greatly diminished in size, but a distinct, hard, ovoid tumor was visible in the right side, above the crest of the ileum.

What was the nature of this tumor? Could it be pelvic abscess so high up? or might it possibly be hernia? All these questions presented, when, calling to mind that the patient's bowels had not moved since her labor, thought a free passage might lend some aid in diagnosis. To this end a tablespoonful oleum ricini was administered with no effect. An enema of warm water was ordered with same result. I then introduced my finger into the rectum and removed several dry particles of fecal matter. My mind at once turned toward the tumor, and fancied it had decreased in size; was thinking I had a fecal tumor which would rapidly disappear on complete evacuation of the bowels. Administered another dose of oil, returned in the morning, and finding patient in same condition as when I left her,
gave another injection of warm water, and the first thing that passed her bowels was a mass of thick, white membrane, shreds of which measured over two feet in length, the entire mass weighing a little over two ounces. This substance I have preserved, and take pleasure in presenting it for your examination.

A large passage of fecal matter, with some membrane intermingled, followed. The tumor did not entirely disappear, but it was much smaller.

In a few days this enlargement became quite painful, and tender to touch. Temperature 100 to 104. Called Dr. Johnston, of Fairmont, to see the case. May 6th, at the suggestion of Dr. Johnston I introduced hypodermic syringe into the abscess and drew out a few drops of pus. May 8th, I introduced the needle of Peaslee's aspirator, and about a half ounce of pus was withdrawn. Used aspirator every day for a week, cleansing the cavity each time with warm carbolized water. May 31st, patient able to ride in buggy, and is rapidly regaining her strength, yet nearly every passage from her bowels contains a quantity of this membrane.

This case is important because of the rare occurrence of the disease, membranous enteritis.

I have examined several works on practice and find no mention of it, except in Bartholow, he refers to Da Costa. It is important again, as appearing just after labor, when we are generally prepared to expect anything else save a difficulty of this kind. The abscess so high in the abdominal wall is another very interesting point in the case, and after all comes the gratifying result of recovery.
SECTION
ON SURGERY,
INCLUSIVE OF SURGICAL PATHOLOGY, OPERATIVE SURGERY, AND SURGICAL THERAPEUTICS.

PENETRATING GUN SHOT WOUND OF ABDOMEN.
J. K. L. DUNCAN, M.D., DE WITT.

COMPOUND FRACTURE OF SKULL WITH DEPRESSION. TREPHEINED. RECOVERY.
J. K. L. DUNCAN, M.D., DE WITT.

CASE OF DEPRESSED FRACTURE OF SKULL WITH LACERATION OF DURA AND LOSS OF BRAIN.
M. L. HILDRETH, M.D., LYONS.

CASE OF SEVERE CONCUSSION OF SPINE WITH PROBABLE (?) HEMORRHAGE.
M. L. HILDRETH, M.D., LYONS.

THREE CASES OF FRACTURE, WITH TREATMENT.
J. S. LEONHARDT, M.D., SEWARD.

THE BI-CHLORIDE OF MERCURY AS A SURGICAL DRESSING.
W. F. MILROY, M.D., OMAHA.

A CASE OF HIP-JOINT DISEASE. OPERATION.
G. L. PRITCHETT, M.D., FAIRBURY.
PENETRATING GUN SHOT WOUND OF ABDOMEN.

INJURING LEFT KIDNEY. NO OPERATION OF THE BOWELS FOR SIXTEEN DAYS. RECOVERY.

BY J. K. L. DUNCAN, M.D., DE WITT.

Mr. President, Ladies, and Gentlemen:

A. W. C., aet. 42, nativity, American, occupation, veterinary surgeon.

In the performance of his duty as city marshal of De Witt, on the evening of October 29th, 1883, at 7 o'clock, one John D. had shot a man, and the city marshal in attempting to arrest the said John D. received a shot from him also. The ball penetrating the abdominal parietes, near one inch above the umbilicus, and ranging inward, downward, and somewhat to the left.

The missile being a ball from a number 38 calibre double-action or self-cocking revolver, the above transaction occurring in a devil's church or saloon in our city.

Being summoned to the case immediately subsequent to its occurrence, found my patient in a state of collapse with a pale, haggard, and distressed countenance.

Administered to him two camph. et opii pills; statim. Dressed external abdominal wound with antiseptic dressing. Had him carried to his home on a woven wire cot, and had his feet well warmed, with strict injunctions to his watchers to keep them so.

Gave him morph. sulph. pills during the night, one-fourth grain every (2) two hours. Visited him at intervals of every (2) two hours during the night.

Oct. 30th, 9 A.M., temperature 101°, pulse 90, resting easy and quiet under the influence of the morphia.
3 o'clock p.m., find he has been complaining of a super-pubic pain, and on inquiry learn that he has not micturated since being injured, nor for some time previous thereto; using Jacques' soft rubber catheter, bringing away a large quantity of light colored albuminous urine, and thereby relieving super-pubic distress.

Continued morphia pills, though in less quantity, yet sufficient to produce the effect desired, i.e., to keep down pain, also to prevent an operation of the bowels.

October 31st, 9 A.M., temperature 101°½, pulse 85. Catheratized morning and evening.

Ordered milk diet with same treatment continued.

November 1st, 8 o'clock A.M., temperature 100°, pulse 85 per minute.

12 M., temperature 100½, pulse 95.

6 P.M., temperature 102, pulse 105.

On using the catheter this evening noticed the albuminoid condition of urine, and under microscopic examination discovered blood corpuscles.

In addition to milk and lactopeptine, commenced the exhibition of Reed & Carnrick's beef peptonoids.

Morphia treatment continued.

November 2d, 10 A.M., temperature 100°, pulse 80.

He complains of pain and there is tenderness to the touch over the posterior superior portion of the left iliac region describing a circumference the center of which is about one and one-half inch lateral of left sacro-iliac juncture.

He had mentioned the night he was shot of a stinging and tingling pain followed by a sensation of heaviness at this point.

Am satisfied the ball has passed through the intestines and penetrated to or near this point as above described, the superior anterior surface of the left iliac.

Treatment continued.

November 8th: Has been for some time almost entirely
free from pain and doing finely under a continuance of the opiate plan of treatment.

November 9th: Was called at 2 o'clock A.M., and found him suffering with intense abdominal pains, great beads of perspiration standing over his forehead and face.

Gave him an enema of salt (chloride of sodium) and warm water, which produced in a few moments a copious discharge of semi-hardened feces, very similar to that usually observed following a milk diet in continued fevers, though not so dry and hardened, being the first evacuation of the bowels since his injury, sixteen days and seven hours, and along with this discharge there came also the ball which had produced the cause of trouble.

From this time hence he continued to improve, being able to go up town on foot by the 20th or 23d days after being shot without experiencing any pain or inconvenience except from weakness, and the amount of strength he seemed to possess was wonderful to behold.

He has since been following his usual vocation as of old.

Resume.—You are all well aware of the mental anxiety resulting or following as a consequence of any severe wound of the abdomen, and the viscera therein contained, and especially with an injury so severe, and a state of collapse immediately to combat. You will, I hope, therefore perceive the appropriateness of the therapeutic measures employed during the period of shock.

Second object in view was most beautifully consummated by the continuance of the opiate plan of treatment, i.e., the arresting of the peristaltic action or caterpillar like motion of the intestinal tract, thereby assisting more readily the closing up of the perforated intestines by nature's surgeon, lymph exudation; the same line of treatment kept undue inflammation in subjection; gave quiet to the whole system, which implied retained strength; all of which was covered by the one simple line of treatment, which we maintain could not have been so complete and favorable under any other method.
E. K., Aet. 7. On the evening of August 21st, 1884, was called (9) nine miles into the country, by a message left at my house during my absence, not knowing the nature of the case for which my services were needed until I arrived at my patron's home.

On arriving at the bedside of the case, found the little fellow unable to keep any one position for one minute; was apparently tortured with excruciating pains. Was informed that on the afternoon previous (20th), while he was lying asleep in prairie grass near some wheat stacks, of which they were threshing, he had been run over by a wagon containing (36) thirty-six bushels of wheat, the wheat being in sacks and placed in the front end of wagon, and that one of the front wheels had passed over his head.

They had carried him to the house, and he had laid quiet all night and most of the day following—in a comatose condition.

On examination found considerable ecchymosis over the right side of face, and supra-orbital region and posteriorly thereto a swollen condition of scalp over the whole right side of the head, the pupil of right eye contracted to the size of head of a pin, while that of the left was dilated to its fullest capacity, his respiration was slow and stertorous; pulse full, slow, labored, special senses in great measure paralyzed; stomach undisturbed, urine retained.

On careful examination found fracture of right parietal over the middle posterior portion and extending into the pos-
terior superior portion of the squamous portion of the tem­
poral.

Thereupon I informed the father of my little patient the
nature of the case, as well as remedial measures that should
be adopted, as probably the only chance to enable him to con­
tinue his career on this mundane sphere; to all of which he
most readily assented; whereupon I asked that we might have
assistance, as it was eminently proper in such cases made and
provided by professional custom, and I suggested that my
most worthy colleague and eminent brother, Dr. D. A. Wal­
den, of Beatrice, be summoned to our assistance.

Upon the arrival of Dr. W. he anaesthetized our little pa­
tient, and I made a semi-circular incision through the scalp
extending somewhat over the sound table of the parietal su­
periorialy, when we denuded the skull sufficiently and discov­
ered very plainly the fracture as described extending over two
inches square in area, with depression to a very considerable
extent.

I placed the centre-pin of the trephine on the solid table of
parietal superior to upper line of fracture, so near the fracture
that a portion of the circle of the groove (using Galt’s conical
trephine) would extend partly over the depressed portion of
bone and internal to line of fracture, making the groove
evenly to the internal table, enabling us very readily to re­
move the trepanned portion or disk, and upon more carefully
examining the depressed portion of bone, it exhibited two sep­
arate pieces, with the projecting point of the superior one pen­
etrating at least the duramater, which piece I removed en­
tirely, then inserting the elevator underneath the remaining
and larger portion of depressed bone, using the solid table
adjoining as a fulcrum, and exerting the necessary force in a
proper direction very readily adjusted the depressed portion
into apposition with the surrounding solid table.

Using antiseptic cleansing, the edges of the scalp wound
were brought together and retained by five interrupted silk
sutures. The wound being dressed, the little fellow was put to bed, where he passed the remainder of the night in comparative comfort; and we left him the following morning resting apparently as easy as could possibly be expected, having given him broken doses of morphia sulphas.

Aug. 23d, 9 o'clock A.M. On this visit our patient showing some symptoms of acute headache, with slight tendency to delirium, pulse variable, but not fast; temperature 101°; tongue moist and soft; some slight nausea; pupils still showing some inequality; bowels have not operated since receiving injury. I felt apprehensive that meningitis would cause us trouble.

Placed him on potassi acetatis and morph. acetate sufficient to keep down undue pain and restlessness.


Aug. 26. Favorable symptoms abounding, some restlessness, which is probably superinduced by non-action of bowels.

Gave tepid salt water enema, soon producing a very copious flow of feces; patient fell asleep and slumbered as one in normal health.

Removed stitches and dressed wound with absorbent cotton and collodion.

The next time that I saw E. K. was about a fortnight thereafter, when he walked into my office with his father, in fine health and physical condition good, which he retains, being a sharp, healthy boy.
CASE OF DEPRESSED FRACTURE OF SKULL, WITH LACERATION OF DURA AND LOSS OF BRAIN TISSUE.

BY M. L. HILDRETH, M.D., LYONS.

Dec. 14, C. W., aged 6 years, was kicked on top of head by a horse. Was unconscious for a few minutes. Saw him four hours later. Found a contused wound of scalp extending backward and to the right from a point one-half inch to the right of med. line, and at about the junction of frontal and parietal bones, for a distance of five inches. The anterior half of wound, involved all of the tissues down to bone; posterior portion not as deep. Found patient sleeping. Some slight twitching of the extremities. No paralysis. Indifferent on being aroused, and inclined to be let alone. Upon washing out wound, which was filled with dirt, hair, etc., found by use of probe a fissure in bone, beginning at about the center of wound and extending forward in the form of a grooved depression, gradually becoming deeper until it ended in a complete opening, and through a laceration in the dura blood and brain tissue were appearing. The depression of one edge of fracture was to the extent of three-eighths to one-half of an inch. I made some attempts at elevating with such instruments as I had with me, but did not succeed. There being no indications of compression, I determined not to trephine unless subsequent symptoms should demand it. My idea was that the loss of brain tissue would obviate the tendency to compression, which would have been likely to have resulted from the amount of depression had no rent in the dura occurred, and the question arose in my mind if it would not be better surgery to leave the depressed bone where it was, than
to elevate and thereby create a cavity, which would render drainage less perfect. These conclusions were based upon the condition of patient, age, etc. Were they correct? My motive for presenting this report was to draw opinions from others better able to give sound advice.

The treatment of the case was as follows: Scalp was shaved, drainage provided for, adhesive plaster to retain flaps, antiseptic compresses, and bandage. A considerable amount of sloughing occurred under one flap which was badly confused.

Brain tissue continued to ooze from opening for about ten days, aggregating the amount of $\frac{1}{2}$ cc., when it ceased and the opening filled in with fibrous tissue. A couple of small pieces of detached bone came away during process of healing. There were no unfavorable symptoms at any time to speak of; once slight symptoms of compression came on, due probably to bandage being applied too tightly.
CASE OF SEVERE CONCUSSION OF SPINE, WITH PROBABLE (?) HEMORRHAGE.

BY M. L. HILDRETH, M.D., LYONS.

On Dec. 1st, J. H., a laborer, fell from a wind-mill tower fifty feet high (the fall was uninterrupted), striking flat upon his back on frozen ground. Was carried a distance of five miles in a wagon. When called, I found patient suffering great pain, especially upon being moved. Pulse weak, skin clammy, temp. 97½°.

Complete motor paralysis of parts below 9th dorsal vertebra, which region was very sensitive and tender. Could find no fracture or displacement. Surface of legs and feet extremely hyper-aesthetic, with marked and very painful sensation of "pins and needles."

Diagnosis—concussion of cord and subsequent symptoms pointed to probable hemorrhage.

To meet present indications, gave him ½ gr. morph. sul. 5i sp. ammon. arom. and 5i brandy, and applied heat to extremities. Used catheter to empty bladder. As was anticipated, myelo meningitis followed with the usual symptoms. Constricting band at waist. Cramping in extremities. Hyper-aesthesia, formication, etc., complete motor paralysis.

Temperature increased for 6 days, when it reached 103°, then began to decline and reached the normal in about twelve days.

Treatment. During the period of fever, belladonna, potass. brom., and ergota, with blisters on either side of spine opposite point of injury.

When pain was prominent gave an occasional dose of morphine.
As temperature became normal, treatment was changed to potass. iodidi, ergot, and strych., and later ammon. carb. was added. Attention to bowels and bladder which were both unable to empty themselves, and the usual means to obviate any tendency to bed sores.

In course of about six weeks patient was able to walk, at first with crutches and then with a cane.

At the present time, three and one-half months after injury the power of motion seems to be improving. Sensation in extremities is perfect. The condition of bladder and bowels is unchanged. He has to use a catheter constantly, and remove hardened feces as they collect in the rectum.
THREE CASES OF FRACTURE WITH TREATMENT.

BY J. S. LEONHARDT, SEWARD, NEB.

Case I. Mr. B——, aet. 58, farmer, in ordinary good health, came to me suffering from an incised wound of the left cheek, inflicted by the kick of a mule.

It was during the month of August, and he had come about sixteen miles with the injured side to the sun. Upon examination, a fracture of the left superior maxillary bone was found, ranging from the canine tooth to the posterior border of the maxilla, the greater part of the distance being above the palatal process, from which it was also detached.

An intolerable stench was present. Although the injury had been received but four hours previous, it was evident that gangrene had begun. The fragment was very movable, and what was to be seen of the bone looked grey and glistening; of the soft parts, dark and shreddy. I determined to remove the mass. An incision was made along the palatal margin far enough from the palatal fracture to act as a flap to the same; another was made through the buccal mucous membrane at its reflection. Seizing the fragment with forceps it was removed. The ragged edges of the firm bones were then smoothed and the palatal and buccal flaps stitched. The wound was syringed with a solution of salicylic acid and borate of soda in water. The external wound was also stitched and dressed with iodoform covered with absorbent lint. After three days the stitches were removed, and in eight days the patient discharged. This case is mentioned as showing the rapid appearance of gangrene, and the antiseptic power of salicylic acid.
Case II. Mr. S——, aet. 57, fruit tree agent, anæmic, was precipitated from a train moving about forty miles an hour. The patient was not seen until twenty-four hours after the accident. He was then unconscious, passively delirious, lips pouting, respiration 16, and laboring pulse 54 and full; pupils dilated, but responsive. My prognosis was unfavorable. He had received a fracture of the left superior maxillary through the body and palatal process; a fracture of the zygomatic process and dislocation of the orbital process of the left malar from the angular process of the frontal. (There were several other minor injuries of the soft parts.)

The mass was depressed inwards and downwards, and was but slightly movable. The natural teeth were partially absent, as were the artificial ones which had supplied their place. He was entirely unfitted for voluntarily aiding any mechanical contrivance, and the question of properly adjusting the fragment became one of considerable importance. Inserting a screw into the jaw, through the cheek, the fragment was lifted towards its proper place, but would not remain. Placing my finger in his mouth I again lifted the mass and firmly pressing upwards managed to get the maxillary fragment of the palatal process to ride the articulated part. It remained! The articulation at the external angle of the eye was not just perfect, but it was unnoticeable, and I concluded to give the new splint a trial at any rate. Cold applications were placed over the whole head and an enema of brandy and milk administered. During the night he rested moderately well, and towards morning became sufficiently conscious to take his medicine per os. Oozing of blood ceased on the third day. His temperature at no time exceeded 100° Fahr. On the twelfth day he was discharged, the fragment having become fixed. This case is reported because I am desirous of introducing one more splint to the already long list of mechanical appliances (?

Case III. This patient, a lady, had been exercising in a
SEVENTEENTH ANNUAL SESSION. 111

roller skating rink "for her health." Strange as it may seem, she fell and injured herself! Upon examination a fracture of the humerus through the surgical neck was found. Having used plaster of Paris so often, and never having had cause to regret it, I applied it in this case. As near as it was possible for me to determine, the ends of the bone were in apposition and the extension enough, but the shortness of the upper fragment made me fear the possibility of a faulty union. I determined to change splints. I had seen many such a fracture dressed, but my interest then and my interest now would bear no sort of comparison; the details had been somewhat effaced from memory. "The deformity is reduced by fixing the shoulder and drawing the arm outwards and downwards. To counteract the opposing muscles and to keep the fragments in position, the arm should be drawn from the side and pasteboard splints applied on its four sides, a large conical-shaped pad should be placed in the axilla with the base turned upwards, and the elbow approximated to the side and retained there by a broad roller bandage passed around the chest; the forearm should then be flexed and the hand supported in a sling, care being taken not to raise the elbow, otherwise the lower fragment may be displaced." (The italics are mine.) "Aye, there's the rub." And in this important particular my works were either non-committal or silent.

Perhaps you will pardon me if I say, that an original appliance (at least, so far as I know) was devised which met every indication and resulted in the restoration of an arm in every way equal to its fellow.

A thin flat stick, about one inch longer than the forced distance from the deepest part of the arm-pit to a point about two inches from the elbow, along the forearm when the forearm is flexed at an angle somewhat less than 90°. This "stick" is surmounted at its axillary end by an inverted conoidal pad—womb-shaped if you please—the other end fits on
a piece of sheet iron or tin made to conform to the shape of
the forearm for a distance, say of three or four inches, this
convex disc is fastened by straps. This was applied in this
manner: The fracture was now reduced and extension con­tinued till the flexed forearm was secured. The "stick"
with its pad well in the axilla, and its distal end placed on
the forearm, support was then applied. Three supplemental
wooden splints were then placed from the summit of the
shoulder along the whole length of the humerus, and loosely
fastened by means of three straps, the lowest and uppermost
embracing the "stick" in order to prevent the forward and
backward displacement of the axillary pad. The forearm
was then flexed sufficiently to make the length of the injured
bone equal the length of the sound one, the hand supported
in a sling high enough to keep up this condition. All the
straps were now tightened and the elbow bandaged to the
side. Further explanation is unnecessary, the mode of secur­
ing the upper and lower fragments of the bone, and the neces­sary extension and counter-extension being obvious. Nothing
occurred to show that the apparatus had been in any way a
failure or a nuisance, although it was worn six weeks.

I mention this case because I am convinced that not enough
stress is laid upon fractures of the upper extremities and their
treatment by our commonly attainable text-books.
THE BI-CHLORIDE OF MERCURY AS A
SURGICAL DRESSING.

BY W. F. MILROY, M.D., OMAHA.

Late House Physician and Surgeon to the Charity and Maternity Hospitals, New
York City; Professor of Histology and General Pathology,
Omaha Medical College.

The wide and extending range of application of the bi­
chloride of mercury as a surgical dressing; the splendid
results and the possible dangers attributed to its use, espe­
cially as it is very recently that attention has been called to the
latter, render appropriate a brief consideration of this subject
by this Society.

During two years recently spent as a member of the staff
of the Charity Hospital and Maternity Hospital, in New York
city, I was afforded a favorable opportunity for observing the
results obtained by the use of this antiseptic, and for forming
an opinion in regard to it. With the following case, which I
have selected from my hospital reports, as a text, I desire to
consider the subject in a few words.

Jas. Murray, aet. 45; widower; Ireland; truck driver.
Admitted April 3, 1884. Patient enters for the treatment of
an old trouble in the right knee, caused by injury three years
ago, at which time he was treated in Bellevue Hospital. On
May 14, after a consultation, I amputated in the middle third
of the thigh. The operation selected was that by anterior
and posterior flaps, performed by double transfixion. Very
little blood was lost. Previously to the operation the thigh
was thoroughly washed with a solution of the bi-chloride of
mercury, 1 to 1000. The operator's hands, and those of the
assistants, as well as the sponges, were also thoroughly disin­
fected with the same solution. All instruments used were
disinfected with a five per cent solution of carbolic acid, as all metallic substances are acted upon by solutions of the sublimate, and both the solution weakened and instruments destroyed. Five cat-gut ligatures were applied to the arteries, and, the oozing having been checked, the wound was thoroughly washed with the solution. From either side a drainage tube was inserted in the angle of the wound, one passing anteriorly to the bone and the other posteriorly to it. The flaps were brought together by deep and superficial silver-wire sutures, and the coaptation rendered more perfect by adhesive straps placed between these. The wound was syringed out through the tubes, and the dressing applied in the following manner: Charpie, soaked in the solution, was applied along the line of sutures. Over this, and enveloping the whole stump, was applied a rather thick layer of absorbent cotton, also saturated with the solution. The drainage tubes were allowed to project through the cotton. Afterward the projecting tubes themselves covered with masses of cotton saturated with the solution. Over all a piece of oiled silk, cut in the form of a Maltese cross, was applied, and the whole held in place by a bandage that had been impregnated with the sublimate.

The patient bore the operation well, and suffered very little from shock.

On May 17, the third day after the operation, the dressing was entirely removed, except a few of the adhesive straps which had not become saturated with the discharges.

The highest temperature on the 15th, the day following operation, was, in the morning, 100° F. During the 16th, and on the morning of the 17th, the temperature continued at about 101° F. This appeared to be due to irritation and pain in the stump, of which the patient complained. His appetite and general condition continued good. On removal of the dressing the flaps were found to have united firmly from the integument to the bone—so much so that not a drop
of pus could be squeezed from the drainage tubes, no water could be syringed through them, and the tubes themselves were held so firmly by the united tissues as to be moved only with considerable force. The stump was cleansed with the bi-chloride solution 1 to 2000, and the dressing re-applied precisely as before.

On the third day following this, May 20th, the stump was again dressed in the same manner as before, and the wound found in the same condition. Since the last dressing the patient had been in excellent condition, the temperature only once reaching 100° F.

On May 24th, the tenth day after the amputation was performed, and the fourth since the last dressing, the stump was again dressed. The drainage tubes were both removed. These were so tightly held in place as to require a strong force to extract them. All the sutures were removed. The line of union could hardly be found, except at one place for about three-fourths of an inch, where the deep sutures had caused a folding in and interfered with perfect coaptation.

Since the last dressing the temperature had been normal and patient feeling well.

Three days later the stump was again dressed. Considerable discharge had occurred through the openings from which the tubes were removed, though these were now closed.

It was about ten days later than this when granulation was complete at these points. I might add that this patient was at the time suffering from chronic nephritis, with small granular kidneys, due to alcoholism. When last seen he had gained much in weight, and felt perfectly well and the stump was in excellent condition.

This case I have selected not because it is one in which the results of the use of this antiseptic were exceptionally satisfactory, but because it gives you a fair idea of the results obtained by its use, in my experience, in preventing suppuration in fresh wounds. In limiting its duration and extent when it is already present it has proved equally serviceable.
The fundamental idea upon which is based the use of antiseptics is the "germ-theory" of disease in its several modifications. The practical deduction from this theory, as applied to surgery, is that air must either be excluded from wounds, or else the living organisms which exist in all air under ordinary circumstances must be destroyed.

Formerly it was supposed that the hold upon life which these creatures possessed was slight—so much so that the vapor arising from the mere sprinkling of a little carbolic acid about the sick room was sufficient to cause any germs that did not meet with instant death to retreat precipitately. But this was a delusion. It is a fact, now thoroughly established, that any atmosphere which will destroy the vitality of these minute organisms is incapable of supporting human life. In the use, then, of antiseptic dressings a drug must be used which is a deadly poison, and no room can be disinfected with a living human being in it. It is the surgeon's aim so to cover the wound that all the air which reaches it shall be laden with the poison to a degree that would be fatal to the patient's life, were he dependent on such an atmosphere.

Now, \textit{a priori} is it not to be anticipated that enough of these poisons may easily be absorbed when the drug comes in contact with the skin, and especially with a denuded surface, to produce general poisoning?

The experiments* of Dr. George M. Sternberg, United States Army, show that mercuric chloride is the most powerful disinfectant we possess, and his results confirm the conclusions of Dr. Koch, of Berlin. Dr. Sternberg's results were obtained by experiments with the micrococcus of gonorrheal pus, which seemed to resist the germicide agents longer than the other organisms which were tried.

The following table gives the strength at which several of the more common antiseptics now in use destroyed these germs.

*Experiments to determine the germicide value of certain therapeutic agents—\textit{Am. Jour. of Med. Sciences}, April, 1883.
PER CENT. EFFICIENT IN THE PROPORTION OF ONE PART IN

<table>
<thead>
<tr>
<th>Compound</th>
<th>Concentration</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercuric chloride</td>
<td>0.005</td>
<td>20,000</td>
</tr>
<tr>
<td>Potassium permanganate</td>
<td>0.12</td>
<td>833</td>
</tr>
<tr>
<td>Iodine</td>
<td>0.2</td>
<td>500</td>
</tr>
<tr>
<td>Creosote</td>
<td>0.5</td>
<td>200</td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td>0.5</td>
<td>200</td>
</tr>
<tr>
<td>Carbolic acid</td>
<td>1.0</td>
<td>100</td>
</tr>
<tr>
<td>Zinc chloride</td>
<td>2.0</td>
<td>50</td>
</tr>
</tbody>
</table>

A much weaker solution (from one-half to one-fourth the strength above given) was found to prevent further development of the micrococcus. M. Mignal, in experimenting for the purpose of establishing the relative merits of different drugs for antiseptic purposes, showed that mercuric iodide is much superior to the bi-chloride, but there are several serious objections to the iodine salt, the chief being its almost entire insolubility in water, which, alone, is enough to exclude it from the list of drugs available for this purpose.

A glance at this comparative table shows the very great superiority of corrosive sublimate over all other agents. Other advantages which it possesses are its great cheapness, the absence from it of all odor, thus doing away with the danger of a false sense of security attending the use of carbolic acid and other drugs that have a strong smell. It has not the anaesthetic property of carbolic acid which is so annoying in the use of the latter during operations.

When, in the use of mercury, we desire to secure the constitutional effect at the earliest possible moment, the surest avenue for its administration is the skin. In the earliest days of the use of the sublimate as a surgical dressing, it was urged in its behalf, by some, that absorption did not occur. This, however, is directly in the face of all our experience in the use of this drug.

From almost the introduction of the use of this antiseptic some have opposed it as being dangerous and inferior to other antiseptics.
Dr. George L. Peabody* and Dr. George F. Shrady,† both of New York, have recently published instructive articles upon this subject, but not until within a very recent period has it been made apparent that grave dangers do attend the use of the sublimate dressing.

The first cases in which death was attributed to its use occurred, not in general surgery but in obstetric practice, and then in gynecology. A little more than one year ago Stadfeldt, of Copenhagen, reported a case‡ of fatal poisoning in a woman who was treated for retained placenta. The uterus was afterward washed out with a solution (1 to 1,500) of the bi-chloride. She suddenly, during the process, went into collapse. From this she rallied, but on the evening of the same day suffered from diarrhea and tenesmus. The diarrhea later became bloody. This continued till her death, ten days later.

The autopsy showed a general congestion of the mucous membrane of the large intestines, with large and small ulcers which were irregular or circular in shape. The ulcers were especially numerous at the lower end of the large intestine. Soon after this Dr. Winter published in the same periodical, similar fatal cases.§

Dr. Eugene Fraenkel, prosector in Hamburg, has published an article,|| in which he says that he has made autopsies in fourteen cases treated by Schede with this dressing, during the past two years and a half, in which toxic enteritis was produced by it. In two of these he alleges that the action of the drug was the direct cause of death and that in the others it was a consecutive and contributory cause.

It is worthy of remark that in all of these cases the solution was applied to a large surface, and in nearly all of them to the repeated irrigation of suppurating surfaces.

* Medical Record, March 14, 1885.
† Medical Record, March 28, 1885.
‡ Centralblatt fur Gynakologie.
§ Centralblatt f. Gynakologie, No. 43, 1884.
|| Virchow's Archid, Feb., 1885.
Salivation is very exceptional in these cases. The inflammation, rarely occurring in the small intestines, was always present in the large. In the latter he often found very extensive superficial ulcerations covered either with loose masses of epithelium or diphtheritic membrane. If the patient lived until this membrane was cast off, the ulcer frequently extended to the muscular coat. Sometimes numerous small, round, cleanly-cut ulcerations were found. He carefully differentiates these lesions from those of pyæmia, and adds that the usual lesions of pyæmia in the other organs were uniformly absent. He considers that the ulcerative process is due to the elimination of the drug by the large intestine.

Dr. Max Schede, superintendent of the Hamburg General Hospital, is a thorough believer in antiseptic surgery, and in the sublimate dressing.* He has for use two solutions. The stronger consists of sublimate and water 1 to 1,000. This he uses to disinfect the bands, the skin of the patients, sponges, draining tubes, and all wounds which are to be closed. The weaker solution of sublimate and water is 1 to 5,000. This is used for irrigating wounds. The weaker solution is used for fear of the toxic effect, but during operations the stronger solution is generally employed. Listerism and the iodoform treatment have both been thoroughly tried in this hospital and the results obtained by the use of the sublimate dressing, even as compared with these, have been most brilliant and satisfactory, and Schede is an enthusiastic advocate of its use. His conclusions are as follows:

1. The sublimate solutions are more efficacious and less dangerous than five per cent carbolic acid solutions.

2. In severe wound infections, wound diphtheria, and gangrene, which call for very strong disinfecting agents, the sublimate solutions can be safely used. Even one per cent solutions have been successfully and harmlessly applied to gangrenous wounds.

* Vide Volkman's Klinische Vorträge, No. 251.
3. Sponges and wadding soaked in 1 to 1,000 solutions can be safely applied to ulcers, unhealthy, dirty, and gangrenous wounds, the applications being changed once or twice daily."

At the same time, Schede frankly admits the dangers from absorption. To offset the cases already referred to, reported by Fraenkel, in which he found diphtheritic enterocolitis postmortem, which he attributed to mercury, Schede reports four cases in which the same lesions were found after death, but in which the sublimate had not been used. He concludes that the diarrhoea and enteritis may be caused by sepsis, and he believes that with proper precautions the sublimate wound treatment is safer than any other.

Dr. George L. Peabody, pathologist to the New York Hospital, has recently investigated the pathological records for facts bearing upon this subject.* He reports "eleven cases in which the use of the poison as an antiseptic dressing or application was followed by obstinate diarrhea, which did not yield to the usual remedies, and which sometimes ceased on the drug being discontinued, but which in seven instances was followed by frequent bloody discharges, griping, tenesmus, prostration, and death. In three of these seven cases, autopsies were made, and in each of them a very extensive diphtheritic inflammation of the large intestine was found."

In these cases the usual lesions of pyæmia in the other organs were absent.

In my own experience, so far as my records show or my memory serves, I have seen but one positive and one doubtful case of poisoning from the use of this antiseptic. The former was in Maternity Hospital during the service of one of my colleagues, Dr. George H. Donahue. The patient had received six intrauterine injections of a 1 to 2,000 solution in a period of about thirty-six hours. At the end of that time she presented unmistakable signs of ptyalism. This, as has

* Vide Medical Record, March 14, 1885.
been already remarked, is a very unusual phenomenon in these cases, and did the injurious effects of the dressing first show itself in this way as a rule, there doubtless would never have been so many deaths to attribute to its use. The “doubtful” case was that of a young man treated for very large abscess in the left axilla and extending back under the scapula. This was thoroughly washed out once in twenty-four hours with a solution of the sublimate 1 to 2,000. He made a good recovery, but during the period of his treatment he contracted an obstinate diarrhoea, which continued until the abscess was nearly healed.

“It seems only right to emphasize the fact,” says Dr. Peabody, “that so far as I have been able to learn, death has not resulted from its use in surgical dressings, such as bandages, etc., but only after irrigation of abscess cavities, uteri, vaginae, large wounded surfaces, the peritoneum, etc., etc.”*

The discussion of the use of the sublimate in obstetrics is not within the scope of this paper. Permit me, however, to say, that to one who had the privilege of witnessing the results obtained in the New York Maternity Hospital by the most thorough use of other antiseptics, previous to its introduction by Dr. Henry J. Garrigues, and of administering the bi-chloride in the method marked out by him, only one conclusion as to its value is possible. The conclusion is this: In the introduction of the use of the bi-chloride of mercury as an antiseptic, obstetric art has taken one of the grandest strides in the direction of conservatism that it has ever made.

For a detailed account of Dr. Garrigues’ method, I would refer those of you, who are not already familiar with it to the Medical Record, Dec. 29, 1883, and to the New York Medical Journal, March 1, 1884.

In conclusion:
1. The decided advantages which this drug possesses over

all others as an antiseptic commend its use in cases which do not require its repeated application to large surfaces.

2. Used for irrigating large surfaces, it is dangerous, and should not, in the present state of our knowledge, be employed.

3. There is need of further investigation into the results of solutions of this drug used as an irrigating antiseptic fluid. Will not the use of a very much weaker solution than has heretofore been employed remove the danger, and still give the desired result?
A CASE OF HIP JOINT DISEASE—OPERATION.

BY G. L. PRITCHETT, M.D., FAIRBURY, NEBRASKA.

In October, 1884, I was called to see the following case, a history of which I think may be of interest to you: Louis Adkins was attacked about four years previously with severe pain in his right leg and thigh, accompanied by swelling of the limb, and especially of the hip and ankle. The medical attendants pronounced the disease rheumatism. After passing through the hands of several doctors, each of whom confirmed the diagnosis of the others, in the summer of 1884 he became the patient of Dr. McClellan, of Knoxville, Ill., who pronounced the disease morbus coxarius, and treated him by extension, in bed for several months, with some amelioration of the symptoms. From the parents, I learned that the general health of the boy failed gradually, although he was kept on tonics and cod liver oil. Dr. McClellan writes me that the boy was in fair condition when he left Illinois in October. He advised the parents to travel, hoping to get some improvement in the general condition. When I saw him he was pale and emaciated, with cachexia strongly marked. There was the usual flattening of hip joint disease, in the gluteal region, fullness in front of the great trochanter, and apparent lengthening of the leg. Tenderness over the tuberosity of the ischium and over the great trochanter, with obscure fluctuation in the latter locality. Flexure of thigh on the body was accompanied by marked straightening of the lumbar curve, but some motion took place in the joint, and caused pain when carried to an extreme. Pressing the head of the bone into the acetabulum caused very little pain. Accompanying the difficulty in the hip, was a like condition in the
ankle, manifested by pain and swelling in front and below the external malleolus. In fact the patient experienced more pain there than in the hip. A few weeks after I first saw him I evacuated a large amount of unhealthy pus from the hip, and in a few days after a large amount of gelatinoid matter from the ankle. From this time both openings discharged freely until after the operation. A short time after this a spontaneous opening took place, just external to the tuberosity of the ischium, and continued to discharge after the opening made in the front of the thigh had closed, but finally closed up also.

The boy's health continued to fail, although he was taking tonics, with as liberal nourishment as the condition of his stomach would allow. He had frequent attacks of night sweats, and diarrhoea, and also polyuria. A small amount of albumen was constant in his urine. The liver was enlarged to a considerable extent, and some tenderness existed over it. In fact my patient was in extreme danger from absorption of pus. After due deliberation and study of the case I formed the opinion that his only chance for life lay in removing the diseased tissue; in the radical operation of excision. After the gravity and magnitude of the case was explained to the patient and his parents, the case was placed in my hands, to act as my judgment might direct.

January 29th, '85, assisted by Drs. Bradshaw, Dodge, and Palmiter, and Mr. Burgette, M.S., I operated, removing the head, neck, and great trochanter, with a portion of the lesser trochanter. Commencing the incision two inches above and behind the great trochanter, I carried it just above and behind that landmark, then sweeping the knife backward, describing a semi-lunar line ending below the trochanter, finished the incision by carrying it about two inches in direction of the line of the shaft. Carrying it to the bone I rotated the femur outward and cleared the front of its muscular attachments; then rotating inwards, and adducting, cut the back and inner
attachments. I then found the greatest difficulty in severing
the capsular ligament. When this was accomplished I found
little difficulty in raising the head of the bone, the ligamentum
teres parting on slight pressure, at its femoral attachment. I
made my first section of the bone immediately above the les­
sor trochanter, and finding that I had not removed all the dis-
 ease, I made another, removing the greater part of it. There
still remained a small amount of diseased, but viable, bone,
which I trusted to nature to remove or bring to a healthy
condition, preferring to run the risk of slight suppuration, to
removing bone that might regain health. The acetabulum was
examined and found in a normal condition. The wound was
thoroughly cleansed and a drainage tube inserted, projecting
from both upper and lower angles of the wound, and the
wound closed with waxed silk ligatures supported by adhe­
sive strips; carbolized lint, absorbent cotton, and oil silk
with a spica bandage completed the dressing. The patient
was under the influence of the anesthetic about fifty minutes.
The anesthetic used was the A. C. E. mixture. The antisep­
sis was the most perfect attainable cleanliness, water which
had been boiled, a one, to two thousand solution of bi­
chloride of mercury, with a bath of carbolic acid solution,
for the instruments and sponges. After completion of the
dressings he was placed in bed, and heat applied until reac­
tion was established. Thirst was quenched by ice. Reaction
was established in about fifteen hours, when vomiting set in
and continued for thirty-six hours, he being unable to retain
anything but small quantities of milk and brandy. From
this time he rallied, progressing slowly toward recovery. On
the third day a weight of five pounds was attached to his leg
by means of adhesive straps from the knee downward to the
ankle, with a cord passing over a pulley attached to the foot
of the bed. The weight was afterward increased to eight
pounds by an additional sandbag, which the attendants were
directed to remove or replace as the patient might desire, pre-
ferring to be guided by his feelings as to the amount of extension to be used.

On the fifth day I removed the dressings and found the wound pretty firmly healed through its whole extent, except where the drainage tubes projected at the angles. From this time the dressings were changed every second day, and for a time there was quite a discharge of pus, probably from the end of the femur and its neighborhood. The drainage tubes were employed for about two weeks, as I feared an accumulation of pus if removed too early. Suppuration continued for about five weeks, when it gradually ceased, and at the end of seven weeks the wound was entirely healed. The lower angle of the wound opened the tenth week and discharged a small quantity of pus, and then closed, remaining so at this date.

The boy's ankle, which had been the occasion of considerable solicitude, commenced improving soon after the operation, and is now apparently well.

The temperature on the second day after operating rose to 101 degrees; third day, 102 deg.; fourth day, 101 deg.; fifth day, 100 deg., after which it was not above 100 degrees at any time.

After the irritability of the stomach passed off he rested better than for months before. His appetite grew better and more regular, but at no time was what could be called good. The frequent attacks of diarrhea were absent; the kidneys acted normally. In fact the operation had a salutary influence from the first, the change being noticed and commented on by the parents.

Examination of that portion of the bone removed showed that the disease had begun in the anterior and inner aspect of the great trochanter, extending to and around the neck, nearly encircling it. On the anterior and superior portion of the neck it had extended to and entered the head of the bone. The disease seemed to have extended faster in the cellular tissue than immediately beneath the periosteum; the compact tissue being last to give way.
There is no history of injury preceding the appearance of the disease, although diligently inquired after. The fact that the ankle was attacked at the same time led me to suppose that it was a case of ostitis, of purely strumatic origin, and the exciting cause exposure to cold and dampness, with insufficient clothing. The case gave but little promise of success, every condition being of the most unfavorable character, except the age of the patient.

The pathology of hip joint disease is far from being settled. Some authors claim that the disease originates in the round ligament; others, in the articular cartilages, in the synovial sheath, and in the bone. This case would seem to throw light on how these cases may originate. The amount of diseased action in various parts of the bone is well marked, and we can draw a conclusion as to the relative length of time each stage occupies.

Barwell says: "The rarity of opportunity for obtaining specimens of recent disease produces great diversity of opinion as the particular structure in which the malady begins. The symptoms have been attributed to as many causes as there have been authors to assign them. Thus the whole subject is greatly involved, and in not a few points obscure." Gross intimates that the synovial membrane is the first to be implicated in joint diseases, but is silent with regard to the hip joint in particular. Gibney, in summing up his conclusions, expresses himself: "The initial lesion is an ostitis interia; the focus of the disease is in, or in close connection with the centers of ossification. The head and neck of the femur are more often involved than the acetabulum. It is rare for a single center of ossification to be involved, but usually two or more are implicated at very nearly the same time. The synovitis is secondary. In children beyond the age of eight years the initial lesion is about equally divided among a central ostitis, a periostitis, a chondritis, and a synovitis. If the patient inherits a tubercular diathesis, he is in danger of tu-
bercular meningitis, prior to the occurrence of suppuration, and to amyloid degeneration subsequent to this stage."

After reading these diverse opinions of men whose positions gave them very great opportunities for observation, we leave the subject of its pathology far from satisfied, and turn to the more practicable results of treatment, feeling that surgery still continues in advance of pathology.
SECTION
ON OBSTETRICS,
INCLUSIVE OF DISEASES OF WOMEN.

THE IMPORTANCE OF REPAIR IN PERINEAL LACERATION—
AN EARLY OPERATION IMPERATIVE.
E. M. WHITTEN, M.D., NEBRASKA CITY.

THE THIRD STAGE OF LABOR.
W. M. KNAPP, M.D., YORK.

OBSTETRICAL ANOMALIES.
A. BOWEN, M.D., NEBRASKA CITY.

OVARIOTOMY, CRANIOTOMY, AND OTHER CASES—A YEAR’S
WORK.
A. S. V. MANSFELDE, M.D., ASHLAND.

ABORTIONS.
R. M. STONE, M.D., OMAHA.

TWO CASES OF PUERPERAL CONVULSIONS.
E. SMITH, M.D., BURCHARD.
THE IMPORTANCE OF REPAIR IN PERINEAL LACERATION—AN EARLY OPERATION IMPERATIVE.

BY E. M. WHITTEN, M.D., NEBRASKA CITY.

If by accident the perineum is lacerated in the act of parturition, it should be repaired by an immediate operation. If the primary operation fails, or if from neglect or for other reasons it is not made, operative means for its restoration should be employed at the earliest reasonable moment. It should be repaired, because the function of the perineum is to support the pelvic organs, and laceration impairs this function and favors perineal and vaginal subinvolution, prolapsus of the pelvic organs, and the long list of chronic diseases to which the generative organs are subject.

It should be repaired early. First, because the operation is much simpler than, if delayed. Secondly. It should be repaired early, because it closes an open and wounded surface, abundantly supplied with lymphatic vessels, and prevents thereby rapid absorption of sepsis. Thirdly. It should be repaired early, because the condition of the perineal body is more favorable for repair while physiologically hypertrophied, there being abundant tissue before the process of involution has taken place for the adjustment of the tissues in bringing the torn parts in apposition.

In support of my first proposition, that the perineum, if lacerated, should be repaired, there need be little said, further than to review its anatomical position in the female economy and the physiological and mechanical relation it bears to the genital and pelvic organs. It is necessary to understand that the perineum is not only a flat surface, occupying the space between the vulva and the anus, but, an important triangular
body of strong fibro-elastic tissue, and most intimately connected with its adjacent organs by striped and unstriped muscular fibre.

You remember the vaginal and rectal walls, though in immediate contact above, diverge as they approach the pelvic outlet. This space is filled by the perineal body. The apex of the angle is where the rectal and vaginal walls begin to diverge, and the base is the integumentary surface, lying between the fourchette and the anus. It is one and a half inches from apex to base, and three-fourths of an inch antero-posteriorly.

This body, following the vaginal and rectal curves, is slightly convex anteriorly, and markedly concave posteriorly. The former supports the posterior vaginal wall and the latter the anterior rectal wall, preventing recto vaginal prolapsus.

The perineal body, resting inferiorly upon powerful muscles constantly contracting, is forced upward and forward, becoming a constant and powerful support to the anterior vaginal wall. It is this support especially that preserves the natural curves of the vaginal walls, which are slight, passing backwards and downwards, but decided from behind forward. By these forces the depression in the posterior wall at the junction of the vaginal curves is sustained. Here the cervix uteri rests, receiving support, as Dr. Thomas says, by the “shelf-like action” of these factors of support. The anterior vaginal wall rests upon the posterior, upon the anterior, the bladder, and against the bladder, the uterus. Each depending upon the other, and all, upon the perineal body for support to preserve their relative position, and the rectal and vesical lines of projection, preventing tenesmus, so common in pelvic displacements.

When the perineum is ruptured, and this key-stone of support is destroyed, and with it, the relative position of the pelvic organs: First, the posterior vaginal wall descends, then, the anterior rectal; these drag down the uterus and
destroy the vaginal shelf-like support. The anterior wall follows, dragging with it the posterior wall of the bladder.

Thus, with the perineum, one after another of the united factors of support are impaired, so, that now the bladder even, in this changed position, aids in dragging down the other pelvic viscera, while in health it had served as an anterior support. To these add the efforts required to evacuate the bowels and bladder in their unnatural positions, and we find the pelvic viscera forced still lower down in their unsupported condition. Recognizing these facts, we are able to appreciate the importance of repairing perineal laceration, when complete, or sufficient to affect the perineal function.

Slight lacerations should be repaired. They induce subinvolu-

tion of the perineum and vagina. These lead to grave con-
sequences. When thus affected, the perineum becomes feeble, loose, and flabby, and the vaginal wall thickened and atonic, prolapses with the anterior rectal wall into the vaginal canal and hangs like a loose sack over the lax and ineffectual perineal barrier. Rectocele and vesical hernia frequently follow as consequences. Dr. Thomas, speaking of laceration of the perineum, says: “I do not hesitate to say that thousands of women suffer throughout life from uterine displacements and vesical and rectal prolapsus in consequence of injuries inflicted upon the perineal body during the parturient act.” If these facts are true, why is the repair, even of the graver forms of this injury so frequently neglected, and how is it possible to consider even the milder forms of rupture of so little consequence as to need no repair? Dr. Thomas, speaking of the class of physicians who esteem perineal rupture of little importance, says: “This dangerous dogma renders him who entertains it an unfit person to be entrusted with the grave responsibilities of the lying-in-chamber; and that it is generally based upon the fact that such practitioner ‘has seen many perineums ruptured and heard nothing of them afterwards.’” Such a loose method
of deduction is hazardous and unphilosophical. No conscien-
tious physician will suffer a perineal rupture to go unre-
paired. Now, the question naturally arises, how soon shall
the operation be made? I answer, as soon as possible after
the accident. The sooner the better.

First. Because a laceration of the perineum affords a large
and active surface for the absorption of ichor from the de-
composing lochial discharge. The lymphatic system, com-
posed of an intricate network of absorbent vessels, communi-
cates with the mucous surfaces by innumerable minute
orifices. These connect with larger intermediate ducts that
converge to the thoracic duct through which poison ab-
sorbed is conducted into the blood. The pelvic organs are
all abundantly supplied with these lymphatic vessels except
the vagina. Fortunately, the vaginal mucous membrane is
but sparingly supplied, and the power of the vaginal wall to
absorb substances is very slight. This is surely a wise pro-
vision of nature; but, when the epithelium is abraded, or
especially if the tissues are torn, and a large absorbing sur-
face of open-mouthed lymphatic vessels are exposed, it be-
comes exceedingly active, drinking in rapidly the poisonous
substances that flow over the lesion. The ultimatum of this is,
that on the fourth day after parturition the patient has an
acute attack of puerperal lymphangitis. It is ushered in with
a chill, and fever and pain in the head and abdomen fol-
low. The facts are, a lacerated perineum has been bathed in
the decomposing elements of the lochial discharge until the
system has become saturated with animal poison. On ex-
amination the lesion is found inflamed and exquisitely tender,
similar to other septic wounds, and the discharge is profuse
and foetid.

It is true, these attacks are more liable to become severe or
prove fatal when the air is freighted with micro-organisms
of erysipelas, diphtheria, or scarlet fever; but milder cases
are not uncommon. How often these attacks are ascribed to
a cold, and the nurse blamed, or the chill, for want of a better name, and lack of accurate knowledge on the part of the physician, termed a "milk chill," and large doses of quinine and opium are administered to reinstate the system or prevent "puerperal fever!" Even a slight lesion may be the cause, and it is the duty of the physician to repair such as an antiseptic precaution, as much as to cleanse the canal with antiseptic lotions.

Secondly. It should be repaired early, because the tissues involved are in the most desirable condition for the success of the operation, the perineum having shared in the augmentation of tissue common to the genital and pelvic organs during the months of gestation.

You, who have performed the secondary operation for perineal repair, can not fail to remember that the chief hindrance to success lay in the extreme lateral tension which had to be overcome. It is not the excess of tissue only which aids, but the stretching to which the perineum has so lately been subjected from the passage of the fetal head favors success in the operation. This latter factor serves the same purpose that the sponge bag intra-vaginal dilatation does before the operation for vesico-vaginal fistula.

No one will deny the advantages these agents afford.

If it is possible, the operation should be performed within a few hours after the accident, that union may take place before decomposition of the lochial discharge begins, for if this animal fluid is allowed to pass over the wounded parts after becoming putrid, it will retard restoration though the parts have been carefully adjusted. About three days elapse before the discharges become acrid and poisonous; and if the operation be made immediately the wound often heals by first intention, and we are rid of after consequences. If not, careful cleansing will generally prevent evil from this source of danger, even if the operation is delayed for a number of days.

There will be no lateral or side traction for ten days after
parturition, and but slight traction for as many days fol­lowing.

The earlier the operation the simpler. If the lesion is in­complete, but one suture is required. If complete, the methods recommended by Thomas or Emmet may be adopted, though I have had complete repair of extensive lacerations by intro­ducing but one suture, even when the sphincter ani and rec­tum were involved. The method of operating is so simple, no one need fear to attempt it. The placenta being removed, hemorrhage from the wound arrested by hot water bathing, the patient is placed upon the left side, with the limbs drawn up. A needle and holder, silk sutures, and one female as­sistant are all positively required. Chloroform may, or may not be used. As a rule it is not required. Many use the straight needle (Emmet’s); I prefer the curved needle for this operation. One or two fingers of the left hand are carried into the rectum, and the rectal wall and recto­vaginal cellular tissue are pressed upward. The needle enters the integument from the under or left side, a half inch from the edge of the wound, nearly opposite the be­ginning of the rent, is carried forward, avoiding the rectum, by letting the needle glide over it closely, carefully inclosing the recto-vaginal cellular tissue, and passing out on the oppo­site side, at a corresponding point to entrance. The suture should be tied gently tight. The canal should be carefully washed out with warm water three times daily—using a quart at each time, and at night adding 7½ grains of hydrarg. bichlo. in solution to the wash, as an antiseptic measure, especially as soon as the vaginal discharge indicates decomposition.

If all goes well, the suture may be removed on the tenth day. Many eminent gynecologists prefer the wire suture, but in my hands the silk is preferred.

During the last three years I have operated by this method eleven times without a single failure. I have also operated by other generally approved and much more elaborate methods,
but less satisfactory for a primary operation. In one case, where the sphincter ani was torn through, perfect repair followed one suture in the perineal body in addition to one in the sphincter. And, in another case of the same character, there was perfect repair from a single perineal suture. In this case I withheld the sphincter suture, as the patient had suffered much from anal stricture. The result was all that could be desired. In each case the patient lay quietly in bed until union had taken place. Where, but one suture is employed, it must be deep and freely inclose the recto-vaginal cellular tissue. If this is effectually executed, I am satisfied that even though the rupture is complete, repair will be almost certain. One thing is certain, if the sphincter is not brought together with a stitch, fecal accumulations will not distend the rectum, but the contents of the bowel must pass freely while union is taking place if the bowels are kept solvent. I shall continue this method while it serves so good a purpose, and will report future results.
THE THIRD STAGE OF LABOR.

BY W. M. KNAPP, M.D., YORK, NEB.

In this day of erudite and metaphysical theorizing upon the origin of the varied species of micrococi, and their modus operandi in the causation of pathological conditions, it may seem to savor of fogyism to invite the attention and discussion by the members of this society of so trite a subject as the third stage of labor, especially when we consider that the phenomena observed during the normal progress of this stage of parturition are purely physiological, and that the truly wise physician should seldom advocate interference with any normal physiological function; yet we who are privileged to step behind the scenes can, perhaps without an exception, witness to the truth and the importance of the assertion "that the greater proportion of the sins of midwifery practice are committed in the management of normal labors," and you will, I think, agree with me that very many of these "sins" are committed in the management of the third stage, as a direct result, perhaps, of the increasing tendency of the present age to the substitution of artificial for natural or physiological forces. We recognize, however, that there are sins of omission as well as sins of commission, and while there is undoubtedly truth in the precept, emphasized so strongly in the teachings of Hunter, Denman, and Ruysch, "Meddlesome midwifery is bad," yet there may be dangerous results from trusting too implicitly to the "vis conservatrix nature." 

As we view it, the true obstetrician, as well as the true physician, is he who seeks first to comprehend nature's methods, and then to aid, if possible, in the perfect performance of her functions. Generically the term labor signifies exertion,
or the exercise of force, either voluntary or involuntary. All force is the resultant of the harmonious working of distinct factors.

The object of this paper shall be—

1st. To call attention, briefly, to the results to be attained by the third stage of labor.

2d. To some of the known physiological factors of the accouchment force operative in the production of these results.

3d. To some conditions which may interfere with the harmonious action of these factors.

4th. To make certain deductions therefrom for our guidance in the conduct of the same.

There can be little difference of opinion as to the results to be desired, therefore the briefest possible allusion to them will suffice:

1st. The complete separation and delivery of the placenta and membranes.

2d. The securing of firm, permanent, and equable uterine contractions, thereby preventing hemorrhage, and leaving the uterus in the best possible condition to resist the tendency to inflammatory affections, and septic absorption, and to favor its perfect involution. Among the physiological factors of the accouchment force operative in the production of these results the tonic and clonic contractions of the uterine muscular fibers, or, terms which I prefer, the retraction and contraction of these fibers, are undoubtedly the leading ones in the evolution of the force necessary to the accomplishment of the required conditions; these are aided by the contraction of the uterine ligaments, which are structurally in direct continuity with the external muscular layer of the uterus; these ligaments, contracting simultaneously with the contraction of the uterus, serve to elevate the fundus and fix the uterus over the pelvic brim with its long diameter corresponding with the axis of the pelvic inlet. All these factors are entirely independent of volition, being governed principally by the
sympathetic nervous system, receiving, however, filaments from the three upper sacral, and the last lumbar nerves. These tonic and clonic contractions, occurring as we have said involuntarily in normal cases, are susceptible of being excited or intensified by causing or increasing the peripheral irritation of the uterus: as by gentle friction of the uterine globe through the abdominal walls; by stimulating applications to its interior; by the electrical current; or by the action of certain medicinal substances, termed oxytocics, acting through the circulation, either causing a direct stimulation of the uterine muscular fibers, or acting indirectly by increasing the irritation of the uterine nervous centers. Then we have as accessory factors the action of the voluntary muscles of the abdominal and thoracic walls.

Having now considered the several active factors engaged, we will notice briefly their mode of action. For the few moments immediately following the completion of the second stage, we find a period of apparent rest; I say apparent, for if the hand of the accoucheur follow the uterus as the child escapes, it will be felt continually growing smaller and more firm, until an active contraction occurs, then, following this, the same phenomena of decrease in size and increase in constancy will be observed. This phenomenon is what is termed the retraction of the uterus, and is, as we shall see, of the utmost importance, for it is by this process of shortening and re-arrangement of the muscular fibers of the uterus, more than by any other, that the placenta is separated from its uterine attachments, slipped or shoved off from the uterine walls, and the lacunae, or open sinuses underneath, are obliterated, the tortuous blood vessels throughout the muscular walls of the uterus are compressed, and hemorrhage prevented. This process of retraction is, as we have said, continuous; it is also painless. When the retraction has progressed so far as to produce a certain degree of compression upon the contents of the uterus, the peripheral extremities of the uterine nerves
become excited, and we have a clonic, or active contraction ushered in, which, being accompanied with pain, calls into action the voluntary muscles of the abdomen and thorax. These, by their contraction, the uterus being fixed in the most favorable position by the action of the uterine ligaments, produce an equable pressure upon the exterior of the uterine globe, thereby increasing the intra-uterine pressure, and also pushing the whole uterine mass downward and backward in the line of the axis of the pelvic brim, ordinarily, if sufficiently strong, causing the extrusion of the uterine contents into the vagina, if not beyond the vulva. If the placenta is separated in the manner here described, it will be well to note its position and the natural manner of its descent through the cervical and vaginal canal.

The placenta being attached to the inner wall of an oblong sphere, if shoved off by the retraction of the surfaces to which it is attached, we would expect its edges to be rolled upon its free surface into an oblong roll, with its long diameter corresponding with the similar diameter of the uterus, presenting one end of the roll at the cervical opening. Theory aside, this position of the presenting part of the placenta accords with my clinical observation in all cases which have not been rendered abnormal by interference.

Thus we see that when this stage of labor progresses to completion in a perfectly normal manner we have: First, The retraction of the uterus, breaking up the placental attachments and rolling that body upon itself, obliterating the open sinuses underneath, preventing hemorrhage; Second, The clonic contraction of the whole uterine globe, including the uterine ligaments, aided by the voluntary action of the abdominal and thoracic muscles, causing the complete expulsion of the uterine contents; Third, That this emptying of the uterus is accomplished entirely by a "vis a tergo"—that there is no provision for the evolution of a "vis a fronde" force.

We come now to the consideration of the third division of
our subject, *i.e.*, of some conditions which may interfere with the desired results.

It is a well-established mathematical proposition that a change in one or more of the factors entering into a given product will produce a proportionate effect upon the result. This will certainly apply as a general rule to the several factors operative in the evolution of the accouchment force. If, then, we have an abnormally adherent placenta or membranes, we would have the retraction of the muscular fibres underneath this adhesion prevented, and if the adhesion was in the upper uterine zone, and the uterus were left unaided in her efforts to overcome this interference with retraction, we would find that either a condition of inertia would be induced, or the process would continue in those portions of the uterus where there was no interference, and we would have resulting an unequally contracted uterus, or what is known as "hour-glass contraction." If we find that from any cause, as from a condition of exhaustion of the muscle itself, there be a feebleness or inefficiency of the clonic contractions, or an inability of the voluntary factors to properly perform their functions, we might have the placenta remaining wholly, or in part, for a long time within the uterus, even though completely detached.

I wish here to particularly call your attention to an assertion, which, though not yet fully demonstrated, I doubt not your observation will justify me in emphasizing—*i.e.*, that there exists in the brain an inhibitory nerve center, especially governing or restraining the action of the uterine muscle, capable of receiving impressions from extraneous sources. How else can we explain the phenomena of the arrest of uterine action by mental impressions, by the action of chloroform or other narcotics, by shock or exhaustion, as after a prolonged and difficult second stage, the temporary cerebral anaemia following a rapid second stage, as a result of the "rapid recession of blood from the brain following the diminution of the intra-abdominal pressure," and certain pathological conditions
producing a depressing effect upon the cerebral centers, as uremia?

If this assertion be true (and who can doubt it in the light of his own clinical observation), we see that nearly all these causes of uterine inertia are most active in the short time immediately following the termination of the second stage, being more or less in direct proportion to the profundity of the impression on the nerve center. The social condition of the parturient, as illustrated by Dr. Baruch in the May No. of the American Journal of Obstetrics, has, without doubt, a strong modifying influence on the course of this stage of labor. In the paper to which allusion has just been made (p. 512), Dr. Baruch says: "I have observed that the plantation negress, whose mode of life is quite natural or primitive, as a rule expels the placenta into the vagina, or into or beyond the vulva, while in the refined town or city woman I have rarely found the placenta in the vagina immediately after the birth of the child, and never complete extrusion into or beyond the vulva. The reason doubtless lies in the fact that, in the former, uterine contractions in the expulsive stage, aided by the stronger voluntary efforts of which they are capable, are more continuous and effective, and when the child passes into the world, the uterus is not so exhausted, but is engaged in a supreme effort to terminate the entire process, while in the latter the shorter and more frequent teasing expulsive pains are less continuous in their action, and cease so soon as the child has been extruded. The uterus is now exhausted, a complete rest ensues in order that it may recuperate its powers ere the last effort is made. Tonic contraction continues to render the uterine globe firm, hemorrhage is therefore more rare in these parturients than in the former." To my mind the Dr. might find as a cause for this difference in the character of the expulsive pains, as well as for the longer delay of the clonic contraction, the more highly impressionable inhibitory nerve centers in the latter than in the former. As a condition that af-
fects unfavorably one of the desired results, by favoring the
development of septic matter, we have no hesitation in men­tioning the error advocated by some very eminent men in the
profession, of allowing the placenta to remain for hours, or
even days, within the uterus or vagina, while they were sitting
idly by simply to see that nature had a fair show to complete
her physiological processes. Methinks it ought to be accepted
by all at the present day, that a mass of devitalized tissue and
blood clots remaining at the temperature of the human body
for even a very short time will begin decomposition, and that
the man who allows this death developing process to go on in
the immediate proximity of so many avenues for its ready ab­sorption should be held criminally responsible for the results.

We are led to ascribe as another condition very seriously
affecting the results, or the progress of this stage of labor, mis­
directed efforts to assist nature in the completion of her task.
We are inclined to emphasize this point from the reason that
quite recent publications upon this subject direct that traction
be made upon the cord to expedite matters. (See Wesley Davis,
of Obs., page 185. Woods' Library, 1884.) These authors
in their zeal for aiding nature seem to overlook the impor­tance of the fact that the cord is usually attached near the cen­
ter of the placental mass, and that traction upon it destroys
the harmony so desirable between the diameters of the body
and the canal through which it is to pass.

The chief object of all theorizing, as well as all observation,
should be to deduce therefrom rules for our guidance in the
conduct of given cases. From what has preceded, we find—

1st. That each individual case must be made a separate
and special study.

2d. That when there is partial or even complete inertia of
the uterus, and no hemorrhage calling for immediate interfer­
ence, a rest for a short time, with a watchful surveillance of
the uterus, is safe, and acts as the best remedial measure for
this condition of exhaustion, either of the uterus itself or of
the nerve centers governing the action of that muscle.

3d. That in the large majority of cases only a short time
is necessary for nature to regain her exhausted vitality. My
own rule is to allow not more than fifteen to thirty minutes
to intervene between the birth of the child and the delivery
of the placenta.

4th. That in rendering assistance during this stage of la­
bor we should be governed by nature's mode of effecting de­
ivery, i.e., the force employed should always be a "vis a tergo",
where possible, and only exerted during nature’s efforts (dur­
ing a clonic contraction), and should we ever feel called upon
to substitute a "vis a fronte" force, it should not be by pull­
ing upon the cord, but our traction should be upon the pre­
senting part, the end of the roll, that the relation of the pla­
cental and cervical diameters may be retained harmoniously.

5th. That the method of placental expression, as advocated
by Crede, when properly performed at the proper time fulfills
more nearly the indications desired than any other. I am an
advocate of this method—1st. Because I believe that by it
the uterus is more completely emptied; 2d. Because I regard
it almost a perfect prophylactic against retention of the pla­
centa, hour-glass contractions, and hemorrhage; favoring more
than any method that perfect retraction which I regard as the
necessary condition for perfect and speedy involution.
OBSTETRICAL ANOMALIES.

BY A. BOWEN, M.D., NEBRASKA CITY.

Probably every medical man, in the course of a long series of years, meets with many cases which he can only classify under the above title, as they have had no parallel in his own practice, and he cannot find them delineated by authors. The safety of his patients depends largely upon the observance of a few general axioms and his own coolness, readiness of resource, and sagacity.

On the 22d of May I was called, about noon, to Mrs. W., married twelve years, and in labor with her first child. Her friends, at the time of her marriage, had given her the cheerful and comforting assurance that she would die in her first labor.

I found a woman apparently about thirty-eight years of age, of small frame, but perfectly loaded down with fat, to an abnormal degree. She informed me, with perfect nonchalance, and as if it was a matter of no import, that for a long time she had eaten enough for three women; but I must say for her that she was brave as a lion and as patient as Job, and every obstetrician knows what these qualities will accomplish for a lying-in woman.

The waters had been evacuated some hours, and yet no part of the foetus was strictly presenting. Upon careful examination of the surface of the abdomen I thought I felt the foetal head above the pubic bones, but earnest pressure on this part of the abdomen, through many pains, failed to produce any presentation which was appreciable, even at the superior straits. It required the most persistent and long continued effort with a well annointed, cone-shaped hand, pushed firmly but gently toward the uterus, to penetrate that organ, and so
firmly was it grasped when there, that the thumb could not in
the least be separated from the fingers; and any manipulation
possible did not certainly assure you of what you were touch­
ing. By this time we had made a compact that I was to desist
immediately and temporarily when she should say to me that
she could not bear it. This compact was faithfully observed
through the fearful day and night which followed. Being
determined to know where and how the foetus lay, I steadily
advanced toward the fundus uteri, but, with the frequent pauses,
it was slow work. I finally passed what, after careful exami­
ination, I decided was a hand—then a pulseless funis—then
another hand—and finally came to a foot. This was the first
cheerful land-mark I recognized. But I was utterly unable
to grasp it. The utmost I could do, was to roll my index fin­
ger away from its fellow, and press the crack between them
upon the ends of the toes, until I felt the heel below my fin­
ger. I now endeavored to use traction, but was called upon
for more frequent pauses, and with the determined effort of
almost despair, could not bring the foot within several inches
of the vulva. The body of the foetus did not revolve in the
least, and the foot seemed determined to go back where it
came from. The most earnest effort failed to pass even a cord
over the heel. I saw but one way to save the poor woman
(except the Cæsarian operation), for everything which had oc­
curred—as well as what occurred afterward—convinced me
that no part of that foetus would, unaided, present itself, even
at the brim of the pelvis. Needing to stir in the open air,
and the usual obstetrical instruments (which I had with me)
affording no resources, I ordered my team and drove rapidly
to town—four miles—and procured a straight, strong pair of
forceps, $8\frac{1}{2}$ inches long. My whole previous experience was
gone through with, occupying hours. When I had brought
the foot as far as I could, I passed up the forceps and firmly
but gently grasped the foot well back, and merely held it
while I passed the noose of a strong cord over the handles of
the forceps, and then over the foot and heel. I could do nothing with a skein of yarn. Now commenced a struggle lasting for hours, to bring about podalic version; which I finally accomplished to the exit of the shoulder. The woman now expressed a desire to sleep, and, finding her courage good and her pulse in an excellent condition, I told her to sleep as long as she liked, which she did for four continuous hours; when, showing signs of awakening, I took the small end of my blunt hook, and under my wrist and hand (previously introduced over the vertex) made sufficient pressure into the fontanelle and rolled the head into the pelvis, from which I soon obtained it. The woman made a slow but most satisfactory recovery.
My fourth case of ovariotomy was kindly referred to me by members of this society, Drs. Cox and Wait, of Neligh, and Dr. Bear, of Norfolk, and was operated upon, with their valuable assistance and that of Dr. Alice Huff, my partner, July 15, 1885. The patient, Mrs. B., of Neligh, fifty-one years old, though told by physicians elsewhere that her disease was too extreme for treatment, brought to the case a help almost invaluable—her faith in her final recovery, and in the operator. The tumor, some twenty-four pounds in weight, multilocular, situated in the right side, was extensively adherent, with blood-vessels contained in some of the tendinous cords of a size necessitating ligation both near abdominal wall and tumor. The patient rallied well and with few mishaps made a good recovery under the attention of her physicians, Drs. Cox and Wait.

Of course you will pardon the pride with which I view this, my third recovery out of four cases in three years, yet I would not have occupied your time with the recital of my case, did it not contain the text for two lessons, which it impressed upon me, and which should not be lost sight of.

1st. The fact, which is becoming more apparent every year, that waiting to operate upon a case of ovarian tumor until the patient is reduced in strength and increased in size, is waiting to see who shall take the prize, the ovarian tumor or the ovariotomist.

2d. I am convinced that the care of keeping in the linea alba with the incision, is a waste of time, which costs the patient dearly sometimes, for I am sure it is the cause of the
hernia which only too often develops as a sequel of the operation; a curved incision to the left of the median line, including a small part of the rectus muscle, would greatly obviate this danger.

On December 20th last, at 8:30 p.m., I was called by the husband to see his wife, who had been in labor since the early morning, attended by her family physician. Everything seemed to have gone rightly, so I was told, until some time in the afternoon, when doctor and patient became alarmed and sought for help; another physician was called.

A trial was instituted to adjust the forceps, which failed, when instruments were improvised to perform craniotomy, which was done by the removal of part of the crown of the head—about (2) two inches in diameter—and part of the brain. By what process I know not. Now traction was made with the blunt hook of Hodge's forceps in the vault of the cranium, but effectless. The physicians now informed the husband that the case was a hopeless one, and that life might be saved by Caesarian section only. If he thought he would try he was at liberty to call whom he pleased, which he proceeded to do by asking my assistance, guided I presume by the memory of the fact that I was in the habit of opening the abdomen—I am sure it was not the doctors' fault, I cannot blame them with this.

I found the woman in good condition, not more affected than women generally are in the first stage of labor. A capacious pelvis, the measurement of which I was afterward refused permission to take (I wanted it for this paper; the parties thought otherwise; thought I wanted it for the purpose of giving the doctors away; the doctors thought so too; came to see me about it, taking pains to inform the community of their purpose), so you will have to take my word for it, a capacious pelvis contained the head in the condition described—I have only to add that some pieces of fractured bone still adhered all around the opening; these were removed with Ne-
laton's and Wells' ovariotomy forceps, then Hodge's forceps were readily passed over the head and this squeezed together, as was evinced by the expulsion of the greater part of the brain substance priorly crushed. Now the two pair of forceps already named were fastened upon the left and right sides respectively of the opening in the skull, one pair given into the hands of an assistant to the left, the index finger of my left hand in the opening of the skull and the right side forceps in my right hand. When the next pain came on (an expulsive pain of full value, proving the correctness of my statement regarding the strength of the patient), I called on my assistant for steady traction, and with little effort the head was delivered, the expulsion of the shoulder proving a far severer task. (I am of the opinion that the shoulder more often than the head is blamable for ruptured perineum). Delivery was more rapid than I had anticipated, since it was claimed that I was dealing with a large head with ossified sutures. Grant all of these things—the point I wish to make, have crushed by you or sharpened, is this: That in the centre of a town in the middle of the afternoon, in ready reach of telegraph, telephone, and railroad train, the patient showing no sign of exhaustion, no physician, however skilled he may be, has the right to improvise instruments, or try to do an operation of the gravest kind with almost none. And with three more regular physicians within ready reach, these two physicians, one having in the writer's presence more than once asserted that the other (who, by the by, is a regular graduate but practices homœopathy, eclecticism, etc., to please his many (?) friends) knows absolutely nothing of the graver complications of labor; the former physician, on the other hand, now practices, but for years past has abstained from practice where he could, preferring to accumulate a fortune through surer and more pleasant channels. I say, that these two physicians had no right to sacrifice the life of the child by craniotomy, until they had consulted the other regular practicing physicians within easy reach.
It is true one of them made the assertion to me that no physician in the place could adjust the forceps if he failed to do it, to which answer might be ventured that he and his partner in the case failed to extract the head, and yet it was done. It was also claimed that had they had my ovariotomy forceps they would have succeeded as well without as with my assistance. To this I risk the remark that the physicians failed entirely to grasp the scope of the operation, both as to its technique and purpose. They made the hole into the head, performed craniotomy; remember they claim justification of their work upon the assertion that the head of the child was too large, and that its sutures were ossified; they never claimed that the mother's pelvis was too small or distorted; they made the opening into the vault of the cranium for the sole purpose of finding a means of using the blunt hook for traction, and they pulled and failed to deliver. They never for one moment dreamed of the modern object of craniotomy—to prepare the head for cranioclasm. They had opened the skull, removed part of the brain, tugged away at the head, and quit. When I appeared upon the scene, remembering my favorite author's saying:

"The importance of the principle now inculcated can hardly be over estimated. Next to the introduction of the forceps into modern practice, the idea, when the preservation of the child's life is hopeless, of diminishing the size of the head by compressors instead of dragging it through the contracted outlets of the body, by mere force, to the great detriment and often destruction of the mother's tissues, seems one of the most important improvements in scientific obstetrics" (Hodge's Obstetrics, page 273)—I acted in accordance with it, and succeeded, as I ought to have done, though I confess to one awkward act of mine; when I had no trouble to pass the forceps over the head, as I had anticipated, I compressed them over the head, and without endeavoring to lock them, using my left hand as a lock, I pulled at the head
with them, and, as I deserved, they slipped off too suddenly, and might have injured the mother's parts but for good luck. Had it not been for this undignified action of my forceps, or of myself(?), I should not have given the doctors present a handle for adverse criticism of my performance, which was really nothing but the conversion of an old practice and crude thought—craniotomy and extraction of the child at the expense of the mother's tissues—into a modern procedure and refined thought—cranioclasm and the preservation of the mother's parts.

Whether or not the craniotomy was justifiable (though the doctors claimed the death of the child before the operation, not stating, however, reasons for their belief, or suggesting causes for the death,) is a matter entirely foreign to my paper. The woman had given birth to large and living children before. Each hearer can draw his own conclusions. I ask it as a personal favor that the point do not enter into the discussion, which I earnestly invite, and which the importance of the matter apparently justifies.

It has been my misfortune during the year just past, to have seen, in my practice, six cases of cancer, four of them of the uterus, two of the breast. Of the uterine carcinomata, three were scirrhus (one of the patients still living), and one case was an encephaloid cancer, which proved fatal; this latter was the only case in which I advised operation—vaginal amputation, or, if necessary, vaginal hystereotomy, as practiced by Martyn of Berlin. An operation was refused, this being the second wife of the husband who became the victim of cancer, the fatal result of the first case operating against surgical interference in the second.

The two cases of cancer of the breast I operated upon. One proved eminently satisfactory. The wound in this case, six and a half inches long, united by immediate union. Nine of the ten sutures were removed on the fifth day, and the tenth on the seventh day; not one drop of pus appearing as
a witness of so extensive a wound as the extirpation of the breast necessarily creates. This is perhaps the most pronounced case in the annals of Nebraska surgery in favor of aseptic surgery. The mercuric bi-chloride was the material used, and I think it cannot be successfully contradicted that such a result is impossible with the *cleanest* of surgery.

My last case of enucleation of the cancerous breast left my house on the eleventh day after the operation, against my earnest entreaties, though fairly on the way to recovery. She died two weeks later, of what was reported to me as blood poisoning, a cause of death which I did not quite understand.

I think it is an axiom in surgery, that the safety of patients suffering from cancer rests on an early removal of the entire growth. It is also equally true, admitted universally by silent consent, that curative medicine rests the case here, as entirely beyond its reach. And yet for all of this, it is the writer's firm conviction that medicine proper will yet triumph in the radical cure of cancer by its improved methods. This measure I think lies in the direction of hypodermatic medication—the introduction of remedies which shall prove fatal to the nutrient radicals, capillaries, and lymphatics of such growths, yielding as a product extreme atrophy of the tumor, a metamorphosis into cicatricial tissue, connective substance of the lowest type, with little or no vitality and capacity for mischief. That these thoughts are not snowflakes falling in summer time, to vanish co-equal with their advance, is shown by the drift of modern practice in syphilitic enlargements of the glands of the groin immediately following the primary sore. The hypodermatic injection, or rather the injection into the diseased glands of mercuric bi-chloride, is at once in keeping with scientific reasoning, and what is more satisfactory—efficacious in its consequences—it has arrested the disease—secondary syphilis was prevented. The same has been done by myself for the arrest, as well as the cure, of scrofulous enlargements of the glands of the neck, the precursors
of the inevitable disease of the glands at the base of the lung, and death by phthisis. Who has not beheld this downward career, its disastrous ending? It has been my fortune in two cases to hurl the “hitherto shalt thou go” of scientific medicine at this malady successfully. The injection into these tumors of a hot mixture of equal parts of carabolic acid, sulphuric ether, and pure olive oil, caused not only the atrophy sought for in the tumors injected, but was followed by atrophy in the glands of the neighborhood, not injected. These cases will, I think, demonstrate that my ideas of the cure of cancer in this direction are not the ebullition of fancy.

One more measure which has shown its value in my hands I wish to draw your attention to—the use of galvanic electricity in the cure of mechanical dysmenorrhoea, coupled with extreme hyperæsthesia of the internal os. These causes, hyperæsthesia and stenosis, furnish, I think, by far the greater number of persons suffering with that most distressing of maladies of women—painful menstruation. A sure relief and, what is more valuable, a radical cure is offered in the rapid dilatation of the cervix and the maintenance therein of a metallic stem pessary of sufficient size (a No. 20 catheter) with a periodical (every third day) use of the galvanic current, the cathode of twelve cells of the Macintosh being attached to the pessary; the anode, divided, over each ovarian region on abdomen for a part of twenty minutes, and the remainder over the small of the back upon each side of the spine.

This procedure has been safe in my hands, and, as already stated, successful. Of course, anaesthesia is often indispensable for the thorough accomplishment of the work.
ABORTION.

A UNIQUE CASE HAVING AN APOPLECTIC PLACENTA,
FOLLOWED BY PELVIC HEMATOCELE.

BY R. M. STONE, A.M., M.D., OMAHA.

On December 8th, 1884, I was called to see Mrs. X., age 34, of fair general health, and the mother of five children. She had lost a daughter some months previously, and had grieved very deeply for her, and was much inclined to melancholy. She menstruated last from July 12th to 26th. On November 24th she had fallen down, after which she had a painless flow, persisting till December 8th. On this date she suffered quite severe pains, and passed the mass which I take pleasure in exhibiting. The specimen includes both the fetus and placenta; the uterus was of course empty and well contracted. I directed my usual treatment—hot injections—to secure prompt and proper involution.

An examination of my specimen showed at a glance that it was a unique affair. Before hardening in alcohol the fetus was one-half an inch long, showed the eyes as black dots, had an opening for the mouth, and four bud-like processes for the extremities; the cord was five-eighths of an inch long and attached one-thirty-second of an inch from the inferior extremity of the fetus and to the edge of the placenta, making that form of attachment known as "battledoor." The placenta was round, just two inches in diameter and one-half inch thick at the thickest point; the fetal surface was very dark, congested, and had the appearance of small coils of intestines running across it. I recalled at once Playfair's figure of an apoplectic placenta, and on comparison found that the specimen and the figure were exactly alike. From the size and
development of the fetus, it was clear that it had ceased its existence about the twenty-fifth to the thirtieth day, while the placenta had retained its attachment, and was probably of three or three and one-half months' development. The fetus was an ordinary blighted fetus, but the placenta was quite rare and unique, and I deemed it worthy of presentation to you, especially since the after-conditions were also out of the ordinary.

My patient remained in bed, doing well, until the night of Dec. 13th, when, without any premonition whatever, she felt most agonizing abdominal pain and fainted. Neither she nor her husband realized that her condition was at all serious, and I was not called till the afternoon of the 14th. I was informed of the pain and fainting of the night before, and that she had felt very weak and prostrated all day. I found her in a state of collapse—temperature 97°, pulse very quick and feeble, and her voice exceedingly feeble. Having examined her three days previously, and having then found everything normal, I was prepared to recognize any changes in the pelvic organs; feeling certain that some pelvic condition had given rise to these symptoms, I made a careful and thorough examination, with the following result. The vagina was excessively sensitive, especially the vault; the uterus was pushed far back into the pelvis, against the sacrum, and it was impossible to get my finger into Douglas' cul de sac. The effused blood was ante-uterine, and was not in very great quantity. The tumor formed by the blood was not like the tumor of a cellulitis; the surface was much smoother and the density much less. The sensitiveness of the vagina, the presence of a tumor having these characters, the displacement in so sudden a manner of a uterus known to be in normal position three or four days before, the entire absence of inflammatory symptoms, the condition of the temperature (97°), the profound and long-continued state of collapse—all warranted me in excluding cellulitis and making the diagnosis of hematocele. Since my
patient had already furnished me with a unique specimen, and since she had a hematocele, I must confess that I was not sorry that this was the rare form of hematocele, the ante-uterine. I was positive in my view, because the neck of the womb could hardly be reached, as it was pushed back so far into the hollow of the sacrum. Thomas and Emmet both speak of ante-uterine hematoceles, but as very rare—both authors having seen but one case each.

My treatment consisted in stimulation by alcohol, external heat, and the very frequent use of very hot vaginal injections. She rallied somewhat by 9 p.m., but her temperature only reached $97\frac{1}{2}$; her voice was, however, much stronger. During the next five days the hot injections were used every four to six hours, and by the 18th the blood was almost entirely absorbed.

On the 18th I was hastily summoned to her bedside again, to meet with a new condition. I learned that she had complained for a few hours of terrible occipital pain; she then became maniacal, beating her head against the wall and tearing her hair. When I arrived she was in a state of coma, breathing stertorous. The pulse was full, strong, and bounding, the eyes suffused, and every appearance of cerebral apoplexy. I gave a very guarded and unfavorable prognosis, and was not surprised at all to hear two of our good friends present here to-day, to whom I stated the case, predict her speedy death. With a strong feeling of her ultimate recovery in my mind, I returned after a few hours to see the effect of the large rectal injections of ergot and chloral that I had ordered. I was agreeably surprised at seeing her conscious. After a tedious convalescence she resumed her household duties.

The case was certainly unusual. An abnormal condition of the walls of the blood vessels existed, no doubt, throughout the whole body. Their walls were weak and easily ruptured; she had first a rupture of the placental vessels, and an apo-
plectic placenta; she then had the rupture of a pelvic vessel and a hematoocele, and this was followed by the apoplectiform variety of cerebral congestion, with perhaps serous effusion, which was quickly absorbed.

Particular interest in the case, however, centers in the hematoocele, and I shall therefore extend my paper to a brief review of this condition.

Pelvic hematoocele is the name given to accumulations of blood in the pelvic cavity, either above or below the peritoneum, or within the connective tissue of the pelvis. Ruysch first mentioned it in 1737, but nothing more was said about it until Recamier rediscovered it in 1831, since which it has been thoroughly investigated, chiefly by the French. There is a very great difference of opinion as to the frequency of its occurrence; Olshausen claims to have seen 34 cases in 1145 gynecological cases, while Emmet says that it is rare in hospital cases, but much more frequent than is usually supposed in private practice. He says that a cellulitis, which is often supposed to have been the primary difficulty, is in reality subsequent to and caused by a hematoocele. There can be no question as to the fact that pelvic cellulitis is the commonest disease to which woman is liable, and there should be no difficulty in its diagnosis; but while I am constantly meeting with cases of it, and seeing the evidence of its past existence in other cases, I seldom hear other physicians speak of meeting with it, and almost never hear a patient say that she has been treated for a cellulitis. I fear that the distinctions between the varied abnormal pelvic conditions are not clearly understood, and think that a careful study of this condition will be of service to us all.

*The Source of the Hemorrhage.*—Very erroneous views were originally held with reference to the source of the hemorrhage in this affection. One view was that it was the pent-up menstrual flow, regurgitating through the Fallopian tubes into the peritoneal cavity. Madge, Rouget, Gallard, and
Tyler Smith, believing that the fimbriated extremity of the Fallopian tube grasped the ovary during the menstrual period, thought that the normal or abnormal secretions of the tubes thus escaped into the cavity. We are often compelled to part with pet ideas, and we must now surrender this ancient but "grasping" idea. It was to me, and no doubt to us all, a beautiful thought that the fimbriated extremity, as if endowed with reason, at the proper hour grasped the ovary and hugged that delicate little microscopic egg, for fear that the poor woman—like all her sex, crazy to become pregnant—should fail to receive the egg, meanwhile impregnated, into her uterus, there to nestle for its nine months' development.

Truth, as taught by the latest investigations, compels us to say that this idea was beautiful in imagination only; it has no existence elsewhere, and that poor little egg, like a Wandering Jew, has often been known to frantically rush across the pelvic cavity and try for exit at both Fallopian tubes, that there should be no possibility of an opportunity for impregnation being lost.

I am fully convinced that these little eggs have, in the long lapse of years and cultivation, become too highly differentiated and know too much; that they are woman's greatest enemy, relentlessly pursuing her month after month, and causing most of the unhappiness of the sex. "And the villains still pursue her."

To resume, as to the source of hemorrhage: A glance at one of the plates of Hart's new work on the anatomy of the female pelvis would cause one to wonder that hematocele is not the most frequent abnormal condition of the pelvis. The circulation is so wonderfully profuse, the liability of the veins to varicosity seemingly so easily produced that rupture would seem to be remarkably easy.

"This rupture may occur:

"1st. From the mass of vessels known as the bulb of the ovary, and then it would pass into the cavity of the peritoneum."
“2d. From the pampiniform plexus and network of vessels under the tubes and between the folds of the broad ligaments: the blood would be extravasated into the cellular tissue, or, by rupture through the broad ligaments, pass into the peritoneal cavity.

“3d. From the vaginal junction, at the bottom of Douglas’ cul de sac, or at some point in front of the uterus, but beneath the peritoneum, so that the blood would pass into the connective tissue of the pelvis.”

From whatever source the blood may arise, it remains fluid for a time, then becomes like jelly, and at last feels like a hard, fibrinous tumor. This tumor may be entirely absorbed, may rupture through the vagina, rectum, or the peritoneum, or may break down into a pelvic abscess.

Causes.—Congestion of the pelvic viscera, due to normal ovarian activity between the ages of 12 to 15, and 45, or to a normal menstrual period, or to chronic ovarian or uterine disease, may be the predisposing cause; while the exciting cause may be the sudden checking of the menstrual flow during normal congestion, excessive intercourse causing an artificial congestion, or a varicose condition of the blood-vessels of the pelvis. This latter condition, varicosity, necessarily brings about a change in the coats of the blood-vessels, lessening their powers of resistance and allowing the accident to happen.

Rupture of the Fallopian tube in tubal pregnancy, and of the sac of an extra-uterine pregnancy, or of the uterus itself during labor, are all accompanied by serious hemorrhage into the peritoneal cavity.

And, en passant, I wish to say that obstetrical literature shows that extra-uterine pregnancy is receiving an unusually large amount of attention at present. It is believed to be far more frequent than was formerly thought, and that it is the real cause of the death of many women who die of some obscure and undiagnosticated pelvic trouble. It behooves us to
view with great anxiety any tumor of recent growth to the right or left of the uterus, and if there be reason from all the symptoms to believe it is an extra-uterine pregnancy, to use electricity to cause the death of the fetus and prevent the accident under discussion—hematocele, and perhaps death.

Leaving out of the question for the moment uterine and tubal rupture, pelvic congestion is the leading factor in all cases arising from other causes, and hence we find the greatest number of cases in women about 30 to 35 years of age, when ovarian activity is at its height; and we also see it most frequently in women who have borne children rapidly, and that it occurs during pregnancy, or at the time of a miscarriage or childbirth.

**Varieties.**—There are two forms—the subperitoneal and the peritoneal. The latter is both more frequent and much more dangerous. Out of forty-one autopsies, Tuckwell found thirty-eight peritoneal cases. The position of the effused blood varies very greatly in the different cases. It is most likely to be found in Douglas' cul de sac. Emmet represents in one of his figures a retro-uterine and subperitoneal hematocele, the largest he ever saw. It completely closed the rectum, compressed the bladder so closely that catheterisation was impossible, and yet, with Emmet to care for her, the patient recovered.

The hematocele may arise from a rupture of a blood-vessel in the cellular tissue in front of one of the broad ligaments; the effused blood has lifted, in some cases, the peritoneum from the side of the bladder, from between the uterus and bladder, from over the broad ligament, and finally ruptured upward into the peritoneal cavity, through the center of the broad ligament. This would be an ante-uterine hematocele, the blood occupying the space between the uterus and the bladder; of this variety Thomas says that he has seen but one. The case I have had the pleasure of detailing to you was one of this rare variety, as shown by the position of the uterus against
the sacrum, and the position of the tumor anterior to the uterus.

The teaching of nearly all the authorities is, that blood effused into the pelvic peritoneum gravitates toward Douglas' cul de sac. Nelaton said that "the blood naturally gravitated to the bottom of Douglas' cul de sac, the most dependent point." Thomas says, "Blood poured into the peritoneum from rupture of the spleen, would gravitate toward Douglas' cul de sac, because it is the most dependent portion, and coagulating would give all the signs of a bloody tumor of that locality."

Emmet, in his latest edition, says, "Accumulations in the peritoneal cavity gravitate into Douglas' cul de sac." Fritsch, a leading German gynecologist, says, "Of the effused blood, which, following the law of gravity, lies at the deepest point, the fossa of Douglas." But D. Berry Hart, the author of that new and beautiful "Atlas of Female Pelvic Anatomy," which has received the very highest praise at the hands of the reviewers, says that "Blood effused into the pelvic peritoneum, neither coagulated nor enclosed by adhesions, is not palpable to examination through the vagina any more than ascitic fluid is or the intestines are. Fluid blood in the pelvis can only be diagnosed by abdominal incision, or post mortem. Free blood in the cavity does not cause the pouch of Douglas to bulge downward. It will be pressed out of the pouch of Douglas as the bladder distends, and return into it when the bladder empties. It is often said that the effused blood naturally gravitates into the pouch of Douglas. It does not do so. It lies in the pouch of Douglas only because it has been effused near it, and it causes the pouch of Douglas to bulge down only when it is effused below adhesions, which limit its spreading up. Blood has a specific gravity of 1055, and remains where it has been effused. Yet effused blood is often spoken of as if it were lead, sinking down whenever it got out of the blood vessels."
So Hart continues to say, “When blood is poured out near the pouch of Douglas, and below adhesions, we find, on vaginal examination, a convex bulging tumor, filling a large part of the pelvic cavity, the os uteri behind the symphysis, and the fundus uteri easily felt behind the symphysis on bimanual examination.”

It seems to me this position is well taken, and that Hart will compel us, whether we will or no, to abandon the gravitation of effused blood into Douglas’ cul de sac, as well as that of the fimbriated extremity of the Fallopian tube grasping the ovary.

Hart is no more of an innovator in this than Emmet is with reference to cellulitis; others writers lay down with great care the distinction between para metritis and peri metritis, and how to distinguish either from peritonitis, while Emmet says, “These terms, peri metritis and para metritis, are not applicable, as they express a theoretical distinction only, and the difference can not be recognized clinically; at least I must acknowledge my inability to make any distinction at the bedside. We can not have extensive pelvic cellulitis without pelvic peritonitis.”

Symptoms.—We now come to the symptoms of hematocele. These will vary from slight ones, when a very small vessel ruptures, or a very small quantity is poured out, up to immediate collapse, and almost instant death, from the bursting of the sac of an extra-uterine pregnancy, with its terrible hemorrhage. In few cases are there any premonitory symptoms; if there be any, they will consist of a dull fixed pain near the ovaries, with pelvic discomfort and menstrual derangements, especially prolongation of flow, if the hematocele occur as it often does during menstruation.

The case of average severity will show, as my own case did, pain in the pelvis, sudden and exeruciating, pallor, faintness or syncope, coldness, great exhaustion, excessive tenderness of the vaginal vault, a pulse rapid, weak, or im-
perceptible, interference with the bladder or rectum, or both, from pressure, uterine tenesmus with feeling of a heavy weight in the pelvis, but, above all, as especially diagnostic in a case of this character, low temperature. I will quote a few lines from two or three of Emmet's vivid descriptions of cases as examples: "She was bloodless, her features pinched, her eyes bloodshot and starting from their sockets; she would at one moment utter the most piercing shriek, and then bear down as if she would drive the contents of her body from her. Examination showed a hematocele of such magnitude as I had never seen." Another, less vivid but none the less valuable, description says: "Feb. 18th. She called my attention to an abdominal enlargement; vaginal examination showed a large mass extending above the crest of the ilium, filling the posterior cul de sac; there was no tenesmus or irritation of the bladder; her temperature was 101°, and the patient unwilling to remain in bed. The effusion was as great in quantity as I ever saw, and yet so gradual and imperceptible as to attract no attention." And still another: "Mrs. T. consulted me as to a constant flow since a miscarriage; she seemed very sick. I treated her seventeen days, but she was unreasonable, ungovernable, would not use hot injections, and on the seventeenth day, after treatment, flounced down violently on the bed; that evening she was depressed, her temperature 98.5°, her pulse 106, and she was sinking, and yet had little pain; at 8 p.m. Dr. Thomas saw her with me, when we found a large tumor on the right side of the abdomen, formed since 5 p.m.; at midnight she suddenly gave a most piercing scream and, starting out of bed wild with suffering, exclaimed that her insides were being torn in pieces. In ten minutes the stamp of death was on her features, and yet for six hours she lived, not quiet a single second."

The pain in a typical case is sudden, most exeruciating, and gives to the patient the sensation of the pelvic tissues being torn apart. Death, of course, may soon follow in severe
cases; in others, however, there will be a subsidence of the symptoms with very gradual rise of temperature, abdominal tenderness, and pronounced symptoms of cellulitis with peritonitis.

Hematocele could be mistaken for retroversion, extraterine pregnancy, or any of the pelvic tumors if one was very careless or ignorant, because neither of these conditions present symptoms at all similar to hematocele; but very many good observers have had no little difficulty in differentiating hematocele and pelvic cellulitis. The typical cases do not resemble each other very closely, but those that vary from the usual type may resemble each other. The onset of hematocele is sudden, accompanied by faintness, syncope, or even collapse. Physical examination will show tenderness of the vagina, and a tumor if the blood be not still in a fluid state. An educated finger will readily detect the difference between the plaster of Paris feeling of the roof of the vagina in cellulitis, and the less dense and often knobbed feel of the hematocele. The usual forward dislocation of the uterus in hematocele shows a pre-existing mobility of the uterus not at all the case in cellulitis. But the characteristic condition that will positively decide the diagnosis is the temperature; there never is elevation of temperature in hematocele. When the blood is poured out slowly and without much shock, there may not be subnormal, but there will not be elevated temperature. Usually there is a sufficient degree of shock or collapse to cause a temperature of 96° or 98°. In cellulitis, on the other hand, there is always, from the beginning, increase of temperature.

Course, Duration, and Termination.—Several cases are on record of immediate death from the first hemorrhage; this termination at the outset is rare. If the effused mass of blood breaks down, we then have a cellulitis with peritonitis and discharge of the pus through the rectum, vagina, or into the peritoneal cavity with subsequent rigors, pyæmia, exhaus-
tion, and death. The usual termination is absorption, which may require months for its accomplishment. The prognosis of any given case would, of course, be in accordance with the amount of blood lost and the shock experienced by the patient.

**Treatment.**—"Noli me tangere" must be written as the first guide in the treatment of this affection. There are cases where the terrible amount of the effusion, the pressure of the uterus and bladder against the symphysis, and the fearful exhaustion demand immediate puncture of the tumor for relief, but the rule is that the use of the knife is criminal. Nature will usually remove the effused mass by absorption. Practical experience has long since shown that the seeming benefit to be derived from the removal of a mass of blood acting as a foreign body, was more fanciful than real, and that late evacuation, even after cellulitis has taken place, is less dangerous than the early. Opiates, preferably by hypodermatic injection, for the relief of the pain, stimulants by the mouth, or hypodermatically in extreme cases of collapse, are indicated. The use of ice locally or of ergot otherwise than hypodermatically, are not advisable. The use of very copious and very hot vaginal injections is especially to be commended. In cases that are seen early, even while bleeding is still going on, the use of the hot water would have a very strong tendency to diminish the calibre of the bleeding vessels and assist in the formation of a clot and arrest the hemorrhage. In cases where coagulation has taken place, nothing will sooner or better induce absorption than the hot water. Attention should also, of course, be paid to the general health of the patient, and nutrition kept up to the highest point.
TWO CASES OF PUEPERAL CONVULSION.

BY E. SMITH, M.D., BURCHARD.

Mr. President and Gentlemen of the Nebraska Medical Society:

I beg leave to bring the subject of puerperal convulsions before you, by presenting the two following cases, with a few remarks:

Case 1. Mrs. J. primipara, aet. 22, American, about five months pregnant, has had headache and been dizzy for about two weeks, for which her physician had given her a cathartic and sul. of cinchonidia, supposing the trouble to be of malarial origin. Was taken in the night of April 1st, 1883, with convulsions. The family physician, who lived near, was called in, and then I was sent for, a distance of twelve miles. When I reached the place she had had three convulsions, and had another a few minutes after I entered the room. They were severe epileptiform, and left her in a stupefied condition. She had been given a little chloroform by inhalation. She was now put more fully under its influence. By using a catheter I obtained a little urine, which when tested with heat and nitric acid became solid.

To control the nervous system we gave bromide of potassa and chloral hydrate aa 20 grs., repeated the dose in one hour, kept under influence of chloroform until the bromide and chloral could take effect, gave fifteen drops of fl. ext. of jaborandi every two hours; also gave two tablespoonfuls of sul. of magnesia.

April 3. Has had no more convulsions. Does not recognize anyone yet; urine three-fourths albumen. The doctor had stopped the jaborandi in the night because it acted upon the salivary glands, and did not produce perspiration.
We now gave tr. of guaiac and wine of colchicum as ten drops every three hours; also fluid extract of jalap as was required to keep the bowels loose, and directed that the patient lie on her side, so there would be no pressure upon the renal veins.

April 4. Patient is rational, says she feels very comfortable; about one-tenth of urine albumen; advised to continue the same treatment.

April 9. Was again called on account of an increase of albumen in the urine, and headache. The bowels had been allowed to become slightly constipated. The headache was relieved by a light cathartic. Gave fifteen drops of fluid ext. of jaborandi every six hours, and continued the guaiac and colchicum.

Patient improved from this time, and was soon able to be up; she felt quite well until the 5th of May, when labor pains came on and she was delivered of a dead child.

She has since given birth to a living child, at full time, without any untoward symptoms during gestation.

Case II. Mrs. D., aet. 28, Hollander, eight months pregnant, with fifth child, was taken in the night with a severe convulsion; temperature and urine normal; tongue covered with a yellowish coat; could not be roused so she would answer questions, but I learned from the husband that she had been troubled with constipation and headache for several days. Gave twenty grs. of pot. bromide, repeated the dose in one hour, after which she was given ten grs. every three hours; also, gave two co. cathartic pills every two hours until they operated; after which she was given four grs. of sul. of cinchonidia every three hours. Patient remained in a stupefied condition for about twenty-four hours, but had no more convulsions. She was soon as well as usual, and in due time gave birth to a living child.

In case 1st the fearful ordeal through which the patient passed could undoubtedly have been averted if the patient
had been put upon the proper treatment at first, and the urine would certainly have indicated the trouble if it had been tested, as it always should be in such cases. In the other case the cause was thought to be morbid matter in the intestines.

In puerperal convulsions we not only have a disease that requires prompt and skillful treatment, but one in the treatment of which there is less discrimination, perhaps, than any other with which we have to do. How frequently is it treated as if it could have but one cause?

How many physicians of experience and skill, who, in other diseases carefully weigh everything that can have any relation to the disease, that in this have but one treatment, without any regard to the cause of the convulsions? For an answer to these questions I will refer you not only to the minutes of this society, but also to the current medical journals.

One treated a case with morphine, another gave quinine, and another bled his case once, sometimes twice or three times, and, perhaps, the life blood of an already anemic patient is forced to flow from the opened vein until death ends the struggle. But how few that report cases say anything about the cause of the convulsions, whether it be congestion of the nervous centers, uterine or intestinal irritation, or uraemic poison.

I find the report of but one case where the cause of the convulsions is mentioned, in that case it was supposed to be uremia. Treatment—Bleeding; result, patient recovered. But was it on account of the treatment, or in spite of it? Are we ever justified in bleeding for uraemic convulsions? And if we lock up the excretions by giving morphine, are we not throwing water on the flame that already burns too low?

We should try to discover the cause of the convulsions before resorting to treatment that may hasten a fatal termination. We can use chloroform or sul. ether, as our anchor until
we can determine what course we should pursue, and until remedies slower in action can take effect. Their action will be for the better, whatever the cause of the convulsions; if congestion of the nervous centers they will reduce it, if uræmic, to eliminate, if from irritation, to relieve until the cause can be removed.
SECTION
ON ANATOMY AND PHYSIOLOGY.

PHYSIOLOGICAL EVOLUTION.
J. S. LEONHARDT, M.D., SEWARD.
PHYSIOLOGICAL EVOLUTION.

BY J. S. LEONHARDT, M.D., SEWARD.

The province of physiology is the study and explanation of life. Evolution teaches, that progress from the simple to the complex is continuous, whether as applied to the organic and psychical, or to any other thing or condition; that this progressive change is governed by natural law.

A brief resume of the history of physiology might not be unprofitable. All who have labored in the field of life, have attempted an explanation of that peculiar quality—life. The ancients adhere to the animistic philosophy—a soul, all-pervading, originating, influencing, and ending all things. The body, it was claimed, is inert, that it assumes activity and purpose only, when animated by this universal soul. They compared the human microcosm to the macrocosm of the universe; the lesser subject to the greater. From this belief arose astrology, horology, etc. To this philosophy, which to this day may be found among the people of any nation yet in its childhood, the names of Plato, Hippocrates, and Aristotle were subscribed.

It is not until the sixteenth century that any dissension from that old faith is found recorded. At this time Paracelsus pretended to explain life by chemical and cabalistic arts, still attributing to sidereal spirits and the planets a direct action upon the body. The sun, according to this man, influenced the heart, and the moon played havoc on men's brains (lunacy). This holds good even now among people who should long ago have "put away childish things;" but they sow and plant, mow their lawns, and prune their trees according to the ancients via Paracelsus. Then came Van Helmont, a man of great originality and power of thought; a man who
sought to confirm all his theories, except those concerning physiology, by actual experiment. He taught, that while life is due to the soul, that soul was within every individual body. He called it *Archeus*, the primeval plastic power of the material world. He located it at the pit of the stomach, *because* when one heard bad news his appetite failed him; that when the body was in want of material, it was first felt in that locality. And from this throne old *Archeus* presided over the life and health of its unfortunate possessor, in the most capricious manner; upon his perfect composure all depended; anger, fright, or melancholy upon his part always visited disease upon the body.

The reason (?) *Archeus* was not in the brain was because that organ was bloodless! (What a harvest that country would have yielded some enterprising American pad manufacturer!) We recognize in the Van Helmont theory one happy guess, viz., that by the aid of a chemical ferment, *Archeus* could organize matter directly without the intervention of an ovum.

Des Cartes ended the *Archei* school of Van Helmont, by establishing the chemical and mechanical school of physiology. The Cartesian philosophy amounted to a positive revolution. The waters of the philosophical void were troubled by this gigantic thinker, and again, as of old, “there was light.”

He considered nutrition to be the result of a series of acids, alkalies, ferments, and effervescences, the products of which were round, cubic, or pyramidal molecules, of which the body was entirely composed. Unfortunately he taught that the applying of these molecules to tissue construction was controlled from the pineal gland. In this particular we now see his error, but the whole scientific world recognizes in the “positivism” of Des Cartes, a devout champion of natural law, one who preferred to believe rather nothing than that susceptible to no sort of proof. His “*cognito ergo sum,*” like
an edict, will go down the tide of years alongside his mathematical nuncios.

The physiology of Sylvinus, of Leyden, is so peculiar that to mention a few of its tenets is not a digression. He says: “The cardiac circulation is caused by an effervescence due to the melting of an oily, volatile salt of the bile, with a saccharine acid of the lymph, which results also in animal heat.” “The vital spirits are prepared in the brain by distillation, and their properties are similar to those of alcohol.” This Don Quixotic physiology, which taught that all diseases were the result of an excess or diminution of this or that element, must have legitimized a somewhat unpleasant practice of medicine. And yet great men believed and taught as much, if not worse. Thomas Willis, eminent in cerebral anatomy, taught that “the chyle effervesced in the heart, under the influence of salt and sulphur, which, taking fire, together produced the vital flame.” (A blast from Hades to science and sense alike!) And to this belief, if Haller is to be believed, the great Newton was converted. (Yet deans and chancellors of colleges and universities even now believe in Homeopathy, an absurdity not greater.) About this time physical theories of life became epidemic in England, until many accurate and beautiful experiments made materialism a fastness in that country. On the continent, Boerhaave now founded his mechanical physiology. It was immensely favored by the unsettled political and religious condition of England, and the eminent discoveries of William Harvey and Galileo Galilei, for all of which the Cartesian philosophy had prepared and fortified the people. The physiology was just a little crude, but infinitely better than what had preceded. Food in the stomach was triturated and ground until it became fine enough to enter the mouths of the absorbents; the circulation was a complete hydraulic machine, and the heart a perfect sucking and forcing pump; the weight, velocity, etc., of the blood was all nicely calculated; the force of the cardiac
systole estimated at ninety tons. Animal heat was the result of friction of the blood corpuscles against each other and along the walls of the vessels. Electricity was recognized as the active agent of the vital functions, and so on ad modum. Much of this belief remains at this time, especially among the older ones in the profession. Many know that the old Boerhaaveian school is a thing of the past, having been displaced by ideas less erroneous and more scientific; yet, notwithstanding all its errors, it embodied the principles of the means whereby modern physiology has become so simple, correct, and attractive. It may be asked, what better have we now than this, and which is the correct view? A review of the various ideas respecting life, as defined by those best fitted by long research in this field to judge, may help us to decide upon the validity of these claims.

"Life is the two-fold internal movement of composition and decomposition, at once general and continuous."—De Blainville.

"Life is a collection of phenomena which succeed each other during a limited time in an organized body."—Richerand.

"Life is organization in action."—Beclard.

"Life is the special activity of organized bodies."—Duges.

"Life is the constant uniformity of phenomena with diversity of external influences."—Treviranus.

"Life is the sum total of the functions which resist death."—Bichat.

"Life is a series of definite and successive changes, both of structure and composition, which take place in an individual without destroying its individuality."—G. H. Lewes.

"Life is the definite combination of heterogeneous changes, both simultaneous and successive, in correspondence with external co-existences and sequences."—Herbert Spencer.

"Life is the expression of the definite co-working of physical and chemical forces."—Rudolf Virchow.
"Life depends on the complicated relations under which the physical powers act as an organism." — R. H. Lotze, of Göttingen.

(The italics are mine.)

In this manner one might quote endlessly; all the definitions incorporating much of the function of life, but little of its nature.

Let us then examine this subject personally, and as fairly as our impotence will permit. It may seem like going beyond the bounds of modesty to venture on this disputed territory. I believe there is no immediate danger of any intellectual light in the philosophical firmament being eclipsed by any humble seeker—that in the fair domain of truth there is room and safety for all.

It is known that the cosmic forces are all but different modes of motion, which become namable only when subjected to a known impact; further, that even after a force has been liberated and recognized, it, still being motion, may be transmitted into another, again and again, by a change of conditions. This persistence of force is called conservation of energy, and is demonstrable as the two terms of a chemical reaction, or any mathematical theorem. It is proven that all these cosmic forces may result from living bodies. It is also known that without light, heat, etc., life of any quality or quantity could not exist. Therefore it must be, or ought to be, settled that the natural forces affect alike inorganic and organic substances. Admitting all this, there were many who still reserved for the explanation of the phenomenon of life, a specially favored term, i. e., "life" or "vital force," as being a manifestation of something entirely outside the natural order of things and their attributes; knowing full well that this "vital force" could at times be transmitted during life, and at death was always so, and that the natural forces were also convertible into "vitality." Now it is evident that so long as a supernatural explanation is considered applicable to
natural results, no advance in the direction from effect to cause can be made, and to this the phenomenon of life constitutes no real exception.

An eminent English physiologist, one who, perhaps, has done more than many other prominent thinkers, to narrow the chasm supposed to exist between physics and metaphysics, says of this "vital force": "We shall suppose a young physiologist, entirely ignorant of physical science, but educated in implicit faith in the vital principle, witnessing for the first time the action of the steam engine. He would observe a machine of various parts, would try various experiments, would perceive that the actions are as unlike as the parts, and all tend to one result. Hence he may safely conclude that the whole series of phenomena is due to one presiding agency—a steam-engine principle—by the operation of which upon the material structure its actions are produced, and made to harmonize with each other and with their ultimate object."—Wm. B. Carpenter, Prin. of Human Physiology.

It is equal to, if not so coarse as, the explanation of the operation of the "meat-jack"—it has an inherent "meat-roasting" quality!

Much has been written concerning the simple cell in which life is first recognized; the materialists, many of them at least, holding their peace when the subject was approached by the supernaturalists—who never failed to explain (?) anything—when they claimed that, whether life first appeared in man or in a primitive cell, it still was a creative act. Since no chain is stronger than its weakest link, let us consider this protoplasmic cell in the light afforded by modern "revelation." Geology teaches, and we believe it, that there was a time in the unwritten history of this planet, when life did not exist, because the conditions necessary were either absent or too unfavorable. Biology teaches, that preceding the existence of plant protoplasm must have been its elementary constituents, carbon, oxygen, hydrogen, and nitrogen. Chemistry teaches,
that because these elements have an affinity, one for the other, they probably existed in the combinations, carbonic acid gas, water, and ammonia. These three hold the same relation to the protoplasm of the plant as that of the plant does to the protoplasm of the animal.

Carbon, oxygen, hydrogen, and nitrogen are all lifeless bodies; they unite in known proportions and conditions to form carbonic acid gas, water, and ammonia, which, as such, are also without life. If nothing further were known of the possibilities of the chemical laboratory than to form salts and other inorganic products, my premises would now end without a deduction; but organic bodies are now made daily, and a singularly powerful chemistry is now known to exist in gaseous and other elements when in a nascent state. At that time, when the earth was cooling, there must have existed a vast natural chemical work-shop, where carbonic acid gas, water, and ammonia could not be held apart, because of a chemically impelled union into a body still more complex, that of protoplasm, which exhibited the phenomenon of life. Perhaps it is as well, if not better, to quote from an original and great man, in further elucidation of this thought. Much has been written on this subject since it was first brought under observation and discussion. The words of that archbishop of modern science, Thomas H. Huxley, have a sort of pristine vigor so common in men who, single-handed, alone, faced an unreasonable opposition.

In speaking of the “Physical Basis of Life,” and having “made his point” in regard to spontaneous generation, he said:—“I can see no break in this series of steps of molecular complication, and I am unable to understand why the language which is applicable to any one term of the series may not be used to any of the others. We think fit to call different kinds of matter carbon, oxygen, hydrogen, and nitrogen, and to speak of the various powers and activities of these substances as properties of the matter of which they are com-
posed. When hydrogen and oxygen are mixed in a certain proportion, and an electric spark passed through them, they disappear, and a quantity of water equal in weight to the sum of their weights, appears in their place. There is not the slightest parity between the active and passive powers of the water and those of the oxygen and hydrogen, which have given rise to it. At 32° Fahr., and far below that temperature, oxygen and hydrogen are elastic, gaseous bodies, whose particles tend to rush away from one another with great force. Water, at the same temperature, is a strong, though brittle, solid, whose particles tend to cohere into definite geometrical shapes, and sometimes build up frosty imitations of the most complex forms of vegetable foliage. Nevertheless, we call all this and many other strange phenomena, the properties of the water, and we do not hesitate to believe that, in some way or other, they must result from the properties of the component elements of the water. We do not assume that a something called 'aquosity' entered into and took possession of the oxide of hydrogen as soon as it was formed, and then guided the aqueous particles into the facets of the crystals or among the leaflets of the hoar frost. On the contrary, we live in the hope and in the faith that, by the advance of molecular physics, we shall by and by be able to see our way as clearly from the constituents of water to the properties of water, as we are now able to deduce the operations of a watch from the form of its parts and the manner in which they are put together. Is the case any changed when carbonic acid, water, and ammonia disappear, and in their place an equivalent weight of the matter of life makes its appearance? What justification is there, then, for the assumption of the existence in the living matter of a something which has no representation or correlative in the not living matter which gave rise to it? What better philosophical status has vitality than aquosity? If scientific language is to possess a uniform and definite meaning wherever it is employed, it seems to me that we are logically
bound to apply to protoplasm the same conceptions as those which are held to be legitimate elsewhere. If the phenomena exhibited by water are its properties, so are those presented by protoplasm, living or dead, its properties. If the properties of water may be properly said to result from the nature and disposition of its component molecules, I can find no intelligible ground for refusing to say that the properties of protoplasm result from the nature and disposition of its molecules."

The Gordian knot was cut; the dark boundary separating fact from speculation suddenly illuminated.

Seventeen years have passed since those words were spoken, and the theory of a physical basis of life accepted by many and admitted by more. Physiology had hitherto been a misnomer. In name, it professed adherence to natural laws; in fact, it had been teaching supernaturalism. To-day it has a fixed meaning—its fundamental idea, life, having been established among the things that are natural, as much so as any other scientific deduction. Beyond its probability no one can go, though the possibility be as apparent as the mathematical basis of astronomy or chemistry.

Not many years ago, amidst a religious tumult that was felt throughout the whole world, the doctrines of "The Conservation of Energy" and "Evolution" were given to the waiting world. At this time, the long and bitter controversy whether man really had anything in common with surrounding nature, was settled practically in the affirmative. By whom? Look about you! See those who serve as beacon lights on the confines of the ocean of human thought, either in life, or speaking from the written page in the undying glory of their ended labors. By whom? By Bell, Bernard, Brown-Sequard, Liebig, Magendie, Marshall Hall, Matteucci, Paget, Roget, Simon; by Dalton, Flint, Draper, Huxley, Spencer, Carpenter, Fichte, Marsh, Virchow, etc., etc., etc. Mightier than the mightiest priest or potentate, these. I say their great suf-
ficiency is not the temporary result of credulity, but the enduring fruit of facts, facts. And we point with pride to these names which an appreciating posterity has inscribed in the highest niche of the loftiest pinnacle of the temple of fame.

No convulsion of nature or of social institutions will ever be terrible enough to sever our faith in the "Physical Basis of Life," "Conservation of Energy," "Survival of the Fittest," and a "Natural Conscience." Will we—members and exponents of a learned profession, who in our generation have witnessed these gigantic strides in science—receive it?

I cannot close this imperfect attempt without referring, at some length and greater risk, to another thought as yet very imperfectly developed because so silently and timidly expressed. I allude to the grand ultimatum of evolution—the absolute perfection of human life.

To exclaim, "Absurd!" is but to echo what has been heard respecting every new thought, science, or revolution since such began. The manner in which human life at this time meets the requirements of surrounding conditions is by no means to be considered as being the only way in which they may be met. Had steam and electricity never been known, rapid transit—marine and overland—conveyance of language—written and spoken—to great distances with incredible swiftness—all this and much more would be as unheard of, and the wild speculator in theories concerning their possibility jeered, as in the middle ages! Surely, every one knows that what was then deemed inscrutable, impossible, has now become the visible and the possible. That the human life, as well as that of the lower orders, is susceptible of improvement, is no longer the exclusive belief of evolutionists, but is known to all who confide in impartial testimony.

In 1603, A.D., accurate mortality bills were compiled in England concerning, and induced by, the great plague of that year. This was continued till 1693, when the government
hit upon the scheme of borrowing money by selling annuities on lives from infancy up, based on the average longevity of the people as shown by their bills of mortality. The plan worked satisfactorily to both borrower and lender. In 1790 the English government was variously and sorely tried, the greatest of all, perhaps, affecting the national finance. In order to carry on the several "Soudanoid" exploits, in which that country was then engaged, money was necessary. The annuity plan of 1693 was again put in operation under a "Tontine system," as advised by Sig. L. Tonti, a confidant of Mr. Pitt's, into which Mr. Wm. Pitt, then prime minister, fell. It proved to be the most calamitous financial experiment in the history of England. Why? In 1693, as shown by the mortality tables, the average length of life in England was fifty-six years and six months. In 1790 this had increased to over sixty-three years. In less than one century longevity in England had increased twenty years!

The average duration of life in old Rome was but thirty years. In the reign of Elizabeth it had reached about forty-two years; at the present time it has risen to over sixty-five years, by a similar calculation.

"A writer in England in 1710 estimates the weight of cattle at 370 pounds, and of sheep at 28 pounds. Another writer in 1846 says that the average weight of that date is of cattle 800 pounds, of sheep 80 pounds." To-day the weight of cattle and sheep, as based upon Chicago shipments, is about 1,150 and 100 pounds respectively. It may seem to some that this simple prolongation of life until infinity is attained is absurd, but certainly not in the realm of physiology as a study or an explanation. In answer to the claim of inconsistency, I have only to point to what has already been accomplished as fact beyond the influence of controversy. In answer to the assertion that psychology deals with the intangible human, and not physiology, I have only to quote from one eminent authority to show a vague intuition among psychol-
ogists, that our beloved science may one day utterly supplant with facts all the fine fancies of psychology: "But, although physiology must recognize the higher functions and phenomena of the soul, it need only consider those which are familiarly known. For its purposes, the knowledge, the classification, and the terminology of common life are quite sufficient, as when it explains the structure of the eye, the ear, and the hand, by their relation to human vision and hearing to the tactile or mechanical skill."—N. Porter, The Human Intellect.

Here many take issue with that eminent thinker, who claims that a spiritual agency presides over many of the organic functions, and that to fill the "metaphysical gap," psychology is made use of. He says further: "The principal and almost exclusive sphere of physiology is the bodily structure and functions as phenomena that can be observed and explained with reference to the animal economy or the laws and conditions of bodily development and life."

The phenomena referred to are the manifestations of thought, reason, judgment, etc. I believe that but few at this time remain who have any sort of faith in the supernatural origin of these cerebral functions. In this direction, and to this degree, physiology has then displaced psychology.

One other argument remains to be considered, that all nature shows with what premeditated fitness the life of the world is protected supernaturally. The older teachers termed this condition of affairs the "economy of nature" divinely instituted and continued. True, the many nice adaptations in all the departments of vegetable and animal life is wonderful. But we see in it only a result which has been accomplished, after ages of life struggle, often at a cost of whole species, and we term it the survival of the fittest. They cite, as an instance, the strong elastic protection which the skull affords the brain. We say, that when cephalization began, this great ganglionic center, from its exposed position and in-
timate relation to the life and welfare of its possessor, had been assailed by violence in this early time until those with the best cerebral protection were the sole survivors; this natural advantage assuming greater perfection through each successive generation. It is said, and truly, that such animals who are compelled to fight or live in special danger, are furnished with armors for defense as well as with weapons of attack; if the protection armor is absent great fleetness or dexterity supply its place. We believe, as regards the above, substantially this, that those animals who withstood an attack were also capable of offering a resistance often successful, which developed in time a condition of sufficient fitness to defend, and perhaps, attack; that those who wanted both weapons and fleetness, gradually developed at their most exposed parts a protection armor, but at an immense cost of numbers; that those who lacked all these did, what man would do to-day, cultivate fleetness!

If this were not true, why not expect to find the same unconditional valor in the fawn as in the peccary; the destructive boldness of the lion also in the giraffe. The most of us have heard the stork and fish story, and have adapted the boy's conclusion.

The lesson of England's mortality tables, and what may be inferred from the preservation of inferior life around us has caused even from Darwin this gleam of light: "Man may be excused for feeling some pride at having risen, though not through his own exertions, to the very summit of the organic scale; and the fact of his having thus risen instead of having been aboriginally placed there, may give him hopes for a still higher destiny in the distant future."—Charles Darwin, The Descent of Man.

This suggestion, which recognizes continual progress, and therefore ultimate infinite existence, is found elsewhere than in the writings of this style of thinkers. We long ago have read such in books whose main office it is to lead men in a more
perfect way of living here as the only means whereby an end­
less and perfect life may be attained in the Beyond. Surely
we know nothing of that mysterious hereafter from which—

"No beckoning hand is stirr'd,
No answering voice is heard."

And although it should exist, what then? It is but logical to
believe that, if death should follow this life, it should for the
same reason, follow the life in futuro. It is inconsistent to
believe that beings here, possessed of limited power and hap­
piness, should in an instant attain to infinite power and hap­
piness there. It is a caricature on evolution which progresses
slowly and in accordance with natural law. That greater
power and greater happiness are really obtainable by finite
beings, individually and collectively, no one will deny. And
it is this self-same struggle for more and fuller life that
prompts an instinct of immortality in proportion to the desire
for, and the present measure of, life in every human bosom.
Not only do we find it here, but beginning at the very bottom
of animate existence, we find that which protects the life of
the individual and insures the continuation of its species—a
sort of obscure suggestion of an innate desire of life to live.
The external armor of plants, the poisonous exudations of
many plants, the outer membrane of a simple cell, the elec­
tricity of the torpedo, the odor of the skunk, the teeth and
claws of the carnivora, the hoofs of the ungulata, etc. Says
Smellie, in his Natural History: "Thus the mole apprehend­
ing the descent of the hawk shrinks from destruction, and the
flying fish takes refuge in the air from the maw of the shark.
The cunning of the fox is proverbial, and it is in the preser­
vation of his own life that this apparent deliberation and
manifest strategy is shown in the highest degree. Driven to
his hole by the dogs to find a more dreaded enemy there, a
man with a gun, he frequently evades the shot of the sports­
man by dashing through thickets, and by covering his retreat
with trees and fallen timber, making an extensive circuit, he
warily approaches the vicinity of his home again; should he find his human enemy still there, he leaves his habitation forever behind him, and eluding the hounds by doubling and leaping chasms, and by the most rapid transit of the open country, he endeavors to seek safety and a new abode in some remote section."—Kirk.

This innate faculty of struggling to continual personal existence is shown by most animals and many insects. (See Descent of Man.) "More life!" is the battle cry of all that has its little measure of life. Death everywhere and at all times is the great antagonist of life, and nothing is more unnatural than the idea of death as applied to one's self.

"A simple child
That lightly draws its breath
And feels its life in every limb,
What should it know of death?"

I will not quote from any of the many who have written of death as being the "crown of life," "friendly stroke," "superlatively grand and consoling idea," it would be frivolous.

"Sure there is none but fears a future state;
And when the most obdurate swear they do not,
Their trembling hearts belie their boasting tongue."

The greater number, by far, feel as Claudio, when Shakespeare has him to say:

"Aye, but to die, and go we know not where;
To lie in cold obstruction and to rot;
This sensible warm motion to become
A kneaded clod; .......... 'Tis too horrible."

The whole world, teeming with life, is constantly struggling against death; and when we think of MANKIND!—there is something inexpressibly pathetic in their unavailing struggle against the stream of destiny, against death. No; this fragment of life is not enough for man. There is in all men of all countries a feeling of immortality, it is involuntary; it
is constant. All the great men of antiquity, founders of schools of philosophy or religion have felt the wavelets of immortality disturb the broad, deep current of their lives; and whether among the beasts of the wilderness, tented on the desert or alone in some cave, have wrestled with the consciousness that moved them. Indeed, who has not had his Gethsemane! It is not a life beyond the grave of a different kind from this; it is this life minus its objectionable features that everybody feels. I believe this longing to be indicative of a want, and it is but fair to suppose that since every other want has its corresponding satisfaction, so for this there is also the possibility of requital. Just as animals migrate to more congenial climes in order to increase their own well-being, but especially to insure the perpetuation of their kind. And we think to ourselves of the meaning all this may have. It has a meaning, an axiomatic one: "Two constantly diverging lines must ultimately be separated by an infinite distance," as far as life is from death! Will progress cease now? The thought is as repugnant to common sense as it is preposterous! It rather begins now, everything shows a "trend" in the direction of still higher and more perfect manifestations of life than are now known.

This "longing after immortality" is no knowledge of the possibility of attaining it, says one. Yes, it is. The older philosophers taught that knowledge is of two kinds—presentative and representative—that, what is known must either have been observed, or is yet under observation, outside of this nothing but a belief can exist. Now, an "intuitive certainty is recognized as a form or kind of knowledge."

"It may, perhaps, be objected that the anticipation of something future can not be knowledge at all in the sense in which the perception of something present, or the recollection of something past, is knowledge. But this objection, when examined closely, appears to be frivolous. Because the future fact has not yet come into the sphere of actual existence, it is
none the less the object of a perfect assurance."—James Sully, Illusions. In this conclusion the views of Alexander Bain, J. S. Mill, and others, agree. As only one example which may suffice, "space" might be mentioned; it exists, and yet what is known of it can never be called anything but an idea of the same. This subject may be considered from yet another position, perhaps more in conformity with the generally accepted function of physiology—the physical. The orbit, distance, and density of an unknown planet were calculated before the planet itself was visible, entirely by the perturbation observed on Uranus. Might not a hitherto unknown, because not experienced, infinite existence be the cause of these "perturbations" felt within all of us?

We know that matter is indestructible, and that force, which is an attribute of matter, is co-existent with it. This persistence of matter and force is shown us by all phenomena, in fact it is proven in the transmutability, conversion, or conservation of actual energy of every kind.

If the physical origin of life is accepted, and the law of the correlation of forces which control life correctly applied, then decrepitude and death, from causes other than accidental, would result only from our ignorance of these laws and principles, and this universally present desire for life may be looked upon as a manifestation of a latent force. It is a law in mechanics that "a body acted upon by a given force, will move in the direction of that force until the given impulse is exhausted." Another law is: "Reaction is always equal and contrary to action; that is to say, the mutual actions of two bodies on each other are always forces equal in amount and opposite in direction." This last law, acting on the human organism, may be called an inhibitory one, caused by the result of external influences and impressions, and prevents the continued physical increase of the same, all of which is well shown in the healthy adult; here plant protoplasm is converted into animal protoplasm, which is never naturally
consumed in excess of its supply. Just so long then as this impulse can continue, so long should the organism move in the direction of that elaborated force which, in this case, is manifested as life. Defective as man now is, both in knowledge and condition, this beautiful equilibrium becomes disturbed at the age of about fifty years, and the tendency towards progressive molecular dissolution begins. Three hundred years ago this decay began much earlier, as has been already stated.

Lastly we have the evidence of the science of evolution, when the testimony will all be in. It might be objected that the theory of evolution has no weight in the explanation of the subject in question.

The constant relation between a phenomenon and its cause is termed a law, and as such is received and employed; to explain the relation of whole classes of phenomena and cause, hypotheses are framed, and as such are universally employed; the verity of this or that hypothesis being considered established in proportion to its simplicity and the number of varied phenomena it explains. The undulatory theory of light, La Place's theory of the universe, Newton's theory of gravitation, etc., being a few of this class of hypotheses. As to the first requisite, what is more simple than progressive evolution? As to the second, no one theory has been so generally applicable, so explanatory of plant and animal phenomena, to man himself as well as his various institutions, be they social, political, moral, or scientific. This must be so; it is as obvious as that simple rule in arithmetic which says, any sum will exactly contain all its factors—it is self-evident. The testimony of evolution then, becomes that of an expert, and it is this: "Were there no changes in the environments but such as the organism had adopted changes to meet, and were it never to fail in the efficiency with which it met them, there would be eternal existence and universal knowledge!"
Methinks I hear some one exclaiming, "Now gross and brutal materialism has performed its masterpiece!" "Pig-philosophy" has stolen into the "Holy of Holies" and taken away the life of the temple! Alas, what have you not done to shackle this present unfettered thought when it was yet an infant Hercules! And yet, we assure you, no war of extermination is being waged, either against you or the good you have done, but a siege is laid before every citadel held by cringing error, which will not be raised until the last remnant of that hideous deformity shall have been swept from off the fair face of nature and sunken into everlasting forgetfulness. We will continue, therefore, to listen to that "mighty sum forever speaking," in the implicit confidence that this fragmentary existence, known to us, will yet expand till the perfect, the infinite, is attained.
SECTION
ON FORENSIC MEDICINE AND TOXICOLOGY.

SIX CASES OF POISONING, WITH TREATMENT.
J. S. LEONHARDT, SEWARD, NEB.
SIX CASES OF POISONING, WITH TREATMENT.

BY J. S. LEONHARDT, M.D., SEWARD.

During the past six months, more than at any other time in my life, perhaps, have I felt the need of greater and more ready knowledge in toxicology.

It is evident that many of us do not pay the same amount of attention to a lecture or a treatise on toxicology that we do to some subject more exciting or, as may be falsely supposed, more important. You who have not yet forgotten the bliss of a first contact with "Sheepskin," do you really feel at home, or even at ease, in the field of toxicology? Fellows, professionally older and more realistic, how is it with you and I? Veterans in medicine, you who bear deep furrows of care and have attained the spotless tiara of honorable old age, speak to us of experience, and what all can you tell? We know that at such a time not even the well-meaning visiting lists of Miner or Walsh can be utilized!

Poisoning is not so rare as one would infer from the number of cases reported during the fifteen years this society has existed, during which time two reports only have appeared. And I wonder if those two are really all that have occurred. For no one can see a corrosive poison or "deadly distillation" standing side by side with bottles of hive syrup and samples of "cough annihilators" and not wonder that more mistakes do not happen.

If, in the following cases, any suggestion be found which shall induce another reading of the subject of poisons and their antidotes, this report will have answered its intended purpose:

CASE I. One wretchedly cold and stormy night last December, I was wrested from my "warm, warm cot" by Mr.
S., and informed that his daughter, aged about six years, had been given a teaspoonful of what was supposed to be "Blackberry Balsam." He had the bottle with him. It contained, so far as I was able to determine from its smell, taste, and appearance, a liniment composed, in part at least, of spirits of camphor, some of the essential oils, and laudanum, the last being very prominent in the taste. Arriving, I found the patient partially unconscious, pupils contracted and feebly responsive to light, face pallid and wet with sweat, pulse small and frequent, respiration shallow—all symptoms of a lethal dose of some form of opium. The poison had been taken about half an hour. An emetic of sulphate of zinc, and \( \frac{3}{10} \) of a grain of sulphate of atropia, hypodermically, were administered. Flagellation was also employed. A second dose of zinc was forced down, when copious emesis ensued. The odor of the liniment was very perceptible in the discharge. Soon the face began to color and the pupils to dilate; the child began to resist the rough usage. Improvement continued and the atropism did not become excessive. The following day the child was apparently as well as ever.

Case II. Mrs. B., aged about 35 years, by mistake had swallowed the phosphorus taken from the tips of about a dozen lucifer matches. This had been intended for rats, and was mixed in syrup. The husband—who, by the way, is not excessively brilliant—had placed in the rat haunts a mixture of sulphur and syrup which his wife had prepared for herself. She had forgotten to take the sulphur, and thought of it when she had retired. She got up, and, taking what she supposed to be her "blood purifier," swallowed the poison in one gulp! I arrived in about one hour. She was much agitated, complaining, now of a sharp, hot pain in her stomach, now of her husband. There was a sickening taste of "garlic" in her throat, she said; more symptoms I could not gather from out a great number of hysterical exclamations. Sulphate of zinc, thirty grains, was given. So much delay attended its action
that a hypodermic of $\frac{1}{16}$ gr. of apomorphia was injected. Violent vomiting now followed. The "garlic" odor was very pronounced in the vomit, so no doubt existed in my mind as to fact of poisoning. She made a slow recovery; an obstinate gastritis confined her for nearly two weeks. This case is interesting because of the infrequency of poisoning by phosphorus—the first recorded case in this country being in 1841 or 1842, and the first in England in the winter of 1843 (London Lancet).

**Case III.** Master R., aged seven years, was given half teaspoonful of tinct. ofaconite root by mistake—the bottle containing the drug being one of Bosanko's trial bottles. I was present in half an hour. The patient was in his father's lap; face expressive of great anxiety; his breathing was hurried and unsatisfactory; he seemed to feel a constriction in his throat, which he grasped with both hands; the skin was pale, and bathed in a profuse, cold perspiration; hands and feet numb, unable to walk; eye-balls prominent; urine copious. He was perfectly conscious. An emetic of mustard and water had been given him before my arrival, but as yet there had been no response. Ten grains of sulphate of zinc were given, which was repeated at intervals of five minutes, and hot cloths applied to the extremities. He was vomited; filled with water and brandy, and vomited again. This was followed by drop doses of tinct. of digitalis in a teaspoonful of brandy, every ten minutes. This was continued until symptoms of intoxication appeared and the pulse was reduced to 80 and fair volume, when the intervals were progressively lengthened. At the end of four hours I left him, responding to the brandy nicely. The next day, excepting weakness in the extremities, he was in ordinary health.

**Case IV.** Infant, aged two years, son of Mr. B., had swallowed an unknown quantity of carbolic acid. Again the zinc emetic was given. He was thoroughly vomited, even after the odor of the acid was no longer to be detected. This
was followed by grain doses of bi-carbouate of sodium in a teaspoonful of pure olive oil every half hour for about four hours. The day after he seemed none the worse for his exploit, excepting a very slight stomatitis.

CASE V. Mr. W., aged 26 years, had taken 120 grains of commercial or white arsenic. His burden of life had become too heavy, and he sought respite in poison.

Perhaps forty minutes had passed before I saw him. He was then lying on his left side, lips fiery red, mouth and throat hot and dry, great thirst, an intense pain in the stomach, which spread all over him in paroxysms, causing a shudder similar to a mild convulsion. By this time he had repented his rash and unmanly act, and expressed a strong desire to recover!

The hydrated sesqui-oxide of iron was not to be obtained on the spur of the moment. Tablespoonful doses of dialyzed iron were given every five minutes, the sulphate of zinc being given between times. Emesis followed, when the iron reappeared in a gelatinized form, interspersed with shreds of coagulated albumen or mucous membrane. The same was repeated, when the burning in the mouth and fauces gradually lessened, and he expressed himself as feeling better.

Following this somewhat cruel treatment, aqua calcis and a thick broth made of flax-seed was administered every hour, or oftener, should pain in the stomach demand it. The subsequent gastritis was unexpectedly mild. At the end of a week he was able to leave for parts unknown—not, however, till he had requited me in the princely sum of ten dollars!

CASE VI. Three children, members of the same family, aged six, eight, and twelve years.

This peculiar experience may not properly belong to the foregoing group of cases.

After consulting many materia medicas, chemistries, medical journals, as well as works on legal medicine, nothing was found pertaining to the physiological action of the nutmeg. A few exceptions might be mentioned, the which concur in this,
that the nutmeg in considerable doses is narcotic, and in over
doses, produces stupefaction and delirium. The antidote to,
or treatment of, a fatal dose—if such a thing is possible—of
these, is not given.

I was called about five o'clock one Sunday afternoon, in
haste, to see these three children, who, a few hours before,
were in perfect health, but now were acting very strangely,
no cause for which being assignable. The boy, aged six
years, had been found in the garden, apparently sound asleep,
but could not be awakened; the younger girl slept near a
haystack, but could be roused; the other girl was awake, but
appeared very weak. When I arrived, they were all three in
bed, sleeping soundly. The appearance of the boy was that
of a corpse; respiration, 12 per minute, shallow and inter­
rupted; pulse, 70, weak, soft, and irregular; pupils dilated,
and feebly responsive to light; the odor of his breath was pe­
culiar, perhaps nearer the somewhat weakened yet abiding
odor of the onion than anything else; the tongue was glazed
and dry. All three presented these symptoms, the younger
girl much less than the boy, and the older girl least of all.
I could not make out the exact nature of the trouble.

The stomach pump was at once put in action. The older
girl, seeing her brother handled somewhat roughly, resented
my course, saying that only a few nutmegs had been eaten.
This information, which had been withheld until now, led to
the discovery that from six to ten nutmegs were missing. She
further said, shortly after having eat them her sister and brother
vomited freely, which took place about two hours before my
arrival; that she had devoured two, her sister about three,
and her brother four or five! This made the nature of the
friable matter recovered by means of the pump, evident; but
so far as the proper course to pursue was concerned, left me as
much in the dark as before. Tinct. of belladonna, in one drop
doses, was given every half-hour. The girls responded nicely,
the physiological effects of the drug appearing in a short time;
they continued to improve, the weakness of the extremities gradually disappearing in two or three days—we dismiss them now.

The boy seemed to come under the influence of the drug only a very little. His respiration being no faster and not more shallow, his pulse having come within the variation observed in health, and thinking that perhaps he would sleep during the night, I left instructions to continue the belladonna every hour till his face flushed, and then to cease its administration, and went home.

I was summoned in haste to the little fellow's bedside the following morning, about dawn, the messenger saying that the boy had quit breathing several times before he had been sent.

I arrived. He was still unconscious; a pallor, peculiar to those who have sustained some overwhelming injury, was general; pulse, imperceptible; respiration, halting—of that gasping kind seen in those who die from a gradual loss of blood. To me, the case seemed desperate, and the prognosis was given in accordance with the appearances. Injected $\frac{1}{10}$ gr. of atropine sulphas and about thirty minims of whiskey, hypodermically. The response was very rapid and very favorable. Aside from general flushing, his respiration and pulse became more normal; but his stupor remained. During the day, five drop doses of avena sativa and one grain of quinia bi-sulphas were given every hour and a half. At night I again went home; ordered the treatment to be continued—the intervals lengthened to two hours.

The next morning, about the same hour as the day before, the messenger came again, saying: "He is dying again." The same condition existed found the morning before. The same treatment was therefore exhibited, and a similar result obtained. About seven o'clock that morning, he raised his head, opened his eyes, became wide awake, asked for something to eat, began talking and laughing with the family!
He had been unconscious since Sunday afternoon, about three or four o’clock, until now, about forty hours. His convalescence began when he awoke, and continued uninterruptedly until he was as well as usual.

It seems to me that here we have a potent drug rather than a harmless spice; that it is not only a soporific, but a powerful narcotic, perhaps a dangerous one.
SECTION
ON OPHTHALMOLOGY AND OTOLOGY.

REVIEW OF OPHTHALMOLOGY.
J. C. DENISE, M.D., CHAIRMAN, OMAHA.

SCROFULOUS OR PHLYCTENULAR OPHTHALMIA: ITS NATURE AND TREATMENT.
D. R. BALL, M.D., NELSON.

OCULAR HYGIENE, WITH SPECIAL REFERENCE TO SCHOOL LIFE.
L. B. GRADDY, M.D., OMAHA.
REVIEW OF OPHTHALMOLOGY.

BY J. C. DENISE, A.M., M.D.,

Professor of Ophthalmology, Otology, and Laryngology, Omaha Medical College; Ophthalmologist to St. Joseph Hospital, Omaha.

In presenting a review of Ophthalmology to this society, it might be proper to go back and cover the time that has elapsed since I had the privilege of preparing a similar paper, but as that would consume too much of your time I shall confine myself to more recent advances. Nor can I presume to even refer by title to the more than a thousand books, periodicals, and other papers that have been issued within the past year, treating of matters within the scope of this specialty; but can only call your attention to a few items that may prove of interest and profit to you as general practitioners.

For the facts herein, I have drawn largely from the Archives of Ophthalmology, and the New York Medical Record.

JEQUIRITY.

The publication by De Wecker, in 1882, of the remarkable effects of Jequirity (the seeds of the Abrus Precatorius), in curing pannus and trachoma, created no little sensation, and soon ophthalmologists in Europe and the United States were eagerly and industriously engaged in testing the value of the alleged discovery. Many of these experiments were confirmatory of De Wecker's experience; but others were not, and this apparently conflicting testimony had the effect of placing a check upon the indiscriminate use of the remedy.

Dr. Emil Gruening, of New York, was one of the first to give us a tabulated statement of cases, with results. The strength of the infusion was \( \frac{3}{10} \) of 1 per cent 2-2\( \frac{1}{2} \) and 5 per cent. He states the conditions under which the jequirity was employed as follows:
1st. Acute granular conjunctivitis with clear cornea.
2d. Chronic granular conjunctivitis, with clear cornea.
3d. Chronic granular conjunctivitis with partial or total pannus.
4th. Xerosis of the conjunctiva with total pannus.

In classes 1 and 2, the stronger infusions were followed by the characteristic local symptoms, and in one case where the 5 per cent was used the cornea ulcerated. The influence upon the granulation was variable—in two eyes they disappeared, in eight they persisted, in seven they were transformed into raised bands.

In classes 3 and 4 the pannus was cured and the granulations remained; fourteen out of twenty-one infiltrated and vascular cornea cleared up, and seven remained hazy. He draws the following conclusions:

"1st. The use of a 5 per cent infusion is attended with danger to the cornea.

"2d. The action of a 2–2½ and 5 per cent infusion upon granulations is inconstant.

"3d. It acts more favorably than any known substance upon the pannus accompanying or following the granular condition of the lids."

Dr. H. Knapp, of N. Y., shortly afterwards tried the remedy upon dozens of cases, as he says, without satisfaction, in strength of De Wecker's 3/10 per cent infusion. He afterwards used a 5 per cent infusion, getting some good results, and losing some eyes by ulceration of the cornea. Subsequently he used a 3 per cent infusion, and draws the following conclusions:

"That jequirity is a most valuable remedy for granular conjunctivitis, yet not to the exclusion of all others. That there are a certain number of cases that have proved rebellious to all kinds of treatment known before the introduction of jequirity that are amenable to its use. That it cures trachoma in a shorter time than copper. That the greatest dan-
ger from its use consists in the occasional development of a severe diphtheritic conjunctivitis, followed by pyorrhoea and more or less extensive destruction of the cornea. That its use ought to be restricted to cases of old, intractable pannus."

Later on, in 1884, Dr. Knapp's reports are not more favorable than his first experience. During this year, also, we have such testimony as the following:

Dr. Geo. Strawbridge, of Phil.: "Had no case of corneal ulceration. A 2 per cent. solution was used twice daily for about six applications, or until a positive exudation appeared. It is a useful application for chronic granulations, especially those associated with chronic corneal pannus. The more chronic the inflammatory process the greater the benefit from its application. Would be afraid to use it in cases of acute corneal ulceration."

Dr. K. H. Brown, of Syracuse, N. Y., has used it extensively, and formulates the following:

"The jequirity ophthalmia, if effective, is usually a painful one. It is curative in the majority of cases of trachoma. It cures cases of scrofulous pannus, even when accompanied by ulcers of the cornea. It is more efficacious in chronic than acute cases. It is contra indicated in follicular conjunctivitis and papillary hypertrophy."

Dr. F. C. Hotz, of Chicago, on 100 eyes used 2, 3, and 5 per cent solutions. "The stronger infusions developed the typical ophthalmia quicker, but not to any higher degree, than the weaker infusions. The severity of the inflammation seemed to depend on the condition of the conjunctiva, and on individual susceptibilities of the patients, rather than on the strength of the infusion. The time of maceration varied from fifteen minutes to twenty-four hours, and he did not find the infusion of fifteen minutes in any respect less effective than that of twenty-four hours. One application of a two per cent solution in twenty-four hours produced the same effect as two or three applications per day, and that usually two, seldom
three, applications suffice to develop the severest possible reaction. The jequirity ophthalmia attains its greatest severity in forty-eight hours."

He sums up his conclusions thus:

"In fresh trachoma, or in acute relapses, jequirity aggravated the inflammation. Chronic cases with very succulent conjunctiva and abundant secretion were not benefited. In chronic cases with a pale conjunctiva and scanty secretion, the jequirity ophthalmia usually accomplished a speedy absorption of the granulations (papillary as well as follicular). Though the cornea became dull and opaque during the acme of the inflammation, it never suffered any permanent injury, even where abrasions or ulcerations existed. Acute vascular keratitis was not benefited. Pannus accompanying chronic trachoma quickly disappeared with the absorption of the granulations. The most brilliant results the jequirity treatment attained, were in the clearing up of those forms of inveterate trachomatous pannus, which we know to have been amenable to no other treatment save the inoculation of blennorhoea, or the peritomy. In such cases it is undoubtedly the superior and preferable remedy; it is safer than the inoculation, and quicker than the operation."

Perhaps hundreds of similar experiences could be quoted, but would be tedious.

To the present time, something like the following may be stated as the status of jequirity in ophthalmological practice, viz.:

The seeds should be fresh, the cortex removed, and the kernel reduced to powder.

The strength for ordinary use should be about two per cent.

For maceration, cold water is preferable—warm water diminishes its virtue, while a temperature of 194°F. destroys it.

The time for maceration should be not less than four hours, and the infusion should be filtered before being used.
The applications should be made with a camel's hair brush to the conjunctiva of the inverted lid, and not repeated at intervals of less than six hours. If the patient can not be seen more than once a day, the application should be made only daily.

As soon as the lids swell, or a purulent secretion appears, or the characteristic diphtheritic membrane forms, the remedy should no longer be used, and the patient kept under close observation.

The effects usually develop within forty-eight hours, and the inflammation runs about ten days. The ultimate result of the treatment may not be reached short of four weeks.

If one trial fails to effect a cure, others may be made at intervals of from two to four weeks.

The treatment for the jequirity inflammation should be, confinement in a dark chamber, continuous applications of ice, or ice cold water, and free use of antiseptics. After the jequiritic inflammation has run its course, such other local applications may be used to complete the cure as may be indicated.

It should not be used when there is any purulent discharge.

It should not be used in acute conjunctivitis, whether primary or relapsing trachoma.

It must be carefully used when the cornea is ulcerated.

It is curative in chronic inveterate trachoma.

And chronic pannus whether of trachomatous or scrofulous form.

COCAINE.

Perhaps no remedy has ever made such a profound sensation, and advanced so rapidly in favor as hydrochlorate of cocaine, with which you are all more or less familiar, either through the various medical journals, or your own experience. Scarcely eight months have passed since Dr. Karl Koller, of Vienna, published his first experiments with this drug, but in
that time it has electrified the medical profession over the civilized world, and been a blessing to thousands who have been brought under its benign effects. To the ophthalmological specialist belongs the credit of the introduction of this drug into practice, and it is due the name of the discoverer that everyone should be familiar with the history of the original investigations. I therefore take the liberty of making liberal extracts from the original paper read before the Medical Society of Vienna, in October, 1884. A previous article, as he says, to secure priority, had been read before the meeting of German Oculists, held at Heidelberg, September 15 and 16, 1884. Dr. H. D. Noyes, of New York, being present at this meeting, immediately communicated with Dr. E. R. Squibb, who sent some of the drug to Dr. C. S. Bull, of New York. The latter used the cocaine October 8, 1884, and was therefore the first man in this country to employ it. His letter on the subject was published in the “New York Medical Record,” October 11, 1884. The first American contributions were made through the “Medical Record,” by Drs. C. R. Agnew, W. O. Moore, and J. L. Minor, October 18, 1884.

To return to Dr. Roller’s report, he says: “To us Viennese physicians cocaine has been prominently brought to our notice by the thorough compilation and the interesting therapeutic paper of my colleague at the General Hospital, Dr. Sigmund Freud. Starting from the supposition that a substance paralyzing the sensitive terminations of the mucous membrane of the tongue could not greatly differ in its action on the cornea and conjunctiva, I have made, in the laboratory of Prof. Strieker, a number of experiments on animals, of which, in brief, the following were the results obtained: A few drops of a watery solution of muriate of cocaine, dropped on the cornea of a guinea pig, rabbit, or dog, or instilled into the conjunctival sac, in the ordinary way, cause, for a short time, winking of the eyelids, evidently in consequence of a slight irritation. After one-half to one minute the animal
again opens its eyes, which gradually assume a staring look. If now the cornea is touched with a pin-head, the lids are not closed by reflex, the eye-ball does not move, the head is not drawn back as usual, the animal remains perfectly quiet, and on application of a stronger irritation we can convince ourselves of the complete anæsthesia of the cornea and conjunctiva. In this way I have scratched and transfixed the cornea of my animals of experimentation with needles, and have excited them with electric currents so strong as to cause pain in my fingers, and become quite intolerable in the tongue; I have cauterized the cornea with the nitrate of silver stick until it became milky white; during all this the animals did not move. The last experiment convinced me that the anæsthesia involved the whole thickness of the cornea, and did not effect the surface only. But if I incised the cornea, the animals manifested intense pain when the aqueous humor escaped and the iris prolapsed.” “The last question which I subjected to experimentation on animals, viz., whether or not the inflamed cornea could be anæsthetized by cocaine, was answered in the affirmative. The cornea in which I had incited a foreign body keratitis, became as insensible as a healthy one.”

“Complete anæsthesia of the cornea from the use of a two per cent solution lasts ten minutes on an average. After such successful experiments on animals I did not hesitate to apply cocaine also to the human eye, trying it first on myself and some of my friends, then on a greater number of other persons, obtaining unexceptionally the result of a perfect anæsthesia of the cornea and conjunctiva. The course of the phenomena is as follows: If some drops of a two per cent solution are instilled into the conjunctival sac, or better still, let run over the cornea, first a slight burning (accompanied by some lachrymation) is felt, which in one-half to one minute disappears, being followed by a dull sensation of dryness.” “If now the cornea is touched with the head of a pin no sensation of pain or of contact is experienced, and all reflexes are
absent. The same holds of the conjunctiva, in which the sensation of temperature is likewise abolished.” “This complete anesthesia lasts from seven to ten minutes, then passes through a longer stage of reduced sensibility into the normal condition. About fifteen or twenty minutes after the instillation the pupil begins to dilate. The dilatation reaches its highest degree within the first hour, decreases considerably in the second hour, and disappears without a trace in a few hours more. The pupil is never ad maximum dilated, responds promptly to light and convergence during the whole time, and for that reason the sensation of dazzling connected with atropine mydriasis, is either totally absent or only slightly pronounced. “A very insignificant paresis of accommodation appears and disappears with the mydriasis.” “Furthermore, I have observed a marked ischaemia in the normal, especially the palpebral, conjunctiva.” “I have never noticed any symptoms of irritation from the use of cocaine.”

“The anaesthetic effect of cocaine may be cumulated up to a certain limit, namely, if at the decrease of the anaesthesia cocaine is instilled anew, a second anaesthesia is obtained, taking longer than the first. In this way by instillations every five minutes for a longer time, I have produced complete anaesthesia of from fifteen to twenty minutes duration.”

“The anaesthesia is chiefly a local one, i.e., it is most intense in those places which have been in contact with the solution directly and longest.”

“By instillations of a five per cent solution made every five minutes and continued for about half an hour, I have succeeded in ascertaining an action upon the deeper parts of the globe.”

Dr. Koller next tested cocaine as a narcotic in painful affections of the eye and as an anaesthetic in operations on the eye. The cases in which it was used were diseases of cornea and conjunctiva with pain and photophobia; pain in iritis; erosion at the sclero-corneal junction; cauterization with nitrate of sil-
ver; removal of foreign bodies from the cornea; tattooing corneal scars; operation for pterygium; cauterization of corneal ulcers; operation for staphyloma; iridectomies, and extractions of cataract." "The experiments yielded more or less favorable results, but always corresponding to the intensity and manner in which the remedy was applied. The most favorable as to painlessness during the operation, indeed almost entirely satisfactory results, were obtained in those cases in which the following method was strictly pursued: During half an hour immediately before the operation, two drops of a five per cent solution were instilled every five minutes. The head of the patient lies horizontal, and while he looks toward his feet his upper eyelid is raised and the solution dropped on the upper part of the sclerotic."

Following the reports of the American experimenters formerly mentioned, came others in rapid succession, all more or less confirmatory of Dr. Koller's statements, in this country, Germany, England, France, and Spain. Without further reference to details I will beg leave to quote from Dr. Herman Knapp, of New York, who has given us a summary of the uses of cocaine in ophthalmic surgery to date.

"Cocaine acts as an anaesthetic and analgesic on all mucous membranes with which it is brought in contact; the same on the skin and deeper tissues into which it has been injected, or to which it has been applied through incisions and wounds. It paralyzes the sensory nerves and the posterior columns of the spinal cord, but not the anterior. The pupil is dilated, not ad maximum, and remains responsive to light, though less than normal. The power of accommodation is diminished, not totally suspended. The range of accommodation is shortened by secession of the near point from the eye, the far point not being appreciably influenced. Mucous membranes are bleached and thinned, their secretion is lessened, the tension of the eye-ball is diminished. It acts locally on the peripheric sensitive and sympathetic nerve-fibres, and
when injected into or near the trunks of sensitive nerves, it paralyzes the whole distal part of those nerves. It causes a diminution of tactile, painful, and thermal impressions, and abolishes reflex irritability. Its action is transient, but can be maintained for hours by repeated application. It has no cumulative effect, and exerts no bad influence on the nutrition of the parts subjected to its action."

From the above it follows that almost all operations on the eye can be performed under cocaine anaesthesia, even to enucleation of the eye-ball, which has been successfully accomplished with little or no pain.

It also follows that the therapeutical application of cocaine has a wide field of usefulness in the hands of an observant and discriminating oculist or general practitioner.

**SYMPATHETIC OPHTHALMIA.**

Deutschmann proved by injections into the optic nerve and vitreous, that not only papillitis and inflammation of the injected eye ensued, but also that in three-fourths of the cases there were plain and characteristic indications of transmission to the papilla and surroundings of the optic nerve of the other eye, by way of the optic nerve and sheaths. This would seem to confirm the theory of late advanced by Alt, and many others, that the second eye is affected through the optic nerve as the channel of communication.

The septic choroiditis theory of Leber also receives many supporters, but as yet the long established belief that the secondary result is a reflex neurosis dependent upon irritation of the ciliary nerves, is not overthrown.

Enucleation still holds the pre-eminence as preventive treatment.

**PTERYGIUM.**

Dr. A. E. Prince, of Jacksonville, Ill., while performing transplantation was using the strabismus hook to lift the
pterygium from the cornea, when by an unskillful act the hook was torn from its position and the entire corneal portion of the pterygium separated from its underlying surface. The operation was completed in the usual way. The result was a perfectly transparent cornea at the point of former adhesion. Since then he has operated a number of times by purposely stripping off the apex, with like results. He now uses a hook with cutting end to facilitate its entrance beneath the pterygium, and of wedge shape to facilitate the separation.

Creuș operates upon pterygium by loosening the vertex as far as 3 mms. beyond the margin of the cornea, then turns the vertex over to form a duplication in such a way that the two bleeding surfaces touch. So soon as they are accurately adjusted, sutures are applied, and the fresh surfaces unite.

GLAUCOMA.

Chibret describes a new operation for chronic glaucoma. An oblique incision is made through the lamellæ of the cornea 2–3 mms. from the margin, and the wound opened daily for three weeks so that the aqueous escapes. If the iris falls into the wound and does not go back of its own accord, eserine is instilled. Stretching and rupture of the infra-trochlear nerve has been successful, as referred to in another part of this work.

STRETCHING THE INFRA-TROCHLEAR NERVE.

The affections for which this operation is recommended are, neuralgia of the trigeminus, chronic cyclitis, combined with ptosis of the globe, and chronic glaucoma. Badal reports, that in his clinique, iridectomy and sclerotomy have been driven out by stretching the infra-trochlear nerve, with subsequent rupture, which had been successful in fifteen consecutive cases.

Trousseau warmly recommends the same operation in glaucoma, and reports nine successful cases out of ten—the tenth one was a failure.
Badal thus describes the operation: The incision is made extending from the pulley of the superior oblique to the tendon of the orbicular muscle. After dividing the skin and muscular layer, the subjacent cellular tissue is dissected away with two strabismus hooks, then scraping along the periosteum, from below upwards, with one of the hooks, the vasculo-nervous bundle is pulled out. The vessels are then separated from the nerve, in order to avoid any unnecessary hemorrhage, and the nerve is then stretched as far as necessary. No damage follows, should the nerve break, and the object of the operation is equally attained.

**BORO-GLYCERIDE**

Is prepared by taking 62 parts of boric acid and 92 parts of pure glycerine, heating the mixture in a large evaporating dish, at a moderate heat, until the product ceases to lose weight. The residue will weigh only one hundred parts. On cooling, it resembles in consistency and appearance ice, or glacial phosphoric acid. It is insoluble in ether or fixed oils, but soluble in water, in proportion of fifteen grains to one ounce. To dilute it, glycerine must be used, and the best method, when freshly made, is to add to it glycerine, in proportion to make a fifty per cent solution. This makes a preparation of the consistency of honey, to which can be added iodine, tannin, resorcin, carbolic acid, iodoform, morphia, atropia, etc.

The ointment of boro-glyceride is made as follows:

Solution of boro-glyceride, (50 pr. ct.), 5ij.
Vaseline, - - - - 5vi.
Olei rosar, - - g. s., ft. ungt.

This neither becomes granular nor precipitates the boric acid. Used in chronic conjunctivitis with trachoma, contagious ophthalmia, and all other cases where an astringent or antiseptic is indicated. Fought, Webster Fox, and C. S. Turnbull.
ANTISEPTICS.

As would be expected, antisepsis in operations on the eye has been undergoing a severe clinical ordeal.

Julasz gives statistics of 391 cataract operations performed according to the VonGraefe method by Prof. Schulek. 188 were performed under boric acid spray, with $\frac{2}{10}$ per ct. total loss; 205, without spray, with a loss of only $1\frac{3}{16}$ per ct.

Bauerlein, at Wurzburg, had less favorable results with antiseptics than without them. Pfüger, of Berne, is in favor of antiseptics without reserve. He uses sublimate, 1:10,000. Sattler, of Heidelberg, uses sublimate, 1:5,000; also chlorine water. Knapp, in reporting his eighth—100 Cases of Cataract Extraction—states that there was no difference in the results obtained under antiseptic precautions and without them.
And by its nature we mean those essential qualities and characteristics that make it what it is, and perhaps the first thing of importance is the character of the persons whom it attacks. It not only selects children and young persons for its victims, but prefers those having certain peculiar and inherent constitutional diatheses, which so weaken and pervert the functions of the body as to render it an easy prey to this, as well as to many other diseases. We seldom see children who are strong and healthful, and born of healthful parents, ever attacked with phlyctenular ophthalmia; but children of scrofulous and consumptive parents frequently suffer from it.

This form of ophthalmia is very peculiar and when once seen and understood will ever afterward be easily recognized. The structures that suffer most are the cornea and its conjunctival covering, the membrane of Descemet, Iris, and sometimes the retina may suffer.

The first indication of the disease is great sensibility to light, and profuse lachrymation, the lids are firmly closed, and the sufferer hies away into some dark room or place to screen his eyes from the light and the pain it produces. If the eye is examined there will be found one or more small vesicles or phlyctenulae upon the cornea with some small straggling vessels running to them; there is more or less opacity of cornea around those vesicles. These phlyctenulae, with the peculiar formed ulcers resulting from their rupture, with the lachrymation and photophobia, are sufficiently diagnostic of
this form of ophthalmia. The prognosis in mild and recent cases is generally favorable, but should be given with caution, for the cornea is sometimes perforated and the membrane of Descemet is pushed through the aperture by the aqueous humor, forming a small vesicle (hernia cornæ) which may burst and give vent to the aqueous fluid, permitting the iris to fall forward upon the cornea, and sometimes it is partially extended through the bottom of the opening made by the ulcer, forming prolapsus iridis. In cases with such complications the prognosis would be very unfavorable, so far as the beauty and use of the organ is concerned. The disease is subject to frequent relapses, more so than any of the ophthalmiae.

The recovery is often very imperfect, leaving more or less opacity of the cornea, from a slight nebula to the more permanent leucoma. However, I have been very fortunate in my cases, all recovering without any of those permanent bad results, more than a slight nebula, or a small, clear facet on the cornea, after the absorption of a phlyctenula or the healing of an ulcer. The causes are both predisposing and exciting; the former arise within the body and depend upon constitutional vice, either inherited or acquired; the latter are of external origin, and belong to that class of agents that directly irritate the eye—as heat and cold, intense light, wind, dust, particles of sand, smoke, etc., etc. These external causes may inflame the eye of a healthy person, but operating alone cannot produce the disease in question.

Correct and curative treatment is the great object of every physician and surgeon, and the success of the treatment which I have adopted for this disease is my excuse for troubling you with this imperfect and hastily written paper. I have no specifics or new remedies to offer, what I have I have picked up and learned from the great lights that have gone before, and am chiefly indebted to T. Wharton Jones, and the great and immortal Gross whose very name I love and revere. In treating this disease of the eyes I en-
deavor to follow the natural indications, both in respect to
general and local treatment. If the tongue is coated and the
stomach and bowels loaded, give an emetic of ipecac, or ipecac
with a little tartrate of antimony and potassa. After the
stomach is well cleansed, give a gentle cathartic of calomel,
rhubarb and soda, or small doses of podophyllin and leptan-
drin combined with sugar of milk. When the bowels are
cleared and the secretions aroused I put my patients upon
tonics and alteratives, with such nerve sedatives as will lessen
both nerve and vascular irritation and excitement. My local
remedies are anodyne eye-baths (applied quite often and as
warm as the patient can bear with comfort), and soothing and
non-irritating eye-drops, and ointments.

Of tonics, quinine and iron are the essentials—almost in-
dispensable in every case. However, proper discrimination
should be used in the application of these two powerful
and important remedies. Some patients may not indicate the
iron and others may not tolerate the quinia. But a large
majority of those strumous patients do well on these tonic
remedies, and of all the preparations of iron, the sulphate is
the most effective. I combine the quinine and iron with
small doses of opium and tartrate of antimony and potassa,
after Gross, varying the quantity of each drug to suit the
age, strength, and constitution of the patient; and for a child
two or three years old the following formula is effective:

志强 Quinia sulph. gr. x., ferri sulph. gr. v., antimonii et
pot. Tartras gr. ½ to j., opii pulv. gr. ½, sugar of milk 颡.
M. and divide into twenty powders. Signa—One powder every
six hours after meals. They may be given in syrup, or better,
in capsules, if the child can swallow them. This prescription
may be doubled for a child from seven to ten years old, but
as a rule the small dose does the best, it does not irritate.

To relieve capillary congestion and to allay nervous and
vascular irritation, I have found aconite and belladonna very
useful remedies, given in small and frequent doses.
Tincture of aconite root gtt. v. to x., fluid ext. of belladonna gtt. v. to x., aqua camphora or simple syrup §jv. M. Sig.—One teaspoonful every two, three, or four hours, as the more or less acuteness of the case may require. In some cases, especially in young females near puberty, I add to the above prescription from two drachms to half an ounce of Squibb’s fluid extract of ergot, and find that it adds materially to the curative effects of the prescription by contracting and toning the vessels, diminishing the pain and lachrymation. I direct a warm alkaline bath three times per week, followed by the use of a rough towel or flesh brush, a good generous diet, and as much exercise in the open air as the condition of the eyes and state of the weather will admit. Whenever necessary I use purgatives that the bowels and stomach may be kept in as good condition as possible, but avoid their excessive use. The local treatment of the eyes in this disease I consider of great importance, and capable of doing much good if judiciously selected and properly applied. I never use irritating eye-drops, or anything that gives pain, but use an anodyne astringent eye-bath that relieves pain, contracts the vessels of the eye, and aids much in reducing the inflammation, dispersing the phlyctenulae and opacity, and healing the ulcers if they exist; and I always use the eye-bath as hot as the patient can bear with comfort. The bath is made of fluid ext. belladonna, morphia, and acetate of lead. Plumbi acetas §jv., fluid ext. belladonna §ij., morphia sulph. gr. viij., aqua destill. Oij. M., and bathe the eyes once in two or three hours, having the bath as warm as can be well borne by patient. I have always found great relief and comfort from the use of this bath. When the inflammation and irritation abate, to facilitate the removal of opacity, or the healing of an ulcer of the cornea, I use a collyria of iodide of zinc and distilled water. Zinci iodid. gr. j. to ij., aqua destill., §jv. M. Sig.—To be dropped into the eye once or twice per day.
Sometimes I have found this form of ophthalmia complicated with granular lids. For this I gently touch the granulations two or three times per week with the crayon of cupric sulphas, using on the other days the iodide of zinc collyria, and apply at bed hour a very dilute citrune ointment. These I have found to be the most effective local remedies. When the pain and lachrymation is very severe from the corneal lesion, and fails to be relieved by remedies already prescribed, I would, on theoretic grounds, recommend the careful use of a two or four per cent solution of muriate of cocaine. I will now report a case which I consider a typical one, and all I will now have time to write up.

On January 15th, 1884, I was called to see Miss R., aged 12 or 13 years. She possessed a scrofulous diathesis in a superlative sense, having inherited it from her mother who had died of scrofula. She was suffering great pain—photophobia and lachrymation—had to remain in a dark room; eye-lids spasmodically closed whenever exposed to the light; cheeks excoriated from the scalding tears; a phlyctenula had formed on each cornea, which burst, forming the characteristic ulcer on each eye, attended with so much opacity that the child could scarcely see. She was well grown for her age—rather fleshy; she was pale, her extremities cold, pulse small and frequent; suffered much headache; appetite poor, and bowels constipated. Had been afflicted with the ophthalmia for more than a year—sometimes better and then worse—was treated for one year by a physician of age and experience, who is called eminent in his profession, but failing to receive any permanent relief, the father of the child consulted a specialist—a traveling doctor—who advertised himself as possessing consummate skill in the healing art. This pretender treated this patient for a month, and still not receiving any benefit. They were about to give up in despair, but, as drowning folks will clutch at straws, the father of the girl called me in to see her and give her treatment, if I thought
I could do her any good. I told him that I believed I could cure the inflammation, but feared there would permanent albugo or leucoma remain, which would spoil the beauty as well as the use of her eyes. I commenced treatment with a mercurial purgative, then R. Quinia sulph. gr. xx., ferri sulph. gr. xv., antimonii et potassii tartratis gr. j., opii pulv. gr. j. M. and divide into 20 equal powders, to be put up in No. 3 capsules. Sig.—Take one after each meal; gave her R. fl. ext. ergot (Squibb’s) 5ss., fl. ext. belladonna, tinct. of aconite root aa. gtt. xxxij., syr. simplicis 5iv. M. Sig.—One teaspoonful every four hours during the day. Gave her the belladonna, morphia, and acetate of lead eye-bath, applied as warm as she could bear it, every two hours, from three to five minutes each time; and, to the surprise of both patient and friends, her eyes began to improve immediately, and continued until her recovery was complete, with scarcely a trace of the affection, excepting a small facet in each cornea, marking the place of the ulcers. The only additional treatment was the use of the iodide of zinc eye-drops, after the inflammation had subsided, dropped into the eyes once per day, to help clear them, and remove the opacities. She was under treatment only about three months, and continues well to this day.
OCULAR HYGIENE WITH SPECIAL REFERENCE TO SCHOOL LIFE.

BY L. B. GRADDY, M.D.

Professor of Diseases of the Eye and Ear in the Medical Department, University of Nebraska.

An agent which aids any organ of the body to perform its functions to a better advantage than it could otherwise fulfill the requirements of daily life, must be viewed from a therapeutic standpoint. Certain therapeutic agents, however, which we often find necessary to call into requisition to aid the visual function, blend so intimately with ocular hygiene that the two become at once inseparable. To establish proper hygiene in this particular is in many instances impracticable, owing to the resistance met with upon the part of the one to be benefited;—resistance, it is needless to say, which is due to a false pride upon the one hand and ignorance of the requisites for distinct vision upon the other. Nevertheless a great deal can be done towards securing comfort and comparative safety in these cases, by the observance of such regulations as is necessary to prevent injury in a more fortunate class that has no need of therapeutic assistance, although not entirely free from danger. Therefore it becomes necessary to lay down and disseminate such rules as are best calculated to benefit the whole.

As the duties of an active professional life are sufficiently arduous, without adding a new one of teaching the details of ocular hygiene during one's daily rounds, to those who may not be in especial need of such knowledge at the time, we must notice the earliest symptoms of improper use of the eyes, which call for an improvement in their use or in the surroundings of the individual.
There is no dearth of cases in the practice of any oculist of experience that have been sent to him from long distances in great dread of blindness from optic nerve, or other supposed deeply seated disease, but who only require their refraction corrected, or their hygienic surroundings improved, to render them comfortable and happy in the full possession of normal vision.

Again, it is a matter of daily complaint by parents that one or more of their children who have arrived at school age—and from that upwards—are troubled with their eyes, and appear to be growing near-sighted, whereas, up to within a certain period vision was good—perhaps remarkably acute.

It is not easy to forget the anxiety pictured upon the face of a mother, when she is forced to the realization that her child can no longer keep up with his classes at school, because the evening study can no longer be prosecuted with the usual assiduity. The ambitious mother, innocent of any possible harm being done, stimulates the ardor of the dutiful child by caresses and promises of reward for a certain amount of progress, until instead of being able to study during two or three hours in the evening, pain in the eyes or headache set in within a few minutes after work is begun, and the book must be laid aside. In the morning, reading can be resumed and pursued for a time with comfort; but later in the day, and during the afternoon, the pain in the eyes or headache again makes its appearance; the letters run into each other, and if the light be not good, the reading looks not unlike so many solid black lines; relief being obtained only when the open air is reached, and the eyes given a period of rest from close work.

The little sufferer looks forward to the end of the week more impatiently than formerly, for he has already learned from experience that during the two days out of school he will be quite comfortable. Monday morning's use of the eyes is begun without inconvenience and the feeling of satisfaction
that the task can again be accomplished with ease and comfort reassures the anxious parent and the industrious student that during the preceding week he was not so well as usual. But perhaps by the middle, certainly before the end of the week, he lapses into his previously painful state, and is, most likely, even worse than during the preceding week. Is it not remarkable that the improved condition after two days' rest is not a sufficient hint to the parents that the child is either suffering from bad hygienic surroundings, or that the eyes are being used to excess, or else have need of special hygiene?

During the incipient stage a proper regard for those laws known to be conducive to health would be sufficient to restore eyes of normal refraction in a short time, and relieve the sufferer, not only of his discomfort, but spare him from permanently injuring his eyesight. If, however, the eyes are not of normal refraction, rest and improved general hygiene will not alone suffice; the refraction must be corrected, and it is here that a therapeutic agent becomes a special hygienic factor.

True that many suffer as we have indicated, who afterwards recover entirely without injury, but to many others the symptoms given are no trifling matter; pointing as unerringly to serious consequences if neglected, as the incipient twinges of scirrhus when left to work its way.

The improvement gained by the short period of rest, however, is not accepted as the key to the situation, and the condition grows worse, until finally the child can no longer decipher figures nor diagrams on the black board, and at once becomes the recipient of various reprimands from the teacher. It cannot be deemed improper to say just here that humanitarians hailed with delight the day when the ferule was discarded, but has it occurred to them that a more refined form of punishment, frequently inflicted, is by far more serious—often working irreparable mischief? I allude to the child being restrained from recreation at frequent intervals. Many are kept in-doors for imperfect tasks, due solely to the con-
dition of their eyes, and not to stupidity or indolence as is often supposed, when a short rest from books together with exercise in the open air, would enable them to continue the day's work with satisfaction and profit.

We must now look first for the cause of the uncomfortable picture we have drawn and then for the injury resulting from this cause.

We have not far to look for the cause of the discomfort in the eyes, which is the first warning of approaching danger, for we at once find it to be due to excessive muscular tension, and, therefore, we ought rather to look for the cause of this. This is always due to a too close proximity of the book to the eyes, thereby necessitating extreme convergence of the optical axes and an effort upon the part of the ciliary muscle to accommodate for a point nearer than is compatible with endurance.

The headache is accounted for by the distance between the eyes and book not being shortened by bringing the book towards the face, but by stooping the head forward, thus favoring congestion by interfering with the free flow of blood from the head—hence a hyperæmia of the meninges of the brain sufficient to account for the cerebral disturbance. This congestion extends to the eyes, actively participating in the production of myopia (near-sightedness), as we shall see further on.

Cohn, after examining the eyes of several thousand children, claims that the greatest injury done the eyes during school life is stooping and straining the accommodation. The statements of Cohn being corroborated by the experience of others, it becomes necessary to inquire into the cause of the stooping and the undue tension upon the accommodation consequent upon the proximity of eye to book before we can understandably and intelligently appreciate the measures proposed for their relief.

As a very large majority of eyes are practically normal up
to school age—hence able to read in good light at a distance commensurate with comfort and safety—it is the minority which deserves our particular attention.

The tendency to place the book too near the eyes while reading is very great in some persons, wholly the result of habit; while in others it is necessary, on account of some defect in the eyes, in order to obtain an enlarged retinal image of the letters. We find the need of enlarged retinal images in this fortunately small minority to be due to a deficient acuity of vision, owing to errors of refraction, corneal opacities, pyramidal cataract, nystagmus, etc., or to imperfect development or early disease of the eyes from consanguinity of parents. In either case the dangers are the same and should receive early and prompt attention.

The greatest danger to which eyes are exposed when operating under excessive muscular tension, whether from defective vision, errors of refraction, or habit, is the production of myopia. It is now generally admitted that this disease is more frequently acquired than inherited, and is undoubtedly the most frequent and the most serious injury done the eyes during school life. When acquired it is the result of the meningeal congestion (upon which we have explained the headache common to this age) extending to the eyes, and prolonged excessive tension of the intrinsic and extrinsic ocular muscles, possibly combined with a weak, yielding sclera. The sclera may be naturally thin, or it may be weakened by extreme debility or severe illness. When thus developed in such an eye we dare not say where it will end, nor what injury may be done the organ of vision. If it becomes progressive, as it frequently does, posterior ectasia, atrophy of the choroid, and opacities in the vitreous may render the eye blind, in the sense that an eye is blind when vision is not sufficiently good for the individual to follow his ordinary vocation, and detachment of the retina render it absolutely so.

Before leaving this portion of our subject we venture to
suggest another source of danger consequent upon continuous strain upon the accommodation during school life; and that is undue development of the ciliary muscle, and its probable influence in the production of glaucoma in later years.

We know that by exercise just sufficient to maintain health the muscles of the body are developed fairly well, and that by exercise of any member in excess of this, individual muscles or a group of muscles, may be developed to a much higher degree, as is seen in the arm of the blacksmith, etc. Then, why in the case of the ciliary muscle receiving constant exercise in excess of what should be required of it, should it not be developed to a size above the normal? We have said that there is a predisposing cause to myopia, such as a thin yielding sclera, etc., in those who acquire the disease. This is assumed to be the case, since it is known that many labor as arduously under the same circumstances and do not become myopic. Now, it is also assumed that a thick, unyielding sclera predisposes to glaucoma. If this assumption is correct we see no objection to our theory, that the ciliary muscle abnormally developed in such an eye by excessive exercise in early life would play an important part in the production of glaucoma, when the tissues become still more inelastic in later years, by pressing upon the iris angle and interfering with the free exit of the intra-ocular fluid through its natural outlet—the canal of Schlemm.

This is a theory which, so far as we know, has not been hitherto advanced, but the probabilities that the ciliary muscle may be abnormally developed by over-stimulation during school life are so great, that we feel justified in setting it down as one of the dangers of a prolonged over-strained accommodation. In further support of this theory we would cite the single fact that in all glaucomatous eyes a hypertrophy of this muscle, with, or, without definite pathological changes, is found.

Among the errors of refraction accompanying subnormal
vision, astigmatism in some of its forms is the most frequent, congenital myopia standing second. These are at least partially under our control, while diminished visual acuity, from the other causes mentioned, is as a rule beyond our control, and only a very little aid from therapeutic measures is to be expected. We can, upon the other hand, do much for astigmatics and myopes by correcting their refraction; then placing them with those possessing normal vision we have but the two classes to deal with, viz., those with practically normal, and those with subnormal acuteness of vision. The only obstacle in the way of this is the prejudice existing against the use of spectacles. For the removal of this antithesis to glasses we must look to the family physician. He can render his patrons and the public no better service, and it is urgently demanded of him.

For those who have blunted visual acuity beyond the aid of therapeutics, beginning life as they do with a deficit, it is of the utmost importance that everything possible be done to preserve intact what vision they have. For this purpose they should be classed together in a specially lighted room, with a teacher perfectly familiar with their defect, and be furnished with type larger than is required by the normal eye.

According to Cohn’s formula, taking \( u \) as the standard letter, for the normal eye its height should be 1.5 mm., thickness 0.25 mm., space between the letters 0.75 mm., space between the lines 2.5 mm., length not more than 100 mm., and not more than 60 letters in a line.

Upon this basis the size of the letters which would enable the subnormal eye to read with the same ease and safety that the normal eye reads letters of these dimensions, could be easily ascertained. If visual acuteness is one-half, this formula should be doubled in every particular; if one-third, it should be trebled, and so on. By this means such persons could avail themselves of a degree of education without hazarding the little sight they have, which would otherwise be impossible.
It is sufficient in the case of those suffering from subnormal acuteness of vision from errors of refraction, to correct the defect, thus placing them with the larger class who have normal acuteness, and have them observe the same hygienic regulations as vouchsafe comfort and protection to the latter.

We have now seen that the cause of stooping and the undue proximity of eye to book is due in a large number of cases to defective vision which is amenable to treatment, and in another class to irremediable defective vision. We have also pointed out how the one class may be placed practically in a normal state by correcting their refraction, and how, by raising the size of the type in a definite ratio, those with subnormal vision beyond therapeutic aid, may be rescued from the dangers attending a prolonged effort to obtain an enlarged retinal image at the expense of extreme tension upon the accommodation. But there is still another frequent source of danger not yet considered, acting upon all, which is equivalent to subnormal vision requiring excessive accommodation and convergence even of the normal eye, and that is insufficient light.

The first and most important feature in ocular hygiene is ample illumination without the direct rays falling upon the eyes or book. The importance of properly lighting schoolrooms, we have reason to fear, is not sufficiently appreciated. If the subject is considered at all in the construction of a school building a degree of light which is thought to be sufficient for the one who is constructing it, is the quantity of light admitted, without regard to the source or direction from whence it comes. In speaking upon this subject Prof. Fuchs says: "Various tests have been proposed by which to estimate the sufficiency of the light. Thus, some authorities measure the area of sky visible to the scholar as he sits at his desk. This is not satisfactory, inasmuch as the actual amount of light falling on the desk depends on other factors as well, viz., reflection from walls, etc., which cannot be estimated.
Others estimate the sufficiency of light by their own ability to see a given object at a given distance, *e.g.*, Snellen, VI. at six metres. On this principle Landolt has constructed a ‘photometer,’ consisting of a group of black dots on a white ground. In a strong light, the dots are discernible at a distance of five metres; in a moderate light at three metres. The latter light may therefore be expressed as \( \frac{3}{5} \). A mirror is attached in such a way that the test object, when laid upon a desk, may be viewed from any distance in a horizontal direction. Such tests are unsatisfactory, because the results vary with the visual acuity of the observer, and because there are many persons who cannot put them in practice.”

We give the following arrangements essential to good lighting, and the principles upon which the desks and seats should be constructed, also from Prof. Fuchs: “The principal windows of the school-room should look to the east or south-east; a north aspect, except in hot climates, makes the room too chilly and dark; a south aspect too hot in summer.” In countries, however, where cloudy and wet weather is frequent the latter aspect is on the whole desirable. The long axis of the room should run north and south, or nearly so. Every scholar should from his place be able to see some portion of the sky. To this end the school-house must stand at a sufficient distance from neighboring buildings; the height of the latter, according to angular measurement from the window sill of the school-room, should not be more than 20 to 25°. Light from above is the best, and except in hot climates glass roofs are advantageous, but they are hardly attainable. The chief light must come from the scholar’s left side. The height of the top of the window from the floor should not be less than \( \frac{3}{8} \) the width of the room. The bottom of the window should be about one metre” (forty inches) “or a little more from the floor; if it be lower than this, light meets the scholar’s eyes from below and causes dazzling. The total window surface should bear to the area of the floor a proportion of at
least 1 to 5. If the school-room be so broad that the foregoing requirements cannot be met by windows in one wall only, additional windows should be placed in the opposite side, or in the end wall behind the scholars. In all cases the chief light must come from the left side; it must not be overpowered by that coming from other directions. Light from in front is inadmissible.

"In artificial lighting by gas," e.g., night schools, "every burner must have a glass chimney and a shade, the latter arranged to reflect the light down upon the desk and to screen the scholar's eyes. There should be about one burner to every four scholars. An admirable illumination may be obtained by a special arrangement of the electric light. The lamp is suspended about half way between floor and ceiling, and beneath it is a concave mirror which screens the eyes of the scholars from all direct rays, and reflects the whole of the light against the white ceiling, whence it is diffused over the room.

"In every class the desks and seats must be of several sizes to suit scholars of various ages; the distance between seat and desk in the vertical direction must be but little greater than the distance between elbow and ischial tuberosity, i.e., one-eighth of the height of the body; the horizontal distance must be negative, i.e., the edge of the desk must overhang the seat about 5 cm., the scholar can then sit upright with his back supported while writing, and, as experience proves, will keep his eyes further from the book than if the seat be further from the desk; the desk must be arranged to fold or push back to facilitate standing up. The latter plan is preferable, as it does not involve clearing the desk when the scholar stands; the height of the seat above the footboard must equal the length of the leg from knee to heel, i.e., about two-sevenths of the total height of the body; the breadth must be one-fifth of the height of the body, i.e., from 22 to 33 cm." (9 inches); "the width apportioned to each scholar should not be less than 64 cm." (25 inches);
"the back-rest should reach only to the loins, and should be slightly curved to the shape of the back; the surface of the desk must slope to obviate the bending forward of the head and to give freedom to the movement of the arm in writing; the slope should be about 1 in 5, and adjustable to a greater angle to support the book in reading; the breadth of the desk should not be less than 40 cm." (16 inches.)

"The importance of a good position during study should be made known to the parents of the scholars so that these matters may be heeded at home as well as at school. The teacher may do this directly or better by printed instructions when the scholar is first admitted.

"The legibility of type depends on several factors. A letter is legible, that is, it is recognizable as a particular letter at a greater distance than that at which it becomes accurately visible. Its legibility depends chiefly on the heavy strokes, for it may be easily recognized at a distance at which the light strokes can only be guessed at. Broad letters are much more legible than narrow letters of the same height. The legibility of the letter is also much increased by the terminals which complete the strokes; they serve especially to show the length and position of light strokes which would otherwise be hardly distinguishable. In the case of words or sentences it is still more evident that to be legible is not necessary to be accurately visible; words are recognized where individual letters cannot be entirely made out. This depends of course on practice. Children have, as a rule, a greater acuity of vision than adults, but in order to read easily they require larger retinal pictures of the letters than the latter, and therefore must have larger type in their school books, or they will hold them too near to their eyes," the dangers of which have been pointed out.

Not a few people, and especially children, in spite of instructions and advice, place their work or reading nearer the eyes than is necessary, and form the habit of stooping. Such
habitues, if adults, should be strongly advised against the habit. Since they cannot be kept under constant observation, little else can be done. A variety of mechanical contrivances have been proposed for the relief of this habit, but all have proved more or less unsatisfactory, chiefly by interfering with free movement of the head. A metal ring covered with rubber, known as "Kallman's ring," through which the child's face looks, while its forehead rests against the upper portion, seems to be in highest favor. The better plan in the case of children is to teach them the proper position both at school and at home, and enforce it for a time by rigid discipline, when it soon becomes the only comfortable one.

The proper reading distance for ordinary print in good light is assumed to be from 12 to 15 inches, and since this distance does not require the full power of the accommodation in the normal eye, children should be taught to read at that distance, when—other things being equal—little or no risk will be incurred, if the eyes be not taxed for too long together.
SECTION
ON CLIMATOLOGY AND PREVAILING DISEASES.

THE CLIMATE OF NEBRASKA.
HORACE CHAPIN, M.D., LINCOLN, CHAIRMAN.
Mr. President and Gentlemen:

Those of you who have read "Astoria," a book written by Washington Irving, in classical English surpassed by few writers, may remember a few paragraphs descriptive of the climate, vegetation, and scenery of Nebraska, when he in July, 1802, traveled across the state.

He says: "The plains would be intolerable were it not for the breeze that sweeps over them during the fervor of the day. The sun shines with a splendor unobscured by a cloud, and a starlight night on the prairie is glorious. The purity and elasticity of the atmosphere increases as the traveler approaches the mountains and gradually rises into more elevated prairies."

On July 22 the explorers crossed Big river, where they lingered a fortnight and hunted elk and buffalo. Leaving Big river Aug. 16th, and pursuing their journey west, they soon found themselves in a country which the writer describes as destitute of trees, or even shrubs. These plains, however, had not always been destitute of wood, as was evident from the trunks of trees which were frequently met with, some still standing and others lying about in broken fragments, but all in a fossil state, having flourished in times long past.

LEWIS & CLARK'S EXPEDITION.

May 4, 1804, the party, consisting of thirty persons, left the junction of the Mississippi and Missouri rivers, in lat. 38° 55′ and long. 89° 57′, to proceed up the Missouri river. July 21 they reached the mouth of the great river Platte.
July 28, having passed some twenty-five miles up the river Missouri, they encamped on the north side of the river. Here the land consists of high prairie and covered with timber, on the south low and covered with cottonwood.

Three or four miles further up, on the 30th, they encamped on the south, and speak of the country as follows: “The land here consists of plains above the high water level, the soil of which is fertile and covered with a grass from five to eight feet high, interspersed with copses of large plums and a currant like that of the United States. It also furnishes two species of honeysuckle. Back of the plain is a woody ridge, about seventy feet above it.” A little further on in the narrative we read as follows: “Near our camp we enjoy from the bluffs a most beautiful view of the river and the adjoining country. At a distance varying from four to ten miles, and of a height between 70 and 200 feet, two parallel ridges of highlands afford a passage of the Missouri, which enriches the lowlands between them. In its winding course it nourishes the willow islands, the scattered cottonwood, elm, sycamore, lynn, and ash, and the groves are interspersed with hickory, walnut, coffee nut, and oak.”

COL. FREMONT'S EXPLORING EXPEDITION.

June 10th, 1843, Col. Fremont set out on his expedition from the mouth of the Kansas river, longitude 94° 20'. Having traveled 328 miles to the Platte river, he says, “June 28, when near the Platte, the party found itself surrounded by immense herds of buffalo,” on their annual migrations from the shores of the Gulf of Mexico to the Great Lakes in the British Possessions.

On the plains over which these animals had passed there had been left scarcely a blade of grass behind. Although no mention is made of a desert, these plains at such times evidently had a desert-like appearance. Everywhere else they
found abundant vegetation—grass and flowers upon the prairie, and trees, many of large growth, along the river bottoms. The party reached the Platte about twenty-five miles below Grand Island.

On the last of June they “experienced a series of showers of rain, accompanied with heavy thunder and terrific lightning.” Everywhere, until they came to the high plains between the Blue and the Platte, they met with roses and other flowers as beautiful and perfect as in the cultivated gardens of civilization. All along on the prairie were bouquets of roses glittering in the dews and waving in the pleasant breeze of early morning.” While passing over the dividing ridge between the Little Blue and the Platte there were to be seen but few plants, except the thistle, but after crossing the ridge the prairie was covered as before with grass and flowers. On reaching the Platte there were many trees, large and small, all along the shores. The islands in the river, Grand and the other islands, “were covered with dense and heavy woods.” On the 4th of July the party left Grand Island and proceeded on their journey westward towards the Rocky mountains, and observed that “many spots along the route were yellow with sunflowers.” July 7th they found “but few trees standing, except a kind of long leaved willow.” During the last three days they saw “immense herds of buffalo, which absolutely covered the plains on both sides of the river.” “The vegetation on the banks of the river was sufficient, but on the prairies it was scanty.”

In the following year, 1844, another expedition under Col. Fremont took its departure from the mouth of the Kansas river, and following its course to its junction with the Republican, and thence following the latter up a certain distance, the country was found to be a “barren plain, with vegetation very scanty even on the rivers,” this desert-like appearance continuing essentially the same even to the mountains.

In 1846, Francis Parkman, the historian, in his book en-
titled "The Oregon Trail," says: "The thunder here on the Big Blue is not like the tame thunder of the Atlantic coast. Bursting with a terrific crash directly above our heads, it roared over the boundless waste of prairie, seeming to roll round the whole circle, with a peculiar and awful reverberation. The lightning flashed all night, playing with its livid glare upon the neighboring trees, revealing the vast expanse of the plain, and then leaving us as if in a palpable wall of darkness."

After many days' journey westward from the Blue, he described the country as follows: "A low, undulating line of sand hills bounded the horizon before us. That day we rode ten hours, and it was dark before we entered the hollows and gulches of these gloomy little sand hills. At length we gained the summit, and the long expected valley of the Platte lay before us. Occasionally there was a clump of trees rising from the islands of the Platte. No living thing was moving throughout the vast landscape, except the lizards that darted over the sand and through the rank grass and prickly pears at our feet." Four hundred miles lay between the travelers and Fort Laramie, near the Rocky mountains. Before them lay a barren, trackless waste, extending for hundreds of miles, on the right hand and on the left.

In 1861, in a letter by Mr. James T. Allan to Prof. Gray, and published in the American Journal of Science, is the following:

"The valley of the Missouri is from three to five miles wide, and sometimes the stream winds down the centre with both sides fringed with willows; behind is a belt of cottonwood. These trees are often from 80 to 100 feet high. Upon the bluffs, which wall each side of the valley, we find the different varieties of hard wood, also upon the hills and ravines opening toward the river. On the tops of the hills we find Quercus, alba and rubra, with occasional trees of Q. coccinea. * * * * As we recede from the river toward the summit of the ridge, we find scattered trees of the
Carga alba among the oaks before mentioned, till we come to the prairie, where the trees terminate with a few scrub oaks. * * * The valley of the Platte, to which so much attention is now directed, as the great central route, demands notice. At the mouth we find a heavy body of timber, chiefly cottonwood, with a small proportion of Acer rubrum, and Morus rubra. As we proceed up 20 miles, the dull green of the Juniperus Virginiana begins to be seen, which, further up, we see covering some of the small islands with trees about 18 inches or more in diameter. This has furnished for a hundred miles or more telegraphic poles of a superior quality.” It thus appears that, within a comparatively short period, timber grew in Nebraska, particularly along the rivers now destitute of native trees.

EXTRACTS FROM THE REPORT UPON FORESTRY, 1877, BY DR. F. R. HOUGH.

FOREIGN EXAMPLES OF THE EFFECTS OF FORESTS UPON CLIMATE.

Of the examples given of the effects of trees upon the rainfall in the islands lying in the Atlantic westward from Europe and Africa we will give one only.

ST. HELENA.

“This island has been mentioned as affording direct illustrations of the connection that exists between forests and rainfall. When first discovered in 1502 it had a heavy forest. The introduction of goats and other causes destroyed those woodlands, and the island was almost denuded. The consequences were that in the records of the last century we find accounts of repeated and almost periodical visitations of very severe drought, occasioning various losses to cattle and crops. Toward the end of the last century, however, the governor saw the need of strenuous measures to restore vegetation. Nurseries were established, experienced gardeners sent, and
trees from all parts of the world planted, and found to flourish. The consequences of this were described a few years since as follows:

"For many years past, since the general growth of trees, we have been preserved from the scourge; and droughts, such as were formerly recorded, are now altogether unknown. Our rain-fall now is equal to that of England, and is spread almost evenly over the year."

CENTRAL ASIA.

The following is an illustration taken from Dr. Hough's Report:

DESOilation FROM NEGLECT OF AGRICULTURE AND IMPROVIDENT CLEARING.

"The Khanate of Bucharia presents a striking example brought upon the country by clearings. Within a period of 60 years this was one of the most fertile regions of Central Asia. A country which, when well wooded and watered, was a terrestrial paradise. But within the last 25 years a mania of clearing has seized upon the inhabitants, and all the great forests have been cut away, and the little that remained was ravaged by fire during the war. The consequences were not long in following, and have transformed the country into a kind of arid desert. The water-courses are dried up, and the irrigation canals empty."

The foregoing illustrations and many others that may be found in Dr. Hough's report seem to show that the destruction of large forests is, in many instances, the cause of drought, and, on the other hand, the cultivation of trees on an extensive scale tends to the increase of rain-fall.

It is stated by scientific investigators that oceans, lakes, ponds, and rivers are the principal causes of rain and snow. The evaporation from bodies of water, especially during the heat of summer, is very active, and the quantity of water
transformed into vapor by this agency—heat—is simply immense. The vapor rising into a high altitude, and hence colder atmosphere, is condensed into snow or rain or hail, and falls to the earth. The condensation does not always take place until the vapor has been wafted by the upper stratum of air many miles, sometimes thousands, over the continent. This is strikingly illustrated on the Atlantic coast.

Signal stations with telegraphic connections have been established at all the important seaport towns on the coast. I remember very well, when a resident of Boston, if it was announced by telegram to us Bostonians that a hard rain storm was raging at a point far south, and if a few hours later we received information that it was commencing to rain at a more northerly part, we were very sure that other telegrams of a similar import from other points in the order of their localities would be received, the last one before the storm reached us from New York city, when in a few hours—6 or 8—a storm of wind with snow or rain, apparently coming from the north-east, would be upon us, and in a few hours thereafter it would be announced that the storm had reached Portland, and then Eastport, Me.; from thence it would pass on to the British Provinces and to the Atlantic ocean.

Where does the rain-fall in Nebraska have its source or sources? Evidently much the larger part comes from evaporation rising from rivers, ponds, lakes, and oceans. We have in our state a goodly number of large rivers, and their tributaries. There is no doubt that over a limited area contiguous to large streams rain showers are more frequent during the warm weather of summer than at a distance of a few miles on either side. This is manifestly so near the Missouri river, the Platte, the Big Blue, and in a less degree the smaller streams. But from this source alone, the annual rain-fall would be quite insufficient.

There are few, if any, large ponds within our state, and no lakes within or contiguous thereto.
The great lakes of our country lie far to the north-east in a high latitude, and consequently in a cold zone; therefore but comparatively little vapor will rise from them, particularly in the early months of summer. They cannot, therefore, be the source of the rain storms that visit Eastern Nebraska in May and June.

There only remains, then, for us to consider in this connection the question: Does our rain-fall have its source from the waters of some ocean?

Nebraska is 1,500 miles distant from the Atlantic ocean on the east, and a like distance from the Pacific ocean on the west, and a less distance from the Gulf of Mexico on the south.

It is hardly probable that our continuous rain storms come from the Atlantic ocean, as there is no evidence that rain storms commencing near the Atlantic coast proceed westward until they reach the eastern part of our state, and then, having exhausted themselves, proceed no further.

Are these storms the result of the wafting eastward of the vapors of the Pacific ocean, and their condensation only after reaching the eastern half of our state? This is not at all probable, for the condensation of these vapors would take place long before passing over the Rocky mountain range.

The Gulf of Mexico is then the only large body of water to be considered in this respect. The water of the Gulf immediately to the south of our state is affected by physical laws identical with those that act upon the waters and the air above them that surround the peninsula of Florida, varying only in degree.

Our storms then, like those near the Atlantic coast, may have for their source the water of the Gulf of Mexico. This conclusion, however, can only be finally sustained or refuted until the facilities for meteorological investigation, similar to those that exist on the Atlantic coast, shall have been established. Till then we must be content with theory.

We have in the preceding pages of this paper quoted from
Dr. Hough's report to the effect that extensive forests upon islands in the ocean and sometimes upon the mainland, in warm climates near the sea, are often essential aids in the production of rain-fall. There are no extensive forests in Nebraska. The state is a vast treeless plain.

Washington Irving, Lewis & Clark, Francis Parkman, and Col. Fremont, early explorers and authors, whose statements I have quoted to some extent in these descriptions of what now comprises Nebraska, speak of dense forests and large trees along the borders of the streams; as does also Mr. Allan in his letter to Prof. Gray, as late as 1861.

We have, therefore, ample testimony from the most reliable sources that all along from 1802 to 1861 the river bottoms and bluffs were thickly covered with forest trees. Most of the trees standing a quarter of a century ago have disappeared—probably to supply the early settlers, who came in large numbers about that time, with fuel and timber.

The breaking up of the prairies and their cultivation is believed by many to contribute to the humidity of the atmosphere, and consequently to rain-fall. If this be the case, then, when our prairies are extensively utilized for the production of the cereals and vegetables, the humidity of the atmosphere will be perceptibly increased. But this theory remains to be tested by observations extending over a term of many years, with the probability that, like many other theories, it will be proved to have had little or no substantial basis.

The prevailing winds of our state are either from the north or from the south, seldom from the other points of the compass. From my limited observations as a resident here of six years only, which, perhaps, may be taken in this respect as sufficiently long, I have found that particularly in the summer months the south winds are as cool and refreshing as those from the north. In fact, during the oppressive heat of the summer day the prevailing breezes are from the north, while the comfortably cool and refreshing breezes at night come from the south.
The wind storms that sweep over our prairie state in the late fall, winter, and early spring months come from the south as frequently as from the north. The climate in Nebraska is not as mild and equable as in the middle and New England states. It is not very unusual for the sun to rise with every indication of a warm and pleasant day, and before sunset a sudden and extreme change to take place in the temperature, accompanied by a storm of rain with hail or sleet, urged by the wind with such violence as to make it feel like a storm of needles. I have known a change of temperature in 24 hours of from 50 to 75 degrees F. For instance, this last winter, the thermometer on a certain day indicated early in the morning 16° below zero, and on the following day at 2 P.M. the mercury had risen to 50 above.

This very day, June 2d, the sun arose in a cloudless sky; the day was warm, the thermometer indicating at noon 90°, and there were no apparent indications of a storm; but, about five in the afternoon, the sun was obscured by clouds, and within an hour a terrific rain storm commenced, with a violent wind from the north, and a succession of vivid flashes of lightning, quickly followed by clap after clap of deafening thunder, whose reverberations extended far away in all directions. It was a scene truly grand and sublime, and to be highly enjoyed by any one free from fear of personal danger. But to be overtaken by such a storm on the prairie, where there is no tree or building in the entire landscape, yourself and horses and carriage the most conspicuous object anywhere around, requires strong nerves and a truly philosophic mind, or unusual faith and unfaltering trust in the Supreme Being, to fortify you from all fear of danger.

From my own observations, and from information from apparently reliable sources, I think it is reasonable to presume that not only do these sudden and extreme changes occur during all seasons of the year, but that the years themselves, when compared one with another, will often show
marked and extreme differences in this respect. As for instance, a comparison of the year 1881, with its dry atmosphere, clear, blue, and cloudless sky, and its dust storms and droughts, with the year 1884 with its humid atmosphere, cloudy skies, misty days, plentiful rains evenly distributed throughout the year, and its consequent freedom from dust storms and droughts, gives, I think, a not exceptional example of the annual varableness of the climate of Nebraska.

Furious wind storms, with rain and hail, visit our state more or less frequently nearly every year, but as they soon expend their violent propelling force, the destruction caused by them is comparatively limited; and from the same natural cause the dreaded cyclones, which we are not wholly exempt from, produce very much less damage and destruction to buildings, trees, and growing grain, and injury or death to domestic animals and to human beings, than they often do in various parts of our country, all along between here and the Atlantic coast.

The following table is suggestive in some particulars:

**TABLE OF RAIN-FALL TAKEN FROM UNITED STATES SIGNAL SERVICE REPORTS.**

<table>
<thead>
<tr>
<th>FOR STATION NORTH PLATTE.</th>
<th>FOR STATION OMAHA.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>1873</td>
<td></td>
</tr>
<tr>
<td>1874</td>
<td></td>
</tr>
<tr>
<td>1877</td>
<td>3.29</td>
</tr>
<tr>
<td>1878</td>
<td>3.24</td>
</tr>
<tr>
<td>1879</td>
<td>2.25</td>
</tr>
<tr>
<td>1880</td>
<td>2.28</td>
</tr>
<tr>
<td>1881</td>
<td>4.84</td>
</tr>
<tr>
<td>1882</td>
<td>3.98</td>
</tr>
<tr>
<td>1883</td>
<td>4.07</td>
</tr>
<tr>
<td>1884</td>
<td>2.40</td>
</tr>
<tr>
<td>Av.</td>
<td>3.28</td>
</tr>
</tbody>
</table>
This table shows at a glance that the variableness in the rain-fall at North Platte from year to year, as a whole, was slight indeed. But if we compare, for example, the rain-fall of Aug. and Sept., 1877, 9.57 inches, with that of the same months in 1879, .56 inches, we shall find the difference to be 8.95 inches. Other comparisons equally suggestive may be made.

Tradition, the only source of information pertaining to Nebraska previous to the nineteenth century, is so far lost in the mists of antiquity that nothing can be found; therefore, nothing relating to the changes of climate that may have taken place during a period of hundreds of years, perhaps thousands, preceding the present century, is known. The history of the climate since the commencement of the present century is, with the exception of the last two or three decades, remarkable, if for anything, for its silence in important particulars. We have, therefore, to rely mainly upon the verbal statements of residents of our state, and upon the observations made by government officials during this limited period, so limited that it is hardly safe to draw deductions therefrom. In fact, if reliable information relating to the climate of Nebraska during an extended period in the past—the eighteenth century and the first half of this, for example—could be found, such evidence as we now have would be admissible only as corroborative, or otherwise, of the history of the climate in the earlier period. But, lacking this, we can only base our conclusions upon observations of the recent and quite limited term of years.

CONCLUSIONS.

1. The continuous and plentiful rain-fall which visits our state nearly every year, in May and June, has its source from large bodies, or a large body, of water.

2. The rain-fall, the temperature, wind, hail, snow, and sleet storms, and the frequent, sudden, and extreme atmos-
pheric changes are, perhaps with one or two exceptions, controlled by physical laws entirely independent of human agency.

3. Beyond the cultivation of forests on an extensive scale, and patient waiting many years for their growth, little else will be effective in the promotion of rain-fall; and even then, as in many of the eastern states—the state of Maine, for example—there will from to time be years of destructive droughts.

4. The cultivation of the soil on an extensive scale, for the production of grain and vegetables, is not an agency, certainly not a potent one, in the promotion of humidity of the atmosphere.

5. Since the commencement of the present century there has been little evidence to warrant the assertion that a gradual increase of rain-fall is surely taking place.

6. The meteorology of the eastern half of our state, so far as it has been studied, indicates that there has been, with a very few exceptions indeed, quite a sufficient amount of annual rain-fall for vegetation, if evenly distributed through the year; and that, with an occasional exceptional year, or sometimes two or three succeeding years, the quantity of rain during the summer months has been very nearly equal to that of a like number of months at other seasons of the year.

APPENDIX.

The Committee on Climatology and Prevailing Diseases early in the year agreed upon the following plan: That the chairman should prepare a paper upon the climate of Nebraska, and that the other members should present a report upon the prevailing diseases. After the elapse of perhaps three-fourths of the year, the chairman was informed by the other members of the committee that they had earnestly striven to obtain information relative to the prevailing diseases of Nebraska, but had been thus far unsuccessful in their efforts. Furthermore, as another member of the Society had
been authorized by the Society to "prepare forms similar to those by Boards of Health elsewhere, regarding births, death and its causes, endemic, epidemic, contagious, and infectious diseases," etc., and, presuming that he would report thereon to the Society, they had, for these reasons, decided to make no further efforts towards the preparation of a paper upon prevailing diseases.
SECTION
ON NERVOUS DISEASES.

A YEAR'S SCIENTIFIC PROGRESS IN NERVOUS AND MENTAL DISEASES.

L. A. MERRIAM, M.D., OMAHA.
A YEAR'S SCIENTIFIC PROGRESS IN NERVOUS AND MENTAL DISEASES.

BY L. A. MERRIAM, M.D., OMAHA,
Professor of the Principles and Practice of Medicine in the University of Nebraska College of Medicine, Lincoln, Neb.

The records of the Nebraska State Medical Society show that the only report of progress on nervous and mental diseases ever made in the history of the Society (sixteen years) was made by the writer last year, and expecting that those appointed to make a report this year would, judging by the history of the past, fail to prepare such a report, I have seen fit to prepare a brief volunteer report of such items of progress as have come to my notice during the last twelve months. I have not been able to learn that any original work has been done in our state during the past year, nor that those having charge of the Insane Hospital have utilized the material at their command to add to the sum of our knowledge of mental diseases.

Last year I said, "There is a growing sentiment that many diseases not heretofore regarded as nervous (and perhaps all diseases) are of nervous origin." This truth, that all pathologico-histological changes in the tissues of the body are degenerative in character, and whether caused by a parasite, a poison, or some unknown influence, are first brought about by or through a changed innervation, is one that is being accepted very largely by the best men in the profession, and the accumulation of facts is increasing rapidly, and the acceptance of this great truth will prove to be little short of revolutionary in its influence on the treatment of disease. This is the outgrowth of the study of disease from the standpoint of the evolution hypothesis. Derangements of function precede ab-
normalities of structure, hence the innervation must be at fault before the organ fails. Hence the art of healing should aim at grappling with the neuroses first, for the local trophic changes—perverted secretions and structural abnormalities—are the effects or symptoms, not the causes of the disease.

Dr. J. L. Thudicum has studied the chemical constitution of the brain, and he holds that, “When the normal composition of the brain shall be known to the uttermost item, then pathology can begin its search for abnormal compounds or derangement of quantities.”

The great diseases of the brain and spine, such as general paralysis, acute and chronic mania, and others, the author believes will all be shown to be connected with special chemical changes in neuroplasm, and that a knowledge of the composition and properties of this tissue, and of its constituents, will materially aid in devising modes of radical treatment in cases in which at present only tentative symptomatic measures are taken.

The whole drift of recent brain inquiry sets towards the notion that the brain always acts as a whole, and that no part of it can be discharging without altering the tensions of all the other parts, for an identical feeling cannot recur, for it would have to recur in an unmodified brain, which is an impossibility, since the structure of the brain itself is continually growing different under the pressure of experience.

Insanity is a disease of the most highly differentiated parts of the nervous system in which the psychical functions, as thought, feeling, and volition, are seriously impaired, revealing itself in a series of mental phenomena. Institutions for the insane were at first founded for public relief and not to benefit the insane, but this idea has changed in the past, and there is a growing feeling that a natural and domestic abode adapted to the varying severity of the different degrees of insanity should be the place for the insane, with some reference to their wants and necessities, and that many patients
(not all) could be better treated in a domestic or segregate asylum, than in the prison-like structures that so often exist, and that the asylum should be as much house-like and home-like in character as the nature of the insanity would permit, while exercise and feeding are accounted as among the best remedies in some cases of insanity, particularly in acute mania.

The new disease called Morbus Thomsenii, of which I wrote in my report last year, has been carefully studied by several men of eminence, and the following conclusions have been reached as to its pathology. The weight of evidence seems to prove that it is of a neuropathic rather than a myopathic nature, and that it depends on an exaggerated activity of the nervous apparatus which produces muscular tone, and that it has much analogy to the muscular phenomena of hysterical hypnosis, the genesis of which is precisely explained by a functional hyperactivity of the nervous centres of muscular activity.

Until quite recently it was supposed that the rhythmical action of the heart was entirely due to the periodical and orderly discharge of motor nerve force in the nerve ganglia which are scattered through the organ; but recent physiological observations, more especially the brilliant researches of Gaskell, seem to show that the influence of the cardiac ganglia is not indispensable, and that the muscular fibre itself, in some of the lower animals at all events, possesses the power of rhythmical contraction.

Several valuable additions to our knowledge of the anatomy of the nervous system have been made by Huschke, Exner, Fuchs, and Tuczek.

Tuczek and Fuchs have confirmed the discoveries of Exner, that there are no medulated nerve fibres in the convolutions of the infant, and Flechsig has developed this law, "That medulated nerve fibres appear first in the region of the pyramidal tracts, and corona radiata, and extend from them to
the convolutions and periphery of the brain," being practically completed about the eighth year. This fact is of practical importance in nervous and mental diseases since it is becoming an admitted truth that the histological changes in disease follow in an inverse order the developmental processes taking place in the embryo. Hence the recent physiological division of the nervous system by Dr. Hughlings-Jackson into highest, middle, and lowest centres, and the evolution of the cerebro-spinal functions from the most automatic to the least automatic, from the most simple to the most complex, from the most organized to the least organized. In the recognition of this division we have the promise of a steadier and more scientific advance both in the physiology and in the pathology of the nervous system.

Mr. Victor Horsley has recently demonstrated the existence of true sensory nerves supplying the nerve trunks, of nervi-nervorum.

Prof. Hamilton, of Aberdeen, claims that the corpus callosum is not a commissure, but the decussation of cortical fibres on their way down to enter the internal and external capsules of the opposite side.

Professors Burt G. Wilder, of Ithaca, and T. Jefrie Parker, of New Zealand Institute, have proposed a new nomenclature for macroscopic encephalic anatomy, which, while seemingly imperfect in many respects, has at least the merit of stimulating thought, and has given an impulse to a reform which will not cease until something has been actually accomplished in this direction. The object being to substitute for many of the polynomial terms, technical and vernacular, now in use, technical names which are brief and consist of a single word. This has already been adopted by several neurologists, of whom we may mention Spitzka, Ramsey, Wright, and H. F. Osborn.

Buys holds that the brain as a whole changes its position in the cranial cavity according to different attitudes of the
body, the free spaces on the upper side being occupied by cerebro-spinal fluid, which, obeying the laws of gravity, is displaced by the heavier brain substance in different positions of the body. Luys claims that momentary vertigo, often produced by changing from a horizontal to a vertical position, sea-sickness, pain in movement in cases of meningitis, epileptic attacks at night, etc., etc., may be by this explained. These views of Luys are accepted as true, but to a less extent than taught by Luys.

The prevalent idea that a lesion of one hemisphere produces a paralysis upon the opposite side of the body alone, is no longer tenable, for each hemisphere is connected with both sides of the body by motor tracts, the larger of the motor tracts decussating, and the smaller not decussating in the medulla. Hence a lesion of one hemisphere produces paralysis upon the opposite side of the body, and a certain amount of weakness upon the same side of the body. It has recently been established, that a lesion of one hemisphere in the visual area produces, not blindness in the opposite eye, as was formerly supposed, but a certain degree of blindness in both eyes, that in the opposite eye being greater in extent than that in the eye of the same side. Analogy would indicate that other sensations follow the same law, hence the probability is, that all the sensations from one side of the body do not pass to the parietal cortex of the opposite side, but that, while the majority so pass, a portion go up to the cortex of the same side from which they come.

Dr. Hammond says that the chief feature of the new Siberian disease, called miryachit, is that the victims are obliged to mimic and execute movements that they see in others, and which motions they are ordered to execute.

Dr. Beard, in June, 1880, observed the same condition when traveling among the Maine hunters, near Moosehead lake. These men are called jumpers, or jumping Frenchmen. Those subject to it start when any sudden noise reaches the
ear. It appears to be due to the fact that a motor impulse is excited by perceptions, without the necessary concurrence of the volition of the individual to cause the discharge, and are analogous to epileptiform paroxysms due to reflex irritations.

The term spiritualism has come to signify more than has usually been ascribed to it, for some recent authors are now using the term to denote a neurosis, or nervous affection, peculiar to that class of people who claim to be able to commune with the spirits of the dead.

Evidence obtained from clinical observations has tended of late to locate the pathological lesions of chorea in the cerebral cortex. Dr. Godlee's operation of removing a tumor from the brain marks an important step in cerebral localization, and cerebral surgery bids fair to take a prominent place in the treatment of mental diseases.

Wernicke has observed that the size of the occipital lobes is in proportion to the size of the optic tracts, and that the occipital lobes are the centers of vision.

Hughlings-Jackson has observed that limited and general convulsions were often produced by disease in the cortex of the so-called motor convolutions, and the sense of smell has been localized by Munk in the gyri hippocampi, while the center of hearing has been demonstrated to be in the temporal lobes; the center for the muscles of face and tongue is in the inferior part of the central convolution; that for the arm in the central part, that for the leg in the superior part, of the same convolution; the center for the muscles and general sensibility, in the angular gyrus; the center for the muscles of the trunk, in the frontal lobes. In pure motor aphasia the lesion is in the posterior part of the left third frontal convolution, in cases of pure sensory aphasia the lesion is in the left first temporal convolution.

The relation of the cerebrum to cutaneous diseases has been studied much of late, and it is now held that the cutaneous
eruptions are mainly due to the degree of inhibiting effect exerted upon the vaso-motor center.

The relation of the spinal cord to skin eruptions has been more thoroughly investigated, and more abundant evidence supplied to demonstrate the influence degeneration of the spinal cord has in causing skin diseases, notably zoster, urticaria, and eczema.

That rheumatism, pneumonia, diabetes, and some kidney diseases and liver affections are often the result of persistent nervous disturbance, is now held. That a high temperature—the highest recorded—has resulted from injuries of the spinal cord, and, where the influence of microsymes is excluded, is not a matter of question. In one instance the temperature reached 122° F., and remained for seven weeks between 108° F. and 118° F. The patient was a lady, and the result was recovery. Hence it cannot be fever which kills, or produces rapid softening of the heart and other organs in fatal cases of typhoid. Fever, so far as it consists in elevation of temperature, can be a simple neurosis.

Many other items of progress might be presented, did time permit, particularly in the treatment of nervous affections, but this I leave for another occasion.
REPORTS
OF THE
REPRESENTATIVES OF FOREIGN SOCIETIES
IN THE
NEBRASKA STATE MEDICAL SOCIETY.

CALIFORNIA.
BY REPRESENTATIVE A. S. V. MANSFELDE, M.D., ASHLAND.

COLORADO.
BY REPRESENTATIVE L. B. GRADDY, M.D., OMAHA.

ILLINOIS.
BY REPRESENTATIVE ALICE E. HUFF, M.D., ASHLAND.

INDIANA.
BY REPRESENTATIVE A. S. V. MANSFELDE, M.D., ASHLAND.

KANSAS.
BY REPRESENTATIVE L. A. MERRIAM, M.D., OMAHA.

MARYLAND.
BY REPRESENTATIVE L. A. MERRIAM, M.D., OMAHA.

MASSACHUSETTS.
BY REPRESENTATIVE A. BOWEN, M.D., NEBRASKA CITY.

NEW YORK.
(New York State Medical Association)
BY REPRESENTATIVE R. B. LIVINGSTON, M.D., PLATTSMOUTH.

PENNSYLVANIA.
BY REPRESENTATIVE FRED. D. HALDEMAN, M.D., ORD.
CALIFORNIA.

BY REPRESENTATIVE A. S. V. MANSFELDE, M.D., ASHLAND.

R. R. Livingston, M.D., Chairman Committee on Foreign Correspondence, N. S. M. S.:

DEAR DOCTOR—In accordance with the expressed wish of the Society, I have taken upon myself the task to furnish a review of the Proceedings of the Medical Society of the State of California. This work, a labor of love, would indeed have been one of honor, had it not been self-imposed; however, ere another twelve months have rolled away, I hope to appear before you as the authorized representative of the medical profession of the state of California upon the floor of the Nebraska State Medical Society. California has for years past been the eldorado of my fancy, appearing to me as the mother of gigantic offspring, with equally unlimited powers for good, and as association breeds similarity, I had ingrafted upon my mind the idea that the qualities of the physician partake somewhat of the same attributes. A perusal of the volume of transactions of this Society for 1884, has certainly not dispelled my fancy or second sight. Its 293 pages are replete with expressions of good-fellowship as is shown by this resolution:

Resolved, That the sympathies of this Society in all its members throughout the state are hereby tendered to Dr. G. A. Shurtleff, with most earnest hope that he may be restored to health and usefulness.

The proverbial work of the profession *pro bono publico* is not neglected. The committee on medical legislation receives instructions "to secure, if possible, the enactment of a law providing for the cure and treatment of dipsomaniacs." Again, the legislature is to be asked "to create the office of
State Chemist to be filled by the Professor of Chemistry of the University, who shall act in conjunction with the State Board of Health, and whose duty it shall be to analyze food, drugs, remedies, waters, etc., and report upon the same for the general good of the people, and to the discomfiture of parties dealing in adulterated and spurious articles of food and medicine.”

Next to the minutes of the society, the annual address of the president, Ira E. Oatman, M.D., invites our attention, forcing the wish that this address would be imitated, if only in one particular, by the crop of presidents annually appearing upon the stage medical—namely, an inquiry into the wants of the profession, of the people of the state, and of the medical society, accompanied by advice earnestly given, and adequate in ratio to the high office held by the speaker.

In speaking of yellow fever, the doctor says:

“Soon afterwards I had the disease myself, although this forcible example and numerous others on record show the disease to be contagious, yet it is well established that the most malignant epidemics of cholera and yellow fever have chiefly been in towns and cities where the scientific application of sanitary precautions had been neglected; where organic substance had accumulated in all stages of decomposition under circumstances and conditions best calculated to generate and eliminate pestiferous gases in great quantities. The insanitary conditions of the breath of life thus produced, lower the vital powers, impair the general health, and establish a susceptibility to the so-called zymotic diseases—diseases of low and often malignant type. The pathogenetic influence of these gases, combined with specific contagion, seems to determine the nature or kind of the epidemic. The malignancy of the epidemic depending upon the noxiousness of the air, and probably an epidemic influence in the atmosphere, at present indefinable.”

Interesting is the doctor's view in regard to the ethics of
the profession. A lengthy quotation will affirm this, and is excusable, as another paper will presently invite our attention to this vital subject. Dr. Oatman says, page 11:

"The immutable principles of science know no compromise with ignorance or cupidity, how much soever they may be reinforced by members and influence. The exalted and well-earned eminence of regular scientific medicine rests upon a solid foundation, as of adamant, which cannot be moved. Regular medicine can no more affiliate and consult with irregular, than the religionists of the Bible can consult in the interests of their churches with Mohammedans or idolatrous Pagan priests. Irregular and unscientific practice will have its votaries and patrons. As correct knowledge increases, and the inefficiency of the unscientific becomes more generally known, it will be self-regulating—the chief inspiration of its votaries being sordid cupidity. Scientific progress and reform may move slowly, but 'truth is mighty and will prevail.' The public mind is sufficiently observant and logical if scientific facts involved could be demonstrated before them. Suppose a man, nearly exhausted, floating in a swift and turbulent stream near to a skillful oarsman with his boat and rope, who could easily save his life in a short time. Eager observers urge him to save the drowning man. 'Go with your boat! Throw him the rope!' Another man says, 'This is better,' and throws a cork fastened to a frail thread to the man in danger, who grasps it as he would a straw; but it has no strength; it parts; at once the man is out of reach; he sinks for the third time and is lost! So it is with most of the irregular practice. It is also true in regard to patent and proprietary medicine. The irregular or patent medicine is depended upon; the patient dies, not killed by either, but allowed to die for the want of that which would certainly have saved his life. Is this fatal deception better than murder? How many such fatal cases come to our knowledge in a single year. It is, so to speak, an insanitary state of the public
"The public needs a little more education," says Dr. R. H. Plummer, Secretary of the State Board of Medical Examiners, of California, in his eighth annual report, page 251 of the transactions, "on medical topics to induce it to sustain the efforts put forth by the profession in behalf of the best interests of the dear 'people.'

"And they are receiving that education. Popular lectures upon medical topics are being delivered in this city to houses crowded with thirsty wayfarers eager to quaff from the fountain of knowledge the information necessary to enable them to choose wisely between the scientific medical man and the charlatan. Such lectures are becoming more and more popular in large cities throughout the United States. I might with truth say the world, and it is to be hoped that the profession and the public in the interior cities and hamlets will catch up the ringing refrain, and echo it back from the mountains."

And now comes A. M. Wilder, M.D. with a paper entitled, "Old and New Codes." He reviews the action of the profession of the state and city of New York, which has resulted in the establishment of a new society in allegiance with the American Medical Association; the old society having adopted a new code or rather no code at all—the "flimsy rag" as the doctor appropriately calls it. He proceeds to say:

"In view of the accomplished facts which we have just been considering, and the almost inevitable evil results that the action of the city and state of New York will entail upon other states in the Union, it seems proper to inquire into some of the principle causes that have been operative in bringing the profession of New York to its present status, and to ascertain if some measures may not be devised to avert the dangers which threaten to overwhelm true medical science, and at the same time restore harmonious union in the rank of the entire profession."
The first factor that presents itself in this inquiry is the immense growth of the parasites before alluded to, and especially that of homeopathy * * * It is the most subtle and insidious for the reason that it approaches the general public on its most vulnerable sides, viz., its pockets and its palates; its pockets inasmuch as there are no heavy drug bills to be enumerated in the expense account of a long illness; its palates, by reason of the methods of preparation and character of the medicaments used.

The italics in the above quotation are my own, since I wish to draw attention to those parts more particularly. I think the doctor's fear of any calamitous happenings to "true medical science in this country" in consequence of the action of some New York doctors, and the minority at that, unfounded. True medical science will live and advance in the interests of mankind when homœopathy and its kith and kin are forgotten; nay, even when the great state of New York will remain in the memory of man only as a fact of history, scientific medicine will have its altars and its votaries. His fears will be more abated when he learns that the immense growth of homœopathy is a thing of the past (see the reports of students in attendance upon homœopathic medical colleges in this country and abroad). As to adherents to its practices among the people, it may be stated that fools survive by sheer luck, one demonstration of which my father used to give in saying, that God Almighty blesses the earth and the seeds sown on a given day of the year, and it invariably happened that this was All Fools' Day. Ignorance, and credulity, its legitimate child, will never die, and mundus vult decipi, ergo decipiamur will be the device on many a banner as long as they flourish. How could "the profession, teachers and writers," follow our doctor's advice "in carefully examining into what merits it (homœopathy) really possessed, divesting it of its errors and quietly absorbing all that was good, making it part and parcel of general medical science," if its composition is errant
nonsense, and its effect nothing? Synthetic chemistry has done wonders of late—thanks to the hard work of Pierre Eugene Marcellin Berthelot and his co-workers—but it has not yet contrived to create anything out of nothing—the God of the Bible is ahead in that—and now comes our friend and seriously asks us to try our hand at the game, and why? Because it has been played by the homœopaths with apparent profit.

"Stimulated and abetted by stupidity and ignorance on the part of the general profession, which, although ostensibly permitting its members to make use of any and all means therapeutically for the amelioration of suffering or the promotion of cure, has persistently refused examination into, or testing of (I am sorry to admit that the doctor does not say game, but) the merits of said system." I fear the doctor befriends the homœopathists a little too much by offering to build a new dogma for them "in the primary and secondary effects of drugs."

"The primary effect obtains so long as nature responds promptly to the action of the medicament, and is irritant, tonic, and stimulant. So soon as nature begins to fail in response to the medicament, the secondary effect begins, which is sedative, depressant, narcotic, and poisonous. This law applies equally to all drugs, and easily explains the large range of doses that obtains in many instances, while still confined to their primary effects, and the exceeding small range of doses which obtains in other and more potent drugs. It is this law, also, that gives whatever truth there may be in the dogma, similia similibus curantur, and by reason of the small doses that the disciples of homœopathy generally make use of, their medication is almost wholly confined to the primary effects of the drugs, while, as a rule, the medication of the regular profession is largely on the side of the secondary effects."

In other words, homœopaths generally cure their patients, —i.e., their diseases—by the primary effect of the drugs which
they employ, and the regular profession uses more often the secondary effect of remedies as means of cure. The doctor seeks to strengthen his theory by the exhibition of the very stale dose of homœopathy—the action of ipecac in small and large doses. He says:

"How many of our graduates know that the apparent contradictory effects of ipecac in controlling nausea (in certain conditions of the stomach) and in producing emesis are due, not to any real contradictory action or 'hocus pocus' of the drug itself, but simply to the fact that its primary effect, in minute doses, is stimulant to the coats of the stomach, while the emesis is the result of over-stimulation, the stomach rebelling and throwing off the offending agent."

But how will our friend explain by this theory of over-stimulation of the stomach the fact that the hypodermic injection of emetia will produce vomiting, even when the stomach has been replaced by a bladder stitched to the oesophagus? Or how does the primary stimulation of one drop doses of wine of ipecac given every hour affect the stomach by controlling the nausea and emesis of pregnancy, induced by a reflex from the womb upon the vomiting center, situated somewhere upon the floor of the fourth ventricle in the medulla oblongata?

The doctor concludes his article with some very pointed and well-known remarks upon the regulation of the practice of medicine. (See Medical Record, Vol.-, page-.) The whole article is worthy of perusal. It is to be regretted, however, that the secretary in his report has failed to mention which part of the paper elicited the admiration of the Society to the extent of ordering 500 copies for general distribution.

In the Report on Practical Medicine, Dr. H. Gibbons, Sen., voices the record of every true physician when he says:

"In no point of view is the attitude of our profession so honorable before the world as in its philanthropic aspect, by which physicians become the self-constituted guardians of the public welfare. The uncompelled and unrewarded labors per-
formed by them in the direction of preventive medicine are not appreciated either by governments or people. Both governments and people appear to regard it as the natural duty of physicians to prevent disease by organizations and publications conducted at their own expense. What if the lawyers of the United States should summon conventions, state and national, and travel hundreds and thousands of miles to attend them, at their own cost, and all for the purpose of devising means to prevent people from engaging in lawsuits? And this is what physicians are doing continually against their regular occupation, besides giving their services gratuitously to the vast army of indigent who crowd the land in all directions."

Fifty-five years of medical practice, coupled with work of no mean scientific character, entitles this Nestor of the profession of California to a respectful hearing upon any subject. This is his picture of an ideal physician:

"The safest and best practitioner is he who stores up all the resources of the past, who inquires diligently into all new theories and new remedies, but holds them in abeyance until his array of experience is exhausted, exposing his patients to no risk from untried or unestablished means, but rather awaiting the results of their trial by others, well knowing that such trials will be made abundantly, even to the extent of hazard and rashness. He should never forget that his first duty is to his patient, and that the promotion of science is secondary, and not to be sought at the risk of those with whose health and life he is charged."

In regard to the healthfulness of California, Dr. Gibbons says:

"After the countless pages that have been published in favor of different health resorts in various quarters of the globe, I doubt if there is any area of territory of the same extent as California, presenting so much excellent sanitary resorts, and commanding all the comforts and luxuries of home
life. Our territory is increasingly dotted over with cities and towns, its fields and plains improved and planted, and access from place to place is becoming more and more easy from year to year. Our mineral springs are profusely distributed, and wonderfully diversified in character. It is not an extravagant expectation that before many years California will be the grand sanitarium for a great portion of the civilized world.”

This generalization may be fitly supplemented by the mention of special regions, which Dr. Henry Worthington describes in his report as chairman on Medical Topography, etc.

“Foremost,” he says, “among the places of resort for invalids, and perhaps more popular than any other in Los Angeles county, because of its climate, its cultivated surroundings, and its many social advantages, may be mentioned Pasadena. It neither has to any great extent harsh winds and fogs, nor the heated atmosphere of most interior valleys. In fact, surrounded and protected as it is by high hills, the climate is peculiarly soft and mild, and especially adapted to the consumptive, and a great majority of cases of asthma (bronchitic asthma), and other complaints. At Pasadena proper, the elevation is about 800 feet above the sea level, gradually ascending towards the base of the mountains, until 2,000 feet are reached, which is quite above the frost line, and well out of the fog.

“North-west of Pasadena, some ten miles from Los Angeles, lies a picturesque hill country called the Verdugo. A long narrow valley, on all sides high hills, a succession of small valleys scattered among the hills, covered with oak and balsamic shrubs, describes the Verdugo region. I have no hesitation in predicting that the Verdugo will become one of the most popular of health resorts, combining as it does a climate unsurpassed for equability, warmth, and dryness, and comprising a region at once fertile, well watered, and abounding in scenery wild and picturesque.

“Then the doctor goes on and mentions the San Gabriel
valley, with its variety of climates dependent upon local causes, such as exposure, altitude, etc. The Sierra Madre Villa, described by Professor Hatch, the Duarte, 18 miles north-west of Los Angeles, Pomona, 30 miles from the same place, Cucamonga and Ontario, all offer their peculiar advantages; though the two latter places are subject to severe sand storms, which are unpleasant drawbacks to consumptives. San Antonio Canyon, Riverside, the Temescal valley, Elsinore, Temecula, and the regions of the Aguas Calientas offer, at least some of them, beside the equable temperature, a desideratum deserving of special mention.

ALTITUDE.

At one place situated 2,100 feet above the San Bernardino, Dr. Worthington was assured, that neither fog nor frost had been observed there during a residence of some sixteen years. Dr. Worthington cannot conclude these notes without making a brief reference to the almost unknown, but none the less interesting pine regions of Southern California.

“All along the eastern and northern exposures of the San Bernardino, San Jacinto, and Smith’s mountains, pineries are found. Here camp life can be enjoyed the year around. The perennial sunshine, the dry atmosphere impregnated with the antiseptic aroma of the forests of pines, and the equability of the temperature, coupled with the wild romantic surroundings of these mountain valleys, combine to make these pine regions of vital importance as climatic resorts for the invalid.”

In an able article on “Some of the uses of ergot as a vaso-motor stimulant,” Dr. A. H. Agard says of its use in pneumonia:

“With me, it (ergot) has done more to shorten the period of illness, and more to reduce to a minimum the injuries to the lungs in pneumonitis, than all other remedies I have ever used. The ergot, acting through the vaso-motor nerves,
causes the nonstriated fibres of the capillaries to contract (I did not know that these vessels had nonstriated fibres, though they are found in the smaller arteries. The Reviewer.) and the engorged lung is depleted and relieved before tissues change and exudative results occur. Used later in the attack, it may be of great service, but will not give such prompt relief after the capillaries have depleted themselves and filled the lung tissue with exudative matters. The remedy may be given by the stomach or used hypodermically. When given by the latter method, the effects are more prompt and satisfactory. I am accustomed to give from one to two grains of ergotin, so called, every six or eight hours, or 15 to 30 minims of the fluid extract every two to four hours. The remedy should be continued, generally in diminished doses, two or three days after all discoloration of the sputa has disappeared.

"In the treatment of pneumonia, I have generally found benefit from giving digitalis and ammonia, as I gradually withdrew the ergot."

In speaking of the use of ergot for the dissipation of tumors, Dr. Agard says:

"The fact that it can be used advantageously in the treatment of euplastic growths, logically leads to the somewhat theoretical consideration of its employment in the treatment of cacoplastic formations and aplastic deposits.

"To say that ergot will cure cancer and tubercle would certainly be assuming too much, but it seems to me that its use is recommended by more rational considerations than attach to nine-tenths of the remedies which have from time to time been brought forward and used in the treatment of these diseases."

Permit me to quote a timely remark in concluding the notice of this very suggestive paper:

"The novelty of new discoveries, some of which are as yet of very doubtful value, has well nigh set the profession wild
in etiological studies. Our therapia is being left in the rear. It is to be hoped that while the Nimrods of the profession are beating around, almost madly hunting in the thickets and morasses of morbid conditions after the unseen nonentities, which are brought in as the genesis of disease, there will be left behind staid, thoughtful thinkers to tell us what to do at the bedside of the sick, to the end that our knowledge of the causes of disease and our therapeutics do not become divorced. It will be a sad time when the profession becomes starved from ingesting too much unassimilated knowledge, and our patients die because we have not learned how to cure them."

The report on surgery, by Dr. R. A. McLean, contains these sentences, a proper observance of which, in many cases would save many a life, and increase the usefulness of many a man besides doing away with untold suffering:

"Portions of the lung have recently been removed through the walls of the chest. The conservative practitioner may, in reading the reports of such operations inquire: 'Do such achievements deserve to be regarded as surgical triumphs, and is the state of the art actually advanced by them?' He reads that the vast majority of these cases terminate fatally; why not leave the patient to die in peace. Fortunately for the science of medicine, and for humanity, the obstructionists in the profession are each year becoming more distinctly the minority. It was the way with ovariotomy forty years ago, that it now is with nephrectomy, excision of the larynx, pylorus, uterus (In regard to the latter, the prediction of Dr. McLean, found at the end of this quotation, has been fulfilled already. Dr. Martin's clinical assistant gives a description of 59 cases of extirpation of the uterus, per vaginum, for cancer, with, I think, not more than 12 per cent deaths, a record which will very favorably compare with ovariotomy and kindred surgical procedures, a record indeed which places the operator at once side by side with the greatest of surgeons, and, of course, benefactors of the age. The Reviewer.

[...]
spleen, tongue, and rectum. The unfavorable statistics of these modern operations constitute no more a just argument against them, than did formerly the long list of fatal ovariotomies. It is unfortunately true that the nature of the disease, effecting the obliterated organ, will, in many cases, owing to its inherent tendency to recurrence, eventually carry the patient off. Even in such cases, we may reasonably expect to prolong life in comparative comfort."

This seems to be true, as shown by the cases of Dr. Martin; yet, if Dr. A. Reeves Jackson's position, who claims in a paper read before the section on gynaecology, A. M. A., at New Orleans, that patients operated on will, taking the average, live fewer days and years, the recurrent disease carrying them off so much sooner than the primary lesion would have done, is the true one, then the question is still sub judice.

"The surgeon's first duty is to use his best endeavors to prolong life and relieve suffering for the time, regardless of what may be the future termination of the case. The now rapidly accumulating experience, and the consequent greater manual skill, will, in the near future, make most of these procedures safe as regards their immediate result. It will then be known how to locate the extent of the infiltration in epithelioma of the pylorus. In nephrectomy the diseased organ will be the one selected. The congenital absence of one kidney will be detected before the single organ is removed, and as diagnosis is placed upon more certain grounds the results of these operations will compare favorably with those of ovariotomy."

The doctor concludes his article by giving six cases of excision of the head of the femur for hip joint disease, of which he says:

"For several years past I have operated as soon as the probe showed carious bone to be present. In these early operations every case has recovered, and the result has been usually only slight shortening with some motion at the hip joint. I do
not remove the trochanters along with the head unless they be also carious."

And two cases of epithelioma of the face operations, and four cases of operations for ununited fractures of the long bones; three recoveries with one death. He says:

"Having tried repeatedly all of the simpler procedures in ununited fracture, and finding them to fail in my hands invariably, I now prefer to operate by resecting and wiring the bones together. Of four cases I had but one fatal case, which occurred many months after the operation, and not until firm union had occurred."

In a supplemental report on surgery, after giving several interesting and instructive cases, Dr. E. H. Woolsey says:

"In the treatment of fracture of the femur I fully endorse all that Gross says relative to the necessity of having a firm bed; but my idea of a firm bed involves something more than a firm bedstead and firm mattress, for the latter is sure to become so depressed as to tilt the pelvis and endanger the position of the fracture. My experience induces me to believe that in most subjects Sayer's doctrine—that these fractures, however oblique, may be treated without shortening—is certainly correct. But it is a nice thing to determine the exact extension required, and it is undoubtedly better to risk a trifle shortening than to have a trifle too much extension and fail of getting union.

"Accurate measurement is of extreme importance. The mode of measuring from the umbilicus to the inner border of the patella, as recommended by Gross, is certainly faulty, as both these points are movable, and besides the pelvis may, by a slight and accidental deflection of the spine, be so tilted as to make a difference in measurement between the points on either side of one-quarter to one-half an inch.

"The anterior superior spine of the ilium and the lower border of the inner malleolus are fixed and convenient points for accurate measurements. My practice is to catch the tape
line between the thumb and index finger of each hand to measure the sound side first, pressing the tape with my thumb nail up against the lower border of the inner malleolus then tighten the tape with my other thumb pressed upward and backward against the inferior border of the spine of the ilium (the thumb nail looking backward, and its edge directed upward), and then without regard to the number of inches carry the line held taut against the thumb nails over to the injured side, here reversing the order, beginning above, pressing the line first against the spine of the ilium exactly as on the other side, and then holding the other end down over the inner malleolus when the difference in inches is read off, and greater certainty I think than when the length on each side is noted in inches, for to do this requires removal and re-application of the thumbs, and a lapse of time during which the particular sensation necessary to guide the thumbs and tape precisely as before may be confused or lost.”


There is no essential difference in medical properties between our species and the serpentaria of the dispensatory.

Of the natural order compositae he mentions “Aristolochia Californica,” the activity of which is undoubted. “It grows abundantly in patches of low shrubby masses.” One section of the genus, a tridentata, represents the sage bush or sagebrush. Grindelia, another of the same order, was, I think, first brought to the notice of the profession by Dr. Gibbons as a remedy for asthma. He says:

“I have uniformly used an infusion of the leaves and flowers. A small quantity of borate of soda facilitates the solution of the oleo-resins. It will be found advantageous in many cases to add bromide of ammonia to the infusion. The following formula may be taken as a standard preparation: Grindelia 5iv., sodae boras 5i., aq. bull Oi. Put in covered vessel and macerate for two hours. This infusion
will not keep for any length of time. The dose is half an ounce every five minutes till nausea or emesis is produced; then continued at longer intervals until permanent relief is obtained. Some cases may require a pint of the infusion, or even more before the spasm is arrested. When the attack is induced by acute bronchitis or pulmonary catarrh (what does the writer mean by that? The Reviewer) no good will follow the treatment."

The author further states, and it is for this reason that his method of preparation and administration is given in detail:

"The fact that such uncertain results have followed the administration of this drug is not evidence of its being unreliable, but rather that its pharmaceutical preparations are either inert or contain uncertain properties of its active principles."

In his paper on "State Board of Health and the Medical Profession," Dr. F. W. Hatch writes:

"One of the most important offices of the state board of health is to disseminate information among the people. This has been liberally done by tracts upon various subjects, widely distributed; tracts upon the prevention and hygienic management of contagious and infectious diseases, such as scarlet fever, measles, small-pox, cholera, and diphtheria; the management of infants, the resuscitation of the drowned, etc. It is impossible that works of this character should not have produced good results, which though now inappreciable in their effect upon large masses of population, will ultimately be demonstrated by the admitted diminution of human suffering and the prolongation of the term of human life." He asks the co-operation of the profession.

First. "In the establishment and maintenance of local boards of health." Second. "In obtaining for this state, and making effective a suitable system of registration of deaths, births, and marriages, as well as for zymotic diseases; in other words, in enabling us to arrive at a knowledge of the vital statistics of California."
In the report on "Mental Diseases and Medical Jurisprudence," the chairman, Dr. G. L. Simmons, takes up the subject of dipsomania.

The following quotation will form a good example of the practical good sense displayed by the writer:

"His wife asks: Where can my husband be placed to save him from alcohol? Unfortunately we are compelled to say, that in California the rights of the individual include the right of the husband to commit moral suicide. We cannot force him to abstain from alcoholic drinks. He is still your master, and as he denies that he is ill, or that he needs professional advice, we must fold our arms and wait until by continued indulgence he slowly drifts into a condition of dementia with its paretic and structural changes, and then when too late to save either him or his family from ruin, the law steps in and he is permitted to board at the expense of the state in an insane asylum, and join the army of incurables in our already overcrowded institutions. Is there common sense in this method of dealing with so prominent a social question? Would it not be better to arrest this case in its formative stage and say to the sufferer, 'after a proper examination by competent authority you have forfeited your rights as an individual, and to save you from utter ruin the state will authorize legal restraint? ' One of the main arguments for such interference is the fact that only by early treatment is there a reasonable hope of cure. While enforced abstinence may in a fair proportion of these acute cases result in recovery, it is a settled maxim that structural changes in the brain when induced by alcohol are never benefited by treatment."

The reviewer begs to refer the Society for a report on Dr. W. F. McNutt's paper on Medical Education, to his secretary's report, where he has taken the liberty to quote at length from this valuable paper. The same privilege is taken with Dr. W. S. Thorne's "Critical Remarks" upon the same subject.
I can only mention that the reports upon Gynaecology, by Dr. O. O. Burgess; on the same subject and Diseases of Children, by Dr. L. M. F. Wanzer; on Ophthalmology, by Dr. Wm. Ellerly Briggs; the paper by Dr. A. W. Saxe, on Hawaiian Leprosy; an article by Dr. J. B. Trembly, on Causes Modifying the Climate of the Pacific Coast of the United States and British Columbia, and finally the report of a compound fracture of the lower jaw with recovery without deformity, are strewn like the southern sky with stars, with gems of rarest prize—the reporter has selfishly appropriated them, pleading the excuse, however, that it is not selfishness which enforces silence concerning them, but the inexorable tyrant time bids him to halt. He asks indulgence for just one moment to refer to the quaint and queer, witty and practical country doctor, H. J. Crumpton, M.D., and his experience. He says:

“This man (a certain family physician) was one of the old timers, and was an important character in his village, as besides being a practitioner and graduate in medicine, he kept a drug store, hotel, livery stable, was postmaster, and justice of the peace, had recently been converted, was a local preacher, exhorter, and superintendent of Sunday school. In his presence I was one day indulging in some gloomy reflections about our patient’s hopeless condition (an eight year old boy with chronic dysentery), was propounding to myself such queries as ‘Are you sure you are doing all that is possible for any one to do for the relief of your little sufferer?’ and was afraid to answer affirmatively, remarking to my companion, ‘Poor little fellow, he will soon pass away!’ His reply showed him equal to the emergency, that no feeling of self-reproach troubled him, that he had sources of comfort not enjoyed by me, as he remarked: ‘Well, doctor, we must humbly bow to the will of God—The Lord giveth, the Lord taketh away. Blessed be the name of the Lord.’ If you could have seen the air of sanctity and self-satisfac-
tion with which it was uttered, you would have agreed with me that any one in such a happy frame of mind was not likely to suffer with remorse, worrying over the sins of omission or commission occurring in the management of cases in practice. This trifling incident is intended to point out the advantage a religious doctor has over his non-religious brother.”

Since “getting religion” has been the reviewer's impossible task, and since nature has failed to protect him with the coverings of a pachyderm, all thought of having done justice to his work was banished ere it was half accomplished. The only balm for his regrets he finds in the satisfaction of knowing that “in the sweet bye and bye” he will try and do better.
Mr. President and Gentlemen:

As the representative before this Society of the Colorado State Medical Society, I have the honor to submit the following reportorial review of the Society's transactions for 1883-4.

In the transactions of the Society for 1883, of the committees appointed to the different sections to report the progress made in medicine and surgery during the preceding twelve months, comparatively few responded.

The report upon obstetrics, by the chairman, Dr. Buckingham, of Denver, is an elaborate review of twelve hundred cases occurring in his own practice, but no mention made of progress during the preceding twelve months. The paper is well written and contains many valuable suggestions as to the management of cases, and will repay a careful perusal by any one interested in this branch of practice.

In speaking of frequent laceration of the perineum, Dr. B. is decidedly of the opinion that its frequency is due to a want of proper assistance during the passage of the head through the vulva. Of one hundred and forty-four primiparae attended by him during the ten years preceding his report, he is unable to recall a single instance of laceration, and says, "If the perineum is properly supported during the exit of the foetal head, there can be no good reason for the occurrence of such an accident," but does not say what he deems proper support.

Dr. E. C. Rivers, reporting upon Ophthalmology, begins his report by calling attention to the importance of the discovery...
of the ophthalmoscope, the value of the knowledge of refraction and accommodation imparted to the profession by Donders, the great boon of iridectomy in glaucomatous eyes, etc. Thus he proceeds, making, withal, an excellent review of the science, calling attention to new remedies or the discovery of new therapeutic properties discovered in old ones.

Next in order we note a paper by Dr. Jesse Hawes, of Greeley, on "Charlatanism in Colorado," which is the strongest argument in favor of a law to regulate the practice of medicine that we have seen. Although the paper from a literary standpoint is beautifully written, the main strength of the argument favoring regulation is to be found in the answers to questions propounded by the State Board of Medical Examiners, ten of which are submitted in writing, while others are put verbally to the applicant for a certificate to practice. We give below a few of the questions and answers to show who would now be practicing medicine in Colorado but for this law:

Q. "What is the normal length of the virgin uterus?"
A. "Six to eight inches."

This answer was by a specialist in uterine diseases.

Q. "What is endocervicitis?"
A. "Deep seated inflammation of the urethra."

Q. "What is cystitis?"
A. "An inflammation of the prostate gland causing mucous in the urine."

Q. "What is the surgical treatment of nose bleed?"
A. "Ligate an artery in the neck, the name I've forgotten."

Not to become tedious I shall only give two others which seem to pass from bad to worse.

Q. "What is varicocele?"
A. "A lymphatic tumor of the neck."

Q. "What are the pathological lesions in typhoid fever?"
A. "The tongue has a thin coat."
We are happy to state that Dr. Hawes informs us that *more than fifty per cent* of the applicants were refused a certificate to practice.

Dr. Chas. Denison, of Denver, presents an admirably written paper on "The Bacillus Tuberculosis," showing extensive research in this field during the year preceding the convention of 1883, placing before the Society the works of all the bacteriologists from Koch's wonderful discovery to date.

To those interested in climatology, the paper by Dr. S. E. Solly, of Colorado Springs, on that subject, and another by Dr. L. A. Fisk, of Denver, will prove very interesting. While Dr. Solly inclines to a liberal view as to a choice of climate by consumptives, Dr. Fisk in giving an analysis of the records of signal service statistics, with reference to Colorado, inclines strongly to his own state as possessing advantages not to be found elsewhere. The papers are of a highly literary character throughout, and Dr. Fisk's partiality for Colorado may be easily pardoned when we consider that he, himself, was a sufferer from "acute, lobular catarrhal pneumonia," and was relieved entirely by the salubrious clime of the "eastern slope," although "he was regarded as an unfavorable case."

Dr. J. W. Collins, of Pueblo, presents an interesting but short *resume* of thirteen operations for urethral stricture by the usual method, presenting nothing new, however.

"Areolar Hyperplasia of the Uterus" is the subject of a paper by Dr. Geo. W. Cox, of Denver, in which he collates many important facts, and couples them with his own rather extensive experience in the treatment of uterine diseases. Dr. Cox deals out a scathing rebuke to that portion of the profession which indulges in the almost indiscriminate use of the terms, "inflammation of the womb," "chronic ureteritis," "ulceration of the womb," etc., and insists upon the better and more clearly defining term, hyperplasia of the uterus. In all cases when the diagnosis is not absolutely positive, Dr. Cox
insists that the patient should be anaesthetized and the entire hand introduced into the vagina, the uterus grasped by the hand, and its condition, as well as that of the ovaries and rectum, be carefully made out. "This," he says, "should not be confined to married women, or women who have borne children, but must be extended to virgins." He claims that the operation is much more easy of performance than might at first be thought; and that no inconvenience save a little soreness follows.

The volume concludes with a poem read by Dr. McDonald, of Denver, and right well does he air his wits, sending every one away, doubtless, edified and happy.

In the transactions for '84, we find only meagre reports on the actual progress made in medicine and surgery during the preceding year. We find, however, a volume of more than 150 pages well filled with most interesting papers.

The volume begins with a paper on "Compound Dislocation of the Ankle-joint," by Dr. E. A. Lee, of Fort Collins, with a report of three cases, one making a satisfactory recovery, due, according to Dr. Lee, to early resection of the end of the tibia; one recovered partially, that is, with fair use of the foot, but considerable deformity remained, rendering the use of a brace necessary to locomotion; in one the foot was amputated, or rather the leg at the upper end of lower third. Dr. Lee's paper points out the great need of improvements in the treatment of such injuries, but makes no suggestions of change from the method usually adopted.

Dr. H. A. Lemon, in an interesting paper entitled "A Contribution to Surgery," and "A report on a number of cases of abdominal section performed in Colorado," very modestly resents what was undoubtedly an unintentional criticism by Dr. Thomas, of New York, who, apparently apologizing for undertaking a dangerous operation upon a lady, said, "she was from Colorado far removed from any surgical center," etc. Dr. Lemon labors earnestly to show
that excellent surgeons are to be found in his own state, and, judging by the number of capital operations done there successfully, we think his confidence is well founded.

Dr. T. G. Horn, of Colorado Springs, deals at length with the time-worn subject of the "Duty and Responsibility of the Family Physician." Good suggestions are repeated, but none especially new are offered.

Dr. G. W. Cox, of Denver, reports an interesting case of "lympho-sarcoma" in a man aged twenty-nine. During the winter previous to his death in May, lumps began to develop upon his neck, and at the time of his death it would have been extremely difficult to count them. Dr. C. says of the post mortem: "Upon opening the thoracic and abdominal cavities a new wonder was exposed to view: if there had been hundreds of sarcomatous tumors visible externally, then there were multiplied thousands of them here. There was absolutely no swelling of any of the joints of the body, but he had, nevertheless, been treated vigorously with minute powders of some mysterious substance out of bottle No. 2." The microscopic examination of many sections of the glands was made by Dr. H. A. Lemon, but nothing of special interest developed. The degree of anaemia was not determined.

Dr. L. A. Fisk, of Denver, has an interesting paper on "Diabetes Melitus," but acknowledges that he has nothing new upon the subject, merely wishing to bring forward some of the more recent investigations relative to the disease. The paper reads well, and contains valuable information in a condensed form.

Dr. Jesse Hawes, of Denver, exhibited a new "compressor testis" of his own invention, with a description, explaining its action, etc., showing its advantages over other methods of compression, etc. Without having seen it in operation, we give it as our opinion that it is the only rational manner of compressing the testes, a procedure in great favor with many surgeons in the treatment of orchitis. The apparatus can be had of Tieman & Co., for about three dollars.
"Bright's Disease of the Kidneys, as influenced by the Climate of Colorado" is the subject of a paper by Dr. J. E. Solly, of Denver, in which much speculation is indulged in. Dr. S. thinks that as atmospheric dryness, a cold temperature, etc., increase the respiratory functions, and that, as by strong light the nervous system is stimulated, and so produces increased activity in the lungs, and electricity being discharged only at intervals in such a climate, thereby stimulating general activity, the kidneys would be enabled to act more efficiently, and theoretically, a climate possessing such qualities would be generally beneficial in Bright's disease. Dr. S. brings to bear the experience of many well-known authors to support his position, and the evidence adduced goes far to support the idea that this disease would be materially benefited by a cool, dry climate.

The committee on "Climatic Charts" made an elaborate report, which is published with the charts in the transactions for '84. There are two series of charts, one series giving by seasons the ratio of sunshine, and the other the absolute amount of moisture, or grains of vapor, in a cubic foot of air. The charts were obtained from the chief signal offices of the war department, and speak well for the energy of the Society.

Dr. M. H. Sears, of Leadville, reports upon the "Intra-venous Injection of Milk," as a treatment for acute poisoning by sulphate of morphine. Two cases are given; both took an unknown quantity, and were considered in a dying condition when seen. The first recovered rapidly after one pint had been injected into the median cephalic, by means of a Davidson's syringe. The second rallied at once, but died a few hours later, the doctor thinks because she was not seen sufficiently early after taking the fatal dose, some ten or twelve hours having elapsed before aid was called. So far as your reporter is aware, these are the first cases in which milk has been used for acute opium poisoning, and Dr. Sears' experi-
ence certainly entitles it to confidence in the list of antidotes to this poison.

The report upon Ophthalmology and Otology, by Dr. Geo. J. Bull, of New York, late of Colorado Springs, calls attention chiefly to the disuse into which the radiating lines formerly used in determining and correcting astigmatism have fallen, and argues for their re-adoption, without offering any good reason for doing so. The paper is neatly prepared, but does not refer to the progress in these branches during the preceding twelve months.

"Anomalies of Refraction" is the subject of a paper by Dr. Geo. Cleary, of Denver, in which he labors to bring the high strung technicalities of ophthalmology down to the understanding of the "common doctor," the effort being prompted by some members of a local society remarking that "the subject was rather uninteresting, because of the immense amount of pains apparently taken to make it as intricate and unintelligible to the general practitioner as medicine is to the average mortal." His effort, though tedious and somewhat labored, doubtless served its purpose.

Dr. Chas. Denison, of Denver, presented and described an improved (?) stethoscope, which he had constructed according to his own design. He says of the instrument that "it gives very pure sounds, but is not flexible, and is too awkward in using to be recommended."

The transactions for '84 conclude with a paper by Dr. H. H. Howland, of Denver, on "Intra-Laryngeal Growths." Several interesting cases are reported showing the grand achievements of modern surgery in rescuing this class of sufferers from certain death.

In the transactions for 1884 we find, as was also the case in 1883, a more or less general lack of reports of the progress of medicine and surgery during the preceding year by the committees appointed upon the various sections, but this is atoned for in the presentation of a rather large number of scientific
papers. In 1883, with a working membership of one hundred and nine, only thirty-nine in attendance, eight lengthy and valuable papers were presented, while in 1884, with a working membership of one hundred and twenty, and only fifty-two in attendance, thirteen papers of a very high order were read. In reviewing the transactions for the two years, we desire to speak in the highest terms of the scientific and literary work done by our neighboring society, which we have the honor to represent before this body.

We regret to say that we have as yet received no communication from Oregon, and the credentials as representative have not yet come to hand, therefore we have nothing from that Society to report.
ILLINOIS.

By Representative Alice E. Huff, M.D., Ashland.

This Society sends out for the year 1884 a very nicely bound volume of proceedings, containing nearly four hundred pages, one interesting feature of which is the list of permanent members, which is so arranged that the financial standing of each member may be read at a glance. A star indicating that all dues have been paid; absence of the same, that dues for current year have not been paid; italics, that dues have not been paid for three years, and the name will be dropped from next list, etc.

The Society met in Chicago, May 20th, the session lasting three days, 135 permanent members in attendance. The address of welcome, by Dr. E. Ingals, was a happy one. The Report of the Committee on Medical Legislation called forth remarks urging the necessity of unanimous and untiring work by the whole Society, in order to secure any legislation, no matter how good the bill might be. The address of the president, Edmund Andrews, M.D., of Chicago, was upon the subject of Ethics, as distinct from Etiquette. He says: "Beware of trying to legislate etiquette into rigid, unyielding forms. * * * The honor of the profession depends only on three things: scientific progress, moral rectitude, and genial hearts."

The Report on Practical Medicine was quite long. From the paper of the chairman, J. C. Frye, of Peoria, we quote the following: "The etiological significance of the bacillus tuberculosis is not yet determined, but Prof. Austin Flint has expressed his belief in their diagnostic and prognostic value, for he holds that when the bacilli are present in the sputum
it is proof positive of the presence of tuberculosis in the lungs, and that from their scarcity or abundance we can formulate a favorable or unfavorable prognosis. For the abortive treatment of variola he urges trial of salicylic acid, as recommended by Dr. W. R. Claridge in the *Med. and Surg. Reporter*, June 16th, 1883. The drug was given in ten grain doses every three hours, in liquid form, combined with mucilage. On the third day of its administration the pustules began to abort, their contents were gradually absorbed, leaving a thin scab, 

* * * these separated very rapidly. In two weeks the patient was convalescent."

Speaking of the administration of quinine, he mentions the very practical, though not new, idea of giving a weak tartaric acid lemonade just before giving the quinine, thus accelerating the solution and absorption of the drug.

"For diphtheria a new remedy has been suggested, * * * the article is oleum terebinthinae rectificatum. Children take one teaspoonful morning and night; adults, a tablespoonful; * * * tepid milk is given with it. (Why not use smaller doses more often repeated, of course watching the effect on the kidneys?—REVIEWER.) The effect of this remedy, which has of late been highly recommended by various authors, is said to be really a miraculous one. Within half an hour after the administration of the drug a bright redness begins to spread from the margin of the diphtheritic exudation, and this redness becomes generally diffused over and takes the place of the false membrane, and the disease is said to disappear within twenty-four hours, without leaving the slightest trace."

"Two cases of albuminuria are quoted, in which the administration of chloral caused the urine to become "clearer, of lower specific gravity, and contained less albumen than that passed at other times." Dr. Roberts Bartholow is quoted as recommending in the same disease the use of "nitro-glycerine in doses of one minim of a centesimal sol. (one minim of
the pure drug to one hundred minims of alcohol) every three
or four hours, in acute cases immediately after the subsidence
of acute symptoms, and in chronic cases at all periods. Chlor¬
ride of gold and sodium is indicated in the sub-acute and chronic
cases, especially the latter. The good effects to be expected
from it will depend necessarily on the extent of damage already
inflicted on the kidney. The usual dose is one-twentieth of
a grain twice daily, but may be increased if necessary. * * *
Symptoms of indigestion are occasionally caused by it, and if
so the dose must be reduced.”

He condemns the use of condensed milk, and quotes the
following from Dr. R. Neale, in the British Med. Journal: “At
times, given medicinally, it is of great value, but as a food it
is unnatural, and sooner or later the infant must suffer if so
fed. I have in so many instances seen the fatal effects of bring­
ing up children or infants on the condensed milk, that I in­
variably warn parents against its use. The most robust look­
ing child so fed has no vitality, and is frequently cut off by
an illness that under other circumstances would have proved
trivial.”

Dr. Paul Chapman, in the London Practitioner, tells us
that the introduction of distilled water into the eye is attended
with much discomfort and smarting, while with normal sa­
line there is no noticeable effect whatever. The practical de­
duction is that the addition of 2½ grs. of chloride of sodium
to the ounce of distilled water renders any lotion intended to
be of a soothing character much more beneficial.

A very practical suggestion is offered by Prof. Voltolin, of
Breslau, for the removal of fish bones that have become im­
pacted in the throat. He uses a gargle composed of muriatic
acid four parts, nitric acid one part, and water 240 parts.
The teeth must be protected with lard or oil. The fish bones
become flexible, and disappear after a short time.

Dr. J. M. Keating gives us a very useful and practical point,
when he says: “I care not whether microcci are the cause
per se, or whether they are merely vehicles carrying the causes of zymotic diseases, but I do know one thing, they possess great prognostic value."

He believes that in scarlet fever, measles, puerperal fever, and the like, when a microscopical examination of the blood reveals the presence of large quantities of granular matter (call them microcci or whatever you choose), the prognosis is very bad. This granular matter, he believes, acts mechanically; it obstructs the capillary circulation, causing the formation of heart clot, and death from mechanical interference with the circulation. In support of this view, he cites numerous instances where this granular matter has been found in the blood, when after death enormous clots are found in the right ventricle, while the left ventricle is found firmly contracted, dying in systole, failing to overcome the mechanical obstruction offered by this granular matter in the capillaries. He is convinced that alcohol possesses great power to alter this morbid condition of the blood. "Make your patients drunk if you can, but you will find that the tolerance of alcohol in these cases is something wonderful. I used to use carbonate of ammonia and digitalis, and I lost my patients; now I use whisky, and save them."

Progress of Etiology, by Henry Gradle, M.D., Chicago, belongs to this section. Dr. G. divides his subject into: 1st. Exciting Causes, and 2d. Predisposing Conditions.

The first newly discovered cause of disease he mentions is that the side strap stocking supporter can be the cause of knock-knee. He does not explain in what manner. Probably where a short stocking not reaching to the knee is worn.

With this exception, he finds all progress in etiology (under the first division) to be in the discovery of parasites. He says: "The view that a great many diseases represent a struggle of the organism with parasites invading it, meets with constant, and often blind, opposition. But it is a noticeable fact, that in the discussions on this subject, or of the germ theory in
general, be they in the Academy of Medicine of Paris, or of New York, or in some provincial society, the 'germ enthusiasts,' as they are called, start from demonstrated facts and appeal to logic, while their opponents invariably betray no familiarity with the actual facts, and appeal to sentiment.

* * * The proof that a disease is of parasitic origin requires the demonstration of the parasites in all cases of the disease, to an extent commensurate with the extent of the morbid lesion, and the reproduction of their typical disease by inoculation with the isolated parasites. When these proofs are given, the relation of cause and effect is just as plain and certain as it can be in the case of poisoning by any drug. * * * One year ago unimpeachable proof of the parasitic origin had been furnished in the case of anthrax, tuberculosis, suppurative inflammation, erysipelas, trachoma, of man; and of glanders, symptomatic charbon, chicken cholera, swine plague, and some half-dozen experimental affections, of animals. In relapsing fever, leprosy, pneumonia, pyaemia, typhoid fever, and gonorrhoea, characteristic bacteria had been found with regularity, but their significance have not been proven experimentally."

The article closes with an account of some secondary disturbances occurring in disease. The last article in this section is "Cirrhosis of the Pancreas, or Pancreatic Anæmia," by C. W. Earle, M.D., Chicago. He gives the record of four cases of chronic inflammation of the pancreas, occurring in private practice, in three years. Two of the patients were males, aged sixty-five and fifty-seven years respectively; the other two, women, aged, one thirty-six and the other twenty-one years. The symptoms pointed to some obscure disease of nutrition, but the affected organ could not be located, the emaciation and loss of strength being the symptoms most complained of. One of the most notable characteristics being the extreme whiteness of the features, even to the lips and tongue. The disease proved fatal in each instance. Upon post mortem examination no change was found in any organ except the
pancreas, which, upon microscopical examination, was found to be contracted, denser in consistency, color white, increased amount of connective tissue encroaching upon the gland cells, many of which were atrophied. The microscopical examination was made by Prof. Marie J. Mergler, of the Woman's Medical College.

Conclusions by Dr. Earle: First. From the study of diseases of the pancreas which I have given up to this time, it appears to me that inflammations of this organ are more frequent than we had hitherto supposed. Secondly. Chronic inflammation of this gland is characterized by great loss of flesh, extreme whiteness of the tissues, and, generally, pain in the region of the affected organ. The appetite in some cases continues excellent, and the patient may take food until the hour of death. The pulse and temperature remain nearly normal. Among other symptoms, which may or may not be present, is the passage of fat from the bowels, or its eructation from the stomach.

REPORT ON SURGERY, BY ROSWELL PARK, M.D., PROFESSOR OF SURGERY, BUFFALO MEDICAL COLLEGE, N. Y.

Speaking of surgical dressings, he says: "One hears but little now of the spray. The lesson which its use taught us has been learned, and we can now dispense with it. * * * While antiseptic means and methods change somewhat with caprice and fashion, or in accordance with the dictates of experience, the general principles of antisepsis become more firmly grounded as time goes on."

He speaks highly of iodoform and naphthalin, the latter especially in the treatment of erysipelas, using a 5-10 per cent ointment as almost the sole remedy.

He reports two cases of suture of nerves—one of the sciatic, the other of the radial—both perfectly successful, in his own practice. He speaks of many recent operations that
have been successfully performed, and closes with a short eulogy of Drs. Parker and Gross.

Belonging to this section is the next article, "Sponge Grafting," by David S. Booth, M.D., Sparta.

He reports three very successful cases occurring in his own practice, and claims for the method many advantages, among which are, 1st, "The presence of the sponge will encourage the casting off of the lacerated or dead tissue. 2d, After the above processes have been completed, it will encourage healthy granulation, and thus hasten union. 3d, To support the granulations, be they organizable lymph or loose capillaries, that the healing process may progress uninterrupted, and probably limit the amount of connective tissue to the minimum and thus prevent severe contractures in great loss of soft parts." In one case the sponge grafting was used from the first. The case was one of extensive laceration from gun-shot wound, and he reports the cleansing to have been accomplished in about one-half the usual time.

"Palatoplasty," by David Prince, M.D., Jacksonville. He recommends the bead suture, a modification of the quilled suture described in the Annals of Anatomy and Surgery, March, 1883, praises an automatic needle devised for this operation by Dr. Black, and denounces as "worse than useless" the division of the pillars of the fauces, as practiced by Ferguson, remarking that "the muscular fibres of the anterior pillars approximate the two halves of the palate, as the geniohyoglossus protrudes the tongue. The division of these muscles is recommended upon the false theory that they pull the two halves of the palate asunder."

Frederick Schaefer, M.D., of Chicago, records a case of "Fracture of the Greater Tuberosity, Extending into the Bicipital Groove of the Humerus." This case was treated with a trough splint externally, and a straight splint on the inner side; union was established at the end of nine weeks, and normal motion in fifteen months.
"The General Principles in the Treatment of Potts' Disease," by C. E. Webster, M.D., Chicago. It may be summed up thus: The disease presents two indications for treatment, general ill health and a local disease. The first to be treated by the ordinary rules of hygiene, the second by the application of one of three principles: by resting the body horizontally; by applying a splint; by extension. The first is seldom employed. The second is applicable "where the disease is low in the column, and most satisfactory in the first stages of the disease, with slight deformity below the middle of the dorsal region. The third principle is applicable to all cases where either of the other two cannot be applied."

"A Case of Bilateral Paralysis of the Abductors of the Vocal Cords," by H. A. Johnson, M.D., Chicago. Interesting because of its rarity. The dyspnœa caused by it became so severe that tracheotomy was performed.

"A Case of Goitre, with Obstruction," by D. W. Graham, M.D., Chicago. In this case, although the gland was not greatly enlarged, there was such an interference with respiration as to call for tracheotomy. Dr. G. accounts for this unusual complication by referring to a case related by Prof. Hamilton, in which a post mortem revealed "that a part of the isthmus was behind the trachea, which was compressed between the two portions," and thinks that perhaps his case has a similar arrangement. He used in his operation a modification of the Durham tube, which he recommends as being superior in shape, and not so expensive, and it is secured by an adjustable neck shield.

"Report on Obstetrics," by S. K. Crawford, M.D. The author gives a record of 2,110 labors. Averaging the time consumed in these, he found that the Germans had the shortest, the Americans next, Swedes next, colored next, and Irish the most protracted labors. The detailed account of a "missed labor" is very interesting. A brief review is as follows: The patient was taken with labor pains, and sent
for her physician; the pains increased in severity until the os uteri dilated to the extent of a silver dollar, through which the presenting head of the child was felt; then the pains subsided and the physician retired, to be called when the pains returned. This did not occur until the end of another nine months, when the same train of symptoms were repeated. This was repeated again and again, until at her sixth attack the author was called, and observed the same train of symptoms. The lady stated that she had felt motion until some time subsequent to her second attack, but not since. Profs. R. Dunglison and Meigs, of Philadelphia, were communicated with, the former diagnosed a "mole," and advised "masterly inactivity;" the latter diagnosed "missed labor" and advised emptying the uterus. The author did not see the patient again for about four years, when he found her enjoying fairly good health, weighing 206 pounds, and still having the attacks of pain, each time lessening in severity. She suffered now from periodical headaches, occurring about once a month. Seen at the end of another two years, she reported her pains had entirely ceased, her headaches almost unbearable, and her head never free from a "queer" feeling. She resented the idea of any operative interference. She lived fifteen years after this; her obesity increased until she weighed 250 pounds; her cerebral symptoms increased until she became feeble-minded; both optic nerves were paralyzed, and she finally died of epistaxis. No autopsy was made. Dr. C. ascribes the failure of nature to expel the fetus, to some defect in the vaso-motor system of nerves, and thinks that had labor been induced and delivery effected, "the whole train of sad sequelæ might have been averted." He also reports fifteen cases of puerperal fever, each of which could be traced to its source of infection. The treatment was as follows: In the first seven cases, "alteratives, narcotics, arterial sedatives, emollients, and fomentations, with frequent warm water douches to the vaginal canal." Results—All lingered, two died. In the next four
cases, described as violent ones, the same general treatment was used, with copious intra-uterine irrigations of water as hot as could be borne. Result—Complete and comparatively rapid recoveries. In the remainder of the cases he used antiseptics in the water (carbolic acid, one ounce to four quarts of water), and describes the patients as convalescing in three days, recovery very rapid. Later he uses less water, but more strongly antiseptic, and describes the effect as magical. Loses no more cases.

“A Case of Cephalhaematoma, Occurring in a Transverse Presentation,” by Ellen A. Ingersol, M.D., Canton. The presentation was corrected by external manipulation before labor began. During labor the os uteri was soft and dilatable, and labor progressed normally until the head neared the pelvic outlet, when an enlargement was discovered upon the right side of the head, which so obstructed delivery that the forceps were used and a child weighing ten and one-half pounds delivered. The enlargement was found to consist of a “well defined ridge extending laterally almost the entire length of the right parietal bone, a little above the median line; and at the posterior termination of which was a tumor, which proved to be a cephalhaematoma, which after development of the ridge surrounding its base, measured nearly two inches in diameter.” It disappeared in about two months.

The report on Obstetrics contained two more papers, both on post partum hemorrhage. One by C. DuHadway, M.D., the other by A. K. VanHorn, M.D., both of Jerseyville.

REPORT ON GYNECOLOGY.

Diseases of the Cervix Uteri, by W. S. Caldwell, M.D., Freeport. Dr. Caldwell uses for erosions and other morbid conditions of the cervix uteri, a solution of equal parts carbolic acid and tincture iodine, and a six per cent sol. of picric acid. He is in the habit of performing Emmett’s operation,
a little more radically than he would do it himself, as far as removal of tissue is concerned, in cases of sub-involution. He quotes Dr. Cheron, of Paris, as thinking that many diseases of the womb are caused by a morbid condition of the nerves that supply these parts; and in treatment uses, besides local applications of 10 per cent of sol. of picric acid in alcohol to the cervix, applications to the lower part of the spine, of chloroform, tinct. iodine, and the actual cautery, after Paquelin; as an injection, he uses hot tar water.

Lucinda H. Corr, M.D., Carlinville, under title of "Small Things in Gynecology," records several minor operations which she performed a little out of the routine way with good success.

Abby F. Roony, M.D., Quincy, gives record of several cases "Illustrating the Importance of Gynecology." One case in which the removal of a submucous fibroid of the uterus, the size of a walnut, cured a menorrhagia of five years standing, which had been treated "constitutionally" until the victim nearly died of anaemia. Other cases showing the necessity of the primary operation for ruptured perineum, were reported.

"Sudden Suppression of the Catemenia and Amenorrhoea as belonging to the Neuroses," by James Whitmire, M.D. Two causes for suppression are given: exposure to cold, and organic or constitutional disease, such as phthisis, hepatitis, etc. In the latter condition, nothing should be done to restore the lost function, except attention to general health. "The influence of cold is primarily felt through the sentient and peripheral nerves, which carry the impression to the brain and spinal cord. * * * It is my opinion that the genesis of all rheumatic affections are spinal, or cerebro-spinal, and that the effect of cold, in whatever manner it may be applied, disturbs the nerve centres; after their functions have been disturbed from cold, moisture, or any other cause, then rheumatism in some of its forms, is certain to result. A treat-
ment therefore, local and general, directed to that end, will relieve many cases of long standing amenorrhoea, the principal factor of which, in a large class of cases is nothing more or less than that of chronic uterine rheumatism." The particular agents recommended are guiacum, phytolacca, colchicum, and cimicifuga.

F. C. Hotz, M.D., of Chicago, made a very interesting report on "Which of the Books our Children Read are Injurious to their Eyes." After a careful examination of school books, library books, and children's magazines and papers, he decides that the greatest injury is done to the eyes at home, and not in the schools, the school books making a much better showing than the story books and magazines.

In the report on Vaccination, by M. F. Bassett, M.D., Quincy, he takes a very decided stand in favor of humanized virus, giving as reasons that it has greater certainty of action, shorter period of incubation, produces less constitutional disturbance, and takes shorter time for recovery. This paper elicited the most discussion of any brought before the Society, and many of the members seemed to agree with Dr. B., in whole or in part. One doctor testifying that in one of his cases where he had used bovine virus, abscesses had appeared, and were followed by the most disagreeable discharge he had ever seen—discharge of the doctor.

My report is getting so long that I shall be obliged to omit several articles, among others, two long and interesting ones by Chr. Fenger, of Chicago, one upon "Excision of Hip and Knee Joints," the other, "Surgical Treatment of Gangrene of the Lung."
INDIANA.

BY REPRESENTATIVE A. S. V. MANSFELDE, M.D., ASHLAND.

R. R. Livingston, M.D., Chairman Committee on Foreign Correspondence, N. S. M. S.

DEAR DOCTOR: My review of the proceedings of the Indiana State Medical Society may be fitly commenced with the remarks of Dr. A. J. Miller, delegate upon the floor of the Indiana State Medical Society, from Illinois.

"Around it cluster all the fond recollections of my boyhood. 'Twas here with youth's companions sweet, in tenderest love I used to meet."

It was in Fort Wayne, Indiana, that I received my first lessons in the art of dispensing medicine and in prescribing it. Here it was that the omnipresent and all-important "Gray" gave me the nightmare, and the study of phthisis convinced me of its ravages in my own lungs, only to be expelled by my kind preceptor, Dr. A. H. Hunt, now of Wooster, Ohio. It was here where the love of the philosophy and science of medicine received its first nourishment from that Nestor of the physicians of Indiana, B. S. Woodworth, M.D., who took Dr. Hunt's place after his removal to Ohio. A review, then, of the work of this Society by me, likens the return of the son to his mother for the purposes of an examination of her defects, perhaps, to find a just excuse for his own make-up. You perceive the work is a delicate one, and while I am ready to bestow unstinted praise on her perfections—I hesitate to criticize adversely. Disagreeable work the quicker done the better. I will therefore at once allude to this part of my duty.

In the discussion of Dr. Hibberd's motion to publish the proceedings of the Society in a journal—the Indiana Medical
Journal—the animus, so detrimental to harmony and good fellowship—and, shall I say it, good work—suspicion and jealousy, reigned supreme. Instead of a calm discussion of the question, which of the two means of publication, book form or journal form, for the proceedings would contribute financially and scientifically to the best interests of the Society, the greatest anxiety was manifested that some one did “see millions in it.”

Again, Dr. Hibberd’s motion, that an examining board be created by law, “and that no member of such examining board shall have any official connection with any institution of medical education,” brought out the same shadowy figure—jealousy. And I am pleased to record Dr. Chambers’ remarks, particularly since they are my own sentiments: “I move to amend Dr. Hibberd’s motion by striking out the words ‘and that no member of such examining board shall have any official connection with any institution of medical education.’ I am most heartily in favor of forming a state board of medical examiners. I think we ought to look to the formation of an independent board of examiners, but I don’t like to see men, who have the fortune or misfortune to be engaged in teaching, excluded. They are well known; they are honorable men, and why should they be excluded? I think a man who has been engaged in medical teaching for a number of years is well fitted for the duties of a medical examiner.” I wish to make the case stronger still. No one is capable of filling such an office conscientiously who has not until recently been or is not still teaching. We have many learned men in the profession, who never taught; they could, or most likely would, judge candidates by their own attainments, generally demand too much, whilst the teacher becomes catholic in his demands, and is therefore more fair.

Dr. Hibberd saved his motion by dividing it into three distinct parts—the last containing the objectionable point of which Dr. Chambers speaks—it was adopted by a vote of
thirty-six to twenty. In other words thirty-six members recorded by this vote the sentiment that medical teachers know nothing about the requirements for practice, and are therefore disqualified for service, or is it the other thought which animated them, that teachers of medicine are less honest than its practitioners?

The last adverse criticism I am compelled to offer is the manner of discussion following the reading of the same gentleman’s paper on “Post partum hemorrhage”—Dr. James F. Hibberd’s. The paper itself is the most graphic and forcible means of presenting the subject for the purpose of indelibly stamping it upon the memory it has been the reviewer’s fortune to come across. The doctor says: “There is no accident of the lying-in chamber that demands of the medical attendant so clear a head on the instant as a sudden gush of blood in a large stream from the uterus, that has just been emptied of a fetus * * * It must be arrested quickly, or she perishes, and if there be less blood escaping and more of it filling up an inert and expanding uterus, death is equally imminent. The accoucheur, therefore, whether a young or an old one, who does not in advance have his mind fully imbued with the principles that should guide him in such an emergency, and his wits in such command at the moment as to be able to efficiently apply these principles without hesitation, is in such condition that he may speedily become a moral homicide, for the person who undertakes to practice midwifery and through ignorance or misconduct permits a woman to die of hemorrhage, that a competent practitioner would have arrested, is guilty of real, though perhaps not legal homicide. * * * The lesson, therefore, I wish to inculcate is, that we should cultivate such a clear conception of the nature of hemorrhage after childbirth, and of our duties in its presence, that when it occurs we do not lose our heads, and through timidity do too little, nor through temerity do too much, always remembering that to do too much of a good thing is often as fruitful of
evil as doing something that is wrong *per se*. And I am the more anxious to inculcate this lesson, because, to my mind, most of our text-books are not sufficiently precise in pointing out the exact nature of this complication of labor, are too indefinite in their therapeutic instructions, proposing quite a list of miscellaneous remedies and not teaching as to their discriminating application.” The doctor concludes by saying: “Take your brains along with you and apply them in these cases and see what is wanted, and when you ascertain what is wanted, do that and no more.”

The objection I wish to perpetuate, and for the reason that it does not stand isolated, is this: The gentlemen, with some exceptions of course, built, each one for himself, an ideal case of *post partum* hemorrhage with ideal causes, and treated it with the remedy of the same origin; then they turn around and compare the essayist’s dicta, which are of a general character, with their own, and of course not finding their own case paralleled, object to *the move* contained in the paper, and enlarge upon this. But be this as it may, I reiterate, the paper, and indeed the discussions, whatever their peculiarity, as part of it, is worth the price of this volume alone.

But to return to the minutes. A pleasant feature is the promptness with which the president, Dr. S. E. Munford, attends to his duty. This he can have accomplished only by one quality, namely, a thorough knowledge of the business in hand. In speaking of the prosperity of the society, which must owe much of it to him, the efficient secretary, Dr. E. S. Elder, says:

“Our State Society now comprises seventy-three auxiliary societies in that many different counties, and a total membership of nearly 1,300, with no friction, no animosities, no division in sentiment upon fundamental legislative policy. We stand an army of earnest, intelligent, industrious, self-sacrificing members of our chosen profession, whose highest ambition is to excel in doing good to our fellow men and alleviating human distress and misery.”
Dr. Woolen's motion to "limit the discussions of questions of business to five minutes, and the discussions of scientific papers to ten minutes," is a timely one and worthy of adoption everywhere, together with the principle which it implies.

No one can read the address of the president, Dr. S. E. Munford, without joining in the eulogy indulged in by his fellows at its conclusion. A few extracts will prove profitable, enjoyable, and convincing. After some remarks concerning the early history of medical teaching and medical knowledge in this country, the doctor returns to the present, thusly:

"I am not here to indulge pessimistic views as to the intellectual and literary status of our profession. Upon the basis of achievements medicine need not hide its face when comparison is made with other learned professions. From Pliny to Moliere, and to a later era, there have been those to rail at and caricature medicine because of its feeble science and impotent art. But the science of medicine and the art of healing are no longer viewed as traditional vagaries. They are eminently respectable in this age. Ignorance and incompetency make no such conquests. Physicians, as a rule, have a close fellowship with the learned in all departments, and enjoy in a marked degree the favor of society. The personnel of any session of their organization presents an aspect of gentility, and possesses an aptitude for extemporaneous debate and discussion of questions of business or science, which shall not be easily excelled by any other collection of individuals in our state. But, brethren, though we engage now and then in a little just self-laudation, we cannot close our eyes to the fact that much ignorance is clothed by that ample American degree, Doctor of Medicine, and that the entire body suffers reproach therefrom, which in a great measure compromises its respectability and hinders its usefulness.

"If in the struggle for professional existence the survival of the wisest, strongest, and best were assured by the right of superior attainments, then all questions regarding the medical
character might be left to the adjudication of destiny. But so long as the hypercredulous and easily gullible characteristics of human society maintain their present standard the ignorant doctor will not perish from the earth. His standing and apparent success, like that of all ignorant adherents of medicine and of all the disciples of nonsense, rest upon the intrinsic tendency to recovery from acute disease, upon the healing power of nature. His case of pneumonia, of typhoid fever, and scarlatina, we must acknowledge with confusion of face, have no notable fatal pre-eminence over like cases in the hands of his learned neighbor. This, to rather a large element of society, closes the question; it is viewed as the *experimentum crucis*. His ignorance of the lesions of morbid anatomy and pathology, his inability to comprehend the intricate phenomena of disease, to read aright the endless reflex symptoms and trace them to the cause, to rise to the demands of emergencies, to recognize the very beginning of contagious diseases, and to effect and enforce measures for the safety of the home and community, are deficiencies which seem not to come within the range of public vision. He kicks up a pedantic dust which utterly befogs many who believe themselves learned and wise. All his functions are shrouded in mystery, and his endless errors are hidden by the grave. All his deaths are attributed to Providence: 'The Lord gave and the Lord hath taken away,' he says in mock condolence to the bereft. It is a precious element in the faith of the Christian which can in a needful hour appropriate this sentiment, but it was not uttered by the Prince of Uz for the comfort or defense of the licensed destroyer of his kind. Any effort to check the arrogance of this character or to expose his ignorance, by the decent follower of medicine in his vicinity, evokes the cry of persecution and enables him to pose as a martyr, the coveted opportunity of every mountebank. The cruelest treatment he can receive from an individual doctor or from an association of doctors, is to be ignored. But is he to
be forever unhindered by society? His congener in law may be disposed of by disbarment; the teacher may lose his license, and the minister of the Gospel is amenable to the courts of the church, but the medical free lance in Indiana is absolutely without restraint. This extreme medical character is in many cases the adherent of a system. We could heartily wish for the decency of our profession it were always so. But the toga of regular medicine is not always a garment of righteousness. Some of the most noxious quacks on the face of the earth are under the same sign-manual with ourselves. What is the cause of the measure of incompetency which exists in our profession, and what are the means for its cure?

"It has been the custom to charge the faulty education of the profession in this country to the medical schools. From the largest in the land to those of exiguous classes and light equipments, these institutions are not guiltless. They have been too much possessed by our national impatience and hurry, and have practically allowed students to determine the time they should study and what should be the standard of requirements. Most of us will recall our medical college days with humiliating memory of the general success of the candidates for graduation. Rare birds were the 'plucked ones.' If the student was faithfully in his seat and assumed an air of attention and respect to the oracles of the chair, the inquisition of the green room was aptly tempered to his capacity. But medical colleges are not justly chargeable with illiteracy and incompetency in our profession. These are not apt to rise above the fountain which feeds them, and so, when we talk of elevating the standard of medicine by reforming the medical colleges, we undertake the solution of the problem at the wrong side of the equation.

"In presenting this subject for your consideration I have endeavored to show the following points: That vicious practices in medical schools began in the remote past and have been fostered in our day by the rush and haste which are
characteristic of American energy; that the fundamental cause of incompetency in the medical profession in this country is primal illiteracy; that the intelligent comprehension of those, who have not educational attainments essential to intelligent citizenship is injurious beyond all calculation to the interests of medicine and is a peril to society; that the remedy is a better scholarship, and its application is largely with the profession."

Dr. S. S. Boyd, in his report on Medical Legislation, says justly:

"In order to be successful let us be candid enough among ourselves to acknowledge that we have asked too much in the past; that we had no well-matured plane, on which all doctors, of one school even, could agree; that we had our individual pet schemes; and that we did not select any form of law to which all schools of medicine could agree, because it was not based upon principles common to all. As laws with penalties are not expected to satisfy those for whom the punishment is enacted, we cannot expect to secure a statute which will satisfy all parties. But to secure a law, we must have a majority in its favor. Therefore our object should be to present a bill requiring higher qualifications of physicians in the branches of medicine in which all doctors of all schools occupy a common ground. And I now appeal to every physician present to say, whether he is not acquainted with one or more so-called Regulars, who are the most irregular doctors that walk this continent unmolested? The truth is, that if a thorough knowledge of the primary branches of medicine had always been indispensable to the practice thereof, not one quack in ten would be plying his avocation to-day. We are now prepared for the following proposition: He, who in qualifying himself to practice our profession thoroughly masters anatomy, physiology, chemistry, surgery, and obstetrics, may be a villain, but he will not be fool enough to stop short of qualifying himself in other branches of the
science. Having traveled six-sevenths of the roughest of the road to a doctorate, he will not likely stop short of the goal for which he set out."

In regard to the malpractice, which may be properly included in questions of law concerning the profession, Dr. J. R. Weist very pertinently says: "That the profession itself is partly responsible for the evil threatening it, is evident on the slightest consideration. The standard of education and honesty is so low as to permit an easy entrance into the profession, hence the ranks of medicine are crowded, and the number of medical men far in excess of the demand. This results in a struggle for business in which are employed the arts and dishonest tricks of trade; reputation is sought at the expense of others. The work of a competitor is decried and the dissatisfaction of a patient encouraged. The remedy for these evils in the profession involves many and grave problems in sociology, which I cannot now stop to consider. I simply present as a general proposition, that every action for civil malpractice is directly or indirectly encouraged or supported by one or more medical men, rivals in business of the defendant, and for a dishonest purpose. If this proposition is true, every right-minded medical man should seek to know such offenders, and aid in bringing upon them the obloquy they deserve; and medical societies should inflict upon them their heaviest penalties. Such action should be taken, not only in the interest of justice, but for self-preservation."

Dr. E. F. Hodges continues the all-important subject, a matter in which we ourselves are as much interested as the profession of Indiana, by the pertinent question, "What shall we do about it?" and answers it as follows: "There are several horns to the dilemma. First. The physician may refuse cases of a surgical nature, put sternly behind him all sentimentality, look singly at the interest of those dependent upon him, and not at the suffering of a stranger. Or he may face the music, do what the case requires boldly,
unselfishly, and with the single motive of humanity, and
trust in the decency and gratitude of his patients for his
fee, and for his safety, in which course he will find him-
self leaning heavily upon a broken reed. Or, last of all,
he may place his property out of his hands, do all the sur-
gery that comes to him, go to sleep at night, and in the morn-
ing tell every pettifogger that threatens him, to go to a
warmer climate. Let them take judgment, he will neither
compromise nor defend—he will simply beat them on the
execution.

"If, then, our remedy does not lie in legislation and cannot
lie in any written contract releasing the surgeon from subse-
quently action, made at the time of rendering service to the pa-
tient, since such contracts are void, what are we to do? We
must practice surgery since this is a part of our calling, and
there remains—(1) to discard all physicians from our society,
who are found openly or otherwise to countenance the bring-
ing of suits for malpractice. (2) To defend a brother practi-
tioner, and, if necessary, to make his defense a common cause,
as it undoubtedly is—one suit successfully waged opening the
way to others all along the line. (3) To put our pride away
for the time, and if suit be brought against any medical man,
be he a medical practitioner, a physico-medical, or homoeo-
pathic pretender, so he be accepted as a doctor by the public,
to go out of our way to defend him, provided only that rea-
sonable ground for the treatment pursued exist."

Dr. J.S. Arwine in his paper on "Animal or Race Poison,"
among other thoughts advanced the following, perhaps the one
which conveys his idea regarding the subject the best: "At
certain seasons muscles are poisonous. No doubt these poisons
are developed by the minimum barometric pressure. These be-
ing facts, and I am not aware of their ever having been dis-
puted, then is it not reasonable, or does it not follow as a nat-
ural sequence, that we have what should be properly called
race poison, to be found in the excreta of each and every race
of animals, more or less noxious, owing to the habits of the race and the latitude in which they were reared?

Dr. B. Wallace writes of "two cases of foreign bodies in the air passages removed by cutting," with recovery of the patients. The reviewer can find nothing unusual in the cases, excepting, perhaps, the healing of the wounds by second intention, which he is unable to understand, since he expects such surgical wounds to heal by first intention, if not by immediate union.

Dr. J. O. Stillson treats the subject of Specialities, and their relation to the general practice of medicine, in a manner which must be equally acceptable to the general practitioner and the specialist. He says: "I am every year becoming more and more disposed to accede to the general practitioner his right of sway, and his well earned place in the hearts of his families, a place which has cost him so many hours of watchful care and anguish. I am more and more disposed, year after year, to regard the special physician as the servant of the house physician, or rather his aid-de-camp, whom he is at liberty to call as his assistant in a case where a hard battle is about to determine the fate of the patient; where the general physician is supposed to require trustworthy council, rather than look upon the specialist, as some seem to do, in the light of a vaunting personage, sought out as a last resort, and comes in to relieve him of a case in toto, and thereby directly or indirectly relieve him of a patron, or perhaps a whole family. * * * The main object I had in the paper was to bring out the point that it is a man's bounden duty to himself, if he adopts a certain line of practice, to limit himself to that and he must do that before he could expect recognition."

Dr. J. L. Thompson condenses into a very small compass the definitions of emmetropia, hypermetropia, myopia, astigmatism and its varieties, and finally accommodation—the different phases of all of which, manifested in "Asthenopia,"
the subject of his paper, he speaks at length, points out the possible causes and means of cure in most of them.

Dr. T. J. Dills, in his paper on "Two cases of Intra Occular Tumors, with remarks," speaks of melano sarcoma of the choroid, and makes this statement: "Age seems to determine the occurrence of sarcoma to the middle or advanced period of life," which must be a peculiarity of this kind of sarcoma, as it is certainly true that sarcoma is apt to occur in children and early life—most generally before the thirty-fifth year of life—whilst it is true for carcinoma that its frequency falls into the period after thirty-five years of age. Or is melano sarcoma, more generally spindle celled or alveolar, a hybrid or a true cancer, and then the doctor's statement of age correct, yet the name a misnomer? The second case—a glioma—presents all the characteristics of a sarcoma, and though more generally fatal, cases do occur which are benign, and the doctor remarks: "It is a question whether these tumors ought to be allowed to run on until the diagnosis is quite plain and certain, or whether they ought not to be seen and operated upon when they first appear, a timely one, and can I think with safety be answered in the affirmative."

Dr. Eastman, in his report of four cases of abdominal surgery, ovariotomies, says: "Under date of May 26th, 1884, Dr. Britton writes me: 'In answer to your letter I would say Mrs. W. was tapped three times before the first operation (once every twenty days) and five times before the last (once every two days) and was tapped only when absolutely necessary.' Dr. B. acted wisely and gave his patient temporary relief. Circumstances may make this necessary but this does not injure the principle I would enunciate, that the favorable time for ovariotomy is before the forces of death plus the operation are stronger than those of life. * * Give me a pathology which says do something, and do it while there is hope of cure.

"First. If our statistics are to approach those of Keith or Tait, we must not only educate doctors, but through them the
public, that surgical operations left as forlorn hopes will always give results partaking more of the forlorn than the hope.

"Second. We must, by free presentation of the best views of the day, educate the general practitioner, and they the public, that the trocar is not to be plunged into every abdomen that contains a fluid, nor for the purpose of differential diagnosis as between ascites and ovarian cysts. I deem it a most pernicious practice; more dangerous than an exploratory incision, as with each recurring tapping the chances of extensive adhesion, with a low grade of inflammatory action in the cyst, are increased, especially if there is much solid material in the cyst, or if it be multilocular.

"Third. Let some one competent in abdominal surgery be sent for, who can make the diagnosis, while the case can be classed with the two favorable ones I have reported, and before it belongs to the two where our labors to save were in vain.

"Fourth. I would condemn tapping as a delusive hope, which comforts while the day of grace passes rapidly by. If done at all, it should be done by the operator, who is well informed as to the consequences, and does it for a definite purpose.

"Fifth. One reason in my opinion for the greater European success is the fact that the repute of her operators, and the smaller size of their territory, enables them to send cases to those who, by experience and natural adaptation, can give the patient the best chance of life.

"Sixth. Wells, Keith, Tait, and others, have, as I believe, measurably cleared their country of these long neglected cases, and they are now working on the class of cases with which we are successful. Those who visit Tait tell us he does not operate on large tumors. They would certainly grow in time; they do in this country. In a recent conversation with Dr. Englemann, of St. Louis, these views are confirmed.

"Seventh. Ovariotomy is not now and never will be an
operation to be undertaken by everybody. Dr. Sutton makes a good point in his paper, when he says 'one ought to see the abdomen opened many times before he attempts it himself.'

"Eighth. The thousand little points one picks up in assisting, or doing operations, or conducting the after treatment, will always remain as lessons peculiar to each operator, which he can never impart to others, either by words written or spoken, or appearances photographed. The view of the interior of an abdomen after death, in a fatal case, will suggest more for the success of the next case than a week's turning of leaves of books.

"Ninth. I doubt if we can often afford to trust the after-treatment of our cases to others, as some tack or turn promptly taken may turn the scale.

"Tenth. I believe the general surgeon can be as successful as the obstetrician, but he must remember that this operation is the crowning glory of his art, and bring to bear the accumulated wisdom and experience of his life. The delicate adjustment requisite in hare-lip, the cool, deliberate head needed in lithotomy, are no disadvantage in ovariotomy.

"Eleventh. I have no more fear of the surgeon bringing contamination from wounds, than the obstetrician, who may be attending puerperal septicæmia. Of course, neither would think of operating while compelled to expose himself to such contagion.

"Twelfth. To attain success in surgery, as in music or art, there must be a natural adaptation. The planning of a great battle requires little more than the arranging and execution, in all its endless detail, of an ovariotomy.

"The best operators frequently resolve to have something a little different next time. The fewest possible assistants to get along with the work the better, so that the operator can make it a personal matter to know wherewith they have been washed and clothed.
"The most recent views of Keith, Tait, Brown, and Emmet, strongly urging early interference, should, both for the good of the patient and the honor of surgery, be kept before the general practitioner of medicine.

"I am of the opinion that the important questions of where to operate, and who should operate, are here, as is frequently the case in other departments of surgery, of less importance than the question, When to operate?"

All these comments are so eminently in accordance with my own experience, particularly the point in regard to early operations, that I could not abstain from transcribing all of the doctor's deductions.

In his paper on "Post Partum Intra Uterine Injections of Carbolic Acid," Dr. H. V. Sweringen, the friend of my boyhood, reports some cases in which this form of injection was generally used. His first case was evidently one of circumscribed suppurative metritis at site of placenta, with perforation (an acquaintance of mine, only too well remembered), which would have died under most any treatment. The doctor states facts, when he claims that authorities even are discarding carbolic acid in these cases, and many others, I for one, would not use it in abdominal surgery, and very much for the same reasons as those stated by the doctor:

"Can it be possible, I ask, in view of the well known effects of carbolic acid, that its intra uterine application is safe or proper under any post partum circumstances? Will not its escharotic effect interfere with the proper drainage of a suppurative uterine sinus by coagulating the albuminates in its open mouth and thus seal, or render pent up whatever pus may be contained therein? Does it not retard healthy granulations on a sloughing surface instead of inviting it? Does it not prevent the exudation of lymph and the formation of new membrane in the post partum uterus? Does it not by its escharotic, aye, by virtue of its very antiseptic properties prevent that necessary metamorphosis of uterine
tissue called involution? Does it not interfere with uterine contraction by paralyzing the \textit{vis a tergo} employed in it?"

The diseases under the head of puerperal fever the doctor divides under three heads—puerperal fever, puerperal septicemia, and puerperal pyemia—which grouping is not quite in conformity with modern pathology and etiology, though it is certainly true that cases, as the doctor says, do occur which can easily be classed as above indicated. Would it not be better to speak of cases of—

Puerperal fever, 1, a truly contagious, endemic disease; 2, Puerperal septicemia, with or without its graver sequel, metastatic septicemia, so called pyæmia; and 3, Puerperal suppurative inflammation, (a) simple suppurative inflammation, (b) specific infective inflammations.

Under the title of "Angel Wing Deformity," Dr. G. W. H. Kemper describes three cases of paralysis of the serratus magnus muscles, which permit the scapula to be raised from the ribs, when the arm is raised sideways from the chest, thus interfering with the action of the deltoid and its assistants to the extent of not raising the arm higher than the horizontal.

In his article on "Pruritus Ani," Dr. George J. Cook makes this statement:

"Tobacco has an affinity for the alimentary canal, and especially for the lower end of it; its action at least would so indicate, for it will irritate the rectum. This is illustrated when a person suffering with inflammation of this part indulges in a few strong Havanas, he will suffer more pain, and an examination will show greater congestion and irritation. With many persons a morning cigar is a necessary laxative."

The paper itself is a very exhaustive one upon the subject frequently annoying both to patient and doctor. I cannot overlook the remark made by Dr. Rooker in the discussion of this paper, and in answer to Dr. Eastman, who said: "I believe that a large percentage of this disease might be traced
back to the injured stomach, made so by too much pork eating." Dr. Rooker says: "But I am a friend of the American hog, and I never suffer him to be talked about. I have lived in Marion county fifty years, and in a district where we eat no butcher's meat, and where we had no meat to eat but the American hog, and healthier men and women never lived. I believe, also, that good, fat pork is almost as good in the treatment of consumption as cod liver oil. (Applause.) I am glad to see that the house is with me and in favor with the old sow and the hog."

The reviewer has seen his children eat melted lard with a teaspoon, and, to use Dr. Rooker's words, no healthier children ever lived. It is not the use of pork, but the abuse of it which hurts—a meal should not be made of it, it is too difficult of digestion for that—and not of its intrinsic indigestibility, but civilized Americans have had their stomachs educated from early childhood against fat and fatty meat, so that their progeny have inherited this fat-dyspepsia with all its consequences, and the tendency to phthisis is not the least one of these.

The next article in the book we review is on small-pox. It must be read from beginning to end to be appreciated. It receives its peculiar features from the fact that its author, Dr. Theodore A. Wagner, describes the disease, its symptoms, its clinical history, and its sequels from his own observation upon himself. The doctor says:

"Of the symptoms of small-pox, I will mention a few of the early ones, and which, according to my observation, are as frequent and as prominent as the headache and backache, and are not mentioned by any authority I have consulted: 1st, The pains through the orbits, at times sharp, lancinating, and again, as if caused by a pressure behind the eye-ball. 2d, The sharp electric sensation through one or both ears and temples. 3d, The peculiar odor of a tenacious mucus, of a sweetish taste in throat and posterior nares.
4th, A sensation of fullness in the fingers, and sometimes toes, as if the tip of each contained a marble. All of these symptoms are probably due to the active congestion during primary fever, as they all disappear with the fever when the symptom makes its appearance.” Then the author says: “In variola the pock is deeply rooted in the skin, unlike any other affection of the skin known to us; for its base goes down to the vascular layer of the corium.”

This sentence can only hold good, if the author refer to the secondary effects of the primary pock, which is, contrary to the common pustule, distinctly a disease of the rete Malpighii, therefore limited to the exterior of the basement membrane dividing that layer and the corium proper, or papillary layer, which latter is only affected when the disease enters the stage of secondary suppuration and fever. It is only under these circumstances that pitting occurs. Now the reviewer, from personal experience, as well as from scientific deductions, heartily concurs in the author’s remarks:

“My observations and personal experience have made me a warm advocate of the practice of emptying the pustules, when practicable, as it hastens the process of disquamation, diminishing itching, prevents pitting to a great extent, and doubtless reduces the chances for septicæmia.” But the reviewer would add the all important proviso, that this emptying of the pustules must take place immediately upon the first appearance of the clouding of the vesicles, when the clear lymph has been transformed into pus by the migration into the cavity of the vesicle of pus corpuscles from its base, which in this tumor is formed by the lower or palisade like layer of the rete malpighi cells resting on the basement membrane, which covers the papillæ exteriorly, and a breaking through of which forms the next step in the drama, the involvement in the process of the papillæ, and it is immaterial now whether the pustules be emptied or not, the papillæ involved will perish, and pitting is the inevitable consequence
more or less as more or less of the papillae perish. One more point brought out by the paper is the old fact recently lost sight of, but so very important in careful vaccination, that every opportunity should be seized to proclaim it, namely, vaccination to be thoroughly protective should be practiced by three or more abrasions on both arms or as many as will form typical vaccine pustules, if within the limits of safety to the patient.

A case of "adenia" is given by Dr. Levin J. Woolen, which, according to Trousseau, "consists essentially of hypergenesis of glandular cellules. The first symptom that usually attracts attention in adenia is swelling of the submaxillary glands. A few months after the swelling of the submaxillary glands is noticed, the cervical glands become affected, the disease spreading rapidly and a chain of enlarged glands, running from the axilla toward the sternum, soon makes its appearance. Next in order will be found enlargement of the axillary glands. In some cases the inguinal or other glands of the body will become more or less enlarged and indurated. These tumors are usually devoid of pain, and never suppurate. In my case I think good results were obtained by the application of croton oil. It destroyed the skin over the tumors that pressed upon the trachia. By this means the diseased glands were permitted to expand externally, thus giving great relief to the respiration. Trousseau states that when he made an incision through the skin in performing tracheotomy, the diseased glands 'spurted' out, being liberated from their imprisonment, and respiration became easier even before the trachia was entered."

The reviewer fails to see the superior efficacy of the croton oil over the knife in these cases, if the latter can accomplish in a few moments, what croton oil can do only after untold suffering.

Dr. Mary Thomas, in her paper on "Women Physicians for Insane Women," says:
“We have carefully examined the reports of hospitals for insane women, where women physicians have been employed. These reports have been encouraging, and the expression of those immediately connected with the work so satisfactory, that it warrants a continuance of the practice so auspiciously begun, and as the best interests of insane women ought to be the object in view, we feel satisfied that the spirit of honest inquiry, instigated by the discussion, will result in the amelioration of the condition of the unfortunate class of women. We feel that the introduction of a woman physician in the hospital for insane women in our state is in accordance with the dictates of science and philosophy, and we ask for those immediately connected with the work the cheerful co-operation of the friends of the insane women, in the profession.”

Dr. Joseph W. Marsee says of his “contribution to the treatment of fracture of the femur:”

“The object of this paper is to call renewed attention to an old and accepted plan, the treatment by the plaster of Paris bandage, and in so doing to present to your notice, and to that of the profession generally, certain modifications of this plan, which I venture to hope may remove some of the obstacles which still lie in the way of its general adoption. It is probably too much to hope that we shall ever succeed in securing unshortened limbs, but it is quite possible that the average amount of shortening may be gradually and materially reduced. If this result is ever accomplished by physicians in ordinary practice, it will only be when each one adopts some definite plan of treatment and acquires that skill in its use which comes only from practice. I am convinced that had the tenth part of the energy and ingenuity which has been lavished upon all sorts of curious and complicated contrivances been expended in the perfection of one or two of the most promising modes of treatment, our results would today be uniformly much better.”

“The plan I am about to detail seeks to overcome the
objections to the use of plaster, and to render its correct application reasonably certain. It contemplates the treatment of all fractures of the femur on the same general plan in the straight position, and by the use, when necessary, of the pulley and weight extension. It does not demand that the plaster by itself shall fulfill all the indications, but is content to use it simply to bring about coaptation, and to prevent, as far as it can, angular and rotary deformity, depending on other agencies for the production of extension and counter extension. I believe that the ‘Bellevue plan,’ while it insures an admirably fitting bandage, requires this bandage to do too much, and that this excessive demand is responsible for the angular deformity, excoriations, and other bad results. This plan involves keeping the patient in bed for from three to four weeks in all cases in which his condition will permit.

“For some years I have been in the habit of employing, instead of the usual form of extension apparatus, one made as shown in figure 1.

![Figure 1](image)

“It is much less complicated than the old form, is much easier, therefore, to remember and to make, requires less adhesive plasters, and in more convenient lengths, and is much more easy of application. The strips of adhesive plaster are three inches wide, sixteen inches long. The straps may be of leather, as in the cut, of webbing or strong muslin. They are ten inches in length, overlap four inches, and are sewed, of course, on the non-adhesive side of the plaster. Near the free end of each strap is a button-hole, which receives an end of the cross piece. This may be made
of wood or metal, and should be about four and one-half inches long. These strips are applied along the sides of the carefully shaved leg, the ends of the straps being at the same level without raising the limb or disturbing it in any way. These are held in place by thin, inch-wide strips of adhesive plaster, applied circularly just above the malleoli, just below the knee, and midway between these the cross-piece is then placed, as in cut.

Figure 2.
There is now erected over the bed a tripod made of poles nine feet long. These may be hoop poles, or of sawed stuff, as may be most convenient, and their upper ends should be somewhat tapered. This is surmounted by a conical leather cap, around the outside of which at equal distances are sewed straps, each projecting three or four inches from the free edge of the cap, and terminating in a stout ring. In default of a cap, the ends of the poles may be firmly tied together. In setting up the tripod care should be taken to fix the ends of the poles so they will not slip on the floor. The appearance of the apparatus may be seen in figure 2.

To the ring hanging to the cap is fastened the upper of a pair of compound pulleys, from the lower one of which is hung a stout bar four feet long. Even the pulleys are not absolutely necessary. In their absence a stout pole may be thrust through a loop of rope hanging from the apex of the tripod till it projects about two feet. The bar sustaining the patient may be attached to this end.

Depressing the long end of the lever will, of course, cause a corresponding elevation of the patient's body. The patient is now slung from the bar, as shown in the illustration. The slings may be made of muslin, as represented, or of any other convenient material, such as leather straps or bits of rope. If of muslin, take a piece one yard wide, and four and a half yards long; tear it lengthwise into three strips of equal width; one of these is left full length, the others divided in the middle. Arrange the long one as shown in fig. 3. The ends are brought forward between the thighs and tied securely over the bar. Instead of this strip, I generally use an ordinary buggy line or rein. Pass the first short piece through the loops in front of the shoulders, and tie over the bar. Of the second piece, a sling may be made for the head; in the cut, a handkerchief is used. The sound leg is fixed and fastened to the bar by the third piece. Finally the fourth slip is passed (see fig. 3) through the loops on top of the shoulders and
used as a counter extending band. The slings should be disposed on the bar so that the body when suspended should balance properly. All this, though seemingly complicated, is simple in practice, and can be quickly arranged. Everything being ready, the patient is steadily raised to a convenient height for bandaging, the broken limb being carefully supported, and requisite amount of extension kept up. The adhesive straps are now confined by a roller, and after the proper measurements have been made, the thigh and pelvis are covered with a dry bandage, sheet cotton, or what is better, the leg and waist part of a pair of ordinary knit drawers, that portion corresponding to the sound leg having been cut away. The leg of the drawers is split up, and, after being drawn around the broken thigh and hips, is fastened by bits of adhesive plaster. Should the patient be a female, the drawers may be placed in position by the nurse, and so fastened as to prevent exposure.

"The bed may be pushed out of the way entirely, as in cut, or, if this is impracticable, the patient may be turned at right angles to the bed and drawn out over its edge far enough to make the thigh and pelvis easily accessible. It will be observed that the affected side is now free for manipulation in
any way the surgeon may choose. The plaster roller is now applied.

"There is no hurry, and the work may be done just as effectually as the skill of the operator will permit. After the bandage is in place and finished, the patient is to be kept suspended until it is hardened. He is then put in bed and a weight attached in the usual manner. The strip of muslin is now pulled from under the waist band.

"As soon as the dressing is hard it should be cut down in front, from the angle made by the pelvic and femoral portions to the knee. This cut may be extended to the skin, or only to the protective bandage, if this is of elastic material. The band around the waist is to be left untouched, and the length of the bandage is not materially affected. Should the limb be much swollen it is better to cut a strip an inch or more in width out of the front of the bandage, so that it may be tightened from time to time as the swelling subsides. If in addition the projection is cut away, the limb may be inspected as often as desired. Should the bandage gape, a few strips of muslin should be tied around it. In case of compound fracture, a window may be cut at this time, and the bandage may be removed at the proper place, so that the femoral artery may be readily compressed.

"To cut a plaster bandage, there is nothing better than an ordinary pruning knife, with its extreme point broken off and rounded."

In conclusion, I beg to submit my effort as a limited example of what I meant to be done by the method suggested by Dr. Livingston, and re-submitted by myself. Much improvement is possible, my work shows it. Shall it be profitable for other societies and their members to take up the work of gleaning?"
Kansas State Medical Society was organized February 10th, 1859, with twenty-nine members. Nothing of a literary character is recorded until 1867, when eleven papers were presented, of which three were brief reports of cases in practice, and the other eight essays of more or less value on medical or surgical topics. In 1868, two reports of cases and five other papers were presented, one of which is barely worthy of mention, it being but a feeble attempt in the right direction. This is entitled "A Report on the Climatology of Kansas." It was only kept, however, with reference to the variations in temperature at Leavenworth. No records of any other portion of the state, nor anything of value concerning storms, rains, winds, moisture, rain-fall, snow-fall, or electrical conditions anywhere. Sixteen committees were appointed to report at the meeting in 1869. Only one, however, responded, that being an excellent paper on "Specific Disease Poisons," by Dr. A. Neumann, of Lawrence.

Fourteen committees were expected to report at the meeting in 1870. All failed. Two volunteer papers and two reports of cases are recorded as having been read, but they were not printed in the transactions. A step of progress is here noted, in that of the fifteen committees appointed to report at the next meeting three were asked to report on "Recent Advances in—1st, Physiology; 2d, Chemistry; and 3d, Gynecology." Of these fifteen committees appointed to report at the meeting of 1871, two only responded, neither of which papers were reports of recent progress, one being an essay on the anatomy of the female organs of generation, including also
the pathology, symptoms, and treatment of uterine ulcerations and granulations. This was an immense field to attempt to cover in the short space of fifteen minutes. The other paper was a brief report of four surgical cases in practice.

Fourteen committees were appointed to report at the meeting in 1872, five only of these responded, viz.: On—1st, Surgery. 2d, Obstetrics. 3d, Climatology. There was also a special report on "Mercurial Preparations." These were interesting essays, but not records of progress. The other paper was a report on "Infantile Diseases," by Dr. Lamphier, of Atchison. He says: "What is it in particular that a report of the kind contemplated should contain." * * *

* * He says: "I did intend to present you a digest of cases occurring under the observation of the regular profession throughout the state during the last year," and to this end addressed over forty letters to different physicians in the state, but they did not respond to his request, only two were willing to assist him in the task and the report was a failure, and the paper became an essay on some points in infantile diseases. This is the first attempt recorded towards getting the proper material for a report. A most excellent volunteer paper on "Medical Reform and the Suppression of Quackery," was read by Dr. A. M. Wilder, of Lawrence. He surveyed the manner in which medical science had reached its present state of development, and then considered the status of the profession as it existed at that date.

For the meeting of 1873, eleven committees, consisting of nineteen physicians, were expected to report, having been appointed the previous year. All failed, however, except one, viz., Dr. Geo. W. Haldeman, on "Practical Medicine." This was a pleasant essay, but in no sense a report of progress. A volunteer paper on "Variola," and a valedictory address constituted the literary work of the session. For the meeting of 1874 three papers and a valedictory address made up the sum total of the literary and scientific work recorded, viz.,
one each on Diseases of Women, Materia Medica, and Chemistry. These were essays of some interest, but not reports of the year's progress, neither at home nor abroad. The year of 1875 makes a better showing than any previous year, there was a better attendance of members, with longer and more carefully prepared papers. Nine papers in all were presented. Of the twenty physicians appointed at a previous meeting only three responded, the other six papers presented being voluntary contributions. One by Dr. G. S. Lewis on "The Effects of Compressed Air upon the Human System," is worthy of mention as containing records of some cases developed while constructing the Atchison bridge over the Missouri river. Three other papers were brief reports of cases in practice, the remaining papers were more or less valuable and interesting, but none of them records of yearly progress. I copy a few lines from the valedictory address of Dr. Redfield, viz.: "And now let us look back over the history of our Society and consider whether we have done our duty since its organization. Sixteen years ago the first session of the Kansas Medical Society was held in Lawrence, which at that time was a mere village; it has since grown into a beautiful city, but can we truthfully say that our Society has kept pace with the growth of Lawrence and the balance of the state. * * * The past history of our Association has not, it is true, come up to that standard laid down by its founders." The expression of this sentiment by Dr. Redfield marks another step in the march of progress of the Kansas Medical Society, for to know one's failing is the first step towards a better life.

The records of 1876 show an attendance of forty-five physicians, with eight papers presented. Some remarks of Dr. Tiffin Sinks, of Leavenworth, are worth our attention. He says: "This is our tenth meeting as a working association. * * * Three purposes are served by our organization: 1st, A social one. 2d, An increase of knowledge;
and 3d, A power which attaches to numbers by a union of purpose and effort. * * * We therefore feel a hesitancy in presenting essays upon the subjects assigned us, as we are painfully aware that they will necessarily be imperfect and unsatisfactory. However, almost everyone will in the course of a year observe or discover or experience something novel or peculiar or specially interesting with which he can swell the general fund. While we need not dispense entirely with our present system of appointing committees upon special branches and subjects, it occurs to me that if each member would come prepared to report verbally or in writing some observation or discovery, or present some pathological specimen, the purposes of our organization would be better subserved, and the interest of our meetings very materially enhanced." These are good words, and indicative of progress. Would that the seed thus sown had produced better results.

Dr. J. H. Stuart, as chairman of the committee on Practical Medicine, read a lengthy report, which was an attempt in the right direction. He succeeded very well in obtaining definite information from the older settled portions of the state relative to epidemics, prevailing diseases, typhoid fever, influence of climate on consumption, indigenous remedies, and diseases caused by want of proper diet. While not a report of the progress of scientific medicine, it was an appropriate part of such a paper as the chairman of the section on Practical Medicine should present. The other papers were reports of cases in practice, and essays of ordinary character.

Of the thirty-nine physicians appointed to make report at the meeting for 1877, only three responded to the call, the other eight papers presented at this meeting being voluntary contributions. Dr. Van Eman's report on "Typho-Malarial Fever" was very lengthy, but it was an effort in the right direction, for he ascertained many items of interest from the various physicians of the state, and these were incorporated
into the report. The other papers were only fair essays and reports of cases in practice.

In concluding this review of Vol. 1st of the Transactions of Kansas Medical Society, covering a period of eighteen years, I find that sixty-six papers of various kinds were presented, only a very few of which were in any sense reports of progress. No attempt was made to review in brief the progress of medical or surgical science throughout the world for the year previous, and very little towards getting in a systematic and permanent form the items of interest and the progress made by the profession of the state, consequently the discussions could not have been as fruitful of good results as they otherwise would have been.

This I take to have been a serious omission, and one that has been too common in the past history of most medical societies, and when I consult the Transactions of Nebraska Medical Society I find for its first fifteen years of existence a poorer showing than that of our neighboring state of Kansas. And in neither of these Transactions for the years mentioned do I find any of the discussions reported. However, I am pleased to say that in our Nebraska Medical Society an attempt in this direction was made last year. Not having the recent Transactions of Kansas Medical Society, I am unable to state what has been their progress of late in this matter. No doubt the social features of a medical society are of much value, and should come in as a prominent factor in the meetings, but not to the exclusion of literary and scientific work. Trusting that the criticisms may be received in the same kindly spirit in which they are made, and that future meetings may show better results, I submit this report to your judicious consideration.
MARYLAND.

BY REPRESENTATIVE L. A. MERRIAM, M.D., OMAHA.

A careful perusal of the minutes of this old society with a membership of over two hundred, and a study of the papers presented on this occasion, brings considerable disappointment. Twenty-three papers were read, two of which were addresses and eight were volunteer essays or reports of cases. In the eight sections represented thirteen papers were presented.

None of these were, strictly speaking, records of the world's progress in the section, nor can they be said to be records of original work done in their state during the year. They are interesting and valuable reports of cases in practice, and fair essays consisting of well-known facts taught in our text-books, but little that may be considered new. As is usual in most medical societies those appointed on sections fail to do their duty either because they do not know what they are expected to do, or because they are unable to do the work expected. I understand the work to be done by those appointed on a section to be to gather into permanent form for preservation in the records and for discussion by the members, all items of scientific progress which belong to the section, new discoveries and new methods that have occurred during the year past, especially original work done in the state.

In the report of section on Materia Medica a few items are worthy of preservation.

Salicylate of iron in eight grain capsules three times a day, has been used successfully in rheumatism complicated with anemia.

Good results have been obtained in spasmodic asthma by giving from thirty to sixty drops of hydriodic acid.
The syrup of the bromide of nickel in thirty to sixty drop doses is being used for the same purposes as the other bromides.

The saccharated oil of the Saw Palmetto has been used of late in drachm doses, three times a day to relieve indigestion and vomiting.

Coumarin, the supposed active principle of the Zonga Bean, is used to disguise the odor of iodoform. It possesses no superiority over other agents.

The nitrate of uranium has received some attention of late as a beneficial agent in the treatment of diabetes mellitus. Dose, one grain three times a day.

Croton oil has been separated into two parts. One purgative and not vesicating, and the other vesicating but not purgative.

Kairin first made from coal tar by Prof. Fischer, of Munich, is an antipyretic agent in the same doses as quinine.

Formanide of mercury is used hypodermically instead of the corrosive chloride of mercury to get the constitutional action of the metal.

In the paper of Dr. Joseph Smith, on Pathology, he speaks of Dr. Manson’s theory of the Filaria Sanguinis Hominis, which when healthy and normal exerts no injurious influence upon the person, but when the parasite is sick, or as he says, “functions ill,” then disease manifests itself in the person in whom the parasite dwells. This seems to be a new theory with little authority to support it.

Let me call your attention to the very valuable and interesting address of Prof. Wm. Pepper, M.D., Philadelphia, on “Dietetics in Disease.” The whole address is worthy of being presented here, but time forbids. Hence I give only a few salient points. He says: “I believe it would appear from such a study that the line in which more than any other the greatest triumphs of therapeutics are to be won in the near future, is in the direction of dietetics scientifically adapted to special morbid states.” He holds that in our definition of
gout we have restricted too much the conception of the condition, and that the fault of digestion, which lies at the root of lithæmia affects in different individuals different classes of food, and that we should include nearly all that large series of cases with or without marked gastro-intestinal disturbances in which there is obstruction and deficiency of the ultimate assimilative changes before the food reaches its final fully digested forms.

The transactions would have been much improved had the discussions of the papers been printed, and the whole supplemented by a general index of the thoughts presented in the papers.
No. 3 of vol. 13 of the communications of the Massachusetts Medical Society, which met at Boston, June 10th, 1884, opens with Art. 12th, "The annual discourse," by Dr. John Crowell, of Haverhill. His theme, "The Physician a Popular Educator," is illustrated with a striking array of suggestive thoughts to the young practitioner, and of interest to all.

Art. 13th is entitled the "Plaster Posterior Splint." In the treatment of fractures of the leg it is spoken of as having been a standard method of treatment at the Boston City Hospital for some years. It is constructed of sheet wadding or coarse muslin and plaster of Paris made into paste of the consistency of cream. Six or eight thicknesses of this with the paste rubbed into each (with the exception of an inch all the way up and down the anterior aspect) closely and smoothly envelop the leg (with the above exception) from above the knee to the metatarso phalangeal articulation. The foot should be in its natural position at nearly right angles to the leg. The splint should be slashed at the heel to make it lay smooth everywhere at the angle, and the inch of vacaney in front can be made by cutting it out after the splint is adjusted and is useful for partial examination of the parts, and it also precludes the idea of any injury from swelling. This splint while applicable to all ordinary fractures of the leg, is said to be specially adapted to children.

Art. 14th narrates a very unusual case of chylous deposit in the abdomen. This was drawn off by the aspirator January 16, 1877, to the amount of two quarts. The accumulation was repeated March 21, and October 3, 1877, and July
28, 1878, and drawn off each time in a decreasing amount, until at the last time there was only twenty ounces. Some months after this there was a partial refilling of the tumor and subsequently a retrocession.

Art. 15th is upon "Sanitary Forest Culture." The subject is treated under three heads:

1. The influence of forests in regulating the flow of streams.
2. In modifying the climate.
3. Protecting from malaria.

Under these heads are arrayed a large collection of facts plainly bearing upon public health.

Art. 16th treats upon the "Pitch of the Percussion Sound," and the combined results of the statements of the writer and the authorities he quotes would seem to indicate that the disciples of Samnec and Auenbrugger have not yet crystallized their deductions into one of the exact sciences.

In connection with the proceedings of the State Society there are published brief minutes of three meetings of the councilors of the Massachusetts Medical Society.
NEW YORK STATE MEDICAL ASSOCIATION.

BY REPRESENTATIVE R. R. LIVINGSTON, PLATTSMOUTH, NEB.

To the Officers and Members of the Nebraska State Medical Society:

GENTLEMEN: As the representative of the New York State Medical Association I desire to say a word, not in review of the magnificent volume of transactions, for that would take too much space and time, but with a view to clearing up any ambiguity as to the status of medicine in the state I have the honor to represent.

The New York State Medical Association is composed of those gentlemen in the profession in that state who believe in the code of ethics as adopted by the American Medical Association, many of whom have given a life-time to the noble work of building up the science and the art of medicine into its present noble proportions, many of whom have earned reputations for scientific attainments and good works until their names are as familiar as household words, not only here in America, but throughout the civilized world.

The old "New York State Medical Society" still exists, but is not to be confounded with the Association. The unfortunate schism in the old society led to a separation of those who were loyal to the code of ethics, from those who believed it was progress to make innovation without the sanction of the National American Medical Association. Thus we have two state medical organizations in New York—one, under the title of the old society, breaking loose from the restraints of the code and setting themselves outside of representation in the national society, and the one I have the honor to represent, which believes in the code and honors the assembled medical wisdom of the entire nation.
I desire to state so distinctly that no one can possibly misunderstand, that I am not the representative before this society of the New York State Medical Society. I admit that through some error of correspondence, in which I had no part whatever, I was elected to represent the New York State Medical Society, at their annual meeting last February. I confess that there are those in that society whom I have always delighted to honor as pioneers and leaders in our art, but loyalty to the code precludes me from saying more than that I deplore the unfortunate dissensions which have torn the old society asunder, and inasmuch as I am faithful to the code I cannot represent those who defy it.

To give the members of this society a bird’s eye view of the condition of the New York State Medical Association I shall briefly recite its membership at the time its transactions were published. The total fellowship at that time was 514, including names of the most prominent physicians in the Empire State.

The transactions are edited by Austin Flint, Jr., M.D., and are a credit to him and the noble band of physicians in its membership. The articles are numerous and well written; seventeen articles are on surgery, fifteen on medicine, eleven on obstetrics and gynecology, and the remainder on ophthalmology, physiology, insanity, and materia medica.
The thirty-fifth annual session was held at Philadelphia, May 14, 15, and 16, 1884. This society was organized and the first meeting held in Lancaster, Lancaster county, April 11, 1848.

The medical profession of the United States derives exceptional honor from the character and reputation attained by the individual members of this society. It was in this state that the first systematic course of study in medicine, from which sprang the University of Pennsylvania, was instituted on this continent.

The society was called to order by the president, Dr. Henry H. Smith, of Philadelphia. The address of welcome, by Dr. J. B. Roberts, extended a cordial greeting.

The medical examiners of county societies reported that out of twenty men who had applied for examination thirteen passed and seven were rejected.

There was a bill presented to establish a state board of health, in the last legislature, which was defeated by a single vote. The importance of organizing a State Board of Health was spoken of by Dr. E. A. Wood, who thought that ignorance and prejudice were the chief obstacles in the way of success. Dr. R. N. Chase's paper entitled "The Protective Rights of the Insane in Pennsylvania," reviewed the laws regulating the visits of Boards and friends of the patient; explained that patients confined must be supplied with materials for writing to friends and relatives; that abuses by those in charge should be dealt with according to law; that the beds, food, etc., were under the inspection of the Board; that re-
ports of deaths, escapes, etc., were rigidly reported, and
lastly, that in no state or country were the rights of the in­
sane better protected than in Pennsylvania.

Dr. J. B. Roberts, of Philadelphia, offered a resolution that
the Nominating Committee appoint a committee of seven to
secure a charter for a new medical college, to be known as
the Pennsylvania Medical College, and to be situated in either
Philadelphia or Allegheny county; said college to have a
preliminary examination, and a graded course of three years.
Said college to be put in operation only on the condition that
the present colleges do not adopt a preliminary examination
by that time. This resolution was laid over.

Dr. W. H. Daly delivered the address in Medicine. The
researches of Koch and Pasteur were reviewed somewhat
cynically. The practical results, he thought, had been of
little good so far as the saving of life was concerned. The
recent good results in surgery, he thought, were due rather to
cleanliness than to antisepsis. He recommended clinical ob­
servations in preference to theoretical researches, and cited the
discovery of vaccination as one of the triumphs of clinical
study. Dr. E. A. Wood thought that the results of the in­
estigations of Koch and Pasteur should not be disparaged.
He thought that Jenner's discovery was rather accidental,
while those of Pasteur were scientific deductions, and that
true scientific education should always be encouraged.

Dr. C. W. Dulles read a paper on "Disorders Mistaken for
Hydrophobia." He did not approve of the habit of diagnosti­
cating hydrophobia from the symptoms of an aversion to
drinking. This, he said, is not a characteristic symptom, for
it is by no means always present in hydrophobia, and it is
often present in other disorders, yet unfortunately it is such a
striking phenomenon that it leads observers to overlook other
indications which, if properly estimated, would lead to the
discovery of the real cause of the trouble. Admitting in a
general way that all physicians are aware of a simulated hydro­
phobia, they do not know this with precision enough. The cases of this kind are called lyssaphobia, or spurious hydrophobia, but they are not assigned to their several classes as they should be. He divided the disorders which may simulate hydrophobia, into—1, Disorders of the alimentary canal. 2, Disorders of respiratory apparatus. 3, Disorders of the circulatory apparatus. 4, Systemic disorders. 5, Disorders of the nervous system.

In inflammations of the fauces, which have been somewhat vaguely classed as angina and cyananche, the difficulty in swallowing has frequently led to symptoms usually considered peculiar to hydrophobia. In such cases, especially when the sufferer is a child, or a nervous person, the very importance attached to the act of drinking heightens the disorder and tends to make it present more and more the picture of hydrophobia.

Of the systemic diseases in which hydrophobia may be simulated, the first considered was rheumatic fever. Ureemia was next spoken of. He also mentioned meningitis, apoplexy, tetanus, epilepsy, and, last of all, the writer spoke of the production of the symptoms of hydrophobia by a variety of narcotic poisons, all of which have been frequently used in the treatment of this disorder. He also intimated that sometimes patients were hastened to their death by the unwise solicitude and management of their physician.

Dr. Traill Green, of Easton, read a paper entitled "A Plea for Chemistry," which he was led to make by seeing some dangerous prescriptions in medical journals. He hoped that the good time was coming when young men will lay a good foundation for study of medical chemistry by the study of general chemistry in literary institutions, or so cultivate their intellectual faculties that chemical terms, formulas, and chemical work in the laboratory will not be bugbears to them during all the years of the medical course. His experience has been that students in literary institutions, carrying on
literary studies with chemistry, are more interested in its study than medical students are, as we find them in our medical schools.

Dr. Jacob Price delivered the address on Obstetrics. He recognized two forms of vomiting of pregnancy. One the slight form, the other "pernicious vomiting." The latter was dangerous in proportion to the time elapsing between impregnation and vomiting—the shorter the time the greater the danger. Pernicious vomiting was always connected with inflammation, congestion, or ulceration of the cervix uteri, or a combination of these. The treatment is by rest and local application of iodine, carbolic acid, and tannin. He did not favor the removal of the secundines in early abortion by instruments. A tampon would serve as a plug to stop bleeding, when the placenta would be cast off. Forceful dilatation of the cervix was condemned. The danger of post partum hemorrhage was to be avoided by administering ergot immediately after delivery and maintaining ergotism for at least twelve hours. He thought venesection was the best remedy in puerperal convulsions, and thorough antiseptic treatment, including vaginal injections, was advised in puerperal fever.

Dr. J. A. McFerran read a paper on "Obstetrical Forceps," jointed at the junction of the blades and shanks. As pressure causes most of the injury, an instrument that causes but little pressure beyond that which necessarily belongs to the case is the one that should be used. With these facts in view, Dr. McFerran designed a pair of forceps in the fall of 1877, jointed at the junction of the blades and shanks. He has fully tested them on several occasions after the failure to deliver with other forceps, and always with perfect and quick success, and he can now, with a confidence which experience alone can give, urge a trial of this instrument. When once the forceps is applied to the head, it is free to deflect, flex, or extend. The line of traction is transferred from the junction of the head and neck to the joint of the instrument. By mak-
ing the handles a lever and one hand the fulcrum, placed close to the vulva, the head can be flexed and swept down in the axis of the pelvis, and even when traction is made from the extremity of the handles, the joint leaves the hand free to deflect and pass an obstruction with the greatest possible ease.

“Surgical Delusions” was the title of the address read by Dr. John B. Roberts. He thought many surgical theories and procedures had become traditional, and are accepted as true and correct merely because a reverence for antiquity, or careless acceptance, has not questioned their right to be classed as surgical facts. Adherence to chloroform, in the face of well-known facts as to its danger, is criminal when circumstances permit ether to be obtained. The assertion that it is often impossible to produce anaesthesia with ether is the result of inefficient methods of administration. Styptics, the author thinks, are unnecessary; such agents are probably never needed in general surgery to arrest hemorrhage. When ligature, torsion, or acupressure is not demanded (and such is seldom the case unless the artery is as large as the facial) moderate direct pressure applied in dressing the wound is the only hemostatic required. Styptics often do harm, and, as they are not needed, they should be discarded.

“Dangers of Trephining the Skull” was next spoken of, and the dislike to make exploratory incisions in closed fractures of the skull, evinced by some surgeons, and the objection of others to trephining and thus opening the diploic structure in open fractures, were delusions of a most disastrous tendency. To wait until symptoms of cerebral compression or inflammation have supervened is to lose the most favorable opportunity for mechanical relief. The author has for a number of years strongly advocated making closed fractures open ones by means of an exploratory incision, whenever there is a suspicion of the existence of depression or splintering. In open fractures, operations to elevate depressed portions, and to get rid of splinters of the inner table thrust into the membranes,
should be undertaken. It is better to err on the side of action than that of inaction. Careful manipulation and proper dressings at an early stage are sources of less risk than is incurred by the surgeon who leaves unseen and unsuspected fragments thrust into the membranes or brain.

"Delay in Operating for Strangulated Hernia" he stated was a delusion of fatal issue. Repeated attempts at forcible taxis and medical pow-wowing, with temporizing measures, have ended more lives than the use of the knife. Herniotomy done within twelve hours is almost always followed by recovery. Death is to be expected, however, if strangulation has existed for two or three days and the gut has been bruised by violent manipulation in the endeavor to relieve the constriction by taxis. When symptoms of strangulated hernia exist, the slightest fullness and tenderness in one groin over either of the rings is a sufficient localizing indicator to warrant operation.

In acute phlegmonous inflammations incisions should be promptly made to evacuate the imprisoned pus, yet how few of the profession early and freely incise such inflamed tissues, unless they first see the yellow pus under the thinned skin or feel the fluctuation of the fluid in the abscess cavity. Time and pain are both saved by early incision. If the cut is made before the pus is formed, so much the better. Probably no form of abscess needs early and free incision more imperatively than that under the palmar fascia. Destructive burrowing of pus is prevented by this radical procedure, which also saves the patient many days of poultices and purgatory. In malignant tumors much bad surgery results from a delusive postponement of operative interference. Instant removal is to be practiced in such cases, provided the patient is deemed fit to stand the surgical shock. While an earnest advocate of conservative and of reparative surgery, Dr. Roberts believes that when operative surgery is demanded it should be aggressive. Delay, indecision, and inefficiency impair the value of much surgical work and are often the legitimate result of superstitious faith in delusive surgical dogmas.
A new splint for hip-joint disease was exhibited by Dr. Benjamin Lee, of Philadelphia, which consisted of a bar joined at the hip-joint allowing motion in both antero-posterior and lateral directions. It is provided with a ratchet, by means of which extension may be made. It is not attached to the shoe, but has provision for adhesive strips which hold it firmly to the foot. Counter-extension is made by a perineal band. He presented a case, which he had first seen in the third stage, and requested that a committee of three be appointed to examine the result of the treatment with the new splint. Drs. Allis, Willard, and Polland were appointed as the committee. They afterwards reported that, with the exception of being unable to flex his leg beyond a right angle, the patient was in a perfect condition.

A New Electric Laryngoscope was described by Dr. Carl Seiler, which consists of the ordinary head-reflector mounted on a head-band by means of a ball-and-socket joint. From the lower rim of the mirror extends a slotted arm about four inches in length, upon the end of which is mounted a small incandescent lamp. Between the lamp and the reflector is a simple bi-convex lens for the purpose of concentrating the light of the lamp upon the head-mirror, thus shortening the focus. To prevent the light from falling directly upon the patient's face, the anterior portion of the lamp is surrounded by a shield of silvered mica, which acts as a reflector. The wires from the battery run from the lamp along the bar and are fastened to the head-band, so that they hang from the back of the head of the operator. The advantages of this instrument in illuminating the laryngeal and other cavities of the body are, that the light being once adjusted always is reflected in the direction of the axes of the eyes, that it is light, gives off very little heat, and a whiter light than gas or coal-oil lamp. And finally, it can be used as an ordinary head-mirror without the electric lamp, should the source of electricity give out, an accident which not infrequently happens, espe-
cially when the operator is not perfectly familiar with the tricks and vagaries of batteries. The paper was illustrated by the exhibition of the instrument, which gave forth a very satisfactory light.

Dr. E. T. Bruen, of Philadelphia, then read a paper jointly by himself and Dr. J. William White, on the "Operative Treatment of Purulent Pleural Effusions," based on thirteen cases of empyema treated since 1877. In serous effusion, whether undisturbed or treated by paracentesis the predisposing causes of empyema were considered to be lowered vitality, scrofulous constitution, and intercurrent diseases. The termination of empyema, and the effects of pleural effusion upon the lungs, were next dealt with. In regard to the diagnosis, the crucial test is by puncture.

Dr. Arthur Van Harlingen, of Philadelphia, read a paper entitled "The Principles of External Treatment in Diseases of the Skin." It occurred to the author that if the more commonly used external remedies could be classified according to their effects upon the diseased integument, certain principles of treatment might be arrived at which would enable the physician to treat most forms of skin disease according to the appearances presented, without this necessarily involving a knowledge of the nomenclature and classification of dermatology. He then went on to sketch out a scheme by which the various outward applications commonly employed were arranged according to their effect, as protectives, sedatives, astringents, anesthetics, stimulants, caustics, and mechanical means of treatment, giving under each head the effects of each class of applications, together with a list of individual medicaments belonging to the class.

The bound transactions of the State Medical Society of Pennsylvania for 1884 are handsomely issued, and the contents bear the impress of the intelligence of its members. There are 622 pages, and the list of permanent members numbers 1,025. Their next place of meeting will be Scranton, the second Wednesday in May, 1885.
REPORT OF THE CHAIRMAN OF THE COMMITTEE ON PUBLIC HEALTH.

A. S. V. MANSFELDE, M.D., ASHLAND.

Mr. President, Ladies, and Gentlemen:

In accordance with your instructions I have submitted on the 15th day of December, 1881, the following report:

To His Excellency, J. W. Dawes, Governor of Nebraska:

DEAR Sir—At the last meeting of the Nebraska State Medical Society, the following was adopted:

"Committee on Public Health. The Committe on Public Health shall be known as the Nebraska State Medical Society's State Board of Health. It shall consist of the Permanent Secretary as Chairman, and every member of the Society, whose duty it shall be to give such information as may be indicated by blanks furnished by the Society upon matters of births and deaths; diseases, endemic and epidemic, contagious or infectious, and such other matters as pertain to the preservation of health and prolongation of life of the people of the State of Nebraska, to the Chairman of the Committee.

"The Chairman of the Committee shall, at the time stated for such purposes, present to the Governor of the State a report (based upon the information gained) of all matters pertaining to the subject in hand, and draw such deductions, and make such recommendations as are warranted by the facts furnished by the several members of the Society. A copy of this report shall be submitted to the Society for its approbation at each succeeding annual meeting."

In conformity with the wishes of the Nebraska State Medical Society, thereby expressed, and as the Chairman of said Committee, I have the honor to submit the following report; the same being accompanied by my sincere expressions of re-
greet at the meagerness of its contents, and the very unsatisfactory conditions concerning matters of health in Nebraska, as shown by its exhibits. I hope, however, that subsequent reports may, in the latter respect at least, demonstrate the proverbial enterprise of our people.

**DISEASES PREVAILING IN NEBRASKA.**

As a basis for my remarks upon the subject, I submit the report of the very efficient city physician of Omaha, Prof. P. S. Leisenring, covering a period of two years and seven months, from April, 1881, to March, 1882, and from April, 1883, to October, 1884.

During the first period, one year, with a probable population of 40,000, five hundred and thirty-five persons died, with ages as below:

Under 1 year, 168; under 5 years, 108; from 5 to 10 years, 19; from 10 to 15 years, 10; from 15 to 20 years, 12; from 20 to 25 years, 44; from 25 to 30 years, 33; from 30 to 35 years, 17; from 35 to 40 years, 20; from 40 to 45 years, 10; from 45 to 50 years, 12; from 50 to 55 years, 19; from 55 to 60 years, 7; from 60 to 65 years, 12; from 65 to 70 years, 9; and over 70 years, 26; unknown, 9. Total, 535.

During the second period, covering 19 months, with a probable population of 50,000, one thousand and seventy-six (1076) persons died, with ages as follows:

Under 1 year, 357; under 5 years, 232; from 5 to 10 years, 52; from 10 to 15 years, 23; from 15 to 20 years, 20; from 20 to 25 years, 56; from 25 to 30 years, 66; from 30 to 35 years, 40; from 35 to 40 years, 51; from 40 to 45 years, 35; from 45 to 50 years, 27; from 50 to 55 years, 17; from 55 to 60 years, 19; from 60 to 65 years, 24; from 65 to 70 years, 15; over 70 years, 29; ages unknown ——

To the following list of causes of death, respectively designated as Period I. and II., may be added those of fifty persons dying in various parts of the state during August, September, and October, 1884, designated as Period III.
<table>
<thead>
<tr>
<th>Causes of Disease</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>Causes of Disease</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abscess of stomach</td>
<td>1</td>
<td></td>
<td></td>
<td>Hydrocephalus</td>
<td>5</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Accidents</td>
<td>14</td>
<td>20</td>
<td>2</td>
<td>Inanition</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Albuminuria</td>
<td>1</td>
<td></td>
<td></td>
<td>Lightning</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcoholism</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>Locomotor Ataxia</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaemia of brain</td>
<td>1</td>
<td></td>
<td></td>
<td>Lumbar abscess</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anasarca</td>
<td>1</td>
<td></td>
<td></td>
<td>Lupus</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aneurism</td>
<td>1</td>
<td></td>
<td></td>
<td>Malarial fever</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angina Pectoris</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Malignant tumor</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apnea</td>
<td>1</td>
<td></td>
<td></td>
<td>Marasmus</td>
<td>10</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Apoplexy</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>Measles</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Apthae</td>
<td>8</td>
<td>1</td>
<td></td>
<td>Meningitis</td>
<td>15</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Asphyxia</td>
<td>1</td>
<td></td>
<td></td>
<td>Metritis</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td>2</td>
<td></td>
<td></td>
<td>Murdered</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bright's disease</td>
<td>2</td>
<td></td>
<td></td>
<td>Natural causes</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bronchitis</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td>Nervous prostration</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burn</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Oedema glottidis</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>Old age</td>
<td>12</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Carditis</td>
<td>1</td>
<td></td>
<td></td>
<td>Ovarian dropsy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cerebro spin, meningitis</td>
<td>18</td>
<td>13</td>
<td>1</td>
<td>Paralysis</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Cholera infantum</td>
<td>3</td>
<td></td>
<td></td>
<td>Paralysis agitans</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Cirrhosis of liver</td>
<td>2</td>
<td></td>
<td></td>
<td>Pericarditis</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colitis</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Peritonitis</td>
<td>16</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Congestive fever</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td>Phthisis pulmonalis</td>
<td>31</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Congestion of brain</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Pleuritis</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convulsions</td>
<td>44</td>
<td>57</td>
<td>1</td>
<td>Pneumonia</td>
<td>32</td>
<td>42</td>
<td>1</td>
</tr>
<tr>
<td>Croup, membranous</td>
<td>14</td>
<td>8</td>
<td>1</td>
<td>Premature births</td>
<td>13</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Cystitis</td>
<td>1</td>
<td></td>
<td></td>
<td>Puerperal convulsions</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>1</td>
<td>1</td>
<td></td>
<td>diseases</td>
<td>11</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Diarrheal diseases</td>
<td>52</td>
<td>68</td>
<td>3</td>
<td>Purpura hemorrhagica</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>16</td>
<td>43</td>
<td>4</td>
<td>Remittent fever</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Dropsy</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Rheumatism</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Drowned</td>
<td>1</td>
<td>2</td>
<td></td>
<td>Rupture of intestines</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dysentery</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>Scarletina</td>
<td>17</td>
<td>23</td>
<td>2</td>
</tr>
<tr>
<td>Embolism</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Septicaemia</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Emphysema</td>
<td>1</td>
<td></td>
<td></td>
<td>Small pox</td>
<td>12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Enteritis</td>
<td>12</td>
<td></td>
<td></td>
<td>Softening of brain</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Entero-colitis</td>
<td>1</td>
<td>3</td>
<td></td>
<td>Solar heat</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Enlarged prostate</td>
<td>1</td>
<td></td>
<td></td>
<td>Sore leg</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erysipelas</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Starvation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhaustion</td>
<td>1</td>
<td></td>
<td></td>
<td>Stomatitis</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gastritis</td>
<td>1</td>
<td></td>
<td></td>
<td>Suicide</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>General debility</td>
<td>2</td>
<td></td>
<td></td>
<td>Surgical operation</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Gun-shot wound</td>
<td>1</td>
<td></td>
<td></td>
<td>Tetanus</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemoptysis</td>
<td>2</td>
<td></td>
<td></td>
<td>Typhus fever</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart disease</td>
<td>10</td>
<td>14</td>
<td>1</td>
<td>Typhoid fever</td>
<td>42</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Hereditary syphilis</td>
<td>1</td>
<td></td>
<td></td>
<td>Tumor</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>Ulceration, stomach</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hip disease</td>
<td>1</td>
<td></td>
<td></td>
<td>Ureemia</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Violence</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Whooping cough</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

23
It will be observed that, in spite of the size of the city of Omaha, the death rate remains the same as it was in 1874—twelve per thousand a year. A rate lower than that of most places in this country.

The ratio of deaths for the prairie region of Illinois for the year 1880, for each thousand inhabitants, amounted to 13.23, and for the whole of the United States, 15.09. For Omaha, a city of fifty-five thousand inhabitants for the year ending Nov. 1st, 1884, about 12.40. Lower even than the healthy prairies of Illinois. The statistics for the prairies of Nebraska, which, unfortunately, we do not possess, would show a death rate far below those already mentioned, demonstrating the proverbial healthfulness of our state beyond a cavil.

Hitherto nothing but surmises and individual experiences have been at our command to prove these facts, which, once fully established, will bring to our borders people who, otherwise comfortably situated in their old homes, will come here for their health, enriching our state with their capital and furnishing a higher quality of citizenship.

Of course the superior condition of healthfulness is entirely the gift of Nature. The drainage is almost perfect, with the exception of the Platte river low lands, perhaps, and whilst the rivers and creeks quickly carry off the surplus water, it finds its way also in large quantities into the porous soil, taking with it the decaying remains of vegetation, prodigious in its amount, thus furnishing an explanation of the absence of malaria, and its disastrous consequences. Yet whilst Nature has done everything for us, we have been lulled into a dangerous safety, and warning signals, scarcely visible to the vigilant, go entirely unheeded by the people of the state. A comparison of the number of deaths from contagious and infectious diseases, and also of such disorders as are known as filth diseases, for the years 1874 and 1883 will show that the increase of our population, and of necessity the closer communion of the masses, here as elsewhere furnish the
requisites for infection, so that some diseases have increased in frequency far beyond the increase of our population.

This cannot be wondered at, when it is an every day occurrence that people unmolested board the trains with all manner of diseases from nettle-rash to small-pox in full bloom upon them; when parents resent the idea of keeping their children at home from school, when members of the family are down with any of these diseases. They are all afraid of a mad dog, or a powder magazine; yet, what is their danger compared with one case of diphtheria, scarlet-fever, or small-pox. The poison germs of one case of any one of these diseases will carry destruction to hundreds of persons, and mental anguish, sorrow, and pain to thousands of homes. These plagues slay our innocent children unmolested the year around, and nothing is done to stay the hand of the destroyer. The same is true of filth diseases, such as typhoid fever. Ten years ago seven (7) deaths from this disease are reported in the city of Omaha for the year 1874, and this is what Dr. J. H. Peabody says in regard to such diseases:

“They are much less here than in larger cities. This, no doubt, is in some degree attributable to the sparseness of the population. This alone, however, will not account for the great difference, as much as thirty to sixty per cent less. The fact that the drinking water used in our city has not yet become poisoned with the drainage from the numerous privy vaults, with which it, as well as many other cities, are cursed, is of itself almost sufficient to account for this difference.”

Then the doctor urges measures to prevent such contamination of the drinking water, and closes by saying:

“The cost would be but a trifle, and the saving of life, health, and doctors’ bills immense in the future; for every one who gives the subject a thought can see that such sinks are a prolific source of death producing at times typhus, typhoid fever, and other malignant diseases.”

In spite of such warning, and regardless of the great
amount of work done in this direction in the city of Omaha, its deaths from typhoid fever in 1883 are 42. *Three times as many* as the increase of population warrants. And what is true for Omaha is true for other towns in the state, nay more so, for Omaha, as already mentioned, has a board of health and by its help and in many other ways has endeavored to do something toward staying these diseases, whilst the state at large has done comparatively nothing to prevent disease or to check it. Thus it comes that ten years ago typhoid fever was unknown in the greater part of the state, whilst to-day it claims the very best of our people as its victims.

How shall we be prepared to meet its stronger and more deadly cousin, cholera? When this disease visited our country the last time, in 1866, it had almost spent its virulence when it reached Chicago, yet many were those who succumbed to it. It took several days then for a person to reach Chicago from the seaports, now it does not take as much time to come to Omaha from New York. The conditions for the development of the disease: warmth, moisture, and decaying matters (vegetable and animal), are always to be found with us, this fall more than for years past, and no organized means to stay its progress exist outside of Omaha, and yet it is the truth, though I hope the possibility for its demonstration will never occur, that the smaller towns will suffer greater losses than Omaha, because in them personal cleanliness is the only incentive to remove the material for and the breeding places of the disease.

I would fail of my duty to the body who has made me the exponent of its views, as well as to my fellow-citizens, should I neglect the opportunity to suggest to your Excellency the unfailing means for relief presented in the establishment of a State Board of Health, composed of men who shall not only know the wants of our people, but will bring to the work the love which is requisite for its execution.

Such a Board, empowered by law to establish and main-
tain local health officers, also to make such regulations regarding health conditions, infectious and contagious diseases, and the proper registration of all matters included under statistics of health, when assisted by the officers of the state, both local and general, will prove itself adequate to reduce all dangers to health and life, from whatever source, to the minimum attainable.

Such a board should also, as far as capacity and means will permit, stimulate and assist investigation of the diseases which destroy our domestic animals, our grain and corn crops, and last, but not least, should investigate the effects which intemperance in all its relations has upon the industry, prosperity, happiness, health, and life of the citizens of our state.

Dangerous as many diseases are to the life of the people, a small and evil part of society outstrips their virulence, incompetent physicians. The pen fails to express the losses to health and life sustained through this disgraceful parasite upon our civilization. Many have been the attempts to stay their murderous practice, yet with few exceptions the success has been very questionable. The failure has not been owing to the wishes of the people or the desire of the better class of physicians, but to the influence of the very persons whom the laws were intended to affect, and perhaps, to difficulties arising when put into execution not appreciated at the time of the passage of the law.

Nebraska has such a law, and what has already been said regarding such measures applies equally to it. This is what a committee of the Nebraska State Medical Society has to say about it two years after its passage:

"The law has had a good effect, in that it is now possible to learn what are the qualifications of so large a number of medical practitioners in the state, and yet your committee are compelled to report that the law is virtually a failure, so far as affording protection to the people from the imposition of quacks."
"From the fact that there is no tribunal before which may be determined the genuineness of a diploma or license, all kinds of papers purporting to be diplomas are spread upon our record books, and the people for whose protection the law was intended, not being able to discriminate between the true and the false, are thus cruelly deceived by a so-called doctor holding a diploma issued by some quack in Cincinnati, St. Louis, or elsewhere.

"Your committee direct special attention to the large number of irregular practitioners in the state, and particularly to the large number of fraudulent diplomas found, and earnestly request that some action be taken by which the state may be freed of these impostors.

"Under the provisions of the present law any concern in possession of a charter can issue a diploma that will entitle the holder thereof to practice medicine in Nebraska.

"The weak point in the law is easily understood when we come to investigate the character of many of the so-called Medical Colleges. There are over one hundred concerns in the United States alone who are in possession of some kind of a charter authorizing the conferring of the degree of M. D. Besides these, there are nearly as many more concerns not chartered by authority, but who, nevertheless, issue what they call a diploma. There are, in fact, but forty-six regular schools in the United States whose diplomas are recognized.

"There are also three Eclectic, ten Homeopathic, and one Physio-Medical School, making in all sixty schools whose diplomas are generally recognized. It will therefore be readily seen that it is impossible to suppress quackery under the provisions of the present law, as the courts would be compelled to recognize the diploma of any chartered institution, it matters not how the diploma may have been obtained. As a remedy for these evils your committee recommend the establishment of a state board of health, whose duty it shall be to enforce the law regulating the practice of medicine, said board
having authority to refuse its certificate to any person not properly qualified to practice medicine, and also to order before them for examination any person practicing medicine, be he a graduate or not.

"Your committee make this recommendation, not for the benefit of any qualified physician (because it is a well known fact among us that the place of every quack, driven from his nefarious business, will be taken by a qualified physician whom we must respect and divide our practice with), but that the medical profession in this state may be freed from this burden of quackery; and, what is of still greater importance, that the health and life of the citizens of this beautiful state may have some adequate protection against the schemes and impositions of ignorant empirics.

"From the returns received your committee estimate the number of regular physicians in the state to be four hundred and fifty (450).

"Eclectic physicians, sixty-seven (67).

"Homeopathic physicians, fifty (50).

"Total number of graduates of all schools, five hundred and sixty-seven (567).

"Practicing under the ten years provision of the law, two hundred and six (206).

"First course students, thirty-eight (38).

"Of less than ten years' practice, and in open violation of the law, twenty-seven (27).

"Number practicing that are not registered, forty (40).

"Number of fraudulent diplomas found, eighty-seven (87.)

"Thus do we find at least four hundred men styling themselves Doctors of Medicine, whose only claim to recognition is based upon their own assumption, none of them having passed an examination to test their qualifications."

Your reporter sent a request to all the county clerks of the state for a copy of the physician's register in their offices. Some, who are by birth and education gentlemen, responded;
others passed the courteous request unheeded. The same appeal was made to physicians in counties from the county clerks of which I could not get a report, presumably from the same cause, with like unsatisfactory consequences. I finally succeeded in getting a report from the following counties:


With this result: These counties, with a probable population of 436,170 (the vote for lieutenant-governor, multiplied by five), have seven hundred and seventy-six so-called physicians registered—one for every 562 inhabitants, and they are classified as follows:

Regular physicians, four hundred and ninety-two (492); Homeopathists, forty-seven (47); Eclectics, forty-four (44); one hundred and forty-five (145) non-graduates; thirty-six (36) with fraudulent diplomas, and twelve unknown (presumably belonging to the fraudulent class, since no record could be found of the institution they named as the Alma Mater); five hundred and eighty-three (583) persons with diplomas (I do not say qualified), whilst one hundred and ninety-three (193) have no qualification whatever to practice the healing art, except it be their brazen cheek and utter absence of conscience.

One-quarter of the doctors preying upon the credulity of their trusting, wholly unprotected victims! Truly a sad contemplation of our boasted civilization, when we remember that it is the duty, yes the first duty of the state to protect the freedom, happiness, and life of its citizens.

In the counties from which I did not receive a return, with a probable population of 233,830, we may assume the doctors to number at least four hundred and eighteen (418); then the grand total presents itself thusly:
Graduates in the state................................. 395 567
Unqualified persons practicing....................... 297 331

Total ........................................................ 1092 898

This presentation shows that, as in everything else, Nebraska has grown also in the number of its physicians, having added two hundred within the last two years. It also demonstrates that the law, however deficient it has proven itself, was not altogether without beneficial results, the number of graduates having increased, whilst that of unqualified persons was materially lessened.

It is earnestly to be hoped that the good work will go on, and that in the near future it may be said of our state, that the species quack is unknown. To further this work, I join in the recommendations above quoted from the Committee of the Nebraska State Medical Society.

Very respectfully your servant,

A. S. v. MANSFELDE, M.D.,
Chairman Committee on Public Health, and Permanent Secretary of the Nebraska State Medical Society.

For this report I ask your approval. With it I submit for your consideration the draft of a law for the establishment of a State Board of Health, which, in its details, will be found to embody almost every feature of efficacy now contained in laws of like character in the different states of the Union. It also has embodied in it, of necessity, my ideas of the methods necessary for an efficacious execution of the same.

Of course we are apt to learn, and one feature I should certainly incorporate in a measure of the kind if it was again attempted in our state: Adequate compensation to every physician for services rendered the commonwealth in the report of vital statistics, and in case of non-compliance, adequate penalty; without these, however wise the measure, it will be unjust, and inoperative.
A BILL FOR A STATE BOARD OF HEALTH.

DRAWN BY A. S. V. MANSFELDE, M.D., ASHLAND.

Be it enacted by the Legislature of the State of Nebraska:

SECTION 1. That the governor, with the advice and consent of the senate, shall appoint seven persons, two from each congressional district and one at large, who shall constitute the State Board of Health. The persons so appointed must be graduated physicians of at least ten years consecutive practice, of reputed prominence in their profession, and fully qualified for the duties required of them by this act.

SEC. 2. The persons so appointed shall hold their offices for seven years; Provided, That the terms of office of the seven first appointed shall be so arranged that the term of one shall expire on the 31st day of December of each year, and the vacancies so created, as well as all vacancies occurring otherwise, shall be filled by the governor, with the advice and consent of the senate; And provided, also, That appointments made when the senate is not in session may be confirmed at its next ensuing session.

SEC. 3. The State Board of Health shall organize within three months after the passage of this act. They shall go before a proper person, authorized by the laws of this state, and make oath that they will faithfully perform the duties of their office.

SEC. 4. They shall, at their first meeting, elect from their own number a president, who shall hold his office for one year, or, if not re-elected, until his successor is elected; they shall also at the same meeting elect from their own number a secretary, who shall hold his office during the term of his membership, unless sooner removed for incompetency or other
good cause. This board shall have and use a common seal; may sue and be sued; contract and be contracted with; plead and be impleaded to the extent of enabling it to carry out the powers conferred upon it by this act.

SEC. 5. Said board may make and adopt all necessary rules, regulations, and by-laws not inconsistent with the constitution and laws of this state, or of the United States, to enable it to perform its duties and transact its business under the provisions of this act.

SEC. 6. A majority of the board shall constitute a quorum for the transaction of business. A meeting of the board may be called by the president or any three members of the board at any time, or at any place in the state. The regular meetings of the board shall be held in the city of Lincoln on the second Monday of the months of January, April, July, and October of each year.

SEC. 7. The president and secretary shall have authority to administer oaths, and the board to take testimony in all matters relating to its duties.

SEC. 8. The secretary of the State Board of Health shall, by virtue of his office, become its executive officer. He shall perform such duties as are prescribed by this act, or may be required by the board. He shall keep a record of the transactions of the board; shall have the custody of all books, papers, documents, and other property belonging to the board which may be deposited in his office; he shall, so far as practicable, communicate with other State Boards of Health, and with the local board's of health within this state; shall keep and file all reports received from such boards, and all correspondence of the office appertaining to the business of the board. He shall, so far as possible, aid in obtaining contributions to the library and museum of the board. He shall prepare blank forms of returns, and such instructions as may be necessary, and forward them to the clerks of the several boards of health throughout the state. He shall col-
lect information concerning vital statistics, knowledge respecting diseases, and all useful information on the subject of hygiene, and, through an annual report, and otherwise as the board may direct, shall disseminate such information among the people.

Sec. 9. The State Board of Health shall have supervision of the interests of the health and life of the citizens of this state. They shall especially study the vital statistics of this state, and endeavor to make intelligent and profitable use of collected records of deaths and of sickness among the people; they shall make sanitary investigations and inquiries respecting the causes of disease, and especially of epidemics; the causes of mortality, and the effects of localities, employments, conditions, ingesta, habits, and circumstances on the health of the people. They shall, when required, or when they deem it best, advise officers of the government or other state boards in regard to the location, drainage, water supply, disposal of excreta, heating, and ventilation of any public institution and building, and it shall be the duty of the board to report what in their best judgment is the effect of intoxicating liquors as a beverage upon the industry, prosperity, happiness, health, and lives of the citizens of the state. They shall, prior to the first day of December of each year, make a report to the governor of their doings, investigations, and discoveries during the year ending on the 31st day of October next preceding, with such suggestions in regard to legislative action as they may deem important.

Sec. 10. The State Board of Health shall have supervision of the system of registration of births, deaths, and marriages as herein provided, and they shall make up such forms, and shall, from time to time, recommend such legislation as they may deem necessary for the thorough registration and report of vital and sanitary statistics throughout the state. It shall be the duty of the State Board of Health to prescribe the form for the records of marriages, births, and deaths to
be used in the office of the secretary of the county boards, and
the secretary of the state board shall, upon requisition of the
health officer of each county, furnish him, and through him
the secretary of each local board in such county, such blanks
as may be required for the gathering and reporting of vital
and sanitary statistics, according to the provisions of this act.

Sec. 11. It shall be the duty of the State Board of Health
to furnish certificates, as hereinafter provided, to all persons
who practice or wish to practice medicine, surgery, obstet-
rics, or any of their branches in this state.

Sec. 12. The trustees of each town, the mayor and com-
mon council of each incorporated city, except where a regular
constituted board of health, by ordinance of such city, now
exists or may hereafter be created, and the board of county
commissioners of each county, shall constitute a board of
health, ex officio, for each of the several towns, cities, and
counties respectively of the state, who shall perform such du-
ties respectively required of them by this act without com-
pensation. They shall, annually, in the month of January of
each year, complete their organization by the election of a sec-
retary, who shall be a physician. The secretary of such local
boards of health, and the secretary of any regular constituted
board of health of any incorporated city, shall be the health
officer of every town, city, or county, respectively, for the
purposes provided in this act, and shall be allowed such com-
pensation from the town, city, or county treasury, respect-
ively, as the board electing them may determine. The board
of health of each county shall act in conjunction with the
State Board of Health, and it shall be the duty of the secre-
tary of such county boards, at least once in each year, and as
often as may be deemed necessary by the State Board of
Health, to report such facts and statistics as may be required,
under instructions from and according to forms and blanks
furnished by said board; and the board of health of each
town and city situate in any county of this state shall act in
conjunction with the board of health of such county, and it shall be the duty of the secretary of such local boards, at least once each quarter, and as often as may be deemed necessary by the county board, to report such facts and statistics as may be required, under instructions from and according to forms and blanks furnished by the State Board of Health through such county boards. And every physician in each town, city, and county, shall be required to report to the secretary of the board of health of such town, city, or county, such facts and statistics as may be required by him under the direction of the county board, or of the state board through such county board, and such town, city, and county board shall have authority, and it shall be their duty in the locality concerned, under the direction of the State Board of Health, to promulgate and enforce such regulations for the preservation of public health and the prevention of epidemic and contagious diseases as may be deemed advisable by them; and any person or persons, or the officers of any corporation, neglecting or refusing, after having been notified in writing, to comply with the requirements of such regulations, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in any sum not less than five dollars nor more than twenty-five dollars, and each day said failure or refusal shall continue shall, after proper notification, constitute a separate offense.

Sec. 13. It shall be the duty of all physicians and accoucheurs in this state to report to the secretary of the board of health of the town, city, or county in which they may occur, and within fifteen days thereafter, all births and deaths which may occur under their supervision, with a certificate of the cause of death, and such correlative facts as may be required in the blank forms furnished, as provided in this act. When any birth or death shall occur with no physician or accoucheur in attendance, then such birth or death shall be reported, as hereinbefore provided, by the householder where or under whose observation such birth or death may occur, with the
cause of death, if such be known. Any physician, accoucheur, or householder, willfully or purposely, after notice by the secretary of the local board under whose jurisdiction such person may live, failing or refusing to comply with the provisions of this section, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in any sum not less than five dollars nor more than ten dollars; Provided, That any death coming under the jurisdiction or supervision of any coroner shall be by him reported to the secretary of the board of health of the town, city, or county in which such death may occur, within fifteen days after such death comes under his jurisdiction, and such death so reported shall not be required to be reported by any other person; Provided further, That it shall be the duty of each county clerk of this state to report to the health officer of the county, on or before the fifth day of each month, the number of certificates of marriages that have been recorded during the preceding month, together with the names of parties contracting such marriage, and the date when such marriage was solemnized.

Sec. 14. It shall be the duty of the board of health of each county to keep a complete record, according to the form prescribed by the state board, of all marriages, births, and deaths reported to them under the provisions of this act, and such record shall be open to the inspection of any citizen without fee.

Sec. 15. In case any town, city, or county of this state neglects to organize, as provided in this act, the board of health for such town, city, or county, then the health officer of the state, with the consent of the State Board of Health or subsequent sanction of the same, shall, within fifteen days after due notice of his intention so to do has been served on the clerk of such town, city, or county, proceed to appoint a health officer for such town, city, or county, and the salary for such officer shall be in conformity with the salary paid elsewhere to such an officer in this state, and the amount of such salary of
such officer shall be collected from such town, city, or county by said health officer in a suit brought for the same before any court of competent jurisdiction, and under the same conditions provided for the collection of taxes from the citizens of this state.

Sec. 16. In case any health officer, county clerk, or any other person required to make returns under the provisions of this act, or upon requisition of the State Board of Health, or board of health of county, city, or town, fails to make such returns, the health officer of such town, city, county, or state shall, within five days after due notice in writing of his intention so to do has been served upon such person or persons, cause such returns to be made by himself or a proper person commissioned by him for this purpose, and the expense incurred by such procedure shall be charged against the person who has failed to make such returns, and the amount of such charges shall be collected from such person in the manner as provided in section fifteen of this act; Provided, however, That the provisions of this section do not refer to the returns by individuals of vital statistics, i.e., births, deaths, contagious or infectious diseases, or other matters as provided for in section twelve of this act.

Sec. 17. Every person practicing medicine, surgery, obstetrics, or any of their branches, in this state, shall possess the qualifications required by this act. If a graduate in medicine, he or she shall furnish satisfactory evidence to the State Board of Health that he or she is the person named in his or her diploma, that he or she is twenty-one years of age and of good moral and professional character, that he or she has devoted three years to the study of medicine, including Human Anatomy, Histology, Physiology, Chemistry—general and medical, Materia Medica and Therapeutics, General Pathology and Pathological Anatomy, Hygiene and Sanitation, Medical Jurisprudence, Practice of Medicine, Surgery, Obstetrics, Diseases of Women and Children (Practice of Medi-
cine, Surgery, and Obstetrics, including all the specialties carved from them), with Clinical Medicine and Surgery in Hospitals; at least six months of two years having been spent in direct attendance on some legally established medical college.

Sec. 18. A college shall be deemed legally established if it exacts, in granting a diploma, the following requirements:

1. A creditable certificate of good moral character.
2. Diploma of graduation from a good literary or scientific college or high school, or certificate of the second grade granted by any county superintendent of public instruction in the state.
3. Attendance upon two full courses of lectures of not less than six months each, and not more than one course in the same year.
4. A final examination in all the branches named in section one of this act by competent examiners.
5. The applicant for a diploma shall have dissected all parts of the human body during at least two courses of his or her college attendance.
6. He or she shall have received clinical hospital instruction during two courses at least, and shall have received from the instructors in said hospital or hospitals certificates showing regular amount of attendance.
7. Regular attendance during the entire lecture courses, both didactic and clinical, shall be required, allowance being made only for absences occasioned by the student's sickness, such absences not to exceed twenty per cent of the course.
8. Time of professional studies before graduation shall not be less than three full years, including the time spent with a preceptor, attendance upon lectures, or at clinics and hospitals.
9. The college must show that it has a competent corps of instructors.

Sec. 19. Any person who, after the passage of this act,
wishes to engage in the practice of medicine, surgery, obstetrics, or any of their branches, in this state, or any legal practitioner of medicine who has complied with the provisions of the law of 1881 as amended in 1883, entitled "An act to regulate the practice of medicine in the state of Nebraska," shall, after strict compliance with said law, deposit within thirty days after this act takes effect, with the secretary of the State Board of Health, a certified copy of his or her registration, in the county clerk's office in the county in which he or she resides, and upon receipt of such copy of registration and the sum of one dollar, the board of health shall issue their certificate to all persons who have complied with the provisions of this act, and any other act or part of act relating to the regulation of the practice of medicine in this state; they shall prepare two forms of certificates, one for persons in possession of a diploma from a college, as defined in section eighteen of this act, and one for persons who are not graduates, but practice medicine under the provisions of the act of 1881, entitled "An act to regulate the practice of medicine in the state of Nebraska." The certificates issued shall be signed by the president and secretary of the board and have its seal attached thereto; they shall be a license, and the only one, to practice medicine, surgery, obstetrics, or any of their branches, in the state of Nebraska, or any part thereof, from and after the registration of said certificate in the office of the county clerk of the county in which the recipient of the certificate resides.

Any person removing to another county to practice shall procure an indorsement to that effect on the certificate from the county clerk, and shall record the certificate in like manner in the county to which he or she removes, and the holder of the certificate shall pay the county clerk the usual fee for making the record. In case a person residing in an adjoining state comes into the counties of this state to practice medicine, surgery, obstetrics, or any of their branches, he shall comply with each and every provision of this act, or any
other act or parts of acts referring to the practice of medicine; *Provided*, That this shall not include consultations between practitioners of medicine from one state to another.

SEC. 20. The State Board of Health may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and they may revoke certificates for like cause; *Provided always*, That they have given the person an opportunity to be heard in his or her defense.

SEC. 21. It shall be the duty of the county clerk in each county of the state to provide and keep in his office as a public record a book to be entitled "A Record of Licensed Physicians for the County of......................," in which the clerk shall record the certificates issued by the State Board of Health, and the clerk shall be entitled to the same fees as allowed by law for like services.

SEC. 22. Annually, on or before the tenth day of November, every county clerk in the state shall furnish a certified copy of the names, address, residence, and place of business of all persons practicing medicine, surgery, midwifery, or any of their branches, not previously reported to the secretary of the board; also all persons who have taken a transcript of their record and have removed from the county, or have died, not previously reported to the secretary of the State Board of Health, and said secretary shall record the same in a book to be kept by him for that purpose.

SEC. 23. No part of this act shall be considered as applying to those practicing dental surgery or dentistry.

SEC. 24. Any person who shall practice medicine, surgery, obstetrics, or any of their branches, in this state, under cover of a diploma gained unlawfully or not in accordance with the requirements for graduation, as specified in section eighteen of this act, or who has not the qualifications demanded by section seventeen of this act; or under cover of a license unlawfully issued or illegally obtained, or without a license as provided for in this act, shall be guilty of a misdemeanor,
and on conviction thereof shall be punished by a fine of not less than one hundred dollars for the first offense, and for each subsequent offense by a fine as aforesaid, and by imprisonment not less than thirty (30) days nor more than one year in the county jail, or both.

Sec. 25. All moneys paid to the board under the provisions of this act shall be appropriated for and assist in defraying the expenses incurred under the provisions of this act.

Sec. 26. The sum of five thousand ($5,000.00) dollars per annum, or so much thereof as may be necessary, is hereby appropriated to pay the necessary expenses incurred under the provisions of this act; Provided, That the expenses of the State Board of Health shall not exceed the amount herein appropriated.

Sec. 27. The secretary of the State Board of Health shall receive his traveling and other expenses incurred in the performance of his duty. The other members of the board shall receive their traveling expenses incurred in the actual performance of their duties. The board shall audit all bills made out in due form and verified by the member rendering the service or incurring the expense in the performance of the duties of his office. The president of the board shall quarterly certify the amount due the members of the board, and amount of bills incurred by said board to the secretary, and on presentation of his certificate the auditor of state shall draw his warrant on the treasurer for the amount.

Sec. 28. The governor shall remove any member of the board for unprofessional or dishonorable conduct, or neglect of duty, upon the recommendation of a vote of two-thirds of the board.

Sec. 29. All acts or parts of acts inconsistent with this act are hereby repealed.

Sec. 30. This act shall take effect June 1st, 1885.
STATE BOARD OF MEDICAL EXAMINERS AND LICENSERS.

[Submitted to the Nebraska State Medical Society by order of the American Medical Association.]

AN ACT to establish a State Board of Medical Examiners and Licensers, and to define the duties and power of such Board.

SECTION 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of ......... in General Assembly met, and it is hereby enacted by the authority of the same: That there shall be appointed by the governor a State Board of Medical Examiners and Licensers consisting of nine members, three of whom shall serve for one year, three for two years, and three for three years, and hereafter he shall each year appoint three members to serve for three years in place of those whose terms then expire. They shall be graduates of some legally chartered college or university having the power to confer medical degrees, who shall have practiced medicine or surgery for a period of not less than five years, but none of whom shall be members of the faculty of any such college or university; Provided, That in the appointment of said Board at least seven members shall be chosen from a list of twenty-one names submitted by the Medical Society of the State of ......... In default of the submission of such list the governor shall appoint.

SEC. 2. Upon the organization of the said Board it shall be determined by lot which three members shall serve for a term of one year, which three for a term of two years, and which three for a term of three years. Every appointment to fill a vacancy or vacancies in the said State Board of Medical Examiners and Licensers shall be for the unexpired term, and the said vacancy or vacancies shall be filled by the governor within sixty days after notice to him of the same; Pro-
vided, That when the vacancy has been caused by death, resignation, or removal of a member appointed from the list furnished by the Medical Society of the State of ..........., the said vacancy shall again be filled from a list of three names for each vacancy furnished by the Medical Society of the State of ........... In default of the submission of such list the governor shall appoint.

Sec. 3. The said Board shall be a corporation by the name and style of the State Board of Medical Examiners and Licensers of the Commonwealth of ..........., and shall have and use a common seal, and as such corporation may sue and be sued, contract and be contracted with, plead and be impleaded to the extent to enable it to carry out the powers conferred upon it by this act. Said Board may make and adopt all necessary rules, regulations, and by-laws not inconsistent with the constitution and laws of this commonwealth or of the United States to enable it to perform its duties and transact its business under the provisions of this act, and shall upon its organization elect from its own number a president and a secretary, who shall also act as treasurer, both of whom shall hold their offices for a term of two years.

Sec. 4. Every person who shall be appointed to serve on the said State Board of Medical Examiners and Licensers in the manner aforesaid shall receive a certificate of appointment from the governor, and within thirty days after receiving the certificate of appointment shall file the same with the prothonotary of the court of common pleas in the county in which he or she shall have previously registered under the present acts of assembly, and shall also file a certificate of his or her said appointment as a member of said State Board of Medical Examiners and Licensers in the office of the secretary of state of the commonwealth of ...........

Sec. 5. The said State Board of Examiners and Licensers shall examine all applicants for license to practice medicine or surgery in this commonwealth who are properly qualified
according to the provisions of section seven of this act, and
shall exclude no one from examination, nor reject him or her
because of his or her adhesion to a special system of practice.
It shall hold two stated meetings each year, one at .......... on the second Tuesday in May, and one at .......... on the second Tuesday in November respectively, and may hold special meetings at such times as it may deem proper. All examinations shall be conducted in writing, and all examination papers together with the reports and action of the examiners thereon shall be preserved as the records of the said Board for a period of five years, during which time they shall remain open for inspection at the office of the said State Board of Medical Examiners and Licensers, which office shall be in .......... 

Sec. 6. Such examinations shall be in anatomy, physiology, general chemistry, pathology, therapeutics, principles and practice of medicine, surgery, and obstetrics; Provided, That each applicant upon receiving from the secretary of the Board an order for examination shall receive also a confidential number, which he or she shall place upon his or her examination papers, so that when said papers are passed upon by the examiner the latter shall not know by what applicant said papers have been prepared, that upon each day of examination all candidates be given the same set or sets of questions; It is further provided, That the examination papers shall be marked upon a scale of one hundred, and that in order to secure a license it shall be necessary for the applicant to attain such average as shall hereafter be determined by the said State Board of Examiners and Licensers.

Sec. 7. Any person on paying twenty dollars to the secretary of the said Board, and on presenting satisfactory proof of being over twenty-one years of age, of good moral character, and of having received a diploma from any legally chartered medical college or university having authority to confer degrees in medicine shall be entitled to examination by the
said Board, and in case of failure at any such examination shall have the privilege of a second examination without the payment of any additional fee.

Sec. 8. For the purpose of examining and licensing applicants as well as for the transaction of other business five members shall constitute a quorum of said Board, and when the president and secretary of said Board shall find that an applicant has attained the necessary examination average they shall issue to him or her a license to practice medicine and surgery in the state of ........

Sec. 9. After the first day of September, 1886, no person shall enter upon the practice of medicine or surgery in the state of ........ unless he or she has complied with the provisions of this act, and shall have exhibited to the prothonotary of the court of common pleas of the county in which he or she resides a license duly granted to him or her by the said State Board of Examiners and Licensers, upon which he or she shall be entitled upon the payment of one dollar to be duly registered in the office of the prothonotary of the court of common pleas in said county, but nothing in this act shall be so construed as to prevent the practice of medicine and surgery by any practitioner who shall have been duly registered before the first day of September, 1886, according to the terms of the present acts of assembly.

Sec. 10. For the purpose of this act the words “practice medicine or surgery” shall mean to treat or attend any person for money, gift, or reward.

Sec. 11. Nothing in this act shall apply to commissioned medical officers of the United States army or navy, or of the United States marine hospital service, nor to any member of the house or resident staff of any legally chartered medical college, or university, or hospital, during his term of service therein, nor to physicians of other states meeting duly registered physicians of this state in consultation, nor to those practicing dentistry exclusively, nor to midwives.
SEVENTEENTH ANNUAL SESSION. 377

Sec. 12. The secretary shall record in a book to be kept for the purpose in the office of the said Board the name, age, sex, residence, date, and place of graduation of each applicant, together with the date of examination, the examination number, the examination average on each branch, the general average, and date of issue of license in case such license is granted. Said book shall be open to public inspection. And on or before the last day of December of each and every year the said Board shall publish or cause to be published a list of the names and addresses of such persons as shall have received licenses from the said Board within twelve months immediately thereto preceding.

Sec. 13. The members of the said Board shall each receive a salary not exceeding seven hundred dollars per annum to be paid out of the fees for examination. The secretary and treasurer shall receive an additional salary to be fixed by the Board, and shall give bond in the sum of one thousand dollars that he or she will faithfully account for the sums paid into his or her hands. The balance of the fees, after the necessary expenses of the Board, which must be stated by affidavit, have been deducted, shall be paid into the treasury of the commonwealth of ..........

Sec. 14. The governor may remove any member of the said Board for unprofessional or dishonorable conduct upon the recommendation of a two-thirds vote of the said Board.

Sec. 15. The sum of one thousand dollars is hereby appropriated to meet the necessary and legitimate expenses of the said Board for the year commencing the first day of September, 1886.

Sec. 16. This act shall take effect on the first day of September, one thousand eight hundred and eighty-six.

Sec. 17. Should any charge or charges of unprofessional conduct be preferred against any duly licensed practitioner of medicine or surgery the said State Board of Medical Examiners and Licensers of the said commonwealth of ..........
shall have power to summon said practitioner before it, hav­ing previously given him or her fifteen days' notice of such charge or charges, with the name or names of the party or parties preferring the same, and the name or names of any witness or witnesses to be called and examined in support of said charge or charges, and upon hearing thereof, and having heard the party or parties so accused, and any witness or wit­nesses he or she may desire to call as to his or her defense, the said State Board of Medical Examiners and Licensers shall, upon satisfactory proof of the truth of said charge or charges, refer his or her case to the district attorney of the county wherein he or she shall have practiced, with all specifications, and all evidence in support of the same, who shall apply for a rule upon the party so accused to show cause why his or her li­cense shall not be revoked, and the proper court shall have power so to direct such license to be stricken from the list re­corded in the office of the prothonotary of the court of com­mon pleas for the county in which the said accused shall re­side.

Sec. 18. Any person violating the provisions of this act shall be guilty of a misdemeanor, and upon conviction thereof in the court of quarter sessions of the county where the of­fense shall have been committed shall pay a fine of not less than fifty nor more than five hundred dollars for each offense.
### INDEX

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdomen, Penetrating Gunshot Wound of—J. K. L. Duncan, M.D.</td>
<td>99</td>
</tr>
<tr>
<td>Abortion—R. M. Stone, M.D.</td>
<td>156</td>
</tr>
<tr>
<td>Absentees, Dues of, Remitted</td>
<td>11</td>
</tr>
<tr>
<td>Address in Medicine, The—Alfred Shipman, M.D.</td>
<td>63</td>
</tr>
<tr>
<td>Amendments, By-Laws</td>
<td>21</td>
</tr>
<tr>
<td>Provisions for, Constitution</td>
<td>18</td>
</tr>
<tr>
<td>American Medical Association, State Board of Medical Examiners and Licensers</td>
<td>372</td>
</tr>
<tr>
<td>Annual Assessment</td>
<td>11</td>
</tr>
<tr>
<td>Anomalies, Obstetrical—A. Bowen, M.D.</td>
<td>146</td>
</tr>
<tr>
<td>Arrangements, Committee on, Duties of</td>
<td>14</td>
</tr>
<tr>
<td>Report of Committee on</td>
<td>28</td>
</tr>
<tr>
<td>Assessment, Annual</td>
<td>11</td>
</tr>
<tr>
<td>Ball, D. R.—Screfulous or Phlyctenular Ophthalmia</td>
<td>220</td>
</tr>
<tr>
<td>Ballard, C. F.—Membranous Enteritis with Abscess in Abdominal Wall, Occurring after Parturition</td>
<td>95</td>
</tr>
<tr>
<td>Bi-Chloride of Mercury as a Surgical Dressing—W. F. Milroy, M.D.</td>
<td>113</td>
</tr>
<tr>
<td>Board of Medical Examiners and Licensers, State</td>
<td>373</td>
</tr>
<tr>
<td>Bowen, A.—Massachusetts</td>
<td>339</td>
</tr>
<tr>
<td>Obstetrical Anomalies</td>
<td>146</td>
</tr>
<tr>
<td>By-Laws</td>
<td>19-21</td>
</tr>
<tr>
<td>Amendments to</td>
<td>21</td>
</tr>
<tr>
<td>Called Meeting</td>
<td>21</td>
</tr>
<tr>
<td>Charges Against Members</td>
<td>20</td>
</tr>
<tr>
<td>Charters</td>
<td>20</td>
</tr>
<tr>
<td>By-laws—Credentials, to whom submitted</td>
<td>20</td>
</tr>
<tr>
<td>Delegates to Foreign Societies</td>
<td>21</td>
</tr>
<tr>
<td>Fees</td>
<td>20</td>
</tr>
<tr>
<td>Motions in Writing</td>
<td>21</td>
</tr>
<tr>
<td>Order of Business</td>
<td>19</td>
</tr>
<tr>
<td>Rules of Order</td>
<td>20</td>
</tr>
<tr>
<td>California—A. S. von Mansfelde, M.D.</td>
<td>267</td>
</tr>
<tr>
<td>Chairmen of Sections, Report of Committee on Nomination of</td>
<td>48</td>
</tr>
<tr>
<td>Chapin, Horace—The Climate of Nebraska</td>
<td>241</td>
</tr>
<tr>
<td>Charges Against Members</td>
<td>20</td>
</tr>
<tr>
<td>Charters</td>
<td>20</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Cholera Infantum—D. R. Pelton, M.D.</td>
<td>72</td>
</tr>
<tr>
<td>Climate of Nebraska—Horace Chapin, M.D.</td>
<td>241</td>
</tr>
<tr>
<td>Colorado—L. B. Graddy, M.D.</td>
<td>286</td>
</tr>
<tr>
<td>Code of Ethics, Constitution</td>
<td>18</td>
</tr>
<tr>
<td>Committee on Arrangements, Duties of</td>
<td>14</td>
</tr>
<tr>
<td>Committee on Foreign Correspondence</td>
<td>13</td>
</tr>
<tr>
<td>&quot; &quot; &quot; Duties of</td>
<td>14</td>
</tr>
<tr>
<td>Grievances, Duties of</td>
<td>15</td>
</tr>
<tr>
<td>Publication, Duties of</td>
<td>15</td>
</tr>
<tr>
<td>&quot; &quot; Preface by</td>
<td>24</td>
</tr>
<tr>
<td>Standing, Special Investigating for Permanent Membership</td>
<td>9</td>
</tr>
<tr>
<td>Committee on Ways and Means, Duties of</td>
<td>15</td>
</tr>
<tr>
<td>Committees for 18th Annual Session, Announcement of</td>
<td>57</td>
</tr>
<tr>
<td>Committees, Standing</td>
<td>14</td>
</tr>
<tr>
<td>Concussion of Spine with Probable (?) Hemorrhage, Case of Severe—M.</td>
<td>107</td>
</tr>
<tr>
<td>L. Hildreth, M.D.</td>
<td></td>
</tr>
<tr>
<td>Constitution, By-Laws and Standing Resolutions</td>
<td>8–21</td>
</tr>
<tr>
<td>&quot; &quot; Code of Ethics</td>
<td>18</td>
</tr>
<tr>
<td>&quot; &quot; Delegates</td>
<td>8</td>
</tr>
<tr>
<td>&quot; &quot; Funds</td>
<td>17</td>
</tr>
<tr>
<td>&quot; &quot; Members</td>
<td>8</td>
</tr>
<tr>
<td>&quot; &quot; by Invitation</td>
<td>8</td>
</tr>
<tr>
<td>&quot; &quot; Officers</td>
<td>12</td>
</tr>
<tr>
<td>&quot; &quot; Permanent Members</td>
<td>9</td>
</tr>
<tr>
<td>&quot; &quot; Duties</td>
<td>9</td>
</tr>
<tr>
<td>&quot; &quot; Rights</td>
<td>9</td>
</tr>
<tr>
<td>&quot; &quot; Preamble</td>
<td>7</td>
</tr>
<tr>
<td>&quot; &quot; Provisions for Amendment</td>
<td>18</td>
</tr>
<tr>
<td>&quot; &quot; Representation</td>
<td>8</td>
</tr>
<tr>
<td>&quot; &quot; Sections</td>
<td>16</td>
</tr>
<tr>
<td>&quot; &quot; Standing Committees</td>
<td>14</td>
</tr>
<tr>
<td>&quot; &quot; Time and Place of Meeting</td>
<td>11</td>
</tr>
<tr>
<td>&quot; &quot; Title of the Society</td>
<td>7</td>
</tr>
<tr>
<td>Constitutional Amendments Introduced</td>
<td>50</td>
</tr>
<tr>
<td>Convulsion, Puerperal, Two Cases of—E. Smith, M.D</td>
<td>168</td>
</tr>
<tr>
<td>Correspondence, Committee on Foreign, Duties of</td>
<td>14</td>
</tr>
<tr>
<td>&quot; &quot; Report of Chairman of Committee on Foreign</td>
<td>46</td>
</tr>
<tr>
<td>Corresponding Secretary’s Report</td>
<td>42</td>
</tr>
<tr>
<td>Craniotomy, Ovariotomy, and Other Cases—A. S. von Mansfeld, M.D</td>
<td>149</td>
</tr>
<tr>
<td>Credentials, To whom Submitted</td>
<td>20</td>
</tr>
<tr>
<td>&quot; &quot; Report of Committee on</td>
<td>25, 35, 36, 40, 58</td>
</tr>
<tr>
<td>Delegates, Constitution</td>
<td>8</td>
</tr>
</tbody>
</table>
INDEX.

PAGE

Delegates to Foreign Societies ......................................................... 21

Denise, J. C.—Review of Ophthalmology ..................................... 207

Diphtheria—Wm. Protzman, M.D................................................... 79

Dressing, Surgical, The Bi-Chloride of Mercury as a—W. F. Milroy,
M.D.............................................................. 113

Dues of Absentees Remitted ......................................................... 11

Members Dropped for Non-Payment of ...................................... 11

Duncan, J. K. L.—Compound Fracture of Skull, with Depression.
Trephined. Recovery ............................................................... 102

Duncan, J. K. L.—Penetrating Gun-shot Wound of Abdomen .... 99

Duties of Committee on Arrangements ....................................... 14

Foreign Correspondence ......................................................... 14

Grievances ................................................................................. 15

Publication ................................................................................... 15

Ways and Means ....................................................................... 15

Sections ...................................................................................... 16

Election of Officers ................................................................. 49

Enteritis Membranous, With Abscess in Abdominal Wall, Occur­
ing after Parturition—C. F. Ballard, M.D................................ 95

Evolution, Physiological—J. S. Leonhardt, M.D.......................... 175

Examiners and Licensers, State Board of Medical ..................... 373

Fees .......................................................................................... 20

Fracture of Skull, Case of Depressed, With Laceration of Dura and
Loss of Brain Tissue—M. L. Hildreth, M.D............................... 105

Fracture of Skull, Compound, with Depression. Trephined. Re­
covery—J. K. L. Duncan, M.D.................................................. 102

Fracture, Three Cases of, With Treatment—J. S. Leonhardt, M.D.. 109

Funds, Constitution ................................................................. 17

Graddy, L. B.—Colorado .......................................................... 286

Ocular Hygiene with Special Reference to School Life.............. 226

Grievances, Committee on, Duties of ...................................... 15

Gun-shot Wound of Abdomen, Penetrating—J. K. L. Duncan, M.D. 99

Haldeman, Fred. D.—Pennsylvania ........................................... 343

Health, A Bill for a State Board of ............................................ 362

Report of the Chairman of the Committee on Public............. 351

Hildreth, M. L.—Case of Depressed Fracture of Skull with Lacer­
ation of Dura and Loss of Brain Tissue................................. 105

Hildreth, M. L.—Case of Severe Concussion of Spine with Probable (?)
Hemorrhage............................................................................. 107

Hip Joint Disease—Operation, A Case of—G. L. Pritchett, M.D.... 123

Huff, Alice E.—Illinois ............................................................ 294

Hygiene, Ocular, With Special Reference to School Life—L. B.
Graddy, M.D............................................................................. 226
INDEX.

Illinois—Alice E. Huff, M.D .................................. 294
Illustrations, Cuts and ......................................... 17
Indiana—A. S. von Mansfelde, M.D ......................... 306
In Memoriam—George Rightmire, M.D ....................... 59
Kansas—L. A. Merriam, M.D ................................ 331
Knapp, W. M.—The Third Stage of Labor .................. 138
Laceration, Perineal, The Importance of Repair in, An Early Operation Imperative—E. M. Whitten, M.D .......... 131
Leonhardt, J. S.—Physiological Evolution ..................... 175
Six Cases of Poisoning, With Treatment ..................... 197
Three Cases of Fracture, With Treatment .................... 109
Livingston, R. R.—New York State Medical Association .... 341
Mansfelde, A. S. von—A Bill for a State Board of Health .... 362
California......................................................... 267
Indiana .............................................................. 306
Ovariotomy, Craniotomy, and Other Cases .................. 149
Report of the Chairman of the Committee on Public Health ................. 351
Maryland—L. A. Merriam, M.D .............................. 336
Massachusetts—A. Bowen, M.D ................................ 339
Medicine, The Address in—Alfred Shipman, M.D .......... 63
Meeting, Called .................................................. 21
Meetings, Time and Place of, Constitution .................. 11
Members added to Society in the Years 1881 and 1885 .......... 5-6
Constitution ...................................................... 8
Charges Against ................................................ 20
By Invitation, Constitution ...................................... 8
Permanent, Constitution ........................................ 9
Membership Fee .................................................. 11
Minimal Qualifications for ..................................... 10
Requirements for ................................................ 9
Special Investigating Committee for ................................ 9
Membranous Enteritis With Abscess in Abdominal Wall, Occurring After Parturition—C. F. Ballard, M.D .................. 95
Mental Diseases, A Year's Scientific Progress in Nervous and—L. A. Merriam, M.D .................. 257
Merriam, L. A.—Kansas ........................................ 331
Maryland ......................................................... 336
A Year's Scientific Progress in Nervous and Mental Diseases ................. 257
Milroy, W. F.—The Bi-Chloride of Mercury as a Surgical Dressing .......... 113
Minutes of 17th Annual Session ................................ 25
Motions in Writing ............................................. 2

PAGE

382
**INDEX.**

<p>| Nebraska, Climate of—Horace Chapin, M.D. | 241 |
| Nervous and Mental Diseases, A Year's Scientific Progress in—L. A. Merriam, M.D. | 257 |
| New York State Medical Association—R. R. Livingston, M.D. | 341 |
| Obstetrical Anomalies—A. Bowen, M.D. | 146 |
| Ocular Hygiene with Special Reference to School Life—L. B. Graddy, M.D. | 226 |
| Officers for 1885-1886 | 3 |
| Constitution | 12 |
| Ophthalmia, Scrofulous or Phlyctenular—D. R. Ball, M.D. | 220 |
| Ophthalmology, Review of—J. C. Denise, M.D. | 207 |
| Perineal Laceration, Importance of Repair in, An Early Operation Imperative—E. M. Whitten, M.D. | 131 |
| Permanent Members, Constitution | 9 |
| Duties, Constitution | 9 |
| Rights, Constitution | 9 |
| Physiological Evolution—J. S. Leonhardt, M.D. | 175 |
| Place of Meetings, Time and, Constitution | 11 |
| Poisoning, Six Cases of, With Treatment—J. S. Leonhardt, M.D. | 197 |
| Preamble to Constitution | 7 |
| Preface by Committee on Publication | 24 |
| Pritchett, G. L.—A Case of Hip Joint Disease, Operation | 123 |
| Protzman, Wm.—Diphtheria | 79 |
| Publication, Committee on, Duties of | 15 |
| Preface by Committee on | 24 |
| Report of Committee on | 45 |
| Puerperal Convulsion, Two Cases of—E. Smith, M.D. | 168 |
| Report of Chairman of Committee on Foreign Correspondence | 46 |
| Chairman of the Committee on Public Health | 351 |
| Committee on Arrangements | 28 |
| Committee on Credentials | 25, 35, 36, 40, 58 |
| Committee on Nomination for Chairmen of Sections | 48 |
| Committee on Publication | 45 |
| Committee on Ways and Means | 47 |
| Corresponding Secretary | 42 |
| Secretary | 29 |
| Special Committee on Secretary's Report | 33 |
| Special Committee on Treasurer's Report | 38 |</p>
<table>
<thead>
<tr>
<th>INDEX.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Report of the Treasurer</strong></td>
</tr>
<tr>
<td><strong>Representation, Constitution</strong></td>
</tr>
<tr>
<td><strong>Resolutions, Standing</strong></td>
</tr>
<tr>
<td>I. Special Investigating Committee for Membership</td>
</tr>
<tr>
<td>II. Requirements for Membership</td>
</tr>
<tr>
<td>III. Minimal Qualifications for Membership</td>
</tr>
<tr>
<td>IV. Membership Fee</td>
</tr>
<tr>
<td>V. Annual Dues</td>
</tr>
<tr>
<td>VI. Dues, Failure of Paying</td>
</tr>
<tr>
<td>VII. Membership, Dropped From, for Non-Payment of Dues</td>
</tr>
<tr>
<td>VIII. Dues of Absentees Remitted</td>
</tr>
<tr>
<td>IX. Prize Money by President</td>
</tr>
<tr>
<td>X. Programme by Permanent Secretary</td>
</tr>
<tr>
<td>XI. Permanent Secretary's Remuneration</td>
</tr>
<tr>
<td>XII. Committee on Foreign Correspondence</td>
</tr>
<tr>
<td>XIII. Treasurer to Keep Ledger Account</td>
</tr>
<tr>
<td>XIV. Board of Trustees</td>
</tr>
<tr>
<td>XV. Duties of Chairmen and Members of Sections</td>
</tr>
<tr>
<td>XVI. Length of Reports of Chairman of Sections</td>
</tr>
<tr>
<td>XVII. Cuts and Illustrations</td>
</tr>
<tr>
<td>XVIII. Section of Ophthalmology and Otology</td>
</tr>
<tr>
<td><strong>Review of Ophthalmology—J. C. Denise, M.D.</strong></td>
</tr>
<tr>
<td>Rightmire, George, In Memoriam</td>
</tr>
<tr>
<td><strong>Rules of Order</strong></td>
</tr>
<tr>
<td><strong>School Life, Ocular Hygiene with Special Reference to—L. B. Graddy, M.D.</strong></td>
</tr>
<tr>
<td><strong>Sections, Constitution</strong></td>
</tr>
<tr>
<td>&quot; Duties of</td>
</tr>
<tr>
<td>&quot; How Appointed</td>
</tr>
<tr>
<td>&quot; Report of Committee on Nomination of Chairman of</td>
</tr>
<tr>
<td><strong>Secretary’s Report</strong> of, Special Committee on</td>
</tr>
<tr>
<td><strong>Session, Minutes of the 17th Annual</strong></td>
</tr>
<tr>
<td>Seventeenth Annual Session, Minutes of</td>
</tr>
<tr>
<td><strong>Shipman Alfred—The Address in Medicine</strong></td>
</tr>
<tr>
<td><strong>Skull, Case of Depressed Fracture of, with Laceration of Dura and Loss of Brain Tissue—M. L. Hildreth, M.D.</strong></td>
</tr>
<tr>
<td><strong>Skull, Compound Fracture of, with Depression. Trephined. Recovery—J. K. L. Duncan, M.D.</strong></td>
</tr>
<tr>
<td><strong>Smith, E.—Two Cases of Puerperal Convulsion</strong></td>
</tr>
</tbody>
</table>
Spine, Case of Severe Concussion of, with Probable (?) Hemorrhage
—M. L. Hildreth, M.D. ................................................................. 107
Standing Committees, Constitution .............................................. 14
Standing Resolutions ................................................................ 9, 10, 11, 12, 13, 14, 16, 17
Stone, R. M.—Abortions ........................................................... 156
Third Stage of Labor, The—W. M. Knapp, M.D. ....................... 138
Time and Place of Meeting, Constitution................................. 11
Title of the Society, Constitution ............................................... 7
Treasurer, Report of ................................................................. 37
Treasurer’s Report, Report of Special Committee on .................. 38
Ways and Means, Committee on, Duties of ............................ 15
" Report of Committee on ......................................................... 47
Whitten, E. M.—The Importance of Repair in Perineal Laceration,
An Early Operation Imperative ................................................. 131