

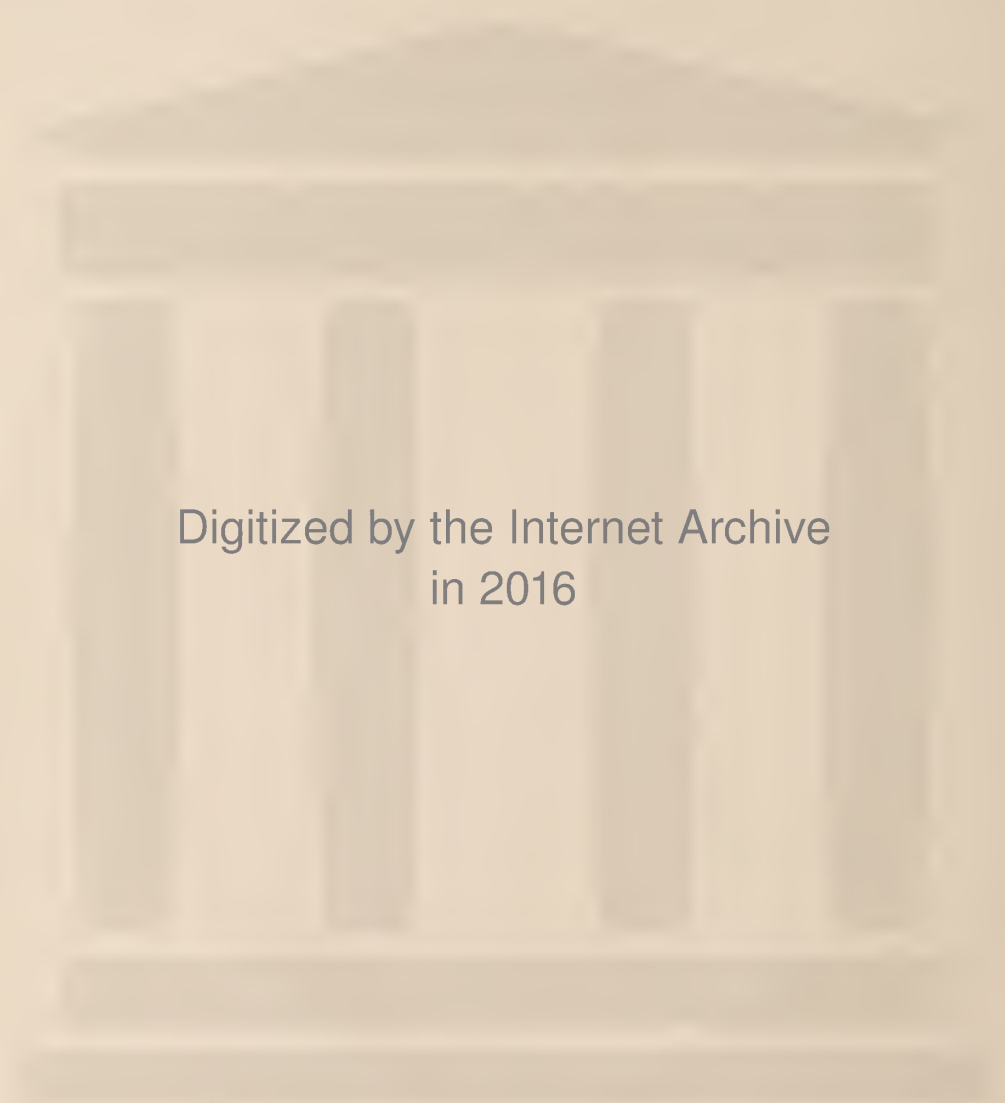
86015



Class. No.

IN EXCHANGE.

3-



Digitized by the Internet Archive
in 2016

1000
The
Wisconsin Medical Journal

Owned and Published by the State Medical
Society of Wisconsin

A Monthly Journal of Medicine and
Surgery

EDITOR:

A. W. MYERS, M. D.

MANAGING EDITOR:

J. P. McMAHON, M. D.

PUBLICATION COMMITTEE

A. J. PATEK, M. D., - - Milwaukee G. E. SEAMAN, M. D., - - Milwaukee
O. H. FOERSTER, M. D., - " C. S. SHELDON, M. D., - - Madison
S. S. HALL, M. D., - Ripon

VOLUME XI.

JUNE, 1912—MAY, 1913.

Contributors of Original Articles to Volume XI.

Allport, Frank, M. D., Chicago.
Andrews, Neil, M. D., Oshkosh.
Axtell, Luella, M. D., Marinette.

Becker, W. F., M. D., Milwaukee.
Bellis, G. L., M. D., Wales.
Blaine, Edward S., M. D., Milwaukee.
Connell, D. R., M. D., Beloit.
Cooke, Jean M., M. D., Darlington.
Craig, A. R., M. D., Chicago.

Darling, Walter G., M. D., Milwaukee.
Dearholt, H. E., M. D., Milwaukee.
DeSwarte, L. J., M. D., Milwaukee.
Dodd, J. M., M. D., Ashland.
Drake, Frank I., M. D., Madison.
Drexel, Arnold, M. D., Milwaukee.

Echols, Chester M., M. D., Milwaukee.
Eisen, Paul, M. D., Milwaukee.
Evans, C. A., M. D., Milwaukee.

Fletcher, E. A., M. D., Milwaukee.
Foerster, O. H., M. D., Milwaukee.
Furstman, J. M., M. D., La Crosse.

Gaenslen, F. J., M. D., Milwaukee.
Gray, A. W., M. D., Milwaukee.
Grove, W. E., M. D., Milwaukee.

Haggard, William D., M. D., Nashville, Tenn.
Higgins, Samuel G., M. D., Milwaukee.
Hogue, G. I., M. D., Milwaukee.
Houck, Oscar, M. D., La Crosse.

James, J. B., M. D., Milwaukee.

Kerr, A. N., M. D., Martell.
Kinney, R. H., M. D., Lancaster.
Kretschmer, Herman L., M. D., Chicago.

Levings, A. H., M. D., Milwaukee.

Marshall, Victor F., B. S., M. D., Appleton.
McMahon, J. P., M. D., Milwaukee.
McMichael, O. W., B. A., M. D., Chicago.
Myers, A. W., M. D., Milwaukee.

Nowack, Louis H., M. D., Watertown

Orton, Susanne, M. D., Darlington.

Patek, A. J., M. D., Milwaukee.
Pfister, Franz, M. D., Milwaukee.
Pottenger, F. M., A. M., M. D., LL. D., Monrovia, Cal.
Pullen, Albert J., M. D., North Fond du Lac.

Ravenel, Mazyck P., M. D., Madison.
Riddle, Julia, M. D., Oshkosh.
Rogers, Arthur W., M. D., Oconomowoc.

Sauthoff, August, B. S., M. D., Mendota.
Sauthoff, Mary, M. D., Mendota.
Seaman, Gilbert E., M. D., Milwaukee.
Sheldon, C. S., M. D., Madison.
Strouse, Solomon, M. D., Chicago.

Warfield, Louis M., M. D., Milwaukee.
White, Joseph H., M. D., Washington, D. C.
Wright, J. C., M. D., Antigo.

Yates, J. L., M. D., Milwaukee.

Zierath, W. F., M. D., Sheboygan.

INDEX

Page	Page
Abnormal Pelvic Conditions in Insane Women and their Relation to the Mental State..... 284	Lydston, G. Frank, The Blood of the Fathers 365
Acute Surgical Diseases of the Abdomen, Diagnosis and Pathology of..... 181	Marchildon, John W., The Wassermann Reaction 190
Address, Annual, of the President of the State Medical Society of Wisconsin 1	Ostwald, Wilhelm, Great Men, Studies in the Biology of Genius.. 89
Address of the President of the Milwaukee Medical Society..... 351	Ostwald, Wilhelm, The Demands of the Day 129
Address of President of Wisconsin Medical Woman's Association 339	Page, Charles Whitney, The Care of the Insane and Hospital Management 67
Allport, Frank, Needs of the Eye, Ear Nose and Throat Surgeon in General Hospitals 273	Pottenger, F. M., Muscle Spasm and Degeneration in Intrathoracic Inflammations 365
Andrews, Neil, Symptoms and Diagnosis of Pathological Conditions of the Cecum and Terminal Ileum..... 278	Practical Medicine Series 67, 270
Anesthetics, An Experimental Study of Some Effects of Certain..... 103	Practitioners Visiting List..... 190
Anomaly of Cleavage, with Production of Supernumerary Finger..... 88	Progressive Medicine 67, 270
Anti-Typhoid Vaccination 43	Pusey, W. A., Care of the Skin and Hair 191
Axtell, Luella, Address of President of Wisconsin Medical Woman's Association 339	Report of the Pathological Department of the Department of Clinical Psychiatry, Central Indiana Hospital for the Insane..... 67
Bellis, G. L., For an Earlier Diagnosis of Tuberculosis..... 288	Robinson, Victor, An Essay on Hasheesh 157
Bence-Jones Body in the Urine..... 254	Salzer, F., Diagnosis and Erroneous Diagnosis of Diseases of the Brain from the Optic Disc..... 66
Blaine, Edward S., Roentgen Localization of Foreign Bodies in the Eye and Orbit 113	Salzmann, M., Anatomy and Histology of the Human Eyeball..... 129
BOOK REVIEWS:	Simon, Charles E., An Introduction to the Study of Infection and Immunity 366
Adami, J. G., and McCrae, John, Text Book of Pathology..... 166	Simon, W., Manual of Chemistry..... 165
Amle, John, The Chemic Problem in Nutrition 365	Starling, Ernest Henry, Principles of Human Physiology 191
Bach, L., and Seefelder, R., Atlas of the Embryology of the Human eye 66, 271	Stimson, L. A., Treatise on Fractures and Dislocations..... 306
Dayton, Hughes, Practice of Medicine 157	von Noorden, Carl, New Aspects of Diabetes 365
Du Bois-Reymond, Emil, Orations of. 130	Wilbrand, H., and Saenger, A., Neurology of the Eye..... 164
Flint, Austin, Manual of Auscultation and Percussion..... 306	Carbohydrates, Use of, in the Diet of the Young Infant 123
Fox, Herbert, Elementary Bacteriology and Protozoology..... 163	Cecum and Terminal Ileum, Symptoms and Diagnosis of Pathological Conditions of 278
Gardner, W. S., Text Book of Gynecology 157	Childbirth After Apparent Menopause.. 59
Hare, H. A., Text Book of Practical Therapeutics 232	Christian Science—A Protest 323
Hess, C., Comparative Physiology of the Visual Sense..... 164	City Health Department 145
Jackson, G. T., Treatise on Diseases of the Hair..... 190	College of Surgeons, The American..... 394
Koellner, Hans, The Disturbances of the Color Sense..... 66	Connell, D. R., Diagnosis and Pathology of Acute Surgical Diseases of the Abdomen 181
Krebl, L., Handbook of General Pathology 270	Cooke, Jean M., A Ten Years' Survey of Tuberculosis in Lafayette County. 172
Lowry, E. B., Himself, Talks with Men Concerning Themselves..... 306	Correspondence 26, 259, 299, 402
	Craig, A. R., Some Things the County Society Can Do to Increase the Respect and Confidence of the Laity.... 132
	Dearholt, H. E., Some Things the County Medical Society Can Do for the Public Health..... 334
	DeSwarthe, L. J., Tonsil Enucleation.... 59
	Diets, The Simplification of Some..... 239
	Dodd J. M., Annual Address of the President of the State Medical Society of Wisconsin..... 1
	Drake, Frank I., The National Importance of Eugenics 142
	Drexel, Arnold, Epithelioma of Lip Complicated by Xanthoma Tuberosum Multiplex 253
	Duodenal Motility 313
	Echols, Chester M., Gonorrhoea in Women 80
	Editorial Comment 24, 62, 90, 124, 154, 192, 256, 294, 328, 354, 398
	Eisen, Paul, Duodenal Motility..... 316
	Endocarditis Lenta, Clinical and Bacteriological Studies of..... 189
	Epithelioma of Lip Complicated by Xanthoma Tuberosum Multiplex..... 253
	Ethics, Principles of Medical..... 137
	Eugenics, The National Importance of.. 142
	Evans, C. A., Intracranial Injuries.... 49
	Fletcher, E. A., Retention of Urine.... 290
	Foerster, O. H., Pellagra, with a Report of Four Cases Occurring in Milwaukee 76
	Foreign Bodies in the Eye and Orbit, The Diagnosis and Treatment of..... 108
	Foreign Bodies in the Eye and Orbit, Roentgen Localization of..... 113
	Fractures, Treatment of..... 251
	Frustman, J. M., A City Health Department 145
	Gaenslen, F. J., Treatment of Paralysis and Deformities following Infantile Paralysis 377
	Gall-Stones, The Diagnosis of..... 292
	Gonorrhoea in Women..... 80
	Gray, A. W., Some Things the County Society Can Do to Aid in Securing Medical Legislation 361
	Grove, W. E., Tracheo-Bronchoscopy in Diagnosis and Treatment 346
	Haggard, William D., Surgery of the Stomach 71
	Health Department, A City..... 145
	Hematuria, Painless..... 84
	Hemorrhage, Spontaneous, in the New Born and Its Treatment..... 47
	Hexamethylenamin in Systemic Infections 159
	Hogue, G. I., The Diagnosis and Treatment of Foreign Bodies in the Eye and Orbit 108
	Honek, Oscar, Annual Address of the President of the LaCrosse County Medical Society 268
	Infantile Paralysis, The Treatment of Paralysis and Deformities following. 207
	Insane Women, Abnormal Pelvic Conditions in 284

SEP 8 - 1913
86015

INDEX

Page		Page
<p>Intracranial Injuries, The Value of Certain Signs in the Diagnosis, Prognosis and Treatment 49</p> <p>James, J. B., Phenolsulphonophthalein Elimination in Nephritis 53</p> <p>Kerr, A. N., Christian Science, A Protest 323</p> <p>Kinney, R. H., A Plan for the Medical Inspection of Country Schools..... 250</p> <p>Kretschmer, Hermann L., Painless Hematuria 84</p> <p>Levings, A. H., Chronic Tuberculous Infection of the Kidneys..... 169</p> <p>Marriages .....27, 64, 95, 129, 196</p> <p>Marshall, Victor F., Treatment of Fractures 251</p> <p>McMahon, J. P., Obstetric Teaching and Practice 178</p> <p>McMichael, O. W., The Early Diagnosis of Pulmonary Tuberculosis..... 14</p> <p>Medical Inspection of Country Schools, A Plan for..... 259</p> <p>Myers, A. W., Spontaneous Hemorrhage in the New Born and its Treatment. 45</p> <p>Nasal Sinus Disease, Apparently Non-Suppurative 369</p> <p>Needs of the Eye, Ear, Nose and Throat Surgeon in General Hospitals. 273</p> <p>Neurasthenic Syndrome, Differential Diagnosis of Morbid Conditions with Symptoms Resembling the..... 341</p> <p>News Items and Personals.....26, 64, 94, 128, 156, 196, 259, 299, 330, 359, 403</p> <p>Nowack, Louis H., Childbirth After Apparent Menopause 59</p> <p> Anomaly of Cleavage, with Production of Supernumerary Finger..... 83</p> <p>OBITUARIES:</p> <p>Allard, Edmund G..... 95</p> <p>Barnett, M. E..... 157</p> <p>Bell, S. B..... 404</p> <p>Bjorkman, Gustav 494</p> <p>Bowen, I. T. W..... 300</p> <p>Clark, L. D..... 261</p> <p>Clarke, L. W..... 193</p> <p>Cohen, Isaac 261</p> <p>Farnham, A. B..... 27</p> <p>Ford, Edgar D..... 260</p> <p>Garlock, Franklin R..... 129</p> <p>Gibson, James 260</p> <p>Goodrich, G. M..... 404</p> <p>Hall, Thomas Edmund..... 27</p> <p>Hougen, O. T..... 404</p> <p>Hoyt, R. W..... 95</p> <p>Laffin, H. B..... 261</p> <p>Leith, S. S..... 300</p> <p>Martin, Robert Edwin..... 129</p> <p>McCarthy, T. H..... 369</p> <p>Nugent, L. M..... 129</p> <p>Oviatt, C. W..... 197</p> <p>Parker, E. H..... 390</p> <p>Patterson, James A..... 65</p> <p>Richards, J. B..... 261</p> <p>Rogers, E. M..... 261</p> <p>Rosenberry, A. J..... 27</p> <p>Sawyer, John E..... 65</p> <p>Smith, E. J..... 300</p> <p>Stewart, P. B..... 331</p> <p>Titus, W. H..... 261</p> <p>Obstetric Teaching and Practice, Past, Present and Future..... 178</p> <p>Orton, Susanne, A Ten Year's Survey of Tuberculosis in Lafayette County. 172</p> <p>Paresis with Focal Symptoms, A Case of 313</p> <p>Patek, Arthur J., President State Medical Society of Wisconsin..... 22</p> <p> Typhus Fever, Report of a Case Occurring in Milwaukee..... 18</p> <p>Pellagra, with a Report of Four Cases Occurring in Milwaukee..... 76</p>	<p>Phenolsulphonophthalein Elimination in Nephritis 53</p> <p>Pituitary Body, Disorders of the..... 326</p> <p>Pituitary Body, Report of Two Cases with Tumors Originating from the Region of the..... 391</p> <p>Pottenger, F. M., Some Important Points in the Diagnosis of Tuberculosis 4</p> <p>Pregnancy, The Toxemias of..... 375</p> <p>Preventive Medicine, The Growing Importance of 39</p> <p>Principles of Medical Ethics..... 137</p> <p>Psycho-Analysis 381</p> <p> Public Housekeeping with Reference to Sanitation 243</p> <p>Pullen, Albert J., Treatment of and Indiscreet Suturing of Lacerated and Contused Wounds 57</p> <p>Ravenel, M. P., Anti-Typhoid Vaccination 43</p> <p>Removals 27, 64, 95, 129, 157, 196, 260, 300, 331, 360</p> <p>Retention of Urine..... 290</p> <p>Riddle, Julia, Public Housekeeping with Reference to Sanitation..... 243</p> <p>Roentgen Localization of Foreign Bodies in the Eye and Orbit..... 113</p> <p>Rogers, Arthur W., Differential Diagnosis of Conditions Resembling the Neurasthenic Syndrome 341</p> <p>Sauthoff, August, A Case of Paresis with Focal Symptoms..... 313</p> <p>Sauthoff, Mary, Abnormal Pelvic Conditions in Insane Women and Their Relation to the Mental State..... 284</p> <p>Scaman, Gilbert E., Inaugural Address of the President of the Milwaukee Medical Society 351</p> <p>Sheldon, C. S., Some Things the County Society Can Do for the State Society 160</p> <p>SOCIETY PROCEEDINGS:</p> <p>County Societies—</p> <p> Ashland-Bayfield-Iron 264</p> <p> Barron-Polk-Washburn-Sawyer-Burnett 69</p> <p> Brown 265</p> <p> Brown-Kewaunee 303</p> <p> Calumet 362</p> <p> Chippewa 406</p> <p> Columbia 262</p> <p> Crawford 37, 264</p> <p> Dane 37, 265</p> <p> Douglas 37, 265, 333, 362, 406</p> <p> Dunn-Pepin 132, 265, 303</p> <p> Eau Claire 290, 265</p> <p> Fond du Lac 69, 200, 265</p> <p> Grant 37, 97, 265</p> <p> Green 265</p> <p> Green Lake-Wausara-Adams 69, 132</p> <p> Iowa 38</p> <p> Jefferson 69, 303, 406</p> <p> Jumena 266</p> <p> Kenosha 38, 97, 266, 303, 362, 406</p> <p> La Crosse 266</p> <p> Langlade 266, 333, 362</p> <p> Manitowoc 266</p> <p> Marathon 201, 267, 333</p> <p> Marinette 266</p> <p> Milwaukee 267, 362, 406</p> <p> Outagamie 97, 201, 267, 333, 407</p> <p> Portage 267</p> <p> Price-Taylor 33</p> <p> Racine 333, 334</p> <p> Richland 267</p> <p> Rock 201, 267, 304, 334, 404</p> <p> Shawano 69, 267, 304</p> <p> Sheboygan 267, 304, 407</p> <p> Walworth 38, 69</p> <p> Washington 97, 201</p>	<p> Waukesha 268, 304</p> <p> Waupaca 38, 95</p> <p> Winnebago 304</p> <p> Wood 201, 268</p> <p>District Societies—</p> <p> Second District 98, 159</p> <p> Ninth Councillor District..... 98, 201</p> <p> West Wisconsin District..... 265</p> <p> Fox River Valley Medical Society..... 268, 334</p> <p> Milwaukee Medical Society..... 268</p> <p> Oshkosh Medical Club..... 201, 304, 407</p> <p> Wisconsin Medical Woman's Society.. 202</p> <p>State Medical Society of Wisconsin—</p> <p> List of Officers..... 203</p> <p> List of Members..... 233</p> <p> 66th Annual Meeting—Digest of Proceedings of the General Session... 31</p> <p> 66th Annual Meeting—Digest of Minutes of House of Delegates..... 29</p> <p> Minutes of the 66th Annual Meeting. 204</p> <p> Proceedings of the House of Delegates 2-5</p> <p> Treasurer's Report 213</p> <p> Report of Publication Committee..... 224</p> <p> Report of Committee on Necrology... 226</p> <p> Secretary's Notes 199, 263, 302</p> <p>Association of County Secretaries and State Officers—</p> <p> Digest of Proceedings of 3rd Annual Meeting 36</p> <p> Annual Address of President..... 93</p> <p> The County Medical Society Program 69</p> <p> Some Things the County Medical Society Can Do to Increase the Respect and Confidence of the Laity 132</p> <p> Some Things the County Medical Society Can Do for the State Society 160</p> <p> Some Things the County Medical Society Can Do for the Public Health 334</p> <p> Some Things the County Medical Society Can Do to Aid in Securing Medical Legislation 363</p> <p> Annual Address of the President of the La Crosse County Medical Society 268</p> <p> Stomach, Surgery of the..... 71</p> <p> Strouse, Solomon, The Simplification of Some Diets 239</p> <p> Surgery of the Stomach..... 71</p> <p> Symptoms and Diagnosis of Pathological Conditions of the Cecum and Terminal Ileum 278</p> <p> Tonsil Emulectomy 59</p> <p> Tracheo-Bronchoscopy in Diagnosis and Treatment 346</p> <p> Tuberculosis, For an Earlier Diagnosis of 288</p> <p> Tuberculosis, The Early Diagnosis of Pulmonary 14</p> <p> Tuberculosis in Lafayette County, A Ten Years' Survey of..... 172</p> <p> Tuberculosis, Some Important Points in the Diagnosis of..... 4</p> <p> Tuberculous Infection of the Kidneys, Chronic 169</p> <p> Typhus Fever, Report of a Case Occurring in Milwaukee 18</p> <p> White, Joseph H., The Growing Importance of Preventive Medicine.... 39</p> <p> Wounds, Treatment of and Indiscreet Suturing of Lacerated and Contused.. 57</p> <p> Wright, J. C., Work the County Society Should Accomplish to Help the State Medical Journal 202</p> <p> Yates, J. L., An Experimental Study of Some Effects of Certain Anesthetics.. 103</p> <p> Zlerath, W. F., Annual Address of the President of the Association of County Secretaries and State Officers. 98</p>

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, JUNE, 1912

Number 1

ORIGINAL ARTICLES

THE ANNUAL ADDRESS OF THE PRESIDENT OF THE STATE MEDICAL SOCIETY OF WISCONSIN.*

BY J. M. DODD, M. D.,
ASHLAND.

In presenting the President's address to this, the Sixty-sixth Annual Meeting of the State Medical Society of Wisconsin, I desire to thank you for the honor you have conferred on me, and express my appreciation of this highest possible indication of your confidence and esteem.

To me this marks another mile-stone on life's pathway—another dream of youth realized—another added to the cherished memories of association with kindred spirits. Be it in whatever sphere we move, there is a sense of sadness attending the passing of events which mark important periods in life, and when we surrender a trust there is a lingering hope that we may have done some good for the cause in which we have been engaged.

Our profession continues to occupy a high place in the public esteem, as should a calling so intimately associated with the life, health, and happiness of the people. It is to the credit of the profession of medicine that it is judged by the world on the ideals which constitute its basic principles, and it is our duty to guard the portals of entrance and control the conduct of those who are admitted to the honors and privileges of this profession that these ideals may be sustained.

The profession of medicine, so far as the organization of the regular profession is concerned, is a unit throughout the nation, the only rivalry being, who can do the best work and get the best results.

*Read at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 22, 1912.

The same is true of our organization in the state. It is a strong and growing society, which is an agent for great good to the profession and to the public.

The healing art, imperfect as it seems in the light of human needs, has kept pace with the rapid march of science, which has made the past quarter of a century the most wonderful epoch in history. It is emerging from a period of unprecedented growth to one of development, from a period of discovery to analysis and better application of theory to practice. Theories as to the causes of disease and therapeutic suggestions have come in rapid and bewildering succession.

We have had to readjust our ideas and our methods so often that there is a constantly increasing desire for more definite knowledge and more effective treatment. But medicine is not an exact science, and will not be, until we find the means of unerring diagnosis and infallible treatment. We have thought we had it at various times, but like the Will o' the Wisp, it has evaded our grasp. Serum therapy has come nearer than anything else to the mark and has given us a few specifics. But as yet, its results are limited. While we are waiting for some one to find out this much sought secret, the practice of medicine has become resolved into a simple system of eliminating the non-essentials, and to the judicious application of the principles of rest, nutrition, and elimination of waste products. Some practitioners still adhere to the administration of a remedy for each symptom, but progressive men have learned that these three essential features can be obtained by simple means, and that nature is often more tolerant of him who does little than of the one who does too much. Over-zealous and nauseous medication has done more than anything else to drive the people from the regular to the many divergent branches of the healing art. The people are becoming educated to the fact that it is not only medicine they need, but often only advice and guidance, leading us often to wonder if there is not more therapeutic value in the physician's personality than in

his medicines, which seems especially true in the management of chronic diseases. The assurance that a diseased organ after years of misdirected functions cannot be altered in a moment by the application of a remedy, but must be guided back to normal by a long and often tedious course of treatment will do more to retain the confidence of the sufferer than promises of immediate relief, most of which must go unredeemed and the patient left to wander from doctor to doctor in search of relief, which he does not find. They must learn that there is no magic wand with which to drive away the evil spirits and that none of the mystic influences which delight the imagination are operative in the light of modern science.

One of the greatest blessings bestowed by our profession on the people is the movement by our state and national organizations toward educating the people in the laws of health—giving them the essential facts on the cause, prevention and cure of such diseases as cancer, tuberculosis, typhoid fever, and others of an infectious character. The crusade against the common house fly and other carriers of disease germs is the outcome of this effort of the medical profession toward the preservation of health and the prolongation of life. The Pure Food Law preventing the poisoning and adulterations of foods and the fight against patent medicine frauds are further evidences of the advancement of science and the enlightenment of the people.

Surgery with all the glamour due to its spectacular possibilities, brought about by anesthesia and asepsis, is fundamentally regarded as an art by which injuries are repaired, superfluous growths and offending tissues and organs beyond repair are removed, and structural defects corrected. Its successful practice demands intimate acquaintance with the structures and functions of the body, self-composure under the most trying conditions, a degree of manual dexterity which is rather a gift than an acquisition and is not possessed equally by all men and in its highest degree by only a few. Both branches of the art must give due consideration to the fact that the human body is capable of adjusting its processes to widely varying conditions, and of correcting functions, repairing injuries, and resisting disease to a degree our appreciation of which grows with experience.

A half century ago men were admitted to prac-

tice after a period of apprenticeship under a physician and were not required to attend a medical college. Twenty-five years ago the degree of M. D. was conferred after two courses of lectures of six months each one in each year. Today the doctor is not considered to be fully equipped until he has had at least five years in a reputable medical school, after a good preliminary education, and the impression is growing that the graduate should have a year's internship in a good hospital before being licensed to practice. It has been in the natural order of things that the rush into the medical profession the past few years has called into existence so many medical schools and that many of these schools are driven by commercial necessity to hold out inducements to students and to accept material for their student body of low standard and apparently without regard to their fitness, either to profitably study medical science or to practice it after it is learned. An improvement is taking place along this line, especially since the investigation of the Carnegie Foundation has revealed the real condition of the medical schools of the country, and it is to be hoped that the readjustment will go on until only those schools remain which can exist without having to resort to questionable methods to obtain students, or to maintain existence. It is fortunate that the public is awakening to the importance of proper education of those to whom they are to entrust their lives, resulting in a demand for a higher standard among physicians.

At the conference of the Committee on Education of the A. M. A. at Chicago last winter, the subject of the interne year in the medical curriculum was discussed, and it was the consensus of opinion that there are now so many excellent hospitals in the country, that with some improvements in their facilities by way of library, laboratory, etc., there could be ample opportunity for every medical graduate to have a year's internship. Every large hospital has men amply qualified to teach and the interne year can be made a profitable one to the graduate, bringing him in close touch with all the common diseases and enabling him to more nearly perfect himself in diagnosis and therapeutics, which are generally the weak points of the novice. Such instruction would be helpful to the hospitals giving it, attendants would do better work and patients would receive

better service, for it is a generally recognized fact now, that the best work is being done in hospitals where instruction is given.

Wisconsin is fortunate in having one of the best universities of the nation, and its preliminary medical course should receive the greatest possible support from the physicians of the state. We are unfortunate in not having the clinical facilities for giving the full medical course at the University, but if the students are selected for this course with especial care as to their fitness and the foundation for a medical education is carefully laid in an institution such as the State University, the superstructure can be added in other schools having proper clinical facilities. In the past too little care has been exercised in selecting the persons who are to recruit our ranks and too little attention has been given to teaching medical students the relation of the physician to his fellows, both in and out of the profession. Before a student is permitted to study medicine, some competent tribunal should investigate and decide upon his character and fitness.

A commercial spirit is invading our profession to an alarming degree, leading to questionable methods to obtain practice, such as commissions, divisions of fees and lodge practice, etc., but it is comforting to find in the profession so many high-minded men who will not stoop to methods beneath the dignity of the true physician. The elimination of these evils must be the object of all who have the welfare of the profession at heart. Compensation for medical services is a subject well worth consideration here. It is unfortunate that the people have been educated to pay large fees for surgical and special work while a modest fee is all the patient, painstaking, careful physician can command. This is not as it should be—the physician who carefully guides a patient to recovery by proper diagnosis, treatment and nursing, or by reference to a competent surgeon or specialist whom he honestly believes can do more for the patient than he can, has surely earned a larger fee than the people are generally willing to pay him. He works in obscurity—his must necessarily be the unseen and unheard part of the work. It is the most valuable for it is to him we must look to discover diseased conditions in their incipiency, when curative measures may be applied in time to be effective. Too many cases come to the surgeon with well-developed and inoperable

cancer, which should have been discovered long before. Proper compensation for the physician must be one of our aims, and while we are thus engaged we must also insist that the physician be thorough and painstaking in his examinations, must exercise reasonable skill in diagnosis, and judgment in giving advice. Too many cases of wrong diagnosis and of delayed treatment come to the surgeon, and one of the most difficult positions in which a surgeon can be placed is to be compelled to defend or excuse the mistakes or incompetency of a fellow-practitioner. The relation of physician and specialist should be of the most friendly character, so that either can feel free to call on the other for any assistance he may require or for advice when in doubt, and each one should feel toward the patient as he would toward a member of his own family. Thus the interests of the patient will be safeguarded. A patient must not in the least degree be a chattel, to be bartered between a physician and any other person. One of the strongest articles on the division of fees and the bartering of patients appeared in the April Number of Pearson's Magazine, written by Dr. Chas. A. L. Reed, and reveals the alarming extent of this practice and if others will assist in giving publicity to this evil it will do more to purge the profession of dishonest practitioners than can be accomplished in any other way. It is not to be assumed that division of fees is under all circumstances wrong, but it is a dangerous procedure and one likely to lead us into trouble. It is the duty of the physician who finds his patient in need of service he is unable to render to secure the best assistance at his command and be influenced in his choice of consultant by his patient's welfare and not by his own pecuniary interest. This is a broad subject and cannot more than be touched upon in a general view, which is the only object of this address.

The reports of the officers and various committees at our preliminary sessions have shown substantial progress during the past year along the various lines I have indicated.

The report of the annual meeting of the council in January, showed the membership to be 1,636, and we hope this year will show a healthy increase. The organization throughout the state as shown by the reports of the councilors is strong and harmonious, and all that is needed is efficient leadership with laudable objects placed before

them. There is an apparent need of paid lecturers or agents who can give more time to organization work than is possible for busy practitioners under our present system.

Our plan of medical defense after four and a half years trial has proved to be a success. During the past year a number of cases have been defended and all successfully.

Our Journal has proved to be a success since owned by the Society, but it is not given the support of the members that it merits. The members should feel that they own it and assist it whenever possible by patronizing its advertisers, sending in items of medical news, such as deaths, removals, and the public doings of physicians, and secure advertisements whenever possible.

The state board of medical examiners reports good work and harmonious action of the board. A large number have failed to pass the examinations, and thirty prosecutions have been conducted during the past year.

The series of popular lectures as provided by the A. M. A. is an assured success, and must be encouraged and kept up, for in our efforts to protect the profession from its enemies the League for Medical Freedom and other influences that seek to juggle with human life for pecuniary gain, the fullest possible publicity must be given to the things the public ought to know. We have no greater weapon of defense than by taking the people freely into our confidence and teaching them what disease is and how it may be avoided or cured, and that it is their fight and not ours we are waging, and by thus gaining their confidence we will accomplish infinitely more than by trying to prevent their getting to the quack or the patent medicine shop.

There is evident necessity for more scientific work by our county societies and better clinical work done by members, and to stop occasionally and ask ourselves how far our incompetency may be the cause of the distrust and lack of confidence of the people which enables quackery to prosper.

It is ever a burning question how to eliminate the irregulars, and I believe I have indicated in the foregoing pages how that may be done.

In closing, I wish particularly to commend the work of the Wisconsin Anti-Tuberculosis Association for its effective efforts toward stamping out the White Plague, and the State Board of Health and Laboratory of Hygiene for their work in assist-

ing the physicians of the state on matters of public health and hygiene. I bespeak for the board a more hearty co-operation in its work by reporting cases and assisting in quarantine regulations.

Finally, let us so govern ourselves in the exercise of the privileges given us as physicians in our various fields, and in conducting the affairs of our organization that we may continue to merit the respect and confidence of the people, and become a united body in the ample fulfillment of our mission.

SOME IMPORTANT POINTS IN THE DIAGNOSIS OF TUBERCULOSIS.*

BY F. M. POTTENGER, A. M., M. D., LL. D.,

MEDICAL DIRECTOR OF THE POTTENGER SANATORIUM FOR DISEASES OF THE LUNGS AND THROAT.

MONROVIA, CALIFORNIA.

In order to discuss the diagnosis of tuberculosis intelligently it is necessary that we bear in mind the recent advances which have added to our knowledge of the disease, both as a pathological entity and as a clinical manifestation. It is necessary to bear in mind that tuberculosis is a chronic disease, which, as a rule, develops very slowly and that the inoculation and manifestation of clinical symptoms are often separated by years.

When we speak of the early diagnosis of tuberculosis we rarely, if ever, mean to imply that the infection has just taken place and that we are detecting it in its pathological incipency; nor do we even imply that we are detecting its first clinical manifestations. We mean, however, that we are detecting it while the lesion is comparatively small and before the disease has occupied large areas of lung tissue.

Careful, painstaking examinations could detect pulmonary lesions in the great majority of cases while they are still small if the opportunity for examination was afforded, but the character of the disease is such and its clinical manifestations so varied that comparatively few patients present themselves for examination at a time when the disease can be called incipient. So the condition which we are dealing with in diagnosis is not an

*Read by invitation at the 66th Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 22, 1912.

incipient disease, but a manifestation of activity in a focus which has previously been quiescent, or a spreading of the infection to new tissue.

The clinical course of tuberculosis is so different in different individuals that early diagnosis is often frustrated by the fact that no recognizable symptoms appear until the disease has existed for a long time and produced serious effects upon the lung. As a rule in such cases we can see, after the diagnosis has been made, that there were evidences which might have been recognized before had we had our attention drawn to tuberculosis as being the probable etiological factor. This is especially true of the fibroid form of tuberculosis. I have examined many patients who had suffered from the disease for years, not realizing what had been the matter and not having had their attention drawn to the lungs until the fibroid disease had begun to be complicated by the ulcerative process. The following is a case in point:

Male, aged 28, was referred to me with a history of having had a spell of illness resembling la grippe a few weeks before. Examination showed a process quite extensive occupying the entire upper lobe of the right lung which was softening and breaking down. The patient gave no history which would ordinarily call attention to the lungs, which antedated this acute attack. The examination, however, showed that the process was an old one. Evidence of a long existing disease was present. Further inquiry into the clinical history also elicited the fact that the patient had not been up to his normal for seven years. He was engaged in business, but said he felt like neglecting it. He, as well as his associates, thought he was lazy. The fact was that he had been suffering from the toxins of the tubercle bacillus all this time. A diagnosis could have been made in the case long before had a sufficiently careful examination been made. Such cases are being overlooked constantly in practice.

It is essential, if we would diagnose tuberculosis early, to have the medical profession impressed with the fact that nearly every one is infected with tubercle bacilli some time during life; and secondly, that anyone, no matter what his physique, may become the victim of an active process. The statistics of pathologists during recent years startled the world by showing that tuberculosis lesions are found in the bodies of nearly all adults. The work of Naegeli and Burekhardt are especially

important. The clinical evidence as brought out by von Pirquet, Hamburger and others, is no less important. These clinicians confirm the findings of the pathologists and show that nearly all children are infected before the fifteenth year. In families where tuberculosis is present, this infection occurs earlier and is more general. Cohn examined 273 children of families which were tuberculous and found 66 per cent already infected at the fifth year and 100 per cent at the fourteenth year.

As our knowledge of tuberculosis increases we see that it is a very different disease from what we had previously thought it to be. Some German observers have suggested that it should be divided into three stages, the same as syphilis. The stage of invasion, the stage of spreading to new tissue, and the stage of serious or late manifestations. No matter whether we accept this classification or not, we must recognize that tuberculosis is primarily a disease of the lymphatic system. The bacilli enter the body and find lodgment in the lymphatic glands. If they are few in number they are destroyed. If they are many they produce infection. This infection may heal or it may remain in a state of greater or lesser activity in the glandular system for a prolonged time. Sooner or later, however, it spreads to other parts in the majority of cases. Hart found that the lungs are involved in 63.4 per cent of 400 bodies examined post mortem. Bearing in mind that nearly all individuals harbor tuberculous infection in their bodies some time during their life, and further, as shown by Hart, that more than sixty per cent of them have their lungs infected, a serious responsibility is placed upon the physician to know when to make a diagnosis of clinical tuberculosis. He recognizes that only a certain number of those infected will show symptoms. He further recognizes that only a portion of those in whom the disease extends to the lung will show clinical symptoms. So he finds himself between the danger of pronouncing some people in a dangerous condition who might not be, if he desires to give all active cases the best chance of recovery; and, of allowing a certain number of suspicious cases to drift on into a condition of advanced and hopeless tuberculosis if he fears to make the diagnosis in some questionable cases.

As a profession we have heretofore almost wholly ignored the lymphatic stage of tuberculosis, and

yet this should be the easiest type for cure. Whether we shall assume the same attitude toward it in the future, I question. Not only have we neglected the lymphatic stage, but we have almost ignored the early pulmonary infections. Our diagnoses have nearly always been made after frank clinical symptoms have manifested themselves.

While I recognize that I am taking an advanced stand, yet I believe that conditions warrant the assertion that it is our duty as physicians to give the lymphatic state of tuberculosis our careful attention. I do not mean by lymphatic state a condition where the visible lymphatic glands are enlarged or where the mediastinal glands are shown to be enlarged by physical examination including the X-ray; I mean tuberculous infection while it is still confined to the lymphatic system, before it has spread to other parts of the body. This is the more mandatory in cases where children are not developing properly, where they are half sick, but not suffering from anything upon which we can settle as a causative factor. In such cases we should always bear in mind that some constitutional disease may be interfering with the child's nutrition and that the most common disease of this kind is tuberculosis. The fact that nearly all children are infected is sufficient ground for our suspecting it. Aside from this we have ample clinical ground on which to base our action. Since I have been studying this question I have found many such children who have failed to improve under the best of care, but who responded quickly when put on tuberculin treatment in conjunction with their hygienic regime. Needless to say I depend much upon the tuberculin test and its proper interpretation in such cases for a diagnosis.

It is not the lymphatic stage of tuberculosis which interests us most at the present time, even though it may be the most important in the future. It goes without saying, however, that, if the lymphatic stage were properly regarded, the advanced stages, when the lungs, larynx, intestines, bones and joints are involved, would gradually become less important. But since it is the stage in which the disease has spread from its primary focus to new parts that is now usually recognized, we will proceed to study the diagnosis of that form, and since pulmonary tuberculosis is the form usually found, I shall confine my attention to it.

It is not my purpose to take up a text-book discussion of the early diagnosis of pulmonary tuberculosis; such can be read at leisure. I desire, however, to bring before you some facts out of my own experience which may aid you in establishing a diagnosis of tuberculosis when a patient suffering from it presents himself for examination. In the presence of active tuberculosis the two greatest foes of the patient are uncertainty and delay, therefore the earliest possible diagnosis is demanded.

The general physician should take time to obtain a careful clinical history of all cases where tuberculosis might be suspected. I feel that probably more errors come from a failure to do this than from any other source, for it is comparatively rare that such a history fails to reveal some symptoms suggestive of tuberculosis. If the disease is suspected an immediate diagnosis is almost sure to be made, or the patient is kept under observation until it is made. It is where the disease has not been suspected, on the other hand, that it is most likely to go unrecognized.

A patient who is suffering from early active pulmonary tuberculosis will nearly always give a clinical history of one or more of the following symptoms: a tired feeling, nervousness, a "run down" condition, loss of endurance, frequent and protracted colds, hoarseness, impaired digestion, slight loss of weight, slight night sweats, hacking cough caused by tickling in throat, tired or aching of the shoulders and interscapular region, spitting of blood, or pleurisy. These symptoms will rarely be found singly when tuberculosis is present. Usually two or more of them are present; and if so, they call for the exclusion of tuberculosis before a diagnosis can be considered as made. Spitting of blood and pleurisy should always be considered as due to tuberculosis, unless absolutely proven to be due to other causes. The careful consideration of the clinical history will usually afford the physician sufficient data to suspect an active tuberculous lesion to be present. The necessity of further examination is usually based upon the clinical history.

When an active pulmonary tuberculosis has been suspected how is the general physician to make the diagnosis? Unless he has had excellent training in examining for early pulmonary lesions and has had continuous practice in the same we must not expect that the slight changes which accompany

an early pulmonary involvement will be detected by him on auscultation and percussion. This is said without the least intention of underrating his ability and without ascribing any superiority to men who are following chest work as their specialty; for chest men are just as deficient in other lines. It is said in recognition of a fact and in the hope of aiding diagnosis; for, as long as the general profession is expected to diagnose pulmonary tuberculosis by the changes on percussion and auscultation just so long will the diagnosis be made late in the great majority of cases; for these early changes are so difficult that men who are classed as expert chest men sometimes overlook them.

Measures which I would especially emphasize for the general physicians to employ in establishing a diagnosis when he suspects a tuberculous lesion are: a carefully kept temperature chart; the microscopical examination of any mucus coughed up, no matter how slight; the tuberculin test; examination for lagging of both the apex and the entire side on which the involvement exists and an examination to note the presence of spasm of the muscles covering the apices of the lung.

A temperature chart to be of any value, must be a record of observations taken at frequent intervals. It is not sufficient for the physician to see the patient once a day and depend on the temperature recorded at that time. To be of any value the record should be taken every two hours and extend over several consecutive days. There is a great deal of misinformation regarding the normal temperature curve. The normal temperature curve, according to Jürgensen shows a variation of about one and one-half degrees for the twenty-four hours, and ranges from about 97 degrees at four or five A. M. to 98.6 degrees at four or five in the afternoon. Of course, there are some variations in this. The maximum may be as early as two or as late as eight or ten P. M., so the futility of a single daily observation is evident. It is also important to instruct the patient in the method of taking the temperature. As a rule the thermometer is not held long enough and often the mouth is not kept closed while it is being held. A one minute thermometer should be held at least three minutes, a two minute at least four, and a three minute at least five. In cold weather these periods even are too short, for it takes about ten minutes for the mouth to warm

up after coming in from the cold, especially if the patient has been talking.

If, in a patient showing suspicious clinical symptoms, after a temperature chart has been kept according to these rules, there is found to be a persistent rise above normal, even if only two or three tenths, it is additional evidence in favor of tuberculosis unless the temperature can be satisfactorily explained in other ways.

While the diagnosis of tuberculosis can be made before tubercle bacilli appear in the sputum in the great majority of cases, yet it is not usually so made. Furthermore, many patients suffer from tuberculosis for months without the diagnosis being made, although they are expectorating bacilli during the entire time. The failure to establish a diagnosis under such conditions is blameworthy, for in this day of the microscope there is no excuse for not examining the sputum of all suspicious cases. The physician should not consider his duty to his patient done until he has made a microscopical examination of any secretion which is raised from the throat, no matter how small the amount.

I would also suggest that instead of requiring a sample for examination that a twenty-four hour, forty-eight or seventy-two hour sample be required when there is doubt. By taking a sample over a prolonged period of time the possibilities of failure are greatly reduced. In explanation it might be said that a patient might expectorate twenty times in three days and might expectorate bacilli only once in the entire time, so the chances of failure of diagnosis where a single sample is taken can clearly be seen; but when the entire amount is taken and allowed to ferment and become a homogeneous mass, the bacilli will become more or less equally scattered through the specimen and be easier of detection, and the percentage of error be greatly reduced. He should not be deceived by the patient telling him that he is not expectorating anything, or only a little in the morning, or only when he has a cold, but he should insist that any mucus expectorated, no matter how slight, should be brought to him for examination. While such a method will not detect tuberculosis as early as we are able to detect it, it will detect it earlier than it is now being detected.

With the many modifications of the tuberculin test, as they have been given to us in recent years we have at our command a very important measure

for determining whether or not tuberculosis is present. Of course these tests require careful interpretation. Not every one who reacts to tuberculin is necessarily suffering from tuberculous symptoms; but my experience confirms that of other observers who take the ground that a prompt reaction following the tuberculin test is indicative of an active lesion. My preference of all the tests is the von Pirquet. While I do not consider it any more reliable than the ophthalmic or subcutaneous, yet I think for its ease of administration it is the best; and, when interpreted carefully, I have found it reliable. I think we are safe in saying that a reaction following the von Pirquet test, which comes on soon, reaching its maximum before twenty-four hours, is indication of an active lesion, but one which reaches its maximum after twenty-four hours, or even up to forty-eight or seventy-two hours, should be construed as a quiescent one. The thing which particularly recommends the von Pirquet test is that so much information can be obtained so easily.

In a former paper I said "If early diagnosis of tuberculosis is to be the rule instead of the exception, the means of making it must be the common property of the medical profession, and not be confined to consultants and specialists. Of the older methods of examination, percussion and auscultation have aided most in making a diagnosis; and, in the hands of specialists who are daily making careful examination of chests, these methods afford sufficient evidence when taken in connection with a careful anamnesis, to warrant a positive or negative opinion in nearly all cases; but, for those who have not had special training in diagnosis, and those who do not have the opportunity for constant, careful examination of chests, percussion and auscultation are unreliable and furnish little, if any, information that can be relied upon. This statement is not made in a pessimistic vein, nor is it made to discourage physical examination, but rather to emphasize the necessity of more careful study and training in auscultation and percussion.

"One suffering from incipient tuberculosis rarely falls into the hands of the specialist, primarily; but if he consults a physician at all, he is most apt to consult a general practitioner, or some friend who is a member of the profession; so if the disease is to be diagnosed early the means of such diagnosis must be at the hands of

physicians in general." So the measures which I desire to impress upon you today are those which any examiner should be able to employ. I have spoken of the careful history, the temperature chart, the examination of the sputum and the tuberculin test. Now, I desire to emphasize particularly two points in the physical examination of the chest. The first is that of lagging of the apex or the entire side on which the involvement is found. The second is the spasm of the muscles on the affected side. These two signs, if properly understood, will give the examiner more information regarding the condition within the chest than any other physical signs, except those found upon auscultation. These two signs probably have a common etiology at least in part and are reflex phenomena produced by an inflammation within the lungs. I look upon them as a part of the general scheme of putting the lung at rest. When an inflammation is present in the lung, even though it be a very slight one, we note two things; first, the action of the diaphragm is limited, and second, the important muscles covering the thorax, particularly the part involved, are thrown into spasm thus diminishing the motion of the side involved. The path of this reflex is doubtless from the inflamed lung through the sympathetic nerves to the cord, there stimulating the adjacent cells in the same segment of the cord, and causing impulses to be sent out through the fibres of the motor nerves arising in the same segment.

What gives special importance to these two signs is that they indicate a condition of activity. One of the most important as well as most difficult questions that has been put to the practitioners of medicine and the specialist in diseases of the chest in particular is, when a small tuberculous lesion has been found, whether or not it is active. We formerly depended largely upon a rise of temperature to give us this information, but we now know that patients may have an active lesion in the lung and yet have no rise in temperature. As mentioned previously, the tuberculin test, when properly given and interpreted, gives us valuable information on this line, but my experience warrants me in saying that, from the condition of the chest muscles, including the diaphragm, we can form a better opinion as to the presence of an active lesion in the lung than can be formed even by the use of the stethoscope, for the limiting of the action of the diaphragm and the spasm of the

chest muscles is often found present when the lesion is so slight that it can be determined only by great skill by the stethoscope. The reliability of these signs can readily be seen from the description which I have given of their etiology. If they are a reflex expression of inflammation in the lung they should be evident when the lesion is small as well as when it is extensive, and I have found it so.

Lagging has been known for a long time, but it has usually been described as being confined to the apex. After observing many cases of pulmonary tuberculosis, however, I have found that lagging is not confined to the apex as has been so strongly emphasized, but it shows itself over the entire side of the chest, even if the lesion occupies only a small area at the apex. This suggests that the factors in its production are something more important, something more fundamental than a limited change in the lung tissue at the apex and suggests further that it is probably due to some interference with the normal mechanism of respiration, remembering that the diaphragm is the chief muscle of respiration and that it receives its innervation from the cervical portion of the cord, the same as the superficial muscles which are thrown into spasm in the presence of disease in the lung. Therefore we are led to believe that the chief factor in the production of lagging, not only of the apex, but of the entire side of the lung, is interference with the action of the diaphragm.

Lagging as it affects the apex may be detected either by inspection or palpation. I have found that palpation is more reliable than inspection. It may be determined either by the examiner sitting in front of the patient and placing his hands on the upper portion of the chest or what I prefer, by standing behind him, placing his thumbs in the supraspinous fossae and allowing his fingers to pass down over the upper ribs. He should then have the patient breathe both superficially and deeply. If there is a difference in the two apices he will note that the excursion on the side of the involvement lags behind the other, either in point of time or degree of motion.

To examine for lagging of the entire chest wall the examiner should sit in front of the patient and then either by inspection or by both inspection and palpation he should note carefully any difference in the extent of motion of the base of the

two lungs. By placing the hands on the side of the chest well down in the axillae and watching the excursion of the hands I think that lagging, if it is present, is somewhat accentuated and easier of detection. Where the disease is confined to one side lagging, or diminished motion is easy to detect. Where both sides are involved, however, lagging, either of the apices or of the entire sides, is more difficult to detect. Fortunately, however, in early tuberculosis where this sign is of most value, it is rare that the two sides are the seat of an involvement of equal activity. Where there is a difference in the activity of the involvement, the one of greater degree, as a rule, shows the greater limitation of motion.

A sign only second in importance to that of lagging, is spasm of the neck and chest muscles. Those muscles which show spasm most markedly in early tuberculosis, hence the ones which give us the most information of diagnostic import, are those covering the apex of the lungs, particularly the sterno-cleido-mastoideus and the scaleni and when the disease extends below the clavicle, the upper intercostales and the pectoralis; while posteriorly, the spasm is best detected in the trapezius, levator anguli scapulae and rhomboidei. In very slight lesions, however, the muscle change, as a rule, is confined to the sterno-cleido-mastoideus, scaleni and trapezius.

In examining for spasm the patient must sit thoroughly relaxed so that no muscles are put on tension. Then by inspection and palpation the neck muscles should be carefully examined. In chests as they are presented to us for examination we usually find two conditions present in which muscles show differently. One is an apex, which has previously been the seat of an old lesion; the other is an apex, the seat of a new infection. In cases where the lung is involved for the first time the apex should present the normal degree of fullness about the supra- and infra-clavicular and supraspinous fossae, although the sterno-cleido-mastoideus and scaleni will most likely be more prominent than normal. The trapezius will also appear somewhat larger than normal and increase the fullness of the shoulder posteriorly and upon touch will be found to be distinctly firmer than normal. Now if this active lesion, however, should be at an apex which has previously been the seat of a quiescent focus, then the condition is decidedly different. The supra- and infra-clavicular

as well as the supraspinous fossae will appear to be somewhat deepened, owing to the fact that the soft parts, both muscles and subcutaneous tissues, have degenerated as a result of the old process. The sterno-cleido-mastoideus and scaleni will appear somewhat different from what they do when the apex is primarily involved. The degeneration, as a rule, shows quite plainly in the sterno-cleido-mastoideus. It will be smaller than its mate, but, besides being smaller, it will also show on inspection that it is in the state of contraction and upon palpation will be firmer to the touch than normal. Posteriorly, the trapezius will also be firmer than normal, but on account of the degeneration that has occurred in it, it will also show a degree of atrophy. Its bundles will be easily separated. The muscle substance itself is less than normal, and the subcutaneous tissue covering it is wasted. This often gives a decided flattened, or even cupped appearance to the shoulder.

These muscle signs have proven invaluable to me and I believe that they are so simple that if once comprehended they will revolutionize the diagnosis of diseases of the chest and put in the hands of the general practitioner methods in physical diagnosis which are far more reliable than the ones he has hitherto been depending upon.

During the reading of his paper Dr. Pottenger made the following comments:

I would like to say that during the last two years since I have been interested in this lymphatic stage of tuberculosis, I have been treating quite a number of children. I have done it more or less as an experiment. Where a child has been reported to me as not developing naturally, not increasing in weight, not thriving, not able to go to school and carry on work, even though there were no definite outward symptoms if there is a prompt, positive reaction to the skin test, I have where feasible given that child a course of tuberculin along with hygienic measures; and it is surprising to note what has been done for such patients.

Two years ago a doctor from Massachusetts visited me and told me that he was worried about his daughter. She was 9 years old. She had not gained a pound in a year and seemed decidedly below par. Upon inquiry I found that the mother had died four years previously from acute tuberculosis. The child had been brought to California, and the father had not seen her in the meantime. For six months she had been out of school and unable to do anything. However, she had been living a hygienic life, playing out of doors all day and sleeping in the open. I told him that the probabilities were that she was tuberculous and suggested examination. Upon

examination I did not find the disease in the lymphatic stage as I had suspected, but found an involvement in the right lung. I put her on tuberculin and in 9 months her weight increased from 79 to 102 pounds. She took on a natural development and is now carrying on her work satisfactorily and does not know that she was ever ill.

Another illustration: A young lady, a sister of one of my patients, had been treated by the best physicians in Southern California, but no one was doing her any good. I gave her the von Pirquet test and she did not react. After considerable study however, I concluded that the failure to react was probably due to general low nutrition. So I asked that she be brought in again, and I gave her a second von Pirquet test. Again she failed to react. I said to the mother: "You have tried everything, let me treat this girl with hygiene plus tuberculin. It will cost you nothing, as I want to do it as an experiment." Permission was granted. She has been under my care for 5 or 6 months and is now in the best physical condition she has ever been in. She is gaining in weight and able to do things about the house without the great exhaustion which had always been present.

Of course two swallows do not make a summer, but these are only two of a dozen or more similar cases which I have been following up during the last two years. Most of the cases are those you would not make a diagnosis of tuberculosis; you would not find any evidences in the lung, neither were any frank symptoms of tuberculosis present, but they were from tuberculous families and were children whom we would naturally say were going to die of tuberculosis. They were flat chested, under nourished children without resistance. In every instance so far I have practically made those children over. That means something; and points to the fact that these children that we have been allowing to go on and develop clinical tuberculosis and die, can be helped at a time when the disease is in the stage prior to that usually recognized as the clinical stage.

Comment: A run-down condition does not demand a tonic; it demands a diagnosis. That is the symptom that most of these patients complain of early, and the treatment they usually get is not an examination, but a tonic.

Comment: Any cold that lasts more than two or three weeks, if it ends up with a persistent cough calls for a chest examination.

Hoarseness is another symptom calling for an examination. The explanation of hoarseness in these cases is that it is a reflex condition through the recurrent laryngeal nerve. Consequently we frequently find it as an early symptom, irritation of the lung reflex interferes with proper vocalization and causes the slight hoarseness.

Tickling in the throat is a common early symptom and the patient will insist that it is his throat which is at fault; but when you have a patient constantly complaining of tickling in the throat, don't remove the uvula but examine the chest.

Comment: Tired or aching shoulders: A patient

who complains of an ache through the shoulder or a "getting tired" through the shoulders, especially in changing weather should be suspected of having a pulmonary lesion. A neuritis affecting these nerves is caused reflexly from the pulmonary inflammation.

Comment: Spitting of blood should always be considered as indicating tuberculosis, unless you can prove it otherwise. Pleurisy and spitting of blood make a diagnosis for us in practically every case where they are present.

Comment: Every now and then I go away on a vacation,—probably to Europe and stay three or four months; when I return to work I find my hearing is not as acute as when I am auscultating daily and I will not trust myself on an incipient tuberculosis case until after a few days practice. It takes me several days to get back into the harness where I can do efficient work.

Comment: Physicians are constantly suspecting tuberculosis; and then after examining the chest and finding nothing, backing down and being bluffed out of their diagnosis only to have their suspicions confirmed later by the patient's developing unmistakable symptoms. Do not do that. If you make up your mind from a clinical history that tuberculosis is present, stick to your diagnosis, in spite of not finding anything in the lung on percussion and auscultation; because, in incipient tuberculosis, the changes are so slight that even experts keep quarreling over the description of them.

Comment: I have made a good many examinations of sputum in these old chronic fibroid cases, where you don't find bacilli. I have made such examination time after time with negative results. We now take a three-days sample of sputum in such cases, keeping it at room temperature or incubator temperature for twenty-four or forty-eight hours, after it becomes thoroughly homogeneous,—after the enzymes act, upon examination, we often find bacilli in cases where the sputum has previously been examined dozens of times without result.

Comment: There has been a great deal of discussion with reference to the relative merits of these tests. I believe the subcutaneous test is the best, but for practical purposes the von Pirquet is so easy and it gives so much information that I think it should be applied in every suspicious case. Wolf Eisner gives the following interpretation of the test and my clinical experience bears it out. The reaction is probably due to a combination of anti-bodies and toxin. When an active lesion is present, many antibodies are in the circulation and reaction comes early, often within five or six hours; but if the lesion is quiescent or latent there are fewer antibodies circulating in the body fluid and it takes a longer time for them to collect at the point of inoculation in sufficient numbers to produce reaction.

Comment: We have all known for years how the muscles are in spasm when we have acute appendicitis or ulcer of the stomach or duodenum; but the cause has not been very accurately explained in literature. The condition is due to reflex action, the impulse probably traveling through the sympathetic nerves to the cord, there setting up a segmental irritation which reflects in

the muscles of the belly wall. The contraction is often confined to a part of a muscle or one of a group although the entire muscle or group may be supplied by the same nerve. Consequently it is not the entire nerve but certain fibres of it which are involved. Tuberculosis is a disease which does not come and go in a day, even if it quiets down and heals, it takes months. So we have a constant impulse going up through the sympathetic nerve to the cord during the time that the inflammation lasts. It stimulates the cells in the cord where the sympathetics take their origin. It irritates the adjoining cells, from which sensory fibres take their origin, as has been shown by Head; for we find that the sensory areas on the chest wall are changed. Cells giving origin to motor fibres are also irritated and as a result we have a spasm of the muscles which take their nerve supply from this segment of the cord.

Williams showed in 1897 that when tuberculosis is present the action of the diaphragm is altered. Many explanations of this have been given. It has been explained as being due to a reduced elasticity of the part involved, also as being caused by the phrenic nerve being bound down in pleural adhesions. In my estimation, however, the cause must be sought elsewhere. It seems to me to be the same as that which produces the spasm of the superficial muscles, which take their nerve supply from the cervical cord. The phrenics are given off from the 3rd and 4th or 4th and 5th cervicals, and it is probable that the same conditions would apply to the nerves supplying the diaphragm as apply to the nerves supplying the superficial muscles.

After spasm of the muscles exists for a considerable period of time the muscles undergo degenerative change. We cannot conceive of any muscle being in contraction for months and months and holding its tone. It must of necessity go over into degeneration. This we find in all chronic cases of tuberculosis. Instead of finding a normal muscle in spasm, we find a muscle in a state of degeneration. If activity is present in the lung, however, we find a spasm also. This is not the general degeneration which takes place in all the muscles of the body in advanced tuberculosis, but a regional degeneration—a degeneration of the muscles of the neck and of those covering the involved lung; in short, of those which take their nerve supply from that part of the cord which receives the impulses from the inflammation in the lung. That being true the muscle condition gives a valuable clue in diagnosis. We have often seen flat chests. What produces flat chests? The probable cause is the reflex stimulation and its consequent changes. We have the muscles involved early, their contraction producing the pressure. Further, the trophic nerves which supply the skin, subcutaneous tissue, cartilages and ribs are involved, thus interfering with the natural growth of the tissues. The result is the first and second ribs shorten or rather do not attain normal growth; there is a tendency for the cartilage to become affected early also and show degenerative changes. These phenomena constrict the upper aperture of the thorax. This has been pointed out by Freund as predisposing to tuberculosis, but I regard it as a result of an existing tuber-

culosis. I feel sure that this reflex stimulation is also a frequent cause of neuritis in tuberculosis. The cases to which I refer are regional in character and confined to the side of involvement; the nerves of the neck, front of the chest, scapular region and arm are involved; and owing to its regional character and the fact that it is confined to the side of the involvement it seems most probably to be caused directly by the inflammation in the lung. Now it can readily be seen that this reflex idea opens up a new field and offers an explanation of a lot of old symptoms. It also changes our interpretation of old signs; for example: suppose we find on the left side that we have an old lesion; as a result the muscles degenerate; the subcutaneous tissue is wasted. Suppose on the other side we have a normal condition, where will you have your higher pitched note on percussion? It will be on the normal side of course, because the comparatively greater amount of muscle and subcutaneous tissue will make it so. You will make mistakes if you do not remember that the muscles of the soft parts must be taken into consideration in interpreting percussion and auscultation.

I have here two patients who illustrate my points nicely.

(These patients were here exhibited.)

As soon as you look at this man you see the same old picture. You see the prominence of these (the anterior neck) muscles. We formerly thought this was due to the general wasting that comes on with the disease, the muscles standing out boldly because of the general wasting; but if you look further, you will note that the two sides are not symmetrical, that the belly of the sterno-cleido-mastoideus is larger on the left than on the right side. If you examine again you will notice that the contraction on the right is not as marked as on the left, and that the soft parts covering the right apex are wasted in comparison, this is due to the old lesion on the right causing degeneration. On palpation, the muscle substance on the right is observed to be wasted and the elasticity of the muscle to be gone, while on the left the wasting is very slight but the muscle is distinctly firmer than normal due to a condition of spasm. Both conditions are evidence of pathological conditions of the lung. From the condition of the muscles of this patient one can say that he has a chronic inflammation in both lungs, more chronic in the right one; and at the present activity in both lungs but more marked in the left one.

In this other patient we have a different condition. This gentleman has had an active lesion in both lungs which is now approaching arrestment. If you feel these muscles you will see that the condition is normal. We obtain the same changes as in the other case, but to a less extent. There is degeneration on both sides. But in spite of that the tension of this muscle (sterno-cleido-mastoid) is slightly plus, and posteriorly the trapezius and levator-anguli scapulae are plus; but most evident is the fact that there is a degeneration in these muscles, this is due to the fact that the inflammation was chronic, and has now become quiescent, the spasm gradually giving place to the degenerative signs.

In examining for these changes, the patient must assume a position, so that there will be no tension on the muscles.

DISCUSSION.

DR. EDWARD EVANS, La Crosse: I would like to ask if in what is called the lymphatic stage, careful observation discloses fever?

DR. POTTENGER: The general belief is that in these cases there is not much fever present; but my personal experience with children is not sufficient to base an opinion upon.

DR. J. P. CONNELL, Fond du Lac: The rule is when a case presents symptoms of emaciation, losing flesh or feeling bad, if he has a family history back of him, to diagnose tuberculosis. But in this class of cases we have no such history; and I want to know if nevertheless they do not always have some temperature, and if that temperature and the pulse are not a guide to diagnosis.

DR. POTTENGER: Tuberculosis in the majority of cases, when quiescent, is without continuous temperature. Considerable observation in early tuberculosis shows that temperature is present only at certain times. It comes and then disappears for a time. The one thing characteristic of activity in a tuberculous lesion is the fact that the curve goes in waves.

If a straight line represents the normal, the tuberculous curve will run part of the time above and part of the time below. The general daily variation is about the same as normal, about a degree and a half a day. Sometimes these curves will come one, twice or three times a month, and at other times once in a month and a half. Unless you take a prolonged temperature curve in tuberculosis you cannot draw a conclusion as to whether it is active or not, because even active lesions will run with temperature below normal at times. There is considerable disturbance at times caused by finding the temperature 97 degrees or thereabouts in the morning. This, however, is about normal. The normal temperature at 4 o'clock A. M. is about 97 degrees; in the afternoon it is about 98.4 degrees, with a degree and a half variation. You will recall that a few years ago we said persistently low morning temperature meant tuberculosis as much as an afternoon rise. A great many people are of the opinion that a temperature of 97 degrees in the morning indicates tuberculosis; but that is not so; it is the normal temperature for that time of day.

Q. How about the pulse?

A. The pulse in tuberculosis is easily influenced; not that there is a persistently high pulse, but one which through normal or slightly accelerated at rest is unreasonably accelerated on exertion. Instability is the characteristic of the pulse in tuberculosis. Where there is not a positive family history, it is difficult to make a diagnosis in these early cases; but knowing the prevalence of tuberculosis, knowing that almost everybody is infected with tuberculosis at some time or another, we must disabuse our minds of the old notion that a man who has tuberculosis, must be thin and flat chested.

I have patients who have been spitting up bacilli for years, who weigh from 180 to 225 pounds. No man can make a diagnosis of tuberculosis by the size, build and state of nutrition of the patient.

DR. G. WINDESHEIM, Kenosha: I would like to ask the doctor as to the comparative value of the Morro test and the von Pirquet test?

DR. POTTENGER: That is a good question. My reason for not believing much in the Morro test is that skins differ so in thickness. A ready absorption is obtained in one and not in the other, although the same degree of rubbing is employed in both. But if the tuberculin is put into the lymph spaces the same conditions more nearly obtain in all cases. That is the reason I like the von Pirquet test. A small scarifier is advantageous in making the von Pirquet test. A drop of Koch's old tuberculin is placed on the skin and the superficial skin is removed by a turn of the scarifier and then you wait for the result, of course a control must always be made before the scarifier comes in contact with the tuberculin.

Q. It is necessary to make the control on the other arm?

A. I always use a control, but on the same arm—separated about 2 inches from the inoculation.

DR. F. A. THOMPSON, Milwaukee. I wrote to Dr. Pottenger a year ago in reference to his sign, and received a complete description, and worked it out in my clinic with 150 cases of all classes. After I got my fingers skilled enough so that I could recognize these localized areas, I found in almost every active case that Dr. Pottenger's sign was positive. You can localize with it directly without putting the stethoscope to the chest. I see that he has evolved a nice explanation for all of these things, and I am very thoroughly in accord with what he has said; because it seems to me that every sign he has given can be worked out by careful study and palpation. But the point that I wish to take up with you this afternoon in the discussion, is that I do not believe a man can take this sign and determine its value by a few trials. He has got to practice until his fingers are skillful, and use it until he can detect rigidity on one side or the other. I find it of great value in many cases, especially in the old areas, where you would have an old area and a fresh area, and in the old area where you have a consolidation marked, but no fresh sign, where you would not have as much rigidity as you would over the fresh area, where you have more marked signs, and especially more muscular rigidity. I believe if we all used this sign and made our examination carefully, with the patient in proper position, we would find it invaluable; and it is a sign that every one of us ought to be fairly familiar with; as through it we can gain a great many months in diagnosing many of our cases.

DR. JOSEPH SMITH, Wausau: Do you regard the von Pirquet test as equally efficacious in adults as in children?

DR. POTTENGER: I think it extremely valuable in adults. It is simply a matter of interpretation.

I want to say here, that we do not treat tuberculosis fairly. If in suspected syphilis we get a positive Wassermann reaction, we do not care whether we find clinical symptoms or not, we will treat that patient any way. The same thing should be true in suspected tuberculosis. We should take the children and find out whether tuberculosis is present by our tests, and if we find it is present we should watch that child and put it under hygienic conditions at least, regardless of clinical symptoms; if it does not improve properly under hygienic regime, tuberculin should be added. I do not think, of course, that every case that reacts is active, but according to my observations I believe we are justified in considering every case that reacts promptly as active. I further do not believe that a thoroughly healed lesion will react except shortly after healing has occurred; because the antibodies which are necessary to the reaction disappear when the toxins fail to be produced. The reason we discuss this question at all is because the general consensus of opinion of the profession is against doing anything for tuberculosis until the disease becomes active clinically; but I believe if we come to treating this disease in the same manner as we treat all others, i. e., earnestly trying to eradicate it in its very early stage, the lymphatic stage, then when we find a reaction, we will treat that patient as earnestly and as systematically as we do when clinical symptoms develop, and put him in a way where he will get well.

Q. Can any difference between bovine and human tuberculosis be shown by the test?

DR. POTTENGER: I have tried to follow this out for some time, and I am satisfied there is a difference between bovine and human tuberculin. I have never yet however, been convinced that by the tuberculin test one can prove whether or not a given infection is bovine or human in origin.

DR. L. M. WARFIELD, Wauwatosa: Do I understand you to say that you consider the tuberculin reaction on a par with the Wassermann reaction? If I understand you rightly, you say a healed lesion should not react, while an active lesion will. If that is the case how is it that in smallpox or chicken pox, the first and second inoculations with smallpox vaccine both give you a reaction, correspondingly to von Pirquet test. I have always understood that the von Pirquet test simply meant the presence there of an active lesion, or a lesion which had healed. My interpretation of it is that these conditions cannot be put in analogy at all.

DR. POTTENGER: There is considerable discussion on that point, but you do not believe a healed tuberculosis lesion will react to tuberculin do you?

DR. WARFIELD: No.

DR. POTTENGER: I am taking a definite stand on this. I believe that as long as there is a reaction to tuberculin the lesion is not fully healed, and when the reaction ceases the lesion is healed. (Of course I recognize that a reaction will occur for a given period after healing has occurred.) The slower the reaction the more nearly healed is the lesion. If we get a prompt reaction which reaches its maximum within 24 hours,

we are safe in saying that that is a case of active tuberculosis. A delayed reaction shows quiescence.

Unfortunately we have not been doing anything for those cases unless we concluded that they are active. Now, I say a latent case of tuberculosis deserves attention the same as a case that is active. I do not mean that we necessarily have to subject that patient to a whole lot of treatment; but he should be watched carefully till he is well, the same as we would watch any other disease till it is well.

These tests do not all come out absolutely. Head of Minneapolis, has found quite a number of cases where the different tests do not harmonize nevertheless, for a safe working basis we find them to be about as exact as other methods of examination. I do not think we should demand any more than that. If we are going to demand exactitude, let us demand it on the side of the safety of the patient.

Q. What do you mean by slow reaction?

DR. POTTENGER: If I give a test now and tomorrow I see just the slight beginning of reaction and on the second or third day it reaches the highest point, that would be a slow reaction; but if I made the test now and 12 hours from now the maximum reaction occurred. I would call that a prompt reaction and feel that that lesion was active.

DR. J. B. VEDDER, Marshfield: I should like to ask what the method of tuberculin treatment is which you use, and whether there is any value at all to the Morro test?

DR. POTTENGER: As far as the tuberculin used in treatment is concerned, I would say it is not so much what preparation is used as how skillfully it is employed.

I desire to thank you for the privilege of presenting this important subject to you and for the interest that you have manifested. (Great applause.)

SECRETARY SHELDON: I have heard several say that Dr. Pottenger's paper repaid them for coming to this meeting, if nothing else had occurred, and I move a rising vote of thanks to Dr. Pottenger for his very admirable and interesting paper.

Motion carried by unanimous rising vote.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.*

BY O. W. McMICHAEL, B. A., M. D.,

CHICAGO, ILL.

ASSOCIATE PROFESSOR OF MEDICINE, CHICAGO POLICLINIC.
HEAD OF THE POLICLINIC DISPENSARY OF THE
MUNICIPAL TUBERCULOSIS SANITARIUM.

The early diagnosis of tuberculosis means to us today, something entirely different from what it

*Read before the Milwaukee Medical Society, Dec. 12, 1911.

did a few years ago. The time seems very short indeed since we looked for the hectic flush, the outstanding ears, the persistent cough, constant expectoration, well marked emaciation, and incapacity to work, before we dared pronounce the case one of pulmonary tuberculosis.

The absence of adventitious sounds on auscultation meant that the next physician who placed a stethoscope upon the patient's chest, ridiculed our diagnosis, and as we are sensitive creatures we were tempted to wait until signs were unmistakable before whispering in the ear of some member of the family that our patient was a victim of the white plague. To tell the patient himself that he had tuberculosis meant to him a death sentence. He knew we were wrong, so he started down the street to find some physician who would place his ear to his back, percuss a little over his starched shirt front, and tell him he had a "weak spot" in his lung, a little "bronchitis," "throat trouble," "stomach trouble," or whatever he thought the patient wanted him to say.

Few physicians knew how to treat tuberculosis, and the general desire was to get the sufferer as far away as possible, so he was told to "go West and live out of doors." The patient of moderate or limited means would gather together money enough to pay his fare to Denver and live a few months. When funds began to run low his first economy was in the matter of food, because of failing appetite. Then he moved to a cheap rooming house, to brood and become desperately homesick, finally to give up in despair and come home to die.

No patient should be allowed to leave his home unless he can have one hundred dollars a month for two years for his maintenance and care. Ninety per cent of the cases cannot afford to leave home, and their rightful place is in the hands of the general practitioner.

The possibility of cure is dependent upon the recognition of the disease at the earliest possible moment.

In its earliest stage tuberculosis is not a disease, in the sense that it interferes with the ordinary sense of well being.

The discovery of the tubercle bacillus was the first step toward the earlier recognition of the disease, but the microscope does not aid us in establishing an early diagnosis as we now understand the term. Whenever we find tubercle bacilli

in the sputum we are dealing with a moderately advanced case.

Early diagnosis means the discovery of the fact that the patient has an active tuberculous focus, not sufficiently advanced to cause destruction of tissue and the elimination of the bacillus tuberculosis in the expectoration. Therefore, we must become more expert in our methods of physical examination. We must study our patient from every side and bestow upon him time and care in solving a problem upon which depends the life, not only of the individual immediately concerned, but also the lives of other members of his family.

Whenever a case of tuberculosis is found, every other member of the family should be studied with the utmost care. This family study sometimes yields astonishing results. In one series of examinations of fifteen families, in each of which there was an open case of tuberculosis, I examined ninety-four individuals and found seventy that showed unmistakable evidence of infection.

Heredity no longer plays the important part it once did, and while we do not now think that if a parent is tuberculous, some of the children are necessarily doomed to die of the disease, we still think it well worthy of consideration, for there seems to be no reason why we should not resemble our parents in our susceptibility to certain diseases as we resemble them in face and form, and it must be remembered too, that members of the same household are exposed to infection from the same source and also to infection from each other. In investigating family history, special stress should be laid upon association with any member of the household, even of years before who has had tuberculosis. The source of infection may be in the immediate family, or in that of a neighbor. I have in my care at the present time two children whose only known source of infection was playing on the porch with a careless neighbor who died of tuberculosis four years ago.

The clinical history is of the utmost importance. The first focus is probably always in a gland, and may remain latent there for years without giving rise to recognizable clinical signs, unless some infectious disease such as scarlet fever, influenza, bronchitis, whooping cough, measles, pneumonia, typhoid or rheumatism produces a stimulation of the lymphatic glandular system. Then latent tubercle bacilli, stimulated to new activity, are swept along in the active lymph

stream into other parts of the body more favorable for their development. In this way do we account for the frequency with which active tuberculosis follows these infections.

Bronchitis, influenza, pneumonia and pleurisy showing in the patient's history, greatly increase the probability that the present infection is tuberculosis. A single case will illustrate how pleurisy may reveal tuberculosis in a family. A young man came into the medical clinic complaining only of dyspnea. He had a rapid pulse, but no elevation of temperature. Examination revealed pleurisy with effusion. Fluid aspirated was clear the first time, second time turbid, third time turbid and bloody. There were no other signs of tuberculosis except a positive von Pirquet reaction. He said his family were all well, but closer inquiry brought out the fact that his father had a "cold." Examination of the father, who was seventy-three years old, and apparently in excellent health, revealed a well advanced fibroid phthisis with tubercle bacilli in his sputum in great abundance.

Loss of weight is one of the most significant facts in the personal history. The tubercle bacillus is a parasite, and when a parasite finds lodgment in a host there begins a mutual struggle for existence, and the changes in body weight show unerringly the progress of the fight. All parasites seem provided by nature with the power to secrete a substance which destroys the defense of the host at the point of attack. This is illustrated by the common leech whose oral secretion prevents the coagulation of blood and causes a hemorrhage that often continues long after his appetite is satisfied, and the loss to the host is out of all proportion to the needs of the parasite.

Chemical analysis of the tubercle bacillus shows eighty-eight to ninety-seven per cent of fat and proteid, of which nearly half is fat or a substance supposed to be derived from fat, and we can reasonably conclude that in the elaboration of the fatty substance of which the bodies of the tubercle bacilli are composed, enormous quantities of body fat and proteid are consumed, and that the destructive process continues long after the immediate needs of the bacilli are satisfied.

Malaise is one of the most characteristic early symptoms of tuberculosis. Patients are tired all the time or get tired in the afternoon. Nervousness, irritability, depression of spirits, cold hands and feet, and flushing and chilling without apparent cause are usually present.

Early tuberculosis is one of the commonest causes of neurasthenia, and we do well to examine patients suffering from nervous breakdown for evidence of tuberculosis.

A history of cough is often difficult to obtain, because the patient will frequently deny the existence of a cough, and even while he is speaking will give a little "hack." When his attention is called to it, he will show utter unconsciousness of having coughed at all. The cough may occur only after exertion, or taking a deep breath, and patients often think they have only throat trouble because of the tickling sensation in the larynx.

Chills, night-sweats, pain, and hemorrhage are more obvious signs of tuberculosis, and go far toward establishing a diagnosis.

With a knowledge of the personal history we are prepared to interpret the physical findings.

Physical examination through the clothing is no longer considered good practice, and yet very recently, a patient with advanced tuberculosis told me that his family physician made percussion over his starched shirt front, and told him there was nothing the matter with his lungs.

All clothing should be removed to the waist, the patient placed in a good light, on a stool without a back, to allow inspection of the chest in a natural pose without artificial support.

The character of the pulse is first observed. The tuberculous pulse is a quick pulse, regardless of its rate. It taps the finger and is gone, but in volume is distinctly different from the Corrigan pulse.

The blood pressure is next recorded, and a systolic pressure of ten to twenty millimeters of mercury below the normal for the sex and age of the individual is suggestive of tuberculosis.

Curved nails and clubbed fingers are not early signs, but these, with cyanosis of the nails, are worthy of note in advanced cases, and are present in cases of fibroid type in which there may be little disturbance of the general health, and yet they may be dangerous to others, because of bacilli in the sputum.

Much importance should be attached to hoarseness, which may be caused by pressure of enlarged tuberculous glands, or adhesions binding down the recurrent or superior laryngeal nerves.

The eyes often show unusual clearness of the sclera, even in early cases, while in about twenty-

five per cent of the cases, dilated pupils are seen. About five per cent show dilatation of one pupil. It is interesting to note that where one pupil is dilated, it is on the affected side, or on the side more recently invaded.

The skin over the chest is next examined, and here we note a phenomenon which may be regarded as having distinct value in the early diagnosis of tuberculosis. When the skin is grasped between the thumb and finger and pulled from the underlying muscle fascia, it is more elastic on the affected side. This skin change is described by Wheaton as an atrophy of the integument, due to an absorption of the subcutaneous fat, so that when it is grasped it feels thinner, and can be stretched farther from the underlying tissues than the skin on the normal side. My observation on about a thousand cases seems to show that the integument atrophy extends considerably beyond the lesion, and is not limited to the area of dullness.

From skin elasticity to muscle spasm is the next step. Pottenger states that the muscles over a tuberculous focus are in a constant spasm, and palpation will reveal a rigidity corresponding exactly to the area of the lesion. This is a refinement of diagnosis not always easy to demonstrate, but it calls attention to the muscle spasm constant in apical affections. On the side of the more recent infection or more acute process, the trapezius, and underlying muscles are rigid, and tend to elevate the shoulder and incline the head slightly toward the affected side, contrasting strongly with the shoulder droop of the older lesion on the opposite side.

In studying muscle rigidity, I have found that standing behind the patient and placing the flexed index fingers under the lower borders of the pectorales major and pulling gently upward and backward there can be recognized a distinct sense of resistance on the affected side. There is this to be observed however, upon placing the fingers in position in the axilla, there is often a contact spasm produced on the unaffected side. This quickly disappears if the fingers are kept in place, and the true muscle rigidity is readily detected.

Of percussion and auscultation too much must not be expected in early tuberculosis. Direct percussion of the clavicles will sometimes yield a distinct difference in pitch which cannot be brought out by ordinary percussion above or below the

clavicles, and it must be remembered that when percussion reveals a decided departure from the normal, we already have a lesion of considerable extent. If upon auscultation immediately below the clavicles we can detect a change in the quality or volume of the vesicular murmur, or if the sound on either side is rougher or appreciably diminished there is a lesion present. Dependence upon auscultation alone, or upon any other single aid to diagnosis is unsafe.

The physical examination may well conclude with the application of the Calmette, the Moro, or the von Pirquet tests. The Calmette consists of instilling into the eye a drop of one per cent solution of tuberculin, which is followed in a few hours by a reddening of the conjunctiva. Serious results have followed the use of this test, and it has generally been discarded.

The Moro test consists of the inunction of a small quantity of a fifty per cent tuberculin ointment, which is followed in a tuberculous subject by a bright red eruption within twenty-four to forty-eight hours.

The von Pirquet test consists of placing a drop of Koch's old tuberculin in two places on the skin about three inches apart. A special scarifier is employed which makes all the scarifications of equal size. A slight abrasion of the skin is made by rotating the scarifier midway between the two drops of tuberculin, this first scarification serves as a control for comparison with the other two made through the drops of tuberculin. In twenty-four to forty-eight hours the inoculated scarifications show a bright red area varying in intensity from a redness slightly greater than that in the control spot, to a spot one-half inch in diameter covered with vesicles. The value of the von Pirquet reaction rests more upon its significance in prognosis than upon its importance in diagnosis.

A positive reaction means that somewhere within the individual tubercle bacilli are present and that anti-bodies have been formed to repel the invasion, but it does not tell us whether we have an active focus, or an old healed lesion. A negative reaction means that we have either no tuberculosis, or that the anti-bodies are no longer being formed, and the patient is making no resistance. Hence in far advanced cases we frequently get no response to the von Pirquet test. If, on the other hand, in the presence of obvious tuberculosis we get a

prompt and vigorous reaction, the prognosis is favorable.

Having given our patient the ocular or one of the skin tests and having obtained a positive reaction, how are we to decide whether we have an active focus or an old healed lesion?

The recent clinical history generally answers the question.

Teach your patient to read the clinical thermometer and have him record his temperature every two hours for a week.

A temperature below normal is suspicious. A temperature of ninety-seven or ninety-seven and two-tenths in the morning and ninety-nine in the afternoon is more suspicious. A temperature of ninety-nine or ninety-nine and four-tenths after active exercise is still more suspicious. If you are still in doubt give him a subcutaneous or intracutaneous injection of one-tenth mg. of Koch's old tuberculin and watch the result. An area of redness at the site of injection is strongly suspicious, and if in addition to this you get within the next twenty-four or forty-eight hours a temperature one degree higher than before, your diagnosis is established beyond question.

As for the treatment there are five essentials, absolute honesty, rest, food, twenty-four hours a day in the open air, and tuberculin.

Absolute honesty on the part of the physician in explaining to the patient his exact condition, and absolute honesty on the part of the patient in carrying out, without evasion, the directions of his physician, are necessary to the mutual confidence without which little can be accomplished.

Complete rest in bed for one month wherever possible, should inaugurate the treatment regardless of the condition of the patient. This will be followed by so much improvement that it is less difficult later to induce the patient to remain in bed when fever, rapid respiration, hemorrhage, or rapid pulse make rest imperative.

Food should be definitely prescribed and ought to include one quart of milk and three eggs a day to begin with, the quantity of food may be gradually increased, but not beyond the digestive powers of the patient.

Twenty-four hours a day in the open air is our ideal, and no matter what modifications are forced upon us by circumstances, we must not fail to recognize that window tents, rooms with open

windows and other makeshifts, are only makeshifts, and cannot take the place of real open air.

In tuberculin we have a remedy which can be used to advantage in nearly every case. Any physician will find it a safe remedy to use if he will proceed with the same caution that he would employ in the administration of any very potent drug. I am convinced however that the dosage generally recommended is ten times too strong.

In general it is safer to increase the dose so gradually that the course of tuberculin extends over a period of a year or a year and a half.

TYPHUS FEVER. REPORT OF A CASE OCCURRING IN MILWAUKEE.*

BY A. J. PATEK, M. D.,

The epidemiology of recognized typhus fever in this country is a very brief chapter. Aside from occasional cases that have not gone beyond the corral of the immigration bureau, there have been outbreaks in New York City in 1847, 1861, 1879, 1881 and 1892; in Philadelphia in 1883; four cases in San Francisco in 1897; and a similar number in Baltimore in 1901. The disease is endemic—though sporadic—in Russia, Ireland, Italy and Bohemia, was present continuously in Edinburgh from 1880 to 1893, and was discovered in London in 1897. In Mexico typhus fever is endemic and has been the subject of extensive study by Ricketts and Wilder, and by Anderson and Goldberger of the United States Marine Hospital Service.

In April, 1910 (*Am. Jour. Med. Sci.*), Nathan E. Brill reported 221 cases of "An Acute Disease of Unknown Origin," all of which cases had been seen by him in the city of New York. This was later (*Am. Jour. Med. Sci.*, Aug., 1911), followed by a further report of 34 additional cases. His study led him to the conclusion that the disease, which had in many cases been previously considered as typhoid, bears "no relation to typhoid fever *per se*, but that it has a distinct clinical entity, entirely separate from typhoid, from typhus or from any other disease known to me."

His definition succinctly outlines the general features of the disease: "An acute infectious disease of unknown origin and unknown pathology, characterized by a short incubation period

(four to five days), a period of continuous fever, accompanied by intense headache, apathy and prostration, a profuse and extensive erythematous maculo-papular eruption, all of about two weeks' duration, whereupon the fever abruptly ceases, either by crisis within a few hours or by rapid lysis within three days, when all symptoms disappear."

In establishing proof that this disease is not identical with typhoid, Brill compares the symptom-complex of the disease reported with that of typhoid, and rightly claims the assumption as true that, "given a disease of definite duration, 12 to 14 days, having a most extensive non-roseolar eruption, giving no clinical signs of intestinal ulceration, with the Widal reaction invariably absent at all times of the disease, and with a fever that falls by crisis, such a disease is most likely not typhoid."

The study of these 255 cases continued over a period of 14 years, beginning in 1896. A history of 17 cases was published in 1898 (*N. Y. Med. Jour.*, June 8-15), but the symptoms had not been so fully studied at that time as during the succeeding years.

Experimental evidence, gathered in an attempt to establish the identity of the disease as described by Brill with the typhus fever of old Mexico seemed to indicate certain differences. Although clinically identical, Brill was unable to communicate the disease to monkeys by direct inoculation with the blood of his patients, whereas Ricketts and Wilder and others succeeded in producing typhus fever by experimentally inoculating monkeys with the blood of human subjects. The study of Ricketts and Wilder further indicated that typhus fever is not directly contagious, but that transmission of the disease is produced through an insect intermediary—the body louse (*pediculus vestimenti*). The infectious agent was found to reside in the unfiltered blood serum and it was further established that positive immunity is conferred by one attack of the disease.

In differentiating the disease described by Brill from typhus fever, although their clinical identity was conceded certain points of difference were emphasized: Brill's disease occurs in the fall months, typhus in the late winter and spring; typhus occurs in epidemic or endemic form, not so Brill's, a fatality of less than 1 per cent in Brill's as compared with 15 to 60 per cent in typhus,

*Read before the Milwaukee Medical Society, May 28, 1912.

the scarcity of severe nervous symptoms in Brill's; the communicability of typhus established, and only two families observed in which more than one case of the other disease developed.

In concluding his excellent monograph Brill reaffirms the clinical identity—though experimental dissimilarity—of the two diseases, bearing in mind “the possibility of the development of an attenuated modification of the virus of typhus fever”, this attenuation in virulence being “induced by environment and improved sanitation to such a degree as to change to a great extent the clinical characters of typhus fever and the biological nature of its infectious agent.”

The probability of the identity of Brill's Disease with typhus fever was made emphatic by Friedman (*Arch. of Int. Med.*, Oct., 1911) who claims an experience of three severe epidemics in Russia, and maintains having constantly met with sporadic cases. Clinically these cases were identical with those described by Brill.

The very positive identity of Brill's Disease with typhus fever, has, however, now been clearly and definitely established by experimental demonstration, by Anderson and Goldberger of the Marine Hospital Corps (*Public Health Reports*, Feb. 2, 1912) whose work had previously been confined to Mexican typhus fever (*tabardillo*). Their conclusions indicate their line of experimentation and may be accepted as incontrovertible evidence of the correctness of their deductions. They are:

“1. The rhesus monkey is susceptible to infection by inoculation with the blood from a case of ‘Brill's disease.’

2. One attack of the disease in the monkey induces a definite immunity to a subsequent infection with virulent blood of the same strain.

3. Monkeys recovered from an infection with ‘Brill's disease’ have been found to be immune to a subsequent infection with virulent blood from a case of Mexican typhus fever.

4. Monkeys recovered from an infection with Mexican typhus fever have been found to be immune to a subsequent infection with ‘Brill's disease’.

5. From the above results we conclude that the disease described by Brill is identical with the typhus fever of Mexico, and inasmuch as the New York strain is undoubtedly of European origin, we may also conclude that the typhus of Europe and the *tabardillo* of Mexico are identical.”

Disregarding now the existence of Brill's disease as a distinct entity, I wish nevertheless to quote Brill's excellent outline of the salient features of the affection now recognized as typhus fever, be-

cause the case I am about to report follows this outline very closely.

“It begins rather suddenly, often by a distant chill or chilly sensation. This is followed by general body pains and a headache of increasing agonizing severity. Fever develops quickly, the temperature reaching its maximum on the third day, after which it remains fairly constant, averaging between 103° and 104°, occasionally as high as 106°.

“The patients are much prostrated, and in some apathy is a prominent feature. On the fifth or sixth day of the disease an eruption appears, which is rather characteristic, and differentiates the disease from most other infectious diseases. The eruption is fairly profuse, but discrete, consisting of a maculo-papular rash, dull red in color, erythematous in character; the spots are irregular in outline, though usually ovoid, 2 to 4 mm. in diameter. Under pressure a spot may be caused to fade, but it cannot be obliterated, thus showing an evident escape of some of the blood contents of the capillaries into the surrounding dermal tissues. Sometimes the spots become distinctly hemorrhagic (*petechiae*). They appear on the trunk and extremities, even rarely on the palms and soles. The eruption is never as profuse as in measles, sometimes even being scanty, then showing less than one hundred individual spots, which may be fairly well scattered over the trunk, arms and buttocks, and along the sides of thighs. The eruption is permanent until the end of the disease; it does not appear in crops, but develops and reaches its full efflorescence within twenty-four hours after the first spots appear.

“The disease lasts twelve to fourteen days, when the fever suddenly declines, and in many cases with a critical fall in temperature, which may come to normal within twelve hours; in others, with a rapid lysis within thirty-six hours, and in a few, with lysis extending over a period of sixty hours. With the fall in temperature the agonizing headache disappears, the spots rapidly fade, leaving within a few hours only brownish-yellow stains on the skin, sometimes disappearing altogether within twenty-four hours thereafter. Convalescence is speedy. In a few cases rigidity of the neck and Kernig's phenomena appear. The urine in most cases shows a trace of albumin and hyalo-granular casts. The white blood count averages 11,000 cells. The blood shows no power

of agglutinating any of the organisms of the typhoidal group. Blood cultures are absolutely negative."

Conspicuous symptoms are: the very intense *headache* that persists with undiminished severity throughout the height of the disease, disappearing quite suddenly with the abrupt subsidence of fever; the *dull red maculo-papular rash* disappearing quickly with the fever; marked *apathy* and *prostration* throughout; the full, rather *slow pulse* not nearly so rapid as might be expected, with the pyrexia; the *fever* rapidly rising to its height, the diurnal remissions seldom exceeding 1° F. and falling by crisis or rapid lysis to normal. The *duration* of the disease in the series studied, averaged 13-3/10 days—the shortest five, the longest twenty-two days.

In reporting so unusual a case as one of typhus fever, I am aware that my demonstration must be conclusive, or it were better to leave an uncertainty undisturbed. To my great regret be it confessed that, during the early days of acute symptoms, I little suspected the diagnosis I was later impelled to make, and so did not submit the case to the inspection of colleagues. But two other physicians saw the patient—one on the second, the other on the fourth day after he came under observation, and corroboration of my findings on these days is forthcoming.

The details of the case are as follows: Patient is a German lad, 19 years old. He was born in Milwaukee, and, aside from occasional visits to neighboring places, has never been far from home. He recalls no previous illness. During the past three years he has been employed on a stock farm in the Town of Greenfield, two miles southwest of Milwaukee. He did various chores about the house and barn, and for several weeks had been hauling manure from barn to fields. On Sunday, Nov. 5, 1911, he did not feel very well, though he was not conscious of any special discomfort or pain. He worked on the following day, still feeling below par. On the afternoon of this day he quite suddenly developed a very severe headache, not preceded by a chill. The pain involved the entire head and neck. His only complaint at this time and during the succeeding days was of headache of excruciating severity. Every movement intensified the suffering. On Wednesday, two days after the sudden onset of symptoms, he was seen by a neighboring physician. His temperature

at this time was 104°; he was in a somnolent condition, difficult to rouse, and spoke only of the pain in his head. On the following day the symptoms were unchanged, and because of some apparent sensitiveness along the spine, and the somnolent condition, with a fever of 103°, the attending physician thought meningitis possible, although typhoid was also borne in mind. No eruption was noticed. Medication during these two days consisted of ealomet and two antikamnia tablets. He was brought to the Mt. Sinai Hospital on Thursday evening, and here I saw him on the next morning. He then presented the following picture: a well nourished lad, face a deep purplish red hue, eyes closed, an almost stuporous sleep, which may perhaps be better described as a deep somnolence, because when violently shaken and shouted at he slowly opened his eyes; and, in response to questioning, he only murmured: "my head, my head," again lapsing into somnolence. There was no retraction, no rigidity of neck, no vomiting. The admission temperature was 103°, pulse 88, respiration 20.

Physical Examination: Pupils medium-sized equal, reacting to light; conjunctivae normal; ears normal; a short systolic murmur limited to cardiac area, best heard at apex; lungs normal; some gurgling in right iliac fossa; spleen one finger-breadth below costal border; abdomen in other respects normal.

Nervous System: No ocular or facial paresis, tongue was protruded in median line, Kernig and Babinsky absent, knee reflex and superficial reflexes faint. Patient was quiet and moved his limbs but little.

Skin: At my first visit on Friday morning, the 10th, the face was of a purplish red hue, and somewhat blotchy. Entire trunk, abdomen and arms, not including hands, were covered with an eruption that may be described as maculo-papular with a predominance of the macular variety, discrete purplish red spots, round and oval, split pea sized and smaller, not entirely disappearing under pressure (a grayish discoloration remaining). A few of these spots were on the back and thigh. The hands and feet were free from the rash. No body parasites. Urine was normal. *Widal test negative.* There were no facilities for making a blood examination at the hospital, and therefore this was not done.

During the following two days the patient's con-

dition remained unchanged, and his only complaint was of severe headache; the somnolence persisted. The temperature was lower; pulse very slow—at one time reduced to 48 beats per minute. On Sunday, the third day after admission, I made a spinal puncture, with negative result. On the evening of this day the nurse reported that he seemed more comfortable, partook of food, took notice of his surroundings, and seemed in every way improved. This I verified on the following morning. On this, the 8th day of his illness, the headache seemed to have practically disappeared, and with it all other symptoms. Convalescence was very rapid. The rash, still present on Sunday, had vanished two days later, leaving but very faint traces that were soon entirely erased. Patient remained in the hospital two weeks, but had entirely recovered before the end of this period.

A summary of the salient points in this case would then be as follows: A prodromal stage of 24 hours, followed by a sudden invasion characterized by very severe headache, asthenia and somnolence, with a temperature of 104°, and slow pulse. A maculo-papular (predominantly macular) eruption, discrete, purplish red, pea and smaller-sized spots, appearing on the 4th day after acute onset, and found principally on chest, abdomen and arms. Recovery by rapid lysis on the 8th, and convalescence well established on the 10th day.

Differential Diagnosis: Individual symptoms presented in this case may suggest the following diseases as possibilities:

Measles, Typhoid Fever, Purpura, Influenza, with Drug Rash, Cerebro-Spinal Meningitis.

Measles: The eruption did not at all resemble this disease, and was almost limited to trunk and arms. The absence of Koplik spots and of catarrhal symptoms, and the presence of an enlarged spleen, the very severe headache and somnolence, with rapid recovery, rule out this disease.

Typhoid Fever: Can be excluded, because of sudden onset, peculiar rash not appearing in crops, negative Widal, brevity of illness and rapid convalescence.

Purpura: The symptoms as outlined, character of rash, and speedy subsidence of illness, exclude this disease.

Influenza: Rapid onset and severe headache are not unknown. In fact, during 1894 a small epidemic of typhus fever was uncovered in London,

which had at first been considered influenzal. The additional symptoms detailed, however, indicate that this disease bears no resemblance to influenza.

Cerebro-Spinal Meningitis: The pronounced asthenia and somnolence, with early and persistent headache, disappearing rapidly about the fourth day, the convalescence by crisis or rapid lysis, the absence of cervical rigidity and Kernig's sign, the brief duration of symptoms and rapid restoration to complete health, serve to distinguish the disease from cerebro-spinal meningitis.

Eruptio Medicamentosa: The only medication given was calomel and two antikamnia tablets. After the patient's recovery I administered antikamnia in the dosage given by the physician who had originally seen him on the farm, but no eruption resulted.

I am conscious of one weak link in the chain of evidence that the disease described was typhus fever, and this is the etiology in this particular instance. It will be recalled that filth and poor sanitation are coexistent with typhus, and that the later researches indicate that the body louse is the transmitting agent. Careful inquiry fails to uncover evidence that gives a lead in this inquiry. The employers of my patient have not imported any cattle for many years. Besides the ordinary run of farm hands, several foreigners have lived on the farm in the past few years—four Japanese and two Russians. The latter were there during two winter months two years ago. They are said to have been quite cleanly in habit and dress. All farm employees sleep in individual beds. My patient slept in a room with these two Russians, and after their departure occupied, and still occupies, one of their beds, but not until it had been thoroughly ventilated. No vermin of bed or body have ever been noticed.

Despite the absence of an apparent or known source of infection, I am convinced of the correctness of the diagnosis. I would here call attention to the similarity in temperature curves in one of Brill's cases, and in my own.

Rarity of incidence does not spell the impossibility of the occasional occurrence of any disease; My casual inquiries have brought to light but one case of typhus in Milwaukee, seen by Dr. Ogden, twenty years ago, and found to have come from a known infected focus in the East. Dr. S. S. Hall of Ripon writes me that he encountered a case in 1883 in a German immigrant.

Rare though typhus fever may seem to be, may we not suspect—nay, assume that a disease of which 250 cases have come under the observation of a single physician—cases unrecognized by others as a disease of distinctive character—may exist elsewhere, unrecognized? The same associated conditions of unsanitary environment that exist in New York, obtain here and elsewhere, and if the disease is propagated by body vermin, as we now believe, the foreign element that acts as so generous a host for animal parasites, may scatter the disease among us too. If no such discovery has as yet been made, it may be for the very obvious reason that typhus fever happily does not exist here. But we may be more pessimistic—and may express a fear lest, if so large a number of cases is recognized by one observer in a single city, there remain a number equally large, unrecognized or unreported; and one may therefore with justice speak of this as a disease of known characteristics, hitherto unrecognized as a distinct entity, yet existing in endemic form. This conceded it demands no wide stretch of the imag-

ination to see possibilities of its existence or occasional occurrence elsewhere than in New York City. The quarantine to which all immigrant arrivals are subjected, and the sterilization of their garments, naturally lessens the danger greatly. Despite this, the large incidence of the disease indicates the insufficiency of the means employed.

Through his exhaustive studies, covering a period of fourteen years, Dr. Brill has done a great service, even though the disease described by him as a clinical entity has now proven to be typhus fever. He has drawn attention to an existing disease that has in a majority of instances been wrongly diagnosed; and he has paved the way for a study of what must, in the light of his experience, be a frequently encountered affection in his city.

It will be a source of gratification to know if others may have met similar cases in this community. If not, this single instance of the discovery of an unusual disease, will serve to keep us alive to the possibility of encountering further similar cases in the future.

ARTHUR J. PATEK, M. D.

President State Medical Society of Wisconsin, 1912-13.

Dr. Arthur J. Patek of Milwaukee, who was elected President of the State Medical Society of Wisconsin at the recent meeting at Wausau, was born in Milwaukee, November 11, 1868. He prepared for college at the Markham Academy, Milwaukee, going from there to Johns Hopkins University, Baltimore, from which institution he received the degree of A. B. in 1889. He studied medicine at the University of Pennsylvania, Philadelphia, graduating in 1892.

After graduation Dr. Patek served as interne in the German Hospital, Philadelphia, for two years, and followed this by one and a half years of study abroad. Since his return he has prac-

ticed in Milwaukee. He is married and has three children.

From 1898 to 1910, Dr. Patek acted as Assistant Health Commissioner of Milwaukee. During the first eight years of its existence, Dr. Patek served as editor of THE WISCONSIN MEDICAL JOURNAL, and it is largely due to his efforts that this publication passed in safety through the difficult and dangerous period of infancy.

Dr. Patek is an ex-president of the Medical Society of Milwaukee County, and is a member of the staffs of the Milwaukee, Milwaukee County, Children's, St. Mary's, and Mt. Sinai Hospitals.



ARTHUR J. PATEK, M. D.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

A. J. PATEK, M. D., Milwaukee; G. E. SEAMAN, M. D., Milwaukee; O. H. FOERSTER, M. D., Milwaukee; C. S. SHELDON, M. D., Madison; S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc; J. V. MEARS.....Fond du Lac; O. T. HOUGEN..... Grand Rapids; G. WINDESHEIM Kenosha; H. W. ABRAHAM.....Appleton; R. U. CAIRNSRiver Falls; F. T. NYE.....Beloit; EDWARD EVANS.....La Crosse; J. M. DODDAshland; W. CUNNINGHAM Platteville; T. J. REDELINGS.....Marinette; H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents
Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI. JUNE, 1912. No. 1

EDITORIALS

FOURTH OF JULY INJURIES AND TETANUS.

The Fourth of July will soon be with us with its attendant train of gruesome injuries which even the wide-spread preaching of a "safe and sane" celebration cannot entirely prevent.

Let us bear in mind the great danger of the development of tetanus after blank cartridge injuries and see to it that no lives are sacrificed through the omission of any preventive measures.

The suggestions given in the Journal of the American Medical Association for June 25, 1910, are so simple and direct that we take advantage of this opportunity to repeat them for the benefit of our readers:

TO PREVENT LOCKJAW.

- 1. Inject subcutaneously 1,500 units of antitetanic serum and continue the injections if indications of possible tetanus arise.
2. Freely incise every wound.
3. Carefully and thoroughly remove from the wound every particle of foreign matter.
4. Cauterize the wound thoroughly with a 25 per cent solution of phenol (carbolic acid) in glycerin or alcohol.
5. Apply a loose, wet borie acid pack.
6. In no case should the wound be closed. It should be allowed to heal by granulation. The dressing and packing should be removed every day, and fresh dressing applied.

THE WAUSAU MEETING.

The Sixty-sixth Annual Meeting was one of the most satisfactory meetings the State Medical Society has ever held. In the first place Wausau was a surprise and a revelation to those members who had never visited it before. Then the weather man was on his good behavior and saw to it that it rained only at night and that the days were clear.

The arrangements had been well made and the place of meeting was suitable, commodious, and well ventilated, and while the commercial exhibits were conveniently near, they did not dominate the situation as has sometimes happened.

The attendance at the meeting was a surprise to all, but the hospitality of Wausau and its citizens met the emergency and everybody was comfortably cared for.

The attendance at the meeting of the Association of County Secretaries and State Officers broke all records. Sixty-two were registered; nearly double the registration of last year; and all who attended the meeting were well repaid for their efforts. The whole meeting was on a very high plane and the inspiration derived from it will be reflected in the work of every county secretary during the coming year.

The meetings of the House of Delegates were also marked by a large attendance and the affairs of the Society were given careful and serious consideration.

The reports of the Councilors and of the officers of the State Medical Society showed a most satis-

factory state of affairs. The membership is growing steadily, the finances are in excellent condition, and the character of the work being done by the individual County Societies seems to show a steady march forward in all parts of the State in scientific and practical medicine.

But the reports also showed that there is much work remaining for us to do, both inside the medical profession and outside, so that we must not fold our hands and sit back in drowsy complacency thinking what fine fellows we really are.

The scientific program of the meeting was of great interest and the amount of discussion to which the papers gave rise showed a most encouraging increase over what has been heard in previous years. The discussions are of the greatest value and every program should provide ample time for them.

The Annual Addresses in Medicine and Surgery by Dr. Joseph H. White of the United States Public Health and Marine Hospital Service, and Dr. W. D. Haggard of Nashville, Tenn., were both of a high order and will appear in the *JOURNAL* in the near future.

The paper by another distinguished visitor, Dr. F. M. Pottenger of Monrovia, California, which is published in this issue of the *JOURNAL*, created an unusual amount of interest and helpful discussion.

The social features of the meeting were all of a most successful nature and everybody had a good time.

All in all, it was a fine meeting!

easy way of recognizing pulmonary tuberculosis in its earliest stages, but the methods of examination described by Dr. Pottenger and Dr. McMichael seem to be valuable additions to our means of recognizing early lesions. They require no expensive or elaborate apparatus and they should become familiar to every physician.

The points mentioned by Dr. Pottenger in discussing the essentials for an early diagnosis are within the reach of every physician; a careful clinical history; a careful physical examination by means of simple methods used intelligently; a careful observation of the temperature over a considerable period, remembering the limitations of thermometers and the changes of mouth temperature produced by cold air and by hot or cold food and drink; a study of the sputum (using the State Hygienic Laboratory if necessary), but not a delay to wait for the appearance of the tubercle bacillus; and finally, an intelligent use of one of the tuberculin tests, some of which are of the utmost simplicity.

All this requires patient effort and intelligent attention, but if we cannot give those very things to the practice of medicine, we have made a mistake in our choice of a profession. There is no room in the medical profession for the man who is not willing to work. Superhuman intelligence is not demanded of any of us, but the diligent use of what faculties we have is demanded by the very nature of our work. And in no field of medicine is this more necessary than in the recognition of the early stages of tuberculosis.

EARLY DIAGNOSIS OF TUBERCULOSIS.

The two valuable papers on the diagnosis of tuberculosis which appear in this number of the *JOURNAL* are of great interest, as both of them deal with the tremendously important subject of the recognition of the disease in what may be called its incipiency, that is at the time when there is the best prospect of cure.

The point cannot be too strongly emphasized that a diagnosis which depend on the finding of the tubercle bacillus in the sputum is *not an early diagnosis*.

There is no royal road to knowledge in any form, and this is certainly true of a knowledge of the pathological conditions encountered by the practitioner of medicine. There will never be an

TYPHUS FEVER IN WISCONSIN.

The identification of Brill's disease with typhus fever and the reporting by Dr. Patek in this issue of the *JOURNAL*, of a case in Wisconsin which corresponds to the clinical picture of this disease, is an interesting illustration of the surprises the practice of medicine presents to the physicians of today.

The method of transmission of typhus fever through insect carriers is well enough understood to prevent any panic following the discovery of a case even in a crowded community. But the fact that it may be encountered in this section of the country is an important one to remember, especially for those who may have to deal with foreigners coming from regions where typhus is endemic.

CHANGE IN TIME OF ANNUAL MEETING.

One of the important acts of the House of Delegates at its recent meeting was the changing of the time for the Annual Meeting of the Society from spring to fall. This plan has been tried in other states and has been found to work well.

Under the old arrangement it has often been difficult for those who wished to do so to attend both the meeting of the State Society and that of the American Medical Association, on account of the close proximity of the dates of the meetings. So many other medical organizations hold their annual gatherings immediately before or after the meeting of the A. M. A. that there has been something of a surfeit of good things at this season of the year.

The new plan removes the time of meeting of the State Society from this crowded season and places it by itself, where it can receive proper attention and where it will not suffer through the competing claims of other organizations upon the interest of its members.

There will be an interval of sixteen or more months between the meeting which has recently ended and the next one, but after this gap has been bridged, the meetings will be held at the customary intervals.

CORRESPONDENCE

DIRECTORY THIEF.

Milwaukee, Wis., June 15, 1912.

To the Editor:

Two or three weeks ago a stranger who, as Charles Lamb says, "has not learned the distinction between mine and thine," was seen deliberately walking out of my office with my new directory of the American Medical Association, which I had received only a day or two before. Possibly this warning may save someone else from a similar loss.

Respectfully yours,

Chester M. Echols.

800 Majestic Bldg.

NEWS ITEMS AND PERSONALS

DR. F. P. DOHEARTY, Appleton, was re-elected county physician.

DR. J. M. HOGAN, Oshkosh, has been appointed city physician for the ensuing year.

DR. CHARLES SCHOEN, Milwaukee, who recently underwent an operation, is convalescing.

DR. H. A. WOLTER, Green Bay, fractured his arm on May 6th, while cranking his automobile.

DR. JOHN MCSHANE, of Madison, has been elected to the office of Health Commissioner of Kenosha.

DR. M. J. SANDBORN, Appleton, while crossing the railroad tracks was struck by a freight train. The doctor escaped injury, but his automobile was irreparably damaged.

DR. E. A. BRUNS, of Plymouth, is preparing to develop a sheep ranch in the western part of Sheboygan County. He has purchased a tract of 300 or 400 acres of land in the towns of Mitchell and Greenbush.

DR. GEO. E. NEWELL, of Burlington, was awarded \$4,000 in his suit against the town of Rochester. Dr. Newell sued the town of Rochester for \$5,000 damages as a result of having his right hip broken in January, 1911, when he was thrown out of his cutter, which struck a large stone at the side of the road.

DR. G. WINDESHEIM, Kenosha, was on May 18th re-elected chairman of the Kenosha Board of Health.

Physicians of Kenosha County have refused to put in bids for the work of caring for the poor. They hold that such bidding is unprofessional, and insist that the city employ doctors at the regular rates to take care of the poor.

THE MILWAUKEE ROENTGEN RAY SOCIETY was formally organized on May 2, 1912, at a meeting which was attended by several Milwaukee physicians who are engaged in this branch of medical science. Informal gatherings have been in progress during the past year, which were so successful that it was decided to make them permanent. At these meetings papers dealing with questions of scientific and practical interest relat-

ing to roentgenology have been read and discussed, and plates showing unusual conditions or illustrating points of diagnostic value, have been exhibited by the members.

MARRIAGES

Dr. Warren Newell and Miss Clara L. McNamara, both of Burlington, at Chicago on June 3rd.

Dr. F. W. B. Achen, Kenosha, and Miss Florence A. Kennedy of Antioch, Ill., on May 29th.

REMOVALS

Dr. W. C. Schmitz, Elkhart Lake to School Hill.

Dr. E. J. Festerling, Sheboygan to Reedsville.

Dr. J. W. Goggins, Royalton to Calumetville.

Dr. O. V. Calkins, New London to Moore, Mont.

Dr. C. F. Werner, Calumetville to Fond du Lac.

Dr. C. M. Griswold, formerly of Sheboygan, and later of Princeton, has purchased the practice of Dr. Kaysen, at Plymouth.

Dr. P. R. Minahan of Algoma, will succeed to the practice of the late Dr. W. E. Minahan, at Fond du Lac.

Drs. E. M. and Ida H. Hunt have disposed of their practice at Avoca to Dr. G. H. McCallister, and have purchased the practice of Dr. E. T. Ridgeway, at Tigerton.

DEATHS

Dr. THOMAS EDMUND HALL of La Crosse, died on May 5th, after an illness of several years' duration of a complication of diseases.

Dr. Hall was born fifty-seven years ago, on December 22d, at Bath, Ill. He was a graduate of the University of Minnesota and of Rush

Medical College. He had practiced his profession in Wisconsin and Minnesota for thirty-seven years.

Dr. A. J. ROSENBERRY, a former resident of Wausau, died on May 7th at his home at Benton Harbor, Michigan.

Dr. Rosenberry was born in Ohio, and was 60 years of age last October. He had been a practicing physician since 1880. In 1886 he came to Wausau and practiced his profession there until 1896. He resided at Oak Park, Ill., for ten years, and was then compelled to retire from active practice because of ill health, and removed to Benton Harbor, Michigan, where he had since made his home.

Dr. A. B. FARNHAM, a former well known Milwaukee physician, died on May 6th, at Citronelle, Ala.

Dr. Farnham was born at Bath, Me., October 11, 1844. He graduated from Harvard University in 1868. In 1875 he graduated from Bellevue Hospital Medical College, New York. He served on the staff of the Charity and Maternity Hospitals and was assistant surgeon in the Eye and Ear Infirmary in New York. From 1880 to 1883 he was health officer at New Rochelle, N. Y. In 1883 he moved to Milwaukee, where he made a specialty of the treatment of the throat and nose. He left Milwaukee about five years ago and had since then lived at Citronelle, Ala.

He was at different times, trustee, secretary and treasurer of the Milwaukee Emergency Hospital, president of the Milwaukee Medical Society and secretary of the Bartlett Clinical Club. He was a contributor to the *New York Medical Journal*, a member of the Harvard University and Manhattan Clubs of New York, and of the Milwaukee and University Clubs of Milwaukee.

THE STATE MEDICAL SOCIETY OF WISCONSIN
ORGANIZED 1841

Officers 1912-1913.

ARTHUR J. PATEK, Milwaukee
President

C. A. ARMSTRONG, Boscobel
1st Vice President

L. E. SPENCER, Wausau
2d Vice President

JOHN MATHIESON, Eau Claire, 3rd Vice President

CHAS. S. SHELDON, Madison, Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917

1st Dist., M. R. Wilkinson, - Oconomowoc
2nd Dist., G. Windesheim, - Kenosha

TERM EXPIRES 1913

5th Dist., J. V. Mears, - Fond du Lac
6th Dist., H. W. Abraham, - Appleton

TERM EXPIRES 1915

9th Dist., O. T. Hougen - Grand Rapids
10th Dist., K. U. Cairns, - River Falls

TERM EXPIRES 1918

3rd Dist., F. T. Nye, - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1914

7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - Marinette

TERM EXPIRES 1916

11th Dist., J. M. Dodd, - Ashland
12th Dist., H. E. Dearholt, - Milwaukee

Delegates to American Medical Association.

L. F. BENNETT, Beloit.

J. J. MCGOVERN, Milwaukee.

C. A. HARPER, Madison.

Alternates

F. S. WILEY, Fond du Lac.

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette.

Committee on Public Policy and Legislation

A. W. GRAY, Milwaukee, Chairman.

J. P. McMAHON, Milwaukee.

F. F. BOWMAN, Madison.

Committee on Medical Defense.

G. E. SEAMAN, Milwaukee, Chairman.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

M. P. RAVENEL, Madison.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison.

J. M. BEFFEL, Milwaukee.

T. H. HAY, Stevens Point.

Program Committee.

L. M. WARFIELD, Wauwatosa, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	J. M. Meyers, Odanah.	C. J. Smiles, Ashland.
Barron-Polk-Washburn-Sawyer-Bureauett	H. B. Crommett, Amery.	I. G. Babcock, Cumberland.
Brown-Kewaunee	T. J. Oliver, Green Bay.	I. E. Levitas, Green Bay.
Calumet	V. Martens, New Holstein.	J. A. Schmidt, Brillion.
Chippewa	A. Hayes, Chippewa Falls.	A. L. Bcier, Chippewa Falls.
Clark	H. H. Christofferson, Colby.	E. L. Bradbury, Neillsville.
Columbia	B. C. Meacher, Portage.	A. J. Batty, Portage.
Crawford	F. J. Antoine, Prairie du Chien.	A. J. McDowell, Soldiers Grove.
Dane	Joseph Dean, Madison.	C. S. Sheldon, Madison.
Dodge	J. A. Clason, Neosho.	G. W. Henika, Beaver Dam.
Door		
Douglas	T. J. O'Leary, Superior.	W. E. Hatch, Superior.
Dunn-Pepin	E. H. Grannis, Menomonie.	L. A. Dahl, Menomonie.
Eau Claire	E. L. Mason, Eau Claire.	E. E. Tupper, Eau Claire.
Fond du Lac	G. F. Scheib, Fond du Lac.	F. A. Read, Fond du Lac.
Grant	C. R. Pickering, Muscoda.	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe.	G. S. Darby, Brodhead.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake.	R. H. Buckland, Green Lake.
Iowa	J. P. Parmley, Mineral Point.	C. Ludden, Mineral Point.
Jefferson	L. J. Bennett, Ft. Atkinson.	C. R. Feld, Watertown.
Juneau	C. O. Cron, Camp Douglas.	A. T. Gregory, Elroy.
Kenosha	H. A. Robinson, Kenosha.	C. H. Gephart, Kenosha.
La Crosse	C. H. Marquardt, La Crosse.	G. W. Lueck, La Crosse.
Lafayette	J. C. Hubenthal, Belmont.	Susanne Orton, Darlington.
Lanlade	M. J. Donohue, Antigo.	J. C. Wright, Antigo.
Lincoln	C. Walsh, Merrill.	Herbert Saylor, Merrill.
Manitowoc	J. R. Currons, Two Rivers.	A. J. Shimek, Manitowoc.
Marathon	L. E. Spencer, Wausau.	S. M. B. Smith, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette.	M. D. Bird, Marinette.
Milwaukee-Ozaukee	J. J. McGovern, Milwaukee.	Daniel Hopkinson, Milwaukee.
Monroe	A. E. Winters, Tomah.	A. R. Bell, Tomah.
Oconto	J. B. Atwood, Oconto.	R. C. Fauds, Abrams.
Oncida-Forest-Vilas	J. M. Hogan, Oshkosh.	C. A. Richards, Rhineland.
Outagamie	J. S. Reeve, Appleton.	F. P. Doherty, Appleton.
Pierce	E. R. Holliday, Ellsworth.	S. F. Rndolf, Ellsworth.
Portage	J. D. Lindores, Stevens Point.	W. F. Cowan, Stevens Point.
Price-Taylor	C. E. Fenelon, Phillips.	G. H. McClure, Westboro.
Racine	E. A. Taylor, Racine.	Susan Jones, Racine.
Richland	P. G. Lasche, Ithaca.	A. D. Campbell, Richland Center.
Rock	W. J. Allen, Beloit.	E. B. Brown, Beloit.
Rusk	G. M. Carnahan, Bruce.	W. F. O'Connor, Ladysmith.
Sauk		Roger Cahoon, Baraboo.
Shawano	E. Puckner, Wittenberg.	Dr. Steubenvoll, Shawano.
Sheboygan	G. H. Stannard, Sheboygan.	W. F. Zierath, Sheboygan.
St. Croix	Lorne Campbell, Clear Lake.	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	C. F. Peterson, Independence.	H. A. Jegi, Galesville.
Vernon	John Schee, Westby.	F. E. Morley, Viroqua.
Walworth	H. C. Miller, Whitewater.	M. V. Dewire, Sharon.
Washington	W. J. Wehle, West Bend.	S. J. Drissel, Barton.
Waukesha	R. E. Davies, Waukesha.	Sara T. Elliott, Waukesha.
Wanpaca	T. E. Loope, Iola.	G. T. Dawley, New London.
Winnebago	B. C. Gadden, Oshkosh.	W. L. Herner, Winnebago.
Wood	J. A. Jackson, Rudolph.	J. B. Vedder, Marshfield.

SOCIETY PROCEEDINGS

SIXTY-SIXTH ANNUAL MEETING OF THE
STATE MEDICAL SOCIETY OF WIS-
CONSIN, WAUSAU, MAY 21-24,
1912.

DIGEST OF MINUTES OF THE HOUSE OF DELEGATES.

Meeting of the House of Delegates called to order May 21, 1912, at 8 P. M. The roll was called, showing 27 delegates present.

Report of Committee on Public Policy and Legislation was presented by Dr. McMahon, accepted and adopted.

The report dealt largely with the action of the committee with reference to resolution passed last year on the subject of the advisability of the re-organization of the administration of public health, medical education, and the licensing of candidates to practice medicine.

Motion was unanimously carried that the present committee be instructed to carry along their work on the lines laid down by the resolution of last year, regarding such organization, and that the committee work with the boards for the betterment of each.

Reports of delegates to National Legislative Council and the Council on Medical Education of the A. M. A. were received. The trend of all discussion was for the better equipment, better material and higher education. A press bureau, a speakers' bureau, publication of hand-book containing facts and figures for successful health propoganda, and formulation of platform setting forth the principles of the association, are the special lines of work laid out for the future. Railway sanitation was discussed. Meat, milk and butter should have federal inspection. Endorsed pending national health legislation.

Report of delegates to annual meeting American Medical Association was received.

Reports of councilors from all districts except the fifth, were received, showing the county societies to be in flourishing condition.

Treasurer's report, showing balance on hand of \$4,193.28 was received and adopted.

Report of chairman of council was received.

Secretary's report received, showing that the Society had grown and was prospering.

Dr. F. T. Nye was elected councilor of the Third and Dr. Wilson Cunningham of the Fourth district, to succeed themselves.

The following committee of twelve on nominations was elected:

District 1, S. J. Driessel; 2, C. H. Gephart; 3, C. A. Harper; 4, Wm. T. Pinkerton; 5, J. R. Currens; 6, B. C. Gudden; 7, A. R. Bell; 8, L. Rothman; 9, E. H. Jones; 10, L. A. Dahl; 11, J. C. Wright; 12, J. P. McMahon.

The appointment of a committee of three to cooperate with a committee of the Wisconsin Branch of the American Institute of Criminal Law and Criminology, with a view to regulating the use of expert testimony, was left with the president. A request to elect a corresponding member was tabled.

Milwaukee was selected as place of holding next annual meeting of the society.

Time of meeting was changed from spring to fall.

Adjourned.

MAY 22, 1912, 10 A. M.

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

Report of Committee on Medical Defense was read and approved, and committee continued.

Report of Committee on Publication was read and adopted.

Report of Committee on Prevention of Tuberculosis was read and approved. The necessity of the early reporting of cases was urged; such reports not to be made public. The state is willing to help counties and will be more liberal in future.

Report of Committee on Necrology read and approved.

Partial report of Nominating Committee was adopted as follows:

Delegates to A. M. A. to succeed Dr. Levings and Dr. Sheldon: Dr. C. A. Harper, Madison; Dr. John J. McGovern, Milwaukee.

Alternates to succeed Drs. Cunningham and Sayle: Dr. F. T. Nye, Beloit; Dr. T. J. Redelings, Marinette.

Appointment of Program Committee referred to incoming President.

Appointment of Committee of Arrangements was referred to the President of the Medical Society of Milwaukee County.

Committee on Public Policy and Legislation: Dr. A. W. Gray, Chairman, Milwaukee; Dr. J. P. McMahon, Milwaukee; Dr. F. F. Bowman, Madison.

Committee on Medical Defense: Dr. G. E.

Seaman, Chairman, Milwaukee; Dr. A. J. Patek, Secretary, Milwaukee; Dr. S. S. Hall, Ripon.

Committee on Prevention of Tuberculosis: Dr. M. P. Ravenel, Chairman, Madison; Dr. Thomas H. Hay, Stevens Point; Dr. C. A. Harper, Madison; Dr. G. E. Seaman, Milwaukee; Dr. J. M. Beffel, Milwaukee.

Committee on Medical Education: Dr. E. S. Hayes, Eau Claire; Dr. Edward Evans, La Crosse; Dr. W. H. Washburn, Milwaukee.

Committee on Necrology: Dr. E. L. Boothby, Hammond; Dr. J. C. Reynolds, Lake Geneva; Dr. H. B. Hitz, Milwaukee.

Committee to act with Board of Public Instruction A. M. A.: Dr. C. R. Bardeen, Madison.

Delegate to National Legislative Council A. M. A.: Dr. Hoyt E. Dearholt, Milwaukee.

Delegate to Council on Medical Education A. M. A.: Dr. W. H. Washburn, Milwaukee.

The nominees were all unanimously elected.

Recess to May 23, 1912, 12:30 P. M.

MAY 23, 1912, 12:30 P. M.

Meeting called to order by President. Minutes read and approved.

Final report of Nominating Committee was unanimously adopted as follows, and the following nominees elected:

President, Dr. Arthur J. Patek, Milwaukee.

First Vice-President, Dr. C. A. Armstrong, Boscobel.

Second Vice-President, Dr. L. E. Spencer, Wausau.

Third Vice-President, Dr. John Mathieson, Eau Claire.

In presenting the report of the Nominating Committee, the Chairman, Dr. J. R. Currens, Two Rivers, said in part:

"For President, your committee after considering the matter for some time, and after taking two or three ballots, concluded that we settle on a man whom we considered had done perhaps as much work as any member of this Association in the last ten or twelve years; a man that has always been right and always willing to take any part of the work and who has always been prompt to respond when it came to the meetings; a man who has never failed us in any place he was put; a man that we feel will be an honor to preside at our next meeting; and we have therefore recom-

mended Dr. A. J. Patek, of Milwaukee." (Great applause.)

Adjourned.

MAY 24, 1912.

Meeting called to order by the President May 24, 1912, 8:30 A. M. Roll-call. Quorum present. Minutes read and approved.

Matter of Chiropractic school at Antigo referred to Committee on Public Policy and Legislation.

Report of Committee on Medical Legislation received.

A committee consisting of Dr. C. A. Harper of Madison and the Committee on Medical Education was appointed by the President to draft resolutions in favor of the Owen bill, to be sent to senators and representatives of Wisconsin.

Vote of thanks was extended to Wausau and its citizens.

Adjourned *sine die*.

REPORT OF PUBLICATION COMMITTEE OF THE WISCONSIN MEDICAL JOURNAL.

STATEMENT OF EARNINGS, EQUIPMENT, EXPENSES AND CIRCULATION, JUNE 1, 1911 TO MAY 1, 1912.

TOTAL EXPENSES.

Equipment	
Printing	\$2,056.05
Salaries	1,193.50
Commissions for securing	\$2,064.10
worth of advertising contracts....	474.08
Postage	198.60
Current Expense	102.94
	<hr/> \$4,025.17

TOTAL EARNINGS.

Advertising	\$3,229.18
Subscription	9.60
	<hr/> \$3,238.78

Deficit..... \$786.39

CIRCULATION.

To members of The State Medical Society	18,862
---	--------

The deficit of \$786.39 represents the cost to The State Medical Society of circulating 18,862 copies of The Journal, or about 4-1/6 cents a copy.

THE WISCONSIN MEDICAL JOURNAL.
FINANCIAL STATEMENT, JUNE 1, 1911 TO MAY 1,
1912.

Cash balance June 1, 1911.....	\$ 35.86
Received from The State Medical Society	1,600.00
Collected from advertising.....	2,856.73
Collected from subscription.....	9.60
In payment of half tones and excess payments	10.60
	\$4,512.79
DISBURSEMENTS.	
Equipment .....	.....
Printing	\$2,077.30
Salaries	1,323.50
Postage	195.00
Current expenses	96.54
Commissions for securing worth of advertising contracts....	\$3,443.30 799.25
In payment of half tones and excess payments	10.60
	\$4,502.19
Balance on hand May 1, 1912.	\$10.60

PRESENT CONDITION.

ASSETS.

Equipment	\$ 144.83
Bills Receivable	1,363.08
Cash on hand.....	10.60
	\$1,518.51

LIABILITIES.

Bills Payable	\$ 385.48
Surplus.....	\$1,133.03

PROCEEDINGS OF THE GENERAL SESSION.

ANNUAL ADDRESS OF THE PRESIDENT, JOHN M. DODD, ASHLAND.

(Published in this issue of the Journal.)

PUBLIC HOUSEKEEPING WITH REFERENCE TO SANITATION, JULIA RIDDLE, OSHKOSH.

The paper is frankly a discussion of equal suffrage for women in relation to sanitation, from the point of view of a physician. Women in particular know the value of pure food and proper housing conditions, the factors in eugenical and child welfare problems, in other words, the problems of the home, the city, state and nation. Man's point of view is that of business, party and policy, woman's that of home, heart and child welfare. The ship of state is not well ballasted. Masculinity and business weigh down one rail, while home, health and heart—the woman's viewpoint—would bring it to an even keel.

GONORRHEA, WITH SPECIAL REFERENCE TO ITS PROPHYLAXIS AND SEQUELAE, CHESTER M. ECHOLS, MILWAUKEE.

Women suffering from gonorrhoea may be grouped into three classes; (a), public prostitutes; (b), more respectable women, who acquire the disease through clandestine relations; (c), the innocent. It is impossible to eliminate gonorrhoea by regular examination by physicians. Medical supervision has proven a fiasco in the large continental cities. We have no definite or certain cure for gonorrhoea. Prophylaxis should be secured by warning those suffering from gonorrhoea against marrying. Individual instruction is valuable as a prophylactic measure. Surgical sequelae of gonorrhoea in women can largely be prevented by rest in bed with proper local treatment.

DISCUSSION.

WILLIAM F. WHYTE, Watertown: Municipal registration and examination do not prevent the disease. This has been proven by the situation in Vienna and other continental cities. Careless inspection and difficulty of diagnosis are the cause. Moral and religious teaching and the avoidance of the saloon are the best means of prophylaxis.

DR. JULIA RIDDLE, Oshkosh: The District Attorney of Milwaukee is to be commended for his earnest endeavor to eradicate the red light district.

DR. HORACE M. BROWN, Milwaukee: It is useless to attempt to eliminate the red light district until man's nature is changed. This has been attempted since the beginning of the world and always unsuccessfully. Ignorance of immigrants is a frequent cause of the spread of venereal disease.

DR. CARL W. DOEGE, Marshfield: Gonorrhoeal salpingitis may sometimes be perfectly cured so that the patient may bear children.

DR. ECHOLS (Closing): We do not always make use of the opportunity of warning people.

SPECIAL PAPER—SOME IMPORTANT POINTS IN THE DIAGNOSIS OF TUBERCULOSIS, F. M. POTTENGER, MONROVIA, CAL.

I do not feel as optimistic as I did a few years ago, as we are not making the headway that we ought to make. Early diagnosis is of the greatest importance. Nearly everyone is infected with tubercle bacilli at some time. Anyone, no matter what his physique, may become the victim of an active process. Tuberculosis is primarily a disease of the lymphatic system. The profession too frequently has ignored the lymphatic stage of the disease, and yet this is the easiest type to cure.

Physicians should give the lymphatic stage of the disease careful attention. The earliest possible diagnosis is demanded. As long as the profession diagnose pulmonary tuberculosis by auscultation and percussion, just so long will the diagnosis be made too late in the majority of cases.

Points in diagnosis: 1. Keep a temperature chart. 2. Make microscopic examination of mucus, etc., using samples taken over a prolonged period. 3. Tuberculin test. 4. Examination for lagging. 5. Examination to note spasm of muscles covering the apices of the lung. This is an extremely reliable diagnostic feature.

Two patients were exhibited, illustrating the useful signs and demonstrating their value as diagnostic means to the general practitioner.

THE VALUE OF OVER-RIDING AS A METHOD OF CURING DIPHTHERIA CARRIERS, W. F. LORENZ, MADISON; M. P. RAVENEL, MADISON.

In many cases of diphtheria, germs persist in the throat for long periods of time in spite of use of antiseptic gargles and washes. In such cases they transmit the disease to others. Over-riding with cultures of staphylococcus aureus was proposed by Schiotz in 1909. It has been successfully tried a number of times. The State Hygienic Laboratory determined to issue such cultures free. This paper gives results obtained in Wisconsin, with special reference to Mendota Hospital. Clinical employment of the staphylococcus spray, method of administration, advantage of both nasal and pharyngeal spray in some cases, comparative results with common throat antiseptics, absence of untoward effects or sequelae.

DISCUSSION.

DR. C. A. HARPER, Madison: The method is a very valuable and effective one, as our experience has proven.

DR. CHARLES GORST, Mendota: Ordinarily the staphylococcus spray will destroy the germs of diphtheria in the throat of a carrier.

DR. M. P. RAVENEL, Madison (Closing): The subject is a new one. The cultures used are very virulent.

DR. W. F. LORENZ, Madison (Closing): The method is an extremely simple one.

DIFFERENTIAL DIAGNOSIS BETWEEN THOSE CONDITIONS SIMULATING THE SYMPTOM-COMPLEX OF NEURASTHENIA, ARTHUR W. ROGERS, OCONOMOWOC.

Diagnosis is frequently difficult and requires repeated examination and daily observation. Upon

proper interpretation of the significance of symptoms in many of the incipient cases, depends the outcome. Neurasthenia is a fatigue neurosis. Distinguish between neurasthenia and paresis. Do not confuse neurasthenia with true hysteria. The most important morbid condition which is sometimes confused with neurasthenia is dementia precox. The syndrome of dementia precox begins in childhood, and we are dealing with a mental disturbance, while neurasthenia is more often a disease of mature years. Treatment depends not only on the diagnosis, but on the prognosis. A more careful and intelligent consideration of mental diseases will develop greater prophylactic measures and increase the proportion of recoveries among the insane.

DISCUSSION.

DR. A. J. PATEK, Milwaukee: The especial point to be considered is prophylaxis. It is a grave error to consider and treat mental diseases as purely functional. Hysterical symptoms frequently mask organic conditions. Mental symptoms should be treated prophylactically. Symptoms of dementia precox should be recognized and treated early. Diseases of the mind should not be regarded or treated as functional.

DR. W. F. LORENZ, Madison: Early recognition of the treatment of the condition is all important. Various tests should be used. Differentiate carefully between neurasthenia and dementia precox.

DR. CHARLES GORST, Mendota: In Mendota we have a hospital and not an asylum for the insane. We try to employ the best methods of treatment, avoid restraint and the use of quieting drugs. Our percentage of cures is large. Early treatment is the basis of recovery.

DR. ROGERS (Closing): 80 to 85% of cases of acute insanity recover under early intelligent systematic treatment.

ANTI-TYPHOID VACCINATION, ITS USE AND VALUE, M. P. RAVENEL, MADISON.

Use of attenuated cultures of bacteria for the prevention of disease first demonstrated by Pasteur. Anti-Typhoid vaccination first successfully done by Sir A. E. Wright of England. Used in the Boer war with encouraging results. Introduced into the U. S. Army as voluntary measure in 1909. In 1911 made compulsory for all officers and men in the service under 45 years. Adopted by the Navy and Marine Hospital Service. State Hygienic Laboratory decided to send it free to physicians in fall of 1911. Being used in many parts of the state. Two injections usually advised. In U. S. Army three injections are given. First

dose five hundred million dead typhoid germs; second and third one thousand million each. Some advise vaccine, made of a number of strains. No vaccinated soldier in French army in Morocco contracted typhoid fever. 12,801 men in U. S. Army vaccinated during Texas maneuvers in 1911, with one case of typhoid and no deaths. 10,759 men had 2,693 cases of typhoid fever with 248 deaths in Jacksonville in 1898, which was about the average in the camps during Spanish war.

The vaccine is injected under the skin by means of an ordinary hypodermic syringe. The general symptoms are headache and malaise, with a moderate amount of fever for twenty-four hours. No bad results have been noted. Injections should only be made in those who are healthy and free from fever. The vaccine is borne well by women and children. The period of immunization is about two and a half years. The dead germs in the vaccine are destroyed in the tissues and no vaccinated person could become a carrier.

DISCUSSION.

DR. L. M. WARFIELD, Wauwatosa: I do not believe we make any mistake when we vaccinate all individuals who are exposed to typhoid fever, provided we do not vaccinate individuals already ill with the disease. In vaccinating one is really giving the fever in a mild form.

DR. EDWARD EVANS, La Crosse: I would make two points: 1. Use only two injections, if effective; 2. do not make the injection in the abdomen.

DR. C. A. HARPER, Madison: Anti-typhoid vaccination is coming as a great benefit to the people of the United States. Typhoid fever is on the increase, especially in the country districts and in the south.

THE AUSCULTATORY BLOOD PRESSURE PHENOMENON, LOUIS M. WARFIELD, WAUWATOSA.

Brief history of auscultatory blood pressure determination followed by description of sounds at present differentiated. These sounds known as phases. First phase is a sharp sound; second has a murmur with a rapid sharp sound; third a loud, snappy sound; fourth, a sudden transition from former to an appreciably dull sound; fifth is disappearance of all sound. Sounds are explained. Systolic, diastolic, and pulse pressure discussed and stress laid upon the determination of both systolic and diastolic pressures. Recent development in phase length discussed. Held in general that loud third phase indicates strongly acting heart. Illustrative examples. Personal

observations on determination of diastolic pressure, concluding with brief summary of value and accuracy of method, and plea for general use in the estimation of blood pressure.

DISCUSSION.

DR. A. J. PATEK, Milwaukee: Any instrument of precision that will enable us more readily to recognize variations in the condition of the heart is welcome. The value of peripheral resistance is too little understood. Any instrument that will enable us to put a proper value upon the heart's functioning capacity is going to be the instrument of the future.

DR. WARFIELD (Closing): The bell of the stethoscope should not be more than 20 m. m. in diameter. The auscultatory method referred to in the paper is impossible to follow, where there is any great amount of noise.

A CITY HEALTH DEPARTMENT, J. M. FURSTMAN,
LA CROSSE.

City health departments should do preventive work and should be under the charge of a health officer, who should be paid sufficient compensation to enable him to devote all his attention to the work. Politics should be eliminated. Proper laboratory facilities should be given. The health officer should be a physician of special training in sanitation and hygiene. Contagious diseases should be systematically investigated and kept down. Milk should be carefully inspected. There should be medical inspection and supervision of schools. Unsanitary conditions should be eliminated.

DISCUSSION.

DR. H. E. DEARHOLT, Milwaukee: Communicable disease is a problem of community life; and the responsibility lies with the government. State, county and city governments have been absurdly niggardly in the employment and payment of health officers. The best men possible should be secured, and they should be paid sufficiently so that they will devote their exclusive attention to the work.

DR. J. H. WHITE, U. S. Hospital Service: Competent, exclusive and well-paid service by health officers is the solution of the problem.

DR. G. E. SEAMAN, Milwaukee: A course of instruction in public health has been organized in the University of Wisconsin, from which much good is expected to be derived. There will soon be an active demand for trained sanitarians, and the course in the university should be well patronized.

DR. EDWARD EVANS, La Crosse: In La Crosse a health department has been established, which is doing splendid work and is absolutely independent of politics.

DR. G. WINDESHEIM, Kenosha: Kenosha has just established a public health department on model lines,

from which much is expected. We will employ as health officer a graduate of the public health course in the University of Wisconsin.

ANNUAL ADDRESS IN MEDICINE—THE GROWING IMPORTANCE OF PREVENTIVE MEDICINE,
JOSEPH H. WHITE, U. S. PUBLIC HEALTH
AND MARINE HOSPITAL SERVICE.

Preventive medicine has become a positive duty. All the people must be educated to our aims. The places of human habitation must be drained. Refuse must be rendered harmless, and polluted water must not be permitted; infectious patients must be isolated, homes must be screened, children should be schooled in the laws of health. In our educational work we must reach all the people. The work of the medical scientist is supplemented by the work of the practical sanitary engineer. We should find a way to prevent pollution of our soils. The sanitarian is the best and truest friend of the people.

THE DIAGNOSIS AND TREATMENT OF FOREIGN BODIES IN THE EYE. ROENTGEN RAY LOCALIZATION OF FOREIGN BODIES IN THE EYE,
G. I. HOGUE, MILWAUKEE; E. S. BLAINE,
MILWAUKEE.

Diagnosis of foreign bodies in the eye is possible by means of (a), inspection; (b), transillumination of the eye; (c), use of the ophthalmoscope and (d), the use of the magnet. The patient's statement in these cases is usually unreliable. Localization by the Roentgen ray is the most valuable method. When definitely located the body may be removed by magnetized forceps or the giant magnet. Incision may be made either through the wound of entrance or in the sclera, through which the foreign body may be drawn.

DISCUSSION.

DR. G. E. SEAMAN: Injuries to the eye, due to foreign bodies are of such common occurrence that the subject is of interest to all practitioners. With modern methods, such as described in the papers, the results in these injuries have been greatly improved. I would not lay too much importance on the use of the magnet as a diagnostic means. The adjustment of damages in industrial accidents will doubtless be made by the compensation commission largely upon the basis of the facts furnished by the physician who treats the case. I would advise the substitution of euphthalmin for homatropin or similar drugs, as the results are much more satisfactory.

FEVER, WITH OBSCURE OR ABSENT PHYSICAL FINDINGS, EDWARD EVANS, LA CROSSE.

(1), Autointoxication, due to exertion, may cause fever; (2), a hot bath may produce temporary rise of temperature; (3), sun stroke, through disturbance of the thermotaxic mechanism may cause fever; (4), chemicals; (5), overfeeding on carbohydrates; (6), introduction of outside material, offsetting cell metabolism; (7), fracture of the spine, injury of the corpus striatum; (8), tumor; (9), delirium tremens, chorea, convulsions, hysteria; (10), blood disease; pernicious anemia; (11), infection from colon bacillus; (12), malignant disease of liver; (13), syphilis; (14), malignant endocarditis; (15), pus is a common source.

A physician of today should not only be able to use his five senses as well as the physician of the old school, but also be able to take advantage of the new methods of laboratory diagnosis. The state hygienic laboratory should be of great use to every one.

DISCUSSION.

DR. A. J. PATEK, Milwaukee: Physicians should be careful about the manner in which they use clinical thermometers. They usually are not held in the mouth long enough. A nurse in a hospital a short time ago found a patient's temperature to be 97 degrees, whereas the patient himself demonstrated it was 102 degrees.

DR. J. F. SMITH, Wausau: The normal variation in temperature is 1.4 degrees to 1.5 degrees, and the fever patient is characterized by less constancy in the diurnal variation. Normal temperature is maintained by a very complicated mechanism, depending on physical conditions, such as changes in the superficial circulation, and chemical conditions such as changes in the body metabolism. Anything that interferes with heat loss will raise the body temperature. High temperature in fever is due to the disproportion between the heat production and heat loss. The whole matter of the mechanism of fever is somewhat obscure, and a great deal of work will have to be done on metabolism and other associated phenomena before this matter is elucidated.

THE PATHOLOGY AND DIAGNOSIS OF ACUTE SURGICAL DISEASES OF THE ABDOMEN. D. R. CONNELL, BELOIT.

The most common of these fevers are acute appendicitis, ruptured extra-uterine pregnancy, ulcer of the stomach and duodenum, acute surgical diseases of the pancreas and the gall bladder and its ducts, strangulation of the gut, and Lane's kink. Pancreatitis is a much more common dis-

SOCIETY PROCEEDINGS.

ease than was formerly supposed, and we are now in about the same stage as regards that disease that we were twenty years ago in respect to appendicitis. Early and accurate diagnosis of these diseases is of the utmost importance.

DISCUSSION.

DR. J. F. PEMBER, Janesville: History in these cases, especially of extra-uterine pregnancy, is of the utmost importance. After everything possible is done to arrive at a correct diagnosis of acute abdominal disease, no man is wise enough to tell in every case just what he will encounter when he opens the abdomen.

DR. J. P. CONNELL, Fond du Lac: It is occasionally advisable to open the abdomen to confirm a tentative diagnosis. When the abdomen is once opened, explore all the organs that may be diseased.

SYMPTOMS AND DIAGNOSIS OF PATHOLOGICAL CONDITIONS OF THE CECUM AND TERMINAL ILEUM, NEIL ANDREWS, OSHKOSH.

The pathological condition refers to what is known as Lane's kink, Jackson's membrane, Cecum mobile, and inflammation of the appendix. The symptoms are well defined and consist of pain, tenderness on pressure, constipation, indigestion, retardation of food through the intestinal tract. In diagnosis must differentiate from salpingitis in right side, ovaritis, movable and tender kidney, cholecystitis.

DISCUSSION.

DR. W. W. KELLY, Green Bay: We are not justified in interfering with these abnormal bands, such as Lane's kink and Jackson's membrane, unless we are satisfied that they are producing anatomical conditions which lead to interference with normal function.

DR. C. H. NIMS, Oshkosh: The bismuth meal, enabling you to use the X-ray, is a most important means of diagnosis. Under normal conditions the passage of this meal through the alimentary canal is characterized by great precision with reference to time, and any interference with that precision is indicative of abnormal conditions.

ANNUAL ADDRESS IN SURGERY—THE SURGERY OF THE STOMACH, W. D. HAGGARD, NASHVILLE, TENN.

NATIONAL IMPORTANCE OF EUGENICS, FRANK I. DRAKE, MADISON.

Public and private philanthropy have failed to check the growth of degeneracy. Stirpiculture should be the watchword of the future. Plato is the precursor of the modern eugenic movement. Knowledge of human biology is a prime requisite for enlightened statesmanship. Here is a new op-

portunity for the Christian church to do effective work for humanity.

NON-SUPPURATIVE NASAL SINUS DISEASE, SAMUEL G. HIGGINS, MILWAUKEE.

All acute and chronic pathological conditions in accessory nasal sinuses are not revealed by pus discharge. Pathology is often confined to a local area in ethmoid cells. Symptoms may be unrelieved eye strain, persistent headache, progressive deafness, head noises, asthmatic attacks and neuralgias. Pathological conditions may be suspected in cases presenting marked nasal obstruction, boggy inferior turbinate, with complete occlusion of other side of nose, high deviation of septum, red, glistening, swollen middle turbinals which are hyper-sensitive to cotton tip probe and occlude the upper air chambers, and polypi appearing from beneath the middle turbinal. Diagnosis of chronic sinus disease may be made by relief given from treatment at time of acute attack. Operative interference decided upon by study of complete history and of nasal picture. Old style cauterization and removal of low spurs on septum and portion of lower inferior turbinal permissible only when symptoms are of stuffiness of the nose. Operation for nasal sinus disease requires removal of polypi, granulation tissue, and necrosed bone with free drainage of sinuses themselves.

DISCUSSION.

DR. L. M. WILLARD, Wausau: The ethmoid bone has lately been recognized as being one of the most important bones suffering from pathologic infection in the head. The development of rhinology in the region of the vicious circle of the nose has made great strides.

DR. F. S. COOK, Eau Claire: An X-ray showed in a case of glaucoma ethmoidal and sphenoid trouble. Cleaning these out stopped the pain, and the man has motion vision. I think we should work along this line in cases of glaucoma.

NON-SURGICAL TREATMENT OF OTITIS MEDIA, O. N. MORTENSON, WAUPACA.

The subject is an important one to the general practitioner, as well as to the otologist. In otitis media there is immediate danger to the organs of hearing and danger of complications through extensions to neighboring organs. Try to prevent the disease. Failing in that, try to remove the cause, establish drainage, create and maintain asepsis and assist nature by the use of medicinal agents to restore the tissues to normal. If that fails, resort to surgical means.

DISCUSSION.

DR. A. L. PAYNE, Eau Claire: I have used the bacterin treatment with some, but not universal success.

DR. S. G. HIGGINS, Milwaukee: Do not delay incision when there is bulging of the ear drum. I would not use hydrogen peroxide, as the bubbling may carry infection into the attic. The latest idea is the necessity for nasal treatment of ear abscess.

DR. F. S. COOK, Eau Claire: I would deprecate the use of narcotics to control pain in middle ear infection, as it may conceal mastoid complications. Early operation in such complications is important.

Adjourned *sine die*.

THE ASSOCIATION OF
COUNTY SECRETARIES AND STATE OFFICERS
of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette M. B. GLASIER, M. D., Bloomington
President. Vice-President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County society. It will be edited by Rock Sleyser of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

DIGEST of PROCEEDINGS OF THE THIRD ANNUAL MEETING OF THE ASSOCIATION OF COUNTY SECRETARIES AND STATE OFFICERS OF THE STATE MEDICAL SOCIETY OF WISCONSIN, HELD AT THE WAUSAU CLUB, WAUSAU, MAY 21st, 1912.

Meeting called to order May 21, 1912, 1:30 P. M. by the President, Dr. W. F. Zierath, of Sheboygan. The registered attendance was over sixty. Minutes of last meeting were read and approved.

The Annual Address of the President on the subject of "Some Things the County Society Can Do" was read.

Address: Some Things the County Society Can do for the Public Health, by Dr. Hoyt E. Dearholt, of Milwaukee, was read.

DISCUSSION.

DR. C. H. GEPHART, Kenosha: Advanced stand should be taken for the securing of efficient health boards. Most health boards are inefficient. Health commissioners are ill paid. The health officer should be paid enough so that he can devote his entire time to the work.

DR. G. WINDESHEIM, Kenosha: Kenosha has just organized a new Board of Health, which will engage a health officer who will devote his entire time to the work. This board proposes to be efficient.

DR. GEORGE W. LUECK, La Crosse: After you have got your health department, remember that the fight has just begun. We pay our health officer, Dr. Furstman, \$2,500 a year.

DR. L. A. DAHL, Menomonie: There is too much politics in boards of health. Earnest, disinterested effort will go a long ways towards stamping out disease, as we have found.

DR. H. E. DEARHOLT, Milwaukee: The doctor himself is liable to be an infringer of health regulations as frequently as any other citizen. The rural communities have an especially serious sanitary problem. A more comprehensive system of authority in health matters is needed. The University of Wisconsin has established a School of Hygiene, from which great things may be expected.

Address: Some Things the County Society Can do to Increase Respect and Confidence of the Laity, by Dr. A. R. Craig, Secretary of the American Medical Association, Chicago.

The physician makes the good he can do to his fellow man superior in importance to the pecuniary gain received. Medical men have a duty to perform in that they should insist on the high ideals of the medical profession, and should instruct possible prospective students that the pecuniary gain is small as compared with that secured in mereantile lines, and that the duties of the profession are onerous. When a man or woman enters the profession his ideals should be high. We must also bear in mind the importance of organization and co-operation. Self-sacrifice is largely the lot of the physician. The organized profession should see that there is a frequent public presentation of health matters. The health interests of the people must be safeguarded in every way. Altruism must be our watchword. Let your profession be a means whereby you serve humanity.

DISCUSSION.

DR. M. B. GLASIER, Bloomington: The respect and confidence of the laity depend upon the intelligence, honesty and integrity of the physicians, their attitude toward the laity and their attitude toward one another.

DR. M. B. BIRD, Marinette: The medical fraternity is improving in character. The American Medical Association has done much for the uplift of the profession. Within ten years the number of medical schools has been reduced from 160 to 120. Requirements preliminary to the practice of medicine have been greatly increased. The future is bright, we are on the right path and our profession is approaching high ideals.

Address: Some Things the County Society Can do to Aid in Securing Needed Medical Legislation and Enforcement of Present Medical Laws, Dr. A. W. Gray, Milwaukee; read by Dr. Cunningham.

DISCUSSION.

DR. WILSON CUNNINGHAM, Platteville: Individual members of the county societies should use their best endeavors to secure needed legislation.

DR. J. R. CURRENS, of Two Rivers, gave a history of medical legislation in Wisconsin.

The Owen Bill and how to give it support was discussed.

Address: Some Things the County Society can do to Help the State Medical Journal, Dr. A. W. Myers, Milwaukee.

Bear in mind that the Journal belongs to the Society, and we must have the active co-operation of the County Societies. Let the County Secretaries be generous in sending in reports of their meetings to the Journal, news items, suggestions and correspondence. Society reports are of great interest, yet the paper has received during the past year fewer reports of society meetings than theretofore, and has frequently been obliged to depend on newspaper reports, which are often inaccurate. The pages of the Journal are always open to members of the Society, and we invite correspondence, suggestions and ideas for editorials or editorials. Send in copies of papers presented at meetings.

Address: Some Things the County Society can do for the State Society, Dr. Charles S. Sheldon, Madison.

The point is, what can the County Societies do for the profession of medicine as personified by the State Society? The medical profession is absolutely the best on the face of the earth. The spirit of high idealism must be upheld, but we must live up to the privilege of belonging to this great profession. Co-operation, not dissension should be our aim. There must be solidarity of thought and action on all great questions. Commercialism should be avoided. Fee splitting strikes at the root of the integrity of the profession. We should take greater interest in local affairs concerning health and hygiene. Medical education should be improved. As state and county organizations, we should take a more active part in carrying out health measures. Let the county societies be loyal to the organization idea. Medical defense is an important thing. Let us assist

the Journal as Dr. Myers suggested. Let the County Secretaries be watchful for renewals of old memberships and as to new men, getting every eligible physician to join the Society. Assist the Program Committee all you can. Let us meet as brothers and partners in a great enterprise. Make use of the councilors. Make them useful as well as ornamental. Stimulate the scientific work of the Society. The past year has been our best year.

The following officers were elected:

President, Dr. M. D. Bird, Marinette.

Vice-President, Dr. M. B. Glasier, Bloomington.

Secretary, Dr. Rock Sleyster, Waupun.

Adjourned *sine die*.

CRAWFORD COUNTY

Crawford County Medical Association held its regular meeting on May 21. Dr. Dillman presided over the meeting and Dr. McDowell performed the duties of secretary.

The new officers elected were: F. J. Antoine, Prairie du Chien, president; C. J. Willard, Wauzeka, vice-president; A. J. McDowell, Soldiers Grove, secretary and treasurer; W. E. Pinkerton, Prairie du Chien, delegate.

DANE COUNTY

Dane County Medical Society held its monthly meeting at Turner Hall on May 14th. Dr. A. G. Hough of Morrisonville read a paper on *Habitus Enteropticus*. Dr. M. P. Ravenel discussed the subject *Vaccine Therapy*.

DOUGLAS COUNTY

The April meeting of the Douglas County Medical Society was held at Superior on April 4, 1912. Dr. Goodfellow of Superior read a paper on "Sudden Death in Cardio-Vascular Diseases with Special Stress on Prognosis. Methods by which we are able to tell the patients with some degree of accuracy how long they probably will live under existing conditions." Twelve present.

At the May meeting of the Douglas County Medical Society, Dr. Hoffmeier read a paper on "Pulmonary Tuberculosis". It dealt with the relation of milk to tuberculosis, and observations from a long country practice.

Fourteen present.

GRANT COUNTY

The regular May meeting of the Grant County Medical Society was held at Platteville, Thursday, May ninth. The weather being favorable and the roads suitable for automobiles, there was a large attendance.

There were present Drs. J. C. Doolittle, J. A. Gault.

J. H. Fowler, E. MacDonald, D. L. Brady, J. E. Donnell, J. C. Blair, F. H. Baldwin, C. A. Cooper, E. Kraut, J. C. Millman, W. Cunningham, J. Ottiker, H. Gasser, E. A. A. Dunn, W. W. Pretts, M. L. Huntington, W. H. Van Tiger, C. H. E. Wheeler, W. P. Hartford, J. M. Lewis, J. E. Heraty, and M. B. Glasier, Dr. Hubenthal of Belmont, and Dr. Kinney of Benton were guests of the Society.

Meeting was called to order by the President, Dr. W. P. Hartford.

Dr. James Oettiker, presented an interesting paper on *A Few Side Issues Closely Related to the Practice of Medicine*.

A well prepared paper by Dr. J. C. Doolittle on *Treatment of Syphilis* gave his experience and beneficial results in several cases treated with Salvarsan, after other treatment failed.

Dr. J. E. Donnell read an instructive paper on the *Estimation of Urinary Acidity, with method of determining the same*.

The interest in the paper by Dr. Wilson Cunningham on *Club Feet, and Club Hands*, was increased by the exhibition of a case of each in infants three to four months old.

After a discussion of the cases the Doctor invited all to the hospital, to witness operations for the relief of these conditions.

Dr. D. L. Brady of Cuba City and Dr. W. H. Van Tiger of Platteville were elected to membership in this Society.

The yearly report showed the society to be in a prosperous condition. There are 44 members, an increase of three over last year, and all dues are paid for 1912. Some of the members rode seventy miles in order to attend the meeting, thus showing their interest in Society proceedings.

The next meeting will be at Cassville.

M. B. GLASIER, M. D., *Secretary*.

IOWA COUNTY

The Iowa County Medical Association held its annual meeting in Mineral Point on May 23rd. Dr. J. P. Parmley was elected president and Dr. C. Ludden, secretary and Treasurer.

KENOSHA COUNTY

The regular meeting of the Kenosha County Medical Society was held May 3rd at the home of Dr. Cleary, with 18 members present. Dr. V. D. Lespinasse of Chicago addressed the Society on "The Indications for the Direct Transfusion of Blood and the Fulguration of Bladder Growths". Dr. Joseph N. Palt was elected to membership by unanimous vote.

A resolution to the effect that it was considered derogatory to the welfare of the profession in Kenosha for any member of the Society to bid for city work was adopted and a committee appointed to so notify all absent members.

After adjournment Mrs. Cleary served luncheon to the members.

The regular monthly meeting of the Kenosha County Medical Society was held at the home of Dr. Helen

Harler, June 7, 1912. Twenty-three members were in attendance.

Dr. George Weaver of Chicago, the guest of the evening, addressed the society on "Serum Disease". He described the effects of the introduction of horse serum or other proteid material into the body under two heads. First: disturbances arising after a primary dose of serum in a very few sensitive individuals, especially asthmatics and hay fever subjects: being malaise, urticaria, painful joints and a slight degree of fever. Second: disturbances following an injection of serum into a person hypersensitized by a previous dose, resulting in severe anaphylactic shock and not infrequently death, death often occurring in a few minutes. Since the widespread use of the antitoxins these cases are becoming more frequent. Not all persons however become sensitized after an injection of serum.

Prophylaxis is by using greater caution in selecting cases for the administration of antitoxins. Testing the degree of anaphylaxis when deemed advisable by giving a very small initial dose and when it becomes necessary to give antitoxin to a hypersensitive person, do so under anesthesia, this usually preventing alarming symptoms.

C. H. GEPHART, M. D., *Secretary*.

PRICE-TAYLOR COUNTY

A meeting of the Price Taylor County Medical Society was held at Medford, at the office of Dr. C. E. Nystrum on May 15th. Those attending were: Drs. Nystrum, Weaver and Nedry of Medford, and Wichman and Harrison of Rib Lake, and Dr. McClure of Westboro. The following officers were elected: Dr. C. E. Fenelon of Phillips, president; Dr. P. E. Riley, Park Falls, vice-president; G. H. McClure, Westboro, secretary. The next meeting will be held at Park Falls in September.

WAUPACA COUNTY

Waupaca County Medical Society held its regular quarterly meeting at the Hotel Hutchinson at Weyauwega on May 9th. Dr. Schneider of New London read a paper and Dr. Jones of Weyauwega made a few remarks on the new treatment of some suppurative diseases, after which a discussion followed by the members of the Society. Dr. Jones was elected delegate to the State Convention.

The next meeting of the Society will be held at Waupaca some time in July.

WALWORTH COUNTY

The first of the series of the evening meetings scheduled for the Walworth County Medical Society was held at the home of the President of the Society, Dr. H. C. Miller of Whitewater.

Mr. W. G. Kirchoffer, civil engineer of Madison gave the address on the subject "The Disposal of Sewage and Waste, Private and Municipal." The talk was an excellent one, containing many practical points of interest to all present, the ladies as well as the men. The wives of the Doctors were present and after the talk dainty refreshments were served and an hour spent in visiting and social chat. The meeting was a success in every way and a vote of thanks was given both to the speaker for his practical talk, and to the Host and Hostess for their pleasant entertainment.

The next meeting is to be held at Delavan the latter part of May.

M. V. DEWIRE, M. D., *Secretary*.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, JULY, 1912

Number 2

ORIGINAL ARTICLES

THE GROWING IMPORTANCE OF PREVENTIVE MEDICINE.*

BY JOSEPH H. WHITE, M. D.,

OF THE UNITED STATES PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.

Preventive medicine has become today not merely a hoped for pleasant possibility as in the not distant past, but a positive and insistent duty which we could not shirk if we would, nor would we if we could, as is evidenced by the ever growing demand for larger Public Health powers under broader and more liberal laws.

We must ignore the attacks based upon misconception of our aims, charging us with being a medical trust. We must explain our true meaning to those willing to hear; we must pass by in silence those who from ignorance incurable or from ulterior motives, still attack us, and must push onward in our God-given task to save ourselves and our neighbors, from the effects of their own folly, ignorance or vice as the case may be. I do not think it behooves us any longer to keep silent. It is useless to hope to conciliate and to bring to our way of thinking a set of men who are prompted by nothing on God's green earth but the hope of filthy lucre, men who would sell patent medicines, patent foods and other patent nostrums, knowing they are detrimental to the public health, and simply for the purpose of making the money they can get out of them, and men who oppose national and state legislation which would regulate the traffic in foods and medicines, and which would regulate the practice of medicine to such an extent that ignoramus may no longer prey upon the public. Such men are not entitled to any consideration at our hands; nor should they receive any. With them it is a struggle to the bitter end, a war to the death.

*Annual Address in Medicine delivered at the 66th Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

These men will exterminate us if we do not exterminate them; and this is the fight we have on our hands and must have until it is ended one way or the other.

I do not believe that we should indulge in too much regulation of the practice of medicine. Pardon me for being a little discursive—This is somewhat apart from what I intended to say: I believe if we can insist that all men who call themselves doctors shall show that they possess a thorough knowledge of human anatomy, physiology and pathology, we can trust them to practice medicine, but they ought to be compelled to show that they have that knowledge.

Only the man who lives alone in the midst of a vast solitude can be permitted to live his life in accord with his own crude ideas and give no thought to his fellow man.

Self surrender is the primal law of civilization and without it, either voluntary or compelled, anarchy would reign both as regards laws governing morals and finance as well as health. The utter failure to comprehend this most basic fact, is full explanation and cause for the crass individualism which actuates most of the opponents of advanced public health work.

Such being the case we are confronted with a task which may well be likened to that of the Arab guide, showing the Pyramids to a group of weaklings, whom he must lift one by one to his own level, on each of the stone steps, and never get more than one step in advance of his charges.

We must seek to educate not some but all the people to a full understanding of our aims. We must drag them up the pyramid of knowledge, so that they as well as we, may view the boundless horizon of possibilities which may and will accrue to our race, if only we be given the opportunity to serve them in the fullness of knowledge and authority, and bearing in mind that the populace once stoned a better man than any of us and crucified the Prince of Peace for trying to save them, let us not be discouraged and in good time we shall win a glorious victory, for unselfish science must

and will prevail. We have been on the road for many centuries if we consider the laws of Moses as the first sanitary code, and certainly we must do so, and sorrow that so excellent a code only benefited one small segment of the race for all these centuries. I fully believe that the wonderful stamina of the Jew is directly due to centuries of living under the Mosaic law.

The next mile post on the long road, we find in Jenner's discovery, and then for many decades our profession stood still so far as prevention goes and no further great advance was made until Koch announced that he had found the causative agency for Tuberculosis and proved his case to an astonished world. After Pasteur's statement that we could and should banish infectious diseases from the world, which entitled him to first rank in preventive medicine, I think it safe to say that Koch's announcement of the cause of Tuberculosis brought about our first real awakening to consciousness of our power to prevent disease, and this in turn brought with it the feeling of responsibility to our fellow-man, which resulted in a real effort to substitute prevention for cure. Again the study of the Cholera spirillum gave us the ability to combat a scourge which had terrorized humanity for centuries. Then came a great host of discoveries, which made immortal such names as Pasteur, Yersin, Kitasato and Reed, and enabled us not only to heal the diseases, whose cause and method of spread were laid bare, but, what is infinitely more to the advantage of the human race, to prevent their ravages and lead us on good grounds to hope for their ultimate extinction.

It is a far cry from the stumbling find of Jenner to the precise work of the bacteriologist of today, and yet most of the distance has been covered in the last 30 years. Along with the work of the bacteriologist goes the equally important work of the Entomologist, Helminthologist and Chemist, and the aggregation of these has enabled us instead of groping blindly in the dark, as our fathers did, for cure or prevention of disease, to not only cure in many cases more effectually than they, but to put a stop to wide spread epidemics of Small Pox, Diphtheria, Typhoid Fever, Yellow Fever, Plague and a host of other ailments, and has enabled us to convert swamps into pleasant habitations and make possible at the same time the greatest engineering feat yet undertaken by mankind.

The question in the past has often arisen "can

one live safely in such and such a place?" The question in the future will more often be "why is not that place sanitized?" for we must and will arrive at a stage where the extremes of heat and cold will be the only limitations set upon human habitation on the globe.

We still have much to learn but to the credit of the profession in the last twenty years it must be said that we have already proven apt students. We know how to prevent contamination of our water supply on the one hand, and how to purify it if already contaminated. We know, to a large extent at least, what things are dangerous to our food supply and why so, and we have long known what things tend to pollute the purity of the air we breathe, and how to avoid them. We know what constitutes correct clothing for all climates. In some of these things we have almost complete knowledge, in others we are rapidly accumulating such knowledge. Every day we are adding, thanks to the scientists above mentioned, to our stores of information as to the causative agencies of the specific diseases, nor will this progress cease till all is uncovered. We are learning day by day more and more concerning occupational diseases; more concerning conditions of ill health directly traceable to bad housing, insufficient light, ventilation and heat; more about the results of over work, especially on feeble men, on frail women and little children.

We are learning of pollution of soil and water in remote regions which ultimately pollute vast water supplies.

We are learning of pollution of soil, air and water in our mines making veritable death traps of them and sometimes we find our prisons in the same category.

Are we making our teaching the natural corollary to our learning that it should be? Are we trying to raise our pilgrims to the step we stand upon? Are we showing them what enormous good we can do for them and they for themselves if only they will consent to climb the hill of knowledge with us instead of lagging behind or even fighting against our helping hand held out to them. We can do nothing without their hearty co-operation.

I emphatically do not wish to advocate or hold up before them spooks and bugaboos as we are believed by Senator Works of California to be doing, for while I do not agree with the attitude of the Senator, I do agree with that portion of his re-

marks which constitutes an argument against frightening women and children. The education of the laity should be along the line of showing the reward to be obtained through looking after the health of themselves and their children.

Hold out to them a picture of the good things accruing from perfect health, and the argument that these things naturally follow obedience of the laws of applied hygiene and the avoidance of such patent evils as mosquitoes, flies and other insects and vermin. We should hold up before all of them the divine precept, "Do unto others as you would they should do unto you," as the reason why they should not pollute the soil, the water and the air, which in their purity are the perfect heritage of all mankind. We can teach them what adenoids in their children mean and admonish them that a slight operation will keep the youngster from being half witted in adult life; that the child with weak eyes being provided with lenses can be put on a plane of equality with his fellows in the race for intellectual development; that the consumptive child can go to school in the open air, and thus get both health and education; that the dentist can oftentimes convert a poor little dyspeptic incapable into a good, robust boy or girl. Going into the country we can teach the farmer to provide sanitary privies and lower the hookworm and the typhoid fever mortality by so much.

We must insist, regardless of rebuffs, that all places of human habitation be drained; that all animal and vegetable refuse likely to decompose and pollute soil, water and air, or either of them, be burned, desiccated or otherwise rendered harmless. We must do our best to see that polluted water is not supplied directly to man for drink, nor to beast first, and to man indirectly. We must isolate so far as may be practical, all contagious or infectious patients, and when such isolation may not be, we must nullify by *any means* in our power, the possibility of transmission. We must demonstrate that the screening of houses, once a luxury, is now a necessity, that the presence of flies in our kitchen, once considered unaesthetic, is now known to be deadly.

We should spare no effort to take the little children from the workshop and even the farm, that they may be schooled not only in reading and writing and arithmetic, but in the laws of health as well; and thereby set in motion an almost endless chain of progressiveness which will result in

better, cleaner, stronger men and women. We are inspecting machinery in factories in many states, and preventing the use of dangerous machinery, thereby reducing the death rate from such causes. We are making like progress when we demand more sanitary conditions in factories and workshops, and so reduce many occupational diseases to the vanishing point. Prohibition of the use of phosphorous in match factories is a notable illustration, taken at random from hundreds of others.

The more we study preventive medicine and sanitation the wider grows the field until we find that our horizon is almost boundless, being coincident with man's energies and ambitions and wherever he goes and whatever he does we must henceforth stand by his side and guide him safely. No longer can our efforts or duties be limited by the actual presence of disease entailing the necessity for cure or for prevention of spread.

We begin with the cradle, and in ordering the proper diet, clothing, temperature, air and exercise for the young child and watching his eyes, teeth, ears, nose and pharynx, we give him a better start in life than his father had. We follow him through school with the same care and see that he does not overtax his growing muscular system at foot ball, baseball, rowing, track or gym. When he goes into business it is, or ought to be, ours to see that the office building, store or factory is built, ventilated and heated aright. To see that workers in all trades have plenty of fresh air to breathe, do not work in cramped positions, are not allowed consumptive fellow workers, have good water to drink, have decent privies or water closets, have time to eat their midday meals and not bolt them as some ravenous beast.

There is no phase of human activity which has not a direct appeal to preventive medicine inherent in itself, and so wide is the field that it is utterly impossible to cover it in any small paper. In many instances it may seem a thing apart but any practical city health officer will support the statement that there is a public health aspect to every business now existent and that no individual can justly claim that the public health is in no wise dependent on his action or his failure to act, and it follows this as a perfectly natural corollary that every man, woman and child must ultimately be taught their responsibility to their neighbors. Taught that citizenship means mutual self abnegation, full obedience to the laws of health as well as

the laws of property; taught that this is the only true road to health and happiness in a civilized country; taught the economic value of health because such arguments, while confessedly sordid, are the only ones appealing to some, and we must reach *all*.

We are half way up the pyramid and some of our brothers are at the bottom; we must patiently stoop down and lift them up until we all stand abreast, and then our advance can and will be steady and rapid.

We must always bear in mind the fact that knowledge alone will not save us, for though knowledge is power, it may be, and often is power unused, and we must further bear in mind that the pure scientist lays the foundation but another builds thereon.

There are many phases of preventive medicine, and while, of course, the most far reaching results are directly attributable to the work of the medical scientist, it is never-the-less a fact that their work would be without value unless practically applied at the hands of the sanitary engineer, and the practical sanitarian. For example: Engineers drained the city of New Orleans, and the malarial death rate, which in 1886, exceeded 175 per 100,000, dropped in 1900, to 25. We killed all the mosquitoes in the last half of 1905 as an incident to the fight on yellow fever, and the rate for that calendar year dropped to 16. We continued the good work in 1906 and that year shows 11. We got indifferent as to the swamp mosquito though continuing the fight on stegomyia and the rate rose in 1908 to 19. Nothing would more clearly show the practical application of preventive medicine than this, in which the pure scientist had no direct hand.

Occasionally nature teaches us a valuable lesson which we do not always heed. There has been no rain in Zacapa, Gatemala, since June, 1911, and when I visited Zacapa on May 6th and 7th of this year, I was unable to find any kind of mosquitoes despite the fact that their presence was attested in 1905 by 800 deaths from yellow fever. A water famine seems to have cleared away all water capable of breeding yellow fever mosquitoes. I hope there may be no return of these mosquitoes, for it is certain that these happy-go-lucky people will not do for themselves what God Almighty has done for them. Our own people are, unfortunately, also addicted to this indifferent attitude toward apparently small matters, particularly in the rural

South. We could, for instance, without serious trouble, prevent any body of water capable of breeding mo-quitos, from standing over five days, and such action is all sufficient to prevent the production of larvae; and this allusion to the rural South recalls the fact that we have only just begun to consider rural welfare which in its final analysis lies at the root of all our well being and is inseparably interlocked with the welfare of our cities.

With the tremendous growth of American cities, it may be said that every stream, however small, enters into the water supply of some city or town, and consequently a pollution of any stream may mean the pollution of some city water supply, the possible contamination of some city vegetable supply through amebae, and certain contamination of some city milk supply through typhoid. It, therefore, becomes necessary, both on grounds of humanitarianism to the rural population and of self preservation, for us to teach the farmer how to protect both himself and us, and this should be done before teeming population makes the task four fold more difficult than now; before we are confronted with what I found in Germany, a universally polluted water shed, making absolutely no safe natural water supply, and yet our German brethren with characteristic unafraidness and staunchness have met this problem and conquered it through at great cost.

It seems as though we should find a way to prevent pollution of our soils, rather than to cleanse polluted water.

In many places outside our own fair land, we have met and conquered tremendous sanitary problems, in fact I have been told by Latin Americans, "You clean up Manila, Havana, Panama, Colon, and threaten to clean Guayaquil. Why don't you clean your own home towns of their Typhoid and Malarial rates which are a disgrace to civilization?" and I cannot answer, but I do say to you that I know that the same energetic application of sanitary laws which, and which alone, made the Panama Canal an existent fact, instead of an iridescent dream, and was able to do so because of ability in that instance to coerce, will ultimately be able through persuasion and sweet reason to convince our own people that the sanitarian is their best and truest friend, and seeks not to rob them of any portion of their heritage of liberty, and would take away none of their belongings save dirt, disease and death.

ANTI-TYPHOID VACCINATION*

BY MAZYCK P. RAVENEL, M. D.,

DIRECTOR, STATE LABORATORY OF HYGIENE, UNIVERSITY OF WISCONSIN.

We owe our present method of vaccinating against typhoid fever to Sir Ahuroth E. Wright and his co-workers. Previous to this time Pfeiffer and Kolle had done some experimental work, but the development of the method and the demonstration of its practical efficiency is due entirely to Wright. The difficulties he encountered were tremendous and one cannot speak too highly of his ability and persistence in working out this method. During the Boer war upwards of 100,000 British troops were vaccinated. The results were quite encouraging, both as regards the incidence of the disease and the mortality of those who took sick. However, they did not come up to expectations. In 1904, on the advice of Professor Koch the Germans in West Africa vaccinated more than 7,000 of their troops. Again the results were not entirely satisfactory, although encouraging. Since 1904 the work has been continued in the English Army and more than 100,000 men have been vaccinated without any bad results, and with strong evidence of protection. In India, in 1911, Col. Firth reports 112 cases of typhoid fever with six deaths among 62,624 vaccinated persons, a case incidence of 1.7 per thousand, and the mortality 94 per million. Against this there were in 8481 non-vaccinated persons 45 cases and four deaths, a case incidence of 5.3 per thousand and a mortality of 471 per million. This shows that the number of cases among the non-vaccinated was approximately five times as great as among the vaccinated.

The French have made a study of the subject and two reports have been rendered; the majority report being favorable, the minority report unfavorable. However, in actual practice Vincent reports that among the French soldiers in Morocco living in the midst of the most unhygienic surroundings there has not been one single case of typhoid fever amongst the vaccinated soldiers.

In the United States the method was studied by a Commission and a favorable report rendered in 1909. Vaccination was officially advised, but left voluntary with the soldiers. Many took the injections, and the results were so excellent that in 1911

an order was issued making it compulsory on all men and officers in the Army under 45 years of age. Without going into extensive details we may quote from the report by Col. Kean of the maneuvers along the Texas border in 1911. The Maneuver Division at San Antonio, Texas, was made up of 12,801 men. Among these men there was only one case of typhoid fever, occurring in a private of the hospital corps who had not completed his immunization. The case was very mild and recovery took place. Thus, there were among nearly 13,000 troops no deaths from typhoid fever, and only 11 deaths from all causes. During the same period of time (March, to July, 1910) there were 49 cases of typhoid fever with 19 deaths in the City of San Antonio, and at Galveston 192 cases of typhoid. With this remarkable result Col. Kean compares the fate of the 2d Division of the 7th Army Corps at Jacksonville, Florida, in 1898. This Corps was made up of 10,759 men. There were in all 2,692 cases of what was known, or believed to be, typhoid fever, 1,729 being certainly typhoid fever. There were 248 deaths from typhoid fever in a total of 281 deaths from all causes. This was about the average of typhoid incidence in the camps of our troops during the Spanish-American war, approximately one-fifth of all of our soldiers contracting typhoid fever. While, it may be admitted without argument that the sanitation of the camp at Texas was better than at Jacksonville and the other camps during the Spanish-American war, the results here given must be attributed largely to the efficiency of anti-typhoid vaccination. Up to the end of September, 1911, among 81,340 men who had been vaccinated only 12 cases of typhoid and no deaths had been reported. Although the year 1911 is considered one of unusual exposure there were only 45 cases of typhoid fever recorded during the year. In 1909 there were 173 cases and 16 deaths; 1910, 143 cases and 10 deaths. The great improvement is attributed largely to anti-typhoid vaccination.

The results recorded have been so striking that the State Hygienic Laboratory determined to manufacture and distribute anti-typhoid vaccine to physicians in the State of Wisconsin free of charge. This was begun in the fall of 1911, and up to the present time upwards of 2,000 doses have been distributed. Upwards of 1,000 of the National Guard have been already vaccinated or material has been sent for their vaccination. The laboratory recommends in addition to the vaccination of

*Read at the 66th Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 22, 1912.

the National Guard, that wherever a case of typhoid fever occurs in a family, the other members of the family under the age of 45 years be protected by vaccination.

It is too early to speak of the results of vaccination in this state, and in addition to this physicians are slow in making returns to us as requested. However, we have had some very encouraging returns, and I give here one from Watertown. Recognizing the fact that one case is not enough to draw conclusions from, nevertheless the report in this case is very striking. In a family in Watertown the wife contracted typhoid fever. She had two trained nurses in attendance. Sufficient vaccine was sent for the husband and the two nurses. One nurse refused to be vaccinated, claiming that she was immune to typhoid fever. Soon after leaving the case she became ill with typhoid fever and at the last account she had been in St. Mary's Hospital in Milwaukee for nine and one-half weeks with the prospect of remaining there for some time longer.

We are also advising the vaccination of nurses in hospitals and this has been carried out in a number of institutions in the State. The results obtained in Boston and other places are so striking that we feel it our duty to urge the practice in Wisconsin. Richardson and Spooner vaccinated 100 nurses at the Massachusetts General Hospital in 1911. For the first time in the history of the institution the hospital passed a year without having a case of typhoid fever among the nurses or attendants.

DURATION OF PROTECTION.

I am often asked concerning the duration of immunity following vaccination. We have not sufficient data in this country to pass an opinion which is of great value. At the University of Kansas where a number of students were vaccinated, the agglutinating power of the blood was examined up to one year after. It was found to have fallen to some extent but was still strong in everyone examined, so that if we can regard the agglutinating power of the blood as furnishing an index to protection, we are justified in saying that after a lapse of one year the protection is still very high. In the English Army, Col. Firth has collected statistics which lead him to conclude that the immunity begins to diminish during the second and third years, and he recommends therefore re-vaccination

at the end of two and one-half years. His tables, however, show that a considerable amount of immunity apparently remains even after four or five years. Even after this lapse of time after vaccination the case incidence per thousand among vaccinated troops is only one-fourth that of the non-vaccinated.

The vaccine used consists of the bodies of typhoid fever germs killed by heat. The temperature employed should not be above 55°C. Any temperature in excess of this weakens the protective power of the vaccine. The vaccine is preserved by the addition of one-half of one per cent of carbolic acid. In the Army three injections are given. The first dose contains 500,000,000 bacteria, and the second and third doses 1,000,000,000. The count is made by mixing the vaccine with blood and counting the bacteria and the blood cells in at least 100 different fields, comparing the number of germs found with the number of red blood cells. In civil life we are recommending only two injections, believing that with the limited amount of exposure which the average person undergoes, this is sufficient. We, however, supply the third dose whenever it is desired.

The vaccine is injected under the skin by means of the ordinary hypodermic syringe. The injection may be made in any part of the body, but the abdomen will be found one of the most convenient points of inoculation. In the United States Army it is recommended that the inoculation be made in the arm at the insertion of the deltoid muscle. The injection, wherever made, must be subcutaneous and not into the muscles. Before making the injection the skin must be cleansed as for any minor operation. The syringe and needle should be sterilized by boiling in a two per cent solution of soda. A fresh needle should be used for each patient or else the needle resterilized for each injection. The injections are best made about four o'clock in the afternoon as the greater part of the reaction following will then be over before morning. There is both a local and general reaction. Locally, a red and tender area as large as the palm of the hand will form with occasional tenderness in the neighboring glands. Suppuration has not been observed.

The general symptoms are headache and malaise with a moderate degree of fever which may persist for twenty four hours. In susceptible individuals the reaction may be more severe, and a distinct

chill may occur, but no bad results have ever been noted. Injections should only be made in those who are healthy and free from fever.

The use of alcohol in any form increases the severity of the reaction.

The vaccine is well borne by women and children, but the dose should be reduced according to the body weight.

SPONTANEOUS HEMORRHAGE IN THE NEW-BORN AND ITS TREATMENT.*

BY A. W. MYERS, M. D.,

MILWAUKEE.

One of the most curious and least understood conditions in medicine is that connected with the tendency to spontaneous bleeding which is seen in new-born children during the first few days of life. So peculiar is this condition that it has been given a name of its own and has been called the Hemorrhagic Disease of the New Born, although in all probability it is not a disease, but rather a group of widely dissimilar pathological processes having in common little but the conspicuous symptom, a tendency to uncontrollable hemorrhage, which has given rise to the name.

Under the name of the Hemorrhagic Disease are not included those hemorrhages which take place as a result of accident or trauma during birth, such as hematoma of the scalp or of the sternomastoid muscle; nor those which result from a slipping of the ligature on the cord, nor yet those small hemorrhages from the vagina which are occasionally seen during the first few days of life in girl babies.

Only those cases are considered as belonging to this group which show a tendency to persistent, causeless bleeding.

The points from which this bleeding takes place are most commonly the umbilical cord and the gastro-intestinal tract, but almost any organ or tissue in the body may be involved. Thus hemorrhages may take place into the brain or cord with considerable laceration of tissue, into the lungs, the pleural cavities, beneath the capsule of the liver or into its substance, into the peritoneal cavity, into the adrenals, the kidneys, or the blad-

der, into the skin and subcutaneous tissues, from the ear or the conjunctivae, or from the nose, mouth, esophagus, stomach, small or large bowel.

For the sake of convenience of description, but not because of any real clinical difference, Finkelshtein has divided the cases into two classes; those in which the bleeding takes place from only one point, and those in which there are multiple hemorrhages. When we come to a consideration of the treatment I shall report briefly an illustrative case of each class.

The characteristic features of these hemorrhages, whatever their situation, are their appearance during the first few days of life, usually between the second and tenth days, without any discoverable cause; their uncontrollable character as far as any of the ordinary means of hemostasis are concerned; and the tendency to complete and permanent cure in case the child survives. The value of this tendency to spontaneous cure should not be over-rated, however, for the mortality in this condition until very recently has varied from 40 to 90 per cent. But this tendency to complete and permanent cure does serve to separate the Hemorrhagic Disease from Hemophilia, although it has sometimes been incorrectly described as Hemophilia Neonatorum. At this point it is interesting to note that hemophilia is occasionally a cause of hemorrhage in the new-born. Larrabee has been able to collect thirty-seven cases in which the existence of hemophilia was demonstrated, either by a distinct history of this disease in the family, or by the baby recovering from the first hemorrhage, but in after life remaining a bleeder. These cases are the exception, however, and shed no particular light on the situation.

In most cases the child is normal at birth and there will have been nothing in the history of the previous pregnancies, in case there have been any, to rouse a suspicion of a tendency to bleeding. And apparently the condition is no more apt to develop in the first child than in later children.

The character of the labor appears to have very little influence and a history of asphyxia at birth is given in only a small percentage of the cases.

Frequently the first evidence of anything being wrong will be the discovery of a bleeding point in some of the situations already mentioned, on perhaps the second or third day of life. At first the bleeding may be slight and intermittent and sometimes it goes no further, but in most cases it becomes more and more persistent until it

*Read before the Racine County Medical Society, April 4, 1912.

becomes continuous and often it increases in volume until the total loss in weight, due chiefly to the bleeding may represent nearly or quite one-fourth of the entire body weight.

The promptness with which the condition can be recognized will depend very largely upon the location of the bleeding point or points. Massive hemorrhages may take place into the brain, the liver, or the serous cavities, causing sudden death with no external evidences of bleeding, except increasing pallor. On the other hand, hemorrhages into the stomach or bowel will usually manifest themselves promptly by the vomiting of blood or by the passage of bloody stools, usually black and tarry, but sometimes composed of bright red blood and fresh clots.

Subcutaneous hemorrhages, bleeding from the cord, or from the eyes, ears, nose, and mouth ought to be recognized promptly, the only difficulty arising in the case of slow bleeding from the nose when the blood may be swallowed. It goes without saying that in the case of vomiting of blood the breasts of the mother should be examined carefully to see if the blood has come from a fissured nipple.

In some cases there are no premonitory symptoms before the bleeding begins, but in others, as in one of those I shall describe presently, there may be marked restlessness with evident discomfort, failure to nurse properly, wakefulness, some elevation of temperature, and sometimes vomiting or diarrhoea. In the cases which show vomiting of blood or tarry stools there are frequently manifestations of abdominal distress.

The subsequent course of the disease will vary with the extent and rapidity of the loss of blood and with the situation of the bleeding points. In some cases the tendency to bleed is so slight that complete recovery will take place in a day or two without any treatment, but unfortunately most of the cases are of a more severe type and the danger of a rapidly fatal termination is very great unless effective treatment is promptly instituted.

But before considering the subject of treatment it is necessary to review briefly what we know about the causes giving rise to these hemorrhages.

In the early descriptions of the Hemorrhagic Disease the condition was attributed to such factors as asphyxia from prolonged labor, general plethora, respiratory embarrassment, vascular thrombosis, rupture of blood vessels, too early

ligation of the cord, swallowing of amniotic fluid, etc. Later on cases were described showing inflammatory conditions of the gastro-intestinal tract, with ulcerations or erosions of the mucous membranes of the esophagus, stomach, or intestine.

Then came the theory of bacterial infection, which has some strong points in its favor in many cases. For instance, the occurrence of epidemics, or at least of unusually large groups of cases in institutions in short periods of time strongly suggests the possibility of infection in these cases. Thus the report of Kilham and Mercelis shows that 18 per cent of the babies born in the New York Infirmary for Women and Children, between February 19, and May 1, 1897, developed the Hemorrhagic Disease, and although there were no cases of puerperal infection during this time, a prompt and thorough isolation of the cases was followed by a complete disappearance of the disease.

The report of Green and Swift, covering the cases developing in the Boston Lying-In Hospital from 1904 to 1910, showed a similar grouping of cases which was very suggestive.

The results of cultures made from the blood before death and from the organs post mortem in cases of spontaneous hemorrhage have been so varied that no definite opinion can be expressed. Many different organisms have been found, each in a few cases only. About the only conclusion that can be drawn is that hemorrhages may occur in the new born in the course of almost any bacterial infection. But positive cultures are rare in those cases in which the hemorrhages are early in making their appearance and in which they are the only symptom.

Syphilis has also been invoked as a causative factor, especially as causing an increased fragility of the vessels, but this view has not been sustained, and about all that can be said now is that syphilis is probably a predisposing cause in some cases. In one of the cases reported by Schloss and Commiskey, the baby gave a positive Wassermann reaction and the hemorrhagic tendency persisted in spite of treatment until mercurial inunctions were added. In this particular case the bleeding began the second day of life, but in many of the cases of bleeding in syphilitic children it is noteworthy that the hemorrhages have not begun until the second, third or fourth week, a rather later period than is customary in the true Hemorrhagic Disease.

Some very interesting experimental work has been done recently showing that spontaneous hemorrhages with icterus and widespread fatty degeneration of the viscera can be produced in the new-born of some of the lower animals by the administration of chloroform to the mother shortly before the birth of the young. These conditions can also be reproduced by interfering with the proper oxygenation of the fetal blood supply in other ways, as by ligation of some of the branches of the uterine artery.

As a result of this it has been suggested that the spontaneous hemorrhages of the new-born are the expression of a form of chloroform poisoning. On account of the extensive use of chloroform in obstetrics in this part of the world this theory might be hard to disprove clinically. For instance, in looking over the histories of ten cases of which I have personal knowledge and in which this point was covered, I find that nine of the mothers had received chloroform, although in some cases the amount given was very small; in the other case a small amount of ether had been given.

But on further investigation I have found a considerable number of cases in which no anesthetic was used and in which there was nothing to suggest premature separation of the placenta or undue pressure on the cord.

Many other theories have been advanced, but time will not permit us even to mention them all.

It is evident from these considerations that we are not dealing with a clinical entity, but with a variety of pathological conditions having in common the prominent symptom of hemorrhage which could be explained by alterations in the vessels or in the blood or both.

The situation has been well summed up by Schloss and Commiskey in the following words: "It seems highly probable that vascular lesions play an important part in the production of hemorrhage. The exact pathology, however, is not well understood.

"The coagulation of the blood is apparently the normal mechanism for the control of hemorrhage, a defect of which would give rise to persistent bleeding. But it is difficult to understand how a reduction of the blood coagulability can be sufficient in itself to inaugurate the bleeding. The immediate cause of the hemorrhage is probably dependent on some vascular lesion; the uncontrollable nature of the bleeding on defective blood-coagulation."

We know something of the factors concerned in the coagulation of the blood, but there is much for us still to learn. We know that fibrinogen is present in normal blood in fairly constant amounts, from .2 to .8 per cent of the plasma. The addition of fibrin ferment or thrombin to blood plasma containing the normal amount of fibrinogen results in the formation of a firm fibrin clot. The fibrin ferment or thrombin is not present as such in the fluid blood, but is in the form of a mother substance or pro-thrombin which is converted into thrombin only in the presence of soluble calcium salts.

Circulating blood contains normally all the necessary fibrin factors, namely, fibrinogen, pro-thrombin, and calcium. These substances are prevented from reacting upon each other and the normal fluidity of the blood is maintained, by the fact that a restraining substance or antithrombin is also present, and this substance prevents the calcium from activating the prothrombin to thrombin. In shed blood the restraining effect of the antithrombin is neutralized by the action of a substance (thromoplastin) furnished by the tissue elements, and in the mammalia also by the blood platelets.

Now the fibrinogen content of the blood may be reduced to a very low level, even to 1 per cent of the normal amount, in various diseases. This condition in the circulating blood is invariably associated with extensive liver degeneration or insufficiency, so the liver may be looked upon as an essential factor in maintaining the normal fibrinogen balance of the blood. When the fibrinogen is reduced to a low level, clotting of the blood may be only a little delayed although the "bleeding time" will be prolonged, and the clot will be more or less flabby, depending on the amount of reduction, often being too soft to close a ruptured vessel, and it is interesting to observe that in these cases there are often extensive hemorrhages from small wounds in the skin, oozing from mucous membranes and purpura.

And it is also interesting to consider that the liver of the new born is the one organ in which some degree of anatomical change and therefore probably some disturbance of physiological function is found in almost all of the conditions which have been called upon to explain the occurrence of the Hemorrhagic Disease. But lest we generalize too quickly, it is well to heed the caution expressed by Graham in a recent article: "The

temptation is strong to assume that the hemorrhagic tendency in these affections of the newly born is dependent primarily upon a process that interferes with the normal liver functioning, yet there are reasons for exercising some reserve in accepting this hypothesis, and for preferring to ascribe the hemorrhagic tendency to a more fundamental and widespread change, as a result of which not only fibrinogen, but innumerable other proteins tend to remain in solution or to pass into solution, with the result that apart from diminished blood coagulability there is a great reduction in the firmness of the vessel walls."

Prothrombin or thrombin has been found to be present in most hemorrhagic diseases, but Whipple reports a case of melena neonatorum in which prothrombin or thrombin was absent, and in this case the liver showed no evidence of any cell injury.

These results of recent studies of the coagulation of the blood, together with the beneficial effects which have been obtained in the last few years by the use of blood serum and of human blood in the treatment of the Hemorrhagic Disease give us reason to feel that we are at least on the right trail, even though we may have far to go before a clear understanding of all the causative factors in this puzzling condition will be reached.

Time will not be taken to consider all the methods that have been advocated in the treatment of the Hemorrhagic Disease. The activity of calcium salts in the process of blood coagulation has led to their extensive employment with some good results, but more failures. Gelatin solutions applied locally to the bleeding points and given subcutaneously and internally have been lauded by many. Their use subcutaneously has been limited by the difficulty in obtaining a sterile solution promptly, and when the solution is not effectively sterilized the danger of tetanus is not an imaginary one.

Transfusion of human blood has been a brilliantly successful method of treatment in some cases, but the operation of transfusion in the newborn is one of very considerable difficulty and is sometimes quite beyond the ability of the ordinary surgeon. Welch has reported a series of nearly twenty cases treated with human blood serum, without a single death, but the preparation of human serum requires laboratory facilities which are not everywhere available.

The use of horse serum, which is obtainable

almost everywhere in the form of diphtheria or other antitoxin, has given very satisfactory results, when the serum is fresh.

But the ideal method, both from the point of view of effectiveness and from that of convenience and availability seems to me to be that of the use of untreated human blood subcutaneously, the method suggested by Schloss and Commiskey in a paper published in the *American Journal of Diseases of Children* for April, 1911.

In their paper they report seven cases of spontaneous hemorrhage in the new born, treated in this manner, of which six cases recovered and one died. They say: "The fatal case was in an infant who had suffered from multiple hemorrhages for eight days and died three and one-half hours after admission to the hospital. The patient was in a moribund condition when admitted and received only a single injection of 10 cc. of blood."

The amounts of blood they used were somewhat larger than in the cases I am about to report, usually 10 c. c. of blood and sometimes 20 c. c. In my first case my attempt to use 10 c. c. of blood resulted in a partial failure on account of its prompt coagulation in the barrel of the syringe, fortunately, however, the smaller quantities sufficed.

If it is found that such small quantities of blood as I have been using bring about the desired results, the only objection to the method will be removed.

CASE REPORTS.

Mathilda J., the first child of young and healthy parents, was born at 4 a. m., June 19, 1911. The labor was not complicated nor difficult, and an anesthetic was given for only a few minutes. Chloroform was used and less than half a dram was administered. The child appeared to be normal at birth; there was no asphyxia. The birth weight was five pounds 12 ounces. Meconium was passed normally.

At noon on June 20th, when the child was thirty-two hours old, a large stool was expelled, composed entirely of tarry blood clots. This was repeated at 2, 3, 4, 5, 6 and 8 p. m. At 4, 6 and 8 p. m. the expulsion of the bloody stools was accompanied by vomiting of considerable quantities of clotted blood.

During the night the child slept quietly until 4 a. m., when there was a bloody stool with vomiting of blood. This was repeated at 7 a. m., and at 10 and 11:30 a. m. there were bloody stools without vomiting.

When seen for the first time at noon of June 21st, the child's condition seemed almost hopeless. The weight had fallen to 4 pounds 8 ounces; the mucous membranes were very pale. The skin was colorless; the cord was normal, no bleeding occurred at this point,

and there were no hemorrhages into the skin or the visible mucous membranes. Three cubic centimeters of blood were drawn from a vein of the mother's arm and quickly injected into the subcutaneous tissues of the baby's buttock before there was time for the blood to coagulate in the syringe. This was done at 12 M.

At 2:30 p. m. a stool was passed containing rather old-looking clots and a small amount of fresh blood.

At 4:30 p. m. a second injection of maternal blood was given into the other buttock. This time an attempt was made to obtain a larger amount of blood. Ten cubic centimeters were drawn into the syringe, but it took a little longer to obtain it and a longer time to inject it, the result being that coagulation occurred in the syringe when only five cubic centimeters had been injected. But although we feared the amount might be inadequate it proved to be quite sufficient. There was absolutely no more bleeding. The child was put to the breast and nursed well after the first few times. There was no vomiting, and the following stools presented the typical meconium character gradually changing to the milk stool appearance in a few days.

The blood injected was quickly absorbed, and a few hours afterward the site of injection could be recognized only by the needle puncture in the skin.

The subsequent history of the child was uneventful. On June 23rd the weight was 4 pounds 10 ounces; on July 2nd, 5 pounds, and on July 16th, 6 pounds.

Baby X. was born March 17, 1912, the second child of young and healthy parents, after a normal labor, ending with the application of low forceps. A small amount of ether was used. There was no asphyxia, the child cried normally after birth and took the breast well.

When about 12 hours old she began to moan and cry as if in pain, and kept this up almost without interruption for 24 hours. Urine and meconium were passed normally. When seen at the age of 36 hours the temperature was 102 degrees and restlessness and abdominal distress were marked, but the physical examination was negative.

The following day, when the baby was a little more than 48 hours old, there was slight bleeding from the nose, this was repeated two or three times during the day. At about the same time the stools took on the black tarry appearance of altered blood and their number increased to eight in twenty-four hours. The baby took the breast very poorly.

The child was seen again when 72 hours old. The bleeding from the nose continued and had become almost constant, there was oozing from several small hemorrhagic areas in the roof of the mouth, the umbilical cord had begun to separate and oozing of blood was taking place from the stump, although there was no evidence of infection to be seen. The tarry stools were still frequent and the amount of blood in them appeared to be increasing. The temperature was about 102 degrees and the child seemed too weak to nurse. Color very pale and at times cyanotic. Three c. cm. of blood were withdrawn from the mother's forearm and immediately injected into the baby's buttock at 10 a. m. At 5 p. m. a second injection was given, although there

had been distinct improvement. The oozing from the mouth and umbilical wound and the epistaxis had ceased, but there had been two stools still containing tarry blood.

After this the child rested better, took the breast nicely, and slept for longer periods than during any of the preceding nights. The next morning the condition was very satisfactory, the color was good, the cry was stronger, and the child nursed vigorously, but as the stool still showed altered blood, a third injection of 3 c. cm. of the mother's blood was given.

The further progress of the case was uneventful, there were no more hemorrhages, the passages took on the milk stool character, the temperature came down to normal in the course of a few days, and the child rapidly regained the weight and strength it had lost during its illness.

The ease with which this method of treatment can be carried out under any surroundings and the brilliant results reported by Schloss and Comiskey, will do much to commend it to all who have frequently encountered this alarming condition.

INTRACRANIAL INJURIES—THE VALUE OF CERTAIN SIGNS IN THE DIAGNOSIS, PROGNOSIS, AND TREATMENT.

BY C. A. EVANS, M. D.,
MILWAUKEE.

The medical profession in general has not kept pace with the progress made in cranial surgery during the last few years. Among many today the indications for surgical intervention in cranial injuries are the same as they were fifty years ago. To many it is still limited to the depressed fractures of the vault and extradural hemorrhages with marked localized symptoms. Anatomical and physiological knowledge of the brain has now changed this. The relation of increased intracranial tension to the circulation of the brain has opened up new fields. We now know that it is not necessary to have a fracture or hemorrhage to damage the brain. Any trauma to the head is liable to cause a cerebral edema and the functions of the vital centres are capable of being destroyed either directly by the trauma or indirectly by the circulatory changes and resulting edema, for cerebral edema means an increased intracranial tension. In cerebral compressions due to injury we first get a slight compression of the venous circulation which causes a passive hyperemia. The compression increasing we get a venous congestion with increased

fluid in the cerebro-spinal spaces. This interferes with the arterial circulation and causes an anemia of the vital centres of the brain and resulting death.

In cranial injuries there are certain signs and symptoms which aid us in our diagnosis, prognosis, and treatment. A brief review of these, however, will show us that we have no so-called cardinal or characteristic signs to go by in such injuries.

PUPILS. An abnormal pupil only indicates an intracranial injury and a normal pupil does not prove an absence of an intracranial injury. The pupil, as a rule, has nothing whatever to do with the nature or the location of the injury. As to the prognosis, death or recovery may occur with any condition of the pupils, but the prognosis is more grave the farther removed they are from their normal state, whether in contraction or dilatation. With both pupils dilated and fixed or both pupils contracted and fixed the prognosis is extremely bad. The Boston City Hospital records show that out of 339 cases where the pupils were observed after a basal fracture 161 had normal pupils and out of these 24% died.

PULSE. The primary pulse has some relation to the nature of the injury. Phelps from his 1,000 cases of head injuries made the following observations:

1. In cases of contusion of the brain, with or without laceration, but with no hemorrhage of importance, the pulse remained practically normal.

2. If the contusion was accompanied by a considerable hemorrhage, usually pial or cortical, the pulse was 100 or more.

3. If the essential lesion was a hemorrhage and if this hemorrhage was extradural a subnormal or unaccelerated pulse was noted in 75% of the cases. In 400 cases of basal fracture at the Boston City Hospital where observations of pulse were made, it was found to be between 70 and 100 in 80% of the cases. So a slow pulse is far from being a cardinal symptom of an intracranial injury. The primary pulse tells us nothing as to the prognosis, except that when the temperature is not above 97° and the pulse not above 66, death occurs in 75% of the cases.

RESPIRATION. As a rule changes in respiration are not diagnostic as to either the nature or location of the injury. The exception perhaps is when the respiration is shallow, with cyanosis and pulmonary edema, or when it suddenly stops or lessens to one or two respiratory acts a minute, in

this case we have an intradural hemorrhage, either pial or cortical, in one or both posterior basal fossae. An extradural hemorrhage will not cause this type of breathing. Respiratory failure being the usual cause of death we should use artificial respiration and drain the basal cisterns by a lumbar puncture while getting ready to operate.

MENTAL CONDITION. Primary consciousness or unconsciousness is a guide to the severity of the injury and is an important aid in the diagnosis and treatment. Primary unconsciousness, unless permanent or greatly prolonged, is not of much significance. Secondary unconsciousness following a free interval, however brief, is produced by some form of intracranial hemorrhage. Permanent or prolonged primary unconsciousness may be due to the severity of the cerebral injury or to a complicating hemorrhage but it is practically impossible to tell whether the hemorrhage was present from the start or had at some time replaced the cerebral lesion or whether both existed at the same time. The temperature variation is the most important means of differentiating these conditions. In prolonged unconsciousness we may have conscious intervals due to a lessening of the edema of a general cerebral injury. In a series of 307 cases in the hospital mentioned above, 168 were unconscious on admission, 58 were conscious, and the remaining 81 were in a sluggish or dazed mental condition. Of those conscious 13% died, unconscious 51% died, and those in a dazed condition 50% died. None of these cases were decompressed hence the high mortality.

TEMPERATURE. Temperature variations, as a rule, affords the most distinctive indication of the nature of the lesion, especially when considered in connection with the mental condition. From Phelps's observations we can conclude as follows:

1. With a primary temperature above 102°, or a subsequent temperature of 105° or above, not due to some other condition, recovery has never been reported.

2. The primary temperature may give no assurance as to the outcome other than above, but the nearer to normal the more favorable the prognosis, if above 100° it is unfavorable and the higher the temperature the more unfavorable the prognosis.

3. Hemorrhage in itself reduces the temperature, meningeal and cerebral contusion and laceration increase it, but here the diagnostic value is lessened owing to the fact that none of these con-

ditions exists by itself. We can, however, state that several hours after the injury, a stationary temperature of but one or two degrees above normal will indicate a hemorrhage of some size without serious cerebral injury and a higher temperature which continually increases indicates a visceral lesion.

4. The theory of the existence of a specific heat centre can not be confirmed. High temperatures have characterized cases dependent upon lesions of every part of the brain.

GENERAL BLOOD PRESSURE. We here much about this but not so much as we did a year or two ago. We will pass it by with the statement that no definite relation has been found to exist between intracranial injuries and the general arterial blood pressure. It may be normal, increased, or diminished, or vary from time to time in the same case.

CHOKED DISC. Frazier in the *J. A. M. A.* June 5, 1909, says: "a choked disc as a manifestation of intracranial tension as a result of trauma is the exception, not the rule, and therefore can not be considered of any great moment as a means of diagnosis or as a guide to treatment." Cushing in the *J. A. M. A.* June 30, 1909, speaking of intracranial injuries says: "no case in which a choked disc was present failed to show increased intracranial pressure: cases in the absence of choked disc, with possibly one or two exceptions, invariably disclosed a brain and cerebro-spinal fluid not under unusual tension." We will not take the time to cite cases, but from our experience we can say that either a choked disc is of no great value in the diagnosis of intracranial injuries or else competent eye men in Milwaukee are not able to recognize a choked disc when they see one, and this can not be the case. I believe that the surgeon who in a case with marked signs of intracranial injury fails to operate because of the absence of a choked disc does his patient as great an injustice as the surgeon who operates for no other reason than that a choked disc is present. Its absence should not deter us from operating and its presence in itself is not a sufficient indication for operation. When this paper was read before the Medical Society of Milwaukee County the above statements caused considerable adverse criticism and in order to get the opinion of others I wrote to several surgeons of note asking the following questions:

1. What is your opinion as to the value of a

choked disc in the diagnosis and treatment of intracranial injuries?

2. In your experience does a choked disc always follow an intracranial injury of any severity?

3. To what extent does the presence or absence of a choked disc influence you in your operative treatment of intracranial injuries?

The answers received were as follows:

DR. CHAS. A. ELSBERG, New York City.

1. "Choked disc is rare, but marked congestion and tortuosity of the retinal veins is frequent. While this frequently but not regularly occurs, I do not think it is of great diagnostic value."

2. "No. Only rarely have I seen slight edema of the discs, especially the one on the side of the injury."

3. "Marked filling of the retinal veins I have seen often. But I have also seen it in numerous cases of intracranial injury of mild degree where the patient recovered without operative interference. I have always considered it an evidence of edema of the brain due to the concussion. This retinal congestion is to me only a confirmatory sign."

DR. FRANK HARTLEY, New York City.

1. "I consider it of value in diagnosis."

2. "No."

3. "I consider it of great value in all cases of cerebral hypertension."

DR. JOHN B. MURPHY, Chicago, Ill.

1. "Choked disc is only valuable in a small number of cases of accidents or injury to the cranium."

2. "No."

3. "The presence or absence of choked disc influences me very little in operative treatment. There are so many other symptoms which are so important and choked disc is just one of the elements in making a diagnosis."

DR. W. E. SCHROEDER, Chicago, Ill.

1. "Choked disc is a sign of relative value only."

2. "No. The hemorrhage has to be considerable and quite rapid in order to always produce it. There are cases in which a clot of several ounces is present without a choked disc."

3. "If present it is of great value. Must be in association with other symptoms."

LUMBAR PUNCTURE. This is of value both in diagnosis and treatment. By it we can tell whether

or not there is an intradural hemorrhage and so perhaps avoid treating a basal fracture as a case of delirium tremens or common drunk. It is of course of no value in the diagnosis of an extradural hemorrhage. The pressure under which the cerebro-spinal fluid is expelled gives us a fair indication of the amount of intracranial tension. As to treatment it might even take the place of a decompression. I have seen a cranial injury case regain consciousness after a lumbar puncture and completely recover after the puncture had been repeated three times at intervals of 24 to 36 hours. It is also useful in lessening intracranial pressure while getting ready to operate. To be devoid of danger it must be done properly and under absolute aseptic precautions. It should never be done in a case of suspected brain tumor unless the dura has first been opened. The patient should be lying down, the fluid should not be allowed to run out too rapidly and the needle should be removed as soon as the pressure is lowered to about normal. If the pressure is not increased remove the needle as soon as the character of the fluid has been determined. An attempt should never be made to see how much can be removed. In a series of over forty lumbar punctures, most of them in intracranial injuries, I have seen no harm result yet I can see the possibility of harm in draining the cisterns about the medulla in a case with a large subtentorial hemorrhage.

We have taken up a few of the characteristic signs and symptoms of intracranial injuries and we can easily see the difficulty and in many cases the impossibility of diagnosing the nature and location of such an injury. Often the best we can do is to diagnose an intracranial injury and that is really sufficient, for the whole question of intracranial injuries is one of intracranial pressure, whether this pressure is due to a contusion, a laceration, a fracture, or a hemorrhage; whether this hemorrhage is meningeal, pial, or cortical; and whether diffuse or local. On the amount of this intracranial tension and on the ability of the brain to withstand it depend the life or death of the patient. And when we wait for the pressure symptoms to clear up or for a choked disc to appear we gamble with the life of our patient.

Now then briefly what do we find after a severe intracranial injury. A tightly closed box, the skull, and inside this a swollen edematous brain pressed upon on all sides by an increased amount

of cerebro-spinal fluid, with or without hemorrhage, all tending to produce an anemia of the vital centres and death. Why not treat the brain as we would any other part of the body under like circumstances? What would happen to a severely contused foot with the soft structures filled with blood and serum if multiple incisions were not made to relieve the pressure? Or what would happen to a rapidly swelling extremity if a too tight plaster dressing were applied and not cut to relieve the tension? The same thing happens to the brain under the great intracranial tension. It may be more difficult to open the skull than to open a plaster dressing yet Cushing has given us an operation for decompression of the brain so easy to do and so wonderful as to its results that I can not see why it is not more generally used.

The advantages of this operation are:

1. It will disclose an extradural clot from the middle meningeal artery.
2. If the middle meningeal is ruptured it can be brought into view and ligated.
3. This is the most common place for an isolated subdural clot.
4. The tips of the temporal lobe are the most frequently lacerated.
5. Most basal fractures run into the middle fossa so free bleeding is best drained here.
6. The great subarachnoid cisterns of the brain are best drained here.
7. By drainage we lessen the chances of meningitis which might come from the nose or ear.
8. It is through the thinnest available part of the skull.
9. The incision is through a split muscle so even when a large amount of bone and dura is removed the brain is protected and a hernia prevented.
10. It is in a so-called mute area of the brain.
11. It reduces the mortality of cranial injuries thirty per cent. (Cushing.)

I do not want to be understood as advocating surgical intervention in every case of intracranial injury. We know that there are cases that will recover without operation, some recovering completely, and some with after effects, more or less permanent, which might have been prevented by operation. Many cases will die whether we operate or not, but no case ought to be considered so severe as to contraindicate operation. And again there is a large percentage of cases, about thirty

per cent., which will recover only after surgical intervention, some of these recovering after a decompression of one side and others only after a double decompression.

PHENOLSULPHONEPHTHALEIN ELIMINATION IN NEPHRITIS, CLINICAL REPORT WITH CASES.*

BY J. B. JAMES, M. D.,
MILWAUKEE COUNTY HOSPITAL,
WAUWATOSA.

From the earliest times when men merely dabbled in medicine, to the present time when our knowledge of physiology and pathology has become somewhat more extensive, the organs which have given men the most worry, the hardest study, the least results, exclusive of the ductless glands, are the kidneys. Inaccessible, difficult of manipulation, with physiology not thoroughly understood and pathology less so, they have constantly proven a stumbling block.

Among our forefathers in medicine and the men of the present generation there has always been a demand, and an urgent one, in all conditions in which the kidney has been involved, to know within certain limitations just what might be expected of a given kidney,—how much might be demanded, how near incompetency it really was, and, vital to the patient, whether or not it would last through a given crisis.

There has always existed that grave doubt as to how much reliance could be placed on clinical evidence.

Laboratory tests have been many and varied from the computing of the excretory products found in the urine to the various tests for kidney permeability. All have proven disappointing in some respects.

Quantitative and qualitative estimations of the various excretory products have proven of great value, the permeability tests of methylene blue, indigo carmine, rosanalin, and phlorizine have been of great value but in many cases have had varying results, sometimes unexplained increases in permeability where lesions of distinct destructive nature were known to exist and occasionally we have obtained results which we could not harmonize with the autopsy findings. Many of our

permeability tests have complex technique and require a fairly extensive laboratory to make proper use of them.

Within the last year Geraghty and Rowntree of Baltimore have brought to the attention of the medical world a new test, in principle and theory not differing greatly from former tests, but unique in that its technic is simple, that it is not productive of any untoward results, and that its results are much more reliable than some of our former tests. This new drug is phenolsulphonephthalein. It was first described by Remoen in 1884, and was used by Abel in his work on constipation. He found that this drug was eliminated almost exclusively by the kidneys, and it was on this account suggested as a renal competency test.

The drug is a reddish purple powder fairly soluble in water, especially so in alkaline solution, is non-toxic and non-irritating locally. It is used dissolved in normal salt solution, its dosage being set at six mg. this amount being given in 1 cc. of normal salt solution.

The method of administering the drug is as follows: About twenty minutes to half an hour before giving the drug the patient is given 500 cc. of water by mouth to insure elimination from the kidneys. Immediately preceding the giving of the drug the patient is catheterized and this specimen used as a control for the urinary findings.

The drug is given hypodermically, intramuscularly, or intravenously. The method of choice is intramuscularly, the drug being injected deeply into the lumbar muscles. It has been shown that given in this way the drug is eliminated in about five per cent. greater quantity and five per cent. quicker than by the subcutaneous method and the difficulties of absorption sometimes due to edema are in part avoided. The intravenous method has, except for special cases, been discarded because of the extreme rapidity with which the drug is eliminated.

The patient after being catheterized is given the drug, the catheter left in situ and the urine allowed to drain into a receptacle containing a small amount of sodium hydroxide. The time of the first appearance of the drug is noted. This is shown by a reddish tint in the urine when coming in contact with the sodium hydroxide.

After the first appearance of the color, the catheter is withdrawn and the patient instructed to void urine at the end of the first hour and at the end of the second hour. In many cases in which

*Read before the Milwaukee Medical Society, April 9, 1912.

prostatic trouble is present, or much residual urine is found it is best to let the catheter remain in situ.

In many cases we have determined approximately when color first appears by having the patient urinate frequently for the first few minutes following injection of the drug, and thus noting the first appearance of color.

The color in a normal person first appears in from four to twenty minutes. We have learned, however, that less importance is to be placed on early appearance of the drug than on the total amounts excreted in the first and second hours.

As can be readily seen the amount of urine for a given hour will vary greatly in different patients, and in the same patient at different times, but it seems to make little difference in the final determinations whether 5 cc. or 100 cc. are withdrawn, in fact we have recovered 50% of the drug in 6 cc. of urine and less than 2% in 100 cc.

The specimen when collected, if acid in reaction has a pale lemon yellow color; on the addition of sodium hydroxide it becomes a purple red, varying in intensity according to the amount excreted.

These specimens when collected are diluted to 1,000 cc. and with a colorimeter the given solution is matched up with a standard solution consisting of six mg. of the drug in 1,000 cc. of water. It will be remembered that six mg. was our initial dose. The colorimeter used is the especially modified Autenreith-Konigsberger colorimeter. The standard solution being placed in a wedge shaped cup, the given solution in a similar small cup, and colors matched, the readings can be made from a graduated scale. This colorimeter has the common fault of others that the lower readings are less accurate than the higher, though the percentage of error is comparatively small.

An excellent method and a comparatively accurate one is with the use of graduated cylinders. The known solution in a cylinder can be diluted to read with a given specimen in a similar cylinder and fairly accurate results obtained. A slight source of error to be borne in mind is found in the intensity of the color of the urine in a given specimen. Where the color is intense it is sometimes a source of error in computation.

The total amount of the drug excreted in the given two hours varies somewhat even in normal individuals and in the same individuals within

slight limitations even during health but it usually constant within from three to eight per cent.

In a series of about 30 normal cases in which the drug was given at the County Hospital it was found that the average elimination for the series was 73% and varied between the lowest reading of 54% and one case in which all of the drug was recovered. In only one case was this latter condition found.

During the first hour from 35 to 55% of the drug appears, during the second hour from 20 to 30% and just traces are found at the end of the fourth hour, though in cases of delayed excretion in kidney disease small amounts have been found at the end of twenty-four hours.

The principle of the test for permeability of the kidney lies, first, in the early appearance of the drug, to which we do not attach great importance, and, second, in the amount excreted in a given time. Two hours has been found the most satisfactory time for comparison of results.

As yet we have found no condition in which the kidney permeability has been apparently increased as in some cases which prove puzzling with the use of methylene blue.

In many cases of so-called chronic kidney disease of all types we have found the elimination almost normal, but where the lesion is active even though chronic, the elimination has been found decreased. In questionable cases we have been able to tell when clinical evidence was scant whether the patient's condition was improving, whether he was withstanding the attack on his kidneys or whether he was "losing" ground, a few cases from our series will illustrate these points.

CASE I. J. M., Hosp. No. 9986, a white male of 36, diagnosis chronic parenchymatous nephritis; came to hospital September 10, eliminating 2,000 c.c. of urine daily with 16 gm. albumin per litre, specific gravity of 1.018, with hyaline and finely granular casts. Moderate edema of feet and legs. On September 27, 1911, his excretion was 27% for the first hour, 27% for the second hour, he was up and about the wards "feeling fine"; evidently no signs of incompetency remaining. Tests were not again made until February 8, 1912, when he eliminated 12% and 35% respectively, and was still in fairly good condition. On the 18th of March he developed some slight edema again became tired more easily than formerly and his phthalein excretion fell to 12% and 13% respectively, and on April 22, this excretion was 13% and 13% respectively. We there have a numerical index of the gradual failure of the patient's kidneys. We have reason to believe he is nearing an incompetency.

CASE 2. Hosp. No. 10519, a case of mitral insufficiency in which 2.5 gm. of albumin per litre was noted on his entrance, with hyaline and finely granular casts and a sp. gr. of 1,016. His elimination at the end of the second hour was 82%. There had always been a question in our minds as to which was the more prominent lesion; kidney or heart. This cleared the diagnosis conclusively as was proven later when the patient left the Hospital, with a compensated heart and urine free from albumin and casts, normal in sp. gr. and amount.

CASE 3. G. H., Hosp. No. 10,067, showing moderate edema of feet, edema of eyelids, slight signs of uremia. Urine, albumin .25 per litre. Total excretion 2,200 c.c. with sp. gr. of 1,010, with three or four hyaline casts per $\frac{3}{4}$ field.

His elimination was found to be 37.5% and two weeks later it was 56%. Two months later patient left the hospital with faintest trace of albumin, no edema or evidence of uremia.

CASE 4. H. N., Hosp. No. 10,673. Diagnosis: Myocarditis with wild delirium cordis and signs of cardiac insufficiency. Urine showed albumin 1 gm. per litre, with daily excretion of 1,400 c.c., of 1,014 sp. gr., five or six hyaline casts per $\frac{3}{4}$ field. Phthalein excretion showed 10.5 and 16% respectively, a distinct kidney incompetency as well as cardiac failure as shown by delayed excretion. After a course of digitalis the heart became quieter and phthalein excretion rose to 49% in two hours and patient left the hospital in seven weeks from entrance without a trace of albumin and elimination of 55%.

CASE 5. No. 10,114. Diagnosis: Chronic Interstitial Nephritis showing edema, slight cardiac murmur, etc. Urine showed 2 gm. of albumin per litre, passing 1,900 c.c. daily with sp. gr. of 1,014, with many hyaline casts and white blood cells. Phthalein excretion was 51% in two hours, color appeared in four minutes, and he left the hospital in five weeks much improved with only a trace of albumin.

CASE 6. J. P., No. 10,607. Diagnosis: Chronic Interstitial Nephritis with moderate edema of feet and eyelids, no signs of uremia, with urine showing 1.5 gm. of albumin per litre, passing 1,700 c.c. of a sp. gr. 1,010 daily, with many hyaline casts and white blood cells. He has evidence of mild renal failure but phthalein excretion showed 36.5% for the first hour and 21% for the second. He left the hospital four and a half weeks later with only a trace of albumin and very much improved.

CASE 7. J. W., No. 10,108, with diagnosis of paraplegia showed on admission in September, 1911, fields packed with white cells with $\frac{3}{8}$ gm. of albumin but no casts.

His excretion was 6.8% in two hours, four days later it was 18.6% in two hours. On February 10, 1912, it was 68% and on March 12, it was 64%.

This man's kidneys evidently suffered an intense shock following his paraplegia but his phthalein excretion was a distinct index to their resistance. The man today has albumin due to an extreme cystitis, but his kidneys are still competent.

In these few selected cases which illustrate our series, is shown what can be expected in nephritics who show a subnormal but an increasing elimination of the drug. The prognosis we have found can be based on the increase or decrease in elimination of phthalein. We have also been able to differentiate approximately in given cases of cardio-renal syndromes which was the more prominent lesion and to treat a given case accordingly.

As stated above in Case II. it was puzzling to know which of the two given lesions was primary but it was proven by the high elimination that the cardiac lesion was of greatest moment.

Contrasting these cases with the following we find another very important application of the test to the prognosis in a given case.

W. D., No. 10,562. Diagnosis: Acute parenchymatous nephritis. The patient admitted with edema of feet and serotum and signs of renal incompetency but no signs of impending coma.

Urine showed albumin 8.5 gm. per litre, excretion of 150 to 200 c.c. with a sp. gr. of 1,034, and finely and coarsely granular casts with many blood cells.

His phthalein excretion for the first hour was nothing, for the second 1.5%. Three days later he abruptly passed into coma, 1,000 c.c. of blood were removed from the median basilic vein, the patient's elimination increased by catharsis and by sweating and he recovered temporarily.

He was given nitroglycerine (his blood pressure was 190), and everything possible was done to relieve the kidneys. After a week of careful treatment his elimination was 4.5%, three weeks following coma it was still 4.5%, five weeks after it 4% and five and one-half weeks from his entrance to the hospital he died in coma his elimination again dropping to 1.5%.

Autopsy showed a tubular nephritis, in many places tubules entirely denuded of epithelium, but with many interstitial changes, with a large increase in connective tissue. Glomeruli were swollen, many faint straining cells in all stages of degeneration. The lesion was in the nature of a diffuse nephritis.

R. K., No. 10,896. Diagnosis: Chronic parenchymatous nephritis came to hospital with ascites and edema of feet, no signs of uremia. Blood pressure 190.

Urine showed albumin 4.5 gm. per litre, with 800 c.c. of sp. gr. 1,032 voided in 24 hours, with finely granular and coarsely granular casts.

This man had an elimination in 2 hours of 9%, in one week his elimination dropped to 2% and two and a half weeks later he died in coma. Autopsy showed a diffuse nephritis, many tubules denuded of epithelium, slight interstitial change.

J. S., No. 10,592. Diagnosis: Chronic parenchymatous nephritis. This patient while in the hospital developed a stomatitis and pharyngitis. He had considerable edema and signs of renal failure. Urine showed 8 gm. of albumin per litre, a sp. gr. of 1,020, 1,300 c.c. voided daily.

His elimination five days before he died with moderate signs of uremia at the time was 2%. He died in coma. Autopsy showed a diffuse nephritis with marked tubular degeneration.

F. M. Came to hospital with a heart lesion, moderate edema of feet and scrotum. Urine showed albumin abundant, with one or two hyaline casts per $\frac{1}{2}$ field and a few red blood cells. He reacted poorly to treatment, had been in hospital about two weeks with no change in heart's condition when it was found that his elimination was only the faintest trace in two hours. We predicted coma and patient died in coma 8 days later. Autopsy was not permitted.

F. L. Diagnosis: Cardiac asthma with arterio-sclerosis. This patient's urine showed 2.5 gm. of albumin per litre, with a daily excretion of 800 c.c. of 1,022 sp. gr., with numerous coarsely granular casts and pus cells. He had a blood pressure of 210. When phthalein was given he excreted but a trace at the end of two hours. The patient died in coma eight days later though not the slightest evidence existed of impending coma when the test was made. Autopsy not permitted.

F. B. No. 2,020. Diagnosis: Acute hemorrhagic nephritis following a generalized septicemia. Urine showed a daily elimination of 150 c.c., a sp. gr. of 1,030, field packed with pus cells, and blood found chemically and microscopically. Phthalein was given and patient catheterized several times in 24 hours, a thick, glairy, muco-purulent urine was obtained without the slightest trace of the drug being present. The patient died 24 hours later in coma.

Autopsy showed an acute diffuse hemorrhagic nephritis with the kidneys reduced to mere gelatinous masses, with complete degeneration of kidney substance.

A very interesting case when an early phthalein test would have been of extreme value was that of H. W., admitted to the hospital for hemorrhoids. His urine showed a trace of albumin, he excreted 1,300 c.c. daily with a sp. gr. of 1,009. He insisted on operation and same was done against our best judgment.

Anesthesia was short, the operation seemingly insignificant but he made a poor recovery from the ether, responded poorly to treatment, and the phthalein at this time was found to be less than 1% in two hours. He died two days later in coma. Autopsy showed a small, hard, granular arterio-sclerotic kidney. His death was probably hastened several days by this apparently insignificant operation which could probably have been avoided had we been better posted as to his real renal condition.

R. K. was admitted to the hospital with gout. He had nodosities on hands and topi of ears. While in the hospital he suddenly began to have pain at the site of an old herpes zoster, developed slight temperature and edema of feet. Urine showed 3.5 gm. of albumin per litre, with hyaline and granular casts. On March 27th his excretion was 2% for the first and 4% for the second hour but no evidence of impending coma, the patient cheerful and insisting that he was not ill. Five days later he died in coma, ten days from the onset of his acute nephritis. Autopsy was not permitted.

To quote more cases is tiresome but we have found that it is possible in cases where the lesion is severe, in cases where doubt exists as to the relative prognosis, to predict alone with this drug and even to judge approximately the time before an oncoming coma, even when clinical evidence was scant in support of our prognosis.

The work done with diuretics and phthalein with us has been rather limited. We have used theosin sodium acetate intravenously with phthalein and found that it does not materially increase the output of the drug in a given time. In nearly all our cases where the refrigerant diuretics have been used it has made little or no difference in the quantitative excretion in a given time.

In our small series of cases our results have compared very closely with the work of Geraghty and Rowntree and our conclusions are substantially theirs, namely:

1. Phenolsulphonophthalein is a drug of greatest value. A non-toxic, non-irritant drug used without untoward results, its technic so simple that it can be done as a routine on all renal cases and suspicious cases.

2. It gives a numerical index to the efficiency of given kidneys.

3. It gives an index in determining whether or not a given kidney is becoming more or less competent during a given disease.

4. By its use we can determine whether or not the kidney lesion is the chief lesion, an important factor or a negligible factor in a complex case involving other organs than the kidney.

5. The approximate extent and severity of the lesion can be ascertained.

6. Other conditions existing, when the kidney lesion may be overlooked, and accident follow, can be avoided by the use of the drug.

7. Oncoming coma can be predicted, expected and treated accordingly.

This drug has already assumed an almost indispensable place in medicine and may help to fill the place for which vigorous search has been made ever since man first began to be interested in kidneys.

NOTE—The case reports and data for this paper are taken from the case histories of patients admitted to the Milwaukee County Hospital.

TREATMENT OF AND THE INDISCREET
SUTURING OF LACERATED AND
CONTUSED WOUNDS.*

BY ALBERT J. PULLEN, M. D.,

NORTH FOND DU LAC.

The rapid strides and advancement in all departments of operative surgery have been such in the last few years that it is not the intention or aim of the writer to present anything new, or unusual, but rather to call attention to some points which may be made available and useful to us as railway surgeons.

Perhaps in no branch of surgery do the efforts, experiments and investigations show any more marked results than that directed toward the saving of part or all of injured extremities. Clinical results show that bone can be united, muscles and tendons spliced, nerves brought together and blood vessels anastomosed by ingenious methods, thus restoring all these parts to useful activity.

The question involved when confronted with a badly lacerated or contused wound of any part of the body is perhaps a little complex and requires skill and judgment on the part of the operator. The experience of the past few years has led me to believe that most surgeons are too active in treating such cases, and in an effort to destroy infection which is likely to enter lacerated and contused wounds at the time of the accident, it often happens that more infection is introduced, and that the involved tissues are so injured by the antiseptics used and the indiscreet suturing that the cell resistance is materially lowered and an ideal field is prepared for bacterial growth and invasion. In addition the part is usually so encased in dressings as partially or completely to exclude the air, which has a tendency to aid the growth and multiplication of septic microorganisms.

We as abdominal surgeons are most careful not to permit antiseptic solutions such as bichlorid, carbolic acid, etc., to find entrance to the peritoneal cavity because we realize the damage which these substances do to the living cells lining the organs found in these cavities, and we wish to avoid lowering the natural resistance of the tissues involved. Yet in wounds of the hands, face and scalp, the custom of scrubbing with soap and

water, followed by strong antiseptic solutions, is well-nigh universal. Not satisfied with this many surgeons apply moist dressings wrung from carbolic acid, bichlorid or formaldehyd solutions, forgetting that if the antiseptic action is sufficient to destroy microorganisms it is sufficient to destroy the protoplasm of the cells of the lacerated tissue, and today a portion of our railway surgeons are cumbering themselves with a laborious technic and depriving their patients of the advantages of tr. of iodine which is a much more perfect aseptic, and in emergency cases a valuable saving of time in the preparation of the field of operation.

It has also been my experience that we cannot always tell at the first examination and dressing, what in some cases, at first sight, seems injured beyond repair will after a lapse of a few hours show many signs of life. It has been my custom, if the patient is young or below middle age, and otherwise vigorous and healthy, to dress the injured parts in a sterile dressing and wait one or two days for an indication of what portion may be repaired.

A wound that if properly handled, or sometimes if let alone altogether would heal without suppuration, is converted into a suppurating wound by the misdirected efforts of the surgeon by suturing the parts, cutting off the already impaired blood supply. Scar tissue, prolonged disability, and possibly partial or total loss of function are the results.

I am informed by the best authority "that there are as many limbs lost through indiscreetness of suturing wounds of lacerated and crushed extremities, which in turn cut off the circulation followed by gangrene and the inevitable amputation, as are lost by pure crushing injuries." It is well known to us as railway surgeons that tight sutures cause tissue necrosis and hence predispose to infection. Now should infection occur, this would become swollen, tender, painful and discolored, and the temperature of your patient soon becomes elevated. In such a condition, cut the stitches, disinfect, drain and make a liberal application of tr. of iodine.

My experience of the past eleven years and the care of approximately 5,000 contused and lacerated wounds covers a wide range of injuries varying in intensity from a lacerated finger to a crushed thigh, and the results during the past

*Read at fifth annual meeting M., St. P. & S. S. M. R'y Surgical Association, Chicago, Oct. 16, 17, 1911.

four or five years have been almost invariably healing without pus and for these results I credit the free use of green soap, sterile water and iodin.

If it is necessary to cleanse the tissue around the wound, the wound itself should be first covered with antiseptic gauze, so neither the infection from the skin nor the solution used may find access to the wound.

It has always offended my sense of asepsis to see the dirt from surrounding tissues washed into the open wound and then an attempt made to cleanse these ragged surfaces with water and bichlorid. If the wound was not pretty well filled with microorganisms before, it is quite sure to be after the deluge of soap and water has disseminated the dirt to every crevice of the injury. The attempt then to reach these organisms with bichlorid or carbolic acid is frustrated by the coagulation of serum.

The efficiency of iodin sterilization cannot be questioned and its simplicity should appeal to every surgeon, particularly those called to do emergency work.

In scalp wounds, it is my custom to moisten the hair on either side of the wound with the soap solution, and, if possible, shave the scalp without allowing the solution to enter the wound.

Whether the injury is on the hand, face or scalp, I gently swab the wounded area and the adjacent skin with tr. of iodin after controlling the hemorrhage. If large areas of skin have been destroyed this is very painful, and may in some cases have to be omitted. After suturing, I again paint the wound and adjacent skin with iodin.

I think I am safe in saying that tr. of iodin is very superior to 95 per cent alcohol as an antiseptic, and that it destroys all pathogenic organisms found in the deeper layers of the skin within three minutes of the time it is painted on the surface. Iodin in various solutions has been used by different surgeons for the past fifteen or twenty years, but mostly in an experimental way and with differing opinions as to its efficiency, and it is only within the past few years that writers have begun to urge its use to the exclusion of bichlorid and carbolic acid.

All large or deep wounds require free drainage for at least 24 hours by means of a tube, strands of horse hair, silk, catgut or gauze. An infected

wound must invariably be drained. Good drainage may—to a considerable extent—compensate for imperfect antiseptics. We know a dry dressing absorbs wound fluids quickly. I change the dressings in 24 hours or sooner if they become soaked with discharge.

Dressings are changed for cause, but not according to schedule time; as long as the temperature remains normal and the wound free from pain, if the dressing is not wet with discharge, it can be left in place for a considerable time. If pus forms, open the wound at once.

We have a large class of contused wounds of the hands, face and scalp, where there is no solution of continuity of the skin. For these, and for the lacerated and incised wounds where sepsis occurs, I know of no treatment comparable to artificial hyperemia, combined with complete rest. The hyperemia may be produced by hot water. If this method is used intelligently and persistently, the disability of most cases is materially shortened and suppuration is often averted.

Occasionally wounds of the hands and face have coal cinders ground into them and when healed we know them as "Blue marks." Such marks are absolutely preventable if taken in hand promptly. I treat them mechanically, at the first dressing using a sharp curet, going over the whole surface carefully. A 5 per cent solution of carbolic acid will usually anesthetize the parts sufficiently to do the work; if it does not, I would advise a general anesthetic.

Blue marks of the face and hands, large cicatricial tissues, deformity of the hands and feet are all conducive to lawsuits and are consequently expensive for a railway company, as well as being humiliating to the surgeon. And yet, how many of our surgeons are adding traumatism to traumatism, and infection to infection, and then providing the best possible protection and all the factors necessary for the rapid incubation and multiplication of the pathogenic microorganisms?

Therefore, if in the treatment of these wounds, we can get some simple technic that you and I can use under all circumstances and not do any damage, or at least one having the greatest efficiency with the least damaging effect, I think it is well worth using.

CLINICAL DEPARTMENT

CHILDBIRTH AFTER APPARENT MENOPAUSE.

BY LOUIS H. NOWACK, M. D.,
WATERTOWN.

Literature on this subject being rare, as is also the occurrence of a pregnancy five years after a complete cessation of the menstrual flow, and the return of the normal menstruation following such a labor, I feel justified in considering this a sufficiently rare case to report upon.

Patient. Mrs. G., born in Wisconsin, German parentage, age 42 yrs., 3 children—all living.

Family History. Grandmother, mother and one sister, each had normal menstrual history and normal pregnancies. Mother had an early menopause, at 43 years.

Menstrual History. Menstruation began at 14 years, 28 day type, 5-6 days duration, painless and of normal amount. Pregnancies normal, with menstruation recurring after period of lactation except in the case of the last puerperium.

On December 1st, 1910, I was consulted in regard to Mrs. G., by her husband, because of a troublesome eructation of gas, which condition was said to have begun about two weeks previous. Expecting that this malady might be the initial picture of the early symptoms of a pregnancy, I inquired into her menstrual history and learned the following: Her last baby had been born in the fall of 1904, was breast-fed for one year, then weaned, but the menstrual flow never returned thereafter. In the summer of 1906, following an automobile accident in a neighboring city, the patient had just enough of a flow from the vagina to show on the inner garments, no more than four to five drops she claimed, and up to the date above given there was not a hint of a vicarious process. With no menstruation date to go by therefore, and her history naturally suggesting no possibility of an existing pregnancy, I placed her on therapeutic agents versus the gas eructations, but without avail.

Each successive day found the condition more severe. At the end of one week, feeling that the case might be an anomaly of rare occurrence, I suggested the possibility of a pregnancy, this with a great deal of uncertainty in my mind, and asked

for an examination. This was granted, but I found nothing but a very slight amount of cervical softening, apparently not sufficient to suggest a two month's pregnancy.

In view of (a) the distressing eructations, and (b) the cervical softening, I was reassured that my suspicion of an existing pregnancy was not without foundation, and though my diagnosis was disbelieved by the family, and I feel doubted by the fellow members of the profession with whom I shared the facts of the case, I held fast to my diagnosis.

The search for literature on the subject followed, the result of which was the finding of but one article, original in the *Journal A. M. A.* Vol. LV. No. 7, page 568.

On January 1, 1911, I examined the mother again, and found typical cervical softening, normal uterine enlargement in keeping with the third month, vaginal discoloration and breast enlargement. From that time on each change was normal, the gastric systems rapidly disappeared in two weeks time, and on July 12, 1911, the patient gave birth to a twelve pound boy.

The puerperium was normal, breast-feeding successfully carried on until the 8th month, and since then two menstrual periods have periodically recurred.

TONSIL ENUCLEATION.

BY L. J. DE SWARTE, A. B., M. D.,
MILWAUKEE.

With the numerous methods of tonsillectomy in practice, almost as many methods as operators, one is rather diffident in offering a new procedure. However the very fact that so many methods exist bears testimony that the ideal has not yet been found. Although the operation in skilled hands may seem easy, yet to perform a good tonsillectomy is not easy, and I therefore offer the following procedure which has many advantages over former methods.

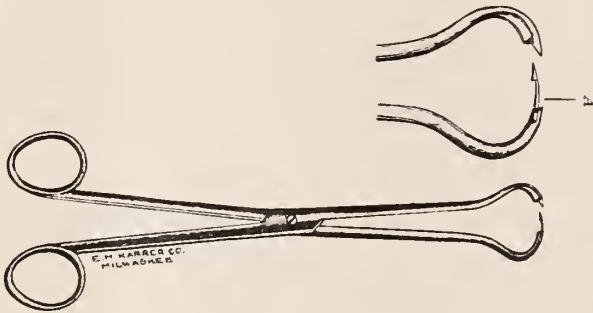
I vary the method slightly, depending on whether a general or local anesthetic is used. Under local anesthesia the patient previous to operation is instructed to use an antiseptic mouth wash and dissolve formamint tablets in the mouth. This reduces the chances of infection and hastens healing. The field of operation is next rendered

anesthetic by the injection of a 2% isotonic novocaine adrenalin solution as follows: With a needle (Fig. 1.) bent at almost a right angle at



the distal end I inject the solution, first in the lower part of the anterior pillar, then into the lower part of the posterior pillar, and finally into the upper commissure. I prefer novocaine to cocaine as being just as efficient and very much less toxic,—about 1/10 as toxic as cocaine. The use of this needle I consider very important because one can accurately inject at the exact place desired without loss of any of the solution, which so readily happens with the straight needle. The straight needle either passes too far through the narrow pillar and the solution trickles from tip of the opening, or the needle does not go deep enough and solution trickles from the other end.

The field of operation being rendered anesthetic a suture is passed through the tonsil with my automatic tonsil suture. (Fig. 2.) This suture



is used instead of a tonsil forceps to exert traction when loosening the tonsil from the pillars and later when insinuating the snare loop about the base of the tonsil. To loosen the adhesions between tonsil and pillars any of the various hook knives may be used; I prefer either an ordinary Killian sphenoidal hook or a knife of similar construction, with a blunt tip.

The advantages of the suture are: 1. One less instrument in the mouth to obscure our view and interfere with our manipulations in an already small cavity. 2. The patient can easily expectorate any fluids without our being obliged to release our hold on the tonsil. 3. The suture does not cut through tonsil as do the tonsil forceps, especially in a fragile tonsil. 4. Both tonsils may be anchored before beginning operation. 5. The operation is much shortened. 6. Traction can be

made at the beginning of operation before the tonsil is freed from adhesions. 7. The operation is much more agreeable to the patient.

After the tonsil is freed from the adhesions the snare is passed over the suture and by gentle, yet firm, manipulation the wire loop is pressed to the base of the tonsil which is shelled out with capsule when the snare loop is closed. The snare is preferable to the knife or scissors as being safer, quicker and less liable to cause hemorrhage.

In operating under a general anesthetic we are liable to get more hemorrhage, and as a consequence, after removing one tonsil the field of operation of the second is more or less obscured. Here an injection into the pillars of the tonsils of a solution of adrenalin will often control the bleeding. With this obscured field one is liable to remove more or less of the uvula. To avoid any such a possibility a suture is passed through the uvula with the automatic suture and tied to a tooth out of the way to one side. To control post-operative tonsillar hemorrhage the anterior and posterior pillars are sutured together with the automatic suture. This is very quickly and easily done. This suture is much superior to any device now being used for tonsillar hemorrhage.

As to the larger instruments which clamp the field of operation with one blade in the mouth and the other on the neck there is no comparison: the only other means of controlling bleeding worthy of consideration is the Mikulitz clamp, but here again the suture is superior because one can regulate the amount of tissue to be included in the suture thereby avoiding the possibility of necrosis.

As to the indications for tonsillectomy I would mention the following: 1. Enlarged tonsils which interfere with proper speech. 2. Recurrent attacks of tonsillitis. 3. Recurrent attacks of peritonsillar abscess. 4. Small submerged but diseased tonsils. 5. Tonsillitis lacunaris chronica, where the crypts are plugged with white masses causing bad taste in the mouth, foetor ex ore, irritation of the throat, feeling of foreign body, and sometimes these plugs by being swallowed cause indisposition or disturbances of digestion. 6. In patients who have had a severe infection originating from the tonsils, as such patients are predisposed to a new infection from the tonsils. 7. In adenitis colli, often tubercular.

The after treatment. There is not much to be

done; formamint tablets dissolved in the mouth at frequent intervals counteract infection and hasten healing. Stypticin is given to reduce the tendency to bleeding. In cases operated on under a general anesthetic ice cream given a few hours after operation has a soothing effect on the wounded tissues and is very agreeable and well retained by the stomach, besides helping to control hemorrhage.

A CASE OF OPTIC NEURITIS AFTER WHOOPING COUGH. Wiegmann, E., Hildesheim. (*Klin. Mon. für Aug.* 50, I, April, 1912, p. 460.) On May 3, 1911, a woman, aged 40, consulted W. on account of occasional obstructions of sight within the last two weeks, which set in after changing the position of the body or head, e. g., after stooping in reading and writing. V was nearly normal, the visual field showed a slight contraction for colors. Both optic discs were very red, their borders indistinct, veins enlarged, the tissue of the discs slightly opaque, the lamina cribrosa and walls of the vessels on the discs veiled. The discs were swollen, but not projecting. Near the left disc were two small retinal hemorrhages. The treatment consisted in ironsojodin. On January 25, 1912, the ophthalmoscopic condition was about the same, but the discs were somewhat paler and the arteries narrower. There was a slight contraction of the left visual field in the inferior nasal quadrant.

The only etiological element was, that the patient suffered the preceding winter for one-quarter year from a severe whooping cough. W. attributes the obscurations after changing the position of the head to transient disturbances of circulation. The affection of the optic nerve may have been produced mechanically by intracranial transudations in consequence of venous stasis, brought about by the paroxysms of whooping cough, or by hemorrhages in the optic sheathes or by toxins of whooping cough bacilli, described by Bordet and Gengou.

ON THE TOXICITY OF METHYL ALCOHOL. Harnack, Erich, Halle a. S. (*Deutsche Medizinische Wochenschrift*, 1912, No. 8, p. 358.) The investigations of Pohl showed that methyl alcohol undergoes in the body a slow oxydation to formic acid, which appears in the urine. This is apparently the reason of the very

poisonous action of methyl alcohol, since formic acid is the most toxic of all acids of its homologous series, owing to the fact that formic acid is the only acid, which is also an aldehyde, and that the general law of the intensities of action of acids is inverse to that of the corresponding alcohols. The intensity of action of acids decreases with the increase of C molecules. H. found that a few milligrams of free formic acid is sufficient to kill a frog. In poorly nourished and decrepit individuals, especially from chronic alcoholism, in whom the processes of oxydation are in general diminished, the danger from methyl alcohol must be still greater. Man seems preeminently subject to the danger of slow oxydation of methyl alcohol and the poison seems much more deleterious for him than for the homothermic animals. If methyl alcohol is introduced into the body it is, in consequence of molecular affinities, typically distributed and is chiefly attracted by certain parts of the central nervous system and the nervous elements of the retina, the optic nerve and its centers. If in these parts slow oxydation to the aldehydic formic acid occurs, they are deleteriously influenced, irritated and paralyzed, leading to blindness, painful convulsions and paralyses. These consequences of the intoxication consist in acute neuritis, which are not created by the methyl alcohol per se. This explains why the symptoms of poisoning do not coincide with those of alcohol intoxication in the usual sense.

ON ATROPIN ECZEMA. Weill, G., Strassburg. (*Klin. Mon für Aug.*, 50, I, Aug. 1912, p. 458), observed in a number of cases secreting eczema of the lids, cheek, and nose, with lachrimation after longer continued use of atropin-vaselin. After discontinuing atropin the eczema healed under Hebra's or Lassar's pastes in a few days, but relapsed after months or a year, when a single drop of atropin solution was instilled into the eye. It also occurred in these patients after rubbing atropin-vaselin into the skin of the forearm. W. is inclined to explain this recurrence of the eczema upon renewed use of atropin in patients, who developed it before, as anaphylaxis, analogous to the observations by Richet with cocain in rabbits and apomorphin in dogs, although so far the occurrence of anaphylaxis has been known only after introduction of preparations of albumen.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

A. J. PATEK, M. D., Milwaukee

G. E. SEAMAN, M. D., Milwaukee

O. H. FOERSTER, M. D., Milwaukee

C. S. SHELDON, M. D., Madison

S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc
G. WINDESHEIM.....Kenosha
F. T. NYE.....Beloit
W. CUNNINGHAM.....Platteville

J. V. MEARS.....Fond du Lac
H. W. ABRAHAM.....Appleton
EDWARD EVANS.....La Crosse
T. J. REDELINGS.....Marinette

O. T. HOUGEN.....Grand Rapids
R. U. CAIRNS.....River Falls
J. M. DODD.....Ashland
H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents
Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

JULY, 1912.

No. 2

EDITORIALS

THE "LUNGER IN THE SOUTHWEST."

Once more the medical men of the southwest and west are protesting against "passing on" indigent consumptives, who, together with desirable pay patients are lured by the spell of climate and altitude in the cure of tuberculosis. The Journal of the Outdoor Life for July puts the responsibility for the pitiful situation of these penniless, physically incapacitated strangers in a strange land, straight up to the medical profession of the northern and eastern states.

At the Southwestern Conference on Tuberculosis, held in April, at Waco, Texas, the problem of caring for the indigent, migratory consumptive was again seriously considered. Our brothers in the "health zone" are paying the penalty for rather too good advertising of the "natural advantages;" our brothers of the temperate zone are, on the other hand, characteristically slow as a class, to abandon doctrines, pretty generally known to be more or less false.

One hesitates in this generation, to advise *physicians* that it isn't climate or altitude that cures tuberculosis, but the substitution of a regimen for, and opposed to, the habits of life which made the invasion of the tubercle bacillus possible. If the northland is good enough for the treatment of indigent consumptives, it's good enough for the treatment of the well-to-do. The converse is likewise true.

The institution of county sanatoria being advocated and energetically pushed by the Wisconsin Anti-Tuberculosis Association, offers hope of meeting a most deplorable situation by a well thought out and attainable plan. Seven counties at this writing have made appropriations for small sanatoria. The medical profession to a man, ought to be in the vanguard, earnestly advocating a local institution, for the care of the more or less advanced consumptives, if for no other than self-fish motives.

THE 1912 DIRECTORY.

We have all heard of the man who enjoyed reading the dictionary but the one who read the new edition of the American Medical Directory with pleasure and instruction now desires to share his joys with the readers of the Journal. To be accurate the reading was limited to the Wisconsin section but that is no small matter as there are 2,652 physicians in the state according to the latest figures. That may seem to be a great many and yet the number, in proportion to the population, is not increasing. In 1898 the ratio to the total population seems to have been about 1:750, while in 1912 it is approximately 1:870. This is progress in the right direction but it must continue for several decades before the proportion will approach what might be called the ideal ratio.

But the really big thing which this study of the Directory revealed is the fact that we are gradually forgetting our differences and our isms and are

approaching that unification of the medical profession which for generations has seemed an impossible dream.

In Polk's Medical and Surgical Register for 1898, there were recorded the names of 2,233 physicians in Wisconsin. Of this number about 220 were registered as Homeopaths and over 100 as Eclectics.

In the American Medical Directory for 1912, of the 2,652 physicians in Wisconsin, 42 are registered as Homeopaths and 9 as Eclectics.

Now there can be no doubt that part of this enormous difference would be accounted for by the difference in the manner of collecting the statistics for these two publications. But to the writer it seems that this is not all; there is a greater significance, a broader meaning in these figures. We are actually ceasing to care about those differences of opinion which meant so much to the generations which preceded us.

As the weaker medical schools of all kinds are gradually being weeded out and the standards of the State Boards of Medical Examiners are steadily rising, we are worrying less and less about a man's ideas on the subject of therapeutics, and are becoming satisfied if he has an M. D. degree, honestly acquired, and the certificate of the State Board of Medical Examiners.

We are drawing nearer together. We are beginning to see that our paths, though different, lead to a common goal and that there are no impassable barriers between them, only little hedges or thickets which are even now beginning to grow thin in places.

Some of the information supplied by a comparison of the 1898 and 1912 Directories might be used to furnish the ground-work for a little joke on our Homeopathic brethren. For instance, the earlier directory showed that in one little town in the State the entire practice of medicine was in the hands of three of the followers of Hahneman. According to the 1912 directory this village seems to have been entirely wiped off the map! But this was only a small hamlet and the calamity cannot be compared with that in another part of the state where apparently no trace remains of a thriving village of eight hundred souls who were dependent for their medical aid and guidance upon one practitioner, an Herbalist!

In some ways the practice of medicine is improving but we are certainly growing less pictur-

esque. The later directory was searched in vain for such modest announcements as: "Practice devoted to Nervous Diseases, Diseases of Women, Diseases of the Head, Throat, and Lungs; has the exclusive right to sell the—cure," or "Specialist in all Chronic Diseases," and others of a similar character which abound in the earlier publication. Truly "there were giants in those days;" and it was only fourteen years ago.

HUMAN AND BOVINE TUBERCULOSIS.

The final report of the Royal Commission appointed in Great Britain to study the relationship between human and bovine tuberculosis has at last appeared after ten years of patient study and experimentation. The earlier reports published by this body showed that almost all pulmonary tuberculosis is due to the human type of tubercle bacillus, but that the bovine type may cause abdominal or glandular tuberculosis, and it was found that children are especially susceptible to infection of this character. That the bovine type of bacillus may attack the lungs, however, is shown in the final report, by the fact that in one group of twenty-eight cases of pulmonary tuberculosis the bovine bacillus was found in two, while the other twenty-six showed the human type of organism.

On the other hand, of twenty-seven cases of primary abdominal tuberculosis, thirteen showed the bovine type of bacillus. Almost the same relationship existed between the two types in lupus. Twenty cases were investigated and of these nine showed the bovine and eleven the human type.

In joint tuberculosis as in pulmonary tuberculosis the predominance of the human type of organism is very marked—thirteen out of fourteen cases.

The practical deductions of this entire work are summarized by Hess as follows: "A considerable amount of the tuberculosis of childhood is to be ascribed to infection with bacilli of the bovine type transmitted to children in meals consisting largely of the milk of the cow." "Measures for securing the prevention of the ingestion of contaminated milk would greatly reduce the number of cases of abdominal and cervical glandular tuberculosis in children, and such measures should include the exclusion from the food supply of children of the milk of the tuberculous cow, irrespective of the stage of the disease."

NEWS ITEMS AND PERSONALS

DR. H. R. ADAMS, Marinette, is critically ill.

DR. J. W. EHMER, Lomira, underwent an operation for appendicitis, on July 10th.

DR. N. M. KERSTEN, De Pere, on July 10th, underwent an operation for appendicitis.

DR. A. G. SULLIVAN has been appointed medical supervisor of the public schools at Madison.

DR. FRANK M. SCHEELE, Wauwatosa, has received the appointment as house physician at the Emergency Hospital.

DR. E. S. HAYES, J. V. R. Lyman and H. Medelfart, Eau Claire, have been elected directors of the Eau Claire Board of Health.

DR. JOHN R. MCDILL, formerly of Milwaukee, will return September 15, to re-enter practice, after having spent 12 years in the Philippines.

DR. S. H. MCCALL, formerly associated with Dr. Lord at Kaukauna, is now in charge of a large hospital at Missoula, Mont.

DR. E. T. LOBEDAN, Milwaukee, has been appointed medical assistant for the Child Welfare Work at Milwaukee, by Health Commissioner Kraft.

DR. J. T. ELLIOTT, health officer of Rhineland, sustained a fracture of an arm, when he stumbled over a wire placed across a street which was being repaired.

DR. SARAH I. MORRIS has been appointed medical advisor of the Women's Department of the University of Wisconsin, Madison, vice Dr. Helen Dobson Denniston, resigned.

DR. JOHN M. DODD, Ashland, has been appointed a member of the State Board of Medical Examiners, to succeed Dr. F. J. Connell of Oshkosh, resigned. Dr. Dodd is mayor of Ashland.

At the eighty-first annual commencement of Wesleyan University at Middletown, Conn., held on June 19, the degree of doctor of laws was conferred upon Dr. Amos J. Givens, proprietor of Givens Sanitarium for nervous diseases at Stamford, Conn.

DR. W. L. THOMPSON of Milwaukee, was elected president of the Wisconsin State Board of Medical Examiners to succeed Dr. M. A. Barndt of

Milwaukee, at the annual meeting of the board held on July 10th. Dr. J. M. Beffel, Milwaukee, was re-elected secretary.

Early in June Governor McGovern appointed Dr. Joseph Barber of Marathon City a member of the State Board of Health to succeed Dr. L. E. Spencer of Wausau, resigned. Dr. Barber has since resigned and the vacancy has been filled by the appointment of Dr. Charles H. Stoddard of Milwaukee.

Prof. Carl von Noorden, a celebrated member of the Medical Faculty of Vienna University, who is going to New York in September, at the invitation of the Post-Graduate Medical School, to deliver a series of lectures, will also go to Washington to take part in the International Hygienic Congress as the official delegate of the Austrian Government. He has also accepted invitations to lecture in a number of other American cities.

The Professor has selected as the theme of his lectures the progress made in the treatment and cure of diabetes and kidney troubles as well as the science of dietetics.

Prof. von Noorden will return to Vienna by the middle of November.

MARRIAGES

Dr. Z. W. Gilbert, Melrose, and Miss Bessie Carey, Milwaukee, at Janesville, June 20.

Dr. Floyd Garrison Wolcott, Janesville, and Miss Rhoda Jane Bullis, Eau Claire, June 15th.

Dr. Thomas Charles Clarke, New Butler, and Miss Grace McKinley, Edgewater, Ill., June 23.

REMOVALS

Dr. R. C. Meyer, Parnell to Elkhart Lake.

Drs. Arthur C. Dana and J. J. Rehorst have formed a partnership and have opened offices at Fond du Lac and a branch office at North Fond du Lac.

Dr. A. M. Kerr has disposed of his practice at Martell to Dr. L. H. Hendenstrom, a graduate of the University of Minnesota, and has located at Los Angeles, California, where he will practice his profession.

Dr. Hubert J. Haulbrick, who has been practicing medicine at Van Dyne for the past nine years, has disposed of his practice, and after an extended trip through the State, has located at Oshkosh.

DEATHS

DR. JOHN E. SAWYER, a former practicing physician of New Richmond, died on July 9, at Chicago, of heart disease.

Dr. Sawyer was born at Mosen, Me., December 24, 1855. He was graduated from Hahnemann Medical College, Chicago, in 1884. He was located at New Richmond for a number of years, at St. Paul, Minn. for 12 years and afterward at Chicago and Colorado Springs.

DR. J. A. PATTERSON, Iron River, died suddenly on June 27, of angina pectoris.

James Alex Patterson was the son of Dr. James R. and Constance Patterson, and was born in Port Elgin, Ontario, on April 16, 1865. He attended the Port Elgin school and the Walkerton high school and later Queens University. After completing the literary course he entered the medical annex of Royal College in 1883, where he remained four years and graduated in 1887. After graduation he formed a partnership with his father at Port Elgin, Ontario, where he remained three years. He then joined the mounted police as surgeon, with headquarters at Kilarney, Manitoba. During the five years he remained there, he traveled over a wide range of country to minister to the sick in a sparsely settled region. Before coming to Iron River he was for several months associated with his cousin, Dr. Ferguson, at Winnipeg. Since 1895 he had practiced at Iron River.

He was a member of Ashland County and the State Medical Societies.

On June 6th at Atlantic City, during the meeting of the American Medical Association and following a symposium on Anesthesia, the *National Society of Anesthetists* was organized. Prof. Yandel Henderson of Yale, Chairman of the commission on anesthesia of the A. M. A., occupying the chair, those assembled for the symposium acting as a committee of the whole, proceeded to organization and elected the following officers for the year 1912-1913:

President, James Tayloe Gwathmey of New York.

Vice-Presidents, Charles K. Teter of Cleveland, F. H. McMeechen of Cincinnati, Yandel Henderson of New Haven.

Secretary, William C. Woolsey, 88 Lafayette Ave., Brooklyn.

Treasurer, Harold A. Sanders of Brooklyn.

The constitution and by-laws were ordered to be drawn by the executive committee and submitted to the Society at its next meeting for adoption; all names submitted for membership, if qualified in the estimation of the executive committee, shall be considered as charter members if presented within a period of sixty days and accompanied by the levied due of three dollars.

The National Society of Anesthetists in this notice calls all those who are actively interested in this work to join its ranks and assist in developing the subject of anesthesia to greater perfection and more uniform safety.

WILLIAM C. WOOLSEY, *Sec'y.*

June 10th, 1912.

AMERICAN HOSPITAL ASSOCIATION.

The Fourteenth Annual Meeting of the American Hospital Association will be held in the Hotel Ponchartrain, Detroit, Mich., on September 24, 25, 26, 27, 1912.

PRELIMINARY PROGRAM.

President's Address—Dr. Henry M. Hurd, Secretary of Board of Trustees, Johns Hopkins Hospital, Baltimore, Md.

Report of Committee on Construction—Dr. C. R. Holmes, Trustee, City Hospital, Cincinnati, Ohio.

Report of Committee on Training of Nurses.

Report of Committee on Hospital Efficiency, Hospital Finances and Economics of Administration—Dr. Thos. Howell, Supt. New York Hospital, New York City.

Report on Out-Patient Work—Dr. Wayne Smith, Supt. City Hospital, St. Louis, Mo.

Report on Hospital Accounting—J. B. Draper, Esq., Supt. University Hospital, Ann Arbor, Mich.

Report on Medical Organization and Medical Education—Dr. R. O. Beard, University of Minnesota, Minneapolis, Minn.

Report of Committee on Bureau of Hospital Information and Permanent Secretaryship—Dr. S. S. Goldwater, Supt. Mt. Sinai Hospital, New York City.

Report of Committee to Memorialize Congress to Place Hospital Instruments on the Free List—Rev. G. F. Clover, Supt. St. Luke's Hospital, New York City.

Report of Committee on Standard Nomenclature—Dr. Frederick A. Washburn, Supt. Massachusetts General Hospital, Boston.

Social Service in Massachusetts General Hospital—Miss Ida M. Cannon, Head Worker Social Service Department, Massachusetts General Hospital, Boston.

The Economic Features and Feeding of Hospital Employees and Patients—Dr. H. T. Summersgill, Supt. Post-Graduate Hospital, New York City.

Economy in the Operating Room—Mr. Asa Bacon, Supt. Presbyterian Hospital, Chicago, Ill.

A Contribution to the Problem of Convalescence—Dr. Fred Brush, Supt. Burke Relief Foundation, New York City.

- The Use of Salvarsan (606) in Hospitals*—Dr. R. R. Ross, Supt. General Hospital, Buffalo, N. Y.
- The Cost of Infectious Diseases*—Prof. Jas. W. Glover, Michigan University, Ann Arbor, Mich.
- The Relation of the General and Special Hospitals in the Care of the Insane*—Dr. Chas. K. Clarke, Supt. General Hospital, Toronto, Canada.
- Nursing Standards and the Supply of Pupil Nurses*—Dr. Frederick A. Washburn, Administrator Massachusetts General Hospital, Boston.
- The Grading of Nurses*—Mrs. E. G. Fournier, Supt. Minnewaska Sanitarium, Gravenhurst, Ont., Canada.
- Hospitals and their Duty in Relation to the Prevention of Disease*—Dr. Chas. P. Emerson, Medical Department, University of Indiana, Indianapolis, Ind.
- Subject to be announced*—Rabbi Franklin, Temple Beth El, Detroit, Mich.
- Subject to be announced*—Mr. J. R. Coddington, Supt. Polyclinic Hospital, Philadelphia, Pa.
- The Hospital Laundry*—Dr. Winford H. Smith, Supt. Johns Hopkins Hospital, Baltimore, Md.
- Hospital Organization with Special Reference to that of the Detroit General*—Dr. W. F. Metcalf, Detroit, Mich.
- The Question Drawer*—Dr. Alice Seabrook, Supt. Woman's Hospital, Philadelphia, Pa.
- Round Table Conference for Workers in Smaller Hospitals*—Miss Louise Brent, Supt. Hospital for Sick Children, Toronto, Canada, and Miss Amy Armour, Supt. New Rochelle Hospital, New Rochelle, N. Y.
- Non-Commercial Exhibit of Hospital Appliances*—Miss Charlotte S. Aikens of Detroit.

BOOK REVIEWS

THE DISTURBANCES OF THE COLOR SENSE, THEIR CLINICAL SIGNIFICANCE AND DIAGNOSIS. Koellner, Hans. Berlin. 428 pp. with 33 illustrations and 3 colored plates. Berlin, 1912. S. Karger, Carlstrasse 15. 14 Mk. \$3.50.

K.'s work gives a splendid comprehensive representation of our knowledge of the congenital, and especially of the acquired, disturbances of the color sense for practical purposes. It is intended to be a guide for the recognition and diagnostic and prognostic valuation of the anomalies of the color sense and to serve as base for the further physiological examination, especially of the acquired disturbances. Thus it addresses chiefly the ophthalmologists and neurologists, and all practicing physicians who are called upon to examine and testify as to color perception, e. g. the railway surgeon. On account of the scarcity of exhaustive investigations on acquired anomalies of the color sense in literature, the author had mainly to rely on his own observations gained on the immense material of the eye clinic in the University of Berlin, of which he is first assistant.

The first chapter gives an excellent exposition of the normal color sense, the second chapter deals with the

congenital disturbances of color perception: history, classification, diagnosis and a synopsis of the theories of the color sense. The 3rd chapter is subdivided into general and special pathology of the color sense, as observed in changes of the refracting media and in anomalies of refraction, diseases of the retina, chorioid, and the optic path to the brain, functional and vasomotor neuroses, intoxications, glaring and consequences of increased illumination of the eye.

The last section contains the methods of testing the color sense, and a chapter on the acquired disturbances, and the theories of color perception. The more important chapters are followed by complete bibliographies, the others refer to works which bring exhaustive lists of literature.

The exposition is very clear and complete, and the book will be heartily welcomed as a most useful practical work.

C. ZIMMERMANN.

ATLAS OF THE EMBRYOLOGY OF THE HUMAN EYE. Buch, L., Marburg, and Seefelder, R., Leipzig. No. 1. 17 pp. with 24 figures in the text and 15 lithographic plates. Leipzig. Wilhelm Engelmann. 1911. 20 Mk. \$5.00.

Through the aid of numerous anatomists the authors succeeded in collecting an unusually abundant material of well preserved human embryos which enabled them to present in this beautiful atlas an uninterrupted series of all the phases of the development of the eyeball from the earliest stages, so far known. The magnificent colored lithographic plates are reproductions of drawings from sections of the specimens made, true to nature, by the artists A. Kirchner, A. Fiedler and W. Freytag, and the explanatory text contains half tones of models. The first number brings the development of the ocular pit, ocular vesicle and cup, and lens, in a completeness never attained before. Its external appearance is superb.

C. ZIMMERMANN.

DIAGNOSIS AND ERRONEOUS DIAGNOSIS OF DISEASES OF THE BRAIN FROM THE OPTIC DISC. Salzer, F., München. 16 pp. with 29 colored illustrations on 2 plates. München. 1911. J. F. Lehmann. M. 1.50. \$0.37.

This is a reprint of a supplement written by the author to the atlas of psychiatries by Weyyaadt. The object of it is to call attention to the difficulties arising from uncertainties of ophthalmoscopic diagnostics, due to the variability of the ophthalmoscopic pictures of the optic disc. These variations concern the color, dependent on the more or less marked physiological excavation, changing supply of capillaries, transparency of the non-medullated fibers and density of gliosis tissue, sources of light, and borders of the disc, scleral and pigment rings. If some of these variations are combined the picture of pseudo-neuritis may result. Also the vessels may present unusual conditions within physiological boundaries, as well as the reflexes from the retina. The author gives a concise discussion of these conditions, which are very well illustrated on 2 colored plates.

As the ophthalmoscopic atlases in vogue gave only a

very limited number of pictures of the normal disc, S. supplied a real want with this excellent chapter of immense practical value, and deserves special thanks for having made it more easily accessible to a larger circle of readers.

C. ZIMMERMANN.

PROGRESSIVE MEDICINE, a Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences, Edited by H. A. Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, assisted by Leighton F. Appleton, M. D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia. Lea & Febiger, Publishers, Philadelphia and New York. Price, \$5.00 per annum.

Vol. I of Progressive Medicine contains: Surgery of the Head, Neck and Thorax, by Charles H. Frazier, M. D.; Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia, and Influenza, by John Ruhrah, M. D.; Diseases of Children, by Floyd M. Crandall, M. D.; Rhinology and Laryngology, by D. Braden Kyle, M. D.; Otolaryngology, by Arthur B. Duel, M. D.

Vol. II of Progressive Medicine contains: Hernia, by William B. Coley, M. D.; Surgery of the Abdomen, Exclusive of Hernia, by John C. A. Gerster, M. D.; Gynecology, by John G. Clark, M. D.; Diseases of the Blood. Diathetic and Metabolic Diseases. Diseases of the Thyroid Gland, Nutrition, and the Lymphatic System, by Alfred Stengel, M. D.; Ophthalmology, by Edward Jackson, M. D.

The great value of this publication is that it gives much more than an abstract of the work done in these departments of Medicine during the current year; it presents an appraisal by a competent authority of the year's progress and so economizes the reader's time by presenting for his consideration only what is important, supplemented throughout by judicious editorial comment.

Progressive Medicine is the best sort of a perennial post-graduate course and we hope the number of its readers may steadily increase.

PRACTICAL MEDICINE SERIES. Vol. 1, series 1912, General Medicine, edited by Frank Billings, M. S., M. D., and J. H. Salisbury, A. M., M. D., Chicago. pp. 392. Price \$1.50.

Vol. 2. General Surgery, edited by John B. Murphy, A. M., M. D., L.L. D., Chicago. pp. 587. Price \$2.00.

Vol. 3. The Eye, edited by Casey A. Wood, C. M., M. D., D. C. L.; The Ear, by Albert H. Andrews, M. D.; The Nose and Throat, by Gustavus P. Head, M. D. pp. 343. Price \$1.25.

Price of the series of ten volumes \$10.00. The Year Book Publishers, 180 Dearborn St., Chicago.

These volumes, of a handy size and attractively arranged for the student and the busy practitioner, are replete with suggestions of the best practice of the day. The material of the volumes consists almost entirely of

abstracts of important recent articles, in each case giving the reference to the original article. The ground is covered with great thoroughness, so that these books present in condensed form what has been done during the year that is really good.

By means of this excellent series of books it is possible for the general practitioner to keep in touch with medical progress in all its directions, an undertaking which the growth of the medical literature has rendered an impossibility without such an aid. The judicious editorship of the entire series and of the individual volumes eliminates most of the superficial and unsound in current medical literature and presents the articles of real value in a form full enough for satisfactory use.

For the busy, general practitioner, who desires to keep moving with the current of progress, this series will prove most helpful.

THE CARE OF THE INSANE AND HOSPITAL MANAGEMENT. By Charles Whitney Page, M. D. 154 pages; price, prepaid, \$1.00. W. M. Leonard, publisher, Boston.

This little book of a hundred and fifty-five pages, abounds in practical suggestions in the management of the insane. The author has enjoyed a rich experience, and while the book is of immense practical value to those dealing with mental diseases, it is as well delightful and instructive reading to the general practitioner. The author is an ardent advocate of non-restraint methods in the treatment of the insane. Trustees and governing boards of insane hospitals might well read and consider the suggestions offered by this authority. The qualifications for superintendencies and assistantships are detailed and coming from this source, deserve careful consideration. The appended case recital in which mechanical restraint was avoided by ingenious handling is interesting and instructive.

REPORT FROM THE PATHOLOGICAL DEPARTMENT AND THE DEPARTMENT OF CLINICAL PSYCHIATRY, CENTRAL INDIANA HOSPITAL FOR THE INSANE, Vol. IV. George F. Edenbarter, M. D., Indianapolis, 1912.

The material reported in this volume is concisely arranged. The detailed account of interesting cases is a commendable feature. To those interested in mental diseases the report will well afford perusal. The adoption of the Kraepelin classification is a decided advance and it is hoped that every State Hospital will follow in line. Fifty post-mortem examinations are given in detail. The report from the clinical laboratory is quite extensive, though why spinal fluid examinations do not exceed four in number seems rather surprising.

To those uninformed in the routine mental examinations made at State Hospitals, this report will be very enlightening. The type of physical examination, as well as the extensive laboratory aids to diagnosis as shown in this report, would without doubt be surprising to many general practitioners who are not familiar with the methods followed in modern State Hospitals.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1912-1913.

ARTHUR J. PATEK, Milwaukee President
 C. A. ARMSTRONG, Boscobel 1st Vice President
 L. E. SPENCER, Wausau 2d Vice President
 JOHN MATHIESON, Eau Claire. 3rd Vice President
 CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer. ROCK SLEYSSTER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917		TERM EXPIRES 1913		TERM EXPIRES 1915	
1st Dist., M. R. Wilkinson, - Oconomowoc	5th Dist., J. V. Mears, - Fond du Lac	9th Dist., O. T. Hougen - Grand Rapids	2nd Dist., G. Windesbeim, - Kenosha	6th Dist., H. W. Abraham, - Appleton	10th Dist., R. U. Cairns, - River Falls
TERM EXPIRES 1918		TERM EXPIRES 1914		TERM EXPIRES 1916	
3rd Dist., F. T. Nye, - Beloit	7th Dist., Edward Evans, - La Crosse	11th Dist., J. M. Dodd, - Ashland	4th Dist., W. Cunningham, - Platteville	8th Dist., T. J. Redelings, - Marinette	12th Dist., H. E. Dearholt, - Milwaukee

Delegates to American Medical Association.

L. F. BENNETT, Beloit. J. J. McGOVERN, Milwaukee. C. A. HARPER, Madison.

Alternates

F. S. WILEY, Fond du Lac. F. T. NYE, Beloit. T. J. REDELINGS, Marinette.

Committee on Public Policy and Legislation

A. W. GRAY, Milwaukee, Chairman. J. P. McMAHON, Milwaukee. F. F. BOWMAN, Madison.

Committee on Medical Defense.

G. E. SEAMAN, Milwaukee, Chairman. S. S. HALL, Ripon. A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

M. P. RAVENEL, Madison. G. E. SEAMAN, Milwaukee. C. A. HARPER, Madison.

J. M. BEFFEL, Milwaukee. T. H. HAY Stevens Point.

Program Committee.

L. M. WARFIELD, Wauwatosa, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	A. P. Andrus, Ashland	C. J. Smiles, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	L. M. Knowles, Spooner	B. N. Webster, Rice Lake.
Brown-Kewaunee	T. J. Oliver, Green Bay	I. E. Levitas, Green Bay.
Calumet	W. Martens, New Holstein	J. A. Schmidt, Brillion.
Chippewa	A. Hayes, Chippewa Falls	A. L. Beier, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	B. F. Bellack, Columbus	A. T. Schmelung, Columbus
Crawford	F. J. Antoine, Prairie du Chien	A. J. McDowell, Soldiers Grove.
Dane	Joseph Dean, Madison	C. S. Sheldon, Madison.
Dodge	J. A. Clason, Neosho	G. W. Henika, Beaver Dam.
Door		N. Z. Wagener, Sturgeon Bay.
Douglas	T. J. O'Leary, Superior	W. E. Hatch, Superior.
Dunn-Pepin	E. H. Graunis, Meunomie	L. A. Dahl, Meunomie.
Eau Claire	E. L. Mason, Eau Claire	E. E. Tupper, Eau Claire.
Fond du Lac	G. F. Scheib, Fond du Lac	F. A. Read, Fond du Lac.
Grant	W. P. Hartford, Cassville	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	G. S. Darby, Brodhead.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	R. H. Buckland, Green Lake.
Iowa	J. P. Paruley, Mineral Point	H. D. Ludden, Mineral Point.
Jefferson	L. F. Bennett, Ft. Atkinson	C. R. Feld, Watertown.
Juneau	O. Cron, Camp Douglas	A. T. Gregory, Elroy.
Kenosha	H. A. Robinson, Kenosha	C. H. Gephart, Kenosha.
La Crosse	C. H. Marquardt, La Crosse	G. W. Lucek, La Crosse.
Lafayette	J. C. Hübenthal, Belmont	Susanne Orton, Darlington.
Langlade	M. J. Donohue, Antigo	J. C. Wright, Antigo.
Lincoln	C. C. Walsh, Merrill	Herbert Saylor, Merrill.
Manitowoc	L. E. Meany, Manitowoc	A. J. Shinek, Manitowoc.
Marathon	L. E. Spencer, Wausau	S. M. B. Smith, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	M. D. Bird, Marinette.
Milwaukee-Ozaukee	J. McGovern, Milwaukee	Daniel Hopkinson, Milwaukee.
Mouroe	A. E. Winter, Tomah	A. R. Bell, Tomah.
Oconto	J. B. Atwood, Oconto	R. C. Paulds, Abrams.
Oneida-Forest-Vilas	J. T. Elliott, Rhineland	C. A. Richards, Rhineland.
Outagamie	J. S. Reeve, Appleton	F. P. Dohearty, Appleton.
Pierce	A. E. Gendron, River Falls	S. F. Rudolf, Ellsworth.
Portage	J. D. Lindores, Stevens Point	W. F. Cowan, Stevens Point.
Priec-Taylor	C. E. Feulou, Phillips	G. H. McClure, Westboro.
Racine	W. S. Haven, Racine	Susan Jones, Racine.
Richland	G. R. Mitchell	A. D. Campbell, Richland Center.
Rock	W. J. Allen, Beloit	E. B. Brown, Beloit.
Rusk	M. Carnahan, Bruce	W. F. O'Connor, Ladysmith.
Sauk	D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	E. Puckner, Wittenberg	C. E. Stubenvoll, Shawano.
Sheboygan	G. H. Stannard, Sheboygan	W. F. Zierath, Sheboygan.
St. Croix	L. A. Campbell, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	E. A. Moore, Merrilan	H. A. Jegl, Galesville.
Vernou	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	H. C. Miller, Whitewater	M. V. Dewlre, Sharon.
Washington	W. J. Wehle, West Bend	S. J. Driessler, Barton.
Waukesha	R. E. Davles, Waukesha	Sara T. Elliott, Waukesha.
Waupaca	T. E. Loope, Iola	G. T. Dawley, New London.
Wlunehago	P. Allen, Oshkosh	H. W. Morgeuroth, Oshkosh.
Wood	J. A. Jackson, Rudolph	J. B. Vedder, Marshfield.

SOCIETY PROCEEDINGS

BARRON-POLK-WASHBURN-SAWYER-BURNETT COUNTY

The regular quarterly meeting of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society was held in the K. P. Hall at Cumberland on June 13th. Dr. R. U. Cairns, district Councilor, of River Falls, and Arthur Stebbins, druggist of Barron, were among the visitors present.

The members of the Society who attended were: Drs. Herring, Shell Lake; Knowles, Spooner; Lemmer, Spooner; Sattre, Rice Lake; Webster, Rice Lake; Werner, Barron; Lumsden, Clayton; Sholtz, Turtle Lake; Tanner, Turtle Lake.

Dr. Sattre read a paper on Rheumatoid Arthritis. Some clinical cases were also examined and discussed. A banquet was served at the Hotel Cumberland after the meeting.

FOND DU LAC COUNTY

A regular meeting of the Fond du Lac County Medical Society was held at the Bellevue Hotel, on July 11th. Supper was served at 7 o'clock, after which Dr. L. F. Jermain, Professor of Internal Medicine at Marquette University, Milwaukee, spoke on "Practical Points on Diagnosis in Diseases of the Chest."

GREEN LAKE-WAUSHARA-ADAMS COUNTY

The Society met at Hotel Lake View, Green Lake, June 28th, at 4 p. m. The following men were present: Drs. Prince, Scott, Weisender, Riordan, Racek, Froelich, Baldwin, Williams and Buckland. Dr. Senn of Ripon dropped in for a short time, and Dr. F. G. Connell of Oshkosh, in spite of tire trouble, arrived in time to read an instructive paper on *So-Called Chronic Appendicitis*. This was made interesting by a series of drawings. The symptoms of Chronic Appendicitis are often caused by the presence of Jackson's Membrane or Lane's Kink. The discussion was good. Dr. Connell was tendered a vote of thanks and invited to our Annual Picnic in August.

The Society then adjourned to the dining room.

R. H. BUCKLAND, M. D.,
Secretary.

JEFFERSON COUNTY

The Jefferson County Medical Society met at the residence of Dr. A. J. Hodgson, Waukesha, June 25, 1912. The doctor at a previous meeting had extended a kind invitation to the members to be guests at his home. His magnificent Spanish house, Casa de Flores, was a revelation to all. The genial doctor and his estimable wife proved excellent hosts. After a few hours of most interesting and profitable discussion, the guests were taken on an automobile ride through the city. The first stop was made at Dr. Hodgson's Sanitarium, where we had an opportunity to see the wonderful results attained by judicious diet, without medi-

cation, in diabetes, Bright's disease, and other chronic ailments. Then we were shown the White Rock Bottling Works, where the famous Waukesha Water gets into bottles almost automatically. Before returning to the Casa de Flores, we proceeded, under the guidance of Dr. Caples to the Waukesha Springs Sanitarium, where light refreshments were served. A fine luncheon at the "Casa" concluded our meeting, which was one of the most profitable and pleasant the Society ever held. Dr. and Mrs. Hodgson and Dr. Caples have the sincere thanks of all those who were present. Those who were absent, don't know what they missed.

CARL R. FELD, M. D.,
Secretary.

SHAWANO COUNTY

Shawano County Medical Society held its second quarterly meeting in Shawano, June 19th. Dr. Edward Quick of Green Bay presented an excellent paper on Acute Intestinal Obstruction. The program for the next meeting will also be of interest, and is in the hands of Dr. Puchner, President of the Society.

C. STUBENVOLL, M. D.,
Secretary.

WALWORTH COUNTY

The Walworth County Medical Society met at the Village Hall at East Troy on June 26th. Dr. J. M. Beffel, Milwaukee, was the principal speaker and delivered an address on *The Care of Babies*.

THE ASSOCIATION OF COUNTY SECRETARIES AND STATE OFFICERS of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette M. B. GLASIER, M. D., Bloomington
President. Vice-President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County Society. It will be edited by Rock Sleyser of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

THE COUNTY MEDICAL SOCIETY PROGRAM.

The question of the year's program is always a difficult one for the officers of the county medical society.

How one of our societies has solved the problem is shown by the 1912 program of the Marinette and Menominee County Medical Society which is

given below. The entire program is printed on one side of a twelve-inch strip of very heavy paper, almost cardboard. When this is folded twice and held by a metal clip the address can be written on one of the blank outer surfaces and a one cent stamp does the rest.

PROGRAM 1912

MARINETTE AND MENOMINEE COUNTY
MEDICAL SOCIETY.

Presidents—Dr. H. F. Schroeder and Dr. Edward Sawbridge.

Secretaries—Dr. M. D. Bird and Dr. H. T. Sethney.

JANUARY 10—Marinette:

Acute Otitis Media.....Dr. W. O. McBride
Acute Articular Rheumatism.....Dr. D. R. Landsborough
Examination of Insane.....Dr. E. Grignon
Anaesthetics.....Dr. J. F. Hicks

FEBRUARY 14—Menominee:

Medicine Today and Forty Years Ago. Dr. B.T. Phillips
Syphilis.....Dr. T. A. Lid
Emergency Work in Ophthalmic Practice
.....Dr. W. S. Weseott
Influenza.....Dr. T. M. Moll

MARCH 13—Marinette:

Medical Inspection of Schools.....Dr. E. V. McComb
Puerperal Infections.....Dr. E. W. Miller
Midwifery in Private Practice.....Dr. N. I. Tibbits
Pneumonia.....Dr. L. G. Walker

APRIL 10—Menominee:

Fractures of the Skull.....Dr. A. T. Nadeau
Fractures of the Femur.....Dr. R. A. Walker
Fractures of the Forearm.....Dr. A. J. Marquis
X-Ray Diagnosis of Fractures.....Dr. E. E. Axtell

MAY 8—Marinette

Differentiation Between Nasal and Ocular
Headaches.....Dr. C. R. Elwood
Surgery of Pulmonary Abscess.....Dr. W. R. Hicks
Intestinal Obstruction.....Dr. H. P. Chambers
Tubal Pregnancy.....Dr. H. R. Adams
Emergency Aids.....Dr. J. N. Aubin

JUNE 12—Menominee:

Sanitation in the Country.....Dr. Edward Sawbridge
Cold Taking.....Dr. T. J. Redelings
Chronic Prostatitis.....Dr. H. T. Gray

JULY 10—Marinette County Insane Hospital.

AUGUST 14—Menominee:

Intestinal Diseases of Children.....Dr. H. A. Vennema
Convulsions from Intestinal Toxemia.....Dr. P. J. Noer
Convulsions in Children from Other Than
Intestinal Disturbances.....Dr. C. H. Charles
Hematuria in Children.....Dr. C. C. Stevens

SEPTEMBER 11—Marinette:

Surgical Drainage.....Dr. M. D. Bird
Surgery of Gall Bladder.....Dr. R. G. Marriner
After Treatment of Surgical Operations
.....Dr. H. T. Sethney
Psoriasis.....Dr. Felix Rose

OCTOBER 9—Menominee:

Foreign Bodies in the Eye.....Dr. F. Lyon-Campbell
Corneal Ulcers.....Dr. J. V. May
Indications for Enucleation.....Dr. C. R. Elwood

NOVEMBER 13—Marinette:

Diagnosis of Typhoid Fever.....Dr. S. Berglund
Relation of Water Supply to Typhoid Fever
.....Dr. T. J. Redelings
Diet in Typhoid.....Dr. Luella Axtell
Treatment of Typhoid.....Dr. H. T. Sethney

DECEMBER 11—Menominee:

Arterio-Sclerosis.....Dr. H. F. Schroeder
Bright's Disease.....Dr. U. M. Horswell
Diseases of Heart.....Dr. E. V. McComb

The members assigned papers may change the subjects chosen, and in such event, are requested to notify the secretary of their society in due season.

When unable to be present, members are requested to arrange for the presentation of their papers by some member of their society.

The Menominee meetings will be held in the parlors of the Hotel Menominee and those in Marinette at the Hotel Marinette, unless otherwise announced. Meeting will commence at 8:15 P. M.

Your assistance is requested in making this a banner year.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, AUGUST, 1912

Number 3

ORIGINAL ARTICLES

SURGERY OF THE STOMACH*

BY WILLIAM D. HAGGARD, M. D.,
PROFESSOR OF SURGERY AND CLINICAL SURGERY
VANDERBILT UNIVERSITY.

NASHVILLE, TENNESSEE.

The privilege of delivering the Annual Address on Surgery before the State Medical Society of Wisconsin is an honor to which I am not insensible, and I desire to express to you my appreciation of your distinguished consideration.

In no field of our common art is the medical profession more constantly engrossed than in the management of diseases of the stomach. Yet out of a score of cases complaining of digestive disorders, only a few will have an actual involvement of the stomach. We must eliminate renal, cardiac, hepatic and other constitutional and reflex causes. Many cases of chronic invalidism depending upon what Stiller called congenital asthenia, embrace that large class of disorders generically termed gastric neuroses. Quite 70 per cent. of the cases that consult the physician for stomach symptoms are of this type. They bear the stigmata of congenital asthenia—visceral ptoses, slender bones, dilated pupils, cold hands and feet, movable tenth rib, dermatography, persistent mal-nutrition and obstinate constipation. They will be found to have gastropnoia and atony. It is not a local gastric disease, but one of the multifarious manifestations of this general, developmental and nutritional disorder. The stomach itself does not require treatment and certainly not operation. These cases so treated will be our undoing. If operation is alleged to have cured these bizarre, general and gastric symptoms of neurasthenia, it was not really a legitimate surgical result, but due to suggestion and rest.

*Annual Address in Surgery, delivered at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

The knife is a dangerous form of mental suggestion, and it is repulsive to the conscientious surgeon. I speak of these gastric neuroses first, to eliminate them. They have caused the great bulk of bad results. A good surgeon will not commit this error often; a good operator may. There is a broad distinction between the two. A surgeon should weigh rather than venture. He should not only possess the dexterous handcraftship, which gave him the name, but a broad and ripe experience in general disease, keen diagnostic acumen, sound judgment, absolute honesty and the gift of knowing when not to operate. It is now-a-days the ill-advised and unnecessary operation that is the opprobrium of surgery rather than the unskilled and bungling one.

It must be confessed that we do not always approach diseases of the stomach with the same careful inquiry, coupled with the precise methods of diagnosis which are employed in other ailments. One of the most important things in connection with stomach disorders is a more searching inquiry into the exact history of the malady and a more thorough physical examination of the patient. The general practitioner is prone to pass over digestive complaints with scant notice. The stomach specialist is apt, in the multiplicity of diagnostic and remedial agencies, to depend too much upon the latter. The surgeon in turn is liable to be over-weening in his estimate of surgical indications in gastric conditions. It is needful, therefore, that a wider dissemination of knowledge in these important matters be had, to the end that an equalization of practice and perfection of our resources be placed at the disposal of the large army of sufferers from "stomach complaint."

The most signal advances in this work have been from the invasion of this field by the surgeon. In reviewing the first quarter of a century of gastroenterology as a specialty, Boas says, that not much progress was made until the specialists became more and more surgical. This was true of the specialty of the eye and ear, of

gynecology and diseases of the bladder and kidneys. He suggests a more permanent, personal association between the gastro-enterologist and abdominal surgeon until the former acquires the requisite expertness in surgical skill.

While the surgery of the stomach is about thirty years old, it was not until the last half-dozen years that the methods were perfected to the degree that inspired confidence in the effort and gave uniformly gratifying results. In the present perfected state of this branch of surgery, it may be said that about all of the mechanical lesions of the stomach can be most satisfactorily dealt with. Chronic ulcer and its sequelae are of supreme interest and have yielded the most brilliant results. Surgery has been called upon in its application to the stomach to bear the brunt of our very discouraging contest with malignancy. Ensnared in an organ whose functional manifestations are so variable and in which the diseased manifestations are so well nigh inscrutable, combined with the inherent and oftentimes insurmountable difficulties attending surgery in all forms of malignancy, is it any wonder that the results have at times been the subject of despair?

Our early work in simple gastro-enterostomy was beclouded by its misapplication in some cases of gastric neurosis. The necessarily disappointing result served to prejudice the new fledged aspirant for surgical honors in the medical world. All of the faltering steps, errors of judgment, acquisition of technic, scrutiny of end results and final estimate of what can and what cannot be accomplished by surgery were necessary in its evolution. I will not, therefore, deal with controversial points, but rather tell the "plain, unvarnished tale" of what appears to be the just status of the surgery of the stomach and that which has been borne out in my own experience.

At the present time it has been very definitely settled that the chronic, indurated ulcer causing obstruction of the pylorus and the calloused ulcer of the duodenum are absolute indications for operative interference. Multiple or single ulcers causing intractable dyspepsia, that resist all other forms of treatment are operable. Ulcers causing repeated hemorrhages and those attended with severe pain, causing interference with nutrition and disabling the patient for his accustomed work should also be operated upon. The complication of perforation, like all perforative peritonitis, is,

of course, purely surgical. The various malformations, such as hour-glass stomach, together with the disabling adhesions of perigastritis should be treated mechanically. The congenital pyloric stenosis of infants has yielded very gratifying operative results. And lastly, the scourge of cancer, until some magical remedy for its dissipation is had, must yield to the only thing which is known to be effective,—removal.

Speaking particularly of ulcer, it is said that about 5 per cent. of all individuals have some variety. The acute ulcer occurs in the young chlorotic woman: whereas, the chronic ulcer is more prone to attack the middle aged. The former is quite amenable to medicinal and dietetic treatment. The latter, while generally believed to be somewhat uniformly cured by similar measures, is really extremely rebellious. It is said that 50 per cent. of the cases treated in the Massachusetts General Hospital, even if cured, or apparently cured, recur later. The death rate is estimated at from 10 to 50 per cent, say 25 per cent. If the recurrences are 50 per cent, it is obvious that only about 25 per cent. are really cured medicinally.

Ulcers apparently have their origin in an injury to an area in the tissues below the mucous membrane by a blood clot in the vessels, causing its detachment. Portions so deprived of their blood supply undergo necrosis. It leaves an unprotected submucosa to the influences of the acrid gastric juice. The constant bathing in this fluid is the chief reason of its indolency. The so-called saddle ulcer which bestrides the lesser curvature and extends down the anterior and posterior wall like a saddle-skirt, appears to be the result of blood vessel origin also. The branches of the gastric artery are given off in the lesser omentum and run down both walls of the stomach. If one of these rupture and a clot forms it would interfere with the nutrition of the tissue in the line of distribution and thus cause the ulcer. The spreading edges become undermined, later undergo inflammatory induration and become thickened and terraced. If it is true that the hematemesis occasionally seen in acute appendicitis, is due to an acute gastric ulcer from blockage of a gastric vein by a septic embolus from a thrombosed omental vein, as suggested by Wilkie, then may not chronic ulcer be associated with inflammatory conditions by way of the omentum? He suggests

further, that the greater frequency of duodenal ulcer in men may be from their greater likelihood to appendicitis and consequent involvement of the right border of the omentum, whereas, the greater frequency of ulcer of the body of the stomach in women may be associated with her exposure to pelvic infections, which may involve any portion of the omentum. While it was formerly supposed that peptic ulcer occurred with much greater frequency in the stomach, it has been found at the operating table in the Mayo Clinic that two out of three ulcers have had their origin in the duodenum. The greater number are situated within two inches, on one or the other side of the pylorus. It has been further observed that almost three out of four ulcers occur in men, contrary to our former belief, and that more than 95 per cent. of chronic, indurated ulcers are single. Bearing upon the frequency of duodenal ulcer and its cause, Baldwin, of Cornell, found fifteen true diverticula of the duodenum in 105 consecutive cases examined in the dissecting room. May it not be that this condition occurring apparently much more frequently than is supposed, predisposes to the formation of ulcer? Codman thinks that duodenal ulcer is not only twice as common as gastric ulcer, but nearly as common as acute appendicitis. In nearly 3,000 autopsies in the Massachusetts General Hospital, ulcer of the duodenum was present, irrespective of the cause of death in one in every hundred cases.

The triad of symptoms pointing to ulcer are pain, vomiting and hemorrhage. Of these the most reliable is pain. Right here it may be most appropriately said that painless indigestion is rarely surgical. The definite appearance of pain at a rather uniform time after eating is extremely suggestive. Those situated at the cardiac end would give pain very shortly after ingestion. Those nearer the middle of the stomach and on the posterior wall at from one to two hours after meals and those which comprise the greater number, in the pyloric antrum, from two to four hours. While there has been some diversity of opinion regarding the cause of pain in duodenal ulcer, it is rather firmly established that its onset is at the end of digestion. In interrogating the patient one can get a more accurate statement by asking if the pain does not more commonly occur before eating. This is the so-called "hunger pain"; a burning, gnawing, aching pain. Peculiarly significant of duodenal ulcer is the regular

appearance of the pain not only at a fairly certain and regular hour after each meal (3 or 4 hours), but in the small hours of the morning, and the common practice of its victims to get relief is by nibbling a biscuit, taking a glass of water, etc., which is supposed to close the pylorus and stop the flow of acid gastric juice over the ulcerated surface.

Local tenderness is valuable when present, but is said to occur in only about 10 per cent. of cases.

If in connection with the pain, vomiting is conspicuous, or when manifested by sour belching or eructation of acid fluids denoting the excess of free hydrochloric acid, and especially if blood be present in large or small amounts in the vomitus, in the test meal, or occult in the stools, the diagnosis of ulcer is reasonably certain. Hematemesis to mean ulcer must be preceded or followed by the other symptoms. The most characteristic feature of ulcer is its occurrence in spells or attacks that last a variable period interspersed with periods of relief.

Gastric analysis, while it should be used as a routine, is only dependable in connection with the clinical history. The three important points to determine are: First, the absence or presence of free hydrochloric acid, the former roughly suggesting ulcer and the latter being more indicative of cancer. The Gunsberg and the dimethyl-amido-azo-benzol test are the most satisfactory. Second, the absence or presence of residual food. An effective way to determine this is to give a handful of raisins the night before the test breakfast, the seeds of which, if retained, are conclusive evidence of obstruction. Food retention, particularly of small particles, for 8 to 12 hours, is almost conclusive proof of stenosis and a fairly certain indication for surgery. Third, the size and position of the stomach is mapped out by the aid of auscultation when the stomach is distended with air through the stomach tube.

A rough idea of dilatation can be obtained by clapotage with the resulting splashing sound. In advanced cases visible peristalsis is tell-tale and the typical frothy grey vomit of fermentation with food remnants in the precipitate is pathognomonic. These are the cases with long ulcer history, which has resulted in cicatrization and stenosis of the pylorus with consecutive dilatation. They are pitifully emaciated and while presenting a most

forbidding clinical picture, nevertheless yield on the whole the most absolutely perfect result from short circuiting and drainage by gastrojejunostomy. One of my earlier cases, typical of this stage, had lost half of her body weight, which was rapidly regained after the new opening was made.

The short or "no loop" anastomosis has done away with the vicious circle and postoperative vomiting.

By this method Moynihan has performed 186 operations with a mortality of 1.6 per cent, and in the last 121 operations there were no deaths.

Mitchell, of Belfast, says that the surgical management of gastric and duodenal ulcers which fail to respond to medicinal treatment gives a 90 per cent. probability of complete and permanent cure. Duodenal ulcers and those causing obstruction at the pylorus treated by a gastrojejunostomy with excision or infolding, gave 98 per cent. of cure, or great improvement according to Mayo. 85 per cent. of ulcers of the body of the stomach are greatly relieved by excision, or devitalizing suture compression with gastrojejunostomy. The other 15 per cent. were more or less benefited, and Mayo has had none who were made worse by the operation in the period since 1906, when the perfection of technic had eliminated post-operative troubles and even deaths that were formerly encountered. The objection to excision of the duodenal ulcer are crippling adhesions resulting, and in two of nineteen cases so treated by the last named operator, a secondary gastro-intestinal anastomosis had to be done before cure was effected. It has become more and more the practice to excise all ulcers where possible, on account of the liability to cancer. The drainage operation, however, he says, gave better results than excision alone. Where the induration is not too great, obliteration of the ulcer base by suture, followed by infolding, is good.

The resection of the pyloric end of the stomach including the entire ulcer bearing area, has been suggested by Rodman, and is sound. It has, of course, a somewhat higher mortality, but where there is a suspicion of cancer, it should be done. The trans-gastric resection of calloused ulcers on the posterior wall is feasible and sometimes necessary. The technic of Coffey, by which the anterior wall is held up by traction sutures, allows the fluid to gravitate by air pressure to the dependent

portion of the stomach, where it can be ladled cut and mopped clean and dry, is useful and renders the field safe from soiling. It furnishes actual visual inspection of the entire interior of the stomach, which in the absence of contamination is exceedingly desirable and oftentimes essential.

The expectation of perforation is put at 5 per cent. by Mitchell. While the diagnosis at times is rather difficult as to the exact cause of the resulting peritonitis, yet the symptoms are so compelling that the acute peritoneal catastrophe must be dealt with. The patient is so desperately ill from shock that he is unable to give an accurate history, and if dependent upon the family or friends it is often unreliable. The signs are usually so unmistakable that prompt operation is demanded irrespective of the cause. Promptitude as in other perforations, is the greatest desideratum. To be successful, operation should be undertaken within the first few hours. Moynihan was able to save seven out of eleven perforating ulcers of the duodenum. While simple closure is usually followed by permanent cure, there may be a second or third perforation and it has sometimes occurred even though gastroenterostomy was done at the same time. However, if the condition of the patient allows it, gastroenterostomy should be combined with closure, as it does away with the fear of lessening the lumen by suture, and is effective if other ulcers are present.

Chronic perforations walled in by adhesions are extremely disabling. They may be subacute and cause subdiaphragmatic abscess.

What is the cause of cancer? We do not know. What is the cause of cancer of the stomach? Chronic gastric dyspepsia is the chief cause. This catechism is intended to ground our faith in the pre-cancerous conditions of ulcer of the stomach and to accentuate its keener appreciation and its eradication by earlier and more radical means.

The stomach is the seat of one-third of all the cancers of the human body. More than 5,000 persons on an average die from cancer each year in England and Wales alone, according to Paterson. While cancer of the stomach is more frequent than in any other site of the body, operation on the stomach for its removal is one of the less frequent of all operations. In the average hospital there are probably one hundred operations done for appendicitis to one for cancer of the stomach, yet in higher specialized clinics this is

not true. The ratio between this operation and operation on the stomach being 7 to 1.

Clinically there are two type histories—one is the man with the long history of gastric distress, which comes in attacks, and for which he has learned the amelioration with certain diet and treatment. Finally there comes an attack which fails to respond to the former methods but persists. In an elderly man this is very suggestive. We should not relax our efforts until the presence or absence of cancer is established. The second type is in the elderly individual, who suddenly, and perhaps for the first time in his life, and without any other cause begins to have a train of stomach distress, that is more or less intractable to any and all measures. Under these circumstances our every diagnostic resource should be invoked. Stomach symptoms persisting without apparent cause in a man over forty, with loss of appetite, with or without visible or occult blood in the stools, which are not benefited by diet and rest, mean cancer in all probability. We must not expect to have all of the symptoms, such as hemorrhage, absence of hydrochloric acid, presence of lactic acid, Oppler-Boas bacillus, palpable tumor, emaciation, and left sided supra-clavicular glands. These are not the early symptoms of cancer, but the token of inoperability. We should not even wait for the absence of hydrochloric acid. It will probably come later on, but so late that cure is impossible.

Graham found acid in nearly one-half of the cases subjected to operation. He has long contended that a large per cent. of cancers have a good ulcer history. In a later series of cases the laboratories have confirmed this clinical observation of its extreme frequency and that 71 per cent. of cancers of the stomach actually developed on an ulcer base.

Deaver and Ashhurst say, "It seems to us that every case diagnosed certainly as carcinoma of the stomach before operation is a disgrace to the attending physician, provided he has had the patient under treatment for more than a few weeks." With the present paucity of methods for the early diagnosis we must admit that exploratory abdominal section is our only real measure which can make the diagnosis sufficiently early to expect permanent cure. It is surprising how frequently the patient will accede to this when frankly put before him. We are so "wedded to our flesh pots"

of symptomatology, however, that the medical man often demurs, waiting for the development of more conclusive symptoms, the advent of which he admits renders operation useless.

Radiography of the bismuth meal in the stomach when skillfully performed gives evidence of unmistakable value. It should, however, be studied in connection with functional tests and clinical history. It should not serve according to Von Schmeiden as an exclusive basis for diagnosis, yet in a difficult case it should not be considered complete without an X-ray picture. Hemolysis of the wash water of the fasting stomach has been appealed to. Elaborate tests for peptid-splitting ferments have been devised. The simplest of these is the reaction of Weinstein, which depends upon the detection of tryptophan, one of the amino-acids, which is supposed to be formed where cancer of the stomach is present. If positive, it is said to be indicative of cancer, but a negative diagnosis should not disprove.

The advent of palpable tumor or obstruction is really a fortunate circumstance for the patient, because if it occurs early it compels attention. While not all masses in the stomach believed to be cancer are such, on the other hand, Kuttner found cancer in 43 per cent. of resections of the stomach which had been regarded as calloused ulcer.

Every doubtful case, which is not apparently too far advanced, should be subjected to exploration. Unfortunately, a considerable proportion will find the disease so extensive that further effort is useless. Yet there is a certain satisfaction to the surgeon and to the friends and family, in knowing that the patient has been deprived of no chance. The wound is closed with buried non-absorbable sutures and the patient is permitted to return home within a few days. Moreover, certain cases that are apparently forbidding turn out to be amenable to removal.

Partial gastrectomy in suitable cases is not only a legitimate procedure, but is far from being the dispiriting picture which has been so discouraging. The mortality in skilled hands is from 5 to 8 per cent. The ultimate result compares favorably with the treatment of cancer elsewhere.

Kummel had 29 per cent. free from recurrence for more than three years.

Mikulicz has 30 per cent. who lived for three

years and 39 per cent, if only the last three years of his work be taken.

Mayo, out of 296 resections had 25 per cent. of his patients who recovered from the operation alive and well over five years.

It behooves us, therefore, to be more optimistic about this fearful malady and its possibilities. The surgical requirements it must be confessed, are most exacting and the judgment of the operator is no less a potent factor than his skill.

Napoleon, when crossing the Alps, said that an army travels on its stomach, and so it is with our industrial army. In dealing with inveterate and disabling dyspepsia of the mechanical type, modern gastric surgery has indubitably demonstrated its ability to cure these stomach sufferers and restore them to the paths of peace.

PELLAGRA, WITH A REPORT OF FOUR CASES OCCURRING IN MILWAUKEE.*

BY O. H. FOERSTER, M. D.,

MILWAUKEE.

Until five years ago pellagra was but a name in American medicine. Text-books gave the disease only scant mention, and the few cases reported in American literature were regarded as curiosities. Then came the sudden awakening to a realization that pellagra, fully developed, widespread, and deadly, was firmly entrenched in this country, and has undoubtedly existed here unrecognized for a number of years. Numerous cases were reported from the Southern states—chiefly North and South Carolina, Alabama, Georgia, Texas and Florida, where the disease was present in epidemic form, as well as from several states farther north, especially Illinois and Missouri. A National Conference on Pellagra was held in South Carolina in 1909, the Governor of Illinois appointed a commission for its investigation, medical societies had pellagra as their chief topic for discussion, and in many other ways its importance in relation to public health was recognized. That all this sudden activity, which recognizes in pellagra an almost national menace, is not irrational, but is well founded, can be understood when we learn that in Alabama alone pellagra has caused nearly one thousand deaths during

1911, and that from 1910-1911 it has spread to the proportions of an epidemic and has reached every county in that state.¹ During the past five years at least 7,000 cases have been officially reported in the Southern states, and Assistant Surgeon-General Kerr of the Marine Hospital Service estimated that in 1909 there were 5,000 pellagrins in the United States. It is stated that in Georgia alone at least 50,000 cases exist at present.² With due recognition of all these facts it still is not to be expected that pellagra in the United States will repeat the ravages it has made in Italy. Economic and social conditions differ, repressive sanitary measures found efficient in Italy can be used to full advantage here, and all the forces of prevention are already actively in motion.

Although Italy has long been the home of pellagra, and Italian physicians have contributed most largely to its literature, the first authentic description of the disease was given in 1735 by a Spanish physician, Gaspar Casal, as a result of his observations among the peasants of the Asturias. The localization of the cutaneous lesions as observed by Casal does not differ from that of today, and his name remains associated with the collar-like dermatitis often occurring about the neck as "Casal's necklace." The name pellagra, or "rough skin," is supposed to have been a title for the disease current among the laity and was introduced by Frapolli, of Milan, in 1771.³ Though it spread to many countries the disease assumed its greatest proportions in Italy, where in Lombardy alone from 1770 to 1880 the number of pellagrins increased from 20,000 to 104,067.⁴ In the north of Europe it occurs sporadically, and in general pellagra in Europe is confined between 40° and 50° north latitude.

Its incidence in all countries has been most largely among the poverty stricken inhabitants of both sexes—those debilitated by insufficient and poor food, exposure, and unsanitary living,—and at all ages, but especially between the ages of 30 and 50. Though it occurs in children, it is not an inherited disease. It is not a communicable disease in the ordinary sense of that word, though several cases may occur in one household. Pellagra is essentially a chronic condition and has been known to exist for from twenty to thirty years, although cases pursuing an acute, rapidly fatal course are observed at times, especially in

*Read before the Milwaukee Medical Society, May, 1912.

the United States. One of the striking features of the disease as it occurs in this country is its high mortality. In Alabama in one asylum, the mortality was 68 per cent. Statistics based on asylum cases give a mortality of 67 per cent. In Southern Europe the mortality rate has declined from 13 per cent. in 1884, to 4.3 per cent. in 1905, and 0.7 per cent. in 1907.⁵

Two types of the disease are recognized, the acute and the chronic. In the acute form, which represents about half of the cases seen in our Southern States, the onset is rapid and violent, with predominant toxic symptoms, and high mortality. Acute exacerbations may occur at any time during the course of the chronic type, and many Italian writers are of the opinion that all the acute cases are simply recrudescences of the chronic form. The disease usually begins in the spring and frequently subsides or may even disappear on the approach of winter, and recur during the following spring, thus repeating itself for a number of years. This abatement of symptoms during the winter months does not indicate an actual disappearance of the disease, but is merely a remission during its course.

The onset is gradual as a rule, with great languor, lassitude, vertigo, headache, anorexia, and weakness of the legs, during a period of several weeks, associated with sensations of dryness and burning in the mouth and of heat in the epigastrium. Somewhat later a stomatitis may develop, and the tongue assumes a swollen, bright red appearance, with prominent papillae, and loss of its superficial epithelium or actual ulceration. Vomiting and diarrhea occur and the patient loses strength rapidly. There may be a slight rise of temperature, but usually the disease pursues an afebrile course.

At about this time, or earlier, the characteristic cutaneous phenomena make their appearance, at times with an abatement of all the gastro-intestinal symptoms. In the fully developed disease the prominent symptoms are cutaneous, gastro-intestinal, and nervous, and may be briefly summed up as dermatitis, diarrhea, and dementia. The cutaneous changes are the most distinctive, and from these alone a diagnosis can often be made. They can be considered under three heads: First, congestion or erythema; second, thickening or infiltration, with scaliness, and pigmentation; third, atrophy. Upon its first appearance the

eruption is dull red in color, resembling somewhat the congested appearance of an ordinary sunburn, but lacking the pinkish tint. It may also first appear as macules, which rapidly fuse into a continuous sheet of erythema and soon no longer disappear on pressure. The reddish hue deepens, becomes reddish brown, the skin is swollen and tense, and exceptionally vesicles, bullae and petechiae develop. The borders are quite sharply limited and in many cases distinctly outlined by a narrow rose-colored band. This rose-colored band is considered by Merk of Innsbruck to be characteristic of the pellagrous eruption, and in the cases I have seen it has certainly so impressed me, though there is but little concerning this feature to be found in the literature. As the dermatitis undergoes involution the color changes to a brown, or at times plum color, and in about two weeks the eruption subsides with formation of scales, leaving the affected area roughened, somewhat thickened, and considerably pigmented. In recurrent attacks the same phenomena are repeated, and the skin gradually grows seamed and rough, a condition which gave origin to the name pellagra. Finally the skin becomes thinned and atrophic, loose and wrinkled, senile in appearance, with a bluish red or dark brown color, and exfoliates constantly. A distinctive feature of the pellagrous eruption is its localization by preference to those areas of the skin not covered by clothing, an observation which early led to the belief that the sun's rays take part in its production. That this belief is well founded has been sufficiently proven, but it is equally certain that the eruption is not solely due to the action of the actinic rays of light, and that tropho-neurotic conditions must be considered. It appears as a rule symmetrically, and affects the face, neck, hands and feet. Only a part of the face, or the entire face may be involved producing the pellagrous "mask". A collar-like band of dermatitis may extend partly or completely around the neck—the so-called "Casal's necklace"—with at times a sternal prolongation. On the hands the exanthem involves the entire dorsum evenly from radial to ulnar border, but spares the nails and palms. The wrists show characteristic, almost pathognomonic localizations. On the dorsum of the wrist a triangular area of eruption is often present with its apex directed toward the radius, while on the flexor surface of the wrist this triangular area has its

apex directed toward the ulna. Patches of eruption may appear on the elbows, at the axillary folds, on the legs, in the genital region, and the feet may also be affected, with the exception of the heel and sole. Some instances of an almost universal eruption have been recorded.

These cutaneous symptoms are in themselves so characteristic in appearance, localization, and development that they may suffice to establish a diagnosis of pellagra, even in sporadic cases. To one who has had the opportunity of acquainting himself with their appearance in various stages they represent a clinical entity in dermatology readily differentiated from other conditions which may bear a resemblance. Among these are erythema multiforme, with its isolated crimson papules, eczema with no limiting border, but of an irregular patchy character, and tendency to cozing, and the transitory erythema solare or sunburn.

As the disease progresses the nervous and mental symptoms become more pronounced. The early vertigo and headache are followed by alternating periods of mental depression and excitability. There may be melancholia, hallucinations, delusions of various kinds, stupor, and epileptiform attacks. It is stated that in Italy but 10 per cent. of pellagrous patients became insane. The gastrointestinal symptoms include meteorism, an intractable diarrhea, with at times bloody evacuations, resulting in extreme prostration and emaciation. Late in the disease great tenderness may exist in the lumbar region on either side of the spine, and the trunk is held in a fixed position of lordosis. Opisthotonos is said to be an almost constant symptom in the terminal state.

At some time during the course of the disease symptoms referable to the eye may be observed. Among these are photophobia, ocular palsy, conjunctivitis, retinitis, optic neuritis and chorioiditis, though none are distinctive of pellagra. Neither is there a characteristic blood picture.

The post-mortem findings as usually reported present no characteristic or constant changes. The skin changes are entirely comparable to those found in other exudative erythemata and in the senile skin. In the viscera anemic, atrophic, and pigmentary changes are found, with fatty degeneration, and hepatic enlargement, while the nervous system shows either no changes, or pachymeningitis, cerebral atrophy, and sclerosis of

the posterior and postero-lateral columns, most often in the dorsal region. The hepatic enlargement is of especial interest in connection with the findings, as yet unpublished, of the Illinois Pellagra Commission. They report an almost constant alteration of the liver as though in response to the introduction of a toxic product conveyed by the portal venous system from the intestine. The occurrence of superficial ulcerations in the mucosa of the colon, in the absence of protozoal infection, is suggestive in this connection. Of the pellagrous inmates of the Peoria State Hospital a large number showed protozoal infections of the colon, a condition which has been repeatedly observed in this country.

As to the etiology of pellagra nothing definite is known. The theory that it is due to the eating of damaged corn or maize dates back almost to the time when the disease was first recognized, and is today quite generally accepted. It is supposed that a poisonous principle is formed in diseased or fermented maize under the influence of the penicillium glaucum, and that this toxin is the cause. The opponents of the maize theory regard pellagra as an infectious disease of protozoan origin, and Sambon believes that a species of sand fly (*Simulium reptans*) acts as the intermediary host. He presents strong evidence to support his contention and numbers among his adherents many eminent men. The National Pellagra Conference held in South Carolina in 1909 took this judicious attitude: "While corn is in no way connected with pellagra, evidences of the relation between the use of spoiled corn and the prevalence of pellagra seem so apparent that we advise continued and systematic study of the subject, and, in the meantime, we commend to corn-growers the great importance of fully maturing corn on the stalk before cutting the same." To test the corn theory a feeding experiment was undertaken by the Illinois Commission in the Peoria State Hospital. Fifty-six patients lived for an entire year on a carefully selected corn-free diet, and a second group of fifty-six were given an excessive corn diet for the same period. All lived under exactly similar conditions in all other respects. The patients were closely observed with reference to pellagra, but at the end of the year there were no developments in the least conclusive. A few cases of pellagra developed in each group, but on the whole, the corn-fed patients

showed fewer cases than those on a corn-free diet.⁶ The results from prophylactic measures as adopted in Italy in conformity with the corn theory, and designed to improve the surroundings and the health of the individual, are not available in support of the corn theory alone, for the same preventive measures would be of equal efficiency when applied on the basis of the protozoan origin of pellagra.

Prophylaxis offers at present the only effective means of controlling the disease. In regions where it is of recent appearance, as in our Southern States, the prognosis is grave, the majority of cases end fatally, and those of the acute type almost invariably so. Treatment consists in attempting to improve the general health by nourishing food, good hygiene, tonics of arsenic and iron, and is otherwise symptomatic. Salvarsan has failed to prove of service, as have thyroid extract, atoxyl, and a host of other preparations. In a number of cases transfusion of blood of both recovered and non-pellagrous subjects has been successful, even in apparently hopeless cases, and appears worthy of further trial.

In conclusion I desire to briefly report four cases of pellagra which have occurred in Milwaukee, and are of some interest as they were, I believe, the first observed in Wisconsin. One originated in this city, the other three were imported—one each from Arkansas, Indiana, and Southern Europe, possibly Russia. Three proved fatal, and one has been lost sight of and had apparently recovered. All were typical cases, with cutaneous, gastro-intestinal, and nervous symptoms. One, a child of 8 years, had eaten corn only in the form of corn flakes as a breakfast food, and had been away from the city only once, going then to Minneapolis. One was, according to his account, an escaped Russian political prisoner, who had lived for two years on a diet largely of corn. One was a farmer from southern Indiana, but his mental condition made an inquiry as to his previous history impossible. The fourth was a young man who undoubtedly acquired the disease in Hot Springs, Arkansas, and who had eaten corn at times.

CASE 1. Girl, 8 years of age; seen July 26, 1909, when she applied for admission to the Children's Free Hospital because of a persistent "sunburn" of eight weeks' duration. The sunburn had appeared during the first moderately warm days of 1909, as a rapidly spreading erythema located at first over the dorsum of the

nose, then spreading to cheeks below eyes, and over dorsum of hands up to the knuckles, but not on the fingers. Within one week this erythema had spread over the entire face, except immediately surrounding the lips, and was marked on the left ear. On the dorsum of the arms and forearms an erythema with vesicle formation had appeared on July 18th and extended almost to the elbows. She was placed in the hospital.

Inquiry into the previous history showed that during July of 1907, the mother for the first time observed the presence of a very violent sunburn, limited to the face and hands, with slight vesicle formation, which disappeared within a few weeks. During the first warm days in 1908, after having been out of doors, the so-called sunburn reappeared in the same locations, lasting about three weeks, with slight vesicle formation. During the remainder of the summer the patient's skin remained without further inflammation, but showed some pigmentation. Until two years ago, with the exception of measles, during the winter of 1907-1908, the patient had always been well, but at this time began to be "pale and rundown" and showed definite mental depression. In the spring of 1909 patient had been sent home from school because she looked so poorly and has not been to school since. During the past month has had a constant diarrhea, with pain at the umbilical region, and complains of pain and dryness of the throat. The child appears to be steadily growing weaker and never regains any strength. Frequently vomits without apparent cause and without relation to food.

During her stay in the hospital the dermatitis on face and hands subsided slightly, assumed a dark red color, exfoliated constantly for about six weeks, after which time the scaling continued only over the knuckles and dorsum of the hands, where the skin also was considerably thinned. While in the hospital in a screened bed, an erythema appeared in two dollar-sized patches symmetrically located on either side of the neck, in regions that had always been covered by her dress. Never showed an eruption on trunk or lower extremities. The general symptoms while in the hospital consisted of a continuous diarrhea, progressive loss of strength, anemia, increasing mental depression, occasional vomiting, and marked tremor of the hands. The patient at times was up and about in the hospital, and, late in September, 1909 was discharged unimproved, except for the dermatitis, which had practically disappeared, leaving behind scaling pigmentation and atrophy of the dorsum of the hands. On the day of her discharge it was observed that after walking a short distance the body was inclined to the right side, with tenderness over the lumbar spine. Early in October, observed diplopia, which disappeared in three weeks. On standing there was a marked tremor of both legs. Four diarrhetic movements occurred daily and she became much emaciated. Hallucinations regarding persons were frequent, and the mental condition remained unimproved until death, on December 23, 1909.

CASE 2. A Russian, male; about 35 years of age; seen at the Mt. Sinai Hospital by my associate, Dr.

C. A. Baer, whose diagnosis I could confirm. When first examined by us (August, 1910) the patient was a typical example of fully developed pellagra; emaciated as the result of a long continued diarrhea, semi-delirious, with a typical pellagrous eruption on hands, feet, neck, and face, the tongue superficially ulcerated and bleeding, and marked stomatitis. He shortly afterward unsuccessfully attempted to commit suicide by cutting his throat with a razor. After several months he apparently recovered, and according to last reports has remained well.

CASE 3. A man, about 30 years of age; seen with Dr. L. M. Warfield at the Milwaukee County Hospital, during the summer of 1911. This patient had been an inmate of the institution during the winter of 1910-1911, and was affected with a generalized tuberculosis, especially involving the joints. Early in 1911 he went to Hot Springs for three months, and shortly after his return, again entered the County Hospital, where he developed the typical eruption of pellagra during July. Face, hands, wrists, elbows and feet were affected, his mentality was not clear, and he had a constant diarrhea. It was not possible to determine with certainty if the bowel symptoms were due to pellagra or tuberculosis. This case ended fatally in October.

CASE 4. A farmer, aged 73, from southern Indiana, seen with Dr. A. W. Akery at the National Soldier's Home. He had been an inmate for several months of an institution for the insane in southern Illinois, and on arrival at the Home had a marked diarrhea, with abdominal pains, was much emaciated, semi-stuporous, and presented the characteristic eruption of pellagra on the hands, feet, wrists and neck. He died within a few days after admission. This case was of the chronic type, and had existed for five years.

The frequent occurrence of pellagra in hospitals for the care of the insane, and the discovery of so many previously unrecognized cases in Illinois institutions, led Dr. L. M. Warfield and myself (September, 1911) to request the privilege of going through the Milwaukee County Hospital for the Insane for the purpose of determining if cases of pellagra existed there. We were courteously granted this privilege and were unable to find past or present evidences of the disease.

It appears very improbable that Wisconsin will be numbered among the states in which pellagra can gain a foothold, but sporadic or imported cases, such as those cited, will doubtless be met with from time to time.

BIBLIOGRAPHY.

- 1 Cameron, Journ. A. M. A., May 11, 1912, p. 1472.
- 2 Zeller, Journ. A. M. A., Nov. 18, 1911, p. 1688.
- 3 Hyde, Am. Journ. Med. Sc., Jan., 1910, p. 2.
- 4 *Ibid.*, p. 2.
- 5 Wende, Buffalo. Med. Journ., May, 1911.
- 6 Zeller, Journ. A. M. A., Nov. 18, 1911, p. 1689.

GONORRHEA IN WOMEN, WITH SPECIAL REFERENCE TO PROPHYLAXIS AND SEQUELAE.*

BY CHESTER M. ECHOLS, M. D.,
MILWAUKEE.

The president of the Milwaukee Normal School in a recent lecture to the young men of that institution said, "The best and most valuable credentials you can present to your prospective father-in-law will be a physician's certificate that you are free from gonorrhoea." This reminds us of the edict of the eminent Chicago divine who lately announced that no more couples would be married by him unless provided with similar certificates of health,—an announcement which was fortunately given wide publicity through the newspaper dispatches and magazine editorials. Such expressions as these from non-medical sources,—indicating as they do a progressive public enlightenment on a matter of vast importance,—make the subject of this paper peculiarly timely.

Now, I am neither a venereal specialist nor a representative of any social purity league, and yet two facts in personal experience have been sufficiently impressive to record: First, that approximately 15 per cent. of my surgical operations upon women have been necessitated directly or indirectly as a result of gonorrhoeal infection, and second, that gonorrhoea is found to be the most common single cause of sterility in women. Nor is it easy to see how any thinking medical man can fail to be impressed with the sociologic aspect of the disease. Thus, many of our southern confrères view the race problem with complacency, for the reason, as they say, that the increase of the naturally prolific negro race in the southern states is being held more and more in check by the frightful prevalence of pyosalpinx.

In the light of our present knowledge of the pathology and sequelae of gonorrhoea in women, such as tubo-ovarian disease, pelvic peritonitis, and sterility, it is very curious and interesting to note that the medical profession of thirty years ago knew almost nothing about these complications, or at any rate did not associate them in any causal relation with gonorrhoea¹. Take any of the best works on women's diseases, published in any

*Read at the Sixty-sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 22, 1912.

language prior to 1880 or 1882, and you will perhaps see gonorrhoea mentioned as one of the causes of vaginal catarrh, but you will look in vain for evidence that the writers had any suspicion of the real mischief the disease produces². To be sure, Neisser's discovery was not published till the year 1879, but even so, such an accumulation of ignorance about the pathology and sequelae of gonorrhoea contrasts strikingly with the extensive knowledge of the pathology of tuberculosis and syphilis before the bacteriology of those diseases was understood.

Neisser's diplococcus possesses some interesting biological characters and clinical traits of behavior that ought to be familiar to the physician treating the acute disease as well as to the surgeon operating for its sequelae. A few of these, for the purposes of this paper, are worth enumerating and commenting upon.

1. *Specificity*: The gonococcus is one of the most specific of all pathologic bacteria in its action, and certainly of all the known organisms pathologic for man, it has attained the highest degree of parasitic adaptation³. It not only elects to grow on human mucosa, but upon human genito-urinary mucosa; and, unlike most of the other germs producing disease in man, it cannot be made to produce its peculiar infection in any other known animal, not even in the anthropoid apes⁴. How the gonococcus acquired its highly specific character and extraordinary degree of parasitic adaptation is purely a matter of speculation. Its ancient, if not honorable, lineage probably had much to do with its present fixed habits; for we have evidence that not only the early Romans, but also the Greeks and the ancient Egyptians at and before the time of Moses, suffered extensively from a specific urethritis produced, no doubt, by the direct ancestors of Neisser's diplococcus.⁵

2. *Immunity*: Our inability to transmit gonorrhoea to the lower animals has hampered the work of studying the biology of this organism and some phases are still imperfectly understood. Wassermann was the first experimenter to prove that a general immunity against the toxins of the gonococcus cannot be produced⁶, although clinical experience and observation long ago taught that one attack of gonorrhoea does not confer immunity against a subsequent infection. It seems doubtful whether there are individuals with a congenital

immunity, notwithstanding the number of examples cited in the literature which would appear to support such a hypothesis. In latent or chronic gonorrhoea, there is, however, a relative immunity to the germs present, although these same germs may be virulent to another host. This is illustrated in the transmission of ophthalmia neonatorum by a mother who has had no symptoms of gonorrhoea for years previously. Wertheim produced acute gonorrhoea experimentally⁷ in the human urethra (with the patient's consent, let us hope!) by inoculation with a culture obtained from a case of chronic gleet. From the urethral pus thus produced in patient No. 2, he then re-inoculated the gleet patient and set up an acute gonorrhoea, albeit in a somewhat mitigated form. This experiment merely illustrates the fresh virulence acquired by the germs as a result of passing through a second host. A similar phenomenon not infrequently happens when a man, supposedly cured of gonorrhoea, marries and infects his wife, and then in turn a little later receives a fresh infection from his better-half. Thus do his chickens come home to an unwelcome roost! Curiously enough this mutual re-infection back and forth between man and wife cannot continue, for both soon become accustomed, so to speak, to their particular *family* strain of gonococci, and incapable of further re-infecting each other, although either could transmit the disease in virulent form to a third person.⁸

This fact has been known since the time of John Hunter, and commented upon in the pre-bacteriologic literature.⁹

3. *Viability*: Knowledge of the length of time the gonococcus may live under various conditions illuminates both the medical and surgical aspects of the disease. Experimentally it has been found that gonorrhoeal pus, when dried, loses its virulence very quickly. Therefore, when patients claim to have contracted the disease in water closets and in other fantastic ways, an attitude of extreme skepticism is commendable. Barring persons living under conditions of excessive filth, the contraction of gonorrhoea by adults in other than the orthodox way is so rare as to be negligible.

You are all familiar with the necessity, in laboratory work, of transferring bacterial cultures to fresh media from time to time to prevent their dying out. This fact throws considerable light

upon the viability of the gonococcus in the body under varying conditions. The germs in the crypts of the prostate, or in Skene's ducts, or deep in the cervical glands may live indefinitely, because they are constantly bathed in fresh media from the secreting epithelium. On the other hand, the germs shut up in a thick walled and hermetically sealed pus tube are in the same predicament as the germs left unchanged in the culture glass, and meet a similar fate. Thus, the contents of a pus tube may become entirely sterile from death of the gonococci within a period of six weeks¹⁰ from the time the disease was contracted, although the average time is doubtless considerably longer.

4. *Site of predilection*: While the genito-urinary mucosa is the normal habitat of the gonococcus, other mucous surfaces are not exempt from attack, for example, those of the mouth, anus, and conjunctiva. But not all parts of the genito-urinary tract are equally vulnerable. In adults, the vaginal wall practically always escapes involvement, because its comparatively hard squamous epithelium and the absence of mucous glands make it far more resistant to the gonococcus than the mucosa of the cervical and uterine canal, tubes, or urethra. With young girls, the situation is entirely different. Here the tender vaginal epithelium is less resistant, and hence the frequency of vulvo-vaginitis in children.

The peritoneum is not an attractive field for the gonococcus. It is true that a generalized septic peritonitis does occasionally occur from the rupture of a pus tube¹¹ containing an assortment of bacteria, but even this is a rare event; while a general peritonitis, caused by gonococci alone is practically unknown.¹²

5. *Toxines*: Filtrates from cultures of the gonococcus contain no true toxines. Hence we may assume that whatever poisons are elaborated by this germ are of the nature of bacterio-proteins or endo-toxines¹³, and are inseparable from the germ itself. It follows therefore that any rational anti-toxin therapy in this disease must be based upon the injection of the bacteria themselves.

In this connection it may be mentioned that a pure culture of the gonococcus is entirely without odor. If, therefore, one encounters stinking pus in a fallopian tube or a pelvic abscess, it is certain

either that the gonococcus is absent, or else that there is a mixed infection.

6. *Pathogenesis*: It is important to remember that the gonococcus requires no infection atrium; that is to say, it can attack and grow upon the perfectly healthy, unbroken mucosa without any previous lesion whatsoever,—differing in this important respect from the usual method of acquiring syphilitic infection. It must not be inferred that all parts of the genito-urinary mucosa are equally susceptible of attack, for, as stated above, the skin-like membrane lining the adult vagina is relatively immune to the gonococcus.

Inoculation experiments on the human indicate that the number of gonococci introduced upon the susceptible mucosa plays no rôle in determining the infection or its severity¹⁴, for so rapid is the propagation on favorable soil that a single gonococcus quickly has millions of progeny.

Women suffering from gonorrhœa and its sequelae may be conveniently grouped into three classes:

1. Public prostitutes, who practically all become infected sooner or later,
2. Women of a more respectable class, who acquire the disease through clandestine sexual relations, and
3. Women who acquire the disease innocently from their husbands.

Public prostitutes, plying their trade through municipal licensure, as in some of the old world cities, or through connivance of the authorities, as in most cities of this country, are of no great interest from a medical view-point, except as disseminators of venereal disease. In my opinion, however, there is actually, if not relatively, more gonorrhœa disseminated by the second class above mentioned, that is, those guilty of sexual laxity under guise of respectability.

Some time ago an ex-mayor of one of the larger cities of this state told me with all the pride of achievement that during his administration he required every prostitute in his city to be examined regularly every week by a city physician and to obtain a certificate from the doctor as to whether she was free from venereal disease. This calls attention to a delusion nursed by certain up-lift reformers to the effect that police and medical supervision of the underworld may curb, if not eliminate, the spread of gonorrhœa from this source. Now, what are the facts? We know that

in the large continental cities where medical supervision has been attempted it has proven a fiasco. Why? The answer throws so much light upon the question of diagnosis of chronic gonorrhoea in women that it will repay close scrutiny. Any discharge from the male urethra, except urine and semen is pathologic and abnormal, and any such abnormal discharge is in ninety-nine cases out of a hundred of gonorrhoeal origin. Hence the relative simplicity of diagnosis in the male. Not so with the female. Here we have besides urine, the mucus from Bartholin's glands, vaginal epithelium, cervical mucus, menstrual blood, and a few leucocytes,—all perfectly physiological and normal, and practically the same whether chronic gonorrhoea is present or not. Furthermore, when one considers that the genital mucosa of the female covers an area of 75 to 150 square inches, the difficulty of making a positive diagnosis of chronic gonorrhoea in a woman, and the possibility of overlooking the germs in hidden recesses, even upon repeated examination, may readily be appreciated.

Gonorrhoea in the third class of women mentioned above, that is, married women who have acquired the disease innocently from their husbands, is a real calamity, medical and social. To these cases especially the old adage about the ounce of prevention and pound of cure, applies with peculiar force; for we have no definite and certain cure for gonorrhoea in either man or woman. Fortunately in this class of patients the physician sometimes has more control over both the prophylaxis and the prevention of surgical complications and sterility than in the other classes mentioned. I think we may assume that no man would deliberately transmit gonorrhoea to his wife. And it is to be hoped that the majority of men with chronic gonorrhoea who contemplate marriage consult some physician about the matter. This gives the doctor his golden opportunity on the side of prophylaxis, and it is little short of criminal not to inform the patient fully as to the possible effects upon his future wife. That men treat gonorrhoea lightly and even facetiously is a reflection upon the physicians who taught them so to treat it. The proper education and instruction of men,—married and unmarried, especially with regard to the insidious and remote consequences of gonorrhoea upon their present or prospective wives, holds out practically the only hope of re-

ducing the prevalence of this disease among wives and mothers. Collective instruction to classes of high school students is a proposition I have never grown enthusiastic about, but opportunities for individual instruction come repeatedly to us all, and this personal teaching is of the highest importance in the matter of prophylaxis.

Treatment, I have intentionally omitted. Slowly we have learned that disinfection of the living mucosa is entirely a different proposition from the disinfection of a surgical instrument or a rubber glove, and therefore the action of all local antiseptics is limited.

The *surgical sequelae* of gonorrhoea in women I believe could practically always be prevented if, at the onset of the disease, the patient were put to bed and kept there long enough,—a point which is not fully appreciated. For just as there would probably never be such a thing as gonorrhoeal epididymitis, were the patient kept in bed, likewise there would probably be few, if any pus tubes, were the woman similarly treated. In favor of the practicability of this procedure, it may be said that it is easier to find some pretext to keep a woman in bed than a man, without exciting suspicion about her real trouble, or even without informing the patient herself. So efficient is rest in bed with proper local treatment that some careful observers even believe that recently acquired double pyosalpinx can undergo complete resolution and the woman again become capable of child-bearing.

BIBLIOGRAPHY.

- 1 Bumm, in Veit's Handbuch der Gynakologie, Bd. II.
- 2 It is true that a few earlier observers and writers in the days of pre-bacteriologic literature, particularly Bernutz and Grupil (Archives generales de medecine, Mars, 1857), Noggenrath (Die latente und chronische Gonorrhoe beim weiblichen Geschlecht, 1872), and Tarnowsky (Vortraege ueber venerische Kraukheiten, 1872) had some inkling of the truth about the pathology of gonorrhoea as we now know it, but their views made no impression upon the medical profession at large.
- 3 Bumm, loc. cit., p. 8.
- 4 Wildbolz, Zur Biologie der Gonokokken. Zentralblatt f. Bakteriologie. Bd. 31 Nr. 4.
- 5 Veit's Handbuch der Gyn, Bd. II.
- 6 Wassermann, Weitere Mitteilung ueber Gonokokkenkultur und Gonokkengift. Zeitscher. f. Hyg. u. Infekt-Krankh. Bd. 27 Heft, 2.
- 7 Wertheim, Archiv. f. Gyn. 1892 Bd. XLI. Heft 1.
- 8 "Wenn in einer solchen gonorrhoeischen Ehe ein unbefugter Dritter mittut, so kann es geschehen dass er

seinen Uebergriff mit einer akuten Gonorrhoe buesst." (Wertheim.)

9 Tarnowsky, Vortraege ueber venerische Krankheiten. Berlin, 1872.

10 Bumm, loc. cit., p. 11.

11 Echols. Surg. Gyn. and Obstet., Dec., 1910.

12 Brüse, Menge, Ceppi and Leopold have reported cases of general peritonitis showing the gonococcus in pure culture, but so rare is this condition that Bumm in twenty-five years' experience in a large gynecologic clinic states that he has never seen such a case.

13 Wassermann l. c.

14 Wertheim, Zur Frage von der Rezidive und Uebertragbarkeit der Gonorrhoe. Wiener klin woch 1894. Nr. 24.

PAINLESS HEMATURIA.*

BY HERMAN L. KRETSCHMER, M. D.,

UROLOGIST TO THE PRESBYTERIAN HOSPITAL,

JUNIOR ATTENDING GENITO-URINARY SURGEON TO THE
ALEXIAN BROTHERS' HOSPITAL.

It is not my object to consider in a routine manner all of the etiological factors that may produce blood in the urine. I shall rather limit myself to a consideration of profuse, painless hemorrhages from the urinary tract, with especial reference to the value of cystoscopy in diagnosis of the source of the blood, and a consideration of the underlying pathology, and to cite a few examples of the more frequently occurring causes of this type of urinary hemorrhage as met with in practice. Inasmuch as this paper shall deal only with voluminous hemorrhages, I shall pass over the various chemical tests as well as the microscopic characteristics of the blood in the urine.

Hematuria always means some pathological process in the urinary tract and must be looked upon as a signal of danger. It is never to be looked upon lightly; as is so frequently done. A patient should never be told that "this is nothing serious and everything will be all right again in a few days." Equally fallacious is the irrigation of the bladder or instillations into it of various drugs, without having first determined the origin of the bleeding. It is quite obvious that such a line of treatment is nothing short of robbing a patient of valuable time by a delay of proper treatment, should he be suffering, for example, from a tumor of the kidney or a renal tuberculosis.

In other words, the question of painless hematuria is one primarily of diagnosis, determining

first the origin of the blood, and secondly, determining, if possible, the cause of the bleeding. By cystoscopy, ureteral catheterization and endoscopy, one can definitely determine the origin of the blood, whether renal, ureteral, vesical, prostatic or urethral in origin.

The entire subject of painless hematuria has undergone a remarkable change since the introduction of the cystoscope. Before the advent of cystoscopy most elaborate tables of differential diagnosis were found in text-books, in which various subjective symptoms and physical appearances of the urine were set down as being pathognomonic of renal or vesical hemorrhages.

While at the present time painless urinary hemorrhage which does not promptly yield to treatment is looked upon as a symptom of serious moment, in former times not so much stress was attached thereto. Thus, Meinhofer, in writing on this subject, in 1810, assumes, in conformity with the views of his times, that many a renal hematuria which occurs periodically and without pain is harmless and when occurring in plethoric persons, may even be beneficial.

Cases of painless hematuria cannot be properly diagnosed without a cystoscopic examination. While a cystoscopic examination is of intrinsic value in every case of hematuria, a "tentative" diagnosis may perhaps be made without its aid in cases associated with pain, typical attacks of renal colic, or symptoms referable to disturbances in the urinary tract, the final diagnosis must be made from the cystoscopic findings.

There can be no excuse for performing an exploratory operation on the urinary bladder, to find a normal bladder and the blood coming from the kidney of one, or perhaps both sides.

To illustrate the types or examples of the obscure and difficult to diagnose conditions, I have selected from a large number of hematuria cases, those in which the hematuria was the only or the predominating symptom.

It is almost needless to mention that a good, careful history be elicited, and a physical examination be made, including a rectal examination and a vaginal examination, before the cystoscopic examination is made, for there we may be able to elicit information which may be of aid in making a diagnosis. Thus, for example, a history of trauma of the kidney area, a history of previous urinary hemorrhage, and in women often a statement

*Read at the meeting of the Waukesha County Medical Society, Waukesha, March 13, 1912.

is obtained of hematuria occurring with each pregnancy. Not only should each cystoscopic examination be preceded by the above-mentioned examinations, but a careful and complete chemical and bacteriological examination of the urine should precede.

It has been repeatedly demonstrated that infections of the urinary tract by *Bacillus coli communis* are often associated with painless hematuria. It is of some moment, therefore, that cultures from all obscure cases of renal hematuria be made from urine obtained directly from the kidneys by means of the ureteral catheter.

This raises the question of how many of the cases of so-called essential hematuria, as reported by the older writers, were in reality due to colon bacillus infections. Nor must sight be lost of the fact that many of the so-called cases of "Essential Hematuria" are due to inflammatory changes in the kidneys.

After having obtained as much information as possible from the history, physical examination and urinary report, we are then ready to proceed with the cystoscopic examination, either alone, or combined with ureteral catheterization.

Of what value is the cystoscope in making a diagnosis and how much information is obtained by its use in cases of painless urinary hemorrhage? This, to a certain extent, will depend upon the individual case. Cystoscopy reveals the condition of the bladder, whether normal, or whether there are any pathological lesions present which may be the cause of the bleeding. Examples of the more frequent causes of painless hematuria of vesical origin will be mentioned below.

If in a given case the bladder is normal, one then proceeds to an examination of the ureteral orifices. These are often normal. If the cystoscopic examination is being made during the course of the bleeding and if the hemorrhage is renal in origin, it is then possible to see from which ureteral orifice the blood is being emitted.

There may be certain conditions present under which one is not able to obtain the desired information by cystoscopy. These I have divided into two groups:

1. In cases of renal hematuria which are examined in the free interval, that is, at a time when the bleeding has stopped. In view of the fact that these cases, as a rule, do not produce changes in the ureteral orifices, such as are seen in cases of

tuberculosis of the kidney or in cases after the passage of ureteral calculi, it is, therefore, often impossible to state from which side the bleeding comes. Because of this fact, all cases of renal hematuria should be cystoscoped during a time when they are actively bleeding. If the bleeding has continued for a long time or is associated with the passage of clots, there may be a difference cystoscopically in the appearance of the two ureteral orifices, so that even though there is no bleeding at the time of cystoscopy one could make a probable diagnosis in favor of the kidney whose ureter shows deviations from the normal.

2. The other condition under which it may be difficult, or even at times impossible, to determine the origin of the bleeding is in large vesical hemorrhages, due to either very large or profusely bleeding neoplasms. It may become necessary in these cases in which the hemorrhage comes from the bladder, and where it is impossible to have the wash water return clear, to treat these patients, directing the treatment toward the control of the hemorrhage. For this purpose rest in bed, with the use of an ice bag over the bladder, is resorted to, aided by the internal administration of styptics. Locally, instillations of adrenalin and antipyrin are of value in controlling the hemorrhage.

While this general plan has given satisfactory results in most cases, not every case responds to treatment, and in spite of everything that can be done, the bleeding persists so that it may occasionally happen that a case will have to be operated on (where there may be danger of exsanguination) without a cystoscopy having previously been made.

In all my cystoscopic work this has occurred to me only once, and that in the following case, previously reported.

The patient, a male, aged 64, complained of profuse hematuria of three weeks' duration. Local and general treatment were without any appreciable effect on the bleeding. It was impossible to remove the blood clots from the bladder so that a clear medium could be obtained, thereby rendering cystoscopy impossible. Suprapubic cystotomy revealed the following: The bladder was distended, reaching almost to the umbilicus, being filled with a large amount of blood clots and urine. After the cavity of the bladder was cleaned and all the clots were removed, a median lobe enlargement of the prostate was seen projecting into the blad-

der. It had the general contour of a small uterus. Running across the top of this lobe were seen four or five dilated, tortuous, atheromatous vessels about the diameter of a large knitting needle. The blood was seen oozing from several of these small vessels which had ruptured in some unexplainable way.

The following cases have been selected from a large number of cases of hematuria in which the bleeding was the only symptom or the predominating symptom for which the patient sought relief.

CASE I. About three years ago the patient had his first attack of hematuria, which lasted for only twenty-four hours. He attributed this bleeding to heavy work that he had been doing, namely, lifting up fence posts. Since that time, at irregular intervals, he has had blood in the urine, which lasted only for a day or two, followed by a free interval during which the urine would be perfectly clear. For the past three months his hematuria has been constant, varying in amount, but at no time has the urine been free from blood. The present attack is the longest in duration that he has had. He complains of pain in the descending ramus of the os pubis. There is no frequency of urination. The urinary examination: bloody, acid, 1,024, albumin; microscopic examination; many well-preserved red blood corpuscles, no pus cells, no casts, no crystals. On the right side of the bladder a tumor mass was seen extending from behind the internal ureteral orifice. The tumor is well pedunculated and covers the area in which one would expect to find the right ureteral orifice. Several dark areas are seen in the tumor, evidently hemorrhagic. Small villi may be seen floating in the boric solution which was used to distend the bladder. Hanging from the top of the internal urethral orifice, another small tumor mass, consisting of villi, may be seen. The left ureteral orifice is normal. No cystitis. Diagnosis: Papilloma of the bladder.

CASE II. The chief symptom was the presence of a persistent hematuria. This was rather profuse, lasting as long as seven or eight days. During the free interval the urine was perfectly clear. There were no urinary symptoms, no pain, no frequency of urination. He has had one attack of pain in the region of the left kidney but this was not very severe and was present only once. Rectal examination: slight enlargement of both lobes of the prostate. The urinary examination was negative except for the presence of large amounts of red blood corpuscles. First cystoscopic examination: The bladder was negative; no stone, no tumor, no cystitis. At the internal urethral orifice two small prostatic lobes were seen projecting into the bladder. No visible bleeding points, the urine being emitted perfectly clear from both of the ureters. Second cystoscopic examination: the same result as at first with the exception that the base of the bladder was slightly edematous. Third cystoscopic examination: carried out about two weeks after the second and made immediately after another attack of hematuria, showed the left ureteral orifice dilated and a few blood-vessels around it well

injected, although at this time the urine coming from the left ureteral orifice was perfectly clear. In view of the fact that the bladder was negative and the right ureteral orifice was normal, and considering the findings as just enumerated relating to the left ureteral orifice, a diagnosis of hemorrhage from the left kidney was made. The physical examination was negative. The patient was a very stout man with a well-marked panniculus, so that palpation of both kidney areas was negative. The patient was operated on by Dr. Bevan who did a nephrectomy. This revealed a primary carcinoma of the pelvis of the left kidney.

This case illustrates what was previously said in regard to the difficulty at times met with in cases of renal hemorrhage when the patient is examined in the free interval, that is, when the patient is not bleeding. The first and second cystoscopic examinations were negative and gave no clue as to the probable source of the blood. It was not until he had had a third, rather sharp attack of hematuria, resulting in some slight changes in the left ureteral orifice, described above, that a diagnosis of left-sided renal hemorrhage was made which was verified by the operation.

CASE III. First attack of hematuria occurred about eight years ago. This was of about a week's duration, absolutely without pain. At this time he passed some clots, not very many, but still enough to plug the urethra. During the following year he had a little bleeding off and on. After this he was free for about a year, when suddenly, after working very hard, he had another profuse hemorrhage. Since this time he has had hemorrhages at irregular intervals. Between the hemorrhages his urine is perfectly clear and he cannot see any blood in it at all, as the patient has purposely collected his urine in glass receptacles and allowed it to stand for twenty-four to forty-eight hours, in order to inspect the sediment. The patient thinks that the attacks of bleeding are becoming more and more frequent, and he says the condition of clear urine rarely lasts longer than six or eight weeks at the present time. There are no urinary symptoms, no pain, other than that caused by a clot lodging in the urethra. He also complains of a great many neurotic symptoms. There can hardly be any connection between his painless hematuria and these symptoms. He complains of a feeling of tenseness in the throat and neck and in the back between the scapulae, along the supraspinatus fossa and the cervical vertebrae. This is usually accompanied with headache. These attacks occur in the free interval. When an attack is beginning to make itself manifest, and if a hemorrhage should start, the latter immediately relieves the headache and feeling of tenseness, so that the patient thinks there is a direct connection between these symptoms and the bleeding. Physical examination, X-ray examination and rectal examination were negative. Urine, blood red, albumin present, no sugar, many red blood corpuscles, no casts, few leukocytes. Cystoscopically, a papilloma of the

bladder, situated on the right side, behind the right ureteral orifice and slightly internal to it. This is the size of the thumb and presents the usual villous structure seen in papillomata.

CASE IV. Mr. G. S., aged 26. Present illness began four months ago at which time patient first noticed that his urine was bloody. It has been bloody more or less ever since. Patient stated that sometimes his urine was perfectly clear. When the hematuria first began it was absolutely painless. He has never had any pain other than that associated with the passage of a large amount of clots. The only abnormal sensation complained of was a burning sensation in the urethra, at the end of urination. This symptom was present only at times, and at other times the urination is without any pain and there is no frequency. Cystoscopic examination: in the region of the left ureteral orifice there were seen many superficial ulcers, as well as a well-marked degree of cystitis. The left ureteral orifice is wide and gaping. The mucosa immediately surrounding the left ureteral orifice is edematous and in one place a distinct vesicle with a fairly well developed pedicle is to be seen. The right ureteral orifice is normal. Mild degree of generalized cystitis, and around the left ureteral orifice a few nodules or tubercles were seen. Double ureteral catheterization: the urine obtained from the right ureteral catheter is negative, that from the left contains pus in large amount, red blood-corpuscles, and from this urine tubercle bacilli almost in pure culture, were obtained. Diagnosis: Tuberculosis of the kidney with secondary or descending tuberculosis of the bladder.

CASE V. Miss L. T., aged 24. Six or seven months ago the patient first noticed that her urine was bloody. The primary attack of hematuria persisted for about eight weeks, being worse at some times than at others. Since this very severe and sharp attack of hematuria the urine has been bloody at times for a few days and then again it would be quite clear. The patient has never passed any clotted blood. Never passed any calculi. No apparent frequency of urination, nor any urinary symptoms. While the patient sought relief primarily for the hematuria which has alarmed her and the members of her family, it was brought out in the history that two months after the onset of her present trouble she had a very mild backache. This, at times, had been fairly severe, so that she would see a doctor about it. At present this pain has completely disappeared. Appetite good; bowels regular. Physical examination negative. Cystoscopic examination: bladder negative, no stone, no tumor, no cystitis. Both ureteral orifices negative and normal. Double ureteral catheterization: on the right side the catheter passes up into the pelvis without encountering any obstruction; the urine from the right side shows a few epithelial cells, leukocytes and red blood corpuscles. The ureteral catheter on the left side meets an apparent obstruction 10 cm. from the left ureteral orifice. It was therefore decided to catheterize the patient with a shadowgraph catheter and take an X-ray picture. The catheter easily passes the previously found apparent obstruction and is passed without any difficulty into the pelvis of the left kidney.

With the shadowgraph catheter in place—the patient was X-rayed by Dr. Potter, with the resulting findings: The ureteral catheter passes across the pelvis, upward, running across the sacro-iliac synchondrosis, passing parallel with the spine. When it reaches the height of the second lumbar vertebra, the catheter bends around and then passes downward. This abnormal course pursued by the ureteral catheter may mean either one of two things: either that we have an enlarged pelvis, or that we are dealing with a movable kidney. As is well known, movable kidneys not infrequently produce voluminous hematurias. Whether this can be considered as the explanation of this hematuria still remains an open question.

CASE VI. Mr. C., aged 62. The patient first consulted Dr. Baxter about eight weeks ago, complaining of headache and dizziness. At this time Dr. Baxter found albumin and casts in the urine. Four weeks later the patient had his first attack of hematuria, which was absolutely painless and lasted for about a week, at the end of which time the urine cleared completely, although microscopically a few red blood corpuscles were always found in the urine. Since this occurred, four or five weeks ago, the patient has had many attacks of hematuria, varying in amount and duration. The patient states that sometimes he feels better after the bleeding—to use his own expression, “just as a man feels after a boil has been opened.” There has been no painful urination, nor any frequency, with the exception that for the past six months he has been getting up more frequently than before that time, about once or possibly twice during the night. Cystoscopically, internal urethral orifice negative, both ureteral orifices negative, a large tumor, the size of a small pigeon's egg, in the right side of the bladder. Rectal examination: prostate negative, a hard mass—a stony hardness—can be felt involving the region of the seminal vesicle, extending from the lateral border of the prostate to the bony pelvic wall. Diagnosis: Primary carcinoma of the bladder involving the pelvis and right seminal vesicle.

CASE VII. Mrs. H., aged 49. For the past ten months the patient has noticed that her urine was bloody. She stated that prior to the onset of the hematuria she had noticed a “gathering” in her side, which was associated with a small amount of pain. Since the onset of her present trouble ten months ago the urine has never been free from blood. There has been no pain or burning on urination nor other abnormality of micturition. For the past two weeks there has been a slight increase in frequency of urination, so that she urinates five times during the day and once at night. Patient thinks she has lost about 40 pounds in weight. Physical examination: Patient is very pale, anemic, poorly nourished, looks to be much older than the age which she gives. Urine bloody, 1.025, albumin absent, many red blood corpuscles, no casts. Abdominal walls very lax. In the left upper quadrant of the abdomen was to be seen a bulging, which moves with respiration. Upon palpation, this mass is hard, very irregular in outline and nodular. The mass extends almost to the median line, downward to the anterior superior spine

or the ilium, and upward to disappear under the arch of the ribs. No tenderness, no fluctuation. Colonic distention shows the colon lying in front of the tumor mass. Cystoscopically, internal urethral orifice negative. Right ureteral orifice negative—omits clear urine. The left ureteral orifice is normal, but emits bloody urine in spurts. Diagnosis: Left-sided hematuria due to a kidney tumor. This was verified by operation—hypernephroma.

CASE VIII. A. S., aged 22. The patient's only complaint is the presence of a painless hematuria, of five months' duration, during which time the hematuria has never entirely cleared up. At times the amount of blood in the urine would be less than at other times, but at no time since the onset of the trouble has the urine had a normal appearance. It is very bloody on rising, at which time he thinks the hematuria is the most marked. Never any elotted blood, and the patient states positively that this is his first and only attack of hematuria. No frequency of urination and no urinary symptoms. The only pain of which the patient complained was in the left upper quadrant of the abdomen, persisting for about three weeks, more or less constant, but this has since passed away and he has had no further pain. General examination: temperature 101°, pulse 100, marked pallor of the skin and mucous membranes. The heart; distinct apical pulsation in the fifth interspace, high accentuation of the second pulmonic, a mitral murmur and a slight murmur of aortic insufficiency. Lungs, no physical sign demonstrable. Abdomen, a tumor mass in the left side. The liver is palpable below the costal arch. Colon is tympanitic. Marked cyanosis of the toe nails and finger nails. First urinary report: bloody, 1.015, acid, no sugar, albumin absent, red blood corpuscles, epithelial cells and leukocytes; no tubercle bacilli found. Blood count, hemoglobin 60 per cent., erythrocytes, 3,500,000, leukocytes, 4,500. Cystoscopically, bladder negative, both ureteral orifices negative. From the left ureteral orifice bloody urine is emitted in spurts. A second urinary examination showed the presence of a few granular casts. At this time a tentative diagnosis of tumor of the left kidney, with bleeding, was made. It was then decided to inflate the colon. Colonic distention shows the tumor mass to lie anterior to the colon, thereby demonstrating that the tumor was not of renal origin, but was splenic. The hematuria persisted, and the patient gradually went from bad to worse, and finally died. Post-mortem revealed the following: Chronic endocarditis of the mitral valve, enormously hypertrophied heart, enlargement of the mediastinal glands, cyanotic induration of the liver, chronic splenic tumor with infarcts, and a bilateral hemorrhagic nephritis.

This case presents several interesting features: First, the painless character of the hematuria; second, the presence of the tumor in the upper left quadrant of the abdomen; third, the bleeding coming only from the left ureteral orifice; and fourth, the post-mortem findings of bilateral hemorrhagic nephritis. It has usually been thought that when

one kidney bleeds, we are dealing with a unilateral renal lesion; it must be borne in mind that when we are dealing with hematuria from one side, there may be something pathologic on the other side. This fact should be borne in mind in those cases in which nephrectomy is contemplated, for in cases in which a bilateral disease of the kidneys is present, although only one side may be producing symptoms at the time of the examination, to remove this kidney and leave an equally diseased one, is not good kidney surgery. I have recently seen a patient come to operation in whom just such a state of affairs was present.

I had occasion to cystoscope this patient three or four years ago and made a diagnosis of right-sided hematuria. The patient was operated on, a decapsulation was performed, which did not cause the bleeding to cease. The bleeding persisted after operation just as severely as prior to the operation for six or seven months. The patient was then free from hematuria for two or three years. He recently came under observation again, but this time the bleeding was from the opposite side, the side which had been normal, or apparently normal, at the former examination. He was operated on. The kidney showed the presence of many scars and retractions. A small piece was excised and examined histologically. This showed a chronic interstitial nephritis. Since he was operated on his urine has been free from blood.

These two cases illustrate the above-mentioned point that patients may have bilateral kidney lesions although at the time of examination only one side may be bleeding.

CLINICAL DEPARTMENT

ANOMALY OF CLEAVAGE, WITH PRODUCTION OF SUPERNUMERARY FINGER.

REPORT OF TWO CASES.

TREATMENT.

BY LOUIS H. NOWACK, M. D.,

WATERTOWN.

Twice in the past year has it been my experience to be so placed as to necessitate my interference with the anomaly of cleavage presented in the production of a sixth finger.

CASE 1. Baby B. white, female; born April 17, 1911; second child.

CASE 2. Baby K, white, male; born March 6, 1912, first child.

Both cases occurred in children of neurasthenic mothers, both of whom had experienced finger injury during the course of their pregnancies, and in keeping with their nervous condition were sure some horrible manifestation would be present on the hand or hands of their offspring. Neither mother presents any abnormality or defect whatsoever. As to the location of the cleavage, that was similar in both cases, the outbudding occurring in each at the first phalangeal joint of the fifth finger of the left hand.

Each case presented a membrano-cartilaginous joint or attachment by way of which the sixth member received efficient blood supply, and although each presented a well nourished member, supplied with a healthy nail, one was made up of but one phalanx, the other of two.

In consideration of the neurotic character of both mothers, each having had a tedious labor, and both expectant of the worst outlook for their offspring, the children were hurried from the bedside, cared for, and presented to their respective mother with nothing showing of the anomaly and treatment but a collodion dressing.

In each case a purse-string suture, taken superficially to prevent slipping which might occur in case of simple ligation, was placed around the finger attachment, the joint or attachment was severed and the stump touched with silver nitrate solution for the styptic action of the latter. Lastly a collodion dressing was applied. Healing occurred promptly and at the present date the scars are practically invisible.

BOOK REVIEWS

GREAT MEN. STUDIES TO THE BIOLOGY OF GENIUS. Ostwald, Wilhelm. Volume II. To the history of letters and science and the learned men in two centuries, and studies on other scientific topics, especially hereditary and selection in man. de Candolle, Alphonse, Geneva. Edited in German by Wm. Ostwald. 466 pp. Leipzig. Akademische Verlagsgesellschaft m. b. H. 1911.

In this fundamental work, de Candolle laid down

the principles and methods of a new science, viz., the science of leaders of man within the circle of culture, a geniology or science of genius. As Ostwald found in it a far-reaching concordance with his own results, embodied in his book on Great Men, which we reviewed last year, he felt in full acknowledgment of the priority of de Candolle in all common conclusions, the desire to make this fundamental work, which did not receive the deserved notoriety, accessible to his circle of readers. In his preface he gives a brief biography of de Candolle and the trend of his works.

In the first chapter on the observation of material facts in school and later life, the author presents his views and recommendations how this faculty can be developed, and how it can be attained in the observation of social phenomena, followed by a chapter on the value of statistics as a regular method of observation. The influence of heredity, variation and selection on the development of mankind and its probable future is discussed in detail. The bulk of the work is devoted to the researches of the author, how the external influences, prevailing in the different countries at different periods within the last two centuries, acted on the development of letters and science, viz., on that of the most eminent investigators. Instead of using the authors and mixing his own opinions with their verdict, he ascertained, what the most important scientific societies and academies of Europe thought of the men who excelled in letters and science. Although de Candolle admits that not all eminent men of a certain period may have received the acknowledgment of the scientific organizations, he believes that they certainly designate a large number of them and that the average of the elected is surely superior to the average of other learned men.

In the chapter on the advantage of one language for letters and science and which language will necessarily predominate in the 20th century, de C. shows the superiority of the English language, which in comparison with Italian, French and German, makes on one who speaks several languages the impression of the shortest distance between two points. Other interesting topics here discussed are on the transformation of motion in organic beings and the investigations on the heredity of the color of eyes. de C. found with others on about two thousand observations that in Switzerland, Belgium, Germany and Sweden the brown eyes are most frequently propagated in marriages in which the color of the eyes of the husband differed from that of the wife. Thus in countries in which brown and blond types are mixed the brown type of eyes increases from generation to generation through marriages between individuals with uniformly brown, and with differently colored eyes, and through the greater transmission of the brown color of eyes. The interesting work will be a source of abundant information and delight to the reader.

THE WISCONSIN MEDICAL JOURNAL
OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

A. J. PATEK, M. D., Milwaukee

G. E. SEAMAN, M. D., Milwaukee

O. H. FOERSTER, M. D., Milwaukee

C. S. SHELDON, M. D., Madison

S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc
G. WINDESHEIM Kenosha
F. T. NYE.....Beloit
W. CUNNINGHAM.....Platteville

J. V. MEARS.....Fond du Lac
H. W. ABRAHAM.....Appleton
EDWARD EVANS.....La Crosse
T. J. REDELINGS.....Marinette

O. T. HOUGEN.....Grand Rapids
R. U. CAIRNSRiver Falls
J. M. DODDAshtland
H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents
Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

AUGUST, 1912.

No. 3

EDITORIALS

THE JOURNAL AND ADVERTISING.

The following editorial contained in the Journal of the American Medical Association for August 17, 1912, is reprinted in full for the benefit of our readers.

"NOBLESSE OBLIGE—A WISCONSIN BIRTH-RIGHT."

"Within the past few years Wisconsin has come to be known as one of the progressive states whose social and political consciousness has been awakened. It belongs to that group of commonwealths, few in number, but purposeful and aggressive in action, which today are making American history. With one of the best state universities in the country, and a public school system of which it may well be proud, its average of intelligence is high. What has been said of the state in general applies with equal force to the medical profession in that state. There is today within its borders a class of physicians second to none. But—. The progressive American physician has made strenuous efforts within the past decade to release his profession from the thralldom of secret nostrums. He has done this by insisting that his medical journal shall cease to be an organ subsidized by the proprietary medicine interests and shall become, what it was intended to be, a publication in which the interests of scientific medicine and of the physician are the first consideration. This has been accomplished in a large number of the states by the organized profession publishing its own journal. For some years the State Medical Society of Wisconsin did not own its own journal. During that period there was possibly some excuse for a lack of close

ensorship over the class of advertising that appeared. Now, however, the Wisconsin State Medical Society owns and publishes its official organ and the members of the profession of that state are responsible for it and for the character of its advertisements. It is, therefore, with surprise and regret that one finds in the pages of the *Wisconsin Medical Journal* advertisements of some of the worst nostrums with which American medicine is afflicted. Here are a few preparations advertised in that journal: Kutnow's Powder, Waterbury's Compound, Piuozyme, Hagee's Cordial, Ergoapiol, Campho-Phenique, Bovinine, Dioviburnia, Epilepsigen, Tongaline, Neurosine. That the official organ of the State Medical Society of Wisconsin should give publicity to secret nostrums and encourage their use among its members, and that the State Medical Society itself should receive an income from such a source, is not only a discredit to the organized profession of that state, but comes as a shock to those—they are many—who expect better things from Wisconsin."

As the members of the State Medical Society know the executive control of the WISCONSIN MEDICAL JOURNAL is in the hands of the Publication Committee. This Committee have given earnest and repeated consideration to the advertising pages of the Journal and has weighed with care the criticisms of these pages which have been made from time to time. It has been the aim of all connected with the Journal to have its standard as high as possible in all departments, and every effort has been made in the direction of gradual and steady improvement.

For months a plan has been under consideration to co-operate with the Journals published by the State Medical Societies of a number of adjoining states in engaging an experienced advertising

manager who will solicit advertising matter of the highest class only.

Within the past few weeks the plan has taken definite shape and agreements have recently been signed which will eliminate from our pages the advertisements of substances not approved by the Council on Pharmacy and Chemistry, with the expiration of existing contracts.

The progress of these negotiations has necessarily been tedious but the executive officers of the American Medical Association have been in close touch with the proceedings since their inception and by the smallest possible amount of effort the present state of affairs could have been ascertained.

A writer recently stated that he "would not care to live in a fool-proof universe", it would be so dull. There seems to be small chance of our ever getting a "fool-proof" science of medicine, and there is no probability of our being able in the immediate future to edit a "fool-proof" medical journal.

In the meantime we shall endeavor to uphold the hands of the Council on Pharmacy and Chemistry in their difficult task of trying to be infallible and omniscient, and shall try to "remember not past years" but to hide our smiles under a look of meekness when the only really virtuous medical journal in captivity casts a haughty glance in our direction.

THE PATIENT'S POINT OF VIEW.

This is a large subject, and only one or two of its many sides can be touched upon here. An apt quotation from Shakespeare reads: "For there is nothing either good or bad, but thinking makes it so." Hamlet, Act 2, scene 2.

All things in life are to every man or woman precisely what his or her opinion makes them. Hamlet thought Denmark a prison; his companions thought otherwise. But to Hamlet Denmark was a prison; it was his thought that made it so. For all of us, our thoughts, such as they are, fashion the world about us—sometimes regardless of truth or reality and this is especially true in sickness.

Many complications of disease are the result of thought alone, and not of physical conditions. Indeed a large part of all nervous diseases consists of disordered or delusional ideas or sensations. These complications are sometimes amusing, sometimes tragic. A nervous patient with pains in the

region of the heart, due to bad digestion, will think he has heart disease, and may for a time suffer as much as if he had. He could on the same terms have cancer, locomotor ataxia, or appendicitis. Such disease, a figment of the brain, may seem to others absurd, but to the patient it is perfectly real, nine times out of ten, so greatly does sickness impair the reasoning power and common sense. Even where there is a medical adviser who understands the case the patient will say, "Doctors sometimes make mistakes," and will not even consider that the chances are that the doctor knows better than he.

A little seven-year-old girl, whose parents are medically orthodox, had for her dearest companions little girls who were Christian Scientists. Children generally derive their ideas from each other far more readily than from their elders, even their parents; and when the child received a severe cut on her leg she feared so much that her mother would call the doctor, that she concealed the accident. Her mother later discovered her garments had extensive bloody stains, and on inquiring, learned that she had "cured herself." In this instance little harm was done, but there have been cases of fatal disease in which loving parents who were Eddyites, have been convicted in court by Judge and Jury, of "criminal negligence." I knew a case of an Eddyite husband and wife; the latter made a suicidal attempt, resulting in a severe but not fatal wound. The husband refused to have anything done for the wound and what do you think was the reason the wife gave for her attempt? It was this: She had been attempting to fit herself for a "healer" and gained no success in her efforts, either with her own ailments or those of others by so-called Christian Science methods. Did she attribute her failure to Christian Science? By no means! But she blamed her own unworthiness and lack of spiritual strength, and felt herself so worthless that she no longer desired to live. The mischief here was not all attributable to Eddyism, but it was a factor in the case.

The mental attitude of sick people toward themselves and their ailments has much importance. In the first place sickness produces a disturbance in the relations of all concerned. The sick one occupies for the time being the center of the household stage. We have all seen comparatively unimportant individuals lifted to a pinnacle of

fame by some unusual disease or injury. The baby, always a monarch in the home, becomes an absolute despot; the boy who breaks a bone is a hero; the girl who suffers from hysteria may have a remarkable repertoire of maladies; paralysis, blindness, loss of speech, hemorrhages are only a few of the ills due to sick fancy, but sincerely believed in by the patient, and there is nothing "put on" about it either, and nothing is gained by telling her it is not real, except that she loses confidence in the one who tells her that. Sometimes it is "he" instead of "she" who has hysteria; for men are not exempt. I have known a patient to fix the hour of his demise, and enact with the sorrowing family a death-bed scene and the next morning he took as good a breakfast as if nothing had happened. The family doctor knew the patient would not die, but could not convince the alarmed relatives.

Another of the mistakes made in their point of view by patients, especially those of highly sensitive or nervous temperament may be briefly outlined. Patients in a weakened condition are often impaired in self-control, and attempt to force themselves to act as if there were nothing the matter, thus increasing the nervous strain. It is not well to undertake any exacting duty in such a condition. Steady and continuous planning or following an original line of thought is one of the last powers acquired, and one of the first to give way. Ease and tranquility of mind are essential to intelligent activity of brain and require more force than the performance of routine or ordinary duties; the latter may be almost automatic; but even these become too heavy a task in states of nervous weakness or exhaustion.

An attitude of mind which is often commendable for sick people is like that which a person on a long voyage should maintain. If he is on board a good ship with a good captain and crew the only thing he need do, is remain placidly on board and make the best of everything until he arrives in port. He does not have to furnish power for the machinery or wind for the sails.

RICHARD DEWEY.

THE INFECTIOUS AGENT IN MEASLES.

Although great strides have been made in the prevention of infectious diseases and an enormous amount of work has been done in the attempts

to discover causative agents, we are still in ignorance of the nature of the infective organisms in some of the more common infectious diseases.

The old idea that the scales which occurred on the skin following desquamation of the eruptive fevers are infectious is fast losing adherents.

During the past few years there has been a great revival of interest in measles following the report by Hektoen that he had succeeded in producing measles in two men by the inoculation of an ascitic broth culture of blood drawn from a human case during the first thirty hours of the eruption. As far back as 1848 Franz Mayr¹ inoculated healthy children as in vaccination with a drop of blood from cases during the outbreak of the rash. Measles was produced in the inoculated children. Moreover in children who had had measles the disease could not be produced. He also rubbed nasal mucus from a case of measles upon the nasal mucosa of two healthy children, both of whom developed a typical exanthem on the thirteenth day preceded by catarrhal symptoms. These children did not contract the disease when exposed two years later.

Anderson and Goldberger² have recently reviewed the subject in a concise article. They were the first to produce measles in the monkey by the inoculation of blood taken from human cases of measles. They found that the infective agent was present in the blood at least twenty-four hours before and continuing for about twenty-four hours after the first appearance of the exanthem. They were able to carry one infective strain through six successive monkeys.

The virus, like that of yellow fever, passes through a Berkefeld filter, it resists dessication for twenty-five and one-half hours, it is destroyed by heating at 55°C. for fifteen minutes; it resisted freezing for twenty-five hours. The virus then would appear to be rather resistant to destructive agents.

A most interesting and important fact discovered was that the nasal and buccal secretions were infective for monkeys on the fourth and sixth days of the disease in human beings. The varying susceptibility of monkeys to the infection and the virulence (probably) of the infective agent gave

1. Quoted by W. H. Park. A brief statement concerning the agents causing Measles and Scarlet Fever. *Arch-Ped.*, 1912, XXIX, 413.

2. *Amer. Jour. Dis. Children*, 1912, IV, 20.

occasionally negative results when positive results were expected. The authors believe that the infectivity of the nasal and buccal secretions lessens, or even is lost, as convalescence approaches. Monkeys which had been given the experimental disease were found to be immune to later inoculations with infective blood. They apparently have shown that there is absolutely no infectivity in the branny scales given off from the skin. Mayr had previously failed to infect children with the scales from convalescent cases. This is of great importance in the question of infection in the natural disease. It has not been possible to culture from the blood the infective agent.

The analogy with the virus producing yellow fever is seen to be rather close, and it is not without the bounds of probability that measles may be a disease inoculated by some insect. We have become so used to the actual demonstration of disease carried by insects from host to susceptible persons that our minds are receptive to a further extension of this mode of infection.

We are one by one placing the milestones which mark steps in our knowledge of the infectious diseases behind us, and we hope that the next few years will add greatly to our store of knowledge of the preventable diseases.

EDUCATION AND THE ERADICATION OF VENEREAL DISEASES.

In the paper on "Gonorrhoea With Special Reference To Its Prophylaxis and Sequelae", by Dr. C. M. Echols, which appears in this issue of the *Journal* the author raises the question of the wisdom of trying to deal with the rising flood of venereal disease by class-room instruction on the subject of the venereal peril to boys or girls of a certain age. Dr. Echols is inclined to doubt the wisdom of such a course.

With this view we have much sympathy, for anyone who has had experience in this kind of work knows the difficulties in the way of presenting the subject to a large group of hearers in a manner calculated to do good rather than harm.

And yet who can relieve us of our share in this duty to our fellow-men and women since through the medical profession alone can come a general realization of the extent and the gravity of this menace?

With us the question must be not *whether or not*

we shall take part in the campaign of education on these topics which must come in the near future, but rather *when and how* we can use our efforts to the best advantage.

It has been prophesied by keen observers of the times that the next few years will see the development of Anti-Syphilis or Anti-Venereal Disease Associations, similar to the Anti-Tuberculosis Organizations of to-day. When this comes to pass we may hope for more rapid progress in the fight against these conditions than can be hoped for while the medical profession is struggling independently, and rather feebly, with this enormously difficult problem.

Fortunately the problem does not belong to the medical profession exclusively and we shall not be compelled to carry on the battle single-handed. It is a moral problem and a sociologic problem as well as a medical problem. Let us not forget that. Education in sex-hygiene alone will never win the fight. We may be called upon to aid in that department; but if we are, let us remember that it is only a part, though an important one. The human passions are not always tame animals to be led by ropes of straw. Education in sex-hygiene is only one of the barriers to help in their restraint.

A NEW LABORATORY TEST FOR SYPHILIS.

One of the most eminent internists was accustomed to remark to his students that if one knew syphilis thoroughly in all of its manifestations, he would know medicine. During the past few years we have received from the laboratory many diagnostic aids, and it would not be surprising if we learned of other tests from time to time. We must not, however, lose sight of the fact that these tests are not to be used as final courts of appeal, but only as added links in the chain of evidence which is obtained from the history and clinical findings. The Wassermann complement—fixation test is now universally used. Noguchi's luetin test will probably be more and more widely employed as we obtain further data concerning its accuracy. The cobra venom test has not been extensively used as yet, but indications are that it will prove of some value.

It will be recalled that the phosphatid, lecithin, is believed to be the substance which takes active part in the Wassermann reaction. It is this same

substance in the red cells which seems to be the active constituent in the cobra venom hemolysis. It would seem that the susceptibility of the red cells to hemolysis depends upon the availability of the intracellular lecithin. Susceptible cells are hemolysed by cobra venom, because there is sufficient activable lecithin to produce the reaction. Weil has found that syphilis attacks the lipoid constituents of body cells, since the amount of lecithin, which can be extracted in syphilis is less than can be obtained from the normal tissues. He further found that the red cells were resistant to hemolysis with dilutions of cobra venom of 1:20,000.

Stone and Schottsteadt¹ have recently investigated the subject. They drew blood from the suspected individual into a syringe containing 2 cc. of 2 per cent. solution of sodium citrate. This seems to be essential for the hemolysis. Dilutions of cobra venom are made of four strengths; 1:10,000, 1:15,000, 1:20,000, 1:30,000. The red cells are washed with 0.9 per cent. Na Cl in the usual manner and 1 cc. of 4 per cent. suspension is added to 1 cc. of the cobra venom dilution. The tubes are placed in the incubator for one hour, then allowed to stand over night in the icebox.

"Practically all bloods will hemolyze in dilution 1:10,000 and all normal bloods in dilution of 1:15,000, in 1:20,000 and 1:30,000. If no hemolysis occurs in 1:15,000, in 1:20,000 and in 1:30,000, the result is positive. If complete or almost complete, hemolysis occurs in all dilutions including 1:20,000 and 1:30,000 the result is negative."

Two interesting tables are given by these authors to show the efficacy of the test. In a collection of 4,200 cases the Wassermann was positive in 88.5 per cent. of active syphilis, in 52.1 per cent. of latent syphilis. In 1,279 cases the Weil reaction was positive in 85.4 per cent. of active syphilis, in 78.1 per cent. latent syphilis. It would appear that the two reactions run fairly parallel in active syphilis, but that there are 26 per cent. more positive reactions by the cobra venom test than by the complement fixation test in latent syphilis, just the class of cases in which it is so important to have definite data in regard to the syphilitic or non-syphilitic nature of the malady,

and in which the clinical symptoms and even the history are often obscure and misleading.

Stone and Schottsteadt think that this test is a very valuable one. It is less laborious and time-consuming than the Wassermann reaction and the final readings are as clearly cut and the possibility of error less frequent.

It would appear then, that in this cobra venom test we have a laboratory method which, on account of its simplicity might be used much more generally by practitioners than the complicated and difficult complement fixation reaction. Naturally not every child could do it. All these newer laboratory reactions necessitate an intimate acquaintance with laboratory technic. It is a serious error for one not constantly performing delicate laboratory reactions to attempt them. Nevertheless, such a test should reach a large number of practitioners who have the requisite training to perform and interpret the hemolytic reactions correctly. Further work on this apparently valuable diagnostic aid will be waited with interest.

NEWS ITEMS AND PERSONALS

The condition of Dr. H. R. Adams of Marinette continues to be critical.

DR. P. H. HANSBERRY, Hillsboro, who has been seriously ill is convalescing.

DR. J. C. HAYWARD of Marshfield was elected city physician at a meeting of the common council on July 18th.

DR. LOUIS SCHAPIRO, who has been connected with public health work in Manila, has returned to Milwaukee after a five years' absence.

DR. DAN B. RILEY, Milwaukee, formerly of Neenah, will be a candidate for coroner on the Social Democratic ticket this fall.

DR. L. M. WARFIELD, Assistant Superintendent of the Milwaukee County Hospital at Wauwatosa, has established an office in Milwaukee.

DRS. G. A. HIPKE and A. R. F. GROB have resigned as trustees of the Milwaukee Emergency Hospital. They will be succeeded by Drs. Curtis A. Evans and Ralph Elmergreen.

DR. FRANZ PFISTER and DR. H. B. HITZ, Milwaukee are in the east, where they attended the

(1. Arch. Int. Med., 1912, X, 8.)

International Congress of Otolaryngology at Boston and the meeting of the American Academy of Ophthalmology, Otolaryngology, and Laryngology at Niagara Falls.

DR. J. P. CONNELL of Fond du Lac has started an action in circuit court against Dr. J. W. Ehmer of Lomira, in which the sum of \$15,000 is demanded as damages for alleged slanderous statements made by the defendant in reference to the plaintiff.

DR. EUGENE CHANEY who has been connected with the Milwaukee Sanitarium at Wauwatosa for a number of years, has resigned and is going abroad for a year of study and recreation. He will be succeeded by Dr. Frank T. Stevens, who has been at the State Hospital, Mt. Pleasant, Iowa, for several years.

Acting under a law enacted by the last legislature opening the way for the establishment of county sanitariums for the treatment of tuberculosis, several counties have taken steps to build sanitariums. The law provides that these places shall be for the treatment of advanced cases, and that the superintendent in each sanitarium shall be a trained nurse.

According to the reports received by the Board of Control six counties, Douglas, Racine, Outagamie, Manitowoc, Dane and Milwaukee, have already taken steps to build county sanitariums. Each sanitarium will be large enough to accommodate 25 patients. These institutions will be independent of other county institutions.

The Fourth Annual Meeting of the AMERICAN ASSOCIATION OF CLINICAL RESEARCH will be held in New York City, at the Academy of Medicine, on November 9, 1912.

The sessions will be held from 9 a. m. to 1 p. m., from 3 p. m. to 6 p. m., and from 8 p. m. to 10 p. m. The evening session will be open to the public.

Notable contributions on the Negri Bodies, on certain Fluids for Tubercle Bacilli in the Urine,

on Adjustment and Function, on Psychoanalysis and Traumbedeutung, on a Pandemic of Malignant Encapsulated Throat Coccus, on The Single Remedy in Indicanuria and Glycosuria, on Disease Conditions expressive of Correct Diagnosis, on Biochemic Problems, on The Two Most Far-Reaching Discoveries in Medicine, and others are to be given.

MARRIAGES

Dr. A. F. Ranke and Miss Catherine Cary both of Manitowoc on July 19th.

Dr. J. H. Rohr, North Milwaukee, and Miss Marie McLean, Milwaukee, Aug. 3rd.

REMOVALS

Dr. Wilbur G. Melaas, Stoughton to Beloit.

Dr. Jos. Thadlic, Cazenovia to Lime Ridge.

Dr. G. W. McCarthy, Athens to North Prairie.

Dr. E. H. Ehlert, La Crosse to Minneapolis.

Dr. C. A. Kerner, Belin to Pine River.

Dr. J. J. Curtiss of Wateno has opened an office at Chippewa Falls.

DEATHS

Dr. R. W. Hoyt, of New Lisbon, died at La Crosse, on July 18th, following an operation for gall-stones, aged 60 years. Dr. Hoyt was a graduate of Rush Medical College, class of 1875. He was a member of the Juneau County and State Medical Societies.

Dr. Edmund C. Allard of Fond du Lac, died on August 1, 1912, aged 54 years. Death was due to a brain lesion.

Dr. Allard was born in Vermont and received his early education in the public schools of that state. He received his medical education at the Hahnemann Medical College, Chicago, from which institution he graduated in 1883. Immediately after graduation he located at Fond du Lac and practiced there up to the time of his death. He was a member of the Fond du Lac County and State Medical Societies.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1912-1913.

ARTHUR J. PATEK, Milwaukee President

C. A. ARMSTRONG, Boscobel 1st Vice President

L. E. SPENCER, Wausau 2d Vice President

JOHN MATHIESON, Eau Claire. 3rd Vice President

CHAS. S. SHELDON, Madison, Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSTER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917
1st Dist., M. R. Wilkinson, - Oconomowoc
2nd Dist., G. Windesheim, - Kenosha

TERM EXPIRES 1913
5th Dist., J. V. Mears, - Fond du Lac
6th Dist., H. W. Abraham, - Appleton

TERM EXPIRES 1915
9th Dist., O. T. Heugen - Grand Rapids
10th Dist., R. U. Cairns, - River Falls

TERM EXPIRES 1918
3rd Dist., F. T. Nye, - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1914
7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - Marinette

TERM EXPIRES 1916
11th Dist., J. M. Dodd, - Ashland
12th Dist., H. E. Dearholt, - Milwaukee

Delegates to American Medical Association.

L. F. BENNETT, Beloit.

J. J. McGOVERN, Milwaukee.

C. A. HARPER, Madison.

Alternates

F. S. WILEY, Fond du Lac.

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette.

Committee on Public Policy and Legislation

A. W. GRAY, Milwaukee, Chairman.

J. P. McMAHON, Milwaukee.

F. F. BOWMAN, Madison.

Committee on Medical Defense.

G. E. SEAMAN, Milwaukee, Chairman.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

M. P. RAVENEL, Madison.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison.

J. M. BEFFEL, Milwaukee.

T. H. HAY Stevens Point.

Program Committee.

L. M. WARFIELD, Wauwatosa, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

The Wisconsin Medical Journal, Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

Table with 3 columns: County, President, Secretary. Lists medical society officers for various Wisconsin counties including Ashland-Bayfield-Iron, Barron-Polk-Washburn-Sawyer-Burnett, etc.

SOCIETY PROCEEDINGS

GRANT COUNTY

It has become an established custom with the Grant County Medical Society to devote one meeting in the year to an outing, where the members, their wives and friends can enjoy a day of sociability together. Thursday, August 1, was the day decided upon for the meeting this year.

These picnics are held at Cassville, a place where nature has been unusually lavish in her charms, the tall stately oaks forming a perfect shade in Riverside Park, where we had the exercises, on the banks of the noble Mississippi, which at this time was at a high stage of water and the glorious sunshine over all, reminded us that we had a place of meeting fairer and more ancient than any made by man, for we are told that the groves were God's first temples. The day was cool and delightful and the automobiles began to bring their guests to this beautiful place early, some coming later by boat and train.

We were welcomed by Dr. W. P. Hartford and his estimable wife, and Dr. J. J. De Mers, who escorted us to the park where we were told to enjoy ourselves until dinner time. This welcome time being announced, the long tables were soon filled with a hungry crowd, whose appetites were sharpened by the long rides and the bracing air. Songs written for the occasion were rendered during the dinner by a male quartette, consisting of M. F. Woodhouse, L. W. Brooks, A. C. Bishop and Mark Hoskins. The table was loaded with every good thing that the season afforded; Dr. Hartford's turtle soup being as usual, the pièce de resistance. It was then announced that the boat was at the landing and all embarked for a ride upon the grand old Mississippi. It was a glorious day, cool and sunny, and the bluffs on either hand covered to the very tops with the deep green, luxuriant foliage of midsummer, and the rugged time-seamed rocks looming up like old castles from their summits, made a picture never to be forgotten.

The program was to be given upon the boat. Dr. Hartford, President of the Society, announced that he had secured as toastmaster, Mr. W. H. Torbert, of Dubuque, whose reputation as an expert in this calling extends beyond the borders of his own state. He proved to be complete master of the situation and after an eloquent address, which was in every respect complimentary to the medical profession, introduced in his happiest manner those who were to speak to us. Responses were given by Drs. W. P. Hartford, James Oettiker, J. H. McLaughlin, E. A. A. Dunn, W. W. Prettis, J. E. Heraty and J. J. Brownson. Dr. I. S. Bigelow of Dubuque sustained his former reputation as an orator of unusual eloquence and power. The quartette enlivened the program with frequent songs appropriate for the occasion. On behalf of the laymen, M. F. Woodhouse spoke for our hanks, A. C. Bishop for the newspapers, and L. W. Brooks for our schools.

Delegations were present from Platteville, Lancaster,

Montford, Glen Haven, Beetown, Blounington, Prairie du Chien, Dubuque, Omaha and Racine, in all, about seventy-five people.

After the return to the park, the program was concluded. A unanimous vote of thanks was extended to Dr. Hartford, Mrs. Hartford and Dr. De Mers, for the splendid entertainment. To the Toastmaster, Mr. Torbert, and to the quartette, who had furnished so much excellent music, the gratitude of the Society was expressed in the same manner. An informal luncheon was served, and the guests departed, all well satisfied that the day had been well spent, and many expressed a wish that we might all meet here again next year.

M. B. GLASIER, M. D.

Secretary.

KENOSHA COUNTY

The Kenosha County Medical Society held its regular meeting at the home of Dr. F. E. Stevens of Bristol, August 2d, with over twenty members present. Once each year the Society finds it pleasant, as well as profitable, to meet with one of its country members. The attendance is a good sign of its value.

Dr. Channing W. Barrett of Chicago addressed the Society on *Enterostomy and Enterotomy as Life Saving Procedures*. It was discussed at length by several members of the Society. In closing, on request, Dr. Barrett spoke on the *Present Status of Round Ligament Surgery*. Several interesting cases were reported by members present: Dr. George H. Ripley, *A Case of Intestinal Rupture*; Dr. C. H. Gephart, *A Case of Intestinal Distention and Rupture by Compressed Air*; Dr. Helen Harbert, *A Case of Peritoneal Tuberculosis*; Dr. Bernstein, *A Case of Hydatid Mole*. Drs. Ripley, Lansdowne and Darby also spoke of similar cases. Dr. T. B. Taylor, of Ratan, New Mexico, reported a case of *Ovarian Disease with Peculiar Degenerative Products*.

C. H. GEPHART, M. D.

Secretary.

OUTAGAMIE COUNTY

The annual outing of the Outagamie County Medical Society was held on the afternoon and evening of July 16th. The first event of the afternoon's program was a baseball game. From the baseball park a trip was made to Waverly, where a fish dinner was enjoyed.

WASHINGTON COUNTY

The third regular meeting and annual outing of the Washington County Medical Society was held at Goring's Resort, Cedar Lake, on August 8, 1912. Meeting called to order by President Dr. Wehle. Minutes of previous meeting were read and adopted.

W. J. Wehle read a very interesting paper on *Cystitis*. Discussion by Drs. Hausmann, M. Lynch, G. Hoffman, S. Driessel, W. Lynch, and Rockwell.

Dr. Albers was not present, so his paper was not read. Dr. Ankenbrandt preferred to have his paper for the next regular meeting. Dr. Pfeifer also was to have a paper on *Rabies*. He was not present, so there was a general discussion on that subject. Dr. N. Pfeifer

to have a discussion on Rabies for the next regular meeting. Drs. Wehle and Rockwell were to settle a little dispute at this meeting, but it being a little late, the visiting ladies becoming a little nervous, and sandwiches, etc., in waiting, it was decided to settle this dispute at the next meeting. Also to be accompanied by a discussion on Urine Analysis by Dr. Rockwell. Our next regular meeting, which will be held at Hartford, Wis., on the last Thursday in September, is to be preceded by a banquet at 12:30 noon. We are also going to have our councilor, Dr. Wilkinson, present, if any way possible.

S. J. DRIESSEL, M. D.,
Secretary.

WAUPACA COUNTY AND NINTH COUNCILOR DISTRICT

A joint meeting of the Waupaca County and the Ninth Councilor District Medical Societies was held at the Delevan Hotel, Waupaca, on July 18th. About forty-five members were in attendance and the meeting was pronounced a successful and enjoyable one.

A banquet, replete with good things, was spread at 7:30, and in the future it will be folly to assert that doctors do not agree—more uniform action could not be desired. After the banquet a program was presented and both members and visitors entered into a very free discussion of it. Several new members were added to the county organization.

Waupaca County elected the following officers: President, Dr. P. J. Christofferson, Waupaca; Vice-President, Dr. H. A. Jefferson, Clintonville; Secretary, Dr. George T. Dawley, New London.

GEORGE T. DAWLEY, M. D.,
Secretary.

SECOND DISTRICT

The President and Secretary of the Second District Medical Society are planning an interesting program for the annual meeting, which is to be held at Kenosha, early in September. All physicians and their wives are most cordially invited to be present, whether members of this district or not.

At a recent meeting of the Washington County Medical Society, the following resolution was passed:

Whereas, The publication in newspapers of the names of physicians and surgeons in connection with news items relating to illness or operation, is undesirable and often leads to harsh feeling and discord, therefore be it

Resolved, That the Washington County Medical Society hereby expresses its disapproval of this practice and earnestly requests the publishers of newspapers in this county to abstain from publishing the names of physicians and surgeons in this manner.

THE ASSOCIATION OF COUNTY SECRETARIES AND STATE OFFICERS of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette M. B. GLASIER, M. D., Bloomington
President. Vice-President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County Society. It will be edited by Rock Sleyser of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

ANNUAL ADDRESS OF THE PRESIDENT OF THE ASSOCIATION OF COUNTY SECRETARIES AND STATE OFFICERS*.

BY W. F. ZIERATH, M. D.,
SHEBOYGAN.

Gentlemen: At the last annual meeting you elected me your President for the year just passed. I want to thank you cordially for the honor bestowed, and assure you that I appreciate your consideration most sincerely. In making this, the Annual Address of the President, I want to review briefly the position occupied by the medical profession today, some of the problems confronting us and some of the developments of the past year that affect us as individuals and as an organized profession.

We are living in an age of criticism, discontent and cynical pessimism. All about us we see signs of social unrest. The religious, financial, political and professional worlds are the targets of the shafts of criticism. Men and women are groping vaguely in the dark, searching for the truth, yearning for an age of altruism. The demand that the life of righteousness displace the selfish life is becoming louder and more insistent. Discontent and criticism are the advance guards of progress. Tinged as it always is with pessimism, the ultimate result is always optimistic. Thus has it been through all the ages and so it is today.

*Read at the Third Annual Meeting of the Association of County Secretaries and State Officers, Wausau, May 21, 1912.

The medical profession in this country today is on trial. We are being assailed on all sides by criticism. Much of this is petulant, malicious and unfair and its foundation is ignorance. Some of it is well merited and perfectly just. I feel that most of us recognize the fact that this latter brand of criticism is timely, and if we profit by it, it will result in reforms that are essentially necessary if we are to retain and strengthen our position as members of the greatest of the professions and followers of the noblest vocation of man.

During this generation the Science of Medicine has made wonderful epoch making discoveries, discoveries that have lengthened human life and alleviated human pain and misery. But the Practice of Medicine, I am sad to say, has woefully deteriorated.

In this age of commercialism we, too, have been affected with the lust for wealth and all that it implies. We have strayed from the path of rectitude, forgotten our ideals, ethics, the glorious traditions of the past and, together with the frenzied rabble, have sought the shining highway that leads to the throne of Mammon. But the demand that we return to worship at the pure white shrine of Aesculapius is becoming more insistent and commanding. That demand is coming, not only from within our own ranks, but also from the laymen.

In ages past our profession was esteemed, venerated, implicit confidence was imposed in us. Today we have lost that confidence. As evidence of that loss of confidence, I need merely point out the wide following the various religious-medical cults have in this country, and the remarkable thing about it is that this following is not composed of untutored and untrained minds. Rather the contrary. Their membership is made up largely of people who are capable of thinking systematically and reasoning logically.

Again, witness the financial success of the graduates of the irregular schools. The various "opathies" and "praktiks" have their substantial clientele. As for quacks and charlatans our own "Dr." Thill can serve as a type. He has made a fortune in treating, not the poor and ignorant, but on the contrary, the well-to-do and wealthy. People who presumably have enough common sense to know better than to trust their physical ailments to the care of one such as he.

Those of you who have watched the progress of the "Owen Bill" in the senate have possibly marveled at the opposition developed by such a beneficent measure. The "League for Medical Freedom" sprung into existence to fight this bill, and it is astonishing to see who became members of such an organization and the power they have wielded in their efforts to defeat this measure.

Anti-vivisection and vaccination societies are well established. Fads and cults galore claim their numerous devotees.

Have you ever paused to ponder about this condition of things? Why, in this age of universal enlightenment, these people, who every day of their lives are directly and indirectly being benefited and protected by the discoveries made by our profession, profiting by the martyrdom of our heroes, should be our bitter enemies and assail us at all times and places is almost past understanding.

But if we reason introspectively, the philosophy of the situation is plainly apparent. In the words of the Prayer Book, "We have left undone those things which we ought to have done; and we have done those things which we ought not to have done."

As a money-making institution, the practice of medicine, in its pure sense, is about the most unproductive one that I know of. The expense of getting a medical education, the years of patient effort spent in establishing a practice, the expenses involved in maintaining and operating the necessary equipment, the hard work and the trying responsibilities involved, make the possibility of proportionately large financial returns very remote indeed. Naturally, those who have entered the practice of medicine believing it was a short cut to easily acquired wealth, have promptly fallen into practices that are most reprehensible. Contract practice, fee splitting, illegal and immoral operations, operating unnecessarily and many other methods of extracting money from patients have become so common that we have almost ceased to be shocked by them. When we have protested at all, it has been done half-heartedly, and not been followed up by effective punishment.

We have many enemies, but our worst enemies are right in our own ranks. They are the men who are commercializing our profession. The men who are going to make it pay "by hook or crook," mostly "crook."

Have we done anything to curb their activities? Have we tried to show them how they would injure the whole profession and ultimately themselves? Have we refused to consult with them? Have we expelled them from our societies? Have we ostracized them professionally? Sometimes we have, but more often we have done something entirely different.

You have criticized Dr. So and So to your colleagues for convincing everyone of his patients who complained of abdominal pain that they needed an operation. You saw him remove that pale slender, neurasthenic appendix, but when he called on you to give an anesthetic at his next operation, did you go? When the suspicious patient of the contract doctor wanted you as a consultant, did you tell him that you would take charge of his case only when he discharged the contract physician? When the fee splitter offered to divide did you refuse? When the District Attorney wanted information concerning the suspicious death of an unfortunate girl in your community did you do all you could to help him?

We have supinely permitted our profession to become commercialized without the strenuous opposition that we should have exercised. We have not waged a warfare of extermination against the criminal abortionist. We have permitted our ranks to be filled with men who are not properly equipped, morally and educationally, to carry the responsible burdens imposed upon us. By not exercising proper vigilance, we have allowed the remuneration for professional services, for the multitude of legitimate physicians, to become so small that a vast majority are able only to eke out a bare existence and that only by the exercise of the strictest economy.

In the practice of our profession we are not keeping abreast of its scientific advances. The means of doing so are abundant, but we are not utilizing it as we should. Laymen on the contrary are daily becoming better informed concerning medical subjects and their application to economic problems. Reputable magazines and newspapers are publishing an enormous amount of really valuable and accurate information. As an example let me cite the popularity of Dr. Evans' department in the *Chicago Daily Tribune*. Popular lecture courses, too, are dealing with health problems and their economic importance.

Last winter I had the pleasure of listening to a

lecture by Capt. Pearson Hobson on his favorite topic concerning the unpreparedness of this country for war. I went, expecting to hear a "jingo" speech. Instead, I heard a logical, clean-cut, exposition of a certain state of affairs in this country that convinced me Hobson was not the "calamity howler" that he is supposed to be, but rather a prophet. He dealt at length on the physical deterioration in this country, caused by alcoholism. He handled the medical aspect of the question with convincing forcefulness. His lecture created a great deal of discussion in our city, and I was surprised and chagrined to have some of his fundamental and elementary statements concerning the physical and toxic effects of alcoholism disputed by medical men. Hobson knew the facts. Laymen knew, but our professional colleagues, who are supposed to know, did *not* know.

Without becoming politicians we ought to be able to discuss the medical phases of such economic questions as alcoholism, tuberculosis and social purity, without letting our prejudices, preconceived notions, or misinformation distort the true facts, as revealed by the scientific advances made in these subjects in the last decade. The truth ought to be told and that fearlessly. We have a civic duty to perform and if we refuse or neglect to give the public the true facts concerning these things in just such a measure, we will, and we *deserve* to lose the confidence of the public.

Witness the campaign for social purity being conducted by the *Ladies Home Journal*. Millions of fathers and mothers are reading these articles and they are appalled at the terrible revelations made. "Why haven't our doctors told us these things?" they say. Perfectly natural question, isn't it?

The health of a nation is its greatest asset. Is it any wonder that people are interested in anything that pertains to their physical well-being? They look to us for leadership, information and advice in all these great movements.

Is it any wonder that they have lost confidence in us, when we refuse to assume that leadership, withhold that information, or give them that information in a form that is garbled, inaccurate or highly colored by our personal prejudices?

I have the honor of being the President of our County Anti-Tuberculosis Association. We are

working for the establishment of a County Sanitarium in our county. Last winter I made several addresses concerning the tuberculosis problem, and with the aid of the newspapers, which accorded us unlimited support, our organization aroused a great deal of interest concerning this subject. Ever once in a while, while the topic was very much alive, and being discussed widely, some one would come to me and say, "Dr. So and So" says "that this is no place for a sanitarium. Patients ought to be sent to Colorado or New Mexico." "Dr. So and So" says "Tuberculosis isn't curable."

One of my colleagues argued vigorously with me one evening, he maintaining that the Anti-Tuberculosis movement was farcical and fruitless and ought to stop, because he believed in the Survival of the Fittest, and that those who contracted tuberculosis ought to perish, because they were physically unfit.

Think of it, Gentlemen! Is it any wonder that in this age of universal knowledge and humanity, that the laity should lose confidence in us when we propound such a doctrine or even entertain such antiquated notions!

The profession of medicine is as necessary to the advancement of the human race as is law and order. We cannot serve our greatest usefulness if we do not have the confidence and co-operation of the laity. Retain and increase the confidence and the co-operation follows naturally.

Criticism without suggesting a remedy for the thing criticized is almost worthless. Individuals can be prophets and leaders, but only through organization can results be accomplished. We have a splendid organization and a mighty machine with which to do great things. We *must* use it and use it effectively.

Through our Councils on Health and Public Instruction, Medical Education, and Pharmacy and Chemistry, we are beginning to do those things which we ought to do. We are correcting the evils of medical education, we are exposing quacks and charlatans and the patent medicine fraud, we are beginning to take interest in Public Health questions, but we have just scratched the surface.

I maintain that we should assume the leadership and exert the greatest activity in doing all these things. We should be the ones to popularize the public health lectures. We should be the leaders of the Anti-Tuberculosis movement, we should be

the ones to tell the people the truth concerning venereal disease, we should be the ones to expose the evils of alcoholism.

And here let me pause to say that we must clean our own door-step before we call on others to sweep their threshold. If there is any place where the drunkard ought not be it is in the ranks of the medical profession. He and the abortionist must be eliminated from our ranks. All these things we can do through the power of our organization. The sentiment is surely here, now let us have the action—action that is drastic, quick and certain.

Our county societies are the units of our organization. Through these units must the results be achieved. Public sentiment is merely the crystallized sentiment of individuals. Our county societies are the proper mediums with which to create public sentiment, where it does not exist, and strengthen it where it does exist.

Discussion is the first step in this process. With this object in view our able Secretary, Dr. Sleyster, has arranged the following program, to which I now have the pleasure of directing your attention.

ABSTRACTS

TO THE SALVARSAN THERAPY IN EYE DISEASES OF LUEPIC ORIGIN WITH REPORT OF FOUR CASES OF OCULAR PALSIES FAVORABLY INFLUENCED BY IT. Wiegmann, E., Hildesheim (Klin. Mon. fur Aug. 50, 1, February, 1912, p. 200), gives a very elaborate review of the whole literature which appeared since the compilation of Stuelp. Stuelp reached the conclusion, that the luetic eye diseases reacted still less promptly to salvarsan than the other syphilitic manifestations. The later literature has scarcely cleared the situation. The clinical experiences and observations are in similar manner contradictory, and one may speak of a certain pessimism in some medical circles.

The failures of salvarsan treatment are most striking in parenchymatous keratitis, due to hereditary syphilis. Michael dissuaded treatment with salvarsan or any antiluetic therapy. The experiences in affections of the uveal tract are more encouraging, although opposite observations have also been made. Krückmann found rapid disappearance of uveal diseases, due to acquired syphilis, and brilliant results in growing tumors of the ciliary body. The communications on salvarsan treatment of syphilitic affections of the retina and optic nerve sound less encouraging. Krückmann advises against it if there is suspicion of a degenerative affection of the optic nerve. With regard to ocular palsies the observations are discrepant, while good re-

sults were obtained in luetic tarsitis and gummas of the lids. The severe complications and the deaths observed after injections of salvarsan, of course, aggravate the situation. At present the endovenous injection seems to be given preference over the intramuscular.

Summing up, W. says, that we are still far from a conclusive solution of the salvarsan therapy in ophthalmology. We do not know the exact dosage nor the number of repetitions required in the individual cases out of the great variety of luetic eye diseases for a definite cure, a *therapia magna sterilans*. The desired aim may perhaps more readily be obtained, if salvarsan is exclusively applied and not the combined method, which at present is mostly used.

The clinical histories of four cases of luetic ocular palsies of the author's own observation showed a favorable influence of salvarsan. It acted especially promptly on paralysis of the interior muscles, which, without exception, were improved or cured in from four to six weeks. The paralysis of the sphincter completely disappeared in two, was improved in one, not changed in one. Paresis of accommodation subsided in three cases and was improved in one. In one an energetic Hg. and K. I. cure in the previous year had been without effect. In one case the double images, which after the former therapy had disappeared, returned for a short time after the injection. In one case the succession in which the paralyzes reacted to salvarsan was interesting. At first the ptosis improved, then the ophthalmoplegia interior, while the exterior muscles were last and only moderately influenced. Aside from a transient sciatica the intragluteal applications were well tolerated. A submuscular injection between shoulder blades was followed by a disagreeable necrosis at the puncture. The literature is exhaustively quoted.

C. ZIMMERMANN.

SALVARSAN IN OPHTHALMOLOGICAL PRACTICE. Gorbunow, G. A., St. Petersburg and Pjatigorsk (*Centralblatt für prakt. Aug., Marz, 1912, p. 65 and April, 1912, p. 97*), reports his experiences with salvarsan in four cases of tabetic atrophy of the optic nerve; four cases of diffuse parenchymatous keratitis, and two cases of paralysis of the third nerve, with the following summary: Above all the innocuousness of salvarsan injections in all cases of atrophic affections of the optic nerve seems to be an unquestionable fact. Salvarsan seems to protect the optic fibres so that, after having severely suffered on account of the atrophy of the greatest portion, they attain the faculty to functionate and increase their activity, which never was the case in former therapeutic methods.

In inflammatory affections, e. g. parenchymatous keratitis, we have all reasons to consider salvarsan as

a powerful remedy which guarantees rapid and certain results.

The conclusions are less definite with regard to paralyzes of central nature e. g. paralysis of the third nerve. It must, however, be borne in mind, that these are not recent forms, and intense changes in the structure of the nerve fibers may be assumed, which are not amenable to restitution of function, even if the conditions of a further deleterious influence (gumma and inflammatory processes) are removed.

The lack of a positive Wassermann reaction in parasyphilis is apparently a categoric contraindication against salvarsan just as against mercury. Only one out of G.'s ten patients gave a negative Wassermann reaction, and in this salvarsan was perfectly indifferent. In such cases a damaging influence of salvarsan must be dreaded, and it is desirable to apply it exclusively on patients with marked positive Wassermann reaction.

C. ZIMMERMANN.

SALVARSAN AND NEURO-RELAPSE. Goerlitz, Martin, Hamburg (*Klin. Mon. für Aug., 49, II, p. 567*), reports a case of recent syphilis in a girl, aged 22, in whom two months after the first, and one and a half months after the second, intravenous injection of 0.4 and 0.45 salvarsan and about four months after the infection after all other luetic symptoms had subsided a paresis of the left third nerve and neuroretinitis of the right eye developed. Eight days after the third intravenous injection of 0.4 salvarsan a slight improvement of the paresis of the third nerve was noticeable, and under mercurial inunctions the paresis and the neuroretinitis healed within a few weeks.

Almost all observers, who have seen neuro-relapses, maintain that these have been more frequent under salvarsan treatment than formerly. Some consider them as relapses of lues, others ascribe them to the neurotropic action of salvarsan. Therefore, G. gives from literature a comparison between the frequency of nervous affections after salvarsan and those which were observed in the early period of syphilis before the introduction of salvarsan. His conclusions are that the neuro-relapses after salvarsan treatment are more frequent than formerly. Against the assumption of a neurotropic action of salvarsan speaks among other points above all the curability of the nervous affections following its use, by continuation of the same treatment. He is favorably impressed with the opinion of Geronne and Gutmann, that in consequence of the action of salvarsan the syphilitic disease assumes another development and generates at an early stage forms which we were accustomed to see in later periods. So far the combined treatment seems to be mostly recommendable for practice.

C. ZIMMERMANN.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, SEPTEMBER, 1912

Number 4

ORIGINAL ARTICLES

AN EXPERIMENTAL STUDY OF SOME EFFECTS OF CERTAIN ANESTHETICS.

FROM THE CLINICAL LABORATORY OF COLUMBIA HOSPITAL MILWAUKEE AND THE LABORATORY OF PATHOLOGY, UNIVERSITY OF WISCONSIN.

BY J. L. YATES, M. D.,
MILWAUKEE.

This work was undertaken with the knowledge that in no other way could we obtain satisfactorily accurate information as to the somatic effects of anesthetics, and in the hope that thus might be made possible for us the comprehension of principles underlying the clinical application of rational methods of anesthesia.

Problem.—It was assumed that ideal anesthesia demands the least discomfort with the greatest immediate and remote safety, mental and physical. The experiments here reported were designed to establish the effects of certain anesthetics upon certain organs and also the results of these effects upon the resistance of the organs to toxins.

Methods.—Rabbits were used, but only because they were the least unsatisfactory of available animals. Every possible care was exercised to select approximately the same sized animals (2 to 3 kilos) under similar conditions.

Anesthetics.—Chloroform, ether, and nitrous oxide and oxygen were given to three series, respectively, for a period of forty-five minutes. The anesthesia was maintained at a depth which would give a relaxation in the animal, simulating as nearly as possible that required in human surgery. The same professional anesthetist invariably conducted the administrations. Morphine sulph., gr. 1/6, and hyoscine hydrobrom., gr. 1/100, were given hypodermically to a separate series.

Toxin.—Cobra venom was selected because of its containing a narcotizing principle sufficiently

potent to minimize discomfort and because of its stability and safety.*

A maximal non-lethal dose was determined (6,000,275 gm. per kilo), but later was found to be too large for animals living under winter conditions. No attempt at a reduction was made then, as it would have vitiated comparison with many experiments already performed. In addition, the venom, because of its destructive action upon the respiratory center, was ill chosen. For evident reasons, experimental observations, to be applicable to clinical conditions, must be based upon results obtained through action of toxins developed *in vivo* by living bacteria.

Conditions.—The effect of each drug was studied under these conditions. In Group 1 the anesthetic or narcotic was given for forty-five minutes, and then the venom was injected intravenously; in Group 2 the anesthetic was started and the venom injected as promptly as possible; in Group 3 the venom was injected, and forty-five minutes later the anesthetic was begun and continued for forty-five minutes.

Observations.—Effects upon the blood-pressure, hemoglobin, leucocytes, and temperature were observed at similar intervals. When the experiments were lethal, necropsies were done as promptly as possible, gross changes noted, and blocks of tissue from the heart, lung, liver, spleen, kidney, thyroid, thymus, and adrenal were placed in formalin for section.

Controls.—Similar observations were made when animals had been subjected to the action of venom alone in lethal and non-lethal doses, and of the various drugs alone when given with fatal results and when animals were killed at intervals by *coup de main* for purpose of comparison.

All of the material for histological study was collected in similar bottles, separately numbered,

*The venom was obtained through the generosity of Professor Kyes of the Department of Experimental Pathology, University of Chicago.

and sent to the Department of Pathology, University of Wisconsin. Here the microscopic preparations were made, and the pathological reports were written by Professor Bunting while in ignorance of what had been done. This guarantees that these observations were purely objective. Mr. M. Smith-Petersen, of the Department of Physiology, University of Wisconsin, made the blood-pressure observations partly in Madison and partly at the Columbia Hospital. Dr. W. L. LeCron, resident physician at Columbia Hospital, made many of the blood-counts on the rabbits and all of the clinical observations. Miss S. S. Mathews, R. N., administered the anesthetics so carefully and conscientiously that direct comparisons are probably justified.

Blood-pressure.—Anesthetics and narcotics administered to rabbits in dosage compatible with recovery induce a slight fall in blood-pressure (4 to 16 mm.) over a period from three-quarters to two and three-quarters hours. Similar results follow non-lethal doses of cobra venom.

When the venom is administered in lethal dosage the blood-pressure may fall abruptly just preceding death or, more gradually, quite in keeping with the animal's behavior, a sudden collapse or gradual wilting.

These observations seem to apply to animals receiving both toxin and anesthetics.

Nature of death.—Where a fatal issue resulted from venom alone it was typically that of respiratory center failure. When, in addition, a drug had been administered the typical picture was so little modified that it was quite impossible to determine, either by the character of the death or the gross post-mortem appearance, which factor had been the more active in the causal relationship. Indeed, animals dying from anesthetics alone, but after the administration had been discontinued, evidenced nothing so characteristic as to permit a certain diagnosis based upon the nature of the death itself; therefore, as it was impossible to differentiate accurately between a venom death and an anesthetic death all fatalities were included in the records, even when it became evident that the venom dose was no longer non-lethal. Since the respiratory center, and possibly the vaso-motor center, was so deeply affected by the venom in these experiments, too great import-

ance should not be attached to the mortality. These series of animals were subjected to a degree of intoxication which, if present in the human, might render surgical intervention unjustifiable, a mortality of 25 per cent. increased to 60 per cent. by anesthesia or narcosis alone.

The results of the various series comprising Group 1 are shown in Table 1. The average length of life indicates in hours and minutes the interval between the injection of venom and death. The average leucocyte count indicates the extent of gain (+) or loss (—) in the white-blood cell count, comparing the normal count for the animal with those taken at one hour to two hour intervals after the administration of the drug or toxin or with that made immediately ante-mortem in the animals dying acutely. Hemoglobin estimations, because of complicating cyanosis proved entirely unreliable.

The average temperature indicates in degrees the loss sustained at periods corresponding with the white-blood counts.

TABLE I.

Group 1. Venom injected immediately after drug administration for 45 minutes.

	Mortality Per Cent	Average length life	Average leucocyte	Average temperature
Chloroform	40	0:45	—1,220	—1.3
Ether	25	4:30	+1,175	—3.9
Gas & Oxygen	75	1:45	+3,050	—1.3
Morph. & Hyoseine	20	29:00	+12,900	—2.0
Group Average	40	12:00	+3,926	—2.3

An impression, perhaps erroneous, was gained during the conduct of the experiments that generally the animals showing increasing leucocyte counts and less loss in temperature were the more likely to recover. This is somewhat obscured in the tables because certain animals developed a hyperleucocytosis before death.

Table II shows the results in the second group. Miss Mathews noted in this class of experiments that during the forty-five minutes of anesthesia the action of the venom seemed to be held in abeyance, but almost cumulative effects were noted after the administration was ended.

TABLE II.

Group 2. Drugs and venom administered simultaneously.

	Mortality Per Cent	Average length life	Average leucocyte	Average temperature
Chloroform	100	0:49	-4,080	-3.2
Ether	60	0:43	-2,550	— ?
Gas & Oxygen.....	71	2:28	+4,857	-1.6
Morph. & Hyoscine..	75	1:21	+8,000	-1.9
Group Average	77	1:20	+1,557	-2.2

Table III presents the results noted in Group 2. In this class the anesthetics were taken more easily, and less was required to produce the desired depth of anesthesia because of the narcotic principle in the venom. It is therefore entirely possible that these animals actually absorbed less anesthetic to produce the same degree of relaxation, though the records do not show a material difference in the amount of ether and chloroform administered.

TABLE III.

Group 3. Drugs given 45 minutes after injection of venom.

	Mortality Per Cent	Average length life	Average leucocyte	Average temperature
Chloroform	50	3:00	+3,400	-2.6
Ether	50	1:13	-5,100	-2.3
Gas & Oxygen.....	50	3:10	-3,100	-2.8
Morph. & Hyoscine..	100	1:43	+1,000	-3.0
Group Average	63	2:17	-800	-2.7

If the assumption is correct that death was caused principally by destruction of the respiratory center, a comparison of these three tables apparently indicates that the anesthetics, including the narcotics, are less injurious to a subsequent than to a preceding and most injurious to a concomitant profound intoxication, rapidly induced.

Table IV presents a summary of all the experiments shown in the first three tables. Rabbits succumb to chloroform very easily, take gas poorly, and were given a large dose of morphine and hyoscine, facts to be remembered in studying the table.

TABLE IV.

	No of Experiments	No. of deaths	Mortality per cent	Average length life fatal cases	Av. leucocytes all cases	Av. leucocytes fatal cases	Av. temperature all cases	Av. temperature fatal cases
Chloroform	14	10	71	1:31	-630	-2,325	-2.5	-2.8
Ether	13	6	46	2:09	-2,159	+350	-3.1	-2.7
Gas & Oxyg....	15	9	60	2:28	+1,602	-489	-1.9	-1.7
Morph. & Hy.	13	8	61	10:33	+7,233	+17,800	-2.3	-3.4
Av. all grp....	55	33	60	4:11	+1,511	+3,834	-2.5	-2.7

The behavior of the leucocytes under such conditions could have relatively little influence upon the resistance to the toxin; however, the development of a leucocytosis under clinical conditions is not to be regarded as unfavorable. None of the drugs used had a constant effect in this way, though gas and oxygen and morphine and hyoscine combinations were fairly frequently followed even in forty-five minutes by a substantial increase.

Pathology.—Venom: These animals lived an average of forty minutes after injection. At immediate necropsy the only constant feature noted was a tremendous venous congestion under high pressure. Hemoglobinuria was inconstant.

The composite microscopic findings were as follows: Heart: Congestion and occasionally edema, swelling, vacuolization, granular and hyaline degeneration of fibres, and some focal necroses.

Lung: Congestion, otherwise fairly normal; some atelectasis and emphysema, and occasional hemorrhages. Leucocytes fairly numerous intravascularly.

Spleen: Congestion, main characteristic frequently evidence of recent blood-destruction. Presence of many leucocytes in pulp.

Liver: Congestion. Cells constantly swollen, often granular or present a washed-out appearance, possibly a serous imbibition.

Kidney: Congestion, cloudy swelling constant, epithelium, especially the tubular, commonly ragged. Focal necroses and hemorrhages fairly frequent; also casts and evidence of hemolysis in tubules.

Thyroid; Thymus; Adrenal: No change of importance noted.

These pathological findings are given in detail because they are virtually those noted as the result of the administration of the drugs under con-

TABLE V.

Effects of single (A) and repeated (B) administrations of drugs.

	Chloroform	Ether	Gas and Oxygen.	Morph. & Hyosine
A Heart			**	Congestion. Fibrillar degeneration esp. marked. Pre-existing chronic changes.
B	Edema. Segmentation. Fragmentation.*	Segmentation.		Edema hemorrhages. Advanced degeneration. Focal necroses.
A Lung				Few leucocytes in vessels.
B	*	Many leucocytes intravascular.	Many leucocytes intravascular.	Congestion. Slight hemorrhages.
A Spleen	Acute sp. tumor. Few leucocytes.			Many leucocytes.
B	Chronic sp. tumor. Many leuc. in pulp.	Hyperplastic sp. tumor. Many leucocytes.	Hyperplastic sp. tumor. Many leucocytes.	Hyperplastic sp. tumor. Many leucocytes.
A Liver	Cells esp. central & mid-zone swollen & pale.	Cells swollen and pale.	Cloudy swelling, congestion.	Cloudy swelling, congestion.
B	Cells esp. central, very much swollen and pale.	Cells swollen and pale.	Cloudy swelling, congestion.	Cells extremely swollen and pale.
A Kidney	Ep. desquamation, hemorrhag. casts.	Ep. desquamation Casts.	Ep. desquamation Casts.	Ep. desq. Marked necroses, hem. casts.
B	Ep. degeneration. Congestion.*	Ep. disintegration. Few Casts.	Cloudy swelling, numerous casts.	Tubules and granular capsules dilated. ep. disintegration, necroses, casts.
A Adr. Thyr				
B				

*Unless rabbits were kept continually actually in the open air they did not survive beyond two or three administrations of chloroform. Animals which succumbed after being kept in-doors, even when cages were near an open window, showed in lungs edema, hemorrhages; and a noticeable low intravascular leucocyte content; in their

livers were foci of necroses and of hemorrhages, and the kidneys presented fatty degeneration and casts in excess. All of these changes were noted to some extent in the other animals.

**Three rabbits died directly as the result of gas anesthesia. All had chronic myocarditis.

sideration. In the following table V is shown the *additional* effects of drugs alone given to two series of animals: (A), those killed by *coup de main* immediately after a forty-five minute administration; and (B), those similarly killed on the fifteenth day after fourteen daily administrations of thirty minutes. Where no notations appear the histological findings were not especially characteristic and except for the congestion, quite the same as indicated above in the venom series. At necropsy less venous congestion appeared than noted in those dead from venom.

Summary.—In addition to the average changes produced by venom already outlined, the drugs in single and repeated administrations caused noteworthy lesions. The remarkable susceptibility of liver and kidney to toxic action of even physiological doses is particularly striking.

Heart: Morphine and hyoscine in a single dose seemed to cause unusually severe changes; in repeated doses chloroform induced segmentation, fragmentation, and edema; morphine and hyoscine induced edema, hemorrhages, and focal necroses; ether induced segmentation. Quite unexpectedly, in view of its disastrous functional effect upon chronic myocarditis, nitrous oxide produced the least histological changes.

Lungs: Changes inconsequential.

Spleen: Repeated administrations invariably produced an hyperplastic splenic tumor.

Liver: Single administrations of chloroform and ether caused, particularly in cells of the central and mid zones, a swollen washed-out appearance, possibly indicative of serous imbibition. Similar, but more pronounced alterations occurred after repeated anesthetics. Morphine and hyoscine and nitrous oxide produced, under similar conditions, cloudy swelling and congestion, possibly more severe after the morphine combination.

Kidney: The damage done to renal epithelium was both unmistakable and constant. Consequent functional derangement and permanency of these lesions can only be surmised. Chloroform and morphine apparently induce the more severe effects.

Adrenals; Thymus; Thyroid: Changes in these organs occur, but so inconstantly and in so little evident relationship to the experiments that their consideration is omitted.

The changes induced by the combined administration of venom and drugs is shown in Table VI. It is perhaps remarkable that, under the conditions of profound intoxication and when the average length of life was but four hours, there should be any recognizable variations. Therefore the decided, although slight increase, in the severity of the lesions over those following drugs or venom alone, is to be regarded as of considerable significance.

TABLE VI.
Venom and drugs combined. Average changes observed.

	Chloroform	Ether	Gas	Morph. & Hyoscine.
Heart	Edema not mentioned. Tendency to focal degeneration.	Edema occasionally. Tendency to atrophy.	Edema the rule. Fibrillar disintegration the exception.	Edema constant, cellular infiltration more noticeable.
Lung	Fairly high intravascular leucocyte content.	Same.	Same.	Same.
Spleen	Congestion passive; occasionally free hemoglobin.	Same. Many leucocytes in pulp.	Same.	Same.
Liver	Central and mid-zone cells washed out, some fatty degeneration.	Same.	Similar, but less fatty degeneration.	Like gas.
Kidney	Parenchymatous degeneration constant. Epithelial disintegration.	Similar but less intense.	Same.	Same, but possibly more marked changes than gas & ether.
Adrenals Thymus Thyroid	Evidently nothing significant.	Same.	Same.	Same.

Summary.—Heart: Chloroform showed no, and ether but slight, tendency to edema, which was noted more commonly in gas and constantly in morphine and hyosine; but both chloroform and ether show a far greater tendency to produce degeneration in the muscle fibers. Sherrington has indicated how rapidly heart muscles take up chloroform.

Lungs: Virtually no individually characteristic changes were noted.

Spleen: Congestion, passive, was the rule in all.

Liver: Cells in mid zones washed out (serous inhibition) and at times fatty degeneration, especially in mid zone. These features most marked after ether and chloroform.

Kidney: Parenchymatous degeneration, amounting to epithelial disintegration, especially in the tubules usually with casts, were the constant findings, but were more pronounced after chloroform and ether.

Leucocytes.—Rabbits: Morphine and hyosine often exert a positive chemotaxis for leucocytes. The response appears most promptly and unmistakably in normal animals (av. 12,700); less so when intoxication is established at the time of injection of drugs (av. 8,000); still less so when the toxin had been injected a short time previously (av. 1,000); and least when the intoxication occurs the day before, when an immediate loss (av. 870) occurs, but is followed in two to five hours by a sudden rise (av. 2,100) to or above the pre-injection number. A distinctly more sluggish response.

Human: Dr. LeCron's clinical observations seem to indicate that similar changes may occur in man, but probably with less constancy.

Temperature: The constant fall in temperature was the result of not attempting to supply heat superficially and therefore is insignificant.

Acetone: This was found in the urine quite commonly after chloroform; less frequently after ether; and not after gas. Clinically, it does not seem to follow gas-anesthesia even in diabetics.

GENERAL SUMMARY.

Pathological: The drugs used in these experiments are capable of instituting degeneration-changes in the parenchyma of the heart, liver, and kidney, or of aggravating such changes when already established. These metamorphoses bear a

serial relationship of increasing severity from which recovery is not always possible.

Anesthetics are to be regarded as toxic in their effects, and should be administered with due regard to their most dangerous action as affected by individual conditions.

Physiological: Ideal general anesthesia, pleasant and safe, seems to be impossible until a drug is found which will have a purely selective and benign action upon the sensorium. The nearest approach thereto may be the development of methods requiring the minimum of the least injurious drugs (probably the most transitory in action), which will least impair, or possibly enhance, the efficiency of the cardio-vascular, respiratory, or defensive mechanisms.

Clinical: Discouragingly discordant opinions, based upon personal experience and clinical observations, and therefore frequently biased, justify the statement that there is no one method of anesthesia, single, combined, or sequential, which is so safe as to warrant its invariable application; on the other hand, chloroform may be said to possess no redeeming feature.

Experimental: The observations made in this series of experiments upon unfavorable animals under untoward conditions are in such accord with clinical evidence as to give hope that the experiments now under way, designed to determine the degree of persistence of the lesion caused by drugs and their effects upon resistance to infection, may permit of valuable deductions.

THE DIAGNOSIS AND TREATMENT OF FOREIGN BODIES IN THE EYE AND ORBIT.*

BY G. I. HOGUE, M. D.,

PROFESSOR OF OPHTHALMOLOGY, MARQUETTE UNIVERSITY
(MILWAUKEE MEDICAL COLLEGE).

The importance of the accurate diagnosis and immediate removal of a foreign body in the eye is being more fully recognized, even by the laity, who appreciate the gravity of such an injury and seek expert advice, thereby minimizing the danger of infection or inflammatory degeneration with possible loss of the eye, or even in some cases the

*Read at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

loss of vision in both eyes, whenever that justly dreaded affection sympathetic ophthalmia appears. A comparatively slight injury to the eye may through neglect or improper treatment result in the loss of the eye, while a very serious injury may by proper treatment result in preserving the eye with useful vision and a good cosmetic result. Visual defects are of interest, not only to the individual, but to the state.

A foreign body may remain in the eye for years without causing any disturbance, but such is the exceptional case and need not be considered by us in this day when we have at our command the Roentgen rays, the electro-magnet and advanced surgical skill.

The protection afforded by the eyebrow, eyelashes and lids is not sufficient to exclude from man's eye such articles as dust, cinders, chips of steel, glass, bone, emery, stone, coal, iron, small insects, etc.

The diagnosis of a foreign body in the eye may be made by:

(1) Inspection; positive when the foreign body is actually seen. Suspicious symptoms, of a foreign body being present are: ocular redness, local swelling, pain, lacrimation, disturbed vision, wound in cornea, conjunctiva, or iris, or a scotoma in the visual field. Inspection must be made early, as later diffused hemorrhage into the anterior chamber or vitreous, or opacity of the lens makes such a method valueless. Condensed light and a magnifying glass are great aids in the inspection. Fluorescein solution, 2 per cent., tints the injured part of the eye a yellowish green color and does not affect the normal surface, hence is frequently of service in locating small wounds or small superficial foreign bodies.

Fluorescein (gr. viii) gm 0.6.

Liq. Potassae (fl dr.) gm 2.0.

Aquae Dest. (fl oz.) gm 30.00.

The inspection of the tool and broken fragment may help us in the diagnosis. Homatropine instilled in the eye dilates the pupil and gives one a black background which is of assistance in the inspection. It should not be used if there is any ocular tension.

(2) The Ophthalmoscope may in an early examination, when there is no diffuse hemorrhage or opacity of the lens, bring into view the foreign body. We suspect a foreign body in the eye when we see any of the following phenomena: opacity

of the vitreous, bubbles in the vitreous which may disappear in a few hours, or a hemorrhage in the retina. One-fourth of the eye, in which is located the important ciliary body, is not visible with the ophthalmoscope.

(3) The Transilluminator gives one a good view of the anterior or posterior segment of the eye. I prefer the Würdemann instrument on account of its convenient size and minimum heat. The same limitation to its usefulness is noted as in the diagnosis by ophthalmoscopic inspection.

(4) The history of an injury to the eye as given by the patient is usually unreliable. The patient may be so stunned by the shock that he has no sensation of a foreign body entering the eye or wants to believe that the foreign body hit the eyeball, rebounded and fell at his feet; at least hopes it is not serious.

(5) The Sideroscope was first used by Polley of Brooklyn in 1880. The magnetic needle will ordinarily locate a magnetic body in the eye, but the great objection to this instrument is that it is too sensitive and therefore unreliable when near iron pipes or electric currents.

(6) The Electro-magnet was first employed to diagnose a magnetic body in the eye by McHardy in 1881. The symptom pain may not be elicited by this method when the foreign body is small or imbedded posteriorly. Asmus in 57 cases reports 43 patients felt pain and 14 gave no such reaction, but all were revealed by the Sideroscope.

(7) The Roentgen Ray localization is by far the most accurate method which we have for the detection of ocular or extra-ocular foreign bodies that are opaque to the rays. Glass, stone and coal in the anterior segment of the eye, and more rarely in the posterior segment, have been localized by Sweet of Philadelphia. There are many methods, but the Sweet method has in my experience been the most satisfactory. Professor Haab says localization is secondary to a quick extraction, but it is generally adopted in America as a routine practice when the foreign body cannot be readily seen. In a recent case with the wound open often the body is larger than expected and much damage may be done in the haphazard removal. It is important to have an expert Roentgen ray examination in all ocular injuries in justice to your patient and yourself. It also affords one a permanent and satisfactory record in case of a law suit. Dr. Blaine will take up localization in detail, and

I only wish to extol the Roentgen ray examination and express my firm belief that its value cannot be too highly estimated. When there is a foreign body in the orbit as sometimes happens in gun shot injuries, the shot penetrates the eye and with the knowledge obtained from localization, meddling attempts at removal from the eye are not even considered.

A foreign body in the conjunctiva, ocular or palpebral, is of frequent occurrence. The most common finding is a cinder in the middle of the sulcus subtarsalis of the upper lid and this may be removed with a cotton swab. When it is imbedded it may be necessary to remove a portion of the conjunctiva with the foreign body, e. g. when glass is present. Cocaine, 4 per cent., two drops, helps the doctor as well as the patient in this operation.

Pain is present when the eyelid sweeps over the foreign body situated on the cornea, and there may be no pain when the body is imbedded in the epithelium. A keratitis or even corneal ulcer may follow a small abrasion, therefore a corneal wound must not be considered an insignificant affair. It is very important to spare the corneal epithelium as much as possible, as a scar in the pupillary area interferes with the sight and besides disfigures one. Do not allow any staining or rust from the foreign body to remain, but cleanse the wound thoroughly. After a 4 per cent, cocaine solution has been instilled, the foreign body may usually be removed by means of a sterilized spud, which should be pushed steadily between the corneal tissue and the foreign body until it is loosened. If this does not succeed, use a sterilized needle. When it is deeply imbedded it may be necessary to pass a keratome from the periphery of the cornea to the rear of the body so as to support it during the extraction. Conjunctival flaps, according to the Kunht method, are often of great benefit when there is a large wound in the cornea; these flaps retract in four days' time. The hand or giant magnet is employed if the particle is of iron or steel.

Foreign bodies may lodge upon, become imbedded in or penetrate the iris. A hole in the iris is pretty good evidence that the foreign body has entered the eye. Removal is invariably indicated as a marked irritation or even plastic iridocyclitis may supervene. Eserine instilled may aid in the removal. Make an incision with the keratome at the corneo-scleral margin and, without an

iridectomy if possible, remove with forceps, or if magnetic, use the electro-magnet.

A foreign body may enter the vitreous, either by way of the cornea or sclera, and according to F. Collins of London, if it is loose it tends to gravitate to the lowest part of the vitreous and rest upon the posterior part of the ciliary body. The resulting opacities of the vitreous frequently are absorbed after a successful extraction. It is dangerous to probe in this chamber. Fuchs of Vienna says the vitreous is a natural culture gelatin. The foreign body should be removed, and if magnetic use the giant magnet. If an operation is deemed inadvisable, watch the eye carefully and be ready for an enucleation.

The choroid and retina rarely tolerate a foreign body and loss of vision is due to inflammatory reaction or detachment of the retina. Sudden outbreak of the inflammatory process or detachment may set in years after the operation. Schwarz of Leipzig reports a detachment of the retina eight years after a piece of iron had been successfully removed from the eye and he had obtained normal vision soon after the operation. The foreign body may be seen with the ophthalmoscope if viewed early. Later we note retinal hemorrhage or cloudiness of vitreous. The giant magnet is used in these cases and it may be necessary, by interrupting the current quickly, to loosen the foreign body by jerks.

The lens is quite tolerant to a foreign body in its substance. When the foreign body opens the capsule of the lens the aqueous humor enters and a traumatic cataract, which may be a localized or a general opacity, ensues. The lens is injured in about 50 per cent. of all penetrating injuries. Laqueur of Strassburg reports a fragment of glass in the lens for three and one-half years and the cataract did not ripen until a period of three years had elapsed. A foreign body in the lens may be diagnosed with the ophthalmoscope, transilluminator or Roentgen rays. The swollen lens may set up a secondary glaucoma, and in such an event the indication is removal of lens, but do not operate for traumatic cataract otherwise, as it may be absorbed in the young adult. Needling or senile extraction may be necessary later if there is no sight and providing the inflammatory reaction is in abeyance. A foreign body in the lens should be removed if there is any inflammatory reaction and if it is iron or steel by means of the giant

magnet, if non-magnetic, then by means of suitable forceps. A foreign body in the orbit, if it is small, and does not cause any disturbance may remain. Bird shot usually perforate the eyeball and lodge in the orbital tissue. The foreign body may, as in a case I had under observation, press upon the optic nerve and cause atrophy by pressure. A choked disk was present and after localizing the foreign body by the Roentgen rays it was removed by cutting the tough connective tissue with scissors and the repeated use of the giant magnet.

The removal of a foreign body, especially from the interior of the eye is one of the most delicate and difficult operations in ocular surgery. The successful removal requires good light, good eye sight, a steady hand and good judgment. Each case is a problem unto itself. Determine upon a plan of procedure first and remember the least amount of traumatism to the eye the better, for we may cause more injury by the operation than the injury itself caused. The earlier the operation the better, as the foreign body becomes encapsulated or imbedded in the exudate in a few days and a late removal requires so much force with the magnet that this plus the original trauma drags so much of the neighboring tissues that subsequent inflammatory reaction may produce iridocyclitis and shrinking of the globe. It may be advisable to allow a small aseptic and non-metallic body to remain in the retina when there is a possibility of loss of vision from the operation. If the foreign body is composed of copper, purulent inflammation by chemical action of the metal may take place according to Leber, therefore a strong indication for the removal of all foreign bodies that contain copper.

The removal of a foreign body from the eye may be accomplished by:

(1) Suitable forceps when the foreign body is superficial or non-magnetic and located in the anterior segment. The great Von Graefe, seventy years ago, removed a foreign body from the vitreous in this manner and lost the eye.

(2) A magnetized probe or forceps is sometimes used when the foreign body is visible and is magnetic.

(3) The small or hand electro-magnet was invented by Hirschberg of Berlin, in 1881. It is employed when the foreign body is in the anterior segment of the eye or when it is absolutely necessary to enter the vitreous chamber. Mac Keowan

of Belfast, in 1874, was the first surgeon to enter the eye, via sclera, with a magnet, and the eye was saved.

(4) The giant electro-magnet was invented by Haab in 1885. This instrument has saved many eyes that were formerly regarded as lost. I use the Victor Giant magnet, which is of the Haab type. It may be attached to any ordinary electric socket and is equipped with a switch to open or close the circuit and also a foot rheostat to regulate the amount of current.

Relative value of the hand and giant magnets.—The certainty of removal is usually in proportion to the strength of the magnet. The only fear is lack of power. The giant magnet is especially necessary when the foreign body is a small one, the smaller the body the greater the amount of current necessary; if it is imbedded, if it lies in the posterior segment of the eye, or in the orbit. When the foreign body has been in the eye some time the giant magnet is essential. With the giant magnet it is not necessary to enter the eye and therefore it minimizes infection. The giant magnet draws the foreign body in the line of least resistance.

The hand magnet has its place and I employ it sometimes after the foreign body has been brought into the anterior chamber by means of the giant magnet, and when the weakest amount of force is essential to preserve the eye sight. The hand magnet is portable, but on the whole, the small magnet is unsatisfactory. When one is compelled to enter the vitreous chamber the hand magnet is necessary, but remember the danger ever present.

The removal of non-magnetic bodies is accomplished with suitable forceps. If the foreign body is in the anterior chamber remove it. If in the posterior segment of the eye, remove it if it is localized, remembering the danger of probing in the vitreous. Alloys of iron are non-magnetic.

The incision is often an important problem. It is usually best to use the original wound for the exit of the foreign body and we frequently have to enlarge the wound with blunt scissors. If it is deemed advisable to remove the body by the scleral route, we make the incision as near the foreign body as it is possible. Use the scleral route if there is any danger of wounding the ciliary body. The incision is made from behind forwards and on a line with the lower border of the insertion

of the external rectus. Avoid cutting any muscle or large blood vessel. A Graefe knife is used.

Technic Giant Magnet.—This is not a pulling contest and the apparently simple operation will often tax the surgeon's skill. The unfavorable results are frequently due to a faulty technic. The delight of a successful extraction of a foreign body in the eye is akin to the feeling of the general surgeon after the appendix has been separated forever from the abdominal cavity. The operation should be performed with the best light so that every step may be closely watched. As little traumatism to the tissues and the least possible force to draw the body into the outer world are most desirable. The method I follow is essentially the same as the one demonstrated to me by Professor Haab in the University of Zürich Hospital.

Preparation of Instruments.—Disinfect the tip of the magnet. Be sure that the tip is securely locked, as it may by the force of the current strike and injure the eyeball. Remember to remove your watch or it will be magnetized. The same precautions as to asepsis of instruments, field of operation and surgeon's hands as for general surgery, are imperative in the simplest extraction.

Preparation of patient.—Personally I prefer a fresh 25 per cent. solution of argyrol in the eye before the operation and after the operation. Stop bleeding, if any, by means of 1-1000 solution of adrenalin. Atropin sulphate, 1 per cent., unless there is evidence of glaucoma, is instilled. Cocaine solution, 4 per cent. every four minutes for four times is the method I usually employ. When it is necessary to give a general anesthetic, get the consent of the patient to do an enucleation if found necessary. The incision has been referred to previously. The patient is seated on a stool that can be revolved. A rubber cap on his head makes the handling of the head easier. Grasp the head with both hands and have the patient relax his neck. The patient is instructed to look at the tip of the magnet. The eye is made to approach the magnet from a distance with the least amount of current on and the distance is decreased and current increased if necessity demands. I prefer to use the foot rheostat to govern the strength of the current. If a large body, then the head will be held at a safe distance, but if the foreign body is small, the tip may touch the center of the cornea. First adjust the tip, then turn on the current. The foreign body is

drawn from the posterior part of the eye through the vitreous to the back part of the lens, then around the equator and passes through the zonula into posterior chamber, where a bulging of the iris is noticed. Now turn off the current quickly as it is quite impossible to draw the foreign body through the iris and it is safer to cause the body to be drawn along the posterior surface of the iris into the anterior chamber by changing position of the eye to the opposite side. It requires considerable skill to coax the foreign body from the back of the iris into the anterior chamber. It may be necessary to do an iridectomy in order to deliver the foreign body, but avoid this if possible. A previous instillation of atropine dilates the pupil and makes the task easier. The patient is told to retract the head when the bulging is seen. Turn off the current when it is in anterior chamber. The patient is then placed on his back and a corneo-scleral incision is made if the original wound is not desirable, and the foreign body may now be delivered by means of the hand magnet, forceps, or a giant magnet with a long sharp tip; I prefer the hand magnet for this work. The giant magnet is brought to the lips of the wound, but the hand magnet may be introduced into the anterior chamber. The foreign body may be drawn forward from the fundus as well, and the danger of wounding the lens is slight. Cut off all tags and prolapsed portion of the iris. A bone spatula is necessary if the lips of the wound have to be retracted during the extraction. If for any reason you fail in these efforts, the following is suggested: localize again and repeat on several successive days if necessary. Scleral incision if other methods disappoint. Repeated trials may amply reward your endeavors.

After treatment.—Argyrol, 25 per cent. two drops and atropine sulphate, 1 per cent., two drops prevents iritis and puts the eye at rest. Ice compresses at once for a period of 15 minutes and repeat every half hour for the first two days, in order to combat the inflammatory reaction. Transfer small pieces of gauze from the cake of ice to the closed eyelid. Bandage the eye. Dionin is a valuable lymphatic stimulant. It is best to take for granted that all eye injuries are septic ones and treat them accordingly. In case of infection we may use the iodoform rods in anterior chamber as advocated by Haab, the mercurial inunctions as advised by Schirmer, the repeated doses of

calomel as De Schweinitz prefers or cauterize the wound according to Van Milligan. Personally, I prefer the large doses of sodium salicylate, after the method of Gifford, with pilocarpin sweats. Subconjunctival injection of bichloride solution is also of value. Leeches to the temple are sometimes of benefit. Scarlet red ointment, 5 per cent., in clean cases, is splendid for the healing of the epithelium. Note the healing process by instilling fluorescein solution from time to time. When the foreign body has touched the soil or in gunshot wounds, examine for tetanus bacillus by experimental inoculation of animals. Pincus of Berlin and De Ridder and Danis of Brussels have observed tetanus following a horse-whip injury of the eye. Tetanus antitoxin is useful as a prophylactic measure.

Prognosis.—It is wise to reserve the prognosis for a few days in any given case. With our modern methods the prognosis is better than some years ago, but it depends on the method used, the situation and character of the foreign body, the extent of the injury, the length of time the body has been in the eye and the ease with which it may be removed. Sympathetic ophthalmia has not been conquered and until it is will be a source of constant worry to the ophthalmologist. Sympathetic ophthalmia is limited to man and may develop in a few hours after the injury or appear many years later. It is unfortunate that a certain number of eyes are lost by panophthalmitis or iridocyclitis, even if the foreign body is promptly removed. After a successful extraction it is estimated that only one-third of the cases recover useful vision. The extent of the injury is not always an indication of the ultimate result, and vision soon after the accident is no positive guide. The injury may be an exciting cause for local manifestation of pre-existing diathesis, e. g. tuberculosis, lues, diabetes, etc. Warn the patient of the dire results that may ensue if the foreign body is allowed to remain and your conscience will be easier.

I believe I can best demonstrate the evil effects of a foreign body remaining in the eye by exhibiting the following macroscopical specimens:

- (1) Shot in the eye: eight months.
- (2) Detachment of retina. Foreign body removed ten months previously.
- (3) Secondary Glaucoma due to swelling of injured lens.

(4) Exudate after the removal of a piece of steel. In eye 11 days.

(5) Inflammatory degeneration due to retained foreign body.

(6) Severe inflammatory degeneration with shrinking of globe.

(7) Foreign body causing injury to iris and ciliary body, resulting in iridocyclitis.

Whenever the injured eye does not fulfill the purpose of nature, beauty and sight, and there is a constant irritation present, it is best to follow the injunction of the Good Book and remove the offending member in order to prevent sympathetic ophthalmia and resultant loss of vision in the opposite eye.

ROENTGEN LOCALIZATION OF FOREIGN BODIES IN THE EYE AND ORBIT.*

BY EDWARD S. BLAINE, M. D.,

MILWAUKEE.

In the consideration of any question concerning the Roentgen Ray, several important facts must always be kept in mind. These facts were demonstrated by Professor Roentgen shortly after his wonderful discovery in the year 1895, the announcement of which so astonished the entire world.

In his original communication, Roentgen proved that the peculiar power possessed by this ray, of penetrating substances which are opaque to ordinary light, was dependent upon the relative density and thickness of a given substance. Thus, substances of equal thicknesses, but of different densities are more or less transparent to the ray according as these, in their densities vary from one another. He also demonstrated that the rays emanated from a point and spread out, fan-shaped from that point, diverging in all directions of a hemisphere. He further observed the chemical action of the rays upon the haloids of silver, and that this action caused photographic changes to be registered upon a plate sensitized with silver salts.

He found that the ray itself was invisible and, being unable to determine the exact nature of this peculiar ray of penetration, he named it the "X" Ray, "X" being the classic symbol of the unknown.

*Read at the Sixty-Sixth Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

The various scientific societies of the world have adopted a uniform nomenclature to be applied to this ray and the term used is "Roentgen Ray," in honor of its discoverer.

The mere detection of a foreign body in the eye by the Roentgen Ray presents no great difficulty, providing that the density of that body be greater than that of the bony structures and the soft tissues in the immediate neighborhood, all of which are registered upon the fluorescent screen or photographic plate, in direct proportion as their densities vary; thus a piece of steel, being of a density greatly in excess of the bone and tissues of the orbit is easily detected; a splinter of wood will, by its lesser density, offer less resistance to the ray, and the resulting shadow will be less clear, while a piece of glass can be seen more or less distinctly according to the metal used in its manufacture, the common lead glass variety showing a definite shadow. But the accurate localization of a foreign body is attended with considerable difficulty, as the eye-ball, being of a density almost the same as that of the soft tissues of the orbit, does not cast a shadow upon the screen or plate, and we are unable to tell its exact position. The ophthalmic surgeon and the attending physician are greatly concerned as to whether or not the foreign body, when present, be intra-ocular or extra-ocular. If intra-ocular, what part of the eye-ball does it lie in, and what is its relation to the various structures, the vitreous, the lens, the ciliary body, etc. If extra-ocular, what is its position as regards the optic nerve? All these questions can be accurately answered by bringing to our aid and applying scientific and mathematical principles. These principles have been applied by several investigators, whose methods are being used to determine the exact position of a foreign body in the eye or orbit, among whom are Mackenzie-Davidson², Sweet³, Fox⁴, Hulen⁵, Dixon⁶, Bowen⁷.

The application of the Roentgen Rays in Ophthalmic Surgery was first reported by Dr. Van Druyse⁸, who in March, 1896, the year following the discovery of the ray, introduced a small bullet into the eye of a rabbit. By producing an exophthalmos, he was able to slip a small sensitized plate under the eye and after exposure to the ray was able to define a shadow of the foreign body. He also demonstrated that by placing a sensitized film between the lids at the inner canthus, foreign

bodies could be detected by directing the rays toward the film from the temporal side.

Dr. Leukowitsch⁹ in August, 1896, reported his experiments with sheep in the finding of foreign bodies in the eye by the aid of the ray. On the human, he used small semi-circular shaped plates, which he placed at the inner angle opposite the lacrimal bone.

In the same year Dr. Max Stern¹⁰ of Philadelphia demonstrated that a foreign body could be shadowed on a plate held at the side of the head. He determined the approximate position of the metal in the eye by noting the relation of the shadows of the orbital bones to the foreign body, but the variations of the position of the eye-ball lead to considerable error as to its actual position.

In 1897 several contributions to the literature on this subject were made by Drs. Ring¹¹, Hansell¹², De Schweinitz¹³ and others. In these early cases the approximate position of the foreign body was obtained by a comparison of its shadow to the malar process of the superior maxillary bone, the tube having been placed in a certain position with relation to the orbit, the direction of the ray determining the location of the body. Dahlfeld and Pohrt¹⁴ placed a sensitized plate on the affected side of the head, the tube being on the opposite side. In the same year Friedenber¹⁵ and Friedman¹⁶ reported their method of making two exposures at right angles to each other. Stockl¹⁷, in 1898, fastened small pieces of lead at several points of the orbital margin, and from these made his measurements to get the position of the foreign body. Dr. Sweet was one of the first to give us a method by which a high degree of accuracy was obtained in determining the actual location of a foreign body.

Numerous reports have been made setting forth variations or modifications of the methods in use to more accurately locate a foreign body in the eye or orbit. Many of the methods used were unsatisfactory on account of being too complicated or because of too great a percentage of error.

Ophthalmic surgeons, who in the past have tried to remove a foreign body from the eye with the aid of an ordinary radiograph upon which the shadow of the body was plainly projected, appreciate the difficulty of the task and have found in many cases that they could not accurately determine just where that body was and sometimes failed in its removal. Therefore, a method, by

which accurate results could be obtained became a desideratum.

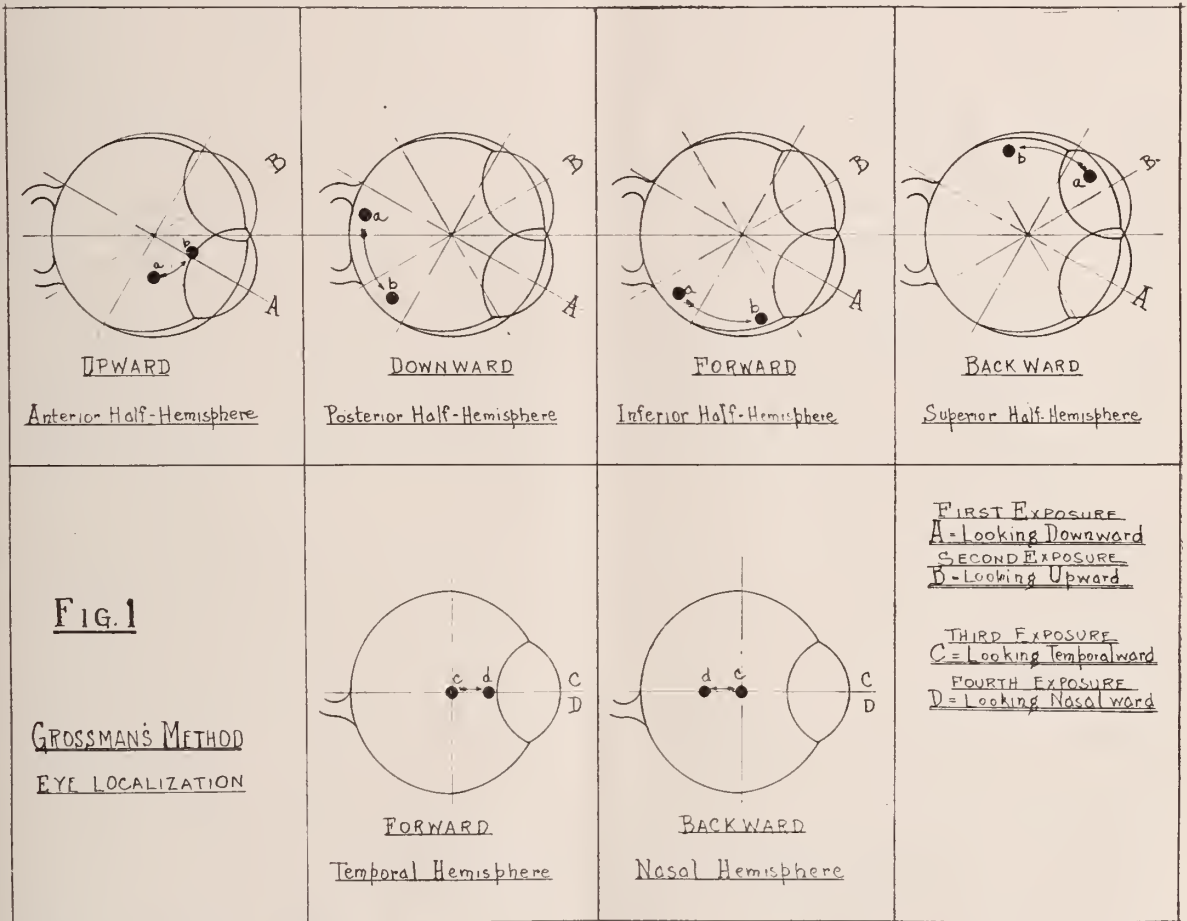
In the application of the Roentgen Ray as an aid in diagnosis, we have two modes by which the presence of this invisible agent is detected, viz.: (1) Physical effects or Radioscopy, or Fluoroscopy by which it causes certain substances to glow, and (2) Chemical effects or Radiography, by which it causes changes on a photographic plate.

being very great. For these reasons it should not be used.

The Radiographic Method: Under this heading we have three subdivisions, which are:

- (a) Graphic.
- (b) Stereoscopic.
- (c) Geometric.

The Graphic Method consists in making an exposure of the affected eye and the position of the



The Fluoroscopic Method: This method I wish to cover in a few words, mainly to condemn it. The foreign bodies usually found in the eye or orbit are very small, and it is extremely difficult and often impossible to discern the shadow, and furthermore it is very difficult to get its exact location by this means. One may see the shadow of the foreign body on the screen, but the question as to its location is one of millimeters, and this cannot be determined by this method. Moreover, it is very dangerous to both examiner and patient, the liability to burns and other untoward effects

shadows of the foreign body are compared with the shadows cast by the bones forming the orbit. The right angle method requires two exposures of the eye, each one at the same distance from the tube, the second exposure being taken with a change of 90°, the direction of the rays to be as nearly in line with the center of the eye-ball as possible. These two views will give the approximate position of the foreign body, and the correctness of the result will depend upon the care used in making the exposures. The patient must be cautioned not to move the eye, as the axis of the eye-ball

must be identical in both exposures, else the results will be far from correct.

In 1899, Karl Grossman¹⁸ described his method of determining the position of a foreign body. This method shows us definitely by a simple process whether the piece of steel or other substance be intra- or extra-ocular. Two exposures are made, the relative positions of tube, head of patient and plate remaining unchanged. (Fig. I. illustrates this method.) Kassabian in his work on the Roentgen Ray, quotes Grossman as follows: "Either one or two pairs of skiagrams are taken. The first pair is obtained by making the patient look (a) downward; (b) upward, in the same plane, the Ray coming from the other side of the face and somewhat in front of it. If the foreign body be in the eye-ball, the shadow has moved from (a) to (b) as follows: Upward if in the anterior half hemisphere, downward if in the posterior hemisphere, forward if in the inferior half hemisphere, backward if in the superior half hemisphere; the axis of these four half hemispheres being at the same time the axis of rotation for the upward movement. If the shadow has not moved, the foreign body might still be in the eye-ball, viz., at any point on the axis of rotation. In this case a second pair of skiagrams would be necessary, the patient this time having to look (c) Temporalward, (d) Nasalward, in the horizontal plane. A movement of the shadow from (c) to (d) would mean the presence of a foreign body in the eye, viz., in the temporal hemisphere if forward, in the nasal hemisphere if backward." If a distinct, clear shadow be found and no change of position occurs, then the foreign body does not lie within the eye-ball. In order to more clearly determine the location of a foreign body a fixed point or indicator must be used, and its position with regard to some point of the eye must be definitely known. Albers-Schönberg¹⁹ in his work "Die Röntgentechnik" advocates the use of a metal ring inserted monoclewise in the orbit over the closed lids and an exposure made with the affected eye close to the plate, which is placed on the temporal side of the head, and the position of the foreign body noted by its relation to the shadow of the ring. A modification and improvement of this method is that of Dr. Fox²⁰, who uses a "conformer", which is an elliptical wire of gold, which is divided by cross wires of the same material, concaved so as to fit the anterior

surface of the eye-ball, these wires running in opposite axes, dividing the eye-ball into quadrants, anteriorly. The affected eye is first cocanized and then this conformer is introduced beneath the eyelids. The eye is skiagraphed in two directions (a) with plate in front of the eye and the tube placed posteriorly with its target directed toward the plate; (b) with plate on side of head and tube placed on the opposite side. By this procedure the approximate position of the foreign body is obtained, the conformer showing exactly the position of the cornea.

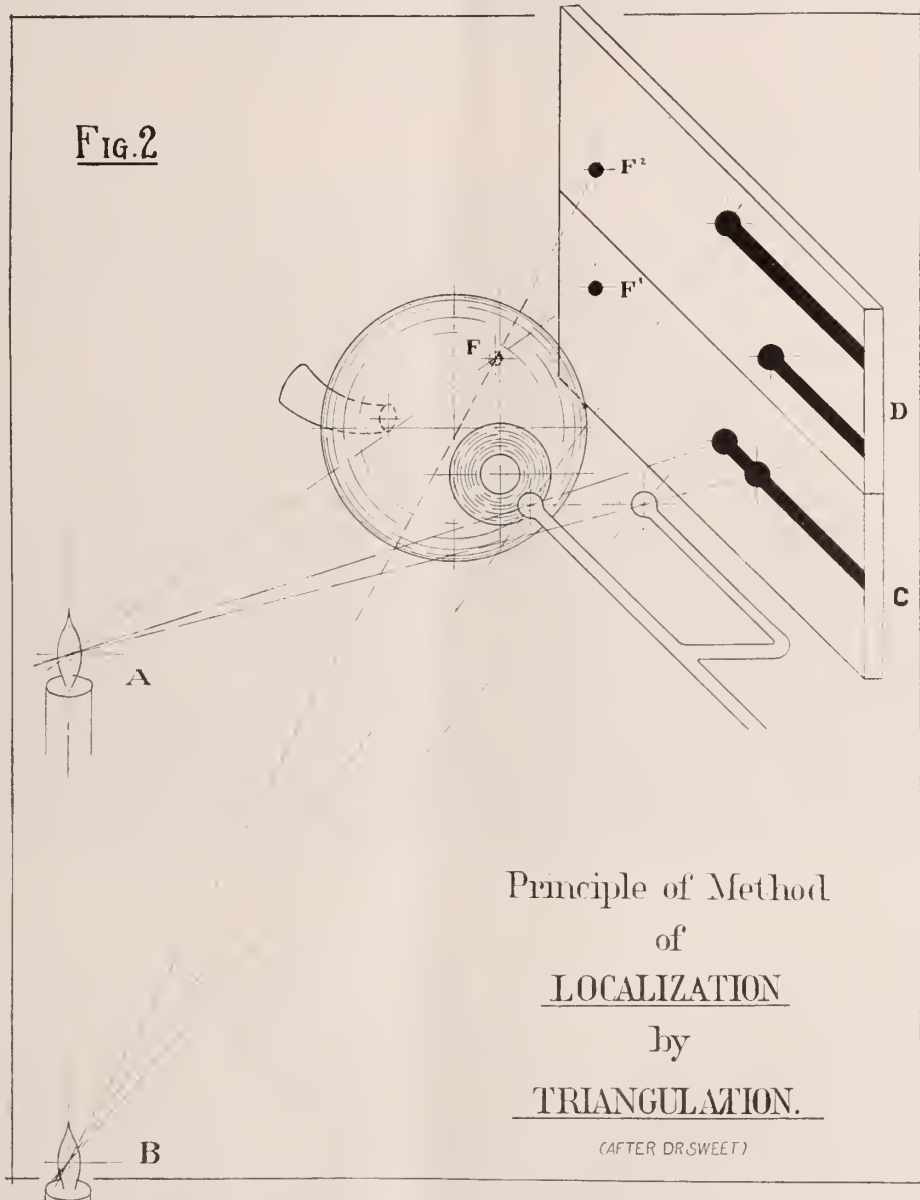
Several writers have described a method by which use is made of pieces of metal which are sewed, stitched, or fastened to the cornea. Each of these writers gives some slight variation in making use of this means to determine the position of a foreign body, but all are similar, the result being obtained by precisely the same method in each. Others advocate the use of bits of brass or silver wire, tucking these into the conjunctival pockets at the upper and lower corneal margins. It is claimed that by use of these fixed limbus localizers more accurate results are obtained than with the methods where the localizer is outside of the eye.

The Stereoscopic Method: In this method we make two exposures and use two plates, each of which occupies exactly the same position, its relation to the eye of the patient being the same in both exposures, the tube being displaced $3\frac{1}{4}$ cm. to either side of the center of the plate, a total difference of $6\frac{1}{2}$ cm., this latter figure being the average normal interpupillary distance. By viewing these two plates in a stereoscope, the two views become blended, and instead of a flat picture of length and breadth, the third dimension, depth, is obtained. Other things being equal, this would give the exact location of a foreign body providing, as before, a definite land-mark were used, such as Fox's Conformer, or some other indicator. However, on account of the smallness of the object and the density of the bones through which the ray must pass, there is very little definition in the picture. Therefore this method does not give results sufficient to warrant its use.

The Geometric Method: This is the method of accuracy if proper technique be employed. This method involves the use of principles of geometry and is spoken of as "localization by triangulation." Several investigators have worked out this method,

each with some variation, some simple and some complicated, but all start with the same beginning and arrive at the same result. Tousey²¹ says: "This is the only method applicable to all cases, even those in which it is necessary to decide whether a spicule of glass or steel is imbedded in the sclera or just outside or inside." We have a choice of several methods which are in use today,

foreign body by measuring the distances of different shadows used as indicators or markers, to the shadow of the body, thus simplifying the manner of arriving at a result and doing away with the necessity of plotting the various shadows upon a chart. Of the earlier methods of triangulation the one designed by Mackenzie-Davidson¹⁵ is very accurate, but rather complicated. This



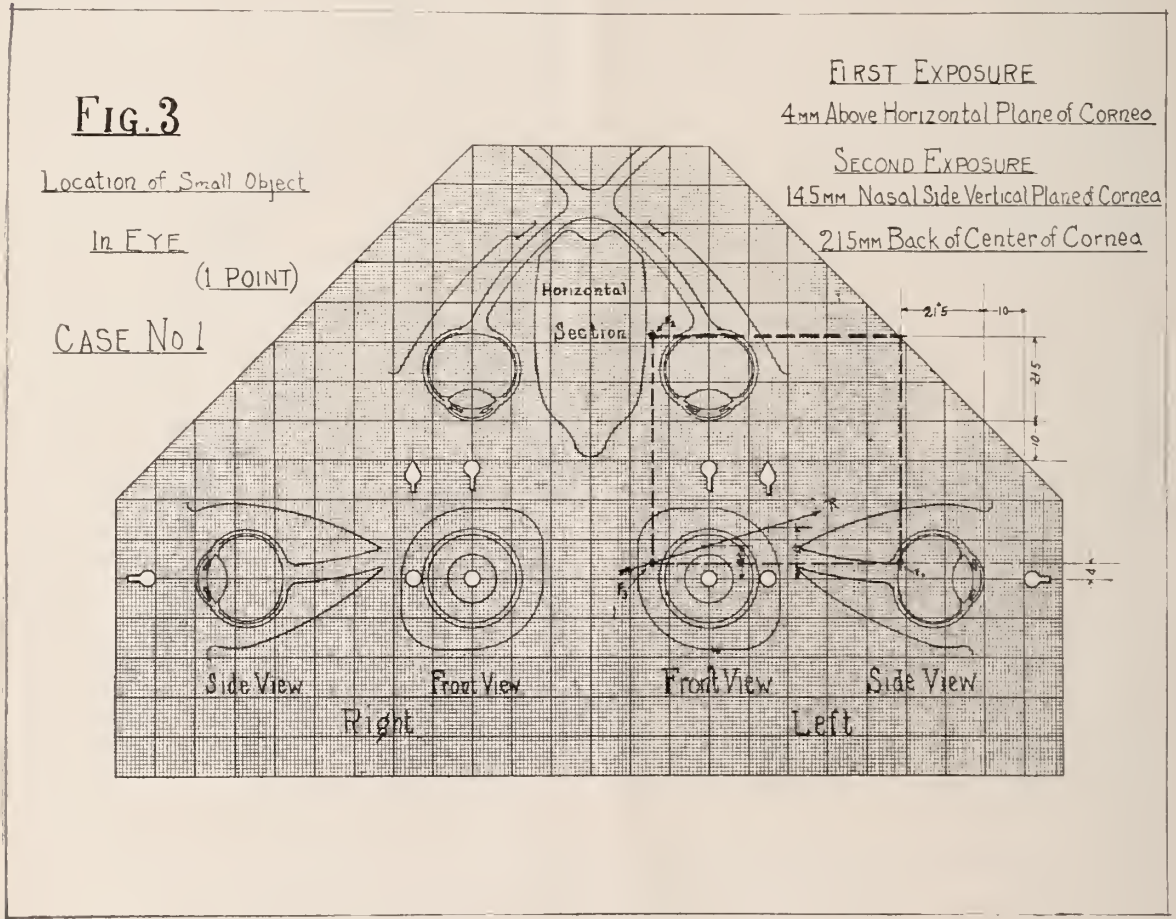
among which are Dr. Sweet's of Philadelphia, Guilloz²² of Nantez, Mackenzie-Davidson of England and others. Dr. Fürstenau²³ of Berlin has devised an instrument called the "Tiefenmesser", literally a "depth measure", which gives direct readings, locating the position of the

method is used mostly in the localization of penetrating objects elsewhere in the body, such as occurs in general and military surgery. The position of a foreign body is learned by measuring its shadow with relation to cross wires, which are projected upon the plate, the skin being marked

with ink by contact with these wires. Two exposures are required. The two directions of the rays projecting the shadows, are constructed by special appliance and the point of the crossing of the two wires is measured, this being the exact distance of the foreign body from the inked cross upon the patients skin.

The Guilloz Method requires two tubes, the anti-cathodes to be equidistant from the plate, which distance is 50 cm. Special markers are

tion to the axis of the affected eye and anterior margin of the cornea, two different shadows of the foreign body and indicators being projected. The developed plate is measured, and, by triangulation, the exact position of the body is obtained. The principle of this method will be most clearly understood by noting the diagram given by Dr. Sweet in his original description. On Fig. 2 the relative positions of source of light, eye of patient, foreign body and the indicators are shown, as are



used for localization. The two tubes are set in action and the resulting skiagraph will show double shadows or bionic projections of the bones forming the orbit and of the foreign body. These shadows are measured and calculated, thus revealing the exact location of the foreign body.

The Sweet Method was devised by Dr. Wm. Sweet of Philadelphia and is one of the most practical in use today. This method of localization by which I have localized a number of cases, three of which are presented, requires a special metal marker which is set at a definite position in rela-

tion to the axis of the affected eye and anterior margin of the cornea, two different shadows of the foreign body and indicators being projected. The developed plate is measured, and, by triangulation, the exact position of the body is obtained. The principle of this method will be most clearly understood by noting the diagram given by Dr. Sweet in his original description. On Fig. 2 the relative positions of source of light, eye of patient, foreign body and the indicators are shown, as are

one with the tube in the plane of the two indicator balls, and the second exposure with the tube below this plane, i. e. toward the patient's feet. A special chart is employed for localization and contains a diagram of the average normal eyeball and orbit on millimeter scale, upon which is shown the positions occupied by the two indicators. By measuring the displacements of the indicators upon the plates and transferring these

plate, through the indicator stems, another line through the center of the foreign body at right angles to the first, and, with a millimeter scale, the distances of the body, above or below and behind the indicators are measured. Dr. Sweet²⁴ found it somewhat difficult for some operators to thoroughly understand this mode of arriving at results, and, consequently, has improved his apparatus¹⁷, simplifying the process. It is of the

FIG. 4

LOCATION OF PIECE OF WIRE

IN EYE
(2 POINTS)

CASE No 2

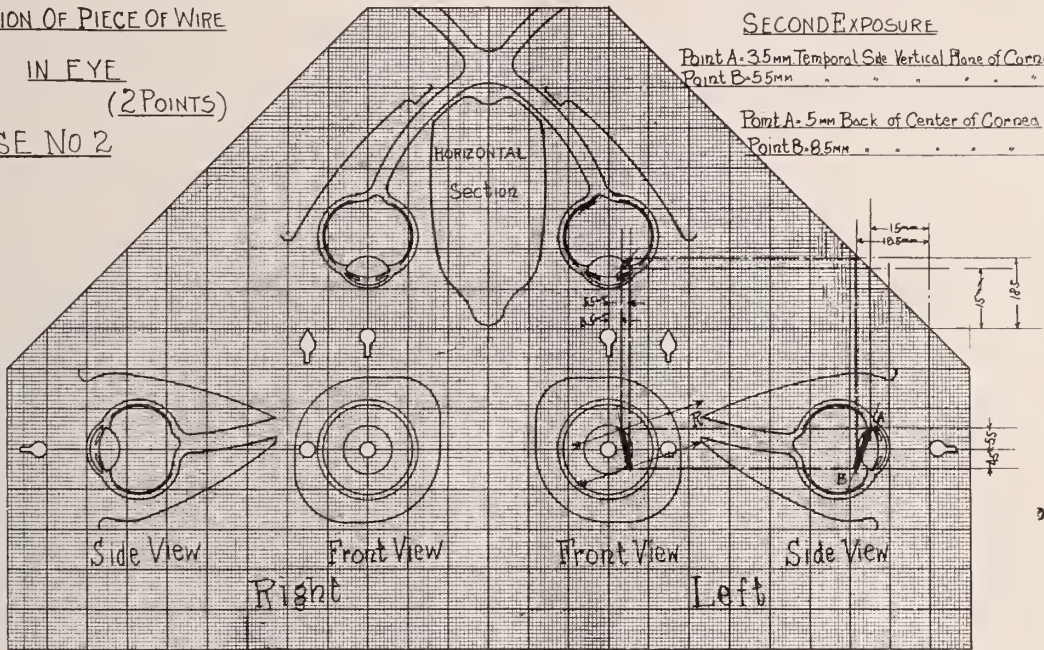
FIRST EXPOSURE

Point A - 5.5mm Above Horizontal Plane of Cornea
Point B - 4.5mm Below

SECOND EXPOSURE

Point A - 3.5mm Temporal Side Vertical Plane of Cornea
Point B - 5.5mm

Point A - 5mm Back of Center of Cornea
Point B - 8.5mm



dimensions to the chart, one determines the precise spot from which the rays emanated. These positions being determined, it requires only to be entered the distances that the shadow of the foreign body on the two plates is from one of the indicating balls and to draw a line from each of these points to the known position of the tube, to indicate the plane of the shadow of the foreign body after the two exposures. The point of crossing of the lines of the shadow shows the position of the foreign body with reference to the center of the cornea. A line is drawn upon the finished

utmost importance that the axis of the injured eye be parallel with the plate and the eye must not move, this being accomplished by having the patient keep the eye fixed on a white spot of paper set up exactly the same distance above the floor as the eye itself.

In a case of a small round object in the eye, the localization by this method is comparatively easy, a single point being all that is necessary, this being the center of such an object; but an irregular shaped body makes the process somewhat more difficult, the latter instance requiring

the plotting of each end or corner of the foreign body. In case No. 1 which I present to illustrate this point, we have localized a small piece of metal which penetrated the patient's left eye. It will be seen to be extraocular and is located 4 mm. above the horizontal axis 14.5 mm. to the nasal side of the vertical axis and 21.5 mm. back of the anterior margin of the cornea, therefore the object is extraocular and a considerable distance from the optic

to apply the magnet in the extraction of a piece of metal. In this case, the small point tip of a giant magnet was directed toward the upper and nearer end of the piece of wire, and, although the foreign body had been lodged in the eye-ball about fourteen days, and so firmly imbedded that it was necessary to loosen some of the adhesions, the piece of wire was drawn through on end, thus causing a minimum of damage to the surrounding

FIG. 5

LOCATION OF TRIANGULAR BODY
IN EYE. (3 POINTS)
CASE NO. 3

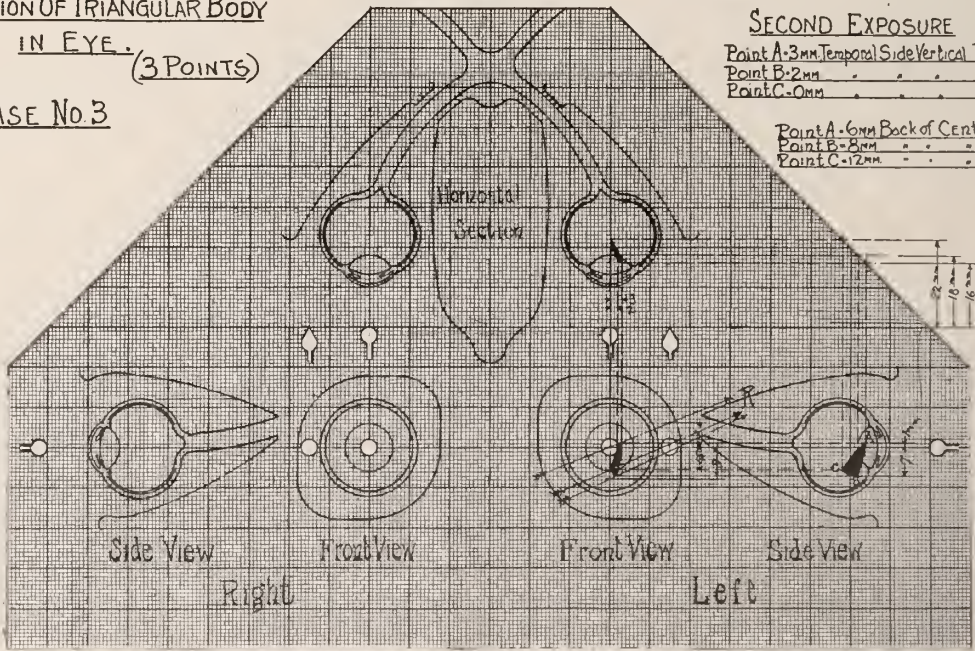
FIRST EXPOSURE

Point A-1mm Above Horizontal Plane of Cornea.
Point B-7mm Below
Point C-55mm

SECOND EXPOSURE

Point A-3mm Temporal Side Vertical Plane of Cornea
Point B-2mm
Point C-0mm

Point A-6mm Back of Center of Cornea
Point B-8mm
Point C-12mm



nerve. In case No. 2 (Fig. 4), the patient was working at a wire winding machine, when a piece of the wire snapped off and struck his left eye, penetrating it. We found the foreign body to be 10 mm. in length and 1.5 mm. in diameter, and was located just back of the lens, the lower end being directed downward, backward and temporalward, the extremities of the body being nearly equidistant above and below the horizontal axis of the eye. The great advantage of this accurate knowledge will readily be seen when one considers the value of such information when it is desired

tissues. In charting this case, we have to make a separate measurement of each end of the foreign body, marked A and B on the chart. The upper end was found to be 5 mm. back of the anterior margin and the lower end was 8.5 mm. Its upper end was 3.5 mm. and the lower end 6 mm. temporalward from the vertical axis of the eye. This case clearly demonstrates the fact that by the use of this method of localization, the surgeon learns the one correct spot to apply the magnet, and the direction to draw the object through, in order to remove a regular or an irregular shaped magnetic

body, so that it will cause the least amount of tearing or damage to the tissues of the eye.

The third case (Fig. 5) is one in which the foreign body was a triangular piece of metal. Here we have to deal with three points in the determination of the exact location of the metal, and these are shown as points A, B, and C on the chart. The metal was found to be partly embedded in the lens and partly posterior to it.

The actual size of a foreign body as compared with its shadow projected upon the plate, is almost identical, because the close proximity of the injured eye to the plate gives very little distortion or enlargement due to the divergence of the ray, and our figures show an error of less than 2 per cent. In patients affected with myopia or hypermetropia, allowance must be made for a variation from the normal diameters, 20 to 25 mm. being the normal antero-posterior diameter²⁵, although Stilling states that variation in the diameter of the eye-ball is independent of errors of refraction and that a myopic eye of 4 D may be actually shorter than a hyperopic eye.

It may be argued that the Sweet method requires too much time and labor to arrive at results, but with proper equipment and technic and immediate development of the plate, a foreign body can be accurately located within half an hour.

Conclusions.—In his recent work on Ophthalmic Surgery, Dr. Beard²⁶ says that "Roentgen or X-Rays furnish the best known means of locating foreign bodies, whether the substance be of iron or other material opaque to them. Of the Roentgen Ray methods, the Graphic is the method of expedience, and in common with others in the same group, it can make known the presence of a foreign body, its form and volume. Radioscopy or Fluoroscopy is serviceable on occasion, i. e. for the larger foreign bodies, but as a rule, unreliable. The objections to stereoscopic radiography have already been given, so that, after all, the geometric radiography is the method of general utility, since it tells nearly all that any of the others can and tells it more accurately." According to Tousey²⁷, "a radiographic examination should be made in every case of injury to the eye by a foreign body when there is reduced visual acuity, whether there is a distinct history of possible penetration by a foreign body or not."

REFERENCES.

1. Phys. Instit der Universitat Würzburg, 1895.
2. Archives of the Roentgen Ray, May, 1898.
3. Transactions Amer. Ophth. Society, May, 1897.
4. Phila. Med. Journal, Feb., 1902.
5. Journ. Amer. Med. Assn., 1904, Vol. 42.
6. N. Y. Eye & Ear Infirmary Reports, 1906, Vol. 12.
7. Amer. Quarterly of Roentgenology, July, 1907.
8. Arch. d'Ophth., 1896, Vol. 16.
9. The Lancet, Aug. 15, 1896.
10. Trans. Amer. Ophth. Soc., 1896.
11. Codex Medicus, 1897, Vol. 3.
12. Am. Journ. Med. Sciences, 1897, Vol. 114.
13. Ibid, Vol. 113.
14. Deutch Med. Woch., 1897.
15. Med. Record, May 15, 1897.
16. Klin. Monatsblatt, Oct., 1897.
17. Weiner Klin Wochen, No. 7, 1898.
18. Liverpool Medico-Chir. Journ., Jan., 1899.
19. Die Röntgentechnik, Albers-Schönberg, 1910.
20. Phil. Med. Journ., Feb., 1902.
21. Med. Elec. & Röntgen Rays, 1910.
22. Enycl. Franc. d'Ophthal., 1905, Vol. 4.
23. Verhandl. der Deutch-Röntgen Gesell., Vol. V.
24. Trans. Amer. Ophth. Soc., 1909, Vol. 12.
25. Med. Elec. & Röntgen Rays, 1910, p. 790.
26. Ophth. Surgery. Beard, 1910.
27. Med. Elec. & Röntgen Rays, 1910, p. 789.

DISCUSSION ON PAPERS BY DRs. HOGUE AND BLAINE.

DR. G. E. SEAMAN, Milwaukee: The paper presented by Dr. Hogue is one that many physicians would consider more appropriate for a special society than for a general meeting such as this. I would not, however, agree with this conclusion. Injuries to the eye due to foreign bodies are of such frequent occurrence and in practice it is so often necessary for physicians and surgeons generally to handle the cases in the beginning at least, that the subject should be one of great interest to all practitioners. The early treatment of these cases, the emergency treatment so to speak, is of the greatest importance in view of the liability to infection and of the much better results now obtained under modern aseptic surgery. Before the era of aseptic surgery a very large proportion of perforating wounds of the eye, especially where a foreign body was retained, seemed to necessitate the removal of the eye in the effort to ward off the results of infection, but with the advent of aseptic surgery and since the development of the Roentgen ray and the other accurate methods of localization described by the author of the paper, the results of these injuries have markedly improved. I agree with Dr. Hogue that the statements of the patients are usually unreliable, especially so as to the existence of a foreign body in the eye. I never rely on the statement of the patient. If on account of the presence of blood or for any other reason a satisfactory ophthalmoscopic examination cannot be made, the Roentgen ray should be resorted to.

I would not lay too much importance on the use of the magnet as a diagnostic means. The exact and minute history of the case and a full description, together with an examination of the uninjured eye and accurate notes on the same is of great importance, not only from the standpoint of a better understanding of the subsequent history of the case, but particularly with reference to the medico-legal aspect and with special reference to justice being done to the injured man as well as to the employer. I take it that in the future these matters will be considered of more importance than in the past. The adjustment of damages in industrial accidents will doubtless be made by the compensation board largely upon the basis of the facts which can best be furnished by the physician who treats the case from the beginning.

Just one other point. Dr. Hogue speaks of the use of homatropin as a dilator of the pupil. Homatropin is not only a mydriatic, a dilator of the pupil, but it is also a cycloplegic, a paralyzer of the ciliary muscle, and after middle life it is often dangerous to use it. We now have enphthamin which gives quick dilatation and serves the same purpose as homatropin in these cases, and I would urge its use rather than a cycloplegic.

Much as I am interested in the phase of the matter presented by Dr. Blaine, I am not skilled in either the matter of radiography or localization. I wish only to say that these methods have given the ophthalmic surgeon great assistance and great comfort and have resulted in great benefit to patients with injured eyes, more so than anything else that has come forward in surgery in many, many years. (Applause.)

SPECIAL ABSTRACT.

USE OF POLYCARBOHYDRATES IN THE DIET OF THE YOUNG INFANT.

During the past ten years infants have been the legitimate experimental animals for the Pediatricist to try out his theories of infant feeding. It is only by experiment that we arrive anywhere in Medicine. Recent work has enlarged our knowledge of the physiology of the infant's digestive apparatus to the extent that we can now experiment on a more rational basis with corresponding advantage to the infants. After all the methods of feeding have been thrashed out pro and con there remains the fundamental principle which at one time seemed to be forgotten: Feed the baby what he will digest and not what you think he ought to digest.

The Rotch school stoked the infant's stomachs with a percentage formula which may have been scientifically correct for an engine but not for any baby. The German school provided so many

calories per 100 gms. of body weight and endeavored to prove that a baby was a machine which, when given a certain number of food units calculated in test tubes, would use a definite amount and pass out a definite amount.

Thanks to more rational methods and to a truce between the two schools babies seem now to have a better chance with artificial feeding.

One of the distinct advances appears to be the use of polycarbohydrates in place of, or as supplements to, lactose. The polycarbohydrates used are largely maltose, dextrin, cane sugar, barley and wheat flour.

Brady* finds that since he has used these carbohydrates he has been able to decrease the mortality among asylum infants, notoriously a poor material to work with, so that it approaches the mortality of infants in private practice.

He reminds us that the Finkelstein and Czerny schools have taught us that lactose and fat may cause serious digestive disturbances. The proteids, against which the gums of the pediatricians have long been trained, are the most harmless constituents of the milk.

Brady starts the new-born infants on a high percentage of protein and practically no fat. The fat is gradually added as the baby increases in weight. As the fat is added the twenty-four hour amount must be reduced so as to conform to the probable caloric needs of the infant.

His general formula is as follows: "One and one-half ounces by measure of barley flour is cooked with 16 ounces of water at least twenty minutes down to 10 ounces, and added to 20 ounces of skimmed sweet or acidified milk. The latter we believe for many reasons is preferable in an institution. One-half ounce by measure of cane sugar and 1 ounce by measure of malted food containing dextrin and maltose are added. The carbohydrate content of the mixture would be represented by lactose, 2.66%, cane sugar, 1.30%, maltose and dextrin, 1.70%, plus barley, 2.25%, which is partly dextrinized. This gives a total carbohydrate percentage of 7.91. One liter has a caloric value of 415."

Brady does not believe that this formula is applicable to every infant, but it furnishes a simple method, which in his hands has proved of great service. In a period of eleven months he fed 170

*Brady, J. M., American Journal of Diseases of Children, 1912, IV, 89.

babies all under 3 months of age with only six deaths from nutritional disturbances. He recommends this method in private practice.

His conclusions are:

1. Mixtures of milk, water and lactose with fat, protein and carbohydrate in the percentage corresponding to the widely accepted principles of infant feeding do not give satisfactory results in an infant asylum.

2. The asylum infant, even in the early weeks, is greatly assisted in making gains and weathering the unfavorable surroundings by a liberal use of barley, maltose, dextrin and cane sugar in the diet.

3. The exhibition of polycarbohydrates in the diet is an excellent therapeutic agent for the infant in private practice who refuses to gain on the usual milk mixtures or has already run down on the same.

4. For this diet to be successful the protein must be liberal in amount and special attention must be paid to the fat which should only be raised with the increase of the weight of the baby.

5. The fear of rickets need not be considered; the first requirement is that the infant be kept alive. Practical experience over-rides theoretical conclusions.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

A. J. PATEK, M. D., Milwaukee

G. E. SEAMAN, M. D., Milwaukee

O. H. FOERSTER, M. D., Milwaukee

C. S. SHELDON, M. D., Madison

S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc
G. WINDESHEIM..... Kenosha
F. T. NYE.....Beloit
W. CUNNINGHAM.....Platteville

J. V. MEARS..... Fond du Lac
H. W. ABRAHAM.....Appleton
EDWARD EVANS.....La Crosse
T. J. REDELINGS..... Marinette

O. T. HOUGEN..... Grand Rapids
R. U. CAIRNS.....River Falls
J. M. DODD.....Ashland
H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents

Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

SEPTEMBER, 1912.

No. 4

EDITORIALS

A NEW DEPARTMENT.

In this number of the Journal we are beginning a series of special abstracts which we hope to make one of our regular features in the future. It is planned to make these articles rather more full than the ordinary abstract and at times they will take the form of a summary of work done along similar lines by a number of different observers, or in other words, a collective abstract, such as has been used in medical journalism in recent years with great success in German, French, English and American journals. This feature of the journal will be in charge of Dr. L. M. Warfield.

CALCIUM STARVATION AND TUBERCULOSIS.

Creosote and the salts of calcium, especially the hypophosphites, have long enjoyed a high reputation in therapeutics, but when one examines critically the grounds upon which this reputation has been built, it is surprising how little real evidence there is in support of the same.

That lime starvation is the determining dietetic factor in the etiology of rachitis, scurvy and tuberculosis, is becoming more and more probable, or certain as clinical and laboratory facts accumulate. The recent increased prevalence of tuberculosis among the sailors, especially in the French

navy, has been attributed to the habitual use of distilled water which tends to demineralize the organism.

Pregnancy and lactation favor the occurrence of lime starvation by reason of the drain of lime salts from the organism, and in such circumstances it has long been noted that there is an increased susceptibility to tuberculosis. Likewise fevers, especially if prolonged, tend to lime starvation and it is notorious that tuberculosis often appears during convalescence from such diseases as typhoid fever, influenza, measles and whooping cough.

In our modern methods of refining food stuffs, we have another factor tending to demineralize the tissues of the body. Patent flour contains but .44 per cent. of mineral bodies, while wheat contains 1.75 per cent., unpolished rice contains 4.41 per cent., while polished rice, such as we purchase in the markets, contains but .39 per cent., brown sugar contains 1.97 per cent., while refined sugar contains about 200 times less, namely .01 per cent. Thus does the evolution of civilization and departure from primitive habits tend to render mankind more susceptible to population-eliminating agencies.

Treatment of the disease thus thought to depend upon lime starvation, by means of lime salts has resulted in disappointment and laboratory experiments with similar conditions have lead to the same findings.

Recent contributions to this interesting subject* have apparently thrown considerable light on the

physiology of the question and results thus far observed awaken hope for the future.

Nature has furnished in milk and eggs the chief source of lime for the human family, and it is here in combination with casein, or its equivalent, and only in this combination can it be acted on by the rennet in the stomach.

Rennet occurs in the stomach, either in an active free state, as in calves and sheep, or in the form of an inactive zymogen, which is transformed by acids into the active form. In man it occurs in the form of inactive zymogen, and the formation of the ferment from this zymogen depends entirely upon the presence of free acids, the most efficient being HCl, but other acids are capable of bringing about the same results.

Now in the higher mammalia, and in man, the rennet cannot act upon the calcium-casein combination, except through the activation of the rennet by hydrochloric, or other acid. These facts doubtless explain why treatment of the diseases mentioned, by the administration of calcium salts, has been without benefit, the inorganic salts not being appropriated, but passing in toto from the body in the excretions.

The authors whose recent works are the subject of this editorial, have been engaged in an effort, which promises success, to render the calcium salts contained in milk and eggs available.

Russell (*Med. Record* July 1, 1911) reports some astonishingly favorable results in the treatment of pulmonary tuberculosis among working people, who continued in their employment while undergoing the treatment.

The calcium salts of the milk and eggs are apparently rendered assimilable by the addition of dilute hydrochloric acid to a mixture of the same, and patients rapidly improve under this treatment.

One who has noted for more than a third of a century the rise and fall of vaunted cures for tuberculosis is slow to accept the written results of enthusiasts, but the clinical and experimental facts bearing upon this subject are such as to cause interest and awaken hope.

W. H. W.

*Cresote and Calcium Medication in Respiratory Affections in Children and in Pulmonary Tuberculosis—*Ira Van Giesen and H. L. Lynah, N. Y. Med. Record, May 11, 1912.*

Also *Med. Record, Nov. 27, 1909, and Dec. 18, 1909, and July 1, 1911.*

ACUTE RECURRENT ENDOCARDITIS.

That acute endocarditis is extremely common in the course of acute infectious diseases is recognized by all medical men. That in spite of this fact the disease is commonly overlooked, especially in children is equally true. This is due to the fact that in children the joint manifestations are apt to be extremely mild, consisting only of vague pains,—frequently termed growing pains,—with no swelling, redness and but slight tenderness, and an entire absence of symptoms indicating rheumatic infection. In a considerable percentage of cases the endocarditis is followed by joint manifestations or by an attack of chorea and the true nature of the process is thereby revealed. While in children attacks of acute rheumatic endocarditis frequently escape diagnosis because of the absence of joint symptoms; in adults, it is the recurrent type developing on the soil of a chronic endocarditis or valvulitis, which leads to most difficulty in diagnosis.

It is well always to bear in mind that individuals suffering from chronic endocarditis are predisposed to recurrent acute attacks. These are apt to develop with considerable frequency, are not usually associated with joint manifestations, and because of an irregular febrile course of considerable duration, are mistaken for typhoid fever, or allied infections, malaria, sepsis or acute tubercular infection. A careful history of previous attacks of acute articular rheumatism, chorea or tonsillitis, and a history of recurring attacks of fever often associated with chills, is of great importance. The presence of physical signs of chronic endocarditis, such as cardiac hypertrophy, cardiac murmurs, pulmonary congestion, and a disturbed ratio of pulse and respiration to temperature are of great aid in differential diagnosis.

In rare instances the diagnosis can only be made by exclusion as physical evidence of cardiac disease is wanting. Any irregular or continued fever not due to typhoid or allied infections, tuberculosis, malaria, syphilis or local sepsis will usually be found to be due to endocarditis. In a patient recently under our observation, a history of six attacks of typhoid fever was obtained, the diagnosis having been made by six different physicians in different parts of the country. This patient in all probability never had typhoid, but suffered in each instance, as in the last, from recurrent endo-

carditis, which had resulted in a double mitral and an aortic regurgitant lesion. The practice among the older experienced clinicians of placing patients suffering from an obscure fever, upon salicylates was born from a conviction that they were rheumatic infectious minus joint manifestations. The importance of prompt recognition of these attacks is evident, as each one leaves the heart in a condition less capable of properly performing its function and increases the difficulty of restoring lost compensation.

L. F. JERMAIN.

POLIOMYELITIS AND ISOLATION.

There has accumulated a sufficient amount of clinical and experimental evidence to prove conclusively that poliomyelitis should be looked upon as a transmissible disease and treated from that point of view.

While the infectious agent has been demonstrated to be present most frequently in the secretions of the naso-pharynx and other portions of the upper respiratory tract it has recently been shown that the virus is also present at times in the mucus formed in the intestinal tract. On this account in an acute case of poliomyelitis the stools should be disinfected for three weeks, the time which is generally looked upon as an adequate isolation period.

But even more important than this is the disinfection of the catarrhal discharges from the nose and mouth of the patient for these are probably the more frequent means of transmitting the disease.

As a number of cases have been reported where physicians have carried the disease into their own families it behooves the attending physician to take precautions to avoid being a carrier himself, as well as to urge such measures upon all who come in contact with fresh cases.

Apparently the most effective method of disinfecting the nose and throat is by the use of a spray of peroxide of hydrogen in a one per cent. strength. Thorough and repeated spraying with this solution seems to be so effective and is so easy and unobjectionable that its employment should not be overlooked.

Poliomyelitis has never entirely disappeared from Wisconsin since the epidemic of four or five years ago and of late the number of cases in various

parts of the state has seemed to be increasing so that there is every reason to urge effective isolation and disinfection whenever a case is recognized.

Within the last few weeks it has been reported that the schools were closed in one Wisconsin city on account of the appearance of the disease there.

While there has been no such outbreak as that which is now ravaging Los Angeles, the occurrence of even a few cases is enough to warn us of danger.

BLOOD PRESSURE AND BLOOD PRESSURE INSTRUMENTS.

Blood pressure is a valuable aid in clinical diagnosis. The extent to which it can be relied upon is still a subject for contention. The fact that those who have the broadest experience urge its use in every complete physical examination is significant. We are convinced that it is less apt to lead us astray than any test employed in clinical diagnosis, excepting the use of the stethoscope.

The blood pressure is not in itself a symptom. It is influenced by many conditions which must be understood before we can hope to interpret the high or low reading. Whenever possible, several readings should be made on different days and at different times of the day. The original reading is frequently considerably higher than normal, rarely lower. Muscular work may raise the pressure several millimeters, but exhaustion or a feeling of faintness is accompanied by a lower reading. The pressure is usually lowest in the morning, gradually rising a few millimeters during the day. It is a little higher after meals, and especially so if the patient has indulged in a strong cigar. Excitement, anger, emotion and mental effort all increase the blood pressure. In every reading the patient should be in a relaxed condition, mentally as well as physically. Jane-way has wisely warned us, that "The physician must sedulously guard his patient against undue interest in the procedure itself or fear of it, and secure as complete mental relaxation as possible during the measurement." With a little practice every physician should be able to make the readings quickly and without exciting the patient.

Blood pressure is influenced somewhat by the position of the patient. It is usually lowest in the standing and highest with the patient in the sitting position.

The general recognition of this test and the consequent demand for instruments has led to the manufacture of several types which vary considerably in accuracy and durability. Mercury instruments have been the more popular, and in the past, at least, have given the better service. But the diaphragm type is constantly being perfected and will eventually largely replace the mercury column. The great drawback to the diaphragm is the fact that the instrument may become inaccurate and still appear to be in perfect condition. But this error can be guarded against in two ways. The dial should be limited to a movement of not over two millimeters, or one space. This will allow for the normal lag. If the needle does not then point to 0, the instrument should be sent to the dealer for repair. Every instrument dealer should have a mercury column, which is known to be accurate and be prepared to check up the sphygmomanometers of his customers. This should apply to every type of instrument. None of them are fool proof. All will get out of order. Glass breaks, mercury becomes oxidized and dirty, diaphragms weaken and adjustments slip.

CARL H. DAVIS.

PSYCHOTHERAPY.

"Lighter than air is psychotherapy. Do not practice it consciously; you are training yourself to be a humbug. Have a thorough knowledge of your subject which entitles you to speak with conviction; be sincere in your dealings with your patient so as to gain his confidence; have sincere sympathy with your client which ought to manifest itself without obvious demonstration; be practical in your advice, and talk to the patient and his surrounding in common-sense terms—and you will have practiced psychotherapy honestly and successfully."—(Meltzer, Commencement Day Address, St. Louis Medical School, May 31, 1912. J. A. M. A., Aug. 24, 1912.)

PHYSICAL SIGNS IN PLEURAL EFFUSIONS.

That the usual text-book descriptions of the physical signs of pleural effusion are misleading and frequently entirely absent has been impressed upon most medical men in no uncertain manner.

Implicit reliance upon the physical signs or findings to the exclusion of exploration with the needle has in many instances resulted not only in chagrin to the physician, but in irremediable damage to the patient.

The physical signs in effusions in children, whether serous or purulent, are notoriously uncertain and misleading. This is especially true of the auscultatory signs. It is probably the rule rather than the exception that loud bronchial breathing is found over effusions in children and that vocal fremitus is increased rather than diminished or absent. The same holds true in large effusions in adults. Fluid in the pleural cavity under high tension acts like a solid body in the transmission of sounds. To avoid error in the differential diagnosis between effusion and solidified lung auscultatory phenomenon had better be entirely ignored. Careful inspection of the chest in regard to respiratory movements, bulging of affected side, and cardiac displacement are of much greater importance. Careful measurements of the chest will always reveal increase in size of affected side. The percussion note is flat, never dull as in consolidation, and there is in all cases a peculiar sense of resistance to the percussing finger, which to the experienced examiner is the most reliable and trustworthy sign.

In view of the uncertain physical findings, no examination should be considered complete without exploration with a good sized needle, and this is especially true of purulent effusions, which are frequently overlooked, because the lumen of the needle is insufficient to permit aspiration of pus through it.

L. F. J.

CASE REPORTS DESIRED.

To the Readers of the Wisconsin Medical Journal:

About six years ago the writer began to use vaccinees in the treatment of typhoid fever. Since that time he has thus treated more than one hundred cases and has obtained numerous articles upon the same subject written by physicians in various parts of the world. It seems possible, however, that some may have escaped notice. He also realizes that many of the profession may have treated some cases without reporting them. A paper upon the subject is now in the course of preparation. In this it is earnestly desired to in-

corporate reports from a large number of cases, good, bad, and otherwise. He accordingly makes the following request to the readers of this Journal:

Will anyone who has used vaccines in the treatment of typhoid fever, whether but one case or more, kindly communicate to him that fact, accompanied by name and address of the reporter. If the results have already been reported, a note of the Journal in which they appeared will be sufficient. If they have not been reported, a short blank form will be sent to the physician to be filled out. Due credit will be given in the article to each person making a report. If any physician happens to know of other confreres who have any such cases, it will be appreciated if he sends their names, as they may not happen to read this note. It is hoped that by this means a sufficient number of cases may be collected to somewhat definitely settle the now mooted question whether vaccines are or are not of benefit in typhoid therapy.

Reports of cases will be accepted at any time in the future, but preferably by November or December of the present year.

Kindly communicate with Dr. W. H. Watters, Director of the Department of Pathology and Bacteriology, Evans Institute for Clinical Research, Boston, Mass.

NEWS ITEMS AND PERSONALS

DRS. S. E. AND G. W. NEWELL AND DR. H. J. BURNS have formed a partnership in Burlington.

DR. O. P. SCHNETZKY, Milwaukee, was injured, though not seriously, in a street car accident on August 24th.

The State Board of Health will ask the Legislature, at its next meeting, to provide \$5,000 to combat infantile blindness.

DR. W. J. CLUIN of Racine was arraigned in court August 20th on a charge of unlawfully practicing medicine in Wisconsin.

Dedication ceremonies of the new \$150,000 Sisters of St. Mary Hospital at South Madison were held on September 11th.

DR. A. G. MAERCKLEIN will leave shortly for Gilman, Taylor county, where he will engage in the practice of medicine and surgery.

DR. W. A. JONES, of Oconomowoc, is one of four postmasters whose appointments failed of confirmation during the session of Congress just ended.

DR. THOMAS C. PHILLIPS has resigned as Dean of the Wisconsin College of Physicians and Surgeons. He will be succeeded by Dr. C. A. Kreutzer.

DR. NELSON M. BLACK, of Milwaukee, has filed suit against the Pennsylvania Railroad for \$50,000 damages for injuries received in a railroad accident near Warrior Ridge, Pa.

DR. JOHN MULHOLLAND, of Kenosha was injured by being thrown from a bicycle. Dr. Mulholland fractured one arm below the elbow and was bruised about the head and body.

DR. GEORGE P. BARTH, medical inspector of the public schools of Milwaukee, has appointed as assistants Dr. Irene Tomkiewicz in place of Dr. Lucia Hoyer, and Dr. Ralph Peairs in place of Dr. Rudolph Teschan.

The Lakeside Sanitarium Company, which for seven years has operated the Lakeside Sanitarium at Oshkosh, plans building a new hospital to cost \$50,000. The site of the hospital is ideal, overlooking Lake Winnebago.

Resolutions of regret were passed on the recent death of Dr. F. R. Garlock, by The Racine Physicians Business Association. Dr. Garlock was one of the oldest physicians of the city, and a charter member of the Association ten years ago.

DR. J. F. PEMBER, of Janesville, sustained painful scratches and bruises on August 23d, while driving with Dr. T. W. Nuzum. A street car collided with Dr. Nuzum's machine, throwing Dr. Pember out and badly damaging the body of the touring car.

DR. J. FREMONT CORBETT, of Wauwatosa, has sold his practice to Dr. E. F. Peterson of Varua, Ill. Dr. Corbett is about to retire after thirty-three years' active practice in Wauwatosa and Weyauwega. Dr. and Mrs. Corbett will spend the winter in Southern California.

PROFESSOR DR. H. STRAUSS, of Berlin, will lecture at the New York Post-Graduate Medical School and Hospital, Second Avenue and Twentieth Street, on October 12th, 14th, and 15th, on the Diseases of the Stomach and Kidney.

Prof. Dr. Carl von Noorden, Physician in Chief to the City Hospital, Frankfort, Germany, will also deliver a series of lectures on the Pathology and Treatment of Diabetes, Radium Therapy and Arteriosclerosis at the same place, on October 28th to October 31st, inclusive.

MARRIAGES

Dr. Lucia C. Hoyer, Milwaukee, and Professor Carl F. W. Huth, Chicago.

Dr. W. J. Schmidt, Mayville, to Hattie Helmbrecht, of Horieon, August 22d.

Dr. Eugene Chaney of Wauwatosa, and Miss Susan Ellen Minahan, Kenosha.

Dr. H. T. Hong, Racine, and Miss Helen Behnken, Lake Mills, August 9th.

Dr. Herman D. Tasche, Sheboygan, and Miss Rose Anna Armbruster, Sheboygan, August 19th.

REMOVALS

Dr. J. H. Prill, Eau Claire, to Merrillan.

Dr. L. H. Prince, of Berlin, to Madison, Wis.

Dr. Wm. Montgomery, Augusta, to Eau Claire.

Dr. F. F. Newell, Burlington, to Portland, Oregon.

Dr. A. A. McLawrin, Carson Lake, Minn., to Hazel, South Dakota.

Dr. J. V. Langenderfer, Washburn has disposed of his practice to Dr. P. N. Hotvedt of Port Wing.

Dr. W. I. Tibbits, Peshtigo, has disposed of his practice to Dr. W. H. Dohearty of Pound. Dr. Tibbits has no settled plans for the future, but will take up practice again as soon as he determines upon an advantageous location.

DEATHS

DR. ROBERT EDWIN MARTIN, aged 47, died recently at the home of his mother, 520 Prospect Avenue, after an illness lasting since last February. He was the only son of the late Dr. Robert Martin, who for nine years was health commissioner of Milwaukee.

DR. FRANKLIN R. GARLOCK, of Racine, dean of the physicians and surgeons of this section of Racine county, died in Racine after several weeks illness. Dr. Garlock was born in New York state

in 1840 and in 1862 joining the army of the Potomac, was wounded twice. In 1874 he came to Racine.

Dr. L. M. Nugent, 28 years old, son of Dr. M. J. Nugent, treasurer of the Nugent Sanitarium, Wauwatosa, was instantly killed by a street car September 7th, about 200 feet from the west end of the Wells street viaduct.

He was a graduate of St. Thomas University in St. Paul, and studied medicine at the Milwaukee Medical School, graduating in 1908.

BOOK REVIEWS

ANATOMY AND HISTOLOGY OF THE HUMAN EYEBALL IN THE NORMAL STATE, ITS DEVELOPMENT AND SENESCENCE. Salzmann, Maximilian, Professor, Wien. 249 pp. with 5 figures in the text and 9 phototypic plates. Leipzig and Wien. Franz Deuticke. 1912. 16 Mk. \$4.00. As the author says, this book emanated from the lectures he held for years at the University and is based on the same point of view as these, viz.: That a thorough knowledge of the normal anatomy and histology is the safest foundation for the understanding of the clinical methods of examination and the estimation of pathological changes. Hence the references to ophthalmoscopy, the physiology of the act of accommodation and pathological processes. S. expressly emphasizes that it was the oculist, not the anatomist, who wrote the book, and here lies the eminently practical value of the work. Some additional chapters, as the extraterine development and growth of the eye and the phenomena of senescence of the globe, are especially welcome, as they comprehensively contain important facts not found in this connection anywhere else. The drawings are very clear and well executed and are, with a very few exceptions, originals made from the author's own preparations and specimens. The excellent work is very readable on account of its pleasant style and print, and is warmly recommended.

THE DEMANDS OF THE DAY. Ostwald, Wilhelm. 2d edition, 604 pp. Leipzig. Akademische Verlags-Gesellschaft m. b. H. 1911. Cloth 10.20 Mark (\$2.55). As introduction to the trend of thought of this work the author placed at its head a few essays on the essence of the energetic investigation. Here he gives the definition of energy and the kinds of energy, i. e. of volume, gravitation and motion. the first principal law of energetics, viz: the law of the transformation of energy under preservation of its numerical value, and the second principal law, which regulates the relations of intensity of energy, answering the question whether and when a

transformation of existing energies will take place. Energetics is the doctrine of the laws to which are subject the manifold transformations of energy in its various forms. All occurrence can be defined as transformations of energy; hence the control of these occurrences is dependent upon the control of the energetic relations and the history of civilization is the history of the growing control of the energy by man. In this manner, the author shows how a constant transition, based on the energetic investigation leads to the most complicated events of our days; so that he expects even in questions of education and instruction, in short in the problem of culture, that energetics will yield the best results. From this point of view a great variety of topics are presented, concerning methodics, psychology and biography, general problems of culture, international language, modern instruction in schools and universities, the biology of the investigator and many others. Although not strictly dealing with our specialty, the book is here reviewed as it widens the horizon of all scientific research and will be highly appreciated in its attractive and novel form by every physician who takes an interest in the principles and methods of science.

C. ZIMMERMANN.

ORATIONS OF EMIL DU BOIS-REYMOND. 2nd enlarged edition, with a memorial address of Julius Rosenthal. Edited by Estelle Du Bois-Reymond. 2 volumes of 677 and 698 pp. Veit & Co., Leipzig, 1912. 18 M. \$4.50. With a few exceptions, these orations are festival addresses which Du Bois-Reymond as permanent secretary delivered in the Leibniz or Frederik meetings of the Academy of Sciences at Berlin. Two were rectoral orations delivered at the University of Berlin. In the most admirable and most perfect form they are splendid contributions to the history of special branches of science, philosophy, biography, history of civilization and natural science. Du Bois-Reymond showed a great predilection for the celebrated men of the round table of Frederic the Great, whose sublime thoughts, sarcasms, and weaknesses are delineated in the orations on Voltaire, La Mettrie, Jean-Jacques Rousseau, Diderot, Maupertuis. As enthusiastic fighter for Darwin's theories, he greatly contributed to make these known by his public lectures at the University of Berlin "On Physical Anthropology" and "On some new progresses of natural science," and in this collection by the orations "Darwin versus Galvani," and "Darwin and Kopernicus." Du Bois-Reymond's philosophical standpoint was a refined materialism, far above the coarse materialism of the Fifties of the last century. He was proud to "belong to a generation of physiologists, of whom posterity must say that they buried vitalism and lifted physiology to the highest point, viz., to the conception that it is physics and chemistry applied to the organic world."

His keen attack on vitalism is splendidly displayed in the first essay "On Vitalism," taken from the preface to his celebrated investigations on animal electricity. Once more, in later years, he took up this subject in the oration on neovitalism. An excellent expose of the development of physiology is given in "The teaching of physiology in the past and at present." His biographies of Johannes Müller and H. von Helmholtz are the best of their kind.

It is no wonder that the work was sold out soon after its appearance and was for years not obtainable. His daughter therefore prepared the new edition in which however the orations are not arranged as in the first edition according to subjects, but in chronological order. The second edition is enlarged by six additional orations: "Friedrich II in Plastic Art," "Adelbert von Chamisso as Naturalist," "Science and Plastic Art," "On Neovitalism," and the beautiful memorial address on Herman von Helmholtz, addresses to von Helmholtz and answers to the addresses of inauguration of Klein, Moebius, Kundt, Engler, Dames, Fischer and Hertwig. A brief biography of Du Bois-Reymond, and the memorial address of Prof. Julius Rosenthal of Erlangen, delivered before the joint meeting of the Physical and Physiological Societies at Berlin precede the first volume.

Du Bois-Reymond was not only a brilliant orator, to whom it was the greatest pleasure to listen, but he was also an eminent writer, and his publications belong to the best ever written in German prose. This is especially true of these essays, which cannot be too highly recommended.

C. ZIMMERMANN.

AN UNUSUAL CASE OF INJURY OF THE EYE BY LIGHTNING. Toczyński, F. (From the eye clinic of Prof. E. Machek in the University of Lemberg. *Archiv für Aug.*, 70, p. 417.) A woman, aged 30, was struck by lightning and was unconscious for twenty-four hours. Aside from symptoms in the sensory sphere of the left side of the body and a slight burning of the left arm and leg, the left side of the face was burned, the eyebrows and cilia singed. A vertical wound had severed the lid borders, the conjunctiva and tarsus from inside, and, corresponding to this, the cornea. When she came to the clinic the whole cornea showed purulent infiltration, which took a rapid course, ending with perforation. After twenty-six days the wounds were cicatrized and the eyeball shrunken.

The mechanism was that of a gunshot injury. The stroke, after perforating the upper lid, reached the conjunctival sac, severed the cornea, the tarsus and the margins of both lids, injured the left side of the face and traveled through the left side of the body to the earth.

C. ZIMMERMANN.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1912-1913.

ARTHUR J. PATEK, Milwaukee
President

C. A. ARMSTRONG, Boscobel
1st Vice President

L. E. SPENCER, Wausau
2d Vice President

JOHN MATHIESON, Eau Claire, 3rd Vice President

CHAS. S. SHELDON, Madison Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917

1st Dist., M. R. Wilkinson, Oconomowoc
2nd Dist., G. Windesheim, Kenosha

TERM EXPIRES 1913

5th Dist., J. V. Mears, Fond du Lac
6th Dist., H. W. Abraham, Appleton

TERM EXPIRES 1915

9th Dist., O. T. Høugen, Grand Rapids
10th Dist., R. U. Cairns, River Falls

TERM EXPIRES 1918

3rd Dist., F. T. Nye, Beloit
4th Dist., W. Cunningham, Platteville

TERM EXPIRES 1914

7th Dist., Edward Evans, La Crosse
8th Dist., T. J. Redelings, Marinette

TERM EXPIRES 1916

11th Dist., J. M. Dodd, Ashland
12th Dist., H. E. Dearholt, Milwaukee

Delegates to American Medical Association.

L. F. BENNETT, Beloit.

J. J. McGOVERN, Milwaukee.

C. A. HARPER, Madison.

Alternates

F. S. WILEY, Fond du Lac.

F. T. NYE, Beloit.

I. J. REDELINGS, Marinette.

Committee on Public Policy and Legislation

A. W. GRAY, Milwaukee, Chairman.

J. P. McMAHON, Milwaukee

F. F. BOWMAN, Madison.

Committee on Medical Defense.

G. E. SEAMAN, Milwaukee, Chairman.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

M. P. RAVENEL, Madison.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison.

J. M. BEFFEL, Milwaukee.

T. H. HAY, Stevens Point.

Program Committee.

L. M. WARFIELD, Wauwatosa, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	A. P. Andrus, Ashland	C. J. Smiles, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	W. L. M. Knowles, Spooner	B. N. Webster, Rice Lake.
Brown-Kewaunee	T. J. Oliver, Green Bay	I. E. Levitas, Green Bay.
Calumet	W. Martens, New Holstein	J. A. Schmidt, Brillion.
Chippewa	C. A. Hayes, Chippewa Falls	A. L. Beier, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	B. F. Bellack, Columbus	A. T. Schmeling, Columbus.
Crawford	F. J. Antoine, Prairie du Chien	A. J. McDowell, Soldiers Grove.
Dane	Joseph Dean, Madison	C. S. Sheldon, Madison.
Dodge	J. A. Clasou, Neosho	G. W. Henika, Beaver Dam.
Door		N. Z. Wagener, Sturgeon Bay.
Douglas	T. J. O'Leary, Superior	W. E. Hatch, Superior.
Dunn-Pepin	E. H. Grannis, Menomonie	L. A. Dahl, Menomonie.
Eau Claire	E. L. Masou, Eau Claire	E. E. Tupper, Eau Claire.
Fond du Lac	G. F. Scheib, Fond du Lac	F. A. Read, Fond du Lac.
Grant	W. P. Hartford, Cassville	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	G. S. Darby, Brodhead.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	R. H. Buckland, Greu Lake.
Iowa	J. P. Parmley, Mineral Point	H. D. Ludden, Mineral Point.
Jeffersou	P. Beunett, Ft. Atkinson	C. R. Feld, Watertown.
Juneau	C. O. Cron, Camp Douglas	A. T. Gregory, Elroy.
Kenosha	H. A. Robinson, Kenosha	C. H. Gephart, Kenosha.
La Crosse	C. H. Marquardt, La Crosse	G. W. Lueck, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	Susanne Orton, Darlington.
Langlade	M. J. Donohue, Antigo	J. C. Wright, Antigo.
Lincoln	C. Walsh, Merrill	Herbert Saylor, Merrill.
Manitowoc	J. E. Mcany, Manitowoc	A. J. Shimek, Manitowoc.
Marathon	L. E. Spencer, Wausau	S. M. B. Smith, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	M. D. Bird, Marinette.
Milwaukee-Ozaukee	J. J. McGovern, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	A. E. Winter, Tomah	A. R. Bell, Tomah.
Oconto	J. B. Atwood, Oconto	R. C. Paulds, Abrams.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	J. S. Reeve, Appleton	F. P. Dohearty, Appleton.
Pierce	A. E. Gendron, River Falls	S. F. Rudolf, Ellsworth.
Portage	J. D. Liudores, Stevens Point	W. F. Cowan, Stevens Point.
Price-Taylor	C. E. Fenelon, Phillips	G. H. McClure, Westboro.
Racine	W. S. Haven, Racine	Susan Jones, Racine.
Richland	G. R. Mitchell	A. D. Campbell, Richland Center.
Rock	W. J. Allen, Beloit	E. B. Brown, Beloit.
Rusk	G. M. Carnahan, Bruce	W. F. O'Connor, Ladysmith.
Sauk	F. D. Hülbert, Reedsburg	Roger Cahoon, Baraboo.
Shawano	E. Puckner, Wittenberg	C. E. Stuebenvoll, Shawano.
Sheboygan	G. H. Stannard, Sheboygan	W. T. Zierath, Sheboygan.
St. Croix	L. A. Campbell, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	E. A. Moore, Merrilan	H. A. Jegi, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	H. C. Miller, Whitewater	M. V. Dewire, Sharon.
Washington	W. J. Wehle, West Bend	S. J. Driessel, Barton.
Waukesha	R. E. Davies, Waukesha	Sara T. Elliott, Waukesha.
Waupaca	P. J. Christoffersen, Waupaca	G. T. Dawley, New London.
Winnebago	L. P. Allen, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	T. A. Jackson, Rudolph	J. B. Vedder, Marshfield.

SOCIETY PROCEEDINGS

DUNN-PEPIN COUNTY

The last meeting of the Dunn-Pepin Medical Society was held at Boyceville, Wis., on Sunday afternoon, September 15th, Dr. De Wane being the genial dispenser of old-fashioned allopathic doses of good cheer, etc. It is customary in our Society to have our meetings during the summer at the places which are the hardest to reach in the winter and this gives us a break in the monotony of a meeting place and also a chance for us all to break away from business. This meeting was held on a Sunday afternoon and proved to be the best meeting of the year. Probably for the first time in the history of the city of Menomonie it did not contain an M. D., so that when a ball player had his jaw injured that day he had to go to an osteopath.

Dr. Cairns, our councilor, from River Falls, gave an interesting talk on the history of County Society Work, giving considerable history as regards the value that had resulted from it. All the sins and "high-gun damnation" were gone into quite thoroughly and vigorously discussed by the members present. The ethical side of the practice of medicine was brought out very cleverly by Dr. Cairns and it made us all feel good to have him with us.

After a good lunch, partaken in the European style, adjournment was made and all went home feeling better for having been there.

L. A. DAHL, M. D.,
Secretary.

GREEN LAKE-WAUSHARA-ADAMS COUNTY

The Green Lake-Waushara-Adams County Medical Society held its annual picnic at Green Lake, on August 23rd. The weather was perfect and the party spent the day at Dickinson's Bay on the south shore of the Lake. Not the least of the pleasure was the steamer ride to and from this beautiful spot.

R. H. BUCKLAND, M. D.,
Secretary.

THE ASSOCIATION OF COUNTY SECRETARIES AND STATE OFFICERS of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette M. B. GLASIER, M. D., Bloomington
President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County Society. It will be edited by Rock Sleyser of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

SOME THINGS THE COUNTY SOCIETY CAN DO TO INCREASE THE RESPECT AND CONFIDENCE OF THE LAITY.*

BY A. R. CRAIG, M. D.,

SECRETARY OF THE AMERICAN MEDICAL ASSOCIATION,

CHICAGO.

Some time since, I was surprised to find a statement I had made quoted in the Congressional Record by Senator Works, of California. I found I had used the words quoted in your presence when I had the honor of speaking to you a year ago, when I said that it was impossible to estimate the possibilities of organization in the medical profession. I now take advantage of the subject assigned to me not to retract, but rather to emphasize the statement that I made at that time. I am quoted as having said that the possibilities of the organization of medical men were not appreciated, that no one fully conceived the importance of such organization. In the light of certain legislation, that is rather a startling statement when it is taken from its connection in the address of last year. I now repeat: The possibilities for good to the community, for good to the people, of the organized efforts of physicians, is something beyond the conception of any of us.

What is a profession? Let us try to determine just what is meant when we say we are members of the medical profession. It seems to me, a profession is a means for gaining a livelihood wherein the individual engaged in the calling makes the

*Read at the Third Annual Meeting of the Association of County Secretaries and State Officers, Wausau, May 21, 1912.

good he can do to his fellow man preëminent and subserves to this the financial returns which he gains for the work that he does. As important as it is that we get for our work a compensation that will meet our reasonable needs and provide for the wants of our families, there is no real physician but gives in energy and time and effort far more than is called for by the return he receives in financial reward.

We, as members of a medical society have a two-fold duty to perform: First, there are many, now being permitted to enter our medical schools to study medicine, with a false conception of what a physician's life is. They have not gained the ideal. They think a doctor is a man who drives around the country in an automobile, gets out at a house, goes in and shakes hands with a sick person, pockets a comfortable fee, and goes home. We medical men, members of the organized profession, are at fault when we fail to take the young man who comes to us and says, "Doctor, I have made up my mind I am going to study medicine,"—I say we fail in a fundamental duty when we do not have a heart to heart talk with that boy. He must understand that if his object in studying medicine is to make money, he will find himself most unhappy after he has obtained his degree. With the same amount of time, the same amount of endeavor, the same amount of conscientious purpose that is required to acquire a medical training, devoted to a mercantile life, devoted to the management of a manufacturing plant, one gains a five to ten-fold increase in financial returns.

I am sure many a young man has been surprised when he started on the actual practice of his profession to find his life was not all rose-colored, but there were nights of anxiety and days of suspense, when he suffered as much as his patient, if he was conscientious in the discharge of his duty.

My first point, then, is that as a medical organization, we should be true to the public and to the profession as we counsel those who come to us for advice concerning their life work, especially when they choose the profession of medicine. This would not bar any one who is qualified for the work of the profession, but the novice should enter the profession with high ideals. None of us can have our star too far above us. We all shoot low of the mark. Unless we are idealists, we have no business to study, much less to practice any profession, and least of all, medicine.

Then, we have to consider what organization of

medical men is, and what it means. No man lives to himself alone. All of us, since we entered this beautiful town have been perfectly free—have lived our own life and gone our own way—have we? We have been dependent upon the labors of others from the minute we entered the town to the present time, for the creature comforts that we call our own; and each one of those comforts that we have enjoyed has cost some one a certain amount of his personal liberty. The same interdependence exists in our profession.

The time was when a doctor went into a community and hung out his sign; and he was the only man to deliver a medical opinion and his word then was law. Later, some one else entered his field and we can all remember the days when another physician coming into the town was waving a red flag before the man who was already there.

That was the beginning of organization, however. It meant one of two things: either those doctors came to an understanding and determined that each of them would give up some of his personal privilege that he might advantage by the other man in his community and that jointly they might better benefit that community, or it meant war until one or the other either died or moved away.

Conditions have become more complex at the present time. It no longer means that we may kill the new man financially and professionally; community of interests demands that all shall be given a living chance.

What are we doing as a profession to enable the other man to have this living chance in order that the community may be served? If we are not helping him to form the true ideals, helping him to standardize his practice by these ideals, helping him to secure the maximum of his usefulness in the community, we are false to our trust—not only to ourselves but to the community. Those old lines:

"This above all: to thine own self be true
And it must follow, as the night the day,
Thou canst not then be false to any man."

are true. As men, as members of the medical organization, we must be true to our ideals, in self-interest if that needs be—and that means we must be true to our ideals of the benefit our organization will bring to the community.

I have been very much interested in the program you have outlined for today, and to see what has been done and what is being done by your medical

organization here in Wisconsin in the line of public health, for instance, and to note the call that is made that each of us perform his duty to the community; that because we are specially trained in medical knowledge, it is incumbent upon us to safeguard those whose interests are in our hands. The doctor who made that plea plead for individual responsibility.

I want to enlarge this just a trifle, to emphasize the plea that has already been made, and to add that as an organization of medical men it is incumbent on us as an organized profession as well as individuals, to maintain and support high ideals of public health. That requires self-sacrifice; it requires that my personal view point must be adapted to the commonly approved scientific point of view held by those better qualified than I, to judge the matters in question. It means that the medical organization should have for itself, first, a presentation of public health matters by competent and expert men; and second, for the community, the members of the organized profession should stand firm in the knowledge gained from hard study and from difficult situations met, to safeguard the interests of the people, as has been suggested; and this means that we will gain for ourselves, if not financial reward, at least honor and distinction and esteem from the laity. They will appreciate that we are working in their interest, and that altruism, which, as medical men we claim as the motive for our actions, is something that actually exists and that it does influence the medical profession. When the day comes that we are altruistic, probably we will all be translated, but let us strive for that altruism; let us earnestly endeavor to seek as the end of our lives the good we can do the other fellow. As we succeed in coming to this idealistic point of view, we shall have attained the position that will warrant our organization, and that will reflect credit upon us as individuals. There is much that might be said to you on this subject but it is so academic and so self-evident to you all that I will not occupy your time further. I simply appeal to you to make a resolve that you personally will be true to the ideals of a professional life; that your profession is to be a means whereby you serve humanity; and that the return you hope for is to be subservient to this ideal. (Great applause.)

DISCUSSION.

PRESIDENT: Gentlemen, I am not a church member, but I like the kind of sermon that Dr. Craig has

preached, the kind of sermon that inspires a man to reach up into the clouds, broadens his manhood, and makes him feel that he has something else to live for besides the mere gathering of dollars. The address is pointed and something we all ought to take to heart.

DR. M. B. GLASIER, of Bloomington: This splendid address of Dr. Craig's needs no discussion from me, and no word that I could give would add to its merit or detract from it; but I have a few ideas along this line which I will express, more in the way of emphasis than discussion.

One thing came to my mind when he was speaking about the qualifications of boys and girls who want to study medicine. A young girl came into my office one day; I had known her most of her life, she was a good, honest, hard-working girl, but not very successful in school; she said it had been her ambition to graduate from the high school, but she could not do it; she failed in her examinations. Then she thought she would take a business course, but she could not make that. "Now," she said, "I have decided I will study medicine and I would like to come into your office and study with you." (Great laughter.) I discouraged her it is needless to say.

The respect and confidence of the laity extended to members of the Medical Profession depend in a large measure upon the intelligence, honesty and integrity of the physicians; their attitude toward the laity; their attitude toward one another.

The influence which we as a *Society* exert in a community depends upon the character and ability of the members; for we are soon sized up by the laity, the people whom we serve, and with whom we come in contact every day, who admit us to the privacy of their homes, and trust us with the sacred secrets of their innermost lives; and should we prove unworthy of the trust, we are not entitled to their confidence and respect. Nor shall we receive it to any extent, for it was said by one who spoke from large experience and observation, "You can fool all the people some of the time, and some of the people all of the time, but you can't fool all the people all of the time."

As a chain is no stronger than its weakest link, so the strength and power of any Society depends upon the ability and character of its individual members. In every occupation and profession chosen for life-work, preparation should be thorough and complete; that for the medical profession exceeding all others, for we have to deal with human life, which is sacred. The physician should be capable, tactful and resourceful, for the majority of the cases that come to him are not outlined in the works of *Materia Medica* and *Practice* with which he is familiar; but each patient is a case unto itself, and it requires ingenuity and wisdom to meet not only the ordinary every-day duties, but the emergencies as well.

The stream can never rise higher than its fountain head; so we can never reach the plain that is beyond our ideals. We will be that kind of a physician that our ideals are of the profession. The higher our

ideals, the more elevated the physician, and the more useful to the community. If we "set our target in the clouds and aim at it, although we may never reach it, we will shoot higher than if we had only aimed at a bush."

Be honest with your patients, both in a professional way and in a business sense. Any community respects *an honest man*, one whose word is always made good and who shrinks not from any burden placed upon him; who meets every obligation with a sublime courage that in itself commands respect, and gives to the physician that "sense of mastery which comes only when he can stand *everything that can happen to him*."

Be a friend to your patients, for "no life is so full and complete but it yearns for the smile of a friend." It is the physician's privilege to relieve the miserable and distressed, to sympathize with the sorrowful, and bring new hope to the discouraged, ever remembering that kind words and smiles cost nothing to the giver, but are often beyond all price to the weary and disheartened. He should be charitable to the failings of his patients. The constant demands upon his time, generosity and patience, require him to have a nature and spirit with a source as full and pure as that of the little spring, you have doubtless heard of, that the thirsty traveler found by the seashore, when the tide ebbed away. The returning sea covered the little spring for hours with its salt brackish waters; but when the tide again receded, there was the little spring still giving out its sweet waters to the thirsty passerby, with no trace of the difficulties encountered.

The work being done by, and the results accomplished along the lines of preventive medicine have awakened an interest and created a respect for the workers hitherto unknown among the masses. Scientists have given of their time and skillful experience; philanthropists have given of their accumulated wealth and influence, with which laboratories have been founded and equipped for the investigation of the causes and prevention of contagious diseases. This subject is not only of local interest, but state and nation have recognized its importance and are giving their support to the noble band of workers whose sole aim and object is the conservation of the health of the state and nation.

Improved sanitation alone has produced results hitherto considered impossible in tuberculosis, diphtheria, yellow fever, typhoid fever, spinal meningitis, and other contagious diseases.

The investigations of Dr. Walter C. Reed in Cuba, sent there by the medical corps of the U. S. A., were the means of ridding that country of the terrible yellow fever scourge; also in Panama, the worst fever infected land known, the improved sanitation, under the direction of Col. Wm. C. Gorgas, has changed conditions so that the "Canal Zone is the healthiest spot of its kind to be found."

Too much praise could not be given for the heroic efforts and the sacrifices made to prevent the devastation of the country by that universal scourge, the Great White Plague, by which thousands of our bravest and

best men and women, our brightest boys and girls, have been sacrificed on the altar of violated hygiene and outraged sanitation,—and then blame Providence for taking them!

The hospitals that have been erected and endowed, with proper management, the hopes that have been revived in the breasts of the afflicted and their friends, the great advance in treatment and hygiene are but the means to an end by which thousands of precious lives are literally snatched from the grave every year, and saved to be useful citizens of our country.

The lack of respect and confidence in a physician among the laity in a community is often due to the attitude of the members of the profession toward one another. When we can realize that ours is a God-given mission, to heal the broken body and point the erring one to a purer and higher life; that we are indeed brethren in heart and purpose, working together for the betterment and healing of all who come under our care, with no thought of greed and no plan for graft; when healing and the almighty dollar are not weighed in the same balances, but the scales are heaped and running over with the fruits of charity for all, faith in human nature, and courage to go forward over the rough places, as well as over those smoothed by loving hands; all well saturated with the "milk of human kindness," then will there be no need of a Code of Medical Ethics, to insure just and righteous treatment and honesty of purpose, both among members of the profession and their patients; for you "cannot make men good by laws, you can only restrain them from doing anything very bad."

When the Creator said, "I will make man in Mine own image," it implied that the highest round in creation's ladder had been reached. How many of us have retained the position given to us by the Creator? If we would but remain "in His image," going about doing works of charity, love and usefulness—the fruits of fraternalism,—eliminating jealousy, envy, spite, hatred, backbiting and selfishness, then would we be entitled to the respect and confidence of the community, and indeed we might believe that the millenium had come.

Then, "let us do all the good we can, in every way we can, and in every place we can, for we pass this way but once." (Great applause.)

DR. M. B. BIRD, Marinette: I have been deeply impressed with the address of Dr. Craig and the comments of Dr. Glasier. Our profession indeed is a noble one. Few individuals have the opportunities for doing good that the medical man has. The public, as a whole, are inclined to be fair. The laborer is worthy of his hire. The public at large usually wishes that he shall get all that is coming to him, fairly. Surely there are many exceptions, and the county secretary has had many heart aches, receives many blows and goes home many times crushed. But I expect that applies to all vocations, and sunshine immediately brightens our lives by some happy event; because I really think that we make closer ties to our fellow beings than any

class of workers. The medical fraternity is getting better; it is growing in numbers of better men.

The American Medical Association has done much for the uplift of the profession. Within the last ten years the number of medical schools has been reduced from 160 to 120. Ten years ago there were but three medical schools in the United States that required a preliminary college education. Today there are something like twenty.

The science of medicine is developing rapidly. The great engineering feat in our western hemisphere is being put through under medical science. Mr. Edison, I suppose, is looked upon as one of the world's greatest scientists, and in a tribute that he gave within the last few months he put the discovery of salvarsan at the head of the list of the world's achievements during the past year.

Our position depends very largely upon ourselves. It is true, too often, that physicians are not true to one another. In almost any community one doctor will fight his fellow, while if he were only big, broad and far-sighted, he would see that it hurt himself a great deal more than it did the man he talked about, because it is a characteristic American trait that the American people are with the under dog, and if you want to make a man successful go out and abuse him, and he will stand out in your community as the big man. I have seen that tried within the past year in two or three specific instances, and it has proven conclusively to my mind that it does not pay to knock. If a man has not a good word to say for his fellow, the least he can do is to be quiet and charitable to himself.

We meet with discouragements—that is very true. Just the other day I met with an awful defeat—I think most of us are like children or boys; we get discouraged easily. I was on a committee to interview a United States senator in regard to the Owen bill, and when I left I felt like the boy who had been thrashed in school—thoroughly disappointed because the senator whom I interviewed said he did not think much about it; he said we doctors were very zealous about a good many things. He said consumption is not contagious anyway—it is a disease of the blood. When you get that from a United States senator you go home and feel badly; but I expect that we should overlook shortcomings of that sort. Men are human beings and the United States senate is not composed of a class of

men that are of high attainments anyway. (Laughter and applause.)

If you think they are, just go and interview a few of them. (Laughter and a voice, "Good.")

You look for men in high places to have high attainments, but you meet with disappointments there just the same as you do in your own communities among your fellows and in your local societies; you must make up your mind that that is true and do not be disappointed when it is impressed upon you. I think that the future is bright, that we are on the right path, and our profession is going on nobly.

(Great applause.)

Dr. A. R. CRAIG, Chicago (Closing): Your President accuses me of having given you a sermon. For that I apologize (Laughter). It was not my intention to sermonize, but to present some thoughts on the subject assigned me. I probably was thinking of medical ethics, and it seems to me that we all should think more about ethics than we do,—medical ethics—which is simply an effort to define what gentlemanly conduct is.

Some time ago I was trying to determine what gentlemanly deportment is, and was interested to find that a number of men defined gentlemanly conduct as doing unto others as you would have them do unto you, when you have their and your best interests at heart.

But there is another thought we must bear in mind; no matter how we frame our principles of ethics, they should always be enforced in the spirit of the broadest brotherly love; and we should never enforce them, except for the good of the profession and of the public,—never to defend our personal rights or the rights of an individual. It seems to me I may end my sermon by asking you to remember that if you are human you too have made mistakes yourself. Whenever some other fellow offends against you or your personal rights, if you are not able to go yourself, have some other member of the profession, if necessary the Board of Censors of your county medical society bring you and the offender together—probably best of all around a dinner table. Have it out—find just what the other fellow actually did do and if it is necessary, tell him just what you think of him. After you are through, be sure you do not forget to reach out your hand and shake and be friends. (Applause.)

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, OCTOBER 1912

Number 5

PRINCIPLES OF MEDICAL ETHICS.*

Chapter I.—The Duties of Physicians to Their Patients.

THE PHYSICIAN'S RESPONSIBILITY.

SECTION 1.—A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.

PATIENCE, DELICACY AND SECRECY.

SEC. 2.—Patience and delicacy should characterize all the acts of a physician. The confidences concerning individual or domestic life entrusted by a patient to a physician, and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed, except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the confidences entrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case, the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

PROGNOSIS.

SEC. 3.—A physician should give timely notice of dangerous manifestations of the disease to the

friends of the patient. He should neither exaggerate nor minimize the gravity of the patient's condition. He should assure himself that the patient or his friends have such knowledge of the patient's condition as will serve the best interests of the patient and the family.

PATIENTS MUST NOT BE NEGLECTED.

SEC. 4.—A physician is free to choose whom he will serve. He should, however, always respond to any request for his assistance in an emergency or whenever temperate public opinion expects the service. Once having undertaken a case, a physician should not abandon or neglect the patient because the disease is deemed incurable; nor should he withdraw from the case for any reason until a sufficient notice of a desire to be released has been given the patient or his friends to make it possible for them to secure another medical attendant.

Chapter II.—The Duties of Physicians to Each Other and to the Profession at Large.

ARTICLE I.—DUTIES TO THE PROFESSION.

UPHOLD HONOR OF PROFESSION.

SECTION 1.—The obligation assumed on entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable despots; to accept their thralldom is to take away all liberty from one's actions and thought." (Nicon, father of Galen.)

DUTY TO MEDICAL SOCIETIES.

SEC. 2.—In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time,

*Adopted by the House of Delegates of the American Medical Association, June 4, 1912.

energy and means in order that these societies may represent the ideals of the profession.

DEPORTMENT.

SEC. 3.—A physician should be “an upright man, instructed in the art of healing.” Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. “He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with propriety in his profession and in all the actions of his life.” (Hippocrates.)

ADVERTISING.

SEC. 4.—Solicitation of patients by circulars or advertisement, or by personal communications or interviews, not warranted by personal relations, is unprofessional. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary, simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs or offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

PATENTS AND PERQUISITES.

SEC. 5.—It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or

surgical appliances, or perquisites from attendants who aid in the care of patients.

MEDICAL LAWS—SECRET REMEDIES.

SEC. 6.—It is unprofessional for a physician to assist unqualified persons to evade legal restrictions governing the practice of medicine; it is equally unethical to prescribe or dispense secret medicines or other secret remedial agents, or manufacture or promote their use in any way.

SAFEGUARDING THE PROFESSION.

SEC. 7.—Physicians should expose without fear or favor, before the proper medical or legal tribunals, corrupt or dishonest conduct of members of the profession. Every physician should aid in safeguarding the profession against the admission to its ranks of those who are unfit or unqualified because deficient either in moral character or education.

ARTICLE II.—PROFESSIONAL SERVICES OF PHYSICIANS TO EACH OTHER.

PHYSICIANS DEPENDENT ON EACH OTHER.

SECTION 1.—Experience teaches that it is unwise for a physician to treat members of his own family or himself. Consequently, a physician should always cheerfully and gratuitously respond with his professional services to the call of any physician practicing in his vicinity, or of the immediate family dependents of physicians.

COMPENSATION FOR EXPENSES.

SEC. 2.—When a physician from a distance is called on to advise another physician or one of his family dependents, and the physician to whom the service is rendered is in easy financial circumstances, a compensation that will at least meet the traveling expenses of the visiting physician should be proffered. When such a service requires an absence from the accustomed field of professional work of the visitor that might reasonably be expected to entail a pecuniary loss, such loss should, in part at least, be provided for in the compensation offered.

ONE PHYSICIAN TO TAKE CHARGE.

SEC. 3.—When a physician or a member of his dependent family is seriously ill, he or his family should select a physician from among his neigh-

loring colleagues to take charge of the case. Other physicians may be associated in the care of the patient as consultants.

ARTICLE III.—DUTIES OF PHYSICIANS IN CONSULTATIONS.

CONSULTATIONS SHOULD BE REQUESTED.

SECTION 1.—In serious illness, especially in doubtful or difficult conditions, the physician should request consultation.

CONSULTATION FOR PATIENT'S BENEFIT.

SEC. 2.—In every consultation, the benefit to be derived by the patient is of first importance. All the physicians interested in the case should be frank and candid with the patient and his family. There never is occasion for insincerity, rivalry or envy and these should never be permitted between consultants.

PUNCTUALITY.

SEC. 3.—It is the duty of a physician, particularly in the instance of a consultation, to be punctual in attendance. When, however, the consultant or the physician in charge is unavoidably delayed, the one who first arrives should wait for the other for a reasonable time, after which the consultation should be considered postponed. When the consultant has come from a distance, or when for any reason it will be difficult to meet the physician in charge at another time, or if the case is urgent, or if it be the desire of the patient, he may examine the patient and mail his written opinion, or see that it is delivered under seal to the physician in charge. Under these conditions, the consultant's conduct must be especially tactful; he must remember that he is framing an opinion without the aid of the physician who has observed the course of the disease.

PATIENT REFERRED TO SPECIALIST.

SEC. 4.—When a patient is sent to one specially skilled in the care of the condition from which he is thought to be suffering, and for any reason it is impracticable for the physician in charge of the case to accompany the patient, the physician in charge should send to the consultant by mail, or in the care of the patient under seal, a history of the case, together with the physician's opinion and an outline of the treatment, or so much of this as may possibly be of service to the consultant;

and as soon as possible after the case has been seen and studied, the consultant should address the physician in charge and advise him of the results of the consultant's investigation of the case. Both these opinions are confidential and must be so regarded by the consultant and by the physician in charge.

DISCUSSIONS IN CONSULTATION.

SEC. 5.—After the physicians called in consultation have completed their investigations of the case, they may meet by themselves to discuss conditions and determine the course to be followed in the treatment of the patient. No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered as a result of the deliberations of the consultants, which have not been concurred in by the consultants at their conference.

ATTENDING PHYSICIAN RESPONSIBLE.

SEC. 6.—The physician in attendance is in charge of the case and is responsible for the treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the mode of treatment outlined and agreed on at a consultation whenever, in his opinion, such a change is warranted. However, at the next consultation, he should state his reasons for departing from the course decided on at the previous conference. When an emergency occurs during the absence of the attending physician, a consultant may provide for the emergency and the subsequent care of the patient until the arrival of the physician in charge, but should do no more than this without the consent of the physician in charge.

CONFLICT OF OPINION.

SEC. 7.—Should the attending physician and the consultant find it impossible to agree in their views of a case, another consultant should be called to the conference or the first consultant should withdraw. However, since the consultant was employed by the patient in order that his opinion might be obtained, he should be permitted to state the result of his study of the case to the patient, or his next friend, in the presence of the physician in charge.

CONSULTANT AND ATTENDANT.

SEC. 8.—When a physician has attended a case as a consultant, he should not become the attendant of the patient during that illness, except with the consent of the physician who was in charge at the time of the consultation.

ARTICLE IV.—DUTIES OF PHYSICIANS IN CASES OF INTERFERENCE.

CRITICISM TO BE AVOIDED.

SECTION 1.—The physician, in his intercourse with a patient under the care of another physician, should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder; nor should the course of conduct of the physician, directly or indirectly, tend to diminish the trust reposed in the attending physician.

SOCIAL CALLS ON PATIENT OF ANOTHER
PHYSICIAN.

SEC. 2.—A physician should avoid making social calls on those who are under the professional care of other physicians without the knowledge and consent of the attendant. Should such a friendly visit be made, there should be no inquiry relative to the nature of the disease or comment upon the treatment of the case, but the conversation should be on subjects other than the physical condition of the patient.

SERVICES TO PATIENT OF ANOTHER PHYSICIAN.

SEC. 3.—A physician should never take charge of or prescribe for a patient who is under the care of another physician, except in an emergency, until after the other physician has relinquished the case or has been properly dismissed.

CRITICISM TO BE AVOIDED.

SEC. 4.—When a physician does succeed another physician in the charge of a case, he should not make comments on or insinuations regarding the practice of the one who preceded him. Such comments or insinuations tend to lower the esteem of the patient for the medical profession and so react against the critic.

EMERGENCY CASES.

SEC. 5.—When a physician is called in an emergency and finds that he has been sent for because the family attendant is not at hand, or

when a physician is asked to see another physician's patient because of an aggravation of the disease, he should provide only for the patient's immediate need and should withdraw from the case on the arrival of the family physician after he has reported the condition found and the treatment administered.

WHEN SEVERAL PHYSICIANS ARE SUMMONED.

SEC. 6.—When several physicians have been summoned in a case of sudden illness or of accident, the first to arrive should be considered the physician in charge. However, as soon as the exigencies of the case permit, or on the arrival of the acknowledged family attendant or the physician the patient desires to serve him, the first physician should withdraw in favor of the chosen attendant; should the patient or his family wish someone other than the physician known to be the family physician to take charge of the case the patient should advise the family physician of his desire. When, because of sudden illness or accident, a patient is taken to a hospital, the patient should be returned to the care of his known family physician as soon as the condition of the patient and the circumstances of the case warrant this transfer.

A COLLEAGUE'S PATIENT.

SEC. 7.—When a physician is requested by a colleague to care for a patient during his temporary absence, or when, because of an emergency, he is asked to see a patient of a colleague, the physician should treat the patient in the same manner and with the same delicacy as he would have one of his own patients cared for under similar circumstances. The patient should be returned to the care of the attending physician as soon as possible.

RELINQUISH PATIENT TO REGULAR ATTENDANT.

SEC. 8.—When a physician is called to the patient of another physician during the enforced absence of that physician, the patient should be relinquished on the return of the latter.

SUBSTITUTING IN OBSTETRIC WORK.

SEC. 9.—When a physician attends a woman in labor in the absence of another who has been engaged to attend, such physician should resign the patient to the one first engaged, upon his

arrival; the physician is entitled to compensation for the professional services he may have rendered.

ARTICLE V.—DIFFERENCES BETWEEN PHYSICIANS.

ARBITRATION.

SECTION 1.—Whenever there arises between physicians a grave difference of opinion which cannot be promptly adjusted, the dispute should be referred for arbitration to a committee of impartial physicians, preferably the Board of Censors of a component county society of the American Medical Association.

ARTICLE VI.—COMPENSATION.

LIMITS OF GRATUITOUS SERVICE.

SECTION 1.—The poverty of a patient and the mutual professional obligation of physicians should command the gratuitous services of a physician. But institutions endowed by societies, and organizations for mutual benefit, or for accident, sickness and life insurance, or for analogous purposes, should be accorded no such privileges.

CONTRACT PRACTICE.

SEC. 2.—It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession.

SECRET DIVISION OF FEES CONDEMNED.

SEC. 3.—It is detrimental to the public good and degrading to the profession, and therefore unprofessional, to give or to receive a commission. It is also unprofessional to divide a fee for medical advice or surgical treatment, unless the patient or his next friend is fully informed as to the terms of the transaction. The patient should be made to realize that a proper fee should be paid the family physician for the service he renders in determining the surgical or medical treatment suited to the condition, and in advising concerning those best qualified to render any special service that may be required by the patient.

Chapter III—*The Duties of the Profession to the Public.*

PHYSICIANS AS CITIZENS.

SECTION 1.—Physicians, as good citizens and because their professional training specially qualifies them to render this service, should give advice concerning the public health of the community. They should bear their full part in enforcing its laws and sustaining the institutions that advance the interests of humanity. They should co-operate especially with the proper authorities in the administration of sanitary laws and regulations. They should be ready to counsel the public on subjects relating to sanitary police, public hygiene and legal medicine.

PHYSICIANS SHOULD ENLIGHTEN PUBLIC—DUTIES IN EPIDEMICS.

SEC. 2.—Physicians, especially those engaged in public health work, should enlighten the public regarding quarantine regulations; on the location, arrangement and dietaries of hospitals, asylums, schools, prisons and similar institutions; and concerning measures for the prevention of epidemic and contagious diseases. When an epidemic prevails, a physician must continue his labors for the alleviation of suffering people, without regard to the risk to his own health or life or to financial return. At all times, it is the duty of the physician to notify the properly constituted public health authorities of every case of communicable disease under his care, in accordance with the laws, rules and regulations of the health authorities of the locality in which the patient is.

PUBLIC WARNED.

SEC. 3.—Physicians should warn the public against the devices practiced and the false pretensions made by charlatans which may cause injury to health and loss of life.

PHARMACISTS.

SEC. 4.—By legitimate patronage, physicians should recognize and promote the profession of pharmacy; but any pharmacist, unless he be qualified as a physician, who assumes to prescribe for the sick, should be denied such countenance and support. Moreover, whenever a druggist or pharmacist dispenses deteriorated or adulterated drugs,

or substitutes one remedy for another designated in a prescription, he thereby forfeits all claims to the favorable consideration of the public and physicians.

CONCLUSION.

While the foregoing statements express in a general way the duty of the physician to his patients, to other members of the profession and to the profession at large, as well as of the profession to the public, it is not to be supposed that they cover the whole field of medical ethics, or that the physician is not under many duties and obligations besides these herein set forth. In a word, it is incumbent on the physician that under all conditions, his bearing toward patients, the public, and fellow practitioner should be characterized by a gentlemanly deportment and that he constantly should behave toward others as he desires them to deal with him. Finally, these principles are primarily for the good of the public, and their enforcement should be conducted in such a manner as shall deserve and receive the endorsement of the community.

ORIGINAL ARTICLES

THE NATIONAL IMPORTANCE OF EUGENICS.*

BY FRANK I. DRAKE, M. D.,
MADISON.

To every public-spirited citizen, the welfare of the nation is of prime importance. When duty calls, whether in the exigencies of war, or in the stress of a San Francisco earthquake and fire, or in the pursuit of the arts of a peaceful life, he responds with true and loyal service. Our national optimism, our sense of security from foreign foes, our material prosperity, obscure the glare of our national defects, and veil our eyes to the light of our domestic needs. When our swords are beaten into plow-shares, and our spears into pruning-hooks, there is still important work to do. Peace has its unsolved problems no less intricate and serious than are those of war and disaster; and they must be met with no less fortitude, persistence, and careful study.

*Read at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 24, 1912.

The present agitation in favor of woman suffrage, the campaign against "Special Privilege," the crusade against tuberculosis and the venereal peril suffer a total eclipse by the magnitude of our physical and mental deterioration in their relation to the public welfare. Indeed, within the body politic are the elements of disaster which threaten its very existence—a cancerous growth, if you please, which is slowly but surely eating its way to the vitals of national life. Scarcely a report on vital statistics reaches us from Europe that does not call attention to the falling birth-rate of the fitter stocks, and frequently reports on the increasing prevalence of insanity and feeble-mindedness meet our gaze. In fact, civilized countries the world over are sounding the alarm and are casting about for some means to avert the impending disaster.

The conditions, as they exist within the borders of our own commonwealth may be considered fairly representative of the nation at large. We have in this state 11 state institutions, 1 semi-state institution, 33 county asylums, 71 jails and 45 poor-houses. The aggregate population of these institutions at the close of the year, June 30, 1910, was approximately 12,000 souls, to say nothing of the thousands of epileptics scattered over the state for whom no state provision has as yet been made, and the thousand or more feeble-minded who are unable to gain admittance to the already congested home at Chippewa Falls. Our statistics for the insane covering, as they do, a relatively large period of time are more nearly complete than are those for any other class of defectives. They show an increase from 1 to 385 of population in 1903, to 1 to 357 in 1910, at a total annual cost to the state of \$1,000,000. The testimony of all authorities, the world over, is to the effect that all forms of degeneracy are increasing in a like proportion. Eugenists claim that this is due, largely, to the dominant fertility of the unfit stocks, and to the fact that our improvement in hygienic and sanitary conditions is checking the natural purification of the state.

When we consider the possibilities for evil that must come to this nation in consequence of an unrestrained license to marry and propagate offspring, we look in vain for any concerted effort to check this national disgrace. True, here and there are spasmodic efforts at segregation, and sterilization, and more stringent marriage laws,

but nothing, I say, in the way of a well-planned effort at prevention. I do not lose sight of private philanthropy. For well nigh two thousand years many good men and good women following the exhortation of St. Paul to put on the mantle of charity as the bond of perfectness, have traveled up and down the earth asking alms to relieve the distress of the unfortunate. They have accomplished many desirable reforms, too, in providing better homes and asylums, better hygienic and sanitary conditions, better educational facilities. In a word, they have bettered the environment, but have they done aught to prevent the propagation of these degenerates? Have they done aught to heal this festering national sore? Look through the thirty-eight volumes issued by the Annual Conference of Charities and Corrections, and you will find the dominant note of all their activities to be more charity, more reform, more education. And so under the guise of charity, reform, and education our statesmen vote more tax to provide more homes and hospitals, more jails, more schools and they may continue so to do to the end of time with no better results than have been heretofore attained. The road traveled by these philanthropists is easy, alluring, hopeful, and the scenery spectacular; but their efforts for the past twenty centuries have demonstrated conclusively their utter inability to effect racial purification in any environment however sanitary, or intellectual, or moral it may be, and the race can be purged in no way that fails to take account of the selection of parentage. Homes and hospitals however sumptuous their appointments, however skillful

their physicians must ever fail to cure the innate tendency to insanity; reformatories and prisons however sanitary their construction, however beneficent their administration must ever fail to reform the inborn criminal; and schools and colleges however excellent their teachers, however complete their equipment must ever fail to educate the idiot. Nurture can never remove Nature's stamp of inferiority. The time and money of modern philanthropy are expended wholly in the conservation of the unfit; what the nation needs, alike from an economic and humanitarian view-point, is the prevention of their propagation. "Millions for relief, but not a dollar for prevention has been the policy of American philanthropy" said Governor Wilson, and this excessive burden of taxation to improve the environment of this vast horde of defectives falls heavily upon the shoulders of the fit and the competent.

A nation is not a mere fortuitous aggregation of individuals, but rather is it a living, throbbing organism, whose individual cells are men and women, each with its particular function in life. Its growth and permanence are possible so long as a healthy cellular metabolism continues, but when disease creeps in, when cellular function becomes perverted or destroyed, death inevitably ensues. So it is in our national life. A healthy body and a sane mind are just as essential to national strength and perpetuity as to an individual. One of the greatest problems that confronts every civilized country is how to eliminate, as far as may be possible, the multitude of parasites that encumber its growth and development.

GALTON'S STANDARD TABLE OF DESCENT

M

Per 100 Fathers (or Mothers)		2	7	16	25	25	16	7	2	100							
Per 10,000 Fathers (or Mothers)		35	180	671	1614	2500	2500	1614	672	180	35	10,000					
Names of Classes.		v	u	t	s	r	R	S	T	U	V	Totals					
Sons } of 35 { Fathers } of Class V	Daughters } of 35 { Mothers }	.....	.....	.....	.....	.....	1	6	12	10-6		Sons or Daught's 35					
"	" 180 "	"	"	"	"	"	4	20	52	61	33-10	180					
"	" 671 "	"	"	"	"	"	7	44	150	234	170	57-10	672				
"	" 1614 "	"	"	"	"	"	57	253	512	509	224	47-5	1613				
"	" 2500 "	"	"	"	"	"	3	42	248	678	860	510	140	18-3	2502		
"	" 2500 "	"	"	"	"	"	r	3	18	140	510	860	678	248	42	3	2502
"	" 1614 "	"	"	"	"	"	s	5	47	224	509	512	253	57	6	.....	1613
"	" 671 "	"	"	"	"	"	t	10	57	170	234	150	44	7	.....	.....	672
"	" 180 "	"	"	"	"	"	u	10	33	61	52	20	4	.....	.....	.....	180
"	" 35 "	"	"	"	"	"	v	6	10	12	6	1	.....	.....	.....	.....	35
Total 10,000 Fathers (or Mothers)		34	168	655	1623	2522	2522	1623	655	168	34	10004					
" 100 " " "		2	7	16	25	25	16	7	2	100							

Eugenists are convinced that nature's way, though requiring the utmost patience and perseverance, is the best way to accomplish this result. They propose, therefore, to invoke the aid of the law of heredity intelligently directed. I take the liberty of borrowing Galton's Standard Table of Descent with which to illustrate its operation.

If we take a large number of units, say 10,000 full grown men who differ in height by small gradations, we will find that they follow closely the Mathematician's Normal Law of Frequency. The average height will be at the line M on the accompanying chart. Now 25 per cent. will exceed the average height by one grade, or one inch; 16 per cent. more will measure between one and two inches above M; 7 per cent. more, between two and three inches above M, and 2 per cent. between three and four inches above. On the other hand, the rest of the men will fall short of M by the same proportions. Let me say that the figures of this table are not to be taken as numerically accurate, but rather as generalizations. The second row of figures at the top represent the same idea, but in round numbers; 2,500 of the 10,000 men will be found to measure above M, but less than M plus 1; 1,614 will measure above M plus 1, but less than M plus 2; 672 above M plus 2, but less than M plus 3; 180 above M plus 3, and corresponding conditions will be found among those who measure less than M in height. The grades above the general average are lettered R. S. T. U. V., and those below the average by r. s. t. u. v. Now this notation may be applied to the distribution of qualities of whatever character that make for public value, e. g. mental ability, physical excellence, moral stamina, but always with the assumption that each man mates with a woman of his own grade of ability and that they succeed in rearing one son and one daughter to adult life. Let us note, now, how closely the ability of the children depends upon the ability of the parentage. The 35 fathers of class V, which is the highest class, will produce 1 son of class R; 6, of class S; 12, of class T; 10, of U, and 6, of V, but none below R. Now compare this with the 2,500 fathers of class R, who produce 3 u class sons; and a gradually increasing number in each successive class, up to R, where 860 are produced; then a gradually diminishing number up to class V, where only 3 are found. In richness of produce, the children of

V class parents are to those of R class parents in the inverse ratio of 140 to 1. If we go to the other extreme of ability we find that the 35 v-class fathers produce 6 v-class sons; 10 u-class; 12 t-class; 6 s-class; and 1 r-class, but none above M. These are the criminals, the loafers, the pariahs of humanity. Perhaps, among this wastage of the earth, we may find a few capable souls, just as in the dross of the mine a few grains of pure gold may always be gathered; but the great mass of them pollute whatever they touch, and are incapable of improvement.

What is the application to national eugenics? In matters of education, in the arts, the sciences, in state craft, it is evident that we are to look for our most capable students among the high grades of parentage. In a nation like ours whose political life today, is a perfect whirligig of changes, whose economic growth has been phenomenal, whose policy it is to receive a motley horde of emigrants and to assimilate them into a homogeneous citizenship, where are we to look for men as leaders and thinkers, our Adamsses' and our Edwardses', but among these upper grades of parentage? It is evident that men taken from the comparatively few families of high civic worth can be trained to a high degree of efficiency and at a far less cost than can men from families of a low grade of worth. It follows, then, as a matter of national economy, to keep these families as unmixed as possible, for the admixture of high grades with low grades always, in the aggregate, lowers the grade of efficiency of the following generations. On the other hand, it is desirable to keep the low grade families, the degenerate type, by themselves in order to facilitate their elimination; for it has been shown that the interbreeding of these degenerate classes results in their sterility and finally in their extinction.

Such were the ideas promulgated by Plato, who must be considered, in fairness, the precursor of the Eugenic movement. How thoroughly he grasped the intensity of the law of heredity may be learned from his Book of Laws, and the Republic. He had studied the laws of heredity operating among the herds and flocks, in stud and kennel; and, observing that man was equally subject to the same biological law, he called upon the legislature to artificially purge the state of this natural plague. He who has a comprehensive grasp of all the factors of human biology, who

recognizes the needs which insure a national soundness of mind and body is best fitted to be the law giver of a mighty people. The effort of the medical profession to secure the establishment of a health department in the government at Washington has this idea as its bed-rock; and no nation can be founded and enjoy a continued existence on any foundation less secure than a high average soundness of body and mind. A careful study of the biological factors concerned in the histories of ancient Greece and Rome, will immediately give a clue to the causes of their decline and fall. As a result of incessant aggressive wars, wealth and luxury abounded; indolency, as a result of slavery, became the rule of life; marriage and the home life fell into disrepute; prostitution became fashionable; and the art of the abortionist claimed thousands who should have been born to a useful existence.

In concluding this paper, I want to call your attention to a powerful factor that needs to be aroused to its opportunity for immeasurable good to the human race—an opportunity to be “doers of the word and not hearers only.” I refer to the Christian Church. The modern Eugenic movement is intensely practical in its application and is saturated with religious dignity. It ought to find a welcome in any creed looking to the uplift of humanity. In this respect we have much to learn from Paganism and Judaism, from Jap and Jew, among whom racial fitness and racial preservation have the force of a religious conviction. The latest Eugenic news from Europe is to the effect that the head of the Armenian Church in Constantinople has decreed that, hereafter, anybody wishing to be married by the Armenian Church must furnish a certificate from a qualified physician, attesting to the perfect health of the contracting parties. Close upon the heels of this report comes a statement in the daily papers that the dean of St. Paul’s and St. James’ Cathedral in Chicago has issued a similar decree. The heaven is working. These steps plainly make for human progress and should be emulated by the entire Christian Church. The sanctity of the marriage covenant should guard the nation and the race against the encroachment of the enemies of racial fitness and racial preservation. The celibacy of the Catholic priesthood and of the orders of nuns is greatly to be deplored, depriving the human

race, as it does, of the heritage of capable brains and gentle souls.

When Francis Galton offered to the world the new science of Eugenics, he proclaimed a new philanthropy, a new religious tenet, a new loyalty. On this common ground the least and the greatest alike may meet to work for the national good. The spirit of service which is the clarion call of all modern activities, can be exemplified in no better way than in a conscious effort to improve the human breed in civic worth. I trust I am not visionary, nor given to “pipe dreams,” but I believe the time is coming when conscious stirpiculture will become as fashionable as it is necessary. Here certainly is a practical way of hastening that day when disease and crime, and suffering, in some particulars at least, will be stayed in their downward course; when the general tone of domestic and social life will be elevated; when the race will be less foolish and less frivolous, because more heedful of the duties and obligations to themselves, to posterity, and to the nation at large.

A CITY HEALTH DEPARTMENT.*

BY J. M. FURSTMAN, M. D.,
COMMISSIONER OF HEALTH.
LA CROSSE.

Civic economy suggests that Health Officers be better paid. The question for a city should not be “how small an amount will satisfy a man,” but what returns will a city receive for its investment.

The practice of selecting a physician, paying him a small fee each month for looking after the health of the community, and permitting him to continue his practice as a means of livelihood, is a pernicious one.

It is not right for the city, nor right for the physician, and it is not economy. No matter how small a city may be, it will find it profitable to secure the exclusive services of a well qualified man to act as Health Officer. This man will find all the work he can do, in fact, will become the busiest man in his city and the city will find that no employee will produce a larger profit.

The selection of a Health Officer is usually assigned to a committee of the City Council, and

*Read at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

the type of man chosen will depend largely upon the personnel of that committee. The practice that has prevailed in the past, and that is all too common today, that of choosing one of the local physicians to look after the health of the community and allowing him a small fee for so doing, has proven itself a vicious one. This method has failed, because the man chosen was not sufficiently trained for the work and devoted little time to it, and because the city failed to provide proper laboratory facilities for doing the work, or the necessary funds to make the department efficient.

In approaching the problem of selecting a Health Officer, it must be conceded that he should be drawn from the ranks of the medical profession, and that he must be a physician of special training in Sanitation and Hygiene. That it should be his duty to teach the public about the preservation of health, and the prevention of disease. The medical graduate of the past has not had this training, owing to the limited amount of teaching in Sanitation and Hygiene that the schools have given and are now offering. The study of medicine, both in the past and at present, still bases its teachings on the old principle of the cure of disease; while the new profession of medicine, the one we hope for, will certainly have to recast some of the methods of the old medicine, and recast its teachings into a new form, which will emphasize the prevention of disease.

When you come to select a Health Officer, ask him what appears to him to be the principal problems of the city and his scheme for solving the same. Have him make a survey of the conditions of the city and then have him write an essay, as well as a health ordinance, for the same city, and in that way you will be able to select the best man for the work.

This man, when obtained, should be well compensated and the tenure of his office made secure. He should not be hampered by petty politics. Let this important office, the office to which you intrust that which you hold dearest on earth—the lives and health of the people—be kept out of politics.

The economic value of the work of an efficient Health Officer serves to attract attention to the city, as a city of the well. And the advantages of a city, where health is high and deaths relatively infrequent, will be in time to come, if not now,

more than the advertising advantages of bill boards and newspapers. Cities are learning that to grow in population and in importance, it is not only necessary to attract new citizens, but it is also necessary to protect the health and lives of those they already have.

WHAT A CITY HEALTH DEPARTMENT SHOULD ATTEMPT TO DO.

Laboratory facilities.—A city, no matter how small, should have laboratory facilities, in order that the physicians may be aided in making correct diagnoses and in that way be instrumental in lessening the number of contagious diseases. Examinations should be made for tubercle bacilli, typhoid, diphtheria and so forth. No diphtheria quarantine should be raised before two negative cultures are obtained from the patient, and one from all the contacts. When facilities are not at hand for doing this work, it is neglected and in many instances, cases are terminated before the throats are entirely free from the organism. Facilities should be at hand for testing milk bacteriologically, as well as chemically. A laboratory in a community encourages more scientific work among physicians and in that way raises the standard in the community.

Control of contagious diseases.—A systematic investigation of contagious diseases should be instituted. The mere placarding of a home, followed by fumigation is not sufficient. An effort should be made to get at the source of the trouble, and to stop it before it goes too far. It is only by getting at the source that we can hope to control contagious diseases and keep them down.

A few years ago, there was a forty day quarantine on diphtheria. This was reduced to thirty days. Now this has been changed and termination of diphtheria is by the culture method. This means that a large percentage of people who are reported as having diphtheria are released from quarantine in one week, the cultures being negative, a considerable number are released in two weeks, and a few are kept under quarantine for from three to five weeks.

The quarantine period for scarlet fever in the past amounted to from four to eight weeks and, in spite of this, there were about two per cent. of return cases. The tendency now is to increase the length of isolation indefinitely on those cases having suppurations, nose discharges or boggy

tonsils, and to decrease the time required for other cases.

The old style sanitary inspector was expected to, and usually did, condemn everything in sight, from the garbage pail at the back door to the plumbing in the bath room. But disease continued, because he was condemning, as a rule, so far as health was concerned, things largely incompetent, inapplicable and immaterial.

What difference did it make, if the garbage pail was emptied every day, or a vent pipe placed in the bath water waste trap, if the milkman delivered scarlet fever infected milk at the door, or an unrecognized case of measles sat next to the children at school?

The garbage pail is merely a place for flies to feed and possibly breed. But flies cannot carry infection, unless infected discharges are accessible to them.

We have paid altogether too much attention to fomites in the past, as great carriers of infection and have more or less neglected to look for contact infection.

Bacteriological research shows that all non-spore producing germs survive but a short time outside of the body, and there only under exceptional circumstances, air and sunshine being decidedly detrimental to their growth and proliferation. Chapin, in Providence, took two hundred swabbings from things in a room where a case of diphtheria was isolated and was unable to obtain the bacilli in any of them.

If the fomite theory is correct, money apparently would be the most frequent and prolific source of spreading infectious diseases. It is continually handled, often moistened with saliva from the lips, and kept in the pockets away from light and air, and yet careful investigation among bank clerks and surface car conductors shows that there is no greater ratio of scarlet fever and diphtheria among these people than among any other.

At the Pasteur Hospital in Paris, cases of scarlet fever and diphtheria for the last two years have been admitted to the general wards. They occupy separate stalls with partitions extending up only four feet, and each stall directly communicates with the general ward. The same nurse cares for the children ill with pneumonia or gastro-enteritis that looks after the cases of diphtheria and scarlet fever. The only precaution taken is that after handling a contagious case, the nurse

shall give her hands and nails a most thorough scrubbing and cleansing. She only wears a gown when making a throat application as, for example, in diphtheria, where there is danger of the fresh infected material coming in contact with her dress. The results under this regime have been most satisfactory and there have been no cases of transference to other children in the ward.

The desquamation of scarlet fever was supposed to carry the infection, but some of the best epidemiologists in London and England now maintain that it does not carry contagion unless infected by the discharge from the body.

Contact infection and the danger to the community from "missed" and "carrier" cases are the most potent factors in the spread of these diseases.

Observation of the simple laws of personal cleanliness, by scrupulously cleansing the hands and nails after contact with these patients will reduce the danger incurred by the physician or attendant of transferring the disease to others to a minimum.

Milk inspection.—The value of a thorough inspection in a city is very essential in keeping down the death rate, especially during the hot weather and also during the entire year, as it is now a well known fact that many epidemics of typhoid, scarlet fever and even diphtheria are started by an infected milk supply. The problem of a clean milk is yet to be solved, not by uninformed discussion, nor by the emotional clamor of ignorant consumers, nor by the good intentions of producers, dealers, or public officials, nor by unenforced legal provisions. It is to be solved by scientific inquiry as to the facts involved, by the intelligent formulation of a comprehensive program for constructive work, by efficient co-operation on the part of producers, transportation companies, dealers, housewives, health officials, private social agencies, and by an informed active and exacting citizenship.

The taking of a few samples for testing is not sufficient. The milk must be followed from the cow to the consumer to see the conditions under which it is produced, the way it is handled, the way it is delivered and, not to stop there, but also to teach the people how to handle it after it gets to the home, and to learn the health conditions of the cows from which this milk comes.

No matter how much money is spent by a

municipality in this direction, it cannot spend too much. It is the little ones that we are depending upon for our future generation and since milk constitutes their main article of food, let us try and give it to them as clean as it can possibly be produced.

Medical inspection of schools.—I know of no other expenditure of money that is as well spent by a city as for the Medical Inspection of school children, whether it be on a large or small scale. There is not another feature that is so instrumental in lowering the number of contagious diseases as the medical inspection of school children. When I speak of Medical Inspection, I not only refer to the control of contagious diseases, but also to the detection of physical defects, which, in an indirect manner, reduces the cost of education by lessening the number of children who remain in the same grade for two and three terms.

The city, in an indirect manner, through the state, compels the children to attend school and it is right for the parents to insist that the schools be a safe place for their children to congregate, and that they should come out of school in at least as good condition as when they entered.

You have all noticed that contagious diseases during the summer months, when the schools are closed, are relatively few and that, as soon as the schools open, in the Fall, there is a rapid increase in the number of contagious diseases.

Medical supervision for defects and medical supervision for infectious diseases should be combined and be in charge of the health department wherever possible, rather than under the supervision of the school boards.

School boards have no authority, by precedent or by law, as have health departments, to follow, outside of the schools, the ramifications of the infection, of which the infective child in the school constitutes but one link, back to its home.

School boards also have no information concerning or authority over the large number of children, who are not of school age, or concerning any adult, excepting those directly connected with the schools.

WHAT LA CROSSE HAS DONE.

Up to 1911 La Crosse was content with a layman as Health Officer. However, some of the most prominent business men, as well as some of the medical profession, were not satisfied and for

some time agitated the Common Council to reorganize the Health Department. This was finally accomplished and the department was entirely removed from politics, the power being vested in a board consisting of three members, who constitute a commission appointed by the Mayor. The ordinance which governs the department is one of the best in the country for a city of its size, in as much as it takes the department out of politics. It creates the position of Commissioner of Public Health, who is to be appointed by this board. Said Commissioner of Health is to have had some special training in public health work and, best of all, is to devote his entire time to this work, and not to engage in private practice.

This reorganization took place January 1, 1911, and the following is a resume of the work that has been done up to the present time:

Establishment of a Laboratory.—Examinations are made for tuberculosis, typhoid and diphtheria. In the diphtheria work the department makes diagnostic cultures, as well as terminal cultures, and no case of diphtheria is terminated until two negative cultures are obtained from the patient and one from the contacts. Culture outfits are prepared by the department and are on hand all the time for the use of physicians. Outfits are supplied for taking blood in suspected typhoid cases and physicians are urged to ask that blood cultures be taken in the early stages of typhoid cases, the department being ready to make them at all times.

A thorough Milk Inspection has been inaugurated. Chemical as well as bacteriological examinations of all milk are made. The dairies supplying the city are visited, as often as we can get around to them, to see that the conditions under which the milk is produced are up to standard, and it is surprising to see how readily the farmers co-operate with the department.

Stores selling milk are looked after to insure its proper handling. Samples are taken every month to see that they come up to the required standard.

Medical School Inspection.—A school nurse was obtained from the Health Department of Chicago to look after the schools. All children that the teachers think need attention are referred to her. She looks them over and, if she thinks they require attention, gives them a slip and refers them to their family physician.

But her work does not end there. She follows the child to its home and impresses upon its parents the importance of having the existing defects corrected. She acts as an instructor to parents, teachers and pupils and to all members of the family, explaining to them the principles and practice of hygiene. She makes a most efficient link between the school and home. She is supplied with a list of children absent from school, whose homes she visits, in order that she may know whether or not they are suffering from a contagious disease. In three different instances the nurse has been instrumental in averting a localized outbreak of diphtheria.

Sanitary Inspection.—This consists in answering all complaints and in doing away with all unsanitary conditions possible. During the summer of 1911, 125 homes were connected with sewers, and as many vaults done away with.

Investigation of Contagious Diseases.—The number of contagious diseases has been materially reduced. This is due to the careful investigation that the department is carrying on in that direction. Two instances that occurred in La Crosse within the last five months, I think, are worthy of mention.

The first was a localized outbreak of diphtheria in one of the schools. Upon careful investigation, the department learned that a girl in one of the schools had been absent for ten days, suffering from what the doctor called tonsillitis. A culture from the throat proved it to be diphtheria. The doctor insisted that it was tonsillitis, and took a culture and sent it to Madison. The department sent a culture at the same time. The doctor's culture was negative and the department's was almost a pure culture of diphtheria. I am very sorry to say that three days later the doctor was quarantined with a severe attack of diphtheria. This, in my estimation, is a very poor way to teach some of us, but it surely did the work in this case. This man now takes a culture from every sore throat he sees. Four cases developed in the room this girl was in.

Cultures were taken from the throats of all the children in the room that the girl was a member of and four carriers were found and isolated, and our diphtheria outbreak was at an end.

The second instance occurred in the latter part of February. During November we had only two

cases of scarlet fever, during December, one, and during January, one. During the latter part of February, within five days' time, seventeen cases of scarlet fever developed. An investigation was immediately started and it was found that fifteen cases out of the seventeen bought their milk from the same dairy. The milk supply was immediately stopped and our scarlet fever epidemic stopped also.

The search for the cure of disease is giving way to the discovery of the cause. A knowledge of the cause leads to an understanding of the prevention and, of the coming events of medicine that cast their shadows before, the most numerous and most potent are those of prevention; and their sphere is the welfare alike of the individual and the community.

We know that disease is very largely a preventable evil. Four deaths out of every ten could be prevented, if the teaching of Sanitary Science were heeded. If we know how to prevent disease, why not do it? If the ravages of typhoid, diphtheria, scarlet fever, measles and smallpox can be checked, then why not at once advance this tremendous work? No duty to society, acting through its various governmental agencies, is superior to this obligation to attack the removable causes of disease. Public health today can be bought. It can be had at a reasonable price. The public is beginning to realize that health protection is purchasable.

It is for this great work—the prevention of disease—that health departments should have sufficient and adequate appropriations.

DISCUSSION.

DR. H. E. DEARHOLT, Milwaukee: "Communicable disease is a problem of community life," it is a product of the attempt that men are making to live together. It is one of the disadvantages that goes with our attempts at coöperative living. The responsibility for preventable disease is entirely up to the government. I was very glad to see that Dr. Furstman touched upon that subject, as it is a side I want to dwell upon particularly.

I was interested some time ago, to look up the number of health officers in the State of Wisconsin and the system under which the work is carried on, to see how well we were, in our state, living up to the attempt to manage well this phase of our coöperative business. I can't understand how the compliment that Dr. White gave us this morning can be true, because if it is true that we are taking better care of our sanitation, than is common throughout the country, it is not a very happy commentary upon what is being done elsewhere.

Now, that is not intended in any way to be a personal criticism, but a criticism of the system under which we are operating at the present time.

There were in Wisconsin, according to the last records we had access to, being the State Board of Health reports for 1903-1904, 836 local health officers. The only supervision of them is given to the State Board of Health. There is no system of intermediary jurisdiction over the work of the local health officers.

As Dr. Furstman pointed out in his paper, it is up to the community to pay health officers a sufficient amount to warrant their giving sufficient attention to their work. As a matter of fact, the remuneration given to the local health officers in 1903-1904 in the way of regular salaries, amounted to but \$14,940 per year! This was the total amount paid in salaries in the State of Wisconsin by the local health boards. The run of local communities pay by a per diem, usually \$2.00 is the highest, and small fees for registration work. In eight counties of Wisconsin the communities of those counties pay nothing whatsoever. In twenty-six of the remaining counties less than \$100 a year is paid by all the communities for local health work. In five only, does the amount paid annually equal or exceed \$500.

In contradistinction to this, I want to call your attention to the fact that in the State of Wisconsin there is paid for administration in a few departments sums that are quite munificent as compared with the amount paid for the State Board of Health supervision, which amounts to something like \$13,000 a year. The National Guard receives from the State of Wisconsin \$146,192 a year; the Fish and Game Department \$38,093. We are also paying \$23,853 in bounties on wild animals! I think most of us thought we had got beyond the point where we had to pay for protection from wolves and other wild animals!

Another thing brought out very strongly in Dr. Furstman's paper, was the necessity for a better rural health administration than we have. As we know, better facilities for transportation and other improvements have practically lessened the size of our country; public health is no longer solely of the immediate neighborhood concern that it used to be. The local Health Department and the City Health Department must spread out and inspect the rural farms, for example, which furnish the milk supply of the city.

In this connection it interested me recently to learn that in Cleveland an inspection is carried on by the Cleveland Health Department covering territory in four states, which provide the milk supply there.

In considering these questions of the need of rural sanitation, it seems to me that the system under which we are operating at the present time is absolutely inadequate, as now constituted, and always must be, to meet the needs of the situation. The responsibility for the care of health is put entirely upon the community, and there is no protection for the rural district except such as is given by the town Boards of Health.

I suggest that one of the desirable things that we ought to be looking forward to in this state is the advisability of a larger district supervision or of a

county supervision,—some unit in any case by which all of the country can be covered instead of just little islands, as it were, as represented by the municipalities here and there.

We know from our studies in tuberculosis and from those that have been made elsewhere in rural sanitation and hygiene, that communicable disease is on the decrease for the most part in the larger cities, and is fearfully on the increase in the rural districts.

A function of the Health Department, as set forth by Dr. Furstman in his paper, is education. I have the greatest of confidence in the public. My own experience in the work of the Wisconsin Anti-Tuberculosis Association has assured me that the people generally stand very ready to drink in every bit of good life-saving information that is offered to them; and I believe that if they can be made to realize the situation and the need and desirability of improving it, we may depend upon them to do so.

To my mind, the failure to induce the public generally to come up to the standard which we, who should be most interested, feel that they should have, is due rather to a faulty system of instruction than it is to unwillingness on the part of the general public to learn.

In carrying on our educational work we should remember that a commercial enterprise has no difficulty whatsoever in inducing the public to support any good commodity which is well advertised. We know what we may do if we adopt methods that are as well adapted to the needs of our educational campaign, as those are which are used by commercial institutions to the needs of their business.

DR. J. H. WHITE, of the United States Public Health & Marine Hospital Service: I would say in the first place in regard to the remarks of the preceding speaker, that the interest in public health matters naturally awakens first in cities and towns, and last of all in the country for the same reason that education in general begins in cities and towns and then spreads to the country. Therefore we have some boards of health fairly well paid, and some health officers fairly well paid, in the cities and towns, while that is not the case in the country.

It is the awakening of interest that I referred to in regard to this state. I am not sufficiently conversant with affairs here to say how effective that interest has become; but that it is evidently awake and wide awake no one can doubt, and that results will accrue, it is equally sure that no one can doubt.

I do not know of any rural communities in the whole country, certainly not in my part of the country, that take any particular interest in public health matters; and it is for that reason that I called attention to that this morning, and would have called further attention to it but for the fact that I did not want to take too much time.

We must look after the countryman; and I believe, as the doctor said, if we get after them right they will listen to us and try to follow our advice.

But the best way to educate the people as to the usefulness of public health work, is to educate ourselves.

I am more than glad to see, and I heartily con-

gratulate the regents of the State University of Wisconsin on the establishment of a school of public health in the University of Wisconsin. That is a move in the right direction which will provide the men who can furnish every county, every city, every town in the state with a proper administration of their public health affairs, and in no other way can it be done. It is a long and weary road for the physician, without any particular instruction in public health to take it up as best he may at random, and it is irrational and not in accord with our modern way of doing things for a man to have to learn public health work in that way. Of course it had to be done that way at first by the pioneers. But now a start has been made in Wisconsin and in other states in the right direction, and it is bound to bear fruit, because the work that will be done by these men who have acquired the degree of Doctor of Public Health in addition to a degree of M. D., will be so superior to that done by us who take it up ourselves, that the people will be bound to see the good of it, and will be advised and led by these men who are doctors of public health.

One other point, as to the amount of money expended: Again that is because of the lack of knowledge on the part of the people as to what they can do and ought to do. I would like to take enough of your time to give an illustration. One of the officers of my service, Dr. Lunsden, who may be and probably is known to some of you, went to investigate in one of our western towns, an outbreak of typhoid fever which they could not trace. He investigated it thoroughly for them, told them the cause of it, and how to prevent it in the future. "But", he said to the meeting of the best citizens, "the proper thing for you to do is to provide yourselves with a health officer." "Well, we have." "Yes, but what kind of a health officer?" Do you expect one of the doctors of your community to give enough of his time, enough of his brains, to keep this community in proper health and pay him about \$500 a year? Now, there is no sense in that. If you want a proper health officer, get a man fitted for the job, pay him a living salary and demand all of his time." That is the true solution of the question. And if a community can afford to pay a man for all of his time to act as sheriff, pay for all of his time to act as judge, for all of his time to act in any capacity to a community, God knows it can afford to pay a man to act as the conservator of their public health. (Applause.) These people followed his advice, and without further delay they then and there decided to pay \$5000 a year to their health officer, and they got one who is fit for the job and who is holding it down. They will have no more typhoid outbreaks in that community, because they have a man who knows how to control it; and if that is done all over our country the disgrace of rural typhoid fever running up into 60 and 80 deaths per hundred thousand per annum, will be wiped out, and it will not be wiped out until that is done. (Applause.)

DR. G. E. SEAMAN, Milwaukee: In order to have an efficient city health department you must first have an efficient city Health Commissioner or health officer, by whatever name you may call him. As many of the

members know, a little over a year ago, the University of Wisconsin following upon considerable agitation looking towards this end, established a course in public health. I think it would be interesting to the physicians of the state all of them to know in a general way what that course is.

The course of public health at the University of Wisconsin was established after a study had been made of similar courses, particularly the English courses, in many respects. It follows rather closely the courses that are given at Oxford and at Cambridge; and the work for the physician who has had a good preliminary training, the ordinary medical course, is covered in about one year,—taking up bacteriology, meteorology, vital statistics, practical administration of the health department, and the matter of medical inspection of public schools, and general health work.

During the past year, I believe they have had only three medical men avail themselves of that course.

We have had only one man complete the course—at least it is expected that he will complete the course, and I am very much pleased to say that this man who has for some years devoted some attention to sanitation and to public health, is already in demand, and is being bid for at a very respectable salary.

I have for a number of years thought and have advocated the idea that many young men would do well to go into the public health work as a specialty; and it is rather surprising that more of them do not do it, in view of the very apparent trend of medical science at the present time.

The University of Wisconsin is at least fairly well equipped to give this course. In any event the idea of the dean of the medical school there and the president of the University and the members of the medical faculty who are giving the course, is, to make the course as thorough as possible and as practical as possible, so as to train health officials.

We hope that the medical profession of the state will take even more interest than they have in this particular phase of medical education in our own state, and that within a comparatively short time we will have enough men taking that course at the University of Wisconsin to in part at least meet the demands of the state for trained health officials; there is no question in my mind that there is an active demand at the present time for such trained officials, and that within a very few years there will be a very much more active demand than at present for as large a number of trained sanitarians as we can turn out in this state.

DR. EDWARD EVANS, of La Crosse: Gentlemen, I have for some years been endeavoring to make my living by practising surgery and giving serious study to that subject. But I get most of my recreation from public health work. I have derived a great deal more pleasure from the work I have been able to do in La Crosse and the work I have assisted in doing at the State University along public health lines, than I have in any other line of activity that has been given me to pursue.

Now, in La Crosse, we have been doing something desirable. We have established a health department there independent of politics, a thing which I do not be-

lieve has occurred in any other place in the United States, and not long ago our health officer was able to tell the mayor when he came to him and said he should do so and so, that he could go to limbo, that he would run the commission as he saw fit.

The second point is, we have, what is very rare and unique in Wisconsin, the only health officer who is compelled to devote all his time to that, and not allowed to engage in private practice.

I will give you two illustrations to show what this has to lead to. I will pass a chart around illustrating the condition in February of this year. That includes nearly all of our city, showing an epidemic of scarlet fever scattered practically all over the city. The matter looked very serious. Now, I pass another chart and it shows that when things are handled scientifically how simple they become. Every case of scarlet fever shown on the first map, except two (and they occurred before this outbreak) were on one milk route. We stopped the sale of milk on that route for a week, and at the same time the outbreak of scarlet fever stopped and we had no more of it. You see science is always simple and if you go at a thing scientifically you have a very simple problem.

Another point, the rubber mills in La Crosse employ some 350 girls scattered all over the city in boarding houses. From time to time cases of diphtheria had broken out, and were beginning to become a rather serious menace to the health of the city, because, as I say, those girls were scattered all over the city. But our health officer, Dr. Furstman cultured all the throats and found 8 carriers. These were isolated, and Dr. Ravenel told you how some were cured by over-riding, and since then no case has broken out in these mills. This is another illustration of how simple it is to go about a thing rightly, to check it.

DR. G. WINDESHEIM, Kenosha: The paper of Dr. Furstman was very interesting to me, because together with the state in general the eyes of all persons interested in public health have been turned to La Crosse for the past year and a half. La Crosse outside of Milwaukee, I understand, is the pioneer city in establishing the first Board of Health independent of political influence. I am happy to say that Kenosha is the second. We have in Kenosha today a board of health which is absolutely detached from any political influence.

Our Board of Health, however, is quite young. This last board as now organized will only have been in existence a week tomorrow. Previous to this there was the provisional Board which was in existence one month.

Like La Crosse we have endeavored to get a man to serve as health commissioner who will be thoroughly competent to do the work required of a health commissioner, and we intend to pay him a salary which will enable him to live without doing any general practice. In fact, our ordinance as passed by the council prohibits the health commissioner from doing any general work; but he must devote all his time to the health board.

We have applications from quite a number of physicians, but we have come to the conclusion that if our University of Wisconsin is worth anything at all, it is certainly worth the support of the medical profession, and especially those interested in health work; and in all probability, if it is possible, we will get the man that Dr. Seaman spoke about who has had special training at the University of Wisconsin.

Stress was laid upon the question of milk supply. That was brought to our attention quite seriously some years ago. About 12 years ago we had a serious outbreak of typhoid fever in Kenosha. The health officer at that time was a good honest reputable physician, a man who was well posted in all questions relating to public health; and he declared that our siege of typhoid fever was due to the fact that we were at that time beginning to use lake water in the place of artesian water for drinking purposes, which we had previous to that. He took that ground and had the lake water examined several times, with negative results. Some of the physicians put their heads together and tried to trace the origin of that outbreak of typhoid fever; and we found that without one single exception, all the people that had typhoid fever were drinking artesian water; but at the same time we found that while they were getting their milk from various milk men around the town, at least 6 different milk men, all of those milk men obtained their supply from a certain farm where a few months previous to that there was a case of typhoid fever. If we had had at that time an efficient health officer who would have examined the milk supply, it could have been proven more definitely than just by our conclusion.

This last year again we had an epidemic of scarlet fever. We had cases right along for about a year. We found finally a milk man who had scarlet fever in his own family and was supplying milk to the city. We stopped the sale of that milk—I don't know whether it was just for that reason; but for some reason our scarlet fever subsided.

DR. J. M. FURSTMAN, La Crosse: (Closing) I have nothing more to add; it is an easy matter to come before a body of men and read a paper, but the difficulties that one encounters in the work that I am engaged in would require a week to relate. But after coming before a body of men such as we have here today and hearing the views from the different men, I really think it pays. I am very happy to think that La Crosse, (for the reason that I am now a resident of La Crosse) was the first city in the State of Wisconsin outside of Milwaukee to attempt to establish a health department with an all-time man. Kenosha is following; but let us try and agitate this question and try and benefit by the experiences that Kenosha has gone through, and get the health department started in various parts of the state without going through the same experience that Kenosha has.

SPECIAL ABSTRACT

HEXAMETHYLENAMIN (UROTROPIN)
IN SYSTEMIC INFECTIONS.

Since the observation in 1895 by Nicolaier that formaldehyde appeared in the urine following the administration of urotropin in amount sufficient to inhibit the growth of streptococcus, the drug has been extensively used in the treatment of bacterial infections of the urinary tract. As a prophylactic it is commonly given during typhoid fever as it prevents the appearance of bacilluria and eliminates one source of "carrier".

Crowe¹ in 1908, discovered that the drug could be found after mouth or rectal administration in all of the body fluids of experimental animals. This led to an investigation of bile in a patient with a biliary fistula. It was shown that formaldehyde could be detected in the bile and urine almost simultaneously after mouth or rectal administration.

In 1909, Crowe² reported that the drug was excreted in the cerebro-spinal fluid. It has been shown (Barton) that hexamethylenamin is excreted by the mucous membrane of the middle ear. It is also known that the accessory sinuses of the nose may be disinfected by the drug. It is also excreted in the fluid of a pleural exudate.

Crowe³ reports recently results of the use of hexamethylenamin, particularly as a prophylactic in fractures of the base of the skull and in operations upon the hypophysis cerebri by Dr. Cushing's approach through the floor of the nasal cavity. The results are surprisingly good. For example, in 35 cases of basal fracture there was not a single case of meningeal infection when urotropin was given as soon after the injury as possible and continued until all danger of infection had passed. Of 35 earlier cases in which no hexamethylenamin had been given, there were nine deaths from brain abscess or meningeal infection.

Of 20 cases of compound fracture of the vault, eight occurred before the days of hexamethylenamin. Of these 4 died, 50 per cent. "To each of given immediately after the injury, and at frequent intervals until all danger of infection was past; ten of these patients recovered, while two of the twelve remaining cases, hexamethylenamin was cumbed with a pneumococcal meningitis."

Crowe makes a special point of the use of hexamethylenamin in poliomyelitis. There seems to be little doubt but that the use of the drug in treatment has prevented the paralyses which make the disease so much to be feared, and during an epidemic its use as a prophylactic is strongly urged. Some clinical observations made in Sweden in 1911 by Dr. Crowe substantiate the value of the drug, both as a prophylactic and remedial agent.

In cerebro-spinal meningitis (epidemic) it has been found that the cells diminish in number and the meningococci in the spinal fluid were killed or, at least, were rendered incapable of growth in culture media. These "all tend to confirm our previous contention that hexamethylenamin is excreted into the cerebro-spinal fluid, and, if given at frequent intervals, will render this fluid an unsuitable medium for the growth of microorganisms."

Although Crowe has given enormous doses, as much as 300 grains a day for four or five days, no toxic symptoms can be said to have followed, except the hematuria due to irritation. This has never done harm and clears up without leaving a trace of damage to the kidney. Examination of the genito-urinary tract at post-mortem in cases of hexamethylenamin hematuria showed that the origin of the bleeding was from the mucous membrane of the bladder. Small doses occasionally cause a painful cystitis with hematuria, but in the reviewer's experience they have cleared up in a few days after withdrawal of the drug. This but confirms Crowe's observations.

Crowe calls particular attention to the fact that the drug should be given well diluted. One grain to the ounce of fluid is a good routine and the administration should be at frequent intervals, a few grains every hour or even half hour in order to keep the formaldehyde in sufficient concentration in the infected secretion.

We evidently have a most valuable drug in hexamethylenamin and the profession owes Dr. Crowe a debt of gratitude for calling attention so convincingly to its efficiency.

The reviewer can see no reason why the drug should not be of value in acute articular rheumatism and he intends to give it a thorough trial as opportunity offers.

[Since writing the above the reviewer has found hexamethylenamin in the joint fluid following the administration of the drug by the mouth.]

1. Johns Hopkins Hospital. Bull., 1908, XIX, 109.
2. Ibid., 1909, XX, 102.
3. Ibid., 1912, XXIII, 255.

THE WISCONSIN MEDICAL JOURNAL
OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

A. J. PATEK, M. D., Milwaukee G. E. SEAMAN, M. D., Milwaukee O. H. FOERSTER, M. D., Milwaukee
C. S. SHELDON, M. D., Madison S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc	J. V. MEARS..... Fond du Lac	O. T. HOUGEN.....Grand Rapids
G. WINDESHEIM Kenosha	H. W. ABRAHAM.....Appleton	R. U. CAIRNS.....River Falls
F. T. NYE.....Beloit	EDWARD EVANS.....La Crosse	J. M. DODD.....Ashland
W. CUNNINGHAM.....Platteville	T. J. REDELINGS.....Marinette	H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents
Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

OCTOBER, 1912.

No. 5

EDITORIALS

THE PRINCIPLES OF MEDICAL ETHICS.

On the opening pages of this number of the JOURNAL will be found the principles of Medical Ethics adopted by the House of Delegates of the American Medical Association at its last meeting, which it seems desirable to publish in full, for every physician should be thoroughly familiar with the code. Ethics may be defined as the science of human duty and medical ethics therefore would have to deal with the duties of physicians to their patients, to each other, and to the public, with reference to right and wrong.

It is fitting that this declaration of the principles of medical ethics should begin with the statement that "a profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals."

That strikes the key-note of the whole; the conception of the medical profession as an organization primarily for the service of humanity, upon entering which an individual assumes certain obligations as to conduct.

The Hippocratic Oath constituted the code of medical ethics of the civilized world for centuries and its substance may be found, amplified and modernized, in many of the paragraphs of this

present statement of principles. It would be difficult, however, to express more perfectly this high ideal of the medical profession than in the words of the Oath: "But purely and holily I will keep guard over my life and my art."

Again, a little later, we find in the Oath: "And, into whatever houses I enter, I will enter into them for the benefit of the sufferers, departing from all willful injustice and destructiveness, and all lustful works, on bodies male and female, free and slaves. And whatever, in practice, I see or hear, or even outside practice, which it is not right should be told abroad, I will be silent, counting as unsaid what was said." This is said again in Chapter 1, Section 2. The wording is adapted to modern conditions, but the spirit is that of Hippocrates, unchanged for twenty-four hundred years. What a thorough gentleman he was, in the finest sense of the word.

Section 3 in this chapter deals with one of the "smaller vices" of the medical profession, the tendency to exaggerate or to minimize the gravity of the patient's condition. Honesty and sincerity are rare enough in all callings but they are particularly needed by the physician and they are plants which grow by cultivation. People are often so ignorant and so superstitious about themselves that the temptation for the doctor to assume an attitude of being slightly superhuman in wisdom and insight is sometimes hard to resist. But we must keep our feet squarely on the earth and must not pretend to know more than we do. And what we do know we should share with the friends

of the patient. Their interest in the patient is even greater than ours and the two should be made harmonious, not conflicting, by a thorough understanding.

Chapter II. takes up the consideration of the duties of physicians to each other and to the profession at large and deals with present-day conditions with a directness and a definiteness that can leave no room for misunderstanding. Section 1 relates to the attitude of the physician to his profession and urges the avoidance of sectarianism. Section 2 emphasizes the importance of communion with one's fellows in medical societies in order to keep one's professional ideals from growing rusty. While Section 3 urges the need of continual study that the physician may be truly "instructed in the art of healing."

The conduct of practice and some of its temptations are dealt with in the remaining sections of Article 1, and while many specific types of unprofessional conduct are mentioned it must be remembered, as stated in the Conclusion, that "it is not to be supposed that they cover the whole field of medical ethics." The straight road is clearly indicated, but not all of the pitfalls and by-paths of unprofessional conduct are enumerated.

Article III. of this chapter, relating to the duties of physicians in consultations, is very important. The first sentence of Section 2 ought to be indelibly printed on some of the blank pages in all of our minds: "In every consultation, the benefit to be derived by the patient is of first importance." Let us never allow this thought to be obscured by vanity or jealousy or covetousness.

This whole article on consultations deserves careful study as these are sometimes conducted in a way which does not produce the most satisfactory results to the patient and his friends.

The duties of physicians in cases of interference and differences between physicians are clearly handled in Articles 4 and 5 and if these rules are followed more than half of the jealousy and ill-feeling which sometimes prevail among medical men will cease to exist.

The largest type and the blackest ink should be reserved for Section 3, in Article VI. Split fees and commissions are the disgrace of the medical profession today. No language can be too strong to express their demoralizing influence.

But when we have read through these Principles of Medical Ethics and have admitted their merit and desirability, have we made ourselves fitter or better members of the medical profession? Not unless we put them into effect in our lives. Not unless we regulate our conduct in the every-day routine of practice in accordance with these rules. We must live them, not simply read them or adopt them by resolution. That is the supreme test which will tell whether or not we are worthy to belong to that profession of which Stevenson said: "The physician is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race."

GETTING ACQUAINTED.

Down in the Second Councilor District there is an exhibition of the right man in the right place that is worth going miles to see. What a councilor can do to promote harmony and brotherly feeling among medical men was amply shown at the recent annual meeting of this district medical society by the spirit of friendliness and good-feeling which prevailed.

Dr. Windesheim has gone up and down his councilor district preaching from the text: "*Eat, drink, and smoke together; get acquainted.*" He has kept at it until they have carried his teaching into effect with the result that they have found the district to be full of medical men who can like and esteem each other, who can get together, often with their wives as well, for the cultivation of a friendly spirit as well as for mutual support in maintaining high scientific and professional ideals.

DR. LAW SENT TO PRISON.

The newspapers of September 26th contained the announcement that Dr. A. R. Law of Madison had been sentenced to the state prison for a term of six years for performing an illegal operation.

The case gave rise to much discussion when it was tried in the spring. At that time Dr. Law was convicted, but the case was appealed to the

Supreme Court. The Supreme Court upheld the trial court and a motion for a rehearing was overruled.

Producing an abortion is a crime. No amount of sentimentality can gloss over that fact. We all regret that such crimes are committed; we grieve at the thought that a physician can so far forget his own honor and that of his profession as to sink to such misdeeds; personally we may sympathize with him for his weakness, criminal though such weakness is; but we also feel keenly the disgrace brought upon the whole profession by such practices and we must uphold the hands of the civil authorities when they punish severely those who are found guilty of this crime.

Most of us know how strong an appeal is made to a physician's sympathies as a man by the circumstances connected with some of the cases in which an illegal operation is sought. But that does not alter the situation in the smallest degree. Exactly as strong a plea might be made for the removal by poison of some drunken husband or father who may seem an intolerable burden upon his family's existence.

It is especially to the younger generation of physicians that the warning must be given to turn a deaf ear to the solicitations of those who would secure their services for illegal operations of this character. To the young graduate in medicine, hardly established in practice, usually sorely in need of money, the golden bait offered by these tempters is indeed hard to refuse. But a man needs moral courage and a good deal of starch in his spinal column to practice medicine anyway, and this is one of the times to use it.

The safest way to treat a proposition of this kind is to kick the maker of it out of the office, if he is a male, and to firmly show the door to the gentler sex.

Before dismissing the consideration of the case of Dr. Law it must be said that the appearance of a member of the State Board of Medical Examiners in this trial as an expert witness for Dr. Law has given rise to much adverse criticism, which seems to us justified. Of course, Dr. Law could not be assumed to be guilty before trial, but whether guilty or innocent, the appearance of a member of this Board as an expert witness in a case of this character seems to us of doubtful propriety.

NEWS ITEMS AND PERSONALS

Dr. Waite of Kendall was injured in a runaway accident on September 12th.

St. Joseph's hospital, Ashland, costing \$250,000, was dedicated on September 18th.

Dr. Elizabeth Allison has been appointed physician for the Normal Schools of the State.

Dr. George H. Irwin of Lodi underwent an operation for appendicitis at Madison, on September 20.

Dr. J. V. Stevens, Janesville, has accepted the position of Assistant Dean and secretary of the faculty of the Medical Department of Loyola University, Chicago.

Dr. Joseph Williams, Green Lake, has been appointed house physician at the Milwaukee Emergency Hospital, to fill the vacancy caused by the resignation of Dr. O. T. Hegner.

Janesville physicians have subscribed liberally toward the building fund of the new Mercy Hospital which is now being erected by the Sisters of Mercy. A committee of the general finance committee visited the local physicians and secured pledges amounting to \$3,000 toward the building expense.

DR. L. DUNCAN BULKLEY, New York, will give a fourteenth series of clinical lectures on diseases of the skin in the Out-Patient Hall of the New York Skin and Cancer Hospital, on Wednesday afternoons, from October 30 to December 18, 1912, at 4:15 o'clock.

This course is free to the medical profession.

Dr. J. Riddle Goffe, formerly of Kenosha, chief surgeon of the Woman's and Policlinic Hospitals of New York, was elected president of the International Congress of Gynecology and Obstetrics, which held its meeting in September, on the premises of the Prussian House of Lords in Berlin. The next meeting will be held in New York in September, 1915.

The Wisconsin College of Physicians and Surgeons, Milwaukee, held its opening exercises on October 2nd, with Dr. C. A. Krentzer in charge as the new dean. He succeeds Dr. Thomas C. Phillips, resigned. Ten new members have been added to the faculty. They are: Drs. J. A. Bach, Harry

Bradley, William Wegge, A. Drexel, Alfred Kreutzer, Harry Heeb, Geo. R. Ernst and Otho Fiedler, M. A. Bussewitz and W. B. Ford.

The laboratories have been equipped with new apparatus at a cost of about \$3,000, and the free dispensary was equipped last year at a similar expense.

REMOVALS

Dr. Riordan, Neshkoro to Berlin.

Dr. H. J. Higgs, Crivitz to Pound.

Dr. W. B. Ford, Norwalk to Milwaukee.

Dr. R. C. Thackeray, Plymouth to Racine.

Dr. J. J. Curtin, Chippewa Falls to Wheeler.

Dr. F. L. Griswold, Bloom City to Mazomanie.

Dr. M. H. Schutz, Burlington to Phoenix, Ariz.

Dr. J. E. Reichert, formerly of Schleisingerville, has located at West Bend.

Dr. J. W. Lockhart, Omro, has disposed of his practice to Dr. F. M. Bair.

Dr. J. F. Corbett has disposed of his practice at Wauwatosa and will remove to Los Angeles, Cal.

Dr. F. S. Maxson, Osseo, has removed to Milwaukee. He will be succeeded at Osseo by Dr. Julius O. Arnson of Minneapolis.

DEATHS

Dr. M. E. Barnett of Omro, formerly of Oshkosh, died at his home, on September 25th, of apoplexy, aged 47 years. His health had been poor for several years. He was born in Erie County, Pennsylvania, was a graduate of the Chicago College of Physicians and Surgeons, and came to Oshkosh in 1897, practicing there until five years ago, when he removed to Omro.

BOOK REVIEWS

TEXT BOOK OF GYNECOLOGY, by William Sisson Gardner, M. D., D. Appleton & Co., New York and London.

This small book of 286 pages is an elementary compend on the commoner diseases of the female pelvis and genitalia. The type is large and clear with generous margins.

On reading the text one is at once struck with the clearness and conciseness of the author's style. Throughout the book he has carefully avoided the lengthy discussions of theories and methods so often confusing to the student. Although details of operative technique have been sacrificed for clearness, it would seem that such indispensable diagnostic aids as the cystoscope and

ureteral catheter should receive more than passing mention in a gynecological text book.

One of the most commendable features of the book is the illustrations. Each chapter is rich in semi-diagrammatic drawings which being unburdened with a confusion of instruments, dressings, ligatures and operator's hands, clearly and sufficiently demonstrate the various conditions and procedures the author is describing. Accompanying the photographs of gross pathologic specimens are most excellent photo-micrographs and as the author has selected typical lesions for these illustrations, the book becomes a valuable guide as a laboratory manual for students of gynecological pathology.

The book bears throughout the mark of authoritative individualism. Under the chapter on gynecological examinations he condemns the routine use of the uterine sound "for the reason that the small amount of information to be obtained from it is more than counterbalanced by its unskillful use." The author recommends an upright position in bed after all abdominal operations, as soon as the patient has partially recovered from the anesthetic, finding that there is less tendency to nausea, vomiting and gas distension, as well as a more prompt recovery from the narcosis.

Although concise, the volume is comprehensive and the reviewer feels that it is valuable not only as a text to the student of gynecology; but also as a convenient book of reference to the busy practitioner who has little time for the longer and more complex treatises.

—W. G. D.

AN ESSAY ON HASHEESH, by Victor Robinson, 83 pages; price, prepaid, 50 cents, Medical Review of Reviews, publishers, New York.

In order to enjoy or profit by this book the reviewer thinks that a preliminary dose of hasheesh must be necessary. For read by the cold light of day without any such preparation it seems to be devoid of any merit whatever.

It comes about as near to being a study of the drug mentioned as the reproduction of a phonographic record of the ravings of a man with delirium tremens would be to a study of the pharmacology or therapeutics of alcohol.

THE PRACTICE OF MEDICINE. A MANUAL FOR STUDENTS AND PRACTITIONERS. By Hughes Dayton, M. D., formerly of the Cornell University Medical School, New York. New (2d) edition, thoroughly revised. 12mo, 326 pages. Cloth, \$1.00, net. The Medical Epitome Series. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

That this little work has received the approbation of students and physicians is shown by the demand which has brought it to a new edition. In order to present adequate information within brief compass, such subjects as diseases of the pharynx, larynx and tonsils, have been excluded and the space thus gained has been devoted to the more important subjects in medicine, such as typhoid fever, tuberculosis and pneumonia. For the sake of simplicity the classification of Osler has been followed quite closely. In the present revision the same principles have been followed as in the former edition. The work has been thoroughly done throughout.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

ARTHUR J. PATEK, Milwaukee
President

Officers 1912-1913.
C. A. ARMSTRONG, Boscobel
1st Vice President

L. E. SPENCER, Wausau
2d Vice President

CHAS. S. SHELDON, Madison Secretary.

JOHN MATHIESON, Eau Claire. 3rd Vice President

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917
1st Dist., M. R. Wilkinson, - Oconomowoc
2nd Dist., G. Windesheim, - Kenosha

TERM EXPIRES 1913
5th Dist., J. V. Mears, - Fond du Lac
6th Dist., H. W. Abraham, - Appleton

TERM EXPIRES 1915
9th Dist., O. T. Heugen - Grand Rapids
10th Dist., R. U. Cairns, - River Falls

TERM EXPIRES 1918
3rd Dist., F. T. Nye, - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1914
7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - Marinette

TERM EXPIRES 1916
11th Dist., J. M. Dodd, - Ashland
12th Dist., H. E. Dearbolt, - Milwaukee

Delegates to American Medical Association.

L. F. BENNETT, Beloit.

J. J. MCGOVERN, Milwaukee.

C. A. HARPER, Madison.

F. S. WILEY, Fond du Lac.

Alternates

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette.

Committee on Public Policy and Legislation

A. W. GRAY, Milwaukee, Chairman.

J. P. McMAHON, Milwaukee.

F. F. BOWMAN, Madison.

Committee on Medical Defense.

G. E. SEAMAN, Milwaukee, Chairman.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

M. P. RAVENEL, Madison.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison.

J. M. BEFFEL, Milwaukee.

T. H. HAY, Stevens Point.

Program Committee.

L. M. WARFIELD, Wauwatosa, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	A. P. Andrus, Ashland	C. J. Smiles, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	W. L. M. Knowles, Spooner	B. N. Webster, Rice Lake.
Brown-Kewaunee	T. J. Oliver, Green Bay	I. E. Levitas, Green Bay.
Calumet	W. Martens, New Holstein	J. A. Schmidt, Brillion.
Chippewa	C. A. Hayes, Chippewa Falls	A. L. Beler, Chippewa Falls.
Clark	H. H. Christoffersen, Colby	E. L. Bradbury, Neillsville.
Columbia	B. F. Bellack, Columbus	A. T. Schmeling, Columbus.
Crawford	F. J. Antoine, Prairie du Chien	A. J. McDowell, Soldiers Grove.
Dane	Joseph Dean, Madison	C. S. Sheldon, Madison.
Dodge	J. A. Clason, Neosho	G. W. Henika, Beaver Dam.
Door		N. Z. Wagener, Sturgeon Bay.
Douglas	T. J. O'Leary, Superior	W. E. Hatch, Superior.
Dunn-Pepin	E. H. Grannis, Menomonie	L. A. Dahl, Menomonie.
Eau Claire	E. L. Mason, Eau Claire	E. E. Tupper, Eau Claire.
Fond du Lac	G. F. Scheib, Fond du Lac	F. A. Read, Fond du Lac.
Grant	W. P. Hartford, Cassville	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	G. S. Darby, Brodhead.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	R. H. Buckland, Green Lake.
Iowa	J. P. Parmley, Mineral Point	H. D. Ludden, Mineral Point.
Jefferson	L. F. Bennett, Ft. Atkinson	C. R. Feld, Watertown.
Juneau	C. O. Cron, Camp Douglas	A. T. Gregory, Elroy.
Kenosha	H. A. Robinson, Kenosha	C. H. Gephart, Kenosha.
La Crosse	C. H. Marquardt, La Crosse	G. W. Lueck, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	Susanne Orton, Darlington.
Langlade	M. J. Donohue, Antigo	J. C. Wright, Antigo.
Lincoln	C. C. Walsh, Merrill	Herbert Saylor, Merrill.
Manitowoc	J. E. Meany, Manitowoc	A. J. Shimek, Manitowoc.
Marathon	L. E. Spencer, Wausau	S. M. B. Smith, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	M. D. Bird, Marinette.
Milwaukee-Ozaukee	J. J. McGovern, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	A. E. Winter, Tomah	A. R. Bell, Tomah.
Oconto	J. B. Atwood, Oconto	R. C. Paulds, Abrams.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	J. S. Reeve, Appleton	F. P. Dohearty, Appleton.
Pierce	A. E. Gendron, River Falls	S. F. Rudolf, Ellsworth.
Portage	J. D. Lindores, Stevens Point	W. F. Cowan, Stevens Point.
Price-Taylor	C. E. Fenelon, Phillips	G. H. McClure, Westboro.
Racine	W. S. Haven, Racine	Susan Jones, Racine.
Richland	G. R. Mitchell	A. D. Campbell, Richland Center.
Rock	W. J. Allen, Beloit	E. B. Brown, Beloit.
Rusk	G. M. Carnahan, Bruce	W. F. O'Connor, Ladysmith.
Sauk	F. D. Hulbert, Reedsburg	Roger Cahoon, Baraboo.
Shawano	E. Puckner, Wittenberg	C. E. Stubenvoll, Shawano.
Sheboygan	G. H. Stannard, Sheboygan	W. F. Zierath, Sheboygan.
St. Croix	L. A. Campbell, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buttafo	E. A. Moore, Merrilan	H. A. Jegl, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	H. C. Miller, Whitewater	M. V. Dewire, Sharon.
Washington	W. J. Wehle, West Bend	S. J. Driesel, Barton.
Waukesha	R. E. Davies, Waukesha	Sara T. Elliott, Waukesha.
Waupaca	P. J. Christoffersen, Waupaca	G. T. Dawley, New London.
Winnebago	P. Allen, Oshkosh	H. W. Morgenthau, Oshkosh.
Wood	A. Jackson, Rudolph	J. B. Vedder, Marshfield.



The Ninth Annual Meeting of the Second District Medical Society Kenosha, September 17th, 1912.

SOCIETY PROCEEDINGS

SECOND DISTRICT MEDICAL SOCIETY

The Second District Medical Society held its ninth annual meeting at the Pennoyer Sanitarium, Kenosha, September 17th, 1912. In spite of the inclement weather seventy-five members and visitors were in attendance. Dr. A. J. Patek, President of the State Medical Society of Wisconsin and Dr. A. W. Myers, editor Wisconsin Medical Journal were present. Many of the doctors were accompanied by their wives which brought the total attendance over the hundred mark.

Owing to the sudden illness of the President, Dr. Wm. M. Farr, the meeting was called to order by Dr. G. Windesheim of Kenosha, Councilor of the Second District.

After a few words of welcome to the visitors he introduced Dr. J. B. Murphy of Chicago who addressed the Society on *Acute Arthritic Infections*.

Dr. Murphy considered the subject from the standpoint of 1st, Diagnosis; 2nd, Treatment of the infection and prevention of ankylosis and deformity; 3rd, The repair of a joint which has been destroyed.

Under diagnosis he spoke of the usual primary chill; the severe pain; the few joints affected and that it often followed acute infection in some other portion of the body, usually before the eighteenth day. Speaking of the treatment Dr. Murphy stated that a joint should never be opened and left open; that is drainage should never be instituted. But that treatment should be, first, aspiration of the joint contents when under pressure, which relieves pain and prevents pressure necrosis, and second, separation of the joint surfaces by making extension which will further relieve the pain and prevent ankylosis and deformity. After aspiration the joint may be injected with a 2 per cent. solution of formalin in glycerine or any other good antiseptic solution.

Under repair of a destroyed joint the doctor spoke of his method of restoring the joint by breaking up the ankylosis, chiseling smooth the articular surfaces and

turning in the fascia in the immediate neighborhood to keep the denuded surfaces separated until the new joint developed. By this method he has secured excellent results in many difficult cases.

Our members were highly pleased by the instructiveness of the address. The expression of one indicates the feeling of all; "I learned more from Dr. Murphy's address than from all my surgical lectures while in school."

Following the address the business of the Society was transacted, our photograph taken and dinner enjoyed.

After dinner toastmaster Dr. H. A. Robinson introduced the following speakers: B. J. Bill of Genoa Junction, Subject—"The Doctor's Duty to Himself;" Dr. G. Windesheim of Kenosha, Subject—"The Doctor's Duty to the Public;" Dr. W. C. Boughton of Waukegan, Subject—"The Doctor's duty to his Family." Dr. W. S. Haven, of Racine, Subject—"The Doctor's Duty to his Fellow Physicians;" Dr. D. R. Connell of Beloit, Subject—"The Doctor's Duty to his Patients."

The toasts were instructive as well as pleasing. They produced much laughter and some tears.

The Society then gave a hearty vote of thanks to Drs. Pennoyer and Adams for their royal entertainment and adjourned to meet a year hence in Racine.

Copies of the Photograph may be obtained through the Secretary.

C. H. GEPHART, M. D., *Secretary*.

MEDICAL SOCIETY NOTES

At the Sixth Annual Meeting of the Minneapolis, St. Paul and Sault Ste. Marie Railway Surgical Association, held at Duluth on October 10th and 11th, the following officers were elected: President, Dr. Frank S. Wiley, Fond du Lac; Vice-President, Dr. Alex. J. McCannel, Minot, N. D.; Secretary-Treasurer, Dr. John H. Rishmiller, Minneapolis.

The Association decided to hold its 1913 meeting at Milwaukee, Wisconsin.

THE ASSOCIATION OF
 COUNTY SECRETARIES AND STATE OFFICERS
 of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette M. B. GLASIER, M. D., Bloomington
 President. Vice-President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County Society. It will be edited by Rock Sleyser of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

SOME THINGS THE COUNTY SOCIETY
 CAN DO FOR THE STATE SOCIETY.*

By C. S. SHELDON, M. D.,

SECRETARY STATE MEDICAL SOCIETY OF WISCONSIN,
 MADISON.

You will never know what a splendid address you have missed, because in the hurry of business of yesterday and my extreme haste in catching the train last night, I left the material intended for this meeting in my other coat pocket.

But, fellow laborers, partners in toils, tribulations, as well as successes, I am glad to be with you today; I think it is very proper that we should come together to congratulate one another upon the events of the past year, to have a jubilation, and to greet one another as we are able to do at these annual meetings. If I could attend but one annual meeting,—this meeting, or the meeting of the State Society,—so far as my own personal gratification is concerned I think I should choose the meeting of the State Secretaries.

The title of my paper is a bit misleading; "Some Things the County Society Can do for the State Society." As you know, the State Society is composed of the component county societies, and that is the only State Society there is. So that the title is equivalent to asking what can you do for yourselves. Of course you can do a lot of things for yourselves, but you have gone over that matter pretty well already.

If the title had been, "What can you do for the State Secretary to make his days happy and his dreams untroubled," why, I might be eloquent

upon such a theme, but I do not believe I need be so personal as that.

It is well to have a definite notion as to the meaning of words, the best definition of terms. As for instance, you know the story about the girls who went out driving—I may have told you this story before—they went into the country to visit; it was a fine day and they thought they would take a ride; they went to the livery stable and the liveryman gave them minute instructions in regard to the management of the horse; and they started out; but during the ride the clouds overcast the sky and a storm came up, and they turned around to come home. A gentleman meeting them on the return, noticed a very peculiar situation. One of the girls sat up with a very serious and earnest expression of countenance, and the other one was leaning far over the dashboard holding an umbrella over the hind part of the horse. "Are you in trouble," he said. "Oh, no, everything is all right." "Why is it you are holding the umbrella over the horse?" "Why," said the girl with the umbrella, "the livery stable man gave us directions about driving the horse, and he said the horse was gentle and all right, only we must not on any account let the rain get under his tail, or he might kick the buggy all to pieces."

So we must have a proper definition of terms; I shall have to interpret the meaning of this subject as being what can the county societies do for the profession of the state in general, or the profession of medicine as personified by the state society. It is a general subject and might lead to one of my own old-fashioned, long-winded addresses, which I think I will spare you. But still it might be well for me to sum up what we have heard today. I have been exceedingly gratified at the high plane, the high tone, that the discussion has sustained this afternoon,—the earnestness and the seriousness with which these problems have been discussed by the speakers; and I thoroughly sympathize with that spirit.

The medical profession! There is a theme that is inspiring. It is indeed the best, absolutely the best, profession on the face of the earth; the noblest, the most altruistic, the most progressive, the most useful and beneficent,—worthy of the best there is in us, of every man, woman and child, that belongs to it—I suppose some children belong to it.

*Read at the Third Annual Meeting of the Association of County Secretaries and State Officers, Wausau, May 21, 1912.

The question is, what are we doing to sustain its real character today? Are we doing what we ought to do to make it what it should be in the community?

It would be all that I have characterized it if, as Dr. Craig has said, we entered this profession with the right spirit and maintained that spirit, and the high ideals to which Dr. Craig has called our attention. And that is what we must impress upon our own minds and upon the minds of the practitioners with whom we come in contact, if we will raise the standards of medical thought and medical ethics and medical ideals and so live up to the privileges which we have of belonging to this great profession.

Why is the profession not regarded by the community at large, as a rule, in the way in which I have characterized it, as the best and noblest of the professions? Why is it that we have not the influence with our legislatures and with people generally that we ought to have, when we regard the real character of our calling?

Consider our relations with the sectarians. As we know, they have flourished upon persecution; and we have lacked that open-mindedness that we should have exercised in regard to them. The dissensions and quarreling among ourselves, which is almost a by-word of reproach, is a ground for severe criticism. In such a case the general public is disposed to take us at our own estimate. We ought to quit this fighting each other and devote our energies to fighting the enemies who are attacking our profession. As you know, this organization idea especially emphasizes unity of action and hearty co-operation and we should cultivate this spirit on all occasions. Commercialism has been touched upon, and it is a growing evil. I do not know whether it is any worse now than it has been, but it is a thing which we should strive to lessen as much as it is in our power to do. Especially the division of fees—the taking of commissions—is a question of most serious moment, and it seems to me a matter which strikes at the very roots of the integrity of the profession, and before long it seems to me that we should adopt strenuous measures in regard to it in our medical societies. I sometimes think that many lawyers regard the community at large as something which they can despoil at their pleasure, and that therefore they put on “all the traffic will bear.” We don’t want to adopt any such ideas or encourage any such

notions in the medical profession. Of course, our pecuniary interests must be considered, but they must not be regarded as supreme.

As has been said, we should take a more active interest in local affairs concerning health and hygiene, and the larger aspects of medical education. We should co-operate with the councils, which are working in connection with the American Medical Association, and take as state organizations and county organizations a more active part in carrying out and promoting the work in which they are engaged.

It is proper to consider what the county societies can do for the state organization, which was the topic assigned me. In the first place we can be loyal to this organization idea. Many hardly appreciate what membership in a county society means. During this past week one secretary said, we have certain members that belong to the state society and certain other members that belong to the county society only. I had to write her that according to our constitution there could not possibly be members who belong to the county society who do not also belong to the state society, and why, as a matter of fact, we could not recognize any society which had members on any such basis.

A word with reference to the matter of medical defense. To me it is one of the most pleasing features of our organization, that we should stand together,—that we can be united in defense of one another when we are unjustly attacked by these dead beats and slyster lawyers. It seems to me as a matter of good faith, of loyalty to one another, every county society should cordially support this plan, and as a matter of fact, it is almost universally supported. While in the first instance there was some opposition, it has now almost entirely disappeared.

As Dr. Myers has said, we can help the state society by giving cordial support to our Medical Journal. We have purchased this property, and ordinarily, when a purchaser has property that he has paid a price for,—that is of more service to him than to anybody else, and he can make better use of it than anybody else can, he will naturally take care of it and make the most of it. The Journal is now our property. We have hired some doctors here to manage it, and we should stand by them loyally in helping out their advertising lists, sending reports from county societies, in keeping tab on our best papers in district and

local society meetings, so that the Journal can have the advantage of them if they are suitable for publication, and by sending in local items and showing personal active interest in our own property that we have paid good money for. It is only by taking care of our property that we can get the good of our purchase.

Then we must keep up the organization itself; and we can only do this if all the members of the society shall assist the secretaries in the matter of renewals of the old memberships, and by informing them as to new men coming into the county and so aid in getting into the county societies every member of the profession that is eligible. There was a Harvard man who went west in search of his fortune, and turned up completely strapped out on the plains of Montana at a rancher's. He applied for a job, and the ranchman asked, "What can you do?" "Well, I can do most anything that you will give me to do, or try to at least." "Well," he said, "I have some sheep out here on the prairie, and I will ask you to take care of them and take them at night down to the corral;" and he pointed to an enclosure in the distance. Then he left to attend to his task. The day passed and the shadows deepened, and he did not return, and the ranchman started out to find him, and after going quite a distance he saw him returning, evidently weary, but with the fire of victory in his eye, and he said: "Well, how did you get along?" "Oh, I got along all right." "Did you have any trouble in getting them in?" "Not with the sheep." "What did you have trouble with?" "Oh, I had trouble with the lambs." "Why, man, there aren't any lambs." "Yes, there are, there were sixteen lambs today and they are all in the corral with the sheep now." And they went down to the corral, and sure enough, there he saw all the sheep safely herded, and with them were sixteen jack rabbits.

Now you want that spirit in the profession. We want to get into the fold of the medical society, into this organization which we are trying to maintain, not only all the sheep, but the sixteen jack rabbits as well, and we want the co-operation of every man to get them in.

Lastly, we can assist in making this annual meeting successful. We can aid the Program Committee, when a request is made for papers, by promptly responding with the title of a paper or report of case. We can attend the meeting, and

we can come here with a genuine fraternal spirit. We can come together and meet one another as brothers, as partners in the greatest and best enterprise in which mankind can engage. We can enter into the discussions and make it a matter in which we have a personal interest, and for which we have a personal responsibility. So in all these ways the county societies can help the state society.

Personally I want to thank you most sincerely for all the good work you have done during the past year as secretaries of the county societies. I want to meet you personally, if I can, and take you by the hand, to tell you how thankful I am for the reasonable promptness that has characterized your efforts, so that I have not had nervous prostration, or been driven to drink by the ineffable tardiness of the returns of the annual reports. (I have all of them in but two.) For your uniform courtesy and cordial co-operation in the work of the year, I wish to give you my most cordial thanks.

Another thing, I want you to use the councilors more; make them useful as well as ornamental; send them your programs. Every time there is a meeting don't let it be said: "I would have attended your meeting if I knew you were going to have one." Let them know it. Send them lists of the names of those who have not renewed their memberships and ask them to write personal letters, telling how important it is that those memberships be renewed.

I am especially anxious that we should have on our minds and hearts in greater degree the scientific work of the society. We are pretty well along with the organization part of the work, but we need to do better scientific work; we want to make use of these splendid means placed at our command, so that they may bring the best fruit,—the best results. While in many of our county societies we are doing good scientific work, and there exists a reasonably satisfactory condition; in many others this is not the case. Let us brace up. There are difficulties to be overcome to be sure, but none that are insurmountable, if we entertain this project in the right spirit and are faithful, persistent and enthusiastic in the work.

As has been said, I think the time has come to use a little more discrimination as regards our membership. I have been charged, probably with reason, with being perhaps overzealous in this matter of members, as if that was the only con-

sideration. I do not think it is the only consideration. I think it is important that we should maintain the organization; I think it is important that we should get renewals, but when the question of personal conduct and moral character arises, that we should discriminate as to membership. If we have a known abortionist among us, we should have the courage to put him out,—I don't care who or where he is; and I do not know but what we shall have to go after the fec-splitter in some way or other.

So let us have not only numbers, but let us have quality as well as quantity, so that we may not need to make excuses for any more members than is absolutely necessary.

We have had, altogether, the best year yet—no question about it. I think the best work yet has been done by the secretaries. As I say, the organization so far as the different counties are concerned, is on a very satisfactory basis. We shall come to this annual meeting with 1,580 members, 80 better than last year, although our meeting is a month earlier than it was then. 163 members joined the society during the year after the annual meeting. If as many join during the coming year our total numbers for 1912 will be considerably in excess of 1,700. So, as I say, so far as numbers are concerned, so far as organization is concerned, so far as the machine running in good order is concerned, we have made great progress.

Now let us brace up along these ethical and scientific lines which have been so fully dwelt on today; let us make the profession not only true to the state society, but better in all these ways which have been mentioned, and I am sure we will feel abundantly repaid for all our efforts.

DISCUSSION.

PRESIDENT: Ever since I met Dr. Sheldon three years ago, I have always looked forward with considerable pleasure to coming here and hearing him talk, he has so much vim, enthusiasm and ginger that I go home a little better than when I came. We should like to hear from Dr. Hall.

DR. S. S. HALL: I appreciate every word that the secretary has said. The state society is certainly doing well in point of numbers and in every other way that I can remember. This meeting has reminded me a good many times of some temperance meetings that I have attended, where the congregation were very few of them drinkers; and I do wish we had some members here this afternoon who are not here; I think their presence would

be more appropriate in listening to what has been said. The fellows that come here are the well behaved ones, the ones that do not need lectures on ethics; they are all good fellows; but we ought to get some of the bad ones here, get them up and talk to them, and make them better.

BOOK REVIEWS

ELEMENTARY BACTERIOLOGY AND PROTOZOLOGY: THE MICROBIOLOGICAL CAUSES OF THE INFECTIOUS DISEASES. By Herbert Fox, M. D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania. 12mo, 237 pages, with 67 engravings and 5 colored plates. Cloth, \$1.75, net. Lea & Febiger, Philadelphia and New York, 1912.

The development in bacteriology has been so rapid that it has been impossible to assimilate all the facts collected and because of the rapidly progressing knowledge on this subject new works are greeted with a welcome interest.

Beginning with a brief sketch of the history of bacteria as coincident with the development of the microscope, the author touches on the more important aspects of the subject bearing on the general morphology of bacteria, their place in nature, mode of development and composition, the principles and methods of classification, a brief consideration of the biology of the specialized groups. He shows the relation of bacteria to environment and carries one on to the methods of studying micro-organisms, describing and illustrating laboratory apparatus, technic for isolation, identification and staining. He touches upon the subject of culture media, inoculation, preparation of plates, the hanging-drop and the use of the microscope; the different methods of sterilization and the practical application of disinfection of skin, utensils, urine, feces and sputum; water closets and sinks; rooms and houses, etc.

In connection with the relation of Bacteria to disease, are discussed the causes and mechanism of Immunity.

The pathogenic organisms are given the greatest amount of attention and are considered in relation to the principal conditions and diseases known to be caused by them, such as inflammation, suppuration, venereal diseases, meningitis, pneumonia, typhoid fever, diphtheria, tetanus, influenza, bubonic plague, cholera, etc., dealing briefly with the various pathogenic bacteria not associated with a specific clinical disease.

The chapter on the preparation for and the procuring of specimens for bacteriological examination contains many practical points, as also does the chapter on bacteria of air, soil, water and milk.

The latter part of the book has to do with the pathogenic protozoa, yeasts and moulds, and a conveniently arranged glossary of unusual terms occurring in the text finishes the volume.

The majority of elementary works on this subject are either too elementary and general, or too technical, but this author has presented in a concise and comprehensive form the essentials of the more important phases of

baacteriology, incorporating the chief of the newer developments in this field in a form that will be found most interesting and helpful to the student beginning the study of this subject. The book is of a handy size and attractively made.

NEUROLOGY OF THE EYE. Wilbrand, H., Oculist, and Saenger, A., Neurologist, to the General Hospital, St. Georg. Hamburg. Fourth volume, second half. THE DISEASES OF THE OPTIC DISC. 381 pp. with numerous illustrations in the text and plate. Wiesbaden. J. F. Bergmann, 1912. 16 M., \$4.00. The exclusive devotion of this volume to the pathological changes of the disc is justified by the anatomical differences of the disc from the retrobulbar portion of the optic nerve, e. g. the lack of the medullary, pial, arachnoidal, and dural sheaths and intervaginal space, its additional ciliary, besides the retinal, vascularization, etc. The pathological affection of the disc shows changes of form and color. Although generally associated, these changes are, from practical reasons, considered separately, first the congenital alterations of the form of the disc: coloboma, frequently associated with microphthalmus, and the conus downwards as rudimentary coloboma of the optic sheath, which has a special significance as sign of degeneration.

Under the acquired abnormal forms of the disc are considered: the physiological, atrophic, glaucomatous and traumatic exudations, the formation of hyalin bodies and tumors.

The color of the normal disc is determined by the shining through of the lamina cribrosa with the medullated cross section of the optic nerve and the filling of the capillaries and small vessels of the otherwise almost completely transparent tissue of the disc. The changes of the color of the disc are due to congenital or acquired pigmentation, increased or decreased vascular injection. A pathological hyperemia of the disc can only be diagnosed if it develops under the eyes of the observer, on account of the individual difference in the predominance of a reddish tint of the disc. This leads to the diagnostic valuation of the ophthalmoscopic picture of inflammation of the disc, with regard to inferences as to the retrobulbar extent of the inflammation, the differentiation from pseudoneuritis, etc.

The whole remainder of the book, 281 pages, is occupied by the most important affection of the optic papilla, the choked disc. Attention is called to the difficulty and importance of the diagnosis of incipient choked disc, as serious operations on the skull may depend on it, which demand an early interference. On the other hand, cases of optic neuritis with intense swelling of the disc occur, which ophthalmoscopically cannot be separated from the typical choked disc, although pathogenetically they must. Such conditions may be encountered in pernicious anemia, leukemia, chlorosis and nephritis. Here the angio-sclerotic changes in the disc may create the same ophthalmoscopic phenomena as the vascular disease in the inner layers of the retina, viz.: edema, hemorrhages, white spots, venous congestion and alterations of the caliber of the vessels.

First the ophthalmoscopic picture of choked disc is

described. Uthhoff's claim of at least 2.00 D. ($= \frac{2}{3}$ mm.) for justifying the term choked disc is, of course, arbitrary. The authors illustrate on a number of cases, quoted from literature, the important diagnostic fact, that choked disc in the inflammatory stage may cause a disease of the retinal vessels, which may entail hemorrhages and degenerative mutations, as white patches in the retina and then create the aspect of albuminuric retinitis. Under bilateral choked disc the predominance of one is especially considered with regard to Horsley's valuation of this for the seat of the intracranial affection, and a number of cases from literature for its support and (ipsilaterality) and non-support are quoted. Then the unilateral occurrence of choked disc and its various etiological elements are discussed, especially the orbital affections, then the relapses of choked disc in cerebral lues, abscesses and tumors, and the functional disturbances.

Choked disc in tumors of the brain receives a very detailed discourse, considering the tumors of the various parts of the brain, followed by its occurrence in aneurysms of the cerebral arteries, fractures of the skull, abscess of the brain and its various localization in thrombosis of the sinus, the different forms of meningitis, apoplexy, softening, hydrocephalus, its rare occurrence in different diseases, e. g. multiple sclerosis, myelitis, infectious diseases, myxedema, arteriosclerosis, intoxication from lead and chinin, amenorrhoea to mention only a few.

In the chapter on termination of choked disc the palliative operations are exhaustively dealt with. The authors select for the time of operation the beginning of visual impairment, as after this atrophy of the optic nerve is likely to ensue, and recommend as place for trephining the part of the cranium corresponding to the seat of the tumor. If a local diagnosis is impossible the region over the right parietal lobe is preferable as from here symptoms of deficiency are least to be dreaded. The microscopical changes in choked disc are described in the next chapter with illustrations in the text and on a colored plate. The last section gives a complete synopsis on the pathogenesis of choked disc from historical points of view. A bibliography of 1290 numbers, a table of contents and an alphabetical index complete the stately volume. Like the preceding volumes of the admirable encyclopedic work, it gives the most exhaustive presentation of the important subjects.

—C. Zimmermann.

COMPARATIVE PHYSIOLOGY OF THE VISUAL SENSE. Hess, C., Würzburg. 299 pp., with 3 plates and 45 figures in the text. Reprinted from the handbook of comparative physiology, edited by Hans Winterstein. Volume 4. Jena. Gustave Fischer, 1912. Whoever has followed the vast array of classical investigations of C. Hess on the visual sense of all classes of animals within the last few years, will be fully convinced that a comprehensive discourse on this topic could not have been entrusted to a more competent interpreter than Hess. He brilliantly demonstrated by his ingeniously conceived experiments that extensive and important fields of comparative physiology are amenable to a

scientific scrutiny in a much greater measure than it was so far considered possible. New facts and questions were evolved which may be of interest not only for physiology itself but also for allied sciences, *e. g.*, comparative psychology. From the newly gained point of view old errors can be rectified, contradictions settled, so far unconceivable facts explained and connected with others apparently far distant. From this standpoint, as the author says in the preface, it seemed desirable to give a synopsis of the extant facts in this in many respects new field.

The subject is divided in 3 sections: light sense, dioptrics and visible changes of the visual organ by light, and accommodation. In the first section the light sense of the vertebrates is discussed, *viz.*: the mammals, birds, reptiles, amphibia, fishes and amphioxus, with special chapters on the color sense and adaptation of day and night birds, adaptive changes in the eyes of birds, the pupillary movements of birds, then the light sense of invertebrates, *viz.*: crustacea, salt water and fresh water crawfish, of insects, caterpillars, *culex*, *musca*, *coccinella*, bees, ants, cephalopoda, conchifera, echinodermata, coelenterata, unicellular animals. Hess shows that the failure of former researches was due to the insufficiency of technic and methods and chiefly to the fact that they were almost without exception undertaken without knowledge of physiology of color. The observers who limited their researches to colored glasses were led to erroneous conclusions, and H. could prove how frequently, even in the last few years, the presence of color sense in animals was inferred from observations which for one familiar with the scientific doctrine of color rather spoke against the existence of color sense in the examined animals. By his methods, based on the scientific doctrine of color, it was possible to approach from uniform points of view the solution of the question as to the light sense of animals through comparative researches and for the first time to establish definite relations between the kind of light sense of the different animals and that of man. According to H.'s observations made on representatives of all classes of vertebrates and on more than 20 species of invertebrates, all examined kinds of animals may be divided, with regard to light sense, in 2 large groups. The first group, comprising amphibia, reptiles, birds and mammals, behaved in all experiments as they must if their visual qualities are similar, or equal to those of the normal man. The 2nd group, *viz.*: the fishes and all so far examined invertebrates behaved as they must if their visual qualities are similar, or equal to those of the totally colorblind man.

In the 2nd section some questions of general interest of the visual organs of invertebrates, which in general coincide, are discussed, regarding the lens, pupil, tapetum, visual purple, migration of pigment, changes on the neuroepithelium, visual acuity, refraction, parietal organ, binocular vision, ocular movements, then the visual organs of the invertebrates. H. ascertained the refraction in the different classes with sciascopy, which gave very reliable results. While most observers found the eyes of mammals at rest emmetropic or slightly hypermetropic, those of the fish myopic, H. found in perioph-

thalmus which seeks his food mostly in the air, emmetropia, and for the first time in fishes in contrast to all other teleostei active accommodation for nearby.

The last section contains the entirely novel experimental researches of H. on accommodation, with a synopsis of accommodation in the different classes of animals. Every section is followed by a bibliography, and a table of contents and alphabetical index are added. The amount of work and the wealth of new knowledge presented in the handsomely gotten up book are amazing. It is a model of exact and wonderfully prolific scientific research written in a most fascinating style, really a classical work.—C. Zimmermann.

A MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-book specially adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph. D., M. D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; Emeritus Professor in the Maryland College of Pharmacy; and Daniel Base, Ph. D., Professor of Chemistry in the University of Maryland. New (10th) edition, enlarged and thoroughly revised. Octavo, 774 pages, with 82 engravings and 9 colored plates, illustrating 64 of the most important chemical tests. Cloth, \$3.00, net. Lea & Febiger, Philadelphia and New York, 1912.

In this new edition numerous additions have been made, many of which are of fundamental importance, and these bring the Manual abreast of modern thought in chemistry to its date of issue. They embrace articles on the following subjects: Exothermic and endothermic reactions; reversible reactions and chemical equilibrium; mass action; extension of the articles on acids and bases; thermochemistry; a new chapter on solution, in which, among other matters, the solution of gases and Henry's law, freezing-points, boiling-points and osmotic pressure, Raoult's law and the laws of osmotic pressure are discussed, and the existence of ions foreshadowed; a new chapter on the theory of electrolytic dissociation, in which are considered the origin of the theory, ionic equilibrium, ionization of acids, bases, and salts, reactions on the ionic basis, activity of acids and bases, hydrolysis of salts, neutralization, electrolysis and Faraday's laws, etc.; electrolytic solution tension of metals; principle of the storage-battery; and ionic explanation of the action of indicators. Ionic relations are discussed in practically every chapter on acids and the metals, and a number of compounds have been added to the sections on inorganic and organic chemistry. Many of these are of medical interest, for example, sodium cacodylate, atoxyl and salvarsan, phenolphthalein, fluorescein, phenolsulphonephthalein.

The authors have divided the book into seven headings; 1. Chemical Physics. 2. Principles of Chemistry. 3. Non-Metals and Their Combinations. 4. Metals and Their Combinations. 5. Analytical Chemistry. 6. Consideration of Carbon Compounds, or Organic Chemistry. 7. Physiological Chemistry.

Frankly we recommend this book highly to all the classes of men for whom it is written. Already we have

found collected together in compact form much stray and valuable information, and we can conceive that as a reference book, especially in laboratory work, it will prove of great value.

As we remarked in commenting on the previous edition of this work the publishers are to be congratulated on their work in the making of this volume. The use of thin, unglazed paper keeps the volume down to a convenient size and also causes the pages to seem far more restful to the eye than is usual.

A TEXT-BOOK OF PATHOLOGY. For Students of Medicine. By J. George Adami, M.A., M.D., LL.D., F.R.S., Professor of Pathology in McGill University, Montreal, and John McCrae, M.D., M.R.C.P., (London), Lecturer in Pathology and Clinical Medicine in McGill University, formerly Professor of Pathology in the University of Vermont. In one octavo volume of 759 pages, with 304 engravings and 11 colored plates. Cloth, \$5.00, net. Lea & Febiger, Philadelphia and New York, 1912.

Should anyone wish to note the marked changes in our conceptions of disease processes we could recommend no better means than a comparison of, say, Ziegler's Pathology, long a standard work, and the text-book of Pathology which lies before us by Adami and McCrae. The mere description of fundamental pathologic processes have given place to a broad generalization which includes discussions of subjects not heretofore found in books on Pathology. Such a viewpoint was to be expected from the author of Principles of Pathology, itself a revolutionary work.

This present book is in no sense an abstract of Prof. Adami's larger work. To be sure one can easily recognize the master hand in the lucid discussions, the elegant diction and in the arrangement of the subject matter. Naturally there is a close resemblance between the two books but again they are very different in many respects.

This book is divided into two main parts, General Pathology, including an Introductory Chapter on Cells and Tissues, a chapter on The Causes of Diseases, one on The Morbid and Reactive Processes, one on The Progressive Tissue Changes, one on The Regressive Tissue Changes. It is this first part which is so fascinating to the physician reader. Possibly the student will find it quite as delightful reading. There is no superfluity of words for the subjects covered are large, but every one is boiled down until only the actual meat is left. Usually such condensing makes difficult reading but in this book such is not the case.

Part II, deals with Special and Systemic Pathology and includes chapters on The Cardiovascular System, The Respiratory System, The Nervous System, The Digestive System, The Urinary System, The Reproductive System, The Motor and Tegumentary Systems.

All in all it is a splendid contribution to the literature and sets a standard of excellence which will be difficult to surpass. We should like to feel that every physician not only has a copy of this book but that he reads it from cover to cover.

The book is very attractively produced by the pub-

lishers. Paper and print are good, the figures are well reproduced. For a first edition there is a pleasing dearth of typographical errors.

ABSTRACTS

CONTRIBUTIONS TO THE PROBLEM OF THERAPEUTICALLY INFLUENCING TUMORS FROM CIRCULATION, BASED ON CHEMOTHERAPEUTIC EXPERIMENTS ON ANIMALS AFFECTED WITH TUMORS. von Wassermann, A and M., and Keysser, F., (From the Institute of Infectious Diseases of Prof. Gaffky. Berlin. Deutsche Medizinische Wochenschrift, Dec. 21, 1911, No. 51, p. 2389), describe the ingenious investigations of A. von Wassermann, made by thousands of experiments, with the remarkable results that it is possible in mice by intravenous injections of a suitable preparation of eosin-selenium to soften fully developed tumors by destruction of their cells and bring them to absorption, and, if the tumors are not too large in proportion to the weight of the body of the animal (up to the size of a cherry), to heal them without relapses. Through these observations a principal scientific fact has been ascertained, viz.: that the extant view, according to which it is not possible to reach from the blood electively a tumor with chemical substances and to destroy it, is untenable. In order to prevent wrong hopes among patients affected with tumors the authors expressly emphasize, that at present there is no evidence that this remedy will act in a similar manner also in man. This, however, might possibly be attained by further researches.—C. Zimmermann.

THE ACTION OF SALVARSAN UPON THE EYE. Igersheimer, Jos., Heidelberg, (Transactions of the 36th Congress of the Ophthalmological Society, Heidelberg, 1911), reports his experiments on rabbits, cats and dogs which taught that even accumulated medium doses of salvarsan produced no essential, or at least restorable, changes of the visual organ of rabbits and dogs, but in cats considerable degenerations in the retina, most likely due to arsenic. Very good results were obtained in luetic diseases of the human nervous visual apparatus, without damage to the light perceiving elements. Atrophy of the optic nerve was neither benefited nor impaired. The fact that neuro-relapses are improved or cured by renewed injections of salvarsan, the frequently unilateral occurrence of the relapse and the total absence of other symptoms of arsenic poisoning speak against a mere toxic effect. I. Considers the neuro-relapses as lentic manifestations. Other nervous affection of the eyes, aside of retina and optic nerve, showed no results after treatment with salvarsan, e. g. 4 cases of interior ophthalmoplegia and 1 case of paralysis of the abducens. The treatment of parenchymatous keratitis with salvarsan was not very encouraging, but I. would not like to miss salvarsan in congenital lues, as it very often has an excellent effect on the general condition and luetic affections of other parts of the body.

He considers salvarsan as a powerful weapon in the combat against syphilis of the eye, which ought to be used.—C. Zimmermann.

THE TREATMENT OF SYPHILITIC EYE DISEASES WITH SALVARSAN. Becker, Herman, Dresden, (Transactions of the 36th Congress of the Ophthalmological Society, Heidelberg, 1911), made the following observations: Salvarsan failed in severe cases of congenital luetic parenchymatous keratitis, whereas light cases were favorably influenced, as well as a case of interstitial keratitis from acquired syphilis. Good and reliable results were observed in all cases of specific iritis, satisfactory in cerebral syphilis and neuro-relapses in the early stage of syphilis. It is relatively 'non-toxic and damage to the optic nerve is excluded. Salvarsan is of inestimable value in cases, in which mercury and iodine are not tolerated or do not act. The intravenous infusion has the most intense and rapid effect. A previous exact general examination is necessary, as diseases of the heart, blood vessels, kidneys and diabetes, preclude the application of salvarsan.—C. Zimmermann.

IN PARENCHYMATOUS KERATITIS THROUGH TRAUMATISM AND THE QUESTION OF INDEMNITY. Wicherkiewicz, B. Krakau. (Klinische Monatsblätter für Augenheilkunde, 50, I, Januar, 1912, p. 95.) The question whether a traumatism may elicit parenchymatous keratitis in individuals of syphilitic, tuberculous, arthritic, malarial or diabetic diathesis, seems not definitely answered. Vossius contends that the pathological germs which have been latent in the body, in his case the spirochaetae, may by an accidental insult evolve the typical picture of hereditary parenchymatous keratitis. Others, e. g. E. von Hippel, oppose this view. W. answers the question in the affirmative and illustrates it on 3 cases.

Case I—The father of a boy, aged 4, acquired syphilis 10 years previously. One year later he was married. The first child was born dead, after an intermission of 4 years the patient was born, and then 2 healthy children. The boy had in his first year a patch on his left leg, which did not disappear until calomel and mercurial ointment were used. 8 days ago he injured his right eye by pieces of glass. He was delicate, had swollen glands, slight rhagades and irregularly formed teeth, but not of the exact Hutchinson's type. The conjunctiva was injected, there were no traces of injury but the center and lower quadrant of the cornea were dotted and opaque. The affection healed under mercurial inunctions and local applications in 3 months, leaving the dense central opacity of the cornea and a few fine vessels. A month later the left eye became affected with typical diffuse interstitial keratitis.

Case II—A girl, aged 7, came with a typical parenchymatous keratitis (congenital lues) after oil had been splashed into the eye. Wassermann was positive in mother and child. Salvarsan was without influence. After a few months the disease affected also the second eye. Both eyes were cured by mercurial treatment.

The 3rd case was operated on for liquid cataract in both eyes, which at first healed well. After a few days iritis and posterior punctated keratitis developed, which

gave the impression of tuberculosis. Moro was positive. The affection was cured by hetol treatment.

After discussing the incident literature W. does not wish to decide whether the affection of the second eye in such cases must be considered sympathetic, since sympathetic diseases of the cornea are not known. The frequent phenomenon that an injury or irritation of one eye produces lacrimation and redness of its fellow, may be due to vasomotor influences. This irritation, which is undoubtedly caused by the first eye, may produce the redness of the 2nd eye, which in a predisposed individual may create parenchymatous keratitis in a similar fashion as the traumatic irritation of the first eye evolved parenchymatous keratitis in this.—C. Zimmermann.

TO THE QUESTION OF PARENCHYMATOUS KERATITIS AFTER TRAUMATISM. Kümmel, R., (From the eye clinic of Prof. J. Oeller in the University of Erlangen. Klin. Mon. für Aug., 50, I, April, 1912, p. 434), concedes the possibility, even probability, of a connection between traumatism and parenchymatous keratitis under the following conditions: 1. The traumatism striking an eye must be surely, or with great probability, proven. Differences of statements as to the date of the accident, or simulation with regard to the degree of vision, are little conducive to the credibility of the accident. 2. The traumatism must be such, that, by its manner and intensity, it is capable of producing an ocular lesion. Flying of dust into the eye e. g. is not sufficient, to elicit such a severe disease. 3. The injury of the eye must be proven as such, i. e. a simple ciliary injection does not suffice, since it may be caused by an already existing parenchymatous keratitis and wrongly be attributed to a traumatism. The anamnestic statement of the patient is of no avail, as intended falsehoods and self deceptions may play a part. Ascertaining of the first consequences of the injury is of greatest importance. 4. A local connection must be demanded. It must be shown that from the place of injury, which or the remnants of which must be still present, the first opacity of the parenchyma develops. A local connection alone is not sufficient, as was claimed in a case in which the injury healed without reaction and after some time the typical inflammation developed. K. thinks that a healed defect of the superficial layers is not capable of producing such an irritation that it can arouse spirochaetae, that lay dormant in the cornea, to deleterious action.

K. acknowledges the possibility of a connection between traumatism and parenchymatous keratitis only for the injured eye, by no means for its partner. If a parenchymatous keratitis of the second eye could really develop by an irritation of the first eye, one must demand that in all cases of unilateral parenchymatous keratitis of a certain intensity also the second eye would be affected after a short time. This, however, is not the case, but frequently the inflammation of the second eye occurs after the first eye has been long quiet, even after years. If the disease commences almost simultaneously on both eyes it is apparent that the same constitutional cause suffices to produce the keratitis and that the assumption of an eliciting cause for one eye is entirely

unnecessary. For illustrating K.'s views 4 cases are reported.—C. Zimmermann.

CLINICAL OBSERVATIONS OF 6 CASES OF INFECTIOUS OPTIC NEURITIS IN MEASLES, SCARLET FEVER, TYPHOID AND INFLUENZA. Dutoit, A., Lausanne. (*Archiv für Augenheilkunde*, 71, p. I.) In the etiology of infectious optic neuritis the chronic infectious diseases, chiefly syphilis, tuberculosis and influenza, form the greatest percentage, while acute infectious diseases are rarely mentioned in literature. D. attributes this to the fact, that acute infectious diseases, especially of children, are mostly treated at home, and therefore not systematically examined with the ophthalmoscope. A certain number of such cases escape observation, as they frequently occur in children who generally do not complain of an eventual lack of function. As infectious optic neuritis occasionally affects only one eye, the impairment of vision may not be noticed. Finally the generally favorable course of the disorder certainly contributes to its apparent latency.

Uhthoff believes that in cases of optic neuritis after measles, scarlet fever and typhoid, meningitic complications by increased intracranial pressure cause choked disc, which arouses the erroneous impression of specific optic neuritis. D. says that this can be easily decided by lumbar puncture, and other diagnostic methods of internal medicine, and by certain peculiarities of meningitic choked disc (involvement of the intermediate tissue), in comparison with papillitis from infectious or toxic causes. The analysis of the urine is very important for the etiology of some forms of toxic papillitis and even more for optic neuritis in connection with endogenous infections, as albuminuria, diabetes mellitus, etc. The rise of temperature is a very determining factor in separating infectious optic neuritis from toxic neuritis.

As proof of his views D. reports the clinical histories

of two cases of optic neuritis after measles, one after scarlet fever, and one after typhoid. The optic neuritis occurred later, from 15 to 20 days after the onset of the general disease and thus had the character of a paraspecific affection. The diagnosis of paraspecific optic neuritis and its discrimination from meningitic papillitis rested on the negative result of lumbar puncture, the clinical observation in general, and on the not quite conclusive ophthalmoscopic examination. Meningitic papillitis and choked disc are characterized by more or less prominence and considerable enlargement of the optic disc in all diameters, due according to Schieck and Kuhnt, to a swelling of the intermediate tissue which under normal conditions is invisible. The pathogenesis of paraspecific optic neuritis has nothing to do with increased cerebral pressure and is not brought about in a mechanical way, there is no constriction or choking of the disc nor an imbibition of the intermediate tissue.

The predisposition to paraspecific optic neuritis in these cases was due to diminished power of resistance in consequence of the retarded convalescence. The remarkably favorable course of all cases under treatment with Scott's emulsion was encouraging, and D. recommends this for further trials.

In the now following clinical histories of two cases of influenza the optic neuritis set in with the general disease with fever and symptoms of a more or less manifest cerebral irritation. Lumbar puncture was negative.

D. considers the optic neuritis as a co-ordinate manifestation or localization of influenza. The affection of the optic nerve leads, according to its intensity, to some general phenomena which are partly signs of a hematogenous infection, partly of cerebral irritation.

From the favorable course of his case D. reached the conclusion that the papillitic form of infectious optic neuritis gives a good prognosis. For this, however, the general condition is of great importance.—C. Zimmermann.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, NOVEMBER 1912

Number 6

ORIGINAL ARTICLES

CHRONIC TUBERCULAR INFECTION OF THE KIDNEYS.*

BY A. H. LEVINGS, M. D.,
MILWAUKEE.

I have chosen this subject for your consideration this evening, because it has not in the past received the attention which it deserves, nor has it been commonly understood. Consequently, the treatment has often been haphazard and not for the best interests of the patient.

Failure to recognize incipient tubercular infection of a kidney often spells disaster and death for the patient; while, if early recognized and properly treated, the patient's life can usually be saved and health often restored.

As is the case with so many surgical affections, early and exact diagnosis is absolutely essential in order that proper treatment be carried out.

Klebs in 1887 found bacilli in tubercular tissue which produced similar lesions when inoculated into animals. In 1892 Koeh discovered the bacillus of tuberculosis, and shortly after Cohnheim demonstrated the bacillus in the urine of tubercular patients.

It was formerly held that tubercular infection of the kidneys was secondary to tuberculosis of the bladder, epididymis, testicle, prostate or seminal vesicles; and that the process was usually an ascending one from the bladder up the ureter.

It is now held that the tubercular process is primary in the kidney, at least insofar as the genito-urinary system is concerned; and that the ureter and bladder are secondarily infected through the bacillus-laden urine.

It is also held that tubercular infection occurs more frequently in the kidney than in any other organ of the genito-urinary tract.

Walker, in a series of 279 cases of tuberculosis of the genito-urinary tract, found that the kidney

was invaded primarily in 184 cases, the epididymis in 80, prostate in 3, Fallopian tube in 3, seminal vesicles in 2 and the uterus in one case.

It is also true that at times the kidney infection is coincident with a general acute miliary tuberculosis.

Bevan says that although the kidney affection is clinically primary, it is, in fact, often secondary to some latent tubercular process in the cervical or bronchial glands. It is also now generally admitted that infection of the kidneys is primarily unilateral in at least 90 per cent. of the cases; and that the second kidney, if involved at all, becomes so at a late period, through the circulation and not from the bladder through an ascending infection.

These points are of interest as bearing on the subsequent treatment.

French and German writers are agreed that renal tuberculosis occurs twice as often in women as in men.

In Mayo's clinic in 203 cases of renal tuberculosis 61 per cent. were in men. Guiteras says that late statistics show renal tuberculosis to be more frequent in women than in men, and that the right kidney is most frequently involved. In his cases 54 per cent. occurred on the right side, 28 per cent. on the left and in 18 per cent. both kidneys were involved.

Renal tuberculosis is a disease of middle life, but children are not infrequently affected. In Mayo's clinic 29 per cent. were over 40 years of age. Tuberculosis of the bladder may be disregarded as a primary affection. In fact, it seldom occurs as a result of tuberculosis of the epididymis, testicle or prostate.

A patient aged 36 came under my observation recently, having a tubercular infection of the epididymis and testicle, with numerous sinuses and marked infiltration of one cord, of four years duration, and yet was without bladder symptoms.

Many years ago I did a double castration for advanced tuberculosis of both epididymes and testicles, the process extending into the vas deferens, and still there never have been any sub-

*Read before the Medical Society of Milwaukee County, Oct. 11, 1912.

sequent symptoms of renal or bladder tubercular infection.

In Mayo's clinic, in cases of renal tuberculosis, the bladder was involved in two-thirds of the cases, and the epididymis, vas or prostate in 60 per cent.

Prof. Kuemmell divides renal tuberculosis pathologically into five classes.

In the first it is a part of a general miliary tuberculosis.

In the second the tubercular infection is confined to one or more papillæ which are usually ulcerated and the site of hemorrhage.

Third. Disseminated miliary tubercles confined to one kidney.

Fourth. Large and small caseous foci scattered throughout the organ.

And fifth, renal tuberculosis with mixed infection.

Cases belonging to the fourth and fifth classes are those most frequently encountered in surgical practice.

Kuemmell held that tubercular affection of the kidney is usually primary and unilateral, the ureter and bladder becoming secondarily involved. Ascending infection from the testicle, epididymis, prostate, seminal vesicles or bladder to the kidney is considered by Kuemmell to be extremely rare. He holds that where these organs are involved there will be renal tuberculosis, and that the bladder infection comes from the kidney.

I think it has been conclusively shown by Guyon, Alberan, Brewer and others, that except in the rarest of cases, even acute pyogenic infection of the bladder does not ascend to the kidney, without obstruction of the urinary flow.

The good results following early nephrectomy for renal tuberculosis, would indicate that the process is in most cases unilateral and primary in the kidney. While this view is held by Kuemmell, he states that he has had cases where the infection was hematogenous from other organs such as the lungs, lymphatic glands and in one case from an anatomical tubercle situated on a finger.

It is held by many that gonorrhœa in the male or female is a pronounced predisposing factor to the subsequent development of renal tuberculosis. Gonorrhœal epididymitis is frequently followed by tubercular epididymitis.

Other etiological factors are general weakness, congestion of the kidneys from any cause, stone,

renal stasis, irritating products in the urine, movable kidney and a tubercular family history.

DIAGNOSIS.

It is generally conceded that the early diagnosis of renal tuberculosis is attended with much difficulty, and is seldom made except by the most careful and painstaking examination. This is in part due to the fact that the first subjective and clinical symptoms do not as a rule point to the kidney, but rather to the bladder. The case is then often diagnosed and treated as one of catarrh of the bladder. This is especially apt to be the case in women where some pelvic disturbance is thought to be the exciting cause.

David Newman of Glasgow, gives the following as the early symptoms of renal tuberculosis: Slight pyuria, polyuria, with increased frequency of urination, and albumin in an acid urine, without casts, and with occasional attacks of hematuria. Usually the first abnormality in renal tuberculosis is a mildly turbid urine. This symptom may pass unnoticed for months and then only be discovered accidentally.

At a subsequent period there will be pain with frequency of urination, possibly hematuria, and at a still later period pain in the kidney, with enlargement. Every case of cystitis not caused by pelvic infection, gonorrhœa, the introduction of a catheter or sound, or due to enlarged prostate or stone in the bladder, should be looked upon with suspicion as probably secondary to renal tuberculosis.

In the Mayo's clinic an irritable bladder was present as a primary symptom in 86 per cent. of the cases. Hematuria appeared during the course of the disease in 60 per cent; renal pain in 25 per cent, and renal tumor in 20 per cent.

In the later stages of renal tuberculosis, the process is often complicated by mixed infection with marked increase of symptoms, such as chills, fever, severe renal pain, tumor, and a great quantity of pus and bacteria in the urine.

Tuberculosis of the kidney must be differentiated from stone, which is possible by the use of the X-ray, from pyelitis, pyelonephritis and pyonephrosis due to pyogenic infection. These processes are much more acute than uncomplicated tubercular processes. They resemble the mixed infections and are often ascending from the bladder.

Tubercular infection is to be differentiated from bacteriuria in which there is usually an absence of cystitis, an acid urine containing but little pus, but hazy with bacteria which refused to settle to the bottom of the glass.

The pathognomonic symptom, however, of renal tuberculosis is the finding of the bacillus of Koch in the urine, and then the tracing of it to the affected organ.

Gerster in 20 cases of tuberculosis of the kidney encountered the bacillus in the urine only 6 times. In two cases the microorganisms were found in the aspirated fluids. He says that in the remaining cases the diagnosis was based on the family history, on the presence of hematuria, with a fluctuating tumor, on pulmonary signs, on stigmata of Pott's disease or other joint disease, and especially in most instances on the presence of typical ulcers of the bladder.

TREATMENT.

It is claimed by a few surgeons and physicians that a spontaneous cure of tuberculosis of the kidney, either with or without destruction of the organ and encapsulation, may occur; and again that the tuberculin treatment has in some few cases been curative, or that a cure in some mild cases may be affected by hygienic treatment. The pretty general concensus of opinion, however, is that an early nephrectomy should be done in order to preserve the second kidney intact and prevent general miliary tuberculosis.

Pilcher says: "An occasional case of supposed renal tuberculosis has been reported, in which the diagnosis seemed reasonably certain, and later examination has shown the case to be apparently recovered; and yet despite such clinical evidence, there is no record of a case of cured tuberculosis of the kidney having been demonstrated by autopsy."

Before any operative measures are undertaken on a tubercular kidney—at least before a nephrectomy is done—one must satisfy himself that the patient has a second kidney and that it is functioning satisfactorily. The second kidney may usually be felt by bimanual palpation. Its secreting capacity may be established by ureteral catheterization, by chromocystoscopy, cryoscopy, or if these methods cannot be practiced, by determining the amount of urea and other salts as compared with the total amount of urine passed.

On two occasions I have encountered single kidneys. These were the site of advanced tuberculosis with mixed infection, and after nephrotomy all of the urine escaped from the wound.

It is held generally that a mild tubercular infection of the second kidney is no bar to nephrectomy, provided the second kidney is functioning satisfactorily; and also that the second kidney will, after the removal of the first kidney improve, the casts and albumen disappearing. The bladder irritability is also benefited, and often requires no further treatment. If both kidneys are seriously involved, a nephrotomy may be done, upon the primarily affected organ, or upon both kidneys at one sitting.

My experience has not impressed me favorably with nephrotomy in these cases. The patients may experience relief and be benefited by the drainage of large pus cavities, but the wound never heals, and a most disagreeable sinus is left which discharges large quantities of pus and urine; for the relief of which condition nephrectomy is required, which is most difficult on account of the numerous and strong adhesions present.

I have done a single nephrotomy many times for renal tuberculosis with mixed infection. If the patient improves, and the condition subsequently warrants it, I have done a nephrectomy. In one case I did a nephrectomy on the right side for an advanced condition of tuberculosis of the kidney, with mixed infection, and after a few weeks drained the remaining kidney for a less advanced condition; but lost my patient from general tubercular infection.

Mild tuberculosis of the lungs or other organs is no bar to nephrectomy, as these conditions generally improve after operation. Kuemmell says that the most favorable time for the removal of a tubercular kidney is before there are any subjective symptoms pointing to the diseased organ, and before the ureter or bladder is involved. In these cases following nephrectomy, convalescence is usually short and recovery permanent.

Some 18 years ago, with the assistance of Dr. Burgess, I explored the right kidney of a woman about 50 years of age, who had complained of pain in the kidney region for a year or more. Her general condition was good, and there were no marked bladder symptoms. When the kidney was brought into the wound we were both surprised, because it appeared perfectly normal. But

on stripping back the capsule we found a great many miliary tubercles imbedded in the substance of the organ. The kidney was removed, and for ten years the patient was under occasional observation and remained perfectly well.

With regard to the technique of nephrectomy, there are only a few points to which I would refer. I commenced my incision over the 12th rib, anterior to the erector spinae muscles. The incision is carried downwards and forward to near the crest of the ilium, and then forward along the crest for a sufficient distance. The incision divides some fibres of the latissimus dorsi above and below portions of the internal oblique, the transversalis is split and the lumbar fascia divided. Care should be taken not to injure the iliohypogastric or ilioinguinal nerves.

In two cases I have accidentally opened the pleural cavity, and in two or three cases the peritoneal cavity. The wounds were immediately closed with catgut and no harm followed.

The kidney is now shelled out of the perirenal tissue by blunt dissection, with the fingers, or the fingers covered with a gauze compress, and lifted out of the wound. The vessels are then ligated.

In some cases I have found it impossible, or it seemed to be too hazardous, to break up the old and very strong perirenal adhesions. In these cases I have done a subcapsular nephrectomy. Of course this leaves an infected capsule, but the wound is packed with iodoform gauze, and generally heals in a few weeks or months.

Some of these tubercular kidneys, either with or without mixed infection, but containing large abscesses, are of enormous size and require all the room that one can get in order to deliver them through the wound. In these cases the incision must be extended well forward and either the 12th rib or the 11th and 12th ribs resected, as is done by the Mayos, Pilcher and Gerster or the 12th rib strongly retracted upwards. In only one case have I resected the 12th rib. In that case it extended downwards and forwards almost to the iliac crest. I am quite sure, however, that I should have resected the rib oftener, for every one knows how difficult it is at times to reach the upper pole of these enormously enlarged kidneys.

TREATMENT OF URETER.

In case of hydro-ureter I have generally stitched the ureter in the wound, swabbed it out with carbolic acid, put in a drainage tube, and

had the ureter washed out each day. The Mayos and Pilcher after ligating the vessels, inject the ureter with 40 minims of pure carbolic acid, ligate above and below the point of injection, and divided between the ligatures, dropping the stump in the wound. In many cases I have ligated the ureter low down in the wound, divided it, swabbed out the stump with carbolic acid, followed by alcohol, and then dropped the stump in the wound. A few surgeons do ureterectomy. This adds to the hazard of the operation, and I have not been convinced that the gain was sufficient to warrant the procedure as a common practice.

A case recently came under my observation in which a Chicago surgeon resected the entire ureter, following nephrectomy for tuberculosis of the kidney. Although the operation was done several months ago there are still two or three very deep and troublesome sinuses in the line of the incision.

RESUME.

Tuberculosis of the kidney is usually primary and unilateral.

It is practically never the result of an ascending infection.

In the early stages correct diagnosis is difficult, because the symptoms point to the bladder rather than to the kidney.

Positive diagnosis is only made by tracing the bacillus of tuberculosis found in the urine to the affected organ.

If the kidney is removed before the second kidney becomes involved and before general systemic infection occurs, the cure is usually permanent.

Slight tubercular infection of the second kidney or other organs is not a contra-indication to operation.

A TEN YEARS' SURVEY OF TUBERCULOSIS IN LAFAYETTE COUNTY.*

BY SUSANNE ORTON M. D., AND JEAN M. COOKE, M. D.

DARLINGTON.

The writers of this paper wish they were able to present some new and important facts in relation to tuberculosis in rural communities, but such is not the case. The most they are able to do is to

*Read by title at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

report conditions as they found them with the hope that constant reiteration of well known facts may at last make sufficient impression to create public and professional sentiment of such a character that united action will be possible to overcome the existing conditions.

In a gathering of this kind it is hardly necessary to state that the problem of tuberculosis in rural communities is a real one. The last decade has seen a change of opinion in this regard. Most of us had accepted the statement that tuberculosis is an industrial disease, a disease of crowded tenements and of city living. Now we know that it exists to an appalling extent in small towns and rural districts. We have plenty of evidence on this point. The splendid study of Dunn County made by the W. A. T. A. two years ago is a case in point as well as numerous other reports made by individuals.

We shall state the facts as we found them and endeavor to offer some explanations of such facts.

The period covered by this study is from 1901 to 1911. It has been impossible to obtain the services of a nurse or trained field-worker, hence we have had to depend upon records in the County Clerk's office as to the number of deaths occurring in this period, to the members of the County Medical Society, and the Bureau of Vital Statistics for the living cases, and upon our own observations as to living conditions.

The number of deaths recorded during this ten year period is 186, which gives an average rate per 10,000 of 9.25. Our findings conform to the general rule that tuberculosis in Wisconsin is the largest single cause of death, the rate in the county being 9.6% of the total death rate.

There are eighteen townships, and of these eight have a tuberculosis death rate above the state average of 10.7 per 10,000 and one is above the Milwaukee average of 12.7. Dividing the deaths into five year periods as was done in the Dunn County Survey, we find that six townships are above the Milwaukee average in one or both periods. One of these townships includes one of the two larger towns in the county, but this town is really the same as a country district in so far as housing conditions are concerned. Three of the townships are farming districts with no towns.

One cannot ascribe such a state of affairs as our chart indicates, to poverty and overcrowding. We are inclined to the belief that so far as part of

the county is concerned, the higher rate is due to better diagnosis and more accurate reports from one of the doctors.

We made an outline map of the county and sent to each physician his particular district and asked him to note in the map his living cases. The replies were so meagre as to be of little value. Of those who did reply, only one reported any considerable number of cases. This report consisted of seventeen cases and we consider it authentic.

When one considers the fact that according to the Bulletin of the State Board of Health there are ten living cases for every death and that there were sixteen deaths in 1911, we should have a much larger number of living cases to report. Twenty-seven is the entire number of cases reported to us. The law requiring the reporting of cases of tuberculosis to the health authorities was passed in 1907. From our county the total number of cases so reported since the law went into effect, according to the statistics of the State Board of Health is eight. Our deaths for the same period are 83. A very obvious discrepancy.

The greatest number of deaths occurred between 20 and 30 years, thus following the general rule for deaths from this disease. Of the 186 deaths, 99 were males and 87 were females; 147 are American born, of these 86 of American born parents, 61 of foreign parents; 9 are Irish, 4 Swiss, 8 English, 3 Germans, 13 Norwegians and 2 Swedes. Of the foreign born parents, 47½ per cent. were Irish.

As to occupation, very little can be said, due in part to the fact that the data on the death certificates are in many instances incomplete. However, we are safe in saying that very few females found occupation outside the home, and at least 75 per cent. of the males were farmers, or farm laborers.

We find of the 186 persons, 46, or 24.7 per cent. to be related to some other person or persons in the group, and we feel sure that further investigation would increase this percentage. Of the 46 related cases, we know that in ten instances, two cases occurred in the same house, and investigation would no doubt show this to be more often true. This relationship is not interpreted to mean a special susceptibility to tuberculosis in certain families, but rather than social intercourse between individuals and families related, is as a

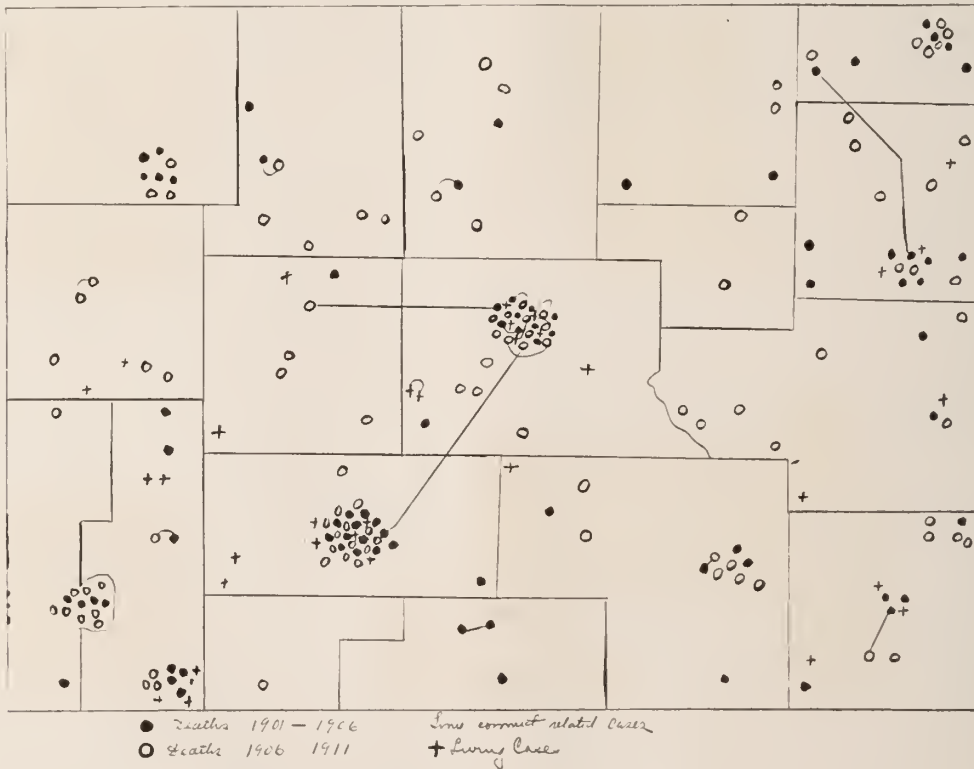
rule more frequent than between unrelated families, and that therefore there was greater chance for direct infection. It is moreover true that if an illness be a long one, the patient's relatives as well as his immediate family, are called upon to help in caring for him.

Conditions in Lafayette County are not different from those in many rural communities throughout the state; the population being 20,080, unchanged for 20 years, and numbering among its foreigners, Irish, English, Norwegians, Swedes, Germans and Swiss. There are but two towns

that examination was compulsory. We have not studied the death rate from tuberculosis prior to 1896, but have determined the average yearly rate for the five year period from 1896 to 1900 to be 20. This rate corresponds closely with that for the other five year periods studied.

The increase in dairy farming during these periods has been great, amounting in one period, 1900-1905, to nearly 100 per cent. It would appear then that during the period of greatest growth in the dairy industries there has been no increase in tuberculosis. It seems possible, how-

FIG. I.



with more than 1,000 inhabitants, Darlington with 1,808, and Shullsburg with 1,063. The county is distinctly a farming community, with no manufacturing interests, and with less than 1,000 men engaged in its lead and zinc mines, and our statistics show few of these miners among the victims of the White Plague.

The character of the farming done has changed very much in the last 20 years, a change from general to dairy farming, and the point has been raised, whether tuberculosis had increased with the increase of dairying. The veterinarians tell us that very little tuberculosis had been found among our cattle, even during the short time

ever, that the standard of living among farmers has been lowered by the extension of the cheese and butter factories. Whereas, in former times, milk and home-made butter were freely consumed, now many farmers take all their milk to the factories and depend on creamery butter and condensed milk for family use.

Our observation of the general living conditions of the people leads us to say that the housing conditions are good, there is little or no abject poverty, but that there is little appreciation of what the country is pre-eminently expected to give, good food, fresh air and sunshine. A knowledge of food values and modern sanitation has

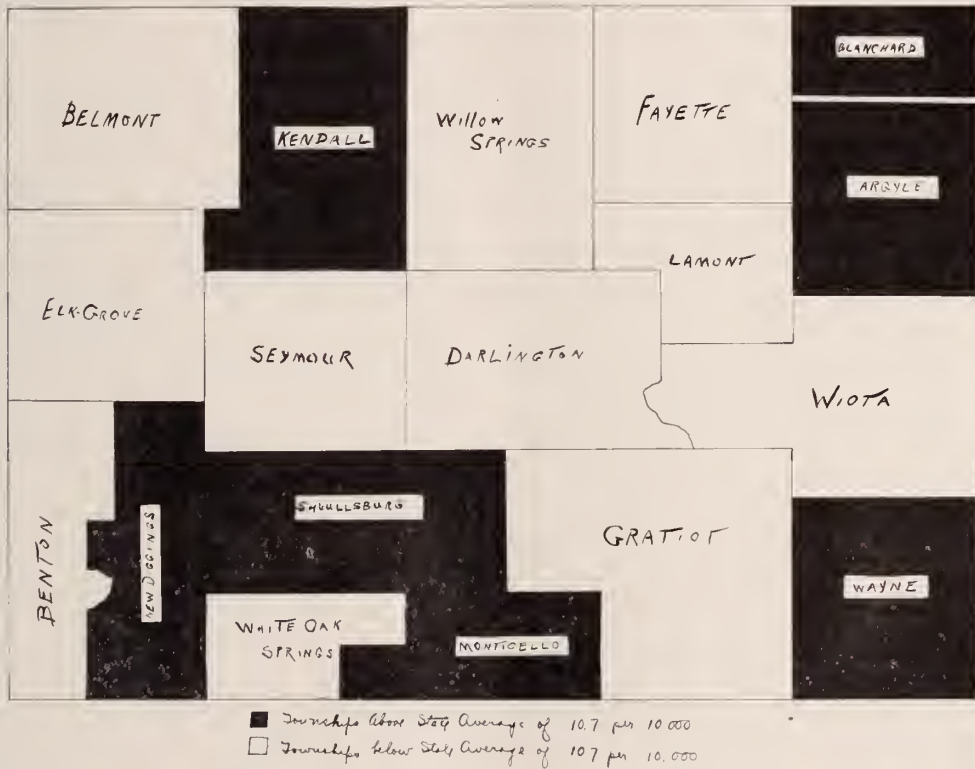
not yet become a vital influence in rural life as we find it.

The results of this study of tuberculosis are very unsatisfactory for we realize how inaccurate and incomplete much of the data is. Although Wisconsin is in the registration area, the keeping of vital statistics has not reached a degree of perfection in small communities. Death certificates are frequently not returned until months after the date of death, if at all, and are often left very incomplete by the physician. Add to this the

stated, as for instance many reports read hemorrhage of the lungs, chronic lung disease, abscess of the lungs, and so forth, as the cause of death; when, without much question, they are all cases of tuberculosis.

The registration of living cases is almost universally disregarded in this part of Wisconsin, and we were dependent for our knowledge of existing cases on the co-operation of the other physicians in the county, and as has been indicated, their responses were in some instances lacking. How-

FIG. II



carelessness of those copying the data for preservation in the local office, and the result is often so fragmentary as to be almost valueless. Names of parents, nationality, age, cause of death, even name of the individual is sometimes lacking and some certificates are copied twice, others sent to Madison without duplication. For instance, in 1909-10-11 more cases of death from tuberculosis are reported by the state from Lafayette County than records can be found for in the county officer's files. Large as is our percentage of deaths from tuberculosis, it is undoubtedly much greater than we have shown, because in many instances the cause of death on the certificate is loosely

ever, we present our facts as we have been able to collect them and think our general conclusions may be relied upon.

Without doubt there is in this prosperous rural community much more tuberculosis than there should be. As we have no necessary overcrowding in the homes, nor insufficiency of food supply, no lack of fresh air and sunshine, no predisposing occupations, may we not reasonably ask why we have any tuberculosis at all? The conditions which are recognized as potent in the spread of tuberculosis should and could be controlled in such a community as ours, by the enforcement of the laws already on our statutes, by the intelligent

and faithful care of the family physician and by the further education of the laity.

The chief environmental factors influencing the prevalence of tuberculosis are, first, exposure to infection, second, unhygienic living which decreases resistance to infection. Considering the first of these conditions in reference to our county, we have first of all to deal with the direct communication of the disease, to those in close association with the patient through any medium which might convey living bacilli. Here the ignorance and carelessness of both patient and friends must be overcome, and to this end we believe that under most circumstances the patient should be told frankly what his trouble is, and just how much danger there is to those near him. If this be done, he will in nearly all cases, do very differently from what he does if told he has a cold, or the cough that runs in his family, or an elongated uvula, or liver disease, which conditions need concern him but little, and his family not at all.

The duty of the physician does not end when he has made a diagnosis satisfactory to himself. It goes without saying that the examination of all patients about whom there is the slightest doubt, cannot be too thorough or complete, and that all the help offered by the state hygienic laboratory should be used. One is surprised to find how

tion of the disinfection and disposal of sputum, of the ventilation of the sick room, and the care of the dishes, bedding, clothing of the patient, is worth volumes of directions. One less game warden and one visiting nurse in our county would seem a reasonable provision.

Wisconsin has a law requiring the reporting of cases of tuberculosis, to insure greater precautions against the spread of the disease. Comparison of the number of the reported cases with the number of deaths in the Bulletin of the State Board of Health will show how ineffective the execution of this law is. It should be enforced, and the printed instruction sent to such reported cases would, without doubt, bring added significance and force because they came from the outside and with the authority of the State Board of Health.

We must also consider the indirect communication of infection by house and neighborhood contamination. Again Wisconsin has good laws to prevent this occurrence, but laws which are more often disregarded than fulfilled. The law requires that all houses or apartments occupied by tubercular patients shall be disinfected after the death or removal of these patients before occupation by other people. The enforcement of this law rests with the health officers of the city or township. Few of the laity know of its existence, or that any

Townships in Which Tuberculosis Death Rate is Above State Death Rate of 10.7 per 10,000	Population 1910	Annual Average Tuberculosis Deaths 1901-1906	Average Rate Per 10,000 1901-1906.	Annual Average Tuberculosis Deaths 1906-1911	Average Rate Per 10,000 1906-1911
Argyle	1,461	1.6	**10.95	1.8	**12.24
Blanchard	1,125	1.6	*14.2	1.2	8.88
Elk Grove	770	0	0	1.0	*12.98
Mendall	586	.2	3.41	1.2	*20.48
Monticello	273	.6	*21.9	0	0
New Diggings	963	1.4	*14.5	.6	6.22
Seymour	705	.2	2.83	.8	**11.32
Shullsburg	1,742	2.8	*16.13	2.8	*16.13

**Above State Average.

*Above Milwaukee Average.

little use is made of laboratory aids to diagnosis. We are not all experts in physical examination, but we are all criminally negligent when we do not avail ourselves of the services of the state laboratory. When the diagnosis is made and the patient and his family told, the physician should give directions for the care and protection of that household and these directions should be simple, explicit and practical. Right here the value of the visiting nurse is inestimable. One demonstra-

one but themselves is at all concerned in the cleansing and disinfection of their homes. They frequently wish to do all that is necessary, and, in so far as their knowledge goes, do what they can. A little papering, a few sulphur candles or at best formaldehyde candles burned in the house give them a feeling of safety, and if any cases of tuberculosis develop later, they believe them to be beyond doubt, hereditary. Strangers moving into infected houses have no protection whatever.

To our knowledge five cases of tuberculosis have died in country hotels in our county, four of these cases occurring in the families of the proprietors of two such hotels. In one instance at least, and presumably in all, no disinfection was carried out and there is no way of estimating the number of people exposed by these patients while living and by the infected houses they left behind them.

Another law which gives Wisconsin a reputation among the fighters of tuberculosis, is that which forbids spitting on the streets; yet our people would laugh if the enforcement of this law was attempted. The laity are ignorant of the need and existence of these laws; the profession is indifferent and the officers enforce only such as the sentiment of the community demands. There is an element in the enforcement of laws in the country not met with in city life, namely, the personal element. The patient is a friend and neighbor, his malady is reported to a neighbor, a third neighbor is the officer to see that he obeys sanitary regulations, and still another neighbor must enforce the penalty if he disobeys these laws and it certainly takes more courage, intelligence and sense of duty to enforce laws among neighbors than among strangers.

We have still to consider the contributory causes of tuberculosis and what part they play in the affairs of our county. The most important of these causes is generally considered to be malnutrition and lack of household hygiene, especially as concerns ventilation. Malnutrition in city life is usually due to poverty, but in Lafayette County, few, if any of the people are too poor to have a sufficient quantity of food; and ventilation is given little consideration. Evidences of underfeeding and illy ventilated homes are seen among our children quite as often as in the city. Anemia, adenoids, hypertrophied tonsils and enlarged glands are very common occurrences. These conditions are largely due to the ignorance and resulting indifference of the people. They do not, many of them at least, know anything of food values or the proper preparation of food in a way to utilize its full value.

When the little red school house shall have taught the farmer boy how to grow vegetables and fruits, other than cabbages and wild plums, and the girls to know the value and best methods of preparation of foods, the people as a whole will be better nourished for the same expenditure of

capital. When household sanitation is made a practical every day affair with our young people they will know how to utilize all the possibilities of their homes for air and sunlight. The results are much the same whether a bedroom is without windows or has four, all of which are tightly sealed at the first approach of winter. A house in our neighborhood was covered on two sides, including the windows and doors, with heavy building paper, and the foundation banked with manure, during the winter and early spring months of last year. To live ten in one room from choice gives the same chance for infection as if the crowding were a necessity.

Why should we have a tuberculosis problem in a rich agricultural community, or at least, why should we have so large a percentage of deaths when living conditions are as good as they are with us?

We believe the situation is as it is, very largely because the medical profession does not do its whole duty in the matter of early diagnosis, the reporting of living cases, the instruction of patients as to their proper care and that the health authorities do not do their duty when they do not enforce the laws already upon the statute books.

We feel that a good deal of educational work has been done by the association before which we have the pleasure of presenting this paper, but that much more needs to be done. Should the time ever come when the rural school houses could be used as social centers the problem of setting the eradication and prevention of tuberculosis before the country people would be solved by means of lectures, pictures and traveling exhibits.

A County Medical Society which has some other object than to meet three or four times a year to read and discuss papers which are largely matters of text book knowledge, could be of immense value in the community by inspiring its members to take charge of lectures in school houses, or to assist some properly qualified person in such work, and seeing to it that the health authorities enforce the laws and regulations. One cannot estimate the value of such an enlightened and intelligent force in the community.

In conclusion we wish to repeat that what we need for the solution of the problem of rural tuberculosis is not more laws, but better enforcement of those already in existence, a better spirit of co-operation between the medical fraternity and

the community, and, as directly preventive measures, money for education, propaganda, school inspection, better instructed school teachers, a county nurse and ultimately sanatoria for the advanced cases.

OBSTETRIC TEACHING AND PRACTICE, PAST, PRESENT, AND FUTURE.

BY J. P. McMAHON, M. D.,
MILWAUKEE.

The term "obstetrics" means to stand before; and, when it was adopted by our forefathers, this was as strong a term as they could rightfully employ, because all they pretended to do was to stand before the mother, with or without the perineum exposed, and wait for nature to do all but to tie and to sever the cord. Fortunately for the patients of those days, more was rarely required.

To us of the twentieth century, the term "obstetrics" should and does mean infinitely more. It means that we, as obstetricians, should be familiar with normal and all abnormal conditions of mother and child alike; that we should be acquainted with the exact physical and social condition of each mother during her entire pregnancy; that we should make observations as to position and presentation at stated intervals from the fifth month until term, and frequently during abnormal or protracted labors; that we should have knowledge of just what to do and when to do it in abnormal cases; and last, but not least, that we should know when not to interfere, and thereby insure against injuring the mother and perpetrating serious and irreparable damage upon the innocent and defenseless offspring.

The management of labor is a line of medical work which can be and is done with varying degrees of efficiency. In fact there is no department of medicine in which a practitioner can be so guilty of sins of omission and commission, and at the same time call forth so much undeserved praise and gratitude as he can in obstetric practice. To be sure some of the sins, and particularly the sins of commission, are yielded to as the result of earnest solicitation on the part of suffering mothers, anxious husbands, or meddling parents and friends. If this were the only reason for their commission the practice would not be so reprehensible, for thus committed they possess the merit, at least, of relieving pain.

All of the tragedies of pregnancy and labor, however, may not be charged to sentiment. Many of them are due to ignorance, lack of judgment and selfishness on the part of those to whom the expectant mothers have for the time being entrusted their care, welfare, and even life itself. Ignorance of course is chargeable principally to the midwives, but it is sad to be compelled to admit that members of the medical profession are not infrequently guilty of all three charges. The ignorance and lack of judgment are the result of improper, incomplete and generally inefficient instruction and clinical training. In addition many physicians do not possess the requisite dexterity. Selfishness in obstetric practice may be due to either of two causes: First, to a determination on the part of the obstetrician to conserve his own time by the unnecessary or early termination of labor by forceps or by other mechanical means. Second, to an unnecessarily rough or unsuccessful indicated interference by those not possessing adequate equipment, skill or strength when in justice to their patients they should secure the assistance of one who does possess these necessary qualifications.

Men with these qualifications have not been, nor are they now, always available owing to inefficient training as heretofore suggested. This inefficient training dates back to the first obstetric course offered in this country. The inadequate teaching of obstetrics was and still is a part of America's poor medical educational system. The only difference between the obstetric courses and other courses is that the obstetric teaching has been and still is less efficiently done due to the following causes: incomplete preliminary and professional education on the part of the teachers, lack of laboratory and clinical facilities, failure of scientific and research men to become interested in this branch with consequent scarcity of ideal instructors to properly impress students, practitioners and the professors of the future. The result has been that the men engaged in this work have been not only incapable of properly doing it themselves; but they have failed to such an extent in moulding the minds of their students that they in turn, with but few notable exceptions, have failed to become competent obstetricians and to continue as investigators, teachers and safeguarders of the mothers and infants of the succeeding generations. Professorships of the desired standard held by men of the right caliber

would attract true doctors whose aim and mission would be to devote all of their time to disseminating knowledge and properly training the obstetricians of the future. Such professorships would not attract and should not be open to men whose only ambition is to acquire an extensive though poorly conducted clinical practice. The ideal professor must, in addition to mastering the principles of obstetrics, have served as an obstetrician in one of the larger lying-in hospitals in order to secure the experience necessary to the best possible judgment and to acquire dexterity in the management of abnormal conditions before attempting to instruct others.

The general practitioner will undoubtedly continue to manage the greater number of labors presided over by physicians, at least until the present generation shall have retired. They are necessarily included in the above indictment, more especially the older members; and the least that those who intend to continue accepting the responsibilities of this work should do is to avail themselves of the advanced instruction afforded in these larger lying-in hospitals. This instruction will imbue them with the fact that obstetric practice is surgical practice, and that the more difficult obstetric operations belong to major surgery. They will also become imbued with the fact that all cases require surgical technique, skill, and experience; that some cases require, in addition, muscular power; that the management of the latter should not be attempted by the enfeebled or superannuated; that the direction of the hygiene of pregnancy and the prenatal care of the fetus are important branches of obstetric work; and that the present unnecessary sacrifice of infants' eyes and of infants' lives is criminal.

Medical faculties must be made to realize that obstetrics is one of the most important subjects in the curriculum, that better facilities should be furnished, and that more abundant clinical material must be provided. The faculties must also be made to realize that the ideal obstetrician is necessarily a profound student of medicine and surgery, more profound than the ideal gynecologist, and a man no longer to be looked upon condescendingly by any confrere but rather a man to be looked up to as an advanced physician whose counsel should and will be sought. When colleges bring about the necessary re-adjustment, not only in their obstetric department but in all depart-

ments, the study and practice of medicine will become elevated to the plane upon which they justly belong; and their graduates will be men of only the highest ideals, who will be able to appreciate that the practice of medicine is not and should not be considered a commercial pursuit, that it is one of the three great professions whose privilege and duty it is to serve humanity, and that the only remuneration worth while comes from an honest effort to conscientiously perform in the best possible manner the tasks encountered.

The obstetrical work in all schools and hospitals should be intimately associated with and should co-operate with the work of the gynecological department. The practice of combining the chairs as followed in Europe should be universally adopted in this country under the caption of obstetrics and gynecology. A man may become a good gynecologic surgeon without being a competent obstetric surgeon but he can not be a competent obstetrician without at the same time being a competent gynecologist.

In view of the foregoing and of other facts which might be mentioned, such as the inadequate remuneration proffered (this is no justification, however, for failing to do the best work possible,) any unbiased student of the subject is forced to the conclusion that obstetric practice, as ordinarily conducted, has not kept pace with the other divisions of medicine. In fact it is so far behind them that it is no exaggeration to say that obstetrics is the most poorly managed of all of the departments of medical teaching and practice.

Further inquiry as to the cause of the present status of this branch of medicine leads to a consideration of the midwife problem. This is a problem which has been before the medical profession of this country for over a half century. Even today eminent men entertain diametrically opposite views as to its condition in the past, its condition at the present time and the necessity for the continuation of it as an institution in the future. No less an authority than the retiring president of the American Medical Association maintains that the midwife is a *sine qua non*, that provision should be made for her education and that she should be encouraged in every way possible. We believe, however, Professor Jacobi's opinion to the contrary notwithstanding, that the midwife is not a necessity. She is an unnecessary evil. Deliveries in a few of our larger hos-

metropolitan cities are nearly all managed without her. The foreign born mothers in these places although comprising as large a percentage as in the midwife centers, such as Milwaukee and Chicago, do not find her indispensable; nor are their modesties wounded because of her absence. The mothers and infants in these few cities do, however, receive better professional care, with a consequent lower maternal mortality and morbidity and a reduction of infant mortality, as compared with the mothers and infants in the centers where the midwife presides over half the annual births.

The comparatively few midwives in the few larger cosmopolitan cities is explained by the fact that they have old, well and favorably known lying-in hospitals with excellent and extensive extra mural services; and *emphasis should be placed on the fact that maternities with adequate out-patient services are the logical and only permanent solution of the midwife problem either here or abroad.* This is the end toward which thoughtful and earnest obstetricians are working as the means of solution. They are performing an immeasurable service for present and future motherhood.

This solution of course comprehends the extension of present lying-in services and the establishment of new ones until every city in the land shall have modern and adequate maternity services from independent institutions in the larger cities and from maternity wards of general hospitals in the smaller places.

The establishment of these institutions will necessarily require a re-adjustment of our present ideas and standards of medical practice and the out-lay of considerable sums of money. There are those of the younger generation who, judging by beginnings made in the metropolises, are optimistic enough to believe that neither are impossible but on the contrary are capable of realization within a reasonable length of time. Then, and then only, will the midwife problem be completely and permanently solved.

In the meantime our own state has the best possible statute regulating midwifery. It provides for an examination and the licensing of all midwives by the state board of medical examiners. In order to be eligible for such examination the applicant must submit satisfactory evidence of

good moral and professional character and present a diploma from a reputable college or school of midwifery, which school or college must be connected with a reputable hospital or sanitarium. The school or college must offer a course of at least twelve months in the science and practice of midwifery and afford practical experience in the management of at least twenty labors. The law provides that the examination shall be written and shall be on the following branches: anatomy of the pelvis, the anatomy and physiology of the organs contained in the female pelvis, symptoms, diagnosis, physiology and complications of pregnancy, diagnosis course and management of labor, and the care of mother and child for the first ten days succeeding labor. The practice of midwifery by midwives is very specifically defined. The use of instruments, the performance of version, the removal of adherent placenta, the administration or prescribing of drugs, save disinfectants, and ergot, after the delivery of the placenta are prohibited. Newspaper advertising, procuring, aiding or abetting criminal abortion, and other forms of unprofessional conduct are made grounds for revocation of licenses by the circuit court.

In conclusion then, the early achievements in this branch of medicine were not such as to justify much felicitation.

Reforms instituted have already brought material improvement.

And future progress can be made to approach perfection by raising the scholastic qualifications and the general standard of those entering upon the study of medicine, by improving didactic and clinical teaching facilities, by awarding professorships to only those who have properly qualified to become ideal instructors, by extending lying-in hospitals so as to afford accommodations for all who can be induced to enter them, by maintaining out-patient services extensive enough to have all prospective mothers under the care of competent obstetricians as soon as they become aware of an existing pregnancy, by teaching the laity that most of the ills of women, except those due to tumors and specific infections, are the result of poor obstetric management and that the way to prevent them is to avail themselves of the services of only those who can qualify under the standard here outlined.

DIAGNOSIS AND PATHOLOGY OF ACUTE
SURGICAL DISEASES OF
THE ABDOMEN.*

BY D. R. CONNELL, M. D.,
BELOIT.

Satisfactorily to elucidate within the limits of a paper of this kind, the subject of the pathology and diagnosis of acute surgical diseases of the abdomen would, in the words of Deaver, be something like cleaning the stables of Augeas and would require a second Hercules for its performance. No matter where the doctor is located, in the smallest hamlet or the largest city, whether his practice be large or small, whether it be the beginning of his active career, or toward the end of his professional life, he will see the diseases which I am about to describe, and many times in his life, will see sad consequences follow from neglect of the early and, by the way, only proper diagnosis.

In the olden days of medical treatment, the diagnosis did not make as much difference as today, when this surgical treatment has worked such wonders throughout the width and breadth of our broad land. If the correct diagnosis is missed, if the opportune moment is lost, and the proper surgical treatment delayed, what inexpressible sadness must fill a doctor's heart when he is compelled to stand idly by and watch his patient sink beneath the blast of peritoneal inflammation. How sad he must feel when he realizes, as he surely must, that an early operation would have saved this patient's life, which is now ebbing away before his eyes, and would have restored to a family circle a beloved husband or wife, an only son, or an idolized daughter. Sad then are his regrets, but vain his efforts to slow the fevered pulse, to check the constant vomiting attendant upon a fatal case of peritonitis.

The violence of the symptoms can now be soothed by an opium trance, a trance which lasts until the sufferer has reached that land from whose bourne no traveler returns.

It would be mere presumption on my part if I were to attempt to tell you anything new on the pathology and diagnosis of these surgical affections, because you are all familiar with the subject as described in the text books, and many of you no doubt have given a careful study to the diseases

of this region. What I am going to say is not entirely original with me, has been gathered during the last few years from text books, lectures, clinics, both in this country and in Europe, and has passed through the alembic of my own experience as I have observed these symptoms in my own surgical practice.

A careful observation of the symptoms has often led me in the right direction, and helped me not only to decide on the proper operation, but to work to better advantage than would have been the case if these facts were not classified in my mind and fairly well understood.

Practically all the surgical work of the world today is derived from the hands of the general practitioner, and in his hands lies the destiny of every patient suffering with an acute disease of the abdomen, and an effort will be made in this paper to lay stress particularly on the diagnostic points which will lead him to make an early and accurate diagnosis and send his patient to the surgeon, or call the surgeon to his aid. I will not make any attempts to cover all the acute diseases of the abdomen, but will confine my remarks to some of the most common ones.

The first one that will attract your attention is the common disease appendicitis, and surely you would think the symptoms of this sickness clear and well understood, and yet if I were to ask of every doctor before me today, What are the symptoms of an acute attack of appendicitis, the answers would be such that you would plainly see that the disease is not too clear, nor too well understood. This is not because you are not acquainted with the sickness. But it has so many different conditions, which change its pathology and symptoms, that it has become the most puzzling disease in all our surgery.

Case No. 756 in my own practice, presented herself for examination the fall of 1907. Girl 16, with the following history: Has had always trouble in her abdomen, and at this time pain severe enough to keep her from doing any work, extending over the entire abdomen. Small for her age, stoop-shouldered and the picture of a rickety child. In addition to this, she had four scars on her abdomen from previous operations by four different doctors. The history of one case as elicited from this patient brought forth the fact that the doctor removed some sequestra of bone through an incision low down in the groin. She

*Read at the Sixty-sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 22, 1912.

looked to me to be a case probably suffering with tubercular peritonitis, and believing the history as given by the patient and the failure of four attempts into the peritoneum to cure her, together with her general condition, I was led to suppose that tuberculosis was an etiological factor. An operation was done a few days afterward through a median incision and much to my surprise I found an appendix acutely inflamed, about seven inches long, reaching from the right corner, directly across the abdomen, with its free end attached to the abdominal wall on the left side, immediately under the scar of a previous operation six months before. The removal of the appendix was followed by immediate relief of symptoms, and up to the present time, this girl has had no return of any abdominal symptoms.

Man 38, January, 1906, seized with pain in both gluteal regions, for five days very severe. Three weeks later, pain again appeared only in the right gluteal region, severe and sharp in character. Admitted to the hospital July 25th, after having received all kinds of treatment without relief. On entrance he complained of localization of pain at the great sciatic notch over the sacro-iliac joint and on both sides of the tendo achillis. On July 28th, through an incision over the right sacro-iliac joint, part of the ilium was gouged away. The bone appeared lighter and softer than normal. The sciatic nerve was then stretched. In spite of the treatment, the pain persisted and on Aug. 18th, osmic acid was injected into the sheath of the right sciatic nerve just below its exit from the pelvis. On the 19th the leg was placed on a double-inclined plane, but this had to be removed on the same day on account of the pain. On the 21st a long straight splint was applied to the outer side from the axilla to the ankle. But the pain continued in spite of what was done. Ruch saw this patient Aug. 30th, examined the appendix and found it tender. He also obtained the history of repeated attacks of stomach trouble during the past year, which had been pronounced intestinal indigestion. On Sept. 1st, the appendix was removed lying across the psoas and almost entirely retro-peritoneal. Three months after the operation this patient was in excellent health and has remained so as far as I can learn to the present time.—(Murphy's Year Book, 1908, page 437, Practice of Ruch.)

Both Dr. Murphy's case and the one in my own

practice, if questioned closely would give a pretty clear history of an inflamed appendix, and right here I wish to emphasize the necessity of eliciting a clear history in the examination of every case. The friends of the late Nicholas Senn of Chicago, especially those who attended his clinics can bear testimony to the clinical history that he elicited in each case, and the clearness with which he brought forth the diagnosis by weighing the evidence from this history. Dr. Senn was a pupil of the great Kocher of Berne, Switzerland, and no doubt derived much of his earlier training from this great man, a man who has no equal in Europe or probably the world.

Then, what are the symptoms of an acute attack of appendicitis as generally seen that can be used as a working basis.

1st—Pain in the abdomen, sudden and severe.

2nd. Nausea or vomiting, or both, following in about three or four hours after the initial pain.

3rd—General abdominal sensitiveness, particularly over the right side, if the appendix happens to be on that side.

4th—Temperature.

Not alone should these symptoms be present, but should appear in that order, and if they do not appear in that order, diagnosis must be doubted.

Temperature should be present some time in the last half of the first twenty-four hours, and if not present, diagnosis improbable. At least, not fully sustained.

I am aware that this fever question will arouse opposition in this audience, but upon close observation of a great many cases, I am convinced that temperature will be found in every case of acute appendicitis, some time in the first twelve to twenty-four hours.

Case No. 854. Girl of 6. In the practice of a clever general practitioner, with a large experience covering a number of years. This girl was also examined that same day by an interne just finishing his service in one of the large hospitals in Chicago. I was called at night to operate upon this case for an acute attack of appendicitis. She was on the table and preparations made for the operation when I arrived at the house. The history of the case which I got as the patient lay on the table ready to be operated on, was substantially as follows. I am quoting the words of the family doctor. "This girl has been sick two days, went to bed with fever, and showed no symptoms

in the abdomen until today noon, when she was suddenly seized with pain in the right side over the usual location of the appendix."

You will, of course, quickly notice that her symptoms were in variance with the classified order as indicated for the typical cases of appendicitis. That her temperature in place of being the fourth symptom, was now the first symptom, and the first symptom pain, was the fourth symptom. Having this clearly in my mind, I promptly said to the doctors that it did not have the appearance or history of an acute attack of appendicitis. The operation disclosed a normal appendix, and the girl recovered from a typical pneumonia in spite of the surgical treatment.

If it is so difficult to make a diagnosis of acute appendicitis, it must simulate other abdominal diseases, and, if so, what are they.

1st—Extra-uterine pregnancy, and no doubt if the history of the cases operated on by the surgeons before me today was known, in several instances the testimony would bear out these facts.

Let us stop for a moment to look into the subject of extra-uterine pregnancy. A fertilized ovum arrested anywhere between the Graafian follicle and the uterine cavity, and there undergoing development, we know as an extra-uterine pregnancy. Primarily, always in the tube, but may become tubo-ovarian, abdominal, or even uterine in its development.

What are the symptoms of a ruptured ectopic pregnancy? Given a woman with other signs of pregnancy such as morning sickness, enlargement of the breasts, etc.

1st—Pain in the abdomen, sudden and severe.

2nd—Collapse.

3rd—General abdominal sensitiveness and fullness.

4th—Temperature normal or sub-normal.

Case No. 975, Mrs. M., occurred in my own practice. Young woman, aged thirty, married four years. Gave the history of having an attack of appendicitis before she was married with recovery. This attack was not severe. About six months after her marriage, had been in bed six or eight weeks with some abdominal trouble, diagnosis could not be agreed upon by the different physicians who saw her and operation not performed. This attack was also followed by apparent complete recovery. Two years afterward suddenly seized with pain in her abdomen at night.

And the writer saw the case. She was promptly removed to the hospital to be prepared for an abdominal operation. Her brother-in-law, a clever physician and surgeon came from Chicago to see her in counsel. I asked him what he thought of her, and he answered, "Her history and symptoms are those of a clear case of acute appendicitis." She had the pain corresponding to No. 1, but the second symptom was missing. She looked to be in a partial collapse. No. 3 was present. Not alone was her abdomen tender, but it seemed to be fuller than normal, which we attributed to tympanites, due to a beginning peritonitis. Her temperature was a shade sub-normal. The operation proved that she swam in blood, from a ruptured right extra-uterine pregnancy, and in addition, had an involvement of the appendix, which accounted for at least an attack before she was married, and probably was a factor in her extra-uterine pregnancy.

Case No. 1085, Mrs. F. This woman was suddenly attacked with pain at night, and the doctor who saw her looked on her case as a simple miscarriage. She gave the history of having some abdominal trouble for years, spells of pain in the right side, and these together with the leaking of blood from the vagina led me to think that I was dealing with something more serious than an ordinary miscarriage. According to her own history, she had sudden pain at night, followed by unconsciousness, general abdominal sensitiveness, but no temperature. She was promptly removed to the hospital, and an abdominal section performed. She also had a ruptured right extra-uterine pregnancy, which explains the symptoms. And the chronic spells from which she suffered for years was due again to an old chronic appendicitis. She made a good recovery, not alone as to her life, but has been in perfect health since the operation; two years.

In looking over your cases, you will find that the extra-uterine pregnancies occurred as a rule in women who were practically sterile, and you will also find in the records of your cases that a great many of your childless women, have had a great deal of abdominal trouble, and in many instances, pain in the right side.

Did you ever stop to think how many of the women in your practice, who are suffering all the horrors of painful menstruation, had some time in their life an acute appendicitis, which attacked the

ovary, or, the ovary attacked the appendix. I am convinced from my limited experience, that one of the etiological factors in a great many cases of extra-uterine pregnancy, and also a factor in the sterility of a great many women is due to the mischief caused by this same appendix.

The next class of acute surgical diseases to which I wish to call to your attention, are acute inflammations of the gall bladder and its ducts. It is necessary in this connection in considering the cause of acute diseases of the gall bladder to bear in mind the anatomical relations and mechanical provisions. So long as the anatomical relations are normal, and the organ is mechanically perfect, there is no occasion for treatment, because the gall bladder becomes distended with bile, which is a non-irritating fluid and is emptied regularly without pain or trouble. Normally the gall bladder being suspended under the liver empties itself rapidly into the duodenum. It seems to have been proven beyond a doubt that the gall bladder shares the fate of all hollow organs in the body. That is, the stomach, the urinary bladder, pelvis of the kidney and the vermiform appendix. So long as there is nothing to prevent these hollow organs from emptying their contents, they are almost certain to remain normal. But as soon as obstructions occur, interfering with the natural drainage, trouble must follow. In other words, interference with the outflow of any of these hollow cavities is sure to cause a certain amount of residual substance which makes the accumulation of bacteria possible and indeed very probable. (Ochsner).

And from this we get an injury to the lining of the gall bladder. It has been shown experimentally on the lower animals, and on man, that as soon as the outward flow of the bile has been obstructed by a ligature of the common duct, that the bile above the obstruction becomes infected. The infection as you know, has two ways of attacking the gall bladder, one, the most common I think, from the duodenum up the common duct, and from there up the cystic duct. The fact that the bacillus coli is the most common bacterial inhabitant of the gall bladder and of gall stones is suggestive that the intestinal origin is the most probable. The other cause, by an infection from the blood current through the portal vein, is to my mind not a frequent occurrence.

The greater number of inflammations of the gall bladder are chronic processes and do not call

as a rule for prompt surgical intervention. It is only the acute destructive type, that interests me in this paper.

These take place as a rule from a complete obstruction of the cystic or common duct, and call for prompt surgical intervention. The symptoms of this disease are the same as any gall stone colic, plus the severity which accompanies this obstruction. Pain, agonizing and severe over the region of the gall bladder, and under both shoulder blades—right side rigidity, and as a rule, dullness, and in many cases the gall bladder can be palpated in the first couple of days of the attack. Given a case of this kind, with the gall bladder under tension, you can look for a gangrene of the gall bladder, or the perforation of its walls by a stone.

I wish to urge that this class of gall bladder cases needs the surgeon, probably as soon as any disease I know of.

In connection with acute inflammations of the gall bladder and its ducts, considerable attention has been directed to its association with diseases of the pancreas, on account of the relation of the pancreatic duct to the common duct.

As you know, the pancreas is the great abdominal salivary gland, and lies in a most protected situation.

"No other organ in the body, which has as valuable a function, is so little liable to intrinsic disease. Its natural defenses have but one single defect, and that is, the mechanical association of the main pancreatic duct, with the common duct of the liver."

It is in this unfortunate association of terminal facilities that the large percentage of diseases of the pancreas have their etiology.

The triangle of pancreatic inflammation is that part of the head of the pancreas which lies between the duodenum on the right, and the ducts of Santorini above and Wirsung below, and it has been shown that catarrhal jaundice, especially the epidemic form is probably due to pancreatic disturbance, and is similar to such inflammation of the parotid gland as mumps. (Mayo).

If it were not for the duct of Santorini which has an independent opening into the duodenum, the diseases of the pancreas would be much more common and fatal. There is no doubt, the infection travels up the common duct into the gall bladder, where there is a possibility for a large accumulation of infected bile, which on its way down,

is diverted sometimes into the pancreatic duct, especially if there is any obstruction within the common duct below where the pancreatic duct enters. Whatever the relations of these two diseases are, surgeons now agree that disease of the gall bladder and its ducts, and especially the obstructive type, are an etiological factor in diseases of the pancreas. Practically all patients with a pancreatic disease have an involvement of the biliary tract.

The diagnosis of acute disease of the pancreas is not a very easy matter, and almost impossible in many instances, before exploration is made.

Case No. 734, Clinic of Israel, Berlin. Patient, male 40, previous illness no bearing. Present illness, pain, sudden and severe in the abdomen, right side. Operation with diagnosis of appendicitis of a severe type. Small masses resembling actinomycosis were found. Operation ended with that diagnosis without seeking the appendix. There was considerable exudate present. Some days later, hemorrhages from the incision began, and he died on the 11th day after the operation.

Post Mortem. Extensive fat necrosis involving the entire abdominal cavity, the omentum and particularly the region of the cecum. The appendix was normal. The pancreas was normal. No lesion could be found to account for the fat necrosis. It was concluded that they had to deal with a primary fat necrosis and that the pancreas was shown to play only a subordinate part in this disease. It would seem (Richter) that Israel's case must be accounted for, by the fact that it was a slow leaking duodenal ulcer, with extensive change in the peritoneum, making it easy to overlook the ulcer. The tendency of perforating duodenal ulcers to produce symptoms referable to the appendix has been known for many years. Moynihan explained this fact by suggesting that the escaping fluid passed down along the watershed over the meso-colon along the outside of the ascending colon to the cecal region. According to Moynihan, 25 per cent. of all perforating duodenal ulcers are operated upon under the diagnosis of appendicitis.

What are the symptoms of an acute disease of the pancreas, and what are the terminations. The symptoms are very much the same as in any other violent inflammation within the abdomen. Sudden onset, agonizing pain in the upper abdomen, with collapse, followed by prostration, pulse quick,

slight elevation of temperature, nausea, vomiting, and rapid abdominal distention. The acuteness of the symptoms suggests obstruction, which is belied by the ability to secure the passage of gas. (In the very acute case, hemorrhagic pancreatitis may result and destroy the pancreas in a few hours. The most interesting feature of acute pancreatitis concerns fat necrosis. It is a disseminated necrosis of fat due to the escape of pancreatic ferments which involve to a greater or less extent the omentum, mesentery, retroperitoneal and other adipose. Suppression of the urine is a common symptom, accompanied by delirium, and a semi-comatose condition due to the effect on the envelopes of the kidney of this fat splitting ferment.) (Mayo.)

Ulcer of the stomach and ulcer of the duodenum are not a part of this paper, as they are generally chronic conditions, and have given a history very often of vomiting blood, blood in the stools, dyspepsia, etc. It is only when they take an acute form, either perforation or hemorrhage, that the necessity for surgical intervention is so urgent. Given a patient with a history that pointed to an ulcer of the stomach, or duodenum, and these violent symptoms, such as pain, collapse, muscular rigidity, you have a case that is calling for surgical treatment with probably a diagnosis of one of these affections.

Case 1125. Girl 16, suddenly attacked with pain in the abdomen, looked to the doctor to be some serious acute abdominal trouble, calling for surgical treatment. I saw the case the same day. Operation advised. The case got into other hands and we did not see her again for three or four days, when she was brought to the hospital for surgical treatment. She was then suffering with an acute general peritonitis. The operation disclosed a normal appendix, and the cause of the peritonitis, a ruptured duodenal ulcer. She died practically before the operation was completed.

The next and last acute condition, to which I wish to call your attention, is a strangulation of the gut, and by that I mean, an obstruction to the continuity of the alimentary canal, wherever it may be. This disease is not very uncommon, and calls for prompt surgical treatment. When I was in school some twenty years ago, we were treating strangulations and obstructions nearly altogether on the medical side of the house. And the result of that treatment is no doubt familiar to you all. It was true an odd case of strangulated hernia that

could be plainly seen, was relieved by cutting the bands of constriction, but that was the extent of the surgery of those days. In the greatest number of them, death followed from undiagnosed and unrelieved internal obstructions, and also from strangulated hernias, which were supposedly reduced by taxis. And right here let me emphasize that no attempt should be made to reduce any hernia by taxis, providing a competent surgeon is anywhere to be found. This condition is calling for an early radical operation and the sooner the better.

The late Dr. Ferguson on page 160 of his book on hernias, reports the following:

"I traveled 50 miles from Winnipeg, in 1887, when the temperature was 45 degrees F. below zero to reduce a strangulated right oblique inguinal hernia, who by the way, was at one time a bare footed school mate of mine.

"Under chloroform anesthesia the reduction was effected by my own satisfaction, and to the apparent relief of the patient. Within an hour, I started on my homeward journey, but when 20 miles distant, a telegram overtook me, and I had to return on account of the sudden bloating and the bad condition of the patient. Upon returning I immediately opened the abdomen in the right inguinal region, and found that the bowel and omentum were obstructed to a considerable degree, although both were reduced within the abdomen. The band was severed, the omentum and bowel liberated, and the wound brought together with through and through stout silk sutures, the best material at hand. A life was saved, and a cure of the hernia effected."

What are the symptoms of a strangulation of the gut?

1st—Vomiting.

2nd—Tympanites.

3rd—Temperature normal or sub-normal.

4th—Pain.

5th—And most important of all, increased peristalsis.

This is another class of cases, which if not relieved, will lead to death by the same route, acute general peritonitis. We have arrived at that stage of our lives when we know that when we are called to a case of general peritonitis, that the doctor that is calling has not been faithful to his trust, in fact, a doctor in my opinion scarcely worthy of the name. We do not believe any longer in idiopathic

peritonitis, and we believe in every case we ought to find the cause.

What are they as they occur in general practice? Generally one of three. 1st—Penetrating wounds of the abdomen, that do not cut viscus or infection from faulty technique during abdominal work.

2nd—Infection through the wall of organs without perforation. This is the case of the fallopian tubes or appendix or occasionally the gall bladder. As soon as any of these organs are put upon pressure, the integrity of their walls becomes jeopardized, the microbes are able to penetrate to the free peritoneum and set up a violent inflammation.

3rd—The most fatal type of infection from an opening in a hollow organ, such as ruptured appendix, ruptured fallopian tube, ruptured gall bladder, or ruptured duodenal ulcer, or gastric ulcer.

What are the symptoms of acute general peritonitis?

1st—Vomiting of a greenish fluid.

2nd—Tympanites.

3rd—Temperature.

4th—Pain.

5th—The last and again most important, absence of peristalsis.

The picture of the disease is no doubt familiar to you all. And I bring it forward to show that the treatment must incline toward the prevention not its cure. You will notice that the symptoms of peritonitis as outlined, are those of a strangulation, and if so, where is the difference. If you put your stethoscope over the belly of a patient suffering with a strangulation, you would hear the churning and rolling of the intestines endeavoring to free themselves from the grasp of the strangulation. And in many instances, with friction over the abdomen, you can see the coil of dilated intestine. The peristalsis is greatly increased. On the other hand, put your stethoscope over the belly of an unfortunate victim of peritonitis, and you will hear no sound, all is still, just as quiet as the grave. If any of these patients had been given large doses of morphine, the symptoms will be masked, and I ask that this dangerous drug be withheld, until the diagnosis is made beyond a doubt, and preparation for the proper surgical treatment planned.

With this rambling paper and history of cases, I may possibly have impressed somebody with the

importance and difficulty in the diagnosis of acute surgical diseases of the abdomen.

And while it is not absolutely necessary to have a diagnosis correct before you operate, still the same good old rule holds true. Poor diagnosticians are poor surgeons, and good diagnosticians are a necessary quantity if a man intends to succeed in this modern surgical age. Careful history of cases and symptoms in their order will often do a great deal where a haphazard examination means nothing. And to him who intends to do abdominal work, without having burned the midnight oil in preparation, and who has not prepared himself for this important work,—these words of mine will fall and bear no fruit. But he who seeks perfection, in his work,—who makes an attempt to save his patients, that he may be known as a type of man who is safe, and that his diagnosis is backed by experience and careful thinking, he probably will appreciate my effort, and I hope before me today in this great State of Wisconsin, a State that has produced some of the greatest medical men in the world, that it will be said of some of us, the highest tribute that can be paid to any surgeon; "He is the type of man I would want to operate on me."

DISCUSSION.

DR. J. F. PEMBER, Janesville: Dr. Connell always gets what he wants. He ran across a woman with four scars on her abdomen, and although she had been in the hands of four men he got her appendix; he gets everything. He has lined up before us the symptoms of these various diseases that look easy to diagnose, and if diagnosed are easily operated, but I want to tell you that Connell is not the only man that has operated upon a case supposed to be appendicitis, and was really a case of pneumonia. I was once taking a post graduate course in New York, and Robert Morris brought in a woman whom he said was suffering from acute appendicitis, and that he would find an abscess. On operating he brought up a normal appendix; he took it out and then said it must be a tubal pregnancy. He went in over the middle line and brought up both adnexa; but they were in a healthy state and he left them saying "When we find out what is the matter of the woman we will tell you." Two days later he said, "I am pleased to inform you that the woman has a typical attack of pneumonia, with every prospect of recovery."

So I say Dr. Connell is not the only man who has operated on cases for appendicitis when they were suffering from pneumonia.

The only way that we learn is to get bumped, and if we get bumped good and hard we remember it. Within two months in our own practice at home we diagnosed an appendiceal abscess; we saw the patient the first time when suffering from acute peritonitis with great ab-

dominal distention and no findings from below. We found a tumor in the right side and diagnosed appendiceal abscess. We were so sure of our evidences that we did not take a careful and accurate history which should be done in every case. As soon as the condition of the patient would permit (but she was so violently sick that nothing could be done for four or five days) we went in carefully, and put in a needle of large enough caliber to draw off fluid, but not large enough to harm the gut; and drew off fluid. We then did not know what to do. We left the opening and went in on the middle line, and got through the peritoneum very carefully and found a tumor the size of a child's head adherent everywhere, dead from its own source, an ovarian tumor with a large pedicle and rising from the left side, coming over to the right side, and only living by the adhesions it formed to the contents of the abdominal cavity.

So you see although these symptoms are all portrayed here, the diagnosis of all cases is not easy. But I am free to say had we been careful in taking our history, and had we made a good examination and count and all those things, it would have been different; but we were so sure of our diagnosis that we omitted those requirements. So that if you do not carry away with you anything else to-day from this paper except the necessity of taking a careful and complete and accurate history of each case that comes before you, your time has been well spent.

My time is limited and I will only touch on a few of the high places in the cases of extra-uterine pregnancy. Here again the history is of the utmost importance. It usually occurs in a woman who has been sterile for a number of years and has given a history of some pelvic inflammation of a more or less severe form, inflammation that has been severe enough to arrest the progress of the ovum from the ovary to the uterine cavity. It is in those cases ordinarily that we get extra-uterine pregnancy; and if we are careful in taking the history of those cases it helps us not a little in the diagnosis of them.

To sum up the matter and keep within the limit of time, I simply want to say that after all is said and everything is done to arrive at a correct diagnosis of acute abdominal disease, no man is wise enough to tell in every case just what he will encounter when he opens the abdomen. I have arrived at this conclusion after watching the work of the best men for a long time; and we have had demonstration after demonstration of the same fact in our practice.

DR. J. P. CONNELL, Fond du Lac: I have not much to say about this subject excepting this: both for the general practitioner and the surgeon pain is your guiding star. It is to the surgeon or the general practitioner what the compass is to the mariner. It will guide you across a great many stormy seas. When a patient has pain in his abdomen, pain in his tooth, or pain in his ear, it means that something is going wrong; and because it is wrong you get pain; and you must operate for pain and not for appendicitis. If it were not for the little outside casing that is over the abdominal cavity all those diseases would be very easy to diagnose; but as they are

today, as we find them, they are difficult. Appendicitis shows many, many variations; extra-uterine pregnancy, aside from the shock, shows many variations. Pancreatitis in particular is mistaken by the best of us; it simulates acute cholecystitis or acute peritonitis from any cause; and I would say further, it should be a part of our diagnostic assistance to open the abdomen and so confirm a tentative diagnosis. This may seem an extravagant statement, but you must recall whether you have a pancreatitis, an ectopic gestation, a perforating duodenal ulcer, or any other acute abdominal trouble operative interference is imperative, and delay is fraught with danger.

Now we will say to the general practitioner, as the paper says, that a large percentage of the work will come from those men; and I must say in dealing with a large percentage of them, that the general practitioner is growing very competent. They make very good diagnoses, but none of us can make them all. We all make mistakes, but when we get to intra-abdominal troubles, to clear your own diagnosis, you must make an exploratory operation. I would say that for the general practitioner, he should advise and admonish his clients that an early operation is always in order.

The great error of the surgeons today is that they are content with picking out the appendix. A man has pain in his abdomen, he has appendicitis. This may or may not be true; but when that abdomen is opened, if you are going to do conscientious work, all the organs that are apt to be diseased should be at that time examined, and unless you have done that you are not fulfilling your duty to your patient as a surgeon.

The doctor referred to a person operated upon four times. I can do better than that. A woman in our town was opened thirteen times and still after that she had appendicitis. (Laughter.) She had thirteen serious operations—this is a fact. She was down in El Paso when she was taken with appendicitis and I opened her to sew up an old rupture, and when I opened to sew the rupture, I took out a very bad appendix, and that has practically ended her troubles.

The surgeon when he opens the abdomen, if he does not find the appendix sufficiently diseased to answer for the symptoms, then, by all means should examine the other organs that might be in trouble and see that they are perfect. It was just recently that two cases were brought to me with all the symptoms of acute appendicitis. I opened them and found healthy appendices. In one case I found a rupture of the duodenum and in the other one I found a rupture of the jejunum. Had I been content with looking for the appendicitis alone and taken out that appendix, I would have lost my patients and wondered why. Both of those cases recovered; they were operated on early.

I have also found a bad appendicitis and cholecystitis at the same time. I think the surgeon is in duty bound to his patient when he opens the abdomen to explore all the organs that may be apt to get diseased, correct the difficulty whenever possible, and when not he should be cognizant of the remaining difficulty so that he can correct it when his patient is in better condition. Dr.

Charles Mayo was operated upon for appendicitis, possibly on his own diagnosis—I don't know; and he was found afterwards to have a cholecystitis. I think the surgeon is in duty bound to his patient when he opens the abdomen to explore all the organs that may be apt to get diseased.

DR. W. D. HAGGARD, Nashville, Tenn.: I had no intention of saying anything, but as you are kind enough to call on me, I may say in reply to the last remark of the speaker that Dr. Mayo was operated on for appendicitis on my diagnosis. I chanced to be with him in New York at the time, and he was taken sick at the dinner table having had some abdominal pain earlier in the afternoon. He was going to the theater but was obliged to go up stairs and lie down. When we came up for him he was vomiting. He went to his hotel and that morning about 5 o'clock his wife asked me to come to see him, saying that she was fearful he had obstruction. He, however, after a considerable number of enemata and a large dose of oil, had succeeded in getting his bowels moving by the time I reached him; but he had generalized abdominal pain with right-sided tenderness low down and some rigidity of the right rectus muscle. temperature 100.5°, pulse about 100. I asked Dr. Beebe to come to see him, and Dr. Ewing made a blood count which was 12,000. At noon of that day Dr. Joseph A. Blake saw Dr. Mayo and confirmed the diagnosis of appendicitis which had been previously concurred in by Dr. C. A. L. Reed, of Cincinnati, and Dr. L. S. McMurry, of Louisville, who were in our party. We were very anxious to get him over that attack without operation if possible, for the reason that he wanted to be at home for the operation. He knew that he had gall stones, having had several characteristic attacks and wanted to get home and have it all attended to at one time. But by nightfall the temperature had risen, and the rigidity had increased. Thereupon after consultation with the gentlemen who had seen him earlier, Dr. Blake operated and removed a very much thickened and angry, discolored appendix, coated with lymph, which would soon have become gangrenous. Free fluid in the abdominal cavity necessitated drainage. The last remark that Dr. Mayo made to me was "don't have them bother with the gall bladder now; I will worry along with that." But unfortunately a week afterwards he had an acute infection of the gall bladder which necessitated its drainage after the removal of stones. The natural inference would be that the first diagnosis was incorrect; but the specimen was absolutely pathognomonic of an advancing beginning gangrene of the appendix. I take the liberty of saying this inasmuch as the case came up in the discussion.

DR. D. R. CONNELL, Beloit: I am very much pleased with the discussion of my paper. I am sorry I did not have more time because I could possibly complicate myself more if I got in deeper. One thing is certain, with the exception of my own case and the one that Dr. Pember quotes, all other appendices ever taken out of anybody were diseased. Dr. Pember and I are the only ones so far as I know that have taken out normal appendices. If others take them out they are pathologic of

course. There is one thing I wish to again emphasize, and that is the history. There is no question but what the history of these acute abdominal cases is of great importance. A careful history of most abdominal cases, together with their symptoms will come very near to a correct diagnosis. In pancreatic diseases, Dr. Robert Morris said at the Philadelphia meeting, that notwithstanding all the facts of the microscope, blood count, etc. that the man who can diagnose and decide whether the trouble is above the umbilicus or below, or whether to the right or left of the abdomen, is doing pretty well.

Appendicitis seems to follow a line of symptoms which is much more clearly fixed. It makes no difference what we do, the nearer we come to a correct diagnosis, the better we are off. A poor diagnostician is a poor surgeon, and a man who does not take a correct history is not fit to do surgery.

SPECIAL ABSTRACT

CLINICAL AND BACTERIOLOGICAL STUDIES ON ENDOCARDITIS LENTA.*

Recent studies of the bacteriology of cases of so-called subacute infective endocarditis have succeeded in separating an apparently definite disease due to a streptococcus named by Schottmueller, *S. viridans*. He later proposed for the type of endocarditis caused by this streptococcus the name endocarditis lenta.

Since attention has been focussed on this type of endocarditis, quite a number of cases have been reported in the literature. Undoubtedly many of the case collections of the older authors included members of this group, for the clinical symptoms and course are similar to those of this disease under discussion. It is evident, then, that the disease is not strictly speaking a new one, but one with definite characteristics split off from the large group of endocarditis cases.

The streptococci grown from these cases of endocarditis lenta have very definite cultural characteristics which enable us to separate them readily from the ordinary *S. pyogenes*. The most distinctive feature is the production of a green discoloration in blood agar around the colonies. Further the organism is very slightly or not at all hemolytic. The pathogenicity for laboratory animals is also very low.

R. H. Major reports six cases of this disease with studies on the bacteriology of the organisms

grown from the blood of his cases and of other streptococci obtained from several sources.

The symptomatology and clinical course of all the cases show a marked similarity. "The onset is usually insidious, the symptoms so vague at the beginning that the patient is unable to say just when his illness began. There is often a gradually developing shortness of breath, a sense of lassitude which increases until the patient takes to his bed, accompanied by some elevation of temperature and vague pains in the joints."

Occasionally, as in two of his cases, painful red swelling of the finger-tips was an early sign. Practically all the cases reported have had either a previous history of rheumatic fever or of repeated attacks of tonsillitis.

There is anemia, leucocytosis (although in one of Major's cases the count was 6000), and irregular fever. Cases are seen in which there is no elevation of temperature throughout the greater part of the disease. Heart murmurs are practically always present although now and then the case may have only a rapid irregular heart with no audible murmurs. The mitral valve is the usual seat of the verrucose vegetations. As the disease progresses evidences of embolism appear. There are petechiæ on the skin, hemiplegia, aphasia, partial paralysis, acute nephritis with hematuria. Cerebral embolism seems to be rather frequent. In one of Major's cases there developed sero-fibrinous pleurisy from which the *S. viridans* was grown.

The disease is practically invariably fatal, particularly when the organism is recovered from the blood stream and the course of the disease is from three to twenty-four months. There are four cases only in the literature in which recovery took place following the demonstration of *S. viridans* in blood culture.

The diagnosis can be positively made only upon the culture of the organism from the blood. However, in some cases repeated cultures are negative.

Bacteriologically the *S. viridans* has not been definitely placed. Streptococci are not always easy to differentiate from pneumococci. Some consider this coccus a streptococcus, others class it as pneumococcus. The organisms grow feebly only appearing after 48 hours and in one of the author's cases, only after six days. On blood agar they develop a definite, greenish pigment surrounded by a very slight clear zone of hemolysis in marked contrast to the wide zone produced by

*Bull. Johns Hopkins Hospital, 1912, XXIII, 326.

S. pyogenes. The intensity of the green pigment also seems dependent upon the amount of blood in the medium. The coccus is Gram positive, is small and grows in long chains. In litmus milk acid and clotting were produced in 24 to 48 hours. No gas is formed in glucose agar.

From his comparative bacteriological studies, Major is inclined to group the streptococci recovered from his cases under the streptococci rather than under the pneumococci. He has subcultured the organism and passed it through animals for a period of ten months without changing its cultural or morphological characteristics.

It is interesting to note that he studied in parallel series three cultures of the so-called *Micrococcus rheumaticus* (Poynton and Paine). There were no distinguishing differences between these and the *S. viridans*. This streptococcus is also quite distinct from the *M. zymogenes* isolated by MacCullum and Hastings from a case of chronic endocarditis.

That the *S. viridans* is actually the etiological factor seems to be shown by the positive complement fixation test which Major obtained. As antigen he used cultures of the organism heated to 60°C. Curiously enough it was also shown that an antigen prepared from ordinary *S. pyogenes*, when added to the patient's blood serum bound complement, while an antigen prepared from pneumococci did not show complement fixation.

Here then we have the separation of a definite disease from the general group of endocarditides. There seems to be proof that the disease is caused by a specific type of streptococcus (pneumococcus), that there is a very uniform history and clinical picture in the course, and the prognosis is in every case, with very few exceptions, fatal.

There can be no doubt but that the recognition of these cases will come to many physicians now that attention has been drawn to this not infrequent type of endocarditis.

BOOK REVIEWS

THE PRACTITIONER'S VISITING LIST FOR 1913: An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual

consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years. Price by mail, postpaid, to any address, \$1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

Being in its twenty-ninth year of issue, The Practitioner's Visiting List embodies the results of long experience and study devoted to its development and perfection.

It is issued in four styles to meet the requirements of every practitioner: "Weekly," dated for 30 patients; "Monthly," undated for 120 patients per month; "Perpetual," undated, for 30 patients weekly per year, and "60 Patients," undated, for 60 patients weekly per year.

The text portion of The Practitioner's Visiting List for 1913 has been thoroughly revised and brought up to date. It contains, among other valuable information, a scheme of dentition; tables of weights and measures and comparative scales; instructions for examining the urine; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business.

THE WASSERMANN REACTION: Its Technic and Practical Application in the Diagnosis of Syphilis, by John W. Marchildon, B. S., M. D., Assistant Professor of Bacteriology, St. Louis University Medical School. Eleven illustrations and colored frontispiece. St. Louis, C. V. Mosby Co., 1912. Price \$1.50. It is gratifying to note that the author considers test papers as not accurate and that the test advocated by Wassermann is the only reaction upon which one may depend. There are, however, several practices as outlined by the author which are reprehensible. The author injects small quantities of blood intraperitoneally three times into his rabbits for making amboceptor—this will either not give an amboceptor at all or one so very weak that it is impractical. As regards the procuring of complement, the author does not exercise enough care in the selection of his guinea pig. He also kills his guinea pig every time to procure the blood—this is an expensive and unnecessary procedure. The author recommends centrifugalizing the patient's blood immediately upon taking in order to get the serum—this will make many tests appear negative when they are really positive because the corpuscles carry down with them the substance (whatever it be) that enters into the reaction. Many sera tested in this way have been found negative while the sera from the same respective bloods have given a positive reaction when allowed to separate without centrifugalization. There are many other little practices as outlined in this book that are time saving, but not accurate—such as using complement the same day the blood is taken from the guinea pig; cutting down the time necessary for incubating the first tubes from 1¼ hours to 30 minutes; using a control tube for only the

complement alone and not for the antigen alone also. If a serologist were rigidly to follow the procedure as recommended by Marchildon in his book "The Wassermann Reaction," he would arrive at very inaccurate conclusions, if at any at all.—C. A. B.

THE CARE OF THE SKIN AND HAIR: By Wm. A. Pusey, M. D., Chicago, 182 pages. D. Appleton & Co., New York.

This little book, written mainly for lay readers, contains much information of value to physicians as well. It covers mainly the subject of the care of the skin and hair in health with a brief consideration of a few of the commoner disorders.

The book covers in a general way the subject of every day cosmetics. The scope of the work is perhaps best given by a list of some of the chapter headings: The Structure of the skin, The Nutrition and Functions of the Skin, Hygiene of the Skin, Care of the General Health, Diet and Digestion, Local Care of the Skin, Water and Bathing, Soaps and Powders, Ointments and Creams, Inflammation of the Skin, Disorders of the Face, Structure of the Hair, Care of the Hair, Baldness, Superfluous Hair.

A TREATISE ON DISEASES OF THE HAIR: By George Thomas Jackson, M. D., Professor of Dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University, and Charles Wood McMurtry, M. D., Instructor in Dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University, New York. Octavo, 366 pages, with 109 engravings and 10 colored plates. Cloth, \$3.75, net. Lea & Febiger, Philadelphia and New York, 1912.

This is a comprehensive work, covering practically all that is known at the present day concerning the hair and its care in health and in disease. The chapters on the anatomy, physiology and hygiene of the hair are especially complete. Much of the material for these chapters has been drawn from Darier's work in *La Pratique Dermatologique*. The newer methods of treatment, notably the use of the X-Ray in the treatment of ring worm and vaccines in the treatment of sycosis barbae are thoroughly covered. The chapter on ring worm of the scalp embodies much of the recent work of Sabouraud on the parasitology of the disease and is without doubt the most authoritative exposition of the subject in any text book in the English language. The book is profusely illustrated and should prove of great value as a help both in diagnosis and treatment of a group of diseases but little understood by the general practitioner.

THE PRINCIPLES OF HUMAN PHYSIOLOGY: By Ernest Henry Starling, M. D., (London), F. R. C. P., F. R. S., Jodrell Professor of Physiology in University College, London. Octavo, 1423 pages, with 564 illustrations, some in color. Cloth, \$5.00, net. Lea & Febiger, Philadelphia and New York, 1912.

A new text-book on Physiology lies before us from the

pen of Dr. Starling whose name is intimately associated with the now generally accepted "hormone" doctrine. Rapid strides have been made in Physiology during the past few years. Many of the advances have been made possible by the researches of Physicians and Chemists, so that the three sciences are dependent upon one another more or less, certainly the first on the last two, and Chemists are reaching over and grappling with problems concerning life and its origin.

We are sure that we are living in a marvelous age when discovery succeeds discovery with such rapidity that we cease to wonder at the announcement of something new, for shortly something newer and more wonderful will have been given to the world.

This, while somewhat discursive, nevertheless has an indirect bearing on the review of a text-book on Physiology, for Dr. Starling has taken this present moment to bring together and to correlate the fundamental facts of Physiology as modified by the newer knowledge derived from its sister branches. It is a fitting time and we welcome such a book.

When one looks over the book it is almost monumental, and one is astounded at the subjects covered and delighted with the ready language and easy, fluent style of the author.

It does not seem, however, that he has given enough prominence to the work of Dr. W. H. Howell on coagulation of the blood. Indeed, that section is probably the least well done. We Americans will also take exception to the origin of blood platelets from coagulation of plasma, as we, for the present, favor Wright's megakaryocyte hypothesis.

The thirteen pages of introduction deserve to be widely read. There is something refreshing in the perfectly sane view of the author which might be summed up in a sentence from the Preface. "Throughout the work I have sought to show that the only foundation for rational therapeutics is the proper understanding of the working of the healthy body. Until we know more about the physiology of nutrition, quacks will thrive and food faddists abound. Ignorance of physiology tends to make a medical man as credulous as his patients and almost as easily beguiled by the specious puffings of the advertising druggist."

After this we expected to find something new and interesting on Metabolism and Digestion and we were not disappointed. Over two hundred of the 1395 pages are devoted to this branch.

The book is in no sense a laboratory guide nor is it pabulum for sucklings. Without some knowledge of Physiology it would be time wasted to read such a book, but given knowledge of more than elementary Physiology its value is unquestioned. To advanced students and to physicians this book is highly recommended. In spite of its 1400 pages it is not bulky. The paper is thin, not glazed, the print is clear, and the general make-up most attractive. Certainly Dr. Starling is to be congratulated upon his first edition of this most excellent text-book.—L. M. W.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

A. J. PATEK, M. D., Milwaukee
G. E. SEAMAN, M. D., Milwaukee
O. H. FOERSTER, M. D., Milwaukee
C. S. SHELDON, M. D., Madison
S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc	J. V. MEARS.....Fond du Lac	O. T. HOUGEN.....Grand Rapids
G. WINDESHEIM.....Kenosha	H. W. ABRAHAM.....Appleton	R. U. CAIRNS.....River Falls
F. T. NYE.....Beloit	EDWARD EVANS.....La Crosse	J. M. DODD.....Ashland
W. CUNNINGHAM.....Platteville	T. J. REDELINGS.....Marinette	H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents
Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

NOVEMBER, 1912.

No. 6

EDITORIALS

WAKE UP!

WANTED—A new sound to arouse the physician who declares that “without a demonstration of the tubercle bacillus in the sputum THERE IS NO TUBERCULOSIS.”

During the past three years the general public has been catching up with the general practitioners' knowledge of tuberculosis. There is plenty of evidence today that many physicians of repute and good standing in their neighborhood and in their medical society now need to catch up with the public understanding.

It ought to be an insult to tell a physician that, barring accident, the appearance of tubercle bacilli in the sputum is evidence of cavity formation; but it isn't. To too many, the statement comes as a revelation.

The day when the silk hat established the physician's standing in the community has passed (Gott sei dank). The title of “doctor” in a mighty few years will not conceal an empty head any better than the silk hat does now.

THE PRACTICE OF OBSTETRICS.

In the article on Obstetric Practice, Past, Present, and Future by Dr. McMahon, which appears in this issue of the Journal there is food for thought for every practitioner of medicine. To give properly a thorough course in this important branch is one of the most serious problems con-

fronting the medical schools of America today. In helping young men to decide where they shall study medicine our advice should always take into consideration the character of the courses offered in this branch in the various institutions.

Another important practical point which very properly received emphasis in the paper referred to is that “obstetric practice is surgical practice” and “that all cases require surgical technique, skill, and experience.” These are things which we all know perfectly well, and yet we are apt to forget their importance at times when case after case passes through a normal course under unfavorable hygienic conditions. Then we grow careless, take a chance perhaps—it is very human, but bad obstetrics.

We have no right to “take chances” with any human life, and in obstetrics, more than in almost any other branch of medicine, eternal vigilance is the only safeguard.

CHRISTMAS SEALS AND THE ANTI-TUBERCULOSIS ASSOCIATION.

A very practical way for physicians to show their interest in the work of preventing tuberculosis is to use the Christmas Seals of the Wisconsin Anti-Tuberculosis Association on all their letters during the month of December. This would cost the individual very little and yet it would help to show that the members of the medical profession are actively interested in this battle which is going on before our very eyes, and are not merely “sleepy spectators.” That is what we have been called at

times. And there has been enough truth about it when applied to not a few of us to have it hurt some. If it would only hurt the right ones and awaken them to a sense of the responsibility of the profession to the public with regard to tuberculosis we could all give thanks on November 28th with unusual fervor.

Another thing for which we ought to be thankful is that the Wisconsin Anti-Tuberculosis Association is going to widen the scope of its work and include in its educational campaign the dissemination of information regarding typhoid, contagious and intestinal diseases of childhood, and similar subjects. This is the beginning of a great work and we may hope that in this way the ground will be prepared for an improvement in rural hygiene, through an awakened interest among the people themselves in the causes and methods of prevention of these various diseases.

THE COMPARATIVE DANGERS OF DISTILLED AND FERMENTED LIQUORS.

E. Feske's observation* confirms the experience of many who deal with alcoholic cases. He draws attention to the remarkable decrease in the occurrence of delirium tremens following the boycott of brandy in the city of Breslau. This boycott resulted from a fifty per cent. increase of the brady tax. Breslau, in common with Berlin and Hamburg, has always had an exceedingly large number of these cases, in this respect vividly contrasting this portion of Germany with the southern, in which the beer consumption is relatively greater.

Kraepelin (Munich) found but nine per cent. of delirium tremens in the alcoholic insane while over fifty per cent. was common in the cities of northern Germany or what could be termed the brandy drinking section. Following the extra levy of brandy tax and the resultant boycott of this intoxicant, the cases of delirium tremens decreased fifty per cent. according to Feske. This observation very strikingly bears out the experience of those dealing with the alcoholic insane in this country. Almost without exception the history obtained from these cases shows a more or less prolonged use of the distilled liquors.

Recently compiled statistics in a local state hospital where special efforts were made to elicit

detailed accounts as to the use of alcohol gives the following interesting results:—of 616 males admitted during a two year period, 104 were diagnosed as alcoholic psychoses. Of these 104, 54 or approximately 52 per cent were of the acute delirious form, a condition closely allied to delirium tremens. Without exception these cases gave a history of long and continued indulgence in alcohol. The type of beverage was invariably the distilled liquors. The physical symptom complex of tremor of extended fingers and tongue, diminished deep and superficial reflexes, muscular tenderness and gastritis, typical of the chronic alcoholic was invariably present.

These facts show quite conclusively the toxic effects of the distilled liquors. From a medical standpoint alone, ignoring the social aspects of the question, the conclusion is forced that fermented beverages are attended by less harm, or otherwise stated, the occurrence of delirium tremens and allied conditions are almost entirely dependent upon the use or abuse of the distilled liquors.

HISTOLOGICAL CHANGES IN SALVARSAN POISONING.

In the Cleveland Medical Journal for September, Dr. H. O. Ruh places on record a case showing a striking tissue reaction in the kidneys and liver following the use of salvarsan.

The patient was a well nourished, well developed woman of fifty-four years, the mother of nine children of whom five died between the ages of three and four months. She had had two miscarriages.

At the age of ten years a swelling appeared above the right knee gradually increasing in size for eight years when it began to ulcerate on the posterior aspect. The swelling was incised and drained but there was no relief and the ulceration continued although there was no further increase in size. Two years ago a piece of the femur was resected; four weeks later another piece was removed, and again five months later a third and more extensive resection was done. Eighteen months ago amputation was performed in the upper third of the thigh. Two sinuses persisted from which there was a profuse purulent discharge. On admission the stump showed three ulcerating surfaces, each about three centimeters in diameter, exuding foul-smelling, yellowish, purulent material. The edges were reddened, raised, and

*Allgemeine Zeitschrift für Psychiatrie, Vol. LXVIII, II—3, 1911.

granular. The heart and other organs were normal. The urine contained no albumin, but a few granular casts. The temperature and pulse were normal. There was no family history of tuberculosis. The Wassermann reaction was positive. After three weeks of ordinary antiluetic treatment, 0.5 grams of salvarsan was injected intravenously. After the injection the patient complained of severe abdominal pain and the temperature rose to 101.2°, with a pulse of 120, in the course of a few hours. After the salvarsan injection the patient did not void urine for four days, when three ounces of clear urine were passed, but unfortunately not examined. No more urine was passed. A slight uriferous odor of the breath was noticed just before death. The eye grounds were examined but showed no changes. The blood pressure remained at 135 mm. On the fifth day after the injection she became very apathetic and gradually went into complete coma, dying shortly after coma developed.

The autopsy notes are given in detail in Dr. Ruh's paper but the changes in the liver and kidneys are the most striking features. The liver extended four centimeters below the costal margin in the midclavicular line and weighed 1565 gm. It was soft and flabby and had a doughy consistency and a light yellow color. On section the surface was cloudy and the markings rather indistinct. The hepatic cells in the center of the lobules were irregular in size and shape, ragged and indistinct, many containing a bright yellow pigment and all showing vacuoles (fat) of varying size. In not a few cells the nuclei could scarcely be seen and the protoplasm was granular. In several fields cells showed mitotic figures and signs of division. The cells at the periphery of the lobules approached the normal type. There was a slight increase of connective tissue.

The kidneys weighed 175 and 180 grams, respectively, and were of a grayish-red color. The capsules were thickened and stripped with slightly increased resistance, leaving a finely granular surface, on which were small red areas, which, on section, were found to represent subcapsular hemorrhages. The cut surface was very cloudy and had a grayish-purple color. The cortex was fairly well differentiated from the medulla, and considerably narrowed. The glomeruli could just be seen.

Microscopically there was considerable increase

in the interstitial tissues. There had been an enormous desquamation of epithelium in the convoluted tubules, which resulted in a partial filling of the lumina with cells in all stages of degeneration. Throughout the kidney there were found irregular patches of polymorphonuclear leucocytic infiltration both in the tubules and in the interstitial tissues. A careful search failed to reveal any signs of marked vascular injury.

Ruh remarks that in the reported cases of untoward effects of salvarsan there were found a considerable number of cases in which kidney lesions were noted. Experimental arsenic poisoning produces a nephritis in which both the vascular and epithelial elements are involved, the vascular elements being first affected, the epithelial changes following.

Fatty changes in the liver cells and also mitotic figures are also found in experimental arsenical poisoning.

The reason why an ordinary dose of salvarsan proved fatal in this case is not explained but the pre-existing chronic interstitial nephritis may have helped to bring about the fatal result.

THE TRANSMISSION OF POLIOMYELITIS.

The work which is being done in the laboratories of both Europe and America on the infectious agent in poliomyelitis and the method of its transmission is beginning to give results of a definite character which have a direct bearing upon the handling of cases of this disease.

In the first place it has been shown that the virus of poliomyelitis is present in the secretions of the mouth, nose, throat, and rectum of patients suffering from this infection, and also in these secretions obtained from patients with slight ailments without the clinical features of a distinct attack of infantile paralysis; cases which must probably be classified as belonging to the abortive type.

In addition to this the infectious agent of poliomyelitis has been found in these same secretions obtained from healthy individuals who have been in close contact with cases of poliomyelitis, plainly suggesting the possibility of "carriers" of the infection.

The work of Rosenau on the transmission of the disease by the bite of the stable-fly has been confirmed by the experiments of Anderson and Frost (Transmission of Poliomyelitis by the Stable-Fly

(Stomoxys Calcitrans). Public Health Reports, Oct. 25th, 1912) and there can be no doubt about the possibility of this method of conveyance. Its frequency, of course, remains to be determined.

The important points thus demonstrated are the presence of the virus in the respiratory and intestinal tracts of both patients and those in close contact with them, and the probability of insect as well as human carriers.

TREATMENT OF BRONCHIAL ASTHMA AND ANALOGOUS CONDITIONS BY SALTS OF CALCIUM.

Kayser points out that calcium salts have some restraining influence in the excitability of the nervous system, and, having had occasion to try the effect of calcium chloride in a case of hay-fever, he extended the trial to 15 asthmatics with 13 successes and 2 failures. After giving the salt for three or four days, gr. 60 daily in a 5 per cent. solution, the attacks became less frequent, and in some cases did not occur again for several months. Respiration is influenced from the first; the secretion becomes more fluid, and better nights are obtained. The patients belonged to all grades of society, and the previous duration of the disease was very variable. The effect is never obtained before the third day of the treatment, and it is well to continue this for eight days, observing strict regularity in giving the doses. He uses the following.

R. Calcii Chloridi.....dr. v.
Syrupidr. x.
Aq. Destill.ad oz. xii.
Misc. Fiat mistura.

“One tablespoonful to be taken in milk every two hours.”

One of the failures cannot be explained, the other was due to the intractability of the patient. In one case there were well-marked heart lesions, but the treatment, nevertheless gave good results.—(Therapeutische Monatshefte). Abstract in Practitioner.

IODINE IN WHOOPING-COUGH.

The antiseptic properties of iodine have led to its use in typhoid fever, tuberculosis, the digestive infections of childhood, intestinal putrefactions, etc. Cavazzani has found it serviceable in the treatment of whooping-cough. It reduces the intensity of

the symptoms, increases the interval between the paroxysms and lessens their severity, shortens the duration of the disease, and wards off complications. It is not contra-indicated in any case, and may be given at the same time as other drugs, in particular, quinine and the bromides (monobromide of camphor). The best preparation is an aqueous solution of iodine and iodide:

R. Iodigr. xv.
Potassii Iodidi.....oz. ss.
Aq. Destillatae.....oz. ss.
Misc. Fiat mistura.

This solution is quite stable and not volatile; it should be given in sweetened milk. Cavazzani gives from 4 to 6 drops daily to infants, and from 5 to 10 drops to children of from 2 to 5 years of age. When they have passed this age, he increases the dose to 10 or 15 drops.—(Revue de Therapeutique Medico-chirurgicale). Abstract in Practitioner.

LUMBAR PUNCTURE IN UREMIA.

Frey has treated 20 cases of acute uremia, 8 of which were cerebral, by this method. In all but 2 cases a lasting effect was obtained; 14 eventually died. The most remarkable case was that of a boy aged 16 years with acute nephritis, who had total amaurosis and lapsed into deep coma. He was bled twice without result. When the puncture was made, the fluid spurted out in a stream, and 10 minutes later the boy was able to answer questions. The improvement was not always so rapid, but the usefulness of the procedure was clearly shown in every one of the cases.—(Correspondenz-Blatt f. Schweizer Aerzte). Abstract in Practitioner.

CORRESPONDENCE

THE TREATMENT OF FRACTURES OF THE LONG BONES.

The American Surgical Association has appointed a Committee consisting of Drs. William L. Estes, South Bethlehem, Pa.; Thomas W. Huntington, San Francisco, California; John B. Walker, New York City; Edward Martin, Philadelphia; and John B. Roberts, Chairman, 313 S. 17th Street, Philadelphia to report on the Operative and Non-operative Treatment of Closed and Open Fractures of the Long Bones and the value of radiography in the study of these injuries.

Surgeons, who have published papers relating to this subject within the last ten years, will confer a favor by sending two reprints to the chairman of the Committee. If no reprints are available, the titles and places of their publication are desired.

JOHN B. ROBERTS, CHAIRMAN,
313 S. 17th Street, Philadelphia.

NEWS ITEMS AND PERSONALS

Dr. C. F. King, Hudson, was seriously injured in a runaway on October 12th.

Dr. G. H. Irwin, Lodi, has recovered from a recent operation for appendicitis.

Dr. Henry Sethney, Menomonie, was operated upon on November 11th, for gall stones.

Dr. C. H. Marquardt, La Crosse, who underwent an operation at St. Francis Hospital, is convalescent.

Dr. C. W. Stoelting, Oconto, was successfully operated upon on October 17, for an obstruction of the bowels.

Dr. E. V. McComb, health officer of Menomonie who underwent an operation for appendicitis, several weeks ago, has recovered and resumed his practice.

Dr. A. J. Hodgson, Waukesha, is said to be contemplating the erection of a plant for the manufacture of gluten bread for people afflicted with diabetes.

Dr. Henry J. Fleischauer, manager of the Waukesha Moor Bath Company for the past several months, has resigned, and taken up his residence in Waukesha.

Dr. J. S. Atkinson, Marinette, who is at the sanatorium at Wales is reported improved, although it is stated that it may be two years before he completely recovers his health.

Dr. Earl L. Baum, recently resigned as house physician at the Milwaukee Emergency Hospital, has taken a position as resident physician of the Good Samaritan Hospital, just opened at Milwaukee.

Dr. E. W. Quick, Green Bay, met with an accident on November 7th. While driving his automobile he did not notice the lowering of an arc light which struck and damaged the front of his machine. The doctor escaped with minor cuts on his face and hands.

Dr. Robert Lloyd Williams, Green Lake, has been appointed to fill the vacancy caused by the resignation of Dr. George Hegner as House Physician at the Emergency Hospital, Milwaukee.

Drs. V. F. Marshall, E. H. Brooks and J. R. Scott of Appleton; Maurice D. Bird of Marinette and L. G. Nolte of Milwaukee, attended the third annual meeting of the Surgical Clinical Congress, which held its sessions in New York City, November 11 to 16.

The new Isolation Hospital at Milwaukee, erected at a cost of \$100,000, has been completed, and was opened on November 10th.

The Good Samaritan Hospital Association, Milwaukee, is preparing for the erection of a \$150,000 institution, to take the place of the temporary one now in use.

REMOVALS

Dr. J. A. Cox, Welcome to Kaukauna.

Dr. O. J. Wolfgram, Caloma to Lyons.

Dr. H. A. Ott, Reedsville to Oostburg.

Dr. Wm. Seaman, Jefferson to Ironton.

Dr. H. N. Leete, Algoma to Duluth, Minn.

Dr. Frank F. Newell, Burlington to Racine.

Dr. N. I. Tibbits, Peshtigo to Grand Rapids, Mich.

Dr. H. E. Luehrs, Hilbert, has disposed of his practice to Dr. S. M. Houtz of Pennsylvania.

Dr. Harriet A. Whitehead of Appleton has purchased her former practice at Wausau from Dr. Nellie M. Fisher.

MARRIAGES

Dr. Guy T. Boyd and Miss Ethel Bell, both of Fond du Lac, Nov. 14.

Dr. J. V. Stevens, Chicago, formerly of Janesville, and Miss Isabelle Strawser, of Janesville, on November 1.

Dr. R. C. Meyer, Elkhart Lake, and Miss Helen Wapshott, former superintendent of the Milwaukee Children's Free Hospital, Nov. 12.

DEATHS

Dr. L. W. Clarke, Cambridge, died on October 31, 1912, aged 81 years.

Lucius Wadsworth Clarke was born at Winsted, Connecticut, September 19, 1831, the eldest son of

Nathan Wheeler Clarke and Rebecca Caroline Dickinson. His youth was spent at Winsted. After seven years of teaching in the public schools of Litchfield County, he entered the University of Vermont, graduating from the medical department in 1863. He was commissioned assistant surgeon of the Thirteenth Connecticut Volunteer Infantry on July 9, 1863. He was honorably discharged from the service on April 26, 1866. Removing to Cambridge in July 1866, he entered upon the practice of his profession. He served the village as president for two terms.

Dr. C. W. Oviatt, Oshkosh, died on October 30, of heart disease, aged 59 years.

Dr. C. W. Oviatt was born at Cleveland, Ohio, April 7, 1853. In his early manhood he learned the trade of a carriage trimmer. He was for a time a student at Jefferson Medical College, Philadelphia. Later he attended the College of Physicians and Surgeons at Chicago, graduating in 1887. The two years following his graduation he assisted Dr. Nicholas Senn at Rush Medical College, and later he was connected with the Milwaukee Medical College, occupying the chair of surgery in the years 1896-1899. After practicing about the country and this state, Dr. Oviatt located in Oshkosh over twenty years ago.

He was consulting surgeon for the Chicago and Northwestern Railway and the Wisconsin Central Railway. He was a member of the Society of Clinical Surgery, member of the American Surgical Society, member and president in 1907 of the Western Surgical Society, member of the Southern Surgical Society, a member and president in 1905 of the State Medical Society, and a member of the Winnebago County Medical Society.

ABSTRACTS

VOLUNTARY EXOPHTHALMUS (EXOPHTHALMIC A VOLONTE) IN A CASE OF DERMOID CYST OF THE ORBIT. Barriere, A. V. (From the eyeclinic of Prof. A. Isola in the University of Montevideo. *Klin. Mon. für Aug.*, 50, I, März 1912, p. 322). A man, aged 19, came on account of exophthalmus of right eye and complained of diplopia during mastication. The exophthalmus (of 5mm.) existed since the first years of his life and gradually progressed. When the patient pressed the jaws forcibly together, three new and important symptoms set in: 1. increase of exophthalmus of 2.5 mm., 2. homonymous diplopia in the right half of the field of fixation, 3. tumor-like bulging of the temporal half of the lower lid and the external canthus. A tumor of the size of a hazelnut was felt in the lower temporal portion of the

orbit, which could not be pressed back into the orbit. On relaxation of the masticator muscles the tumor and diplopia completely disappeared. A puncture showed that it was a dermoid cyst. It extended through the inferior orbital fissure into the temporal fossa and was extirpated after Kroenlein's operation. The phenomena during mastication found the following explanation: The fluid contents of the portion of the cyst lying in the temporal fossa were by the contraction of the temporal muscle forced into the orbital portion of the cyst, which became enlarged and displaced the globe.—C. Zimmermann.

ON HEMIANOPIC PUPILLARY INACTION AND THE HEMIANOPIC PRISM PHENOMENON. Jess, Adolf. (From the eyeclinic of Prof. C. Hess in the University of Würzburg. *Archiv. für Augenheilkunde*, 71, p. 66). The so-called hemiopic pupillary reaction or hemianopic pupillary inaction, which at the instance of C. Hess is better called hemikinesia, for characterizing only the disturbance of the pupillary movement, is of great value for the diagnosis of the seat of a lesion of the optic path. The views as to the possibility of an exact proof of hemikinesia are still divided as well as on Wilbrand's hemiopic prism phenomenon, on account of the numerous shortcomings of the extant methods of examination. Those have been eliminated by the simple method of Hess, which excludes the diasceral light (*Archiv für Augenheilkunde*, 58 and 60).

J. examined 8 cases of hemianopsia with new methods in regard to hemikinesia and eventual adjusting movements as described by Wilbrand, and reports his observations with clinical histories and a tabulated synopsis. 3 cases had the value of an experiment made for that purpose, viz: a traumatic sagittal division of the chiasm with bitemporal hemianopsia, a lesion of the left optic tract with homonymous right-sided hemianopsia later on corroborated by autopsy, a right-sided homonymous hemianopsia, caused, as the autopsy showed, by a tumor of the occipital lobe with intact peripheral conduction. These 3 cases at repeated very exact examinations always gave the same results, which were controlled by several observers. Hemikinesia was observed with certainty in the 2 cases with lesions of the chiasm and tract, and in the case of central lesion any pupillary disturbance was missing. The experiences thus gained could be utilized for the localization of the remaining affections that led to hemianopsia, the causes of which were not ascertained by autopsies. These 5 further cases had to be considered as central hemianopsias. In 2 the general examination strengthened this diagnosis and in all the undisturbed pupillary movements justified this assumption.

Reflex like adjusting movements of the eye were lacking in all cases, also in the 2 of peripheral lesions. Therefore Wilbrand's prism experiment cannot be utilized for the topic diagnosis of hemianopsia. The existence or non-existence of hemiopic pupillary reaction or hemikinesia has been proved with the apparatus of Hess and, according to J.'s investigations, is to be regarded as a reliable diagnostic aid for the localization of cerebral affections.—C. Zimmermann.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1912-1913.

ARTHUR J. PATEK, Milwaukee President

C. A. ARMSTRONG, Boscobel 1st Vice President

L. E. SPENCER, Wausau 2d Vice President

JOHN MATHIESON, Eau Claire. 3rd Vice President

CHAS. S. SHELDON, Madison Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councillors.

TERM EXPIRES 1917
1st Dist., M. R. Wilkinson, Oconomowoc
2nd Dist., G. Windesheim, Kenosha

TERM EXPIRES 1913
5th Dist., J. V. Mears, Fond du Lac
6th Dist., H. W. Abraham, Appleton

TERM EXPIRES 1915
9th Dist., O. T. Hougen, Grand Rapids
10th Dist., R. U. Cairns, River Falls

TERM EXPIRES 1918
3rd Dist., F. T. Nye, Beloit
4th Dist., W. Cunningham, Platteville

TERM EXPIRES 1914
7th Dist., Edward Evans, La Crosse
8th Dist., T. J. Redelings, Marinette

TERM EXPIRES 1916
11th Dist., J. M. Dodd, Ashland
12th Dist., H. E. Dearholt, Milwaukee

Delegates to American Medical Association.

L. F. BENNETT, Beloit.

J. J. McGOVERN, Milwaukee.

C. A. HARPER, Madison.

Alternates

F. S. WILEY, Fond du Lac.

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette.

Committee on Public Policy and Legislation

A. W. GRAY, Milwaukee, Chairman.

J. P. McMAHON, Milwaukee.

F. F. BOWMAN, Madison.

Committee on Medical Defense.

G. E. SEAMAN, Milwaukee, Chairman.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

M. P. RAVENEL, Madison.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison.

J. M. BEFFEL, Milwaukee. T. H. HAY Stevens Point

Program Committee.

L. M. WARFIELD, Wauwatosa, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER 1-3, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

Table with 3 columns: County, President, Secretary. Lists medical societies across Wisconsin counties with their respective officers.

SECRETARY'S NOTES

A new year will soon be upon us. It is the part of wisdom to take an inventory of our possessions at this time—set our house in order, and gird up our loins for fresh conquests.

The number who have thus far paid the 1912 dues is 1653. The number of new members received during the year is 177, and the number of delinquents, 101. A special effort will be made to secure as many renewals as possible before January 1st, and we expect the 1912 membership will reach 1,700 by that date. Of the 53 County Societies, as compared with the total 1911 membership, 22 show a gain, 22 a loss, and 9 are the same as last year.

A Conference of the State Secretaries was held in Chicago October 23-24, for the purpose of considering the entire question of membership conditions in the County, State and National Organizations. The Meeting was most interesting, and was successful from every point of view. One of the objects of the Meeting was to secure uniformity of regulations affecting County and State organizations throughout the Country. In accordance with this idea, a resolution was unanimously adopted endorsing the plan of having the fiscal year coincide with the calendar year in all parts of organization; also, that the dues of Component Societies should be payable on January 1st of each year, and requiring County Secretaries to report to the State Secretary all members in good standing not later than March 31st. Without doubt, these provisions will be adopted at our next Annual Meeting. Meanwhile, especially since we meet next year in the month of October, it has been thought best to act on this recommendation at once. Accordingly, all County Secretaries will begin immediately to make collection of dues for 1913.

The December Meeting should be used for that purpose, and most of the dues should be collected by January 1st. The three months grace must be regarded wholly as a concession, and all County Societies which have not fully reported by March 31st will be dropped from the roll. Also, all individual members who have not paid the 1913 dues by that date will have forfeited their membership. It will be seen by this, that the time of the Annual Meeting will hereafter have no relation whatever to the fiscal year, or to the annual revision of the roster of the County Societies.

It would seem unnecessary to again call atten-

tion to the vast importance of the scientific work of the Societies. As a matter of fact, a Medical Society is hardly worth the name if it does not do systematic and substantial work along these lines. That we have not made satisfactory progress in this regard is due to defective organization.

According to our County Constitution, the Program Committee consists of the President, Vice-President and the Secretary. If these officers fail to do their duty in providing for regular meetings and well-sustained programs, an efficient Program Committee should be elected from the membership of the Society. The Secretary of the Society *should* be the most active member of the Committee, and if he has shown incapacity in the performance of his duties, a reform should be effected by electing a new Secretary at the Annual Election of Officers in December. The best plan is to prepare a program for the whole year, with the titles of the papers which are to be presented, and the names of those who are to lead in their discussion, as well. Print it on substantial cardboard, to post in the offices of the members. Then announce each separate meeting by a postal, as usual. In this way, all have abundant notice of the Meeting and their part in it. This plan means also a great economy of effort on the part of the Program Committee.

It is about time that the medical profession took some decisive action in regard to the commission or fee-splitting abomination. This is an evil, entirely within our own ranks, which, beginning in some cases in order to correct a seeming injustice, has gradually attained such proportions as to be simply intolerable for all parties concerned.

As a practice, it is absolutely indefensible from any point of view. It is demoralizing both to the physician and the surgeon. It strikes at the very root of character, and seriously involves the integrity and good faith of those who practice it. The innocent victim—shamelessly put up to the highest bidder—is doubly wronged, and nothing in late years has so seriously compromised the fair fame of the medical profession in public estimation as this nefarious traffic. It is the worst sort of commercialism, since it robs the patient, not only of his money, but of his best chance of surgical skill, as well. These transactions, being essentially criminal in their character, are supposed to be unknown; but, as a matter of fact, the general public is quite fully awake to the true state of

affairs, and, aside from the matter of principle, the medical profession cannot afford to longer close its eyes to the present situation.

The case would be most unfortunate if a remedy were not so near at hand. The overwhelming weight of professional opinion, strongly condemns this practice, and it would not endure for a moment if this public opinion could only be made effective. Suitable action should be taken in all our County and State Societies, and severe measures adopted to punish such members as persist in dishonoring the whole profession.

To be sure, an excuse is offered that the medical man is only getting a fair proportion of the fee. If this be true, he should present the bill to his patient in a manly fashion, as he would for any other honest debt, instead of asking the surgeon to collect it for him. The *secrecy* of the transaction is what makes it especially dishonorable.

The following solution of the problem has been proposed and is likely to have a trial.

1. The surgeon is to agree that \$100 will be the maximum charge for capital operations for people in moderate circumstances.

2. The physician bringing the patient to the hospital shall be entitled to charge the patient a sum agreed upon by the majority of representative physicians in the vicinity, from \$10 to \$25 (not to exceed \$25), according to length of time and nature of service rendered for one day's service, or part thereof.

This is to be a separate item on the surgeon's bill, to be paid at the same time, and receipted.

3. Patients who are merely referred, by letters or otherwise, will make their own settlement with their home physician for advice.

4. Any payment of commissions, or splitting of fees, is absolutely forbidden by the signers of the agreement on the penalty of a forfeiture of all hospital privileges.

These are some of the important provisions of the plan, and the following considerations have been urged in its favor.

1. It is a serious effort to abate an acknowledged evil;

2. Its publicity: The patient and all concerned know every item of the financial transaction;

3. It recognizes with more fairness the services of the attending physician, and

4. It tends to lower surgical fees, which, under

modern conditions, with the lightening of the labor and responsibility of the surgeon which hospital facilities afford, have in the past undoubtedly, been too high for people of moderate means.

A list of speakers will be sent to all the County Secretaries by the Secretary of the Council of Health and Public Instruction. The County Societies should arrange for, at least, one public meeting during the year under the auspices of the County Societies.

I should like to call the attention of the profession to the Committee on Public Health Education among Women, Dr. Sara T. Elliott, Waukesha, State Chairman. Dr. Elliott will gladly furnish speakers within the State, when applied for, and suggests that the Committees on the subject appointed by the County Secretaries should, in each instance, include the Secretary of the County Medical Society.

As a Society, we are making substantial progress, but we might do much better if each member would realize, and act upon, his own personal responsibility to this Society. Let us all do this the coming year.

C. S. S.

SOCIETY PROCEEDINGS

EAU CLAIRE COUNTY

Eau Claire County Medical Society held a meeting on September 30th, at the Eau Claire club. The attendance was large including nearly all of the city physicians and a good representation from several places in the county. A paper on Psychotherapy was read by Dr. W. J. Clancy of Eau Claire. Dr. C. L. Larson of St. Paul spoke on Tinnitus Aurium, and Dr. Frederick J. Plonke of St. Paul addressed the Society on Surgery of the Prostate, with special reference to preparation and anesthesia.

FOND DU LAC COUNTY

The tenth annual meeting of the Fond du Lac County Medical Society was held at the Bellevue, Fond du Lac, at 7 P. M., November 13, 1912. After supper the meeting was called to order by President Scheib and after the reading and acceptance of the minutes of the previous meeting, the Society listened to the president's address on The Conservation of the Medical Profession by Dr. G. F. Scheib. This was followed by a discussion in general.

The application of Dr. Miles H. Clark of Ripon for membership was presented by the board of censors and unanimously voted in by the Society. The next order of business was the election of officers with the following result: President, Dr. L. A. Bishop, Fond du Lac.; Vice-

president, Dr. C. W. Leonard, Fond du Lac.; Secretary and Treasurer, Dr. F. A. Read, Fond du Lac.; Delegate for two years, Dr. J. P. Connell, Fond du Lac.; Board of Censors, Drs. G. V. Mears and S. E. Gavin, Fond du Lac and C. U. Senn, Ripon.

Dr. L. H. Pelton of Waupaca was a guest at the meeting and responded happily when called upon for a speech. Meeting then adjourned.

F. A. READ, M. D., *Secretary*.

MARATHON COUNTY

Marathon County Medical Society held its monthly meeting on October 3rd. There was no regular program but the members spent the time reviewing the state meeting, recently held.

At the close a banquet was enjoyed at the Wausau Club.

Marathon County Medical Society held its regular meeting Nov. 7, at the Wausau Club House. A six o'clock dinner was enjoyed by the members and their guests, the druggists of the county—twenty-two being present. A paper on Proprietary Medicines was read by Dr. W. G. Merrill of Grand Rapids, a general discussion following.

OUTAGAMIE COUNTY

Regular meeting of the Outagamie County Medical Society was held Nov. 6, 1912, at St. Elizabeth's Hospital. Meeting opened by a surgical clinic by Dr. V. F. Marshall—A Ventral Hernia. After this we were shown numerous and interesting fractures in various process of healing and the results of different methods of open and closed methods of treating fractures. The discussion was opened by Dr. N. P. Mills who gave a very masterful talk. After this Dr. Marshall reported three cases of Caesarian Section and exhibited the patients. Various other cases were shown, after which the physicians sat down to a very bountiful lunch served by the Sisters of St. Elizabeth's Hospital. The meeting was a success in every way and we will try to have more of the same kind. The X-Ray pictures were shown by Dr. M. J. Sandborn who has made a specialty on that branch doing the major part of that work for the doctors in this vicinity.

FRANK P. DOHEARTY, M. D., *Secretary*.

ROCK COUNTY

Rock County Medical Society held its annual meeting at Janesville, on September 24th, at the city hall, at 8 P. M.

PROGRAM:

Retroflexion of the Uterus—Dr. F. T. Nye.

Symptoms and Treatment—Dr. F. W. Van Kirk.

Discussion: Drs. W. J. Allen and J. M. Evans.

Caesarian Section—Dr. H. O. Delaney.

Discussion: Drs. T. W. Nuzum and F. E. Sutherland.

Pediatrics, Its Importance as a Specialty in the Light of Recent Child-Welfare—Dr. J. V. Stevens.

Discussion: Drs. E. E. Loomis and Edith Bartlett.

A Cafeteria lunch was served at McDonald's restaurant after the program.

A meeting of the Rock County Medical Society was held in the Woodman Hall at Edgerton, October 29. A dinner was served before the meeting at the Bon Ton restaurant. Following is the program: Tuberculosis. Dr. M. A. Cunningham. Discussion: Drs. H. O. Delaney, W. W. Morrison, W. H. McGuire. Chronic Gastritis. Dr. W. H. McGuire. Discussion: Drs. M. G. Spawn and E. B. Farnsworth. Empyema of the Antrum of Highmore and its Treatment. Dr. F. C. Binnewies. Discussion: Drs. F. T. Nye and J. P. Thorne.

WASHINGTON COUNTY

Washington County Medical Society met at Hartford on September 26th. The members were entertained at a banquet at the Central hotel, tendered by the local members, after which a meeting was held at Dr. Rockwell's office. Dr. Rockwell gave a talk on Chemical Diagnosis and demonstrated several chemical and microscopical examinations. This brought out a very free discussion, which was participated in by all present.

WOOD COUNTY

Wood County Medical Society held its monthly meeting at Grand Rapids, on Oct. 1. Following is the program:

Report of a Case of Hemophilia—Dr. K. W. Doege, Marshfield.

Discussion: Dr. Frank Pomainville, Grand Rapids.

Aectanilide Poisoning—Dr. R. P. Potter, Marshfield.

Discussion: Dr. Hugh Waters, Nekoosa.

Treatment of Ulcer and Dilatation of Stomach—Dr. W. E. Allen, Auburndale.

Discussion: Dr. J. J. Looze, Grand Rapids.

On the Tuberculins—Dr. V. A. Mason, Marshfield.

Discussion: Dr. Edward Hougen, Pittsville.

Medical Fads and Fancies—Dr. D. Waters, Grand Rapids.

Discussion: Dr. W. G. Merrill, Grand Rapids.

NINTH COUNCILOR DISTRICT

The Ninth Councilor District Medical Society met at Grand Rapids, October 30. Following a supper at the Dixon House, the following program was given: Chorea. Dr. Edward Hougen, Pittsville; Eezema. Dr. J. F. Rioridan, Neshkoro; Mechanism of Fracture of the Skull. Dr. V. A. Mason, Marshfield; Diagnosis and Treatment of Increased Intraeranian Pressure, Dr. A. E. Halsted, Chicago. Dr. W. E. Allen of Auburndale also addressed the society.

OSHKOSH MEDICAL CLUB

The Oshkosh Medical Club enjoyed one of the finest meetings in its career, when Dr. A. Sherman entertained the club at the Northern Hospital for the Insane, on Nov. 6th. The physicians went to the hospital in automobiles and at 7 o'clock a five-course dinner was served.

A valuable program dealing with the different phases of parietic dementia was presented. Dr. Sherman read a paper on the disease, and Dr. Osborn of the hospital staff exhibited three patients whose condition illustrated

the different stages of the disease. There were interesting papers by Dr. George Whare, Dr. W. H. Herner, Dr. R. J. Dysart and Dr. Rosalia Ladova.

WISCONSIN MEDICAL WOMAN'S SOCIETY

The convention of the Wisconsin Woman's Medical Society was held at Milwaukee, November 12 and 13, at the Down Town Club.

PROGRAM:

Eugenics. Dr. Mary Caldwell, Waukesha.
An Idealists's View of what the Future holds for the Race. Dr. Mary L. Fitzpatrick, Milwaukee.
Border Line Cases or Differential Diagnosis of Neurasthenia and Insanity. Dr. Rosalia Ladova.
Layman's Report of the 15th International Congress on Hygiene and Demography. Mrs. Julia Kurtz.
Qualities that make for success in the Medical Woman. Dr. Bertha Van Hoosen, Chicago.

A banquet was given on the 13th at the Pfister Hotel.

THE ASSOCIATION OF COUNTY SECRETARIES AND STATE OFFICERS of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette M. B. GLASIER, M. D., Bloomington
President. Vice-President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County Society. It will be edited by Rock Sleyser of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

WORK THE COUNTY SOCIETY SHOULD ACCOMPLISH TO HELP THE STATE MEDICAL JOURNAL.

BY J. C. WRIGHT, M. D.,
ANTIGO.

I had given considerable time and effort to preparing a paper for the occasion, but as the hour is late I think I will dispense with that part of it. On the programme you will notice I was going to say something regarding what should be done for the benefit of the Journal, and I realize that it is up to the secretaries to make that a success. When all is said and done I think that the question can be answered by a little poem about old Hi Somers, entitled "The Champion Fisher." I presume you have realized many times that some

people will go out and catch fish, while others may go out and fish just as assiduously and carefully, have just as good bait and catch nothing. Now old Hi Somers explains how that is, and I think that if you secretaries would follow the advice of Hi Somers, the Journal must be a success financially and otherwise. Hi Somers was successful and he owed his success to the motto "Just keep on fishing."

KEEP AT IT.

"Hi Somers was the durndest cuss,
Fer catchin' fish he sure was great!
He never used to make no fuss
About the kind of pole or bait,
Er weather neither; he'd just say,
"I got to ketch a mess today."
An' toward the creek you'd see him slide,
A-whistlin' soft and walkin' wide.
I says one day to Hi, says I,
"How do you always ketch 'em Hi?"
He gave his bait another switch in,
An' chucklin' says, "I jest keep fishin'."

"Hi took to readin' law at night
And pretty soon, the first we knowed,
He had a law-suit, won his fight,
And was a lawyer! I'll be blowed!
He knowed more law than Squire McKnabe!
An' though he had no "gift of gab"
To brag about, somehow he made
A sober sort of talk that played
The mischief with the other side.
One day, when some one asked if Hi'd
Explain how he got in condishin
He laughed and said, "I jest kept fishin'."

"Well, Hi is gov'nor Somers now;
A big man 'round the state, you bet—
To me, the same old Hi, somehow;
The same old champeen fisher yet,
It wan't so much the bait or pole,
It wan't so much the fishin' hole.
That won fer Hi his big success;
T'was jest his fishin' on, I guess:
A cheerful, stiddy, hopeful kind
Of keepin' at it—don't you mind?
And that is why I can't help wishin'
That more of us would jest keep fishin'."

(Great applause.)

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, DECEMBER 1912

Number 7

TRANSACTIONS
OF THE
SIXTY-SIXTH ANNUAL MEETING
OF THE
STATE MEDICAL SOCIETY OF WIS.
AT WAUSAU, MAY 22, 23 AND 24, 1912

OFFICERS:

PRESIDENT.

ARTHUR J. PATEK, Milwaukee.

1st Vice-Pres., C. A. ARMSTRONG, Boscobel.
2nd Vice-Pres., L. E. SPENCER, Wausau.
3rd Vice-Pres., JOHN MATHIESON, Eau Claire.

SECRETARY.

CHARLES S. SHELDON, Madison.

ASSISTANT SECRETARY.

ROCK SLEYSER, Waupun.

TREASURER.

SIDNEY S. HALL, Ripon.

COUNCILORS.

1st District—M. R. WILKINSON, Oconomowoc.
2nd District—G. WINDESHEIM, Kenosha.
3rd District—F. T. NYE, Beloit.
4th District—W. CUNNINGHAM, Platteville.
5th District—G. V. MEARS, Fond du Lac.
6th District—H. W. ABRAHAM, Appleton.
7th District—EDWARD EVANS, La Crosse.
8th District—T. J. REDELINGS, Marinette.
9th District—O. T. HOUGEN, Grand Rapids.
10th District—R. U. CAIRNS, River Falls.
11th District—J. M. DODD, Ashland.
12th District—H. E. DEARHOLT, Milwaukee.

PROGRAM COMMITTEE.

L. M. WARFIELD, Milwaukee, Chairman.

COMMITTEE ON ARRANGEMENTS.

C. A. EVANS, Milwaukee, Chairman.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

A. W. GRAY, Milwaukee, Chairman.

J. P. McMAHON, Milwaukee.

F. F. BOWMAN, Madison.

COMMITTEE ON MEDICAL DEFENSE.

G. E. SEAMAN, Milwaukee, Chairman.

A. J. PATEK, Milwaukee, Secretary.

S. S. HALL, Ripon.

DELEGATES TO A. M. A.

C. A. HARPER, Madison.

J. J. McGOVERN, Milwaukee.

J. F. PEMBER, Janesville.

ALTERNATES TO A. M. A.

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette.

W. T. MURPHY, Waukesha.

PUBLICATION COMMITTEE.

A. J. PATEK, Milwaukee; G. E. SEAMAN, Milwaukee; O. H. FOERSTER, Milwaukee; S.

S. HALL, Ripon; C. S. SHELDON, Madison.

COMMITTEE ON PREVENTION OF TUBERCULOSIS.

M. P. RAVENEL, Madison; T. H. HAY, Stevens Point; C. A. HARPER, Madison; G. E.

SEAMAN, Milwaukee; J. M. BEFFEL, Milwaukee.

COMMITTEE ON MEDICAL EDUCATION.

E. S. HAYES, Eau Claire.

EDWARD EVANS, La Crosse.

W. H. WASHBURN, Milwaukee.

COMMITTEE ON NECROLOGY.

A. J. PATEK, Milwaukee.

E. L. BOOTHBY, Hammond.

J. C. REYNOLDS, Lake Geneva.

COMMITTEE TO ACT WITH BOARD OF PUBLIC INSTRUCTION A. M. A.

C. R. BARDEEN, Madison.

DELEGATE TO NATIONAL LEGISLATIVE COUNCIL

A. M. A.

H. E. DEARHOLT, Milwaukee.

DELEGATE TO COUNCIL ON MEDICAL EDUCATION

A. M. A.

W. H. WASHBURN, Milwaukee.

MINUTES OF THE SIXTY-SIXTH ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN

WAUSAU., MAY 22, 23 AND 24, 1912.

PROCEEDINGS OF THE GENERAL SESSION

WEDNESDAY, MAY 22nd.

The general sessions of the Society were called to order by the President, Dr. J. M. Dodd, of Ashland, May 22nd, 1912, 11 A. M.

Invocation by the Rev. James M. Duer.

Address of Welcome by the Hon. John Ringle, Mayor of Wausau.

Mr. President and Members of the State Medical Society of Wisconsin: Perhaps it is unfortunate that the people of this city do not always select a speaker for mayor; but I am here today representing the people of Wausau; and representing them I wish to extend to this society a cordial welcome to our city. We are glad to have you here and I will add that we shall be glad to have you come again.

The practice of medicine has been coincident with the life of the human family, and perhaps no other vocation of man can give the comfort to the home that can be given by the members of the medical profession; and in addition to that there is probably no other vocation of man that has given evidence of the heroic self-sacrifice for the prevention and cure of human suffering that history has recorded for the medical profession.

Your later efforts for the promulgation of medical thought and medical learning among the people, meets with the approbation of all.

We trust that the results of your meeting here will be beneficial to you all; and that your short visit in our city will be not only beneficial to you, but will be a period of pleasure to each one of you individually.

(Great applause)

Response to Address of Welcome by the Vice-President of the Society, Dr. T. J. Redelings, of Marinette.

Mr. President and Members of the Society: It affords me great pleasure on behalf of the State Medical Society of Wisconsin to accept the cordial hospitality extended to this Society by His Honor, the Mayor. We who have already spent one day in the city have learned and felt the genial and cordial friendship which the citizenship is extend-

ing to this organization. Wausau is indeed a beautiful city and presents to the stranger an air of prosperity and civic order.

Mr. Mayor, I thank you, in behalf of this society for the hospitality you have extended, and through you, the citizens of your community. We shall take advantage of the entertainment which has been provided for us, and I am sure that the session of 1912 will be a memorable one to all who attend.

(Great applause)

Dr. Joseph F. Smith, of Wausau, presented report of Committee of Arrangements as follows:

MR. PRESIDENT AND GENTLEMEN: On behalf of the local committee on arrangement and on behalf of our local society I wish to make just a few short announcements. Most of these have already been included in the memoranda that Dr. Sheldon has sent out.

In regard to the hotel accommodations, it seems that there is a shortage of hotel rooms, and we have made arrangements to call upon the citizens to help us out. There will be a ready response, so that there will be no difficulty about taking care of all who come; and if there are any who arrive in Wausau for this meeting and cannot secure accommodations at the hotels, we would like to have you report to the Registration Bureau here and we will see that you are taken care of promptly.

Now, so far as the facilities for feeding those who come are concerned, they are ample. The Bellis House and other hotels are able to take care of a great many people, and besides that the directors of the Wausau Club will extend to you the courtesies of the club; and any of you who are rooming at either private houses or hotels and desire to go to the Wausau Club for your meals, will be welcome to do so. You can have breakfast, lunch or dinner there as the case may be. Besides the hotels and clubs there are various restaurants that will accommodate you very readily.

Now, for this evening we have arranged for a smoker to be held in this room at 8 o'clock; and at the same hour there will be held a reception for the ladies at the Wausau Club. I am requested to announce that if there are any gentlemen who do not care to go to a smoker, they are invited to come to the reception for ladies. (Applause).

Also during the afternoon any time after 2 o'clock today, any visiting ladies will be entertained at the Wausau Club by the ladies of the city.

Tomorrow at 8:30 P. M. the annual banquet will be held at the Rothschild Pavilion. We had contemplated an automobile trip in the evening, winding up at the pavilion for the banquet, but on account of the rather unfavorable weather and also on account of our experience last year at Waukesha, when the weather was very dry—quite a contrast to what it is this year—we have decided that the members of the Society would hardly feel in condition to go to a banquet after an automobile

ride, especially if several cars follow each other in succession. Some of you remember that we were rather dusty by the time we arrived at the place where the smoker was held last year. Consequently we have decided to abandon that idea, and have arranged for special cars to be run on the street railway, and they will leave the court house square, beginning at 7:45; there will be ample accommodations to take everybody to the pavilion and there will also be special trains provided to bring us back after the banquet is over. So all you need to do is to appear there on the court house square and you will find cars in waiting; the cars will go down every 15 minutes, and there will be ample accommodations to take everybody, and we feel that the ride by the street cars will be cleaner and altogether more agreeable than to attempt to make it by automobile.

We are going to arrange to have some automobiles at the disposition of our guests who wish to see the city and visit any of the points of interest. This evening and tomorrow and Friday morning there will be cars available, and if you about the hotel and have a little spare time and would like to go and see something or ride around the town,—and you see an automobile with a vacant seat, walk up to the man and show your red badge, and that will be a ticket for a ride.

The sisters of St. Mary's Hospital cordially invite any of the visiting physicians to visit the hospital at any time during your stay when it may be convenient for you to do so. I think that is all. (Applause).

PRESIDENT: The next thing in order is the report of the Program Committee, Dr. Gray.

SECRETARY SHELDON: Dr. Gray is absent.

PRESIDENT: The printed program, I suppose, may be considered as a sufficient report from the program committee, and unless there is some special feature to be reported later, it will be so taken.

I am very glad indeed to see this evidence of a successful meeting of the State Medical Society and to see the large attendance at our opening session. I have no doubt our meeting will be very enjoyable and profitable as well.

SECRETARY: Your registration is your only record of attendance, and I wish you would all take pains to register, so that we will have an accurate report of the attendance here; and I hope you will all buy your banquet tickets. I know we will all have a good time at the Rothschild Pavilion; and you will all be at the Smoker tonight, I hope.

PRESIDENT: The meeting will stand adjourned until 2 o'clock this afternoon.

Then followed the Scientific program as reported on pages 31-36 of the Wisconsin Medical Journal for June, 1912.

PROCEEDINGS OF THE HOUSE OF DELEGATES.

Meeting of the House of Delegates of the State Medical Society of Wisconsin, held at the Wausau Club, May 21st, 1912, 8 P. M.

Meeting called to order by the President, Dr. John M. Dodd, of Ashland.

PRESIDENT: The meeting will come to order and we will first listen to the roll-call by the Secretary.

The roll was then called.

SECRETARY: There are 27 present. That is a splendid attendance for the first meeting.

PRESIDENT: The next order on the program is report of Committee on Medical Defense, by Dr. Gilbert E. Seaman, of Milwaukee. Is some other member ready to make that report in the absence of Dr. Seaman? None being present to do that we will pass the report.

The report of the Committee on Public Policy and Legislation will be presented by Dr. J. P. McMahon, of Milwaukee, in the absence of Dr. A. W. Gray.

The report was presented by Dr. McMahon as follows:

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

To the House of Delegates of the State Medical Society of Wisconsin:

GENTLEMEN: Your committee on Public Policy and Legislation was instructed at the last meeting of the State Medical Society by the following resolution:

Resolved, That it is the sense of the House of Delegates of the State Medical Society of Wisconsin that a necessity exists for the reorganization of the administration of public health, medical education and the licensing of candidates to practice medicine, therefore, we respectfully request the State Board of Health, the Wisconsin State Board of Medical Examiners, and the several state medical societies to appoint committees of three members from each organization to meet with the Committee on Public Policy and Legislation of this society, for the purpose of discussing the best means by which this reorganization may be brought about, and for the further purpose of advancing such legislation as may be deemed desirable and expedient.

Pursuant to this resolution letters were addressed to the State Board of Health and to the State Board of Medical Examiners informing these boards of the passage of the above resolution and of the readiness of your committee to cooperate in the furtherance of its object. It did not seem expedient to address like letters to the several medical societies recognized by the state law until a favorable reply should be received or at least

some mode of procedure should be indicated by the state boards affected. The Board of Medical Examiners instructed its secretary to inform your committee that in its opinion no necessity for reorganization existed. The letter is as follows:

"In reply to your letter of Dec. 2, 1911, permit me to say that the Wisconsin State Board of Medical Examiners did not see fit to take any definite action looking toward the reorganizing of the State Board of Medical Examiners or of the State Board of Health. So far as the medical board is concerned today, there is no imperative need that this Board be reorganized, or that it be merged with the State Board of Health. As the Board is organized today, it is to my way of thinking an efficient body of workers, each member performing his duties as thoroughly and conscientiously as any set of individuals connected with public administration, whom I have ever met; as a Board it is acting almost as a unit to raise the standard of medical requirements and to prevent the development of a quackery and other disobediences of the law as far as it is possible with the means at their command.

"So far as the lines of work which we have accomplished is concerned, will say that through the past year we have demanded, first, documentary evidence as to preliminary education, second, we have instituted practical examinations in Anatomy, Chemistry, Physical Diagnosis, Pathology, Bacteriology, Histology and Urinalysis. Third, within the past year we have prosecuted in the neighborhood of thirty cases of illegal practicing of medicine. Fourth, applications for the revocation of the licenses of several men found guilty under the statutes of the commission of crimes have been made.

"I feel that there are few years in the record of the Wisconsin Board which equal the accomplishments of the past year. With kind regards, I am, Yours sincerely,"

Drs. W. F. Whyte and C. A. Harper, president and secretary respectively of the State Board of Health, met with Drs. J. P. McMahon and A. W. Gray of your committee at Waukesha on April 3 and discussed the proposals in your resolution. They reported that the sentiment of the State Board of Health was opposed to taking up any new ideas which might jeopardize the legislative program of the Board of Health at the coming legislature; that the State Board of Health as at present constituted was non-sectarian and it was feared that the Board of Medical Examiners could not be taken into the Board of Health without establishing medical sectarianism in that body by law; and that the members of the Board of Health were satisfied that their work was becoming more and more efficient under the present organization and that no necessity for reorganization existed at this time.

In view of the fact that your committee could not count upon cooperation from the two state boards which would be affected by reorganization, it seemed evident that our efforts were brought to a stand-still and must await further instructions.

Your committee has no further activities to report upon except that influence has been exerted in favor of

the Owen Bill, at present under consideration by the U. S. Senate.

Your committee plans, for future efficiency, to bring about a more effective legislative organization throughout the state. This will be done by insisting upon cooperation of county secretaries and county legislative committees. We have in our membership, which is so evenly distributed through the state, the means for perfecting a very influential organization both for instructing the public in the need for health legislation and for pushing such legislation at Madison.

Your committee reports the following small bills, the items of which are appended:

A. W. Gray.....	\$1.25
J. P. McMahon.....	7.75

\$9.00

Respectfully submitted,

A. W. GRAY, Chairman
F. F. BOWMAN,
J. P. McMAHON.

DR. J. K. CURRENS, of Two Rivers: I heartily endorse the recommendations of both those boards. I have had considerable experience in the line of medical legislation and I have found out that when you ask for more than one thing from the legislature for any one board you are apt to run up against a snag. I think it would jeopardize both Boards to make any change at the present time. The point made by the State Board of Health in regard to different schools being recognized on the Board of Health is a very wise and good thing. I know that when we started out and went before a committee to get something for our boards, they would almost invariably say, you have bills from two or three other boards, and you do not expect them all to go through, do you? They did not understand the matter and would not listen to us. But after they found that we were a different board and working in a different line entirely, we generally could get their attention and convince them that what we wanted was right, or at least we generally got a part of what we wanted. As far as cutting the whole thing loose and starting from the beginning again with a new set of laws, I think it would be very impracticable, because we might lose what we have, and we have got pretty good laws if they are enforced. I am glad to hear the report of the State Medical Board, because it has certainly been good this year—30 prosecutions—and they are evidently getting a better hold on the laity and district attorneys than ever before. As I said this afternoon at the Secretaries' meeting, we found it very difficult to get a case to stick on account of the local district attorney being pre-

judged in favor of the local man, and we lost nearly every case until we took our attorneys from Milwaukee. The district attorneys were not posted, or something happened, and we had the expense for nothing.

The state of Illinois has this same condition, and the fact of the matter is that all the blunders of the State Board of Medical Examiners are overlooked on account of the efficiency of the State Board of Health—they are one board—and men that are eminently qualified for one position are very often not for the other. The one is simply to look after the educational interests of the state in medical matters, and to raise the standard of medical education, and the other is to look after the general health—an entirely different matter. One pertains to the education of medical men and the other to the education of the people.

SECRETARY SHELDON: I understand from Dr. Abraham that a resignation has been tendered by one member of the Board, Dr. Connell, and it will be necessary, of course, to appoint some one in his place. I do not know that any action of the House of Delegates is necessary. The Governor has a list of 10 nominations, and perhaps the Secretary had better be instructed to inform the Governor of this resignation, and that he shall select his successor.

DR. J. R. CURRENS, Two Rivers: The resignation comes before the Governor, and we have nothing to do with it except to give him the list; but it is our duty to draw his attention to this list, because he may have it mislaid, and I suggest that the Secretary notify the Governor of this list, and that Dr. Connell has resigned.

SECRETARY: I will do so.

DR. WILSON CUNNINGHAM, Platteville: I move that a report of the Committee on Public Policy and Legislation as read by Dr. McMahon be accepted and adopted.

Motion seconded and unanimously carried.

DR. J. P. McMAHON, Milwaukee: You will recall that the report asks for further instructions as to the pleasure of the House of Delegates with respect to any further attempt to bring about a reorganization of the State Board of Medical Examiners or the State Board of Health. This question merits discussion, and any action taken in the matter will place the responsibility of future action on the House of Delegates where it properly belongs rather than on the Committee on Public Policy and Legislation. The committee was in-

structed last year to do certain things. An unsuccessful attempt was made and now we come back for further instructions. The proposition resolves itself into the question as to whether or not we are perfectly satisfied with the composition, the workings, and accomplishments of the present boards. If we are, well and good. If we are not, suggestions as to how to improve them are in order. As a member of the Committee on Public Policy and Legislation, I would urge discussion and ask that the house take some definite action which will be of service in instructing and guiding the committee before the next legislature.

DR. L. M. WARFIELD, Wauwatosa: I move that the committee be instructed to carry on this work which they have carried on last year under the resolution which was passed by the House of Delegates last year. I feel that acquiescence in the conditions that exist, as they exist, is apt to block progress in medical legislation. The composition of the Board as it now stands is of regulars, homeopaths, osteopaths and eclectics.

SECRETARY: Three regulars, two homeopaths, two eclectics and one osteopath.

DR. WARFIELD: In other words, this state of Wisconsin recognizes the practice of medicine, pathies and isms. Now, right there, it seems to me, is a condition of affairs that certainly should not exist. I think we are all agreed that the practice of medicine is not in the giving of pills and potions and writing prescriptions. None of us practice what 50 years ago was known as allopathic medicine. We practice whatever we feel is for the good of the patient, and whatever we think in that particular case is the proper treatment, whether it be massage, hygiene, medicine, or whether it be a trip abroad or to some watering place. We recognize no school of medicine; there is no such thing as a school of medicine. There are certain fundamental branches that are absolutely essential that a man should know in order to be able to practice medicine in any city in this country; and in order that he should know those branches, he should be a student for a while at a reputable medical college.

Now, it seems to me that this committee, as it has been instructed, is instructed along the lines that will tend to better the conditions as they exist today in the state board. As I understand it from a conversation with the chairman of your committee, Dr. Gray, this was the idea that they had: to do away with all these pathies and isms and

form, as Dr. Sheldon has said, a non-partisan Board. The requisite for the license to practice medicine should be certain fundamental branches, with nothing said about therapeutics. In making the motion which I did, I felt that the attitude which was taken by the committee and the house last year, is the correct one; and at this point of view spells progress.

DR. J. R. CURRENS, Two Rivers: There is no doubt but what that is the ideal plan; but I do not know of a state law that does not recognize "pathies." It would be nothing more than justice to have more regulars on the Board, as far as that is concerned; but the idea is that just at this time when the ferment is being stirred up by this sect of patent medicine men who are trying to fight the Owen Bill, the sentiment is very strongly against sectarian medicine, and the old school of medicine, as they call it, and to try to bring this all down at the present moment would be disastrous. I have fought the battles and I know what blood it cost us to get where we are. I know what fights it takes and what vigilance it takes to watch a bill after you have what you want; but we have never been able to get any legislation except in piecemeal, and when you are going to wipe this whole thing out and start it from the bottom up, you will have holes in it through which you can pull a cow by the tail. Keep what you have got and patch on; but for heaven's sake do not destroy what you have got.

DR. H. W. ABRAHAM, Appleton: It is quite a complicated question and many cannot understand just what the Board of Medical Examiners is doing at the present time. They are giving as efficient examinations as they can, and every man that comes up must pass a certain standard in all branches. I think that there are more failures in passing the examinations now than there have been for a long time, because they are making the examinations more strenuous. Practical examinations in some branches are now required. I think in instructing this committee, possibly there is some work for them to do in a line that will make this board more efficient; that is, to see to it that more money is secured for their work in practical examinations. It is necessary to have equipment, patients, and rooms to do the work of practical examining. It is not a simple matter for one examiner to examine 75 or 80 men. It cannot be done and you cannot give the examinations in one

city and another city, because you cannot carry your equipment around with you. If any of you are familiar with a paper published in England as to the examinations they have there, you will see what equipment is necessary.

I was going to suggest to the committee that they might direct their attention towards the subject of having the laws enforced by some other Board aside from the Board of Medical Examiners. Most of the money that comes in from the men who come up for examination, goes towards prosecuting men who are not fit to practice; and that money could be better spent for equipment, by which these examinations should be made more efficient; and if you will direct your attention and your energies towards getting the legislature to pass some bill which would make it necessary for the district attorney or the attorney of the state to prosecute these cases, and have the state pay for that, which it ought to do, and not make every man who comes up for examination pay for the prosecution of cases of those who have no license, it would be more advantageous. Then the Board could have at least five times the money they have at the present time for the work of examination.

I am not defending the present Board at all, as being the best possible. I think the ideal board would be one composed of the best equipped men throughout the state. I do not believe in the pathies in any Board of that kind. At the same time that is the present status of affairs; and you cannot remedy it in this society or any other society; but you have to go before the legislature, and you know what a fight you would have to pass a suitable bill.

DR. J. R. CURRENS, Two Rivers: You would have three boards as Pennsylvania has, and that would be worse.

DR. L. M. WARFIELD, Wauwatosa: I fear some of the gentlemen do not understand me. I do not wish to change the complexion of the Board so that it shall be three boards by any means. I simply should not wish to recognize them as such on the Board. You can appoint all osteopaths, so far as I am concerned.

SECRETARY: It should be non-partisan.

DR. WARFIELD: It should be a non-partisan Board. I do not wish to call them anything.

SECRETARY: The best men in the state.

DR. WARFIELD: Yes, and more than that, I

feel that the instruction of the committee along the lines they were instructed last year, does not necessarily mean that they are to go at this with hammer and tongs, and try to rush this matter before the legislature immediately. A great deal of work is necessary before even an approach at such an ideal board can be actually accomplished. To work and to educate will certainly come under the jurisdiction of this committee; so that if we allow this committee to go on instructed to do the work they have been doing, if they do not accomplish anything more than education, they still would be instructed to carry on work towards the ideal we all would like to have accomplished.

Motion seconded.

DR. G. WINDESHEIM, Kenosha: It seems to me on a question of this sort, of which very few of us really know the essence, we ought to be guided somewhat by the advice of men who have been in that work and who know all about it, like Dr. Currens, for instance. If our committee on legislation has taken it upon themselves to try to unite the Board of Medical Examiners with the State Board of Health, which I am sure was not the meaning of the suggestion or the resolution passed last year, I think that they have misunderstood. They were appointed to see or to meet with other committees for the purpose of improving the activities of the Board. Now, if they think that that improves the activities of the boards or should improve the workings of the boards, as Dr. Currens says, they are mistaken, and we are mistaken if we think we can accomplish anything like that of any benefit to the medical profession or the public at large. Dr. Abraham, I think is on the Board at the present time.

SECRETARY: Yes.

DR. WINDESHEIM: Dr. Abraham says that the Board is probably as good as can be expected. I think it would be well for our committee to be continued, but not with any view of uniting or joining the State Board of Medical Examiners and the State Board of Health, not with any view of making any such changes or even advising any changes in the present composition of the Board; because it is absolutely impossible to have any changes made. The fundamental laws creating that Board of Medical Examiners would first have to be changed, and various other things would have to be changed. If you want a non-partisan Board what is the use of calling them osteopaths, homeo-

paths, or any other paths? It is not necessary. It is evident that the various medical societies in the state have selected their best men to propose as members of that Board, and let them be there; they do not always have to be regular practitioners in order to be the best men. We have some very good men who have been graduated from homeopathic schools, who are just as good as some men who have been graduated from regular schools; and I absolutely disagree with the statement that the doctor made that there are only the fundamental principles of medicine that ought to be looked into in order to know whether a man is qualified to practice medicine or not, and that therapeutic measures should not be considered, at all. I believe that the real object of the physician is to use therapeutic measures in order to cure disease, and there is absolutely no man graduating from one school who can be qualified to examine another man as to his therapeutic measures, if that other man has graduated from another school. Whether these measures are wrong or right it is not for us to say. I do not believe that any man following one school of medicine or one certain line of practice can be a successful practitioner. He must do various things, whether he has been taught in the medical schools or whether he has been taught by experience to do various things that have not been taught or told him, in order to take good care of his patients.

I therefore believe with Dr. Currens that we ought to leave that thing alone, and ought not to stir up this question at the present time, but let the committee continue and see what can be done in order to improve, if possible, the efficiency of the two boards.

SECRETARY: Was that the import of your motion?

DR. WARFIELD: Yes.

Not for the purpose of uniting the Boards.

DR. L. M. WARFIELD, Wauwatosa: I will state it again: I will move that this present committee be instructed to carry along their work on the lines laid down by the resolution of last year.

I explained my position by saying that that was not necessarily a means of getting at it at once, but simply to carry along a campaign of education; nor is it a question as to whether the conditions which exist could not be improved, as I for one feel that conditions could be improved. I think that makes my position clear.

Motion seconded.

DR. J. R. CURRENS, Two Rivers: I move an amendment, that this committee be instructed to work along on lines of legislation in accordance with the two boards; in other words, that they be instructed to work with the Boards for the bettering of each board. I do not believe they should work independent of the boards, but all ought to work together, because I think those boards can give them some very useful information, and are capable of telling them what they need.

DR. WARFIELD: I accept that.

DR. J. P. McMAHON, Milwaukee: The nature of the discussion thus far leads me to believe that the delegates have gotten the impression that the proposed reorganization originated with the Committee on Public Policy and Legislation and that the committee proceeded to bring about the reorganization without suggestion, advice or counsel with anybody else. Such impression is unfounded.

DR. CURRENS: My idea is that the proposition was to do away with sectarianism entirely in the boards; and to do that, you will have to wipe out the whole of the old law.

DR. McMAHON: To enlighten the delegates, I would state that some three years ago before the second last legislature convened, the State Board of Medical Examiners met, discussed this question and advised the members of the legislative committee that they themselves felt that by reorganization they could do more efficient work, in fact there was a demand for such reorganization, particularly in view of a proposed plan to make the prosecution of quacks and the several families of irregulars subject to state authority.

DR. CURRENS: It is today.

DR. McMAHON: But you say that it does not work out very well.

DR. CURRENS: That is true.

DR. McMAHON: Members of the board advocated at that time a plan to make the attorney general's office responsible for this line of work, and thereby charge the necessarily heavy expense of prosecutions to the state, whereas now any money that is used for this purpose or for the prosecution of additional forms of medical frauds comes out of the pockets of prospective candidates for license to practice medicine in Wisconsin. To go further still, the wording of the resolution which

was passed at the Waukesha meeting was in the main dictated by the then executive officer of the State Board of Medical Examiners so that it can not be maintained that the State Board of Medical Examiners felt that their board was as effective in some respects as it might be, as certain of its own members thought it should be, or as a discussion here would lead one to believe it actually was. Now, some of those self same advocates seem to have reversed their opinion.

In a discussion of the optometry bill before the House of Delegates at the Waukesha meeting, several gentlemen expressed sentiments advocating a reorganization of the State Board of Medical Examiners.

I hope that I have made it clear that this proposition did not entirely originate with the Committee on Public Policy and Legislation, but it had its inception as a result of discussion and I believe I may say as a result of agitation by members of both boards and other gentlemen who are always found working in the interest of measures which promise to promote the general welfare.

DR. CURRENS: I guess they saw their mistake. I have not been a member of the board for four or five years. There is a member of the board present, and I think he understands the present condition better than any of us.

DR. McMAHON: My purpose was to advise the delegates that the matter of reorganization was primarily discussed and agitated by members of both boards and not by the committee. The intention and efforts of the committee was to try and carry out the desires of the State Medical Society.

DR. CURRENS: I see that.

Dr. Warfield's motion with amendment as accepted was unanimously carried.

PRESIDENT: The next order of business is the report of the Committee on Publication, Dr. Arthur J. Patek.

DR. McMAHON: The report is here, but Dr. Patek will not be here until tomorrow morning. I suggest that it might be well to postpone it until tomorrow when Dr. Patek will be here to present it in person.

PRESIDENT: We will hear the report tomorrow if there is no objection.

We will now listen to the report of the Committee on the Prevention of Tuberculosis, Dr. C. A. Harper.

DR. C. A. HARPER, Madison: I must confess that the Committee on the Prevention of Tuberculosis expected to hold its meeting tomorrow morning; and I have written to each member of the committee to that effect. I thought perhaps we could meet here better than at any other time. I got up a tentative report that has been submitted to only one member of the committee, Dr. Ravenel. It is short and I might read it with permission that we may revise it if desired.

PRESIDENT: Would you rather do that or have it deferred?

DR. HARPER: I would rather, of course, have the committee as a whole pass upon anything that we may have to report.

PRESIDENT: The House of Delegates will accede to any request you may make in that respect.

DR. HARPER: I would rather confer with other members of the committee, as we expect to have a meeting tomorrow. If you defer it until the next meeting I shall be pleased to present the united report of the committee.

Presentation of report deferred until tomorrow, without objection.

Report of Committee on Medical Education, Dr. E. S. Hayes, Chairman, deferred.

Report of Committee on Necrology, Dr. A. J. Patek, of Milwaukee, Chairman, deferred.

Report of Delegate to National Legislative Council, Dr. B. M. Caples, and report of Delegate to Council on Medical Education, Dr. M. P. Ravenel, presented by Dr. Caples as follows:

To the House of Delegates of the State Medical Society of Wisconsin:

GENTLEMEN: The American Medical Association's Conferences on Medical Education, Medical Legislation and Public Health were held in Chicago, February 26-27. The conference on Medical Education was held on Monday, the session opening with the address of the President, Dr. Arthur Dean Bevan who said:

"To fulfill the necessary requirements of the modern medical school it must have well qualified students, expert teachers, well equipped laboratories and ample clinical material. Among the suggestions was that the interne year at the hospital should be made a requirement throughout the country by state medical licensing boards. There should be a system by which specially trained teachers in anatomy, physiology and pathology can be secured. Not only must the clinical professor be a great physician and trained teacher, but he must be competent to carry on, to direct and to stimulate research work. There should also be an adequate

teaching plant comprising laboratories, hospitals, dispensaries, etc."

These together with many other suggestions made by the president would build up an ideal medical educational system. During the past year the amount of money given for medical schools, medical research and for the building of a teaching hospital, has passed all precedent, the gifts having gone into the millions.

Suggestions were made that where two or more colleges are competing for clinical privileges in local hospitals, a merger of these institutions would give the larger institution the entire privileges now divided.

Entrance requirements should include natural fitness, special and general preparation. Suggestions were made that there should be added a fifth year to the medical course, the last year to be spent in the hospital. The trend of all the discussions along this line was toward a better equipment, better material and higher education.

A comparison of the medical practice in the United States and Germany was made and of the latter country it was said: "If anyone is willing to take the risk upon himself of prescribing drugs for some one else in trying to cure him, he may do so, providing in doing so he does not kill. If he kills the patient for whom he prescribes, he will be sent to the penitentiary in case it can be proved that he actually did kill. The licensed physician who has taken a doctor's degree that has the university stamp on it may kill without danger of prosecution."

The conference on Medical Legislation and Public Health was called to order February 27th by Dr. Henry B. Favill.

The report of the secretary showed that four special lines of work had been made the foundation for the future. These were:

First, the further development and extension of the press bureau. Second, the organization of a speakers' bureau for public meetings on health topics to be held under the auspices of county and state medical societies, women's clubs, local public health leagues, teachers' institutes, colleges, university and high school faculties. Third, the compilation and publication of a hand book for speakers containing the essential facts and figures for a successful public health propaganda. Fourth, the formulation of a platform setting forth the principles of the Association and what it stands for in public health matters.

Other subjects taken up were the prevention of ophthalmia neonatorum, bringing up to date vaccination and small pox statistics, Vital Statistics Legislation and Essentials of State Legislation of Foods and Drugs suggesting that the statute exclude all deceptive coloring of whatever character, that all articles of food be truthfully labeled; let every label tell the truth and nothing but the truth; excluding from the market preparations containing cocaine or derivatives of this product or wood alcohol which products are intended to be used either internally or externally; that all state food laws be in harmony with the national law so far as the same can be harmonized without lowering the efficiency

and effective working of the state law.

Railway sanitation was taken up and thoroughly discussed.

Meat, milk and butter were included in the articles that should have federal inspection.

The conference went on record in reference to national health legislation by passing the following resolution:

Resolved, That this meeting indorse the position taken by the American Medical Association in its unanimous vote at Los Angeles to support pending national health legislation; that it indorse the action of the House of Delegates in instructing the Council on Health and Public Instruction, the editor of the Journal and the Board of Trustees to use every endeavor to secure the passage of such national legislation.

There were a number of other resolutions dealing with health and legislative matters.

The proceedings of the conference on Medical Education have been published in pamphlet form and some time during this month the pamphlet containing the proceedings of the Council on Medical Legislation and Public Health will be published. Both are of much value to those especially interested along these lines.

During the last sessions in the legislatures in the several states there were a number of medical laws passed. You are all familiar with those that the legislature in this state passed, as well as those that failed of passage. We should have a law providing for the sterilization of the unfit who are under state care.

For the sake of the general public and those dependent upon us for good health, it behooves us to stand together in support of needed medical legislation as well as against legislation that would be to the detriment of the general public.

Respectfully submitted,

B. M. CAPLES,

Member of the National Committee on Medical Legislation and Public Health.

M. P. RAVENEL,

Delegate to the Council on Medical Education, A. M. A.

Motion made, seconded and unanimously carried adopting the report.

PRESIDENT: We will now hear the report of delegates to the Annual Meeting of the American Medical Association, by Dr. B. M. Caples.

The report was then read and motion made, seconded and unanimously carried adopting the report.

The report is as follows:

Report of delegates to the 62nd annual session of the American Medical Association held at Los Angeles, June 26-30, 1911.

Gentlemen of the State Medical Society of Wisconsin: Your delegates take pleasure in submitting the following report:

Considering the distance from the center of popula-

tion, the meeting was remarkably successful in every respect. The entertainments provided by the Committee of Arrangements were on a more elaborate scale than any here-to-fore ever furnished. Los Angeles more than sustained its reputation for hospitality and good fellowship. There were about 3,000 present and all were sumptuously provided for.

The House of Delegates was called to order Monday morning, June 26th by Dr. William H. Welch, who during the course of his address said:

"So large and potential for good are the responsibilities entrusted to the House of Delegates that too much emphasis cannot be laid on the duty of constituent associations and sections to select as their representatives the best and wisest men available for the purpose, and such men should be willing at least to take their turn in serving in this capacity.

"As regards matters within the special province of the House of Delegates the methods most appropriate for the Association to follow and best calculated to secure in the long run enduring results have been well exemplified in the activities of some of the councils and special committees, and have consisted mainly in the thorough study and investigation of conditions and of remedies and in the education of the profession and the public by conferences, reports and published papers and pamphlets."

We may expect, I believe, much and beneficial results from the work of the Council on Health and Public Instruction along the lines such as those indicated. The secretary's report showed a membership of 33,960 for the year 1911.

Although the matter has been before the Society for a number of years, as yet there has been no plan perfected for the uniform regulation and transfer of membership and the secretary urged that such a plan be adopted as it is vital to effective organization. Except one or two societies there is none controlled by membership either state or national association; it is left absolutely with a component society. As the latter is the portal of admission to the whole organization, the organization should have some check on who and who may not be admitted. Complaints are made here and there of some excellent physicians who for personal or other reasons are kept out of the organization by component societies. On the other hand, some component societies have admitted and retained as members those who should not be in the organization. A problem confronting the Association is that of membership in the National Association. Shall membership in the Association be extended so as to include all those who are members in good standing in a component society?

The question of secret division of fees, contract practice, advertising, etc., should be met and given careful judicious and deliberate consideration.

The new building has been completed and was occupied by the Association about the first of the year. The building is said to be as perfect in its appointments and as nearly fire-proof as it is possible to make it.

The Bureau of Public Instruction has taken up perhaps the most important line of work, which has been

the preparation and distribution of regular bulletins to the newspapers of the country on Public Health matters, newspaper editors having shown great readiness in utilizing material sent them. The total number of pamphlets distributed in 1910 is estimated at 2,800,000.

Changes for the improvement in Medical Education during recent years have been rapid. In 1904 the number of medical colleges had reached 166. Since 1904 there has been a gradual decrease in the number until now it is reduced to 120. There has also been a marked advance in the standard for admission.

The report of the Council on Medical Education was exhaustive and contained much valuable data.

The Committee on sections and section work, recognizing the particular function of a hospital as an educational influence and the role it exerts as an instrument for the physician and surgeon, also recognizing the great need of standardizing of hospitals on a higher plane, recommended that a section on hospitals be established and that officers for this section be appointed to arrange a program for the session of 1912.

The secretary of the Association was instructed to wire the following resolution to the president of the United States:

Resolved, That in the name of the medical profession and people of the United States, the American Medical Association extends its cordial thanks to President Taft for the magnificent fight he is making for pure food and pure drugs, and for the creation of a bureau or a department of health to insure the same protection to the health and lives of the people that the Department of Agriculture is so properly and ably giving to domestic animals and crops.

In reference to the establishment of a department of Health, a resolution was passed pledging the American Medical Association to the principles of the Owen Bill, Senate Bill No. 1 to create a department of health.

Fortunately, the declination of Dr. Simmons this year to succeed himself as secretary and the election of Dr. Alexander R. Craig as secretary will not mean a loss to the association of an executive officer who has done so much to bring the work of Association to such a high standard of efficiency. Dr. Simmons will continue as editor of the Journal. Dr. Craig has unusual qualifications as secretary.

In introducing his successor, Dr. John B. Murphy as president of the American Medical Association, Dr. Welch very felicitously said:

"It is now my pleasure and honor to present to the Association and to this audience one who needs no introduction to any medical audience in the civilized world; one who has brought distinction to American medicine and honor to his country by his valuable contributions to surgery; a leader and ornament to our profession."

We as members of the profession in Wisconsin should be especially proud of his achievements.

The address of President Murphy was typical of the man, a careful analysis of the work of the Association together with practical suggestions for the future advancement and the scientific achievements of the profession in general.

The election to the presidency of the Association of Dr. Abraham Jacobi added another illustrious name to the list of his predecessors. His brilliant attainments as a practitioner are recognized throughout the world. The medical profession has bestowed upon him the highest honor it can confer, an honor he richly merited as an ideal physician and citizen. Dr. Jacobi has been president of many of the medical organizations in New York and is an honorary member of many societies both in this country and abroad. Carl Schurz, his life-long friend hailed him as the personification of scientific conscience and the personification of civic conscience. Let us all emulate him.

Respectfully submitted,

B. M. CAPLES,

C. S. SHELDON.

PRESIDENT: The report of the Committee to act with the Board of Public Instruction of the American Medical Association, by Dr. C. R. Bardeen, will be deferred, and we will listen to the report of Chairman of Council, Dr. Edward Evans, of La Crosse.

Report of Chairman of Council, Edward Evans, La Crosse.

DR. EVANS: I have no written report. The councilors will report individually. I, however, feel that their work has been done well in the past year. I feel that perhaps we over-organized a few years ago and got organization *of* rather than *in* the profession, as I said a year ago; but I feel that in my own district there has been a falling off not only in membership in spots, but interest, quite universally. I hope, however, that that is not the general experience of the council.

There are only two things I need to report on that would not be duplicating or forestalling the reports to be made by others: First the question of publication which is within the control of the council, and you will have the report of this from the Publication Committee who have control of the journal. So I need not detain you with that.

The next is report on Medical Defense, which will also be presented by the chairman of the committee, so I will not forestall his remarks. Consequently there is nothing that I need to take up the time of this committee with now.

Report of Councilor of First District, M. R. Wilkinson, Oconomowoc.

DR. WILKINSON: My report will have to be an oral one. The work of the society in Jefferson county was of very high class. I had the pleasure of attending one meeting during the year. The membership has increased two members during the year. The number of meetings held has been four as usual. There were 10 papers

read. Waukesha County has had its regular meetings during the year, 8 in all. The membership last year was 42, with a falling off of two for 1912, one by death, Dr. Miller, of Oconomowoc, and another Dr. Strong, leaving the county. One other member has not as yet paid his dues, but we are fully confident that he will.

I am sorry to state that I have had very little to report from Dodge or Washington County. I wrote inquiring when the meetings would take place, but during the entire year I was not notified of any time or place that I could attend a meeting.

In another year I intend to go after them a little. There was a little too much waiting on my part; but I will try during the fall season while the roads are passable to get out to attend meetings in Dodge and Washington counties.

Report accepted.

Report from the Second District, Dr. G. Windesheim, Kenosha.

DR. WINDESHEIM: Mr. President and Members of the House of Delegates: For the first time in 7 years I am unable to present a condensed report of my district. The reasons are that I have not received up to this date a report from Walworth County, neither have I received a report from Racine County. I have been notified that the Secretary of Racine County has been ill, and for the last two weeks I myself have been laid up in bed with an injury, so that I could not write to them and urge them to send me a report.

I have a report from Kenosha County where I live, which is a very good one. The county has made a gain of one member. Counting those that have moved away and new ones that have come in, we have more members this year than last year.

As far as the work in the various counties is concerned, I have visited Racine County twice and Walworth County twice during the time of their meetings; and I find that the work of each county society is very much better than it has been in the past. The attendance is better. The papers are more instructive. The professional spirit is better, the fraternal spirit is better. From the report of the Secretary of the State Society, I notice that there are some delinquents in Racine County, however, I know the men and I think that at the end of the year there will be none.

SECRETARY: Only two net loss.

DR. WINDESHEIM: That will probably be made up. In Walworth County I am pretty sure that the losses will be made up.

SECRETARY: There is 7 net loss there, but I think it will be made up.

DR. WINDESHEIM: I think they will be made up. So altogether I think that the Second District is holding its own.

The latter part of last summer in August we had a meeting of the district society to which the physicians of surrounding counties, Lake County in Illinois, and Rock County and others were invited. It was a very successful meeting. I think there were somewhere in

the neighborhood of 60 physicians present. As a rule the Second District, I think, holds its own.

Report of Third District, Dr. F. T. Nye, of Beloit.

DR. NYE: This is the end of my term as councilor for the Third District. After six years of work as councilor I must say that I think we have done very well. I listened this afternoon to a good deal about organization. Now, I think that our organization is fairly strong in this state; and the more I come in touch with it and work with it, the more I am satisfied that we are extremely strong. In going over the various counties and getting out into other counties, I should offer the criticism, that we lack in faith. At the end of 6 years' work I have found in one way a little less work to do. Dr. Evans thinks perhaps we were over-organized already. Instead of its being the same form of work, we have to do a little different work; a little more missionary work, perhaps, comes up for the councilor.

In Rock County we have held meetings each month all through the year, and our meetings have been larger, better, more scientific and characterized by better fraternal spirit and a stronger professional spirit than before.

In Green County they are a good set of workers. They are very busy. They do not have a great deal of time for a great many meetings. Unfortunately at the meeting that was held in January, I was too ill to attend. So I did not get into that county. Columbia County has always done first rate. Their organization is unusually strong; this last season they only held one meeting—so that you find the spirit there at least. I think the large majority of doctors that should become members are members. There are always some outside. Let each Secretary in his own district or town work out this problem. You cannot get them all in, and they do not all belong in either. In our own city, for instance, recently a doctor was very anxious to get in; he was taken in; we have been very broad in Rock County; we take in all classes and try to improve them, socially at least; and they always go away feeling good from every meeting that they attend; so I do not feel that we should be backward in taking men in if they are correct morally and professionally.

I have not had any report from the Secretary of Dane County. He is present and perhaps can enlighten us a little about Dane County.

SECRETARY SHELTON: We held our usual number of meetings—nine meetings a year in Dane County—and the interest has been sustained. It has been a very satisfactory year.

Report from Councilor of the Fourth District, Dr. W. Cunningham, Platteville.

DR. CUNNINGHAM: Our membership is about the same. Crawford is 11, last year 11. In Richland there is a loss of three. This year 11, last year 14. In Lafayette County 18, last year 19, a loss of one. In Grant County a membership of 44, last year 41, gain 3, so the gain in Grant County offsets the loss in the

other two counties, leaving our general membership about the same. Then there are several who have left the county. We have lost them, but we have gained others; so that the membership is about the same in number. The number not affiliated with the society is becoming less each year. In Lafayette County we have one who is not a member, and in Grant 4, and that number is considerably smaller than it was a few years ago. As to the scientific work, it is much improved throughout the district. The fraternal spirit is much improved and the meetings are better and there is much more benefit gained from the meetings than formerly. The men attend the meetings with more enthusiasm, are becoming better acquainted, and I think we gain much more by the meetings than formerly. From a social as well as scientific point of view all are benefited by the meetings, and enjoy them.

The report of the Fifth District was deferred owing to the absence of Dr. G. V. Mears, of Fond du Lac.

Report of Sixth District, Dr. H. W. Abraham, of Appleton.

DR. ABRAHAM: Winnebago County has been the banner county this year. We have a gain of 8, and it has a larger membership than any other county. There has been a greater improvement in many ways in that county than in any of the others that I have. If you remember last year I said there was an effort on foot to combine the city society with the county societies. The trouble in that county had been previously that they had such a very efficient medical club, the Oshkosh Medical Club, that most of the work was done in that club, but to the detriment to some extent of the county society. This year they have not combined the two societies, but they have practically done the same thing; they have invited both the club and county society to attend all meetings, and they have had very efficient meetings—some of the best I ever attended. One in particular entertained Dr. Murphy as the guest of honor. There were about 100 men in attendance. Dr. Murphy gave one of his typical talks upon the subject of surgery of bones, which was one of the most interesting meetings we have ever had—and that was the general consensus of opinion among those who attended.

There are only two men in that county who are eligible whom they have not got in. One of these has a good excuse; he is going away soon and does not want to join this year as he is going somewhere else, because of sickness in the family. I had a personal talk with him. That leaves only one outsider that is eligible who has not come in. The total membership now is 58. They have had four meetings this year. At the present time they have no set program, although I believe there should be one in every county society, that is, there should be a program made out at the beginning of the year; but in talking with the Secretary today, I think that is one of the things that was going to be done in the future. They see the reason for that. They will have a definite number of meetings set at definite dates, which is very necessary to have in efficient meetings it seems to me.

The professional spirit there has improved very much. There has been no special back-biting or anything of that sort; but I think every man is working for the benefit of the profession, and there has been a greater improvement there, it seems to me than in any other county so far—not that it was bad at all, but it has gone ahead very efficiently, because of the work the men have done in the best kind of a spirit.

Outagamie County has a total membership of 35 this year. They had 38 last year, showing a loss of three. That is not as bad as it seems. There have been 6 removals. Still we are only short three.

There are no eligible members outside of the society. It has had a great record in that respect, in having all the members that are eligible in.

There are some men that might be eligible in other societies, but I wish to state again that we have passed a resolution which is part of our by-laws now, that any physician who does any contract work, such as for the Eagles, Moose or any other lodge of that kind, is not eligible for membership; and as soon as he takes up that work he automatically drops out and is not a member. I think it would be a good thing if every society adopted similar resolutions. It would have some effect in curtailing that kind of work, which is growing to the detriment of the profession.

We have had five meetings reported. The average attendance has been 14. The average attendance in Winnebago has been 38. The professional spirit is very good in that county.

BROWN-KEWAUNEE has a total membership of 33, a gain of one.

I have not the figures as to the eligibles there, and I cannot say definitely. I think there is a chance to get in a number of other men there. It has a larger territory, covering more ground, and harder to reach than these other two counties. They have no set program. It would be a good thing if they did have. But the meetings are at the call of the president, and I think the attendance has not been as good as it should be in a county of this size, with as many members. The professional spirit is improving and we always have good meetings there, and I think the county society could be brought up to a more efficient standard in that county, and I am sure it will. It has been gaining gradually.

We still have Door County. I have heard from Door County every time any reports have been made, that we cannot do anything with Door County. We keep the membership up as much as we can. There have been 8 members for the last 3 or 4 years, and only 7 are in now, and they have had no meetings for the last two years. I have made personal visits there, and I have also stopped off in going through there for other reasons, and talked with different men. I have written letters by the basketful, and up to the present time I do not think I have had one reply. Just recently, in urging these men to pay their dues, I told them to remit directly to the state secretary, and I asked them what they thought of a reorganization, or whether they would rather be attached to another county. I have heard nothing, although Secretary Sheldon, I believe,

has. But we have not been able to do anything—probably due to the condition there as to territory. There are not enough men at any one place to have an efficient meeting, and it is difficult to get together; and still most of them want to belong. I go up into that section of the country nearly every summer for an outing, and come in personal contact with the different men, and they are all glad to belong; yet no one seems to think they have the authority to go ahead and form any organization definitely. So the best thing we can do, probably, is to keep them along under the present regime.

The work of the councilor in some ways has been very pleasant. I meet a great many men and form friendships that I would not otherwise form. I am sure the personal touch in many ways, has helped me, and I hope sincerely that it has been a benefit to the societies and to the state society.

SECRETARY: In regard to Door County, Dr. Wagner of Sturgeon Bay takes upon himself to send in dues for 7 members; and he writes me he would send in the dues for the 8th very soon.

Report of Seventh District, Dr. Edward Evans, of La Crosse.

DR. EVANS: Inasmuch as the various secretaries' reports to me are on file with the Secretary, I will not abstract them. The 7th district as a whole is living up to the spirit as well as the letter of the organization. We had our usual district meeting this year addressed by Dr. Bardeen, Dean of the Medical School at Madison, and we have as a whole, I think, been doing some fairly good work, especially in La Crosse County. We have there in our society all the eligibles—and some others; and the other counties are pretty well organized with the exception of Vernon. That seems to be a hopeless spot. I had hoped when lightning struck that town in the shape of a malpractice suit which the society is defending, that some of them would see fit to come in; but there has been a falling off this year. Monroe is well organized as far as membership goes; so is Juneau. Trempealeau-Jackson has, I think, as large a membership as before—or those lost can be accounted for. In La Crosse the county society is doing pretty good work. In conjunction with the nurses' association we had one of the public health workers of Minnesota who gave an address on public health, and we carried on a campaign there in connection with the anti-tuberculosis association, which we did not win; but I feel that it did good, because like Peter the Great's soldiers, I think we are going to learn to fight by being licked, and perhaps in that way it has done some good. Anyway, the spirit, I think, is pretty good in the 7th district, outside of Vernon county. Perhaps a few more malpractice suits down there will bring them into line.

SECRETARY: When we speak of net loss or gain we make the comparison with the total membership of 1911; 143 additions were made during the year after the last annual meeting; so we have that leeway, 143, in order to make up losses to date. In Vernon County there is a gain of one. Trempealeau and Juneau are the

same. Monroe has lost one and in La Crosse there is a gain of two—making a net gain of one.

Report of Eighth District, Dr. T. J. Redelings, of Marinette.

DR. REDELINGS: My report will be very brief. It seems to me that matters are moving very smoothly in the 8th district, with the exception of Oconto County. Marinette County has a gain of 3, Shawano County has a gain of 2. Marinette County has held regular meetings very successfully, besides additional meetings, and at a number of them they have had social features. We have had one speaker from the outside. Last year two open meetings were held. This year I think the plan is not to hold open meetings. Arrangements have been made between the Marinette County and Menominee County associations by which they alternate in the meeting place.

I think the professional spirit in Marinette County is good. There are six eligibles reported by the Secretary who are not members, one of whom is a priest, leaving five actual eligibles who are not members. One of these I think will come in in the near future—that will be after the next session of the Board of Examiners—a new man just come to us. We have lost Dr. Wright, an able man, who did excellent work, a genial fellow and a valuable spirit in our society. A new man has come to us who is going to take his place admirably, I think.

Shawano County is doing very well. The men are scattered in Shawano County, are holding fewer meetings. But the report is very good, and they show a gain of two.

I have done nothing with Oconto County this year. I wrote the secretary, Dr. Faulds on two or three occasions and proposed to him to attend their meeting if he would notify me of the place and date, and I had in mind soliciting some papers for the meeting from men in my community, but nothing ever came of it.

His report is indefinite and incomplete, and I fear there will be a small loss in Oconto County, but I trust it will not be enough to reduce the membership in the district. Have you a report, Dr. Sheldon, from Dr. Faulds?

SECRETARY: Dr. Faulds wrote me two or three days ago stating he would be here this afternoon and send me his report; he said it was not complete, but he hoped to have the same number as last year.

DR. REDELINGS: I have a letter to the same effect in my hand. Generally speaking, I think the conditions in the 8th district are very good and satisfactory.

Report of Ninth District, Dr. O. T. Hougen, Grand Rapids.

DR. HOUGEN: I have not the figures at present in my possession, but I can say in a general way that the work of various societies has been going on very satisfactorily. In Lincoln County we have the most unsatisfactory situation, although I believe there is only a loss of two. They have great difficulty in getting any meetings, although they maintain their organization.

There are one or two who are determined to quit the medical organization entirely, and I have been laboring with them to have them reconsider the matter. One was a former secretary. In Marathon County they are doing very good work. They have held many meetings which were well attended and the spirit is good. They have met with some difficulty in regard to contract practice, and have adopted some stringent resolutions, and some friction has resulted, but things are pretty well straightened out at this time.

Clark County is an unfortunate county in regard to its railroad facilities. It is very difficult for members from the various parts of the country—it being a large one—to get together; but they are doing very well. A couple of years ago they seriously considered the advisability of attaching themselves to some adjoining county; but I have persuaded them not to do that; and they have continued an independent organization, and they had meetings and are getting along quite well.

Portage County has been doing better. There was a time, a year or two back, when they had simply a paper organization, held no meetings, no papers were read, but lately they have been doing better. Their membership, I think, is approximately the same as before.

SECRETARY: Gain of one.

DR. HOUGEN: Waupaca County is somewhat like Clark County in the matter of facilities for getting to and from the various remote corners of the county. They have some difficulty in getting any large attendance, but lately the disposition has manifested itself to get together, and they do get together and things have been better. Green Lake, Waushara and Adams Counties, form a rather thinly settled district, but they are having regular quarterly meetings and they have a good program, and the meetings are very well attended. I think there is some gain in that district.

SECRETARY: There is a net loss of 4, but the showing last year was remarkable—26—and I think it will be fully made up.

DR. HOUGEN: The only other county is Wood County, and that is the county in which I live, and our society has sustained a loss through the death of one of its ablest members. But I think that we have maintained the same number as last year.

SECRETARY: A loss of one.

DR. HOUGEN: We have 24, the same as last year.

SECRETARY: Last year I think there were 25, but I may be mistaken.

DR. HOUGEN: We held four meetings a year, and at each meeting we have anywhere from two to four papers. The meetings are well attended. Usually we have a smoker and lunch, and spend a profitable evening.

I want to tell you what this district has done: they have maintained a district society in very nice shape. We have four meetings a year and the smallest attendance has been between 50 and 60. It has been as high as 70 to 75. We have had on those occasions some few people from outside. We have had one man from Minneapolis, one man from Chicago and one from Milwan-

kee; the physicians and the society of the town where the meeting is held furnish the banquet, paying all local expenses; and we have a very good meeting devoted entirely to scientific work in addition to the banquet. We usually have a meeting at Marshfield and one at Wausau, and perhaps one at Grand Rapids; and this year we will have one at Waupaca in the summer; and those meetings are very well attended and are very satisfactory and I am sure that the professional spirit throughout the district has improved very greatly.

In the early period of this organization work the sentiment seemed to be pretty generally spread that we should take in anybody and everybody as long as he held himself out to be a doctor—in fact, Dr. McCormack was in Wausau at one time and he advanced that idea, and he gave as an illustration, a man in his home town who was a very active practitioner but was very irregular; they tried to get him into the society and he finally joined and that improved him some, and finally they elected him president; and while he was president he was quite ethical. So they kept him in office. He used this as an argument why we should get even those that were very unethical and irregular in their work, into the society, because we could correct and improve them. I rather dissent from that. I believe the proper thing for us to do is to take those men in who are at least reasonably regular, and put them out as soon as they become unreasonably irregular. I think that is all I have to say.

Report of Tenth District, Dr. R. U. Cairns, River Falls.

DR. CAIRNS: I do not have at hand the exact figures, but I can give a general report. The conditions in Pierce County are reasonably good, and likewise in St. Croix County. I have not heard from Chippewa; I do not know whether Dr. Sheldon has or not.

SECRETARY: There is a net loss of one.

DR. CAIRNS: The Chippewa society has been rather inactive for a year or two. I do not know why. With a city the size of Chippewa Falls in the county there is no reason why they should not have an active society; but the society there has not been in good condition for some time.

The Dunn-Pepin county society is in a flourishing condition—at least the Dunn County end of it is. Pepin County is only a narrow strip six miles wide and twenty-four miles long, and there is no excuse for its having been made a separate county; yet it is so located that the members find it rather difficult to reach other societies by rail. There are hardly enough men there to support a separate society. I believe there are seven eligible men in Pepin County; but that would hardly maintain a society of their own, and yet they cannot often get to the meetings in Dunn County, although several pay their dues there.

The Eau Claire County society is in a flourishing condition. There has been a gain of five.

Barron, Polk, Washington, Sawyer and Burnett Counties are the left overs put together. They have a good society. The principal society is in Barron County, with

some from Polk and the other counties paying dues. But the territory is so scattered that it is practically impossible for those men to get together, and yet the men are so situated that, although I have looked the territory over carefully, I can hardly see how it is wise to divide it. There are a lot of those little villages a long distance apart where there are only a few physicians and the railroad connections are such that they cannot get to the present places of meeting and there is not enough membership to warrant additional places of meeting. The general work in the district I think is in reasonably good condition with the possible exception of Chippewa. The district maintains a district society which has a meeting once a year, held usually at Eau Claire, and they have a very good meeting there, always, with a good attendance and a good programme and a general good time.

Report of the Eleventh District, Dr. J. M. Dodd, Ashland.

DR. DODD: I have no formal report to make to you, except to say that conditions remain much the same year by year up in that northern section of the state. There are some eligible still there who are not with us, and although we labor with them we do not seem to be able to get them to come in. The numbers in the different counties I do not have with me, as I left the secretaries' reports which I had received, on my desk and discovered that I had forgotten them after it was too late to get them.

I believe there are no great differences in the numbers in the different county societies, with the exception perhaps of Douglas. Dr. Sheldon can probably enlighten us as to why there has been a falling off up there.

The professional spirit is not as strong perhaps as it should be. The social spirit however is sufficiently strong so that we are able to get meetings and take up any work that seems of sufficient importance to bring the physicians out and get them united.

The profession of Ashland has just donated its services to the schools for medical inspection, which has just been completed.

There is nothing further, I believe, that I have to report from the 11th, unless Dr. Sheldon can give us some more information regarding Douglas County.

SECRETARY: The same difficulty exists in Douglas

County that several years ago existed in Racine County, and as we feared might exist in Winnebago County. The situation in Racine County has gradually cleared up. It was due to the apparent interference, or rivalry, or opposition, in some sense, of the local society which monopolizes the attention of the physicians to the exclusion of the county society. Now it seems they have a medical club organized within the past year in Douglas County, in Superior. I think the trouble will be solved as in Winnebago County. They will see the inadvisability of organizing any local society which shall in any way interfere with the general plan of organization and the work which the people of the state generally have their hearts in and desire to succeed in. I think this will work itself out all right after a little.

Report of Twelfth District, Dr. H. E. Dearholt, Milwaukee.

DR. DEARHOLT: There are two counties in the 12th district, Ozaukee and Milwaukee. Ozaukee has no county society and so is affiliated with the Milwaukee society. I do not think any of the members there are attending the meetings of the Milwaukee society. I am not able to get responses from such members as I dared to write to. In Milwaukee County there has been a gain of five over the same period last year. Nine meetings have been held and the programmes have been good. There is a splendid spirit in Milwaukee County; it has never been better, nor I think as good, as at the present time.

We have had during the past year an interesting experience in programme making. The Extension Division of the University of Wisconsin, was enabled to get out on enrollment of 90 doctors for a course of lectures given by Dr. Ravenel at \$2.00 per ticket. The interesting thing was that it brought in irregulars, one or two advertising men, and a number of physicians who have never gone out to any other medical society meetings that I have been at, in quite an extensive attendance at medical society meetings. It was interesting to see men eagerly attending pay lectures, who couldn't have been induced to attend the regular medical meetings without a free banquet.

The report of the Treasurer, Dr. S. S. Hall, was presented and unanimously adopted.

It is as follows:

Wausau, Wis., May 21, 1912.

S. S. HALL, TREASURER, IN ACCOUNT WITH THE STATE MEDICAL SOCIETY OF WISCONSIN.

Debtor.

Balance on hand June 6, 1911.....	\$3,726.99
Received from Secretary for County Dues.....	3,407.00
Total	\$7,133.99

Creditor.

1911—	
June 12—Wisconsin Medical Journal.....	\$ 600.00
1912—	
July 15—Wisconsin Medical Journal.....	1,000.00
	<u>\$1,600.00</u>

1911—		
June 8—H. B. Sears, Councilor Expense	\$	7.45
June 8—T. J. Redelings, Councilor Expense.....		13.47
June 9—J. M. Dodd, Councilor Expense.....		2.70
June 9—G. Windesheim, Councilor Expense, 2 Years.....		34.25
July 14—F. T. Nye, Councilor Expense.....		7.40
1912—		
Feb'y 5—G. V. Mears, Councilor Expense.....		6.00
		71.27

1911—		
June 7—C. S. Sheldon, Expense, voted by Council.....	\$	150.00
June 8—C. S. Sheldon, Expense.....		61.23
June 9—Rock Slyster, Expense.....		28.10
June 12—A. W. Gray, Expense, Com. P. P. & L.....		5.98
June 12—J. P. McMahon, Expense, Com. P. P. & L.....		12.86
June 15—R. C. Cabot, Expense.....		60.00
June 19—Resthaven, Expense, Ginger Tea.....		30.00
June 28—Parsons Ptg. & Sta. Co. a/c June 14, 1911.....		52.00
Nov. 12—Goodwin & McDermott, Stenographers.....		52.00
Nov. 17—Goodwin & McDermott, Stenographers.....		210.40
Dec. 7—Parsons Ptg. & Sta. Co. a/c Dec. 1, 1911.....		15.12

1912—		
Jan. 15—C. H. Ellsworth, Govt. Envelopes, etc., Treas.....		17.25
Jan. 25—Parsons Ptg. & Sta. Co. a/c Jan. 1, 1912.....		1.25
Jan. 29—J. E. Goldthwait, Expense.....		49.00
Apr. 23—Parsons Ptg. & Sta. Co. a/c April 1, 1912.....		9.25
Apr. 23—C. S. Sheldon, Salary 1911-1912.....		300.00
Apr. 23—S. S. Hall, Salary 1911-1912.....		200.00
Apr. 23—S. S. Hall, Incidentals.....		15.00
		1,269.44

Total		\$2,940.71
Balance on Hand.....		4,193.28
Total		\$7,133.99

Respectfully submitted,

SIDNEY S. HALL,

Treasurer.

TREASURER'S REPORT.

Wausau, Wisconsin, May 21, 1912.

S. S. HALL, TREASURER, IN ACCOUNT WITH THE STATE MEDICAL SOCIETY OF WISCONSIN. MEDICAL DEFENSE FUND.

Debtor.

Balance on hand June 6, 1911.....		\$2,131.63
Received from Secretary.....		1,596.50
Total		\$3,728.13

Creditor.

1911—		
Sept. 25—Lines, Spooner, Ellis & Quarles.....	\$	625.64
Balance on hand.....		3,102.49
Total		\$3,728.13

Respectfully submitted,

SIDNEY S. HALL,

Treasurer.

The secretary's report was then read by Dr. C. S. Sheldon and was unanimously accepted.

SECRETARY'S REPORT.

The Secretary begs leave to submit the following report for the year 1911:

This is the eighth year under our present plan of

procedure, and what was begun seven years ago with much doubt and uncertainty as to the final outcome, is gradually—year by year—gaining a solidity and a permanence which betoken a firmly-established institution. Our increase in members during this period would not necessarily justify such a statement, although our growth has been, on the whole, satisfactory.

The increase from about 1300 in our first year, to approximately 1650 in 1911 shows an average gain of 50 for each year since the reorganization. Of greater significance is the general acceptance of the new order of affairs by practically the whole medical profession of the state, together with greater willingness and efficiency in carrying out its provisions. The idea of the County Medical Society, in some shape or other, is generally accepted as sound in principle, whether utilized in actual practice or not. While all is not entirely satisfactory, and the machine still needs considerable oiling, the difficulties in maintaining the organization are gradually growing less, while the number of those who are thoroughly committed to the cause is constantly increasing. Yet, even so, it must be admitted that we have hardly begun to realize the great possibilities for good the plan contains, or to utilize, as we should, the abundant opportunities which it places in our hands.

The number of our Component Societies is the same as during the past three years, 53, all of which had sent in their Annual Reports at the 1911 Meeting. For 1912, all have again reported. This is far better than seemed possible a week ago, but Door and Price-Taylor, this year, came up to the mark early and while some of the other counties seemed likely to fail, they finally all put in an appearance and we are once more a happy and united family—for which our sincere thanks to the County Secretaries.

The number who have paid the 1912 dues to date is 1610. One year ago, at the Annual Meeting, at was 1493, a gain of 117. During the year, since the last meeting, the additions to the 1911 membership have been 143, making the total membership in 1911, 1636, a gain of 30 over the total membership of 1910, when it was 1606, and of 131 over 1909, when it was 1505. The additions during the year will doubtless bring the 1912 membership considerably above 1700.

Of the 53 counties reporting, 19 show a gain over the total 1911 membership, 25 a loss, while 9 are the same. At the Annual Meeting last year, 11 counties showed a gain, 34 a loss, and 6 were the same as the year previous. The Counties making the biggest gains are Winnebago, 8; Eau Claire, 6; Marathon, 5; Brown-Kewaunee and Sheboygan, 4; Grant, La Crosse, and Marinette, 3; Clark, Crawford, Jefferson, Kenosha and Shawano, 2.

The counties showing the largest loss are, Milwaukee, 14; Oconto, 6; Dane and Rock, 5; Barron, Fond du Lac, Green Lake, Walworth and Washington, 4; Manitowoc, Outagamie and Richland, 3; no others lost more than two.

MEDICAL DEFENSE.

Our plan of Medical Defense has now been in operation four and one-half years, long enough to have passed the experimental stage. There have been during the year, a large number of applications for defense, all of which have been successfully defended, or the threatened suits have been aborted. This means of protection is an unspeakable comfort to those members of the Society who have been unfortunate enough to be visited with such an affliction. And who knows how soon one of us may have a suit on his hands! There is no ques-

tion but that the plan has steadily grown in favor with the great majority of the membership.

THE JOURNAL.

This is the second year in which the Society has owned and conducted its own Journal. The plan continues to prove entirely satisfactory. The income has lately been considerably reduced by reason of the discontinuance of several advertisements open to criticism; but I believe the Society heartily approves such a policy, and is willing to stand the loss. The editors, Drs. Myers and McMahan, have fully sustained its reputation as a first class Medical Journal, but the membership generally have not shown that active and hearty co-operation in managing their own property which the proprietors might be expected to show. One way we can help the Journal is to heed the injunction on their advertising page, "Patronize your advertisers and thereby reduce the cost of publishing your Journal."

The Annual Meeting of the Council was held Jan. 17, 1912. There were present Councilors Wilkinson, Winesheim, Nye, Mears, Hougen, Dodd and Dearholt. The Secretary reported the 1911 membership to date as 1633.

The plan of the Committee on Public Health and Instruction A. M. A. to hold five or six meetings in Wisconsin was approved and the Secretary was requested to make necessary arrangements.

The Annual Report of the Committee on Publication was made by the managing editor of the Journal, Dr. J. P. McMahan. Report was adopted and placed on file. The thanks of the Council were unanimously tendered Drs. Myers and McMahan for their efficient management of the Journal, and the Council also voted to use every effort to increase the legitimate advertising of the Journal.

On motion, the action of the Treasurer Dr. Hall, in forwarding \$1,000 to make up a deficit caused by loss in advertising, was endorsed by the Council.

Dr. C. S. Sheldon was elected Secretary for the ensuing year, and Dr. S. S. Hall, Treasurer.

THE YEAR'S PROGRESS.

The usual information blanks have been sent to the County Secretaries, and 43 replies have been received. While all of these replies have not been equally enlightening, they still are useful in giving us a more intelligent notion as to the progress we are making.

In the 43 replies received, 2 Societies have held 12 meetings; 5, 9; 2, 7; 3, 6; 2, 5; 15, 4; 6, 3; 2, 2; 5, 1; and one Society reports that it has held no meeting. By this report it would appear that over 70 per cent have held quarterly meetings or oftener. The average attendance in the Societies which have held meetings is over 14, with the usual number of papers. The replies concerning the increase in scientific interest and professional spirit, while overwhelmingly in the affirmative may not be wholly reliable. It is difficult to judge accurately, but I thoroughly believe we are on the up-grade as regards both.

It still remains true that we fail signally in the amount and character of the Scientific work done by the various Societies. This *should* be the most attractive

feature for every man really interested in his work. Its absence is the cause most frequently assigned by those who are unwilling to join us. They say "we don't get enough good out of the thing to pay us." This may be in many cases a mere pretext, but it ought not to be possible to say truthfully that a County Society offers its members nothing but a nominal membership in the State and National Societies. To be sure, there are difficulties, especially in small Societies made up largely of country practitioners; but even here, a good Secretary can triumph over them all. It requires tact, initiative and persistence, with an enthusiasm which can not be easily quenched.

The Second Annual Conference of the County Secretaries was held on Tuesday before the Annual Meeting, and again fully justified the wisdom of this plan of getting the County Secretaries together to talk over their peculiar difficulties and plan for better work. The attendance was good, and the meeting thoroughly helpful. We were fortunate in having with us, Dr. Craig, the Secretary of the A. M. A., who plans to be with us again this year. For this year's meeting, Dr. Sleyster, the Secretary of the Conference, has prepared an admirable program which cannot fail to make a fine meeting.

By invitation of the Council on Health and Public Instruction of the A. M. A., "Open Meetings" have been held during the past few months in several towns in Wisconsin—Waukesha, Wausau, Beloit, Grand Rapids, and La Crosse—at which popular health talks were given by distinguished physicians from neighboring States, furnished by the Council. These meetings have been well attended and very profitable. They will be continued as the demand appears. It is an attempt on the part of the Council to bring the Medical Profession nearer to the people by popular health talks, the use of the public press, and other means for disseminating information as to the care of health and prevention of disease, the exposure of frauds, and other matters about which the public should have knowledge.

All in all, it has been a year of success and progress. Our meeting at Waukesha was pronounced by all, one of the best, if not the very best, we have ever held. Our numbers have increased; a spirit of unity and co-operation is everywhere in evidence, and we have every reason to view the future with a confident assurance.

I must not forget to commend the County Secretaries, faithful and hard-working, most of them. Their work is improving year by year, and, as a body, they show a constantly increasing efficiency and enthusiasm. The partial failure of some only emphasizes the splendid work being done by the majority. I should like to particularize, but the list would be too long. As above stated, the reports are in from all the 53 Societies, and with much less of pressure than usual.

The Secretary has but few suggestions: He would again urge the absolute necessity of greater stress on Scientific work, especially in the smaller and more scattered Societies. To this end, a Secretary must be secured who has the necessary qualifications for such service. The Societies must appreciate, by this time, that all other functions fade into utter insignificance when compared with the selection of a Secretary. Above all,

don't make the mistake, when you have *got* a good one, to let him slip away from you. I would, once more, recommend the County Secretaries be made ex-officio members of the House of Delegates. There seems to be no valid objection to such action, while there are many excellent reasons in its favor.

It has been frequently suggested that we hold our Annual Meeting in the fall, say October, when we can almost always bank on good weather, can have a fixed date, and need pay no attention to the time of meeting of the National Societies. The suggestion is worthy of serious consideration.

Thanking all who have assisted in the year's work.

Respectfully submitted,

C. S. SHELDON.

PRESIDENT: The next order of business is the election of delegates and alternates to the A. M. A. to succeed Dr. A. H. Levings, Dr. C. S. Sheldon, Dr. W. Cunningham and Dr. R. G. Sayle.

Motion made, seconded and unanimously carried postponing this order of business.

Dr. F. T. Nye was elected councilor of the 3d district and Dr. W. Cunningham was elected councilor of the 4th district to succeed themselves, under suspension of the rules and by unanimous vote.

The nomination of delegates and alternates to succeed Drs. Levings, Sheldon, Cunningham and Sayle, and the nomination of committees and delegates were by unanimous vote referred to the regular nominating committee.

The following committee of twelve on nominations, one from each district, was then unanimously elected:

District 1, S. J. Driessel; 2, C. H. Gephart; 3, C. A. Harper; 4, Wm. T. Pinkerton; 5, J. R. Currens; 6, B. C. Gudden; 7, A. R. Bell; 8, L. Rothan; 9, E. A. Jones; 10, L. A. Dahl; 11, J. C. Wright; 12, J. P. McMahan.

The secretary read the following letter:

AMERICAN INSTITUTE OF CRIMINAL LAW AND
CRIMINOLOGY.

NORTHWESTERN UNIVERSITY BUILDING.

Chicago, May, 20, 1912.

DEAR DR. SHELDON:

This is to remind you of the suggestion made yesterday that the State Medical Society appoint a committee to co-operate with the Committee of the Wisconsin Branch of the American Institute of Criminal Law and Criminology on the subject of regulations for the control of the use of expert testimony. I hope your association will see its way clear to make such an appointment.

Very truly yours,

E. A. GILMORE.

The secretary also read the following communication:

WISCONSIN FREE LIBRARY COMMISSION.

Madison, February 12th, 1912.

Dr. C. A. Harper, Madison, Wisconsin.

DEAR DR. HARPER:

My friend, Dr. John Collie, 225 Rochester Terrace, Hyde Park, W., London, England, would like to be made a corresponding member of honorary member of some good medical legal society in America or Canada. He was of the greatest service to us in the workmen's compensation act and gave me great help when I was in London investigating that act. Is there any possible way in which you can make him a corresponding member of some such society?

Please let me know as I feel under deep obligation to him as a man of great ability.

Very truly yours,

C. MCCARTHY.

SECRETARY: This is a personal request from Dr. McCarthy to Dr. Harper to know whether any such action could be brought before the Society.

PRESIDENT: The house could elect him as an honorary member.

SECRETARY: We have to take Dr. McCarthy's endorsement of him as final.

Motion made that Dr. John Collie be made a corresponding or honorary member.

DR. F. F. BOWMAN, Madison: It seems to me we are going a little out of the way to ask this society to invite a perfect stranger to become a member, simply as a matter of personal gratification to one man. It seems to me rather pointless for this society to take an action of this kind without any special reason for it.

DR. WILSON CUNNINGHAM, Platteville: Last year we had quite a time changing the constitution, and I think as revised the constitution designates who were eligible as honorary members.

SECRETARY: This does not refer to honorary members.

DR. CUNNINGHAM: I thought it did, pardon me.

DR. C. A. HARPER, Madison: I only know that Dr. McCarthy who is at the head of the reference legislative library in Madison and has been for many years, went to England to study industrial conditions there, and this man he said was an extremely prominent man; he could vouch for him in every respect; and that he rendered him (Dr.

McCarthy) a great deal of assistance and he was very anxious to become affiliated with some medical organization in this country, and as a result of that Dr. McCarthy wrote me that letter. I did not know what to do with it and I thought Dr. Sheldon knew what to do with any and all things appertaining to medical matters, and that he would take charge of it. Dr. McCarthy saw me a few days ago and said that if it was possible he would appreciate it very much if that man could be admitted to corresponding membership of some organization here. He said that he was a reliable man in every way, and that was the personal statement he made to me. I don't know the gentleman.

SECRETARY: I do not.

DR. DEARHOLT: I move that the motion be tabled.

Motion seconded and carried.

PRESIDENT: The motion is laid on the table.

SECRETARY: I think the matter of the appointment of a committee on medical expert testimony as requested by E. A. Gilmore, Secretary of the American Institute of Criminal Law and Criminology should be taken up.

A motion was then made that the nominating committee be instructed to name a committee of three members as to expert testimony. Seconded.

SECRETARY: I move to substitute the President instead of the nominating committee.

Amendment accepted.

PRESIDENT: This is a motion that the President appoint a committee of three in compliance with the communication of Secretary Gilmore. Seconded.

Unanimously carried.

DR. MCMAHON: In the remarks as to instructing the nominating committee, nothing was said as to place of next meeting. Do you wish to include that also?

SECRETARY: Usually the house of delegates settles that.

DR. WILSON CUNNINGHAM, Platteville: I would like to make a motion, that we change the time of our annual meeting, making it between the first and middle of October instead of at this time of the year. I think there are a great many points in favor of changing the time of meeting and having it in the fall of the year. I move to

change it from this season of the year to the first part of October.

Motion seconded.

PRESIDENT: The motion is that the time of meeting be changed from the spring to the first half of October.

DR. CUNNINGHAM: I think at this time of the year, as a rule, we have it pretty warm. Last year it was excessively hot. Another point is that a meeting held at this time of the year is so near the time of the meeting of the American Medical Association that frequently the time conflicts (or nearly so with that of the American Medical Association), and it is hard for members to be away part of the week and then possibly be here for a few days and then attend the meeting of the American Medical Association; and from that standpoint I think it would be much better to have it in the fall. Another reason is that the fall of the year is a good time for an outing, and probably there is no more reason why you should be needed at home at that time than at this time of the year.

DR. R. U. CAIRNS, River Falls: We have some other things to consider than the convenience of getting together. It would probably necessitate a reorganization of the time of closing our fiscal year; and it is only about three years since we changed it from the 1st of January to the 15th of April; and if we change our time of meeting till the fall it will necessitate another change in the time of closing our fiscal year.

SECRETARY: There is no serious objection to that.

DR. H. E. DEARHOLT, Milwaukee: The State Medical Society meeting is a great inspiration. The meeting held this afternoon was an inspiration to county secretaries. The meeting should be held at the time when it will do the most good. During the summer vacation we are apt to lose the inspiration which we have received at the meeting. If the time was changed to meet in the fall we could go back to our work while the feeling of enthusiasm was strong.

SECRETARY: In my own mind I should agree to a change of time of meeting. I do not know that I feel like pressing the matter. I think, as has been said, that we could have a fixed date and be independent of the American Medical Association's date, to advantage. Now we do not know

when we can have our meeting, oftentimes, until the American Medical Association has fixed its date, because we cannot have the two dates very near; and their date is usually the first part of June.* If we put our date the last part of June you know how likely it is to be hot. If we put it the last part of May sometimes it is not very pleasant; but, at any rate, it gives us independence entirely so far as their dates are concerned, and enables us to have a fixed date, if we adopt the proposed change. It seems to me also that we are much more likely to be able to bank on good weather in this state in October than we can in June or even in May.

DR. G. WINDESHEIM, Kenosha: This question has come up several times before the society. Just last year it came up before the society, and the thought was advanced that if we met at Waukesha we could not meet at any other time than in the spring of the year when we could have the hotel. In the fall of the year we could not have the hotel—there was not any room there. Would not that be one consideration? Of course we might not always meet at Waukesha, but we might meet at other places where similar conditions exist.

DR. S. S. HALL, Ripon: The season closes before the first of October; before the schools begin people go home.

DR. WINDESHEIM: I would prefer to meet in the fall for many reasons; among others those that have been given, and better roads. Many of the doctors would come with their automobiles in the fall, and perhaps the attendance would be better than now. They cannot, any of them, drive automobiles over these roads at present. There are various other reasons why it would be better to meet in the fall, but it seems to me that the programme committee ought to have leeway in that line, so that they could arrange it to suit other conditions and not have a stated time for meetings, but say in the fall if it was thought better.

DR. J. P. MCMAHON, Milwaukee: I think the suggestion made by Dr. Windesheim is a good one and the difficulty can be overcome by amending the motion to read—that the date be changed from spring until fall. This will empower the officers and committees to arrange to call the meeting at the end of the summer season. The middle of September or the first of October might find the hotels closed for the winter. I would amend the

motion to read that the time of meeting be changed from spring to fall.

Seconded.

DR. WM. T. PINKERTON, Prairie du Chien: I think from the first of October to the middle is leeway enough. If you appoint a meeting in September you will find all the country physicians going to county fairs. They will be through with county fairs by that time and we have good weather the first two weeks of October.

PRESIDENT: The amendment is to change it from spring to fall, giving the arrangement committee such leeway as it may see fit to exercise.

Motion seconded.

Rising vote called for.

Amendment carried by vote of 17 ayes to 6 noes.

Motion carried and so ordered.

DR. J. P. McMAHON, Milwaukee: Before leaving Milwaukee last evening, Mr. F. A. Cannon, secretary of the Citizens Business League, asked me to extend an invitation to the Society to hold the next annual meeting in Milwaukee. He stated that a formal invitation, signed by the mayor and himself, would reach here tonight.

The Milwaukee profession is always glad of an opportunity to entertain the State Medical Society. On the other hand, we do not want to appear selfish in the matter. Discussions as to the best places to hold meetings overheard during the day lead me to the conclusion that the almost unanimous opinion is that the members prefer to go to Milwaukee at least every second year because of its accessibility, shopping inducements, accommodations, etc. I would, therefore, nominate Milwaukee as the place for holding the 1913 meeting.

Motion was made that the house proceed to the selection of a place for the next meeting.

Seconded.

DR. G. WINDESHEIM, Kenosha: I think it would be better, since perhaps there are not as many delegates present as there will be present tomorrow or next day, inasmuch as somebody might have another proposition to make, to defer the matter; and I move to amend the motion that the selection of the next meeting place be deferred until the meeting of the House of Delegates Thursday morning.

PRESIDENT: The amendment is out of order.

DR. McMAHON: Is Dr. Windesheim consider-

ing the advisability of inviting the society to meet at Kenosha? If so, we yield to Kenosha.

DR. WINDESHEIM: Kenosha is not in position to take care of the society.

Milwaukee nominated as the next meeting place of the State Society.

Motion seconded.

Waukesha also nominated.

DR. CAPLES: Waukesha withdraws in favor of Milwaukee.

Nomination of Waukesha withdrawn.

Motion that Milwaukee be the next place of meeting unanimously carried and so ordered.

Adjourned to meet at Elks Hall next day at 10 A. M.

May 22, 1912, 10 A. M., meeting called to order at the Elks Club by the President.

Roll was called showing quorum present.

Minutes of last meeting read and approved.

The Report of the Committee on Medical Defense by Dr. G. E. Seaman was received and in the absence of Dr. Seaman was read by Dr. A. J. Patek.

Report accepted and committee continued.

Report of Committee on Publication was also presented by Dr. A. J. Patek as follows:

REPORT OF PUBLICATION COMMITTEE.

In submitting this report of our second year's stewardship of the Journal's affairs under the State Society's control, we believe we can point to a record that equals in actual achievement the success of previous years. The makeup of the publication has undergone no material change, and the quality of its original articles, the majority of which were papers read at the last annual meeting, has been of an exceedingly high order. We again commend, and gladly call your attention to, the excellent character of the editorial pages. Dr. A. W. Myers deserves our hearty thanks for the exceptional manner in which he has conducted this department. No less generously do we commend the work of the managing editor, Dr. J. P. McMahon. The onerous duties, almost disheartening at times, that fall to the lot of one in this capacity, can be appreciated only by those who have come into active association with this work.

The financial statement herewith submitted, covers a period of 11 months—June 1, 1911 to May 1, 1912. The cost of the Journal to the State Society is estimated at 4½ cents per copy, as compared with 3½ cents in the previous year, and 10 cents before the Journal came into the possession of the Society. The greater cost of the Journal over that of last year must be ascribed to the falling off in the advertising account. Increasing difficulties are experienced in obtaining desirable and profitable material for our advertising pages, many large manufacturers devoting their expense allotment to ex-

hibiting their wares exclusively in the American Medical Association's Journal.

For a number of years past there has been under consideration the advisability of changing the form of the Journal. At a recent meeting of the Publication Committee, this subject was again given thorough discussion, and it was determined that such a change was a timely departure. It is confidently hoped that by improving the general appearance of the publication, the greater attractiveness will appeal not only to the reader, but commend itself to the advertiser as well. Beginning with the first (June) issue of the next volume (Vol. XI.) the Journal will have a two column page and conform in general appearance with that of several other state journals, the Association's Journal being adopted as a type. This change entails an additional cost of about 7.5 per cent, but we believe this will be offset by the results attained.

The difficulties that beset the managing editor's work in the matter of making desirable as well as profitable advertising contracts, are an experience that is not at all exceptional, but indicate a difficulty that is common to many other state publications. In order to devise a plan for the unification of advertising and for the distribution of the patronage through a single solicitorship, believing that a saving can thereby be effected, a conference of editors of several state journals was called at the A. M. A.'s rooms in Chicago on February 26, 1912. Dr. McMahon was present at this meeting. While several plans have been submitted, the committee in whose hands the matter now rests has not yet satisfactorily disposed of the problem. Should a solution be forthcoming that commends itself as feasible and promising, it will be concurred in by this publication.

Respectfully submitted,

ARTHUR J. PATEK,
Chairman Publication Committee.

THE WISCONSIN MEDICAL JOURNAL.

FINANCIAL STATEMENT, JUNE 1, 1911 TO MAY 1, 1912.

Cash balance June 1, 1911.....	\$	35.86	
Received from The State Medical Society	1,600.00		
Collected from advertising.....	2,856.73		
Collected from subscription.....	9.60		
In payment of half tones and excess payments	10.60	\$4,512.79	

Disbursements.

Equipment			
Printing	\$2,077.30		
Salaries	1,323.50		
Postage	195.00		
Current expenses	96.54		
Commissions for securing \$3,443.30 worth of advertising contracts....	799.25		
In payment of half tones and excess payments	10.60	4,902.19	
Balance on hand May 1, 1912..			\$10.60

Assets.

Equipment	\$	144.83	
Bills Receivable	1,363.08		
Cash on hand.....	10.60	\$1,518.51	

Liabilities.

Bills Payable	\$	385.48	
Surplus		\$1,133.03	

THE WISCONSIN MEDICAL JOURNAL.

STATEMENT OF EARNINGS, EQUIPMENT, EXPENSES AND CIRCULATION, JUNE 1, 1911 TO MAY 1, 1912.

Total Expenses.

Equipment			
Printing	\$2,056.05		
Salaries	1,193.50		
Commissions for securing \$2,064.10 worth of advertising contracts....	474.08		
Postage	198.60		
Current Expense	102.94	\$4,025.17	

Total Earnings.

Advertising	\$3,229.18		
Subscription	9.60	3,238.78	
Deficit			\$786.39

Circulation.

To members of The State Medical Society..... 18,862
The deficit of \$786.39 represents the cost to The State Medical Society of circulating 18,862 copies of The Journal, or about 4 $\frac{1}{2}$ c a copy.

(Cost of each copy prior to the transfer of The Journal to The State Medical Society, 10c.)

ARTHUR J. PATEK,
GILBERT E. SEAMAN,
OTTO H. FOERSTER,
CHARLES S. SHELDON,
SIDNEY S. HALL.

Motion made, seconded and unanimously carried adopting report.

PRESIDENT: The next is the Report of Committee on Prevention of Tuberculosis by Dr. C. A. Harper, Chairman.

It is as follows:

REPORT OF COMMITTEE ON PREVENTION OF TUBERCULOSIS.

PRESENTED BY DR. C. A. HARPER, MADISON.

The committee on Prevention of Tuberculosis begs to report that great progress has been made in Wisconsin in creating interest and establishing methods for the care of those who are afflicted with tuberculosis and prevention to its citizens.

The State Laboratory of Hygiene examines free of charge the sputum for the physicians and health officers of the state. During the past 18 months the laboratory has examined 2,341 cases of tuberculosis.

The State Board of Health sends out pocket leaflets to be carried by the patient for the purpose of having those afflicted with tuberculosis specifically instructed as to the care they should give themselves and also methods of prevention in order not to transmit the disease to other individuals.

The Wisconsin Anti-Tuberculosis Association has made an active educational campaign and has encouraged the creation of many strong local tuberculosis organizations.

The local health officers throughout the state are taking an added interest and are endeavoring to get the physicians to report all cases of tuberculosis. The weakest point in the whole subject is to get the physicians to report to the local health officers in order that the various associations interested in the prevention of the spread of the disease may get hold of the individuals, that they may send them leaflets and instruct them physically how to take care of themselves and thereby prevent the spread of the disease; and if there is any one feature that would raise the tuberculosis crusade from the plane that it is now in to a much higher plane, it would be the reporting of the cases by the physicians of the state.

The legislature of 1911 provided that disinfection after the death or recovery from tuberculosis, should be done by the local health officers, or, under their direction, at the expense of the town, village or city, the same as disinfection after other contagious and infectious diseases.

A statutory provision is also made by which reports of cases of tuberculosis by physicians to the various health departments are held confidential as far as their publication by newspapers, journals or other publications of general or special circulation is concerned.

Publicity is one of the objections raised by many physicians; but under this provision the reports of incipient cases of tuberculosis are used simply to compel proper conduct on the part of the individual. I hope that this provision will remove all objections, and make every physician feel free to report all cases to the local health authorities, so that we can get at the situation.

Provision was also made by the 1911 legislature, appropriating \$20,000 as a fund to be distributed to the various counties that would take advantage of the law in the establishment of county sanatoria for the care and treatment of the secondary and advanced cases of tuberculosis, as well as the incipient, each county having such a sanitorium to receive from the state \$3 per capita for each indigent case. The state will now help the counties. I am confident from my experience with the legislature of 1911 that if the counties will take up the county sanitorium proposition and establish institutions of this kind, the state will be much more liberal at its next session of the legislature and at each succeeding session, and instead of giving \$3 a week each for those taken care of by the counties, that it will increase it to \$5 or \$6 per week, so that it will lift the burden very materially from the county.

Seven counties in the state have already made provisions for county sanatoria, namely, Racine, Outagamie, Madison, Manitowoc, Fond du Lac, Milwaukee, Douglas

and Eau Claire. Some eight or ten counties are seriously considering the movement along that line. I believe each of the counties referred to represented here by members of this Association can be practically assured that the state will be more liberal than it has been in order to help the counties take care of their tubercular patients.

The annual death rate for 100,000 estimated population from tuberculosis in 1908 was 103.5; for 1909, 102.9; for 1910, 102.6; for 1911, 102.2. This shows that there is a marked uniformity and yet fortunately a slight decline in the number of deaths from tuberculosis.

Respectfully submitted,

C. A. HARPER,
Chairman.

Report unanimously accepted.

Report of Committee on Medical Education was deferred.

Report of Committee on Necrology was presented by Dr. Arthur J. Patek, as follows:

REPORT OF COMMITTEE ON NECROLOGY.

The committee has again to report to this body that the Society has lost a number of members in the past year through death.

The Titanic disaster, the horror of which is still upon us, carried one of our valued members to his grave. The name of Dr. W. E. Minalan of Fond du Lac, long a valued and active member of the Society, stands out with the list of other heroes for whom the country is mourning, and to whose memory no more fitting memorial than a recognition of valor and chivalry, can be erected.

In addition the following death toll is to be recorded:

Dr. Francis M. Baker, of Fond du Lac, aged 44 years, died at his home on December 30, of leukemia.

Dr. Isaac Buckeridge, of Beloit, aged 61 years, died at his home on August 30, 1911, of enlargement of the liver and heart disease.

Dr. James Burke, of Gillette, aged 56 years, died at Wayside, on October 12, 1911, of spinal disease.

Dr. Mathew W. Dvorak, of La Crosse, aged 30 years, died at his home on October 19, of typhoid fever.

Dr. Thomas Gilluly, of Union Center, died suddenly on March 12, 1912.

Dr. G. A. Grafton, of Hayward, aged 35 years, died at St. Joseph's Hospital, Ashland, on August 10, 1911, of Bright's disease.

Dr. G. H. Haddy, of Park Falls, aged 55 years, died at his home on January 31, 1912.

Dr. Hugh McKinnon, of Ashland, died at Alexandria, Canada, on December 17th.

Dr. A. B. Manley, of Shopiere, aged 61 years, died at the Beloit Hospital, Beloit, on July 27, 1911, of peritonitis, following an operation for appendicitis.

Dr. Daniel McLaren Miller, of Oconomowoc, aged 76 years, died at his home on April 25th, 1912.

Dr. Wendell B. Neville, of Eagle River, died suddenly at Chicago of organic heart disease, on August 25, 1911.

Dr. H. B. Newell, of Waterford, aged 66 years, died

at his home on August 2nd, 1911, of hemorrhage of the brain.

Dr. Arthur Reitman, of Milwaukee, aged 33 years, died on January 6th, 1912, of typhoid fever.

Dr. G. W. Roberts, of Albany, aged 70 years, died at the Madison Sanitarium, Madison, on November 8th, 1911, of blood poisoning.

Dr. John J. Selbach, of Eau Claire, aged 37 years, died at his home on May 25th, 1911, of heart failure.

Dr. Charles M. Smith, Sr., of Evansville, aged 77 years, died at his home on April 3, 1912.

Dr. P. A. Wakefield, of West Salem, aged 36 years, died at his home on April 2nd, 1912, as the result of overexertion at a fire.

Dr. Daniel B. Wyatt, of Fond du Lac, aged 76 years, died at his home October 27, 1911, of arterio-sclerosis.

More extended notices of these deaths have already been published in the various issues of the Journal.

Besides the above, one former member of the State Society, Dr. A. B. Farnham, who had lived and practiced in Milwaukee many years, but through ill health was compelled to seek a southern home, died recently. Dr. Farnham was one of the pioneers of this state, and while in practice had earned the esteem and respect of all his fellow practitioners.

ARTHUR J. PATEK,
Chairman.

Report unanimously adopted.

Report of Committee to Act as Board of Public Instruction, by Dr. Bardeen, deferred.

Letters are read as follows:

OFFICE OF THE MAYOR,
CITY OF MILWAUKEE.

May Twenty-first, 1912.

Wisconsin State Medical Society,

In Convention, Wausau, Wisconsin.

MY FELLOW MEMBERS: During your present state convention I take this opportunity of expressing my best wishes for the success of your meeting.

I have been a member of the Wisconsin State Medical Society for a number of years, always interested in the good works and progress of that body. And as I now happen to be Mayor of the City of Milwaukee it gives me additional pleasure to be able, both as an old member and as chief executive of this municipality, to extend to your body an invitation to hold your next state convention in Milwaukee.

It will give me the greatest pride and pleasure to welcome you to this city and to join in your deliberations on an occasion of your meeting here.

It is hardly necessary for me to sing the praises of my home city as you all know its advantages and fame as a convention city. And hoping that I may be so fortunate as to extend Milwaukee's greeting to you at the next convention, I beg to remain,

Very respectfully,

G. A. BADING,
Mayor.

CITIZENS BUSINESS LEAGUE.

Milwaukee, May 21st, 1912.

Dr. Charles S. Sheldon, Sec'y, Wisconsin State Medical Society.

In Convention, Wausau, Wis.

DEAR SIR: The Citizens Business League takes pleasure in extending a cordial invitation to your Society to hold its convention at Milwaukee, next year. We note in the past that it has been the habit of your organization to meet at the metropolis recurrently, and we believe the time is at hand, when your members would enjoy a return visit to this city.

The facilities of this city are such that they no doubt appeal to an organization of your character, and we assure you that this city feels honored in entertaining your body.

Trusting that the City of Milwaukee may have the pleasure of being your hosts next year, we beg to remain,
Yours truly,

F. A. CANNON,
Secretary.

PRESIDENT: Unless there are objections I will notify the Mayor and the Citizens Business League that the invitation has already been accepted.

We will hear the partial report of the nominating committee:

The report was presented as follows:

Delegates to A. M. A. to succeed Dr. Levings and Dr. Sheldon; Dr. C. A. Harper, Madison; Dr. John J. McGovern, Milwaukee.

Alternates to succeed Drs. Cunningham and Sayle: Dr. F. T. Nye, Beloit; Dr. T. J. Redelings, Marinette.

Appointment of Programme Committee referred to incoming President.

Appointment of Committee of Arrangements was referred to the President of the Medical Society of Milwaukee County.

The following nominations for committees were reported:

Committee on Public Policy and Legislation: Dr. A. W. Gray, Chairman, Milwaukee; Dr. J. P. McMahan, Milwaukee; Dr. F. F. Bowman, Madison.

Committee on Medical Defense: Dr. G. E. Seaman, Milwaukee; Dr. A. J. Patek, Secretary, Milwaukee; Dr. S. S. Hall, Ripon.

Committee on Prevention of Tuberculosis: Dr. M. P. Ravenel, Chairman, Madison; Dr. Thomas H. Hay, Stevens Point; Dr. C. A. Harper, Madison; Dr. G. E. Seaman, Milwaukee; Dr. J. M. Beffel, Milwaukee.

Committee on Medical Education: Dr. E. S. Hayes, Eau Claire; Dr. Edward Evans, La Crosse; Dr. W. H. Washburn, Milwaukee.

Committee to act with Board of Public Instruction A. M. A.: Dr. C. R. Bardeen, Madison.

Delegate to National Legislative Council A. M. A.: Dr. Hoyt E. Dearholt, Milwaukee.

Delegate to Council on Medical Education A. M. A.: Dr. W. H. Washburn, Milwaukee.

The nominees were all unanimously elected.

PRESIDENT: This completes the business of the house of delegates for today and for this session.

DR. G. WINDESHEIM, Kenosha: I think the secretary has forgotten one item that ought to come before the house of delegates this morning.

SECRETARY: There is an account of \$1.25 handed in by Dr. Gray of the Committee on Public Policy and Legislation, and I think \$7.25 by Dr. McMahon of the same city for telegrams to the senators and congressmen in favor of an increase in salary of the U. S. Marine Hospital officers. Under a misapprehension the matter was referred to the council as having complete jurisdiction, but I believe the house of delegates should pass on these bills and that the council should approve them. I think it proper for the house of delegates at this time to pass upon these accounts.

DR. H. M. BROWN, Milwaukee: I move that the bills be approved and ordered paid.

Unanimously carried.

SECRETARY: We also have a bill for the expenses of the Booster Committee, \$9.80, also bill for printing programmes, total \$14.40.

Motion that these bills be allowed and ordered paid was carried.

DR. WILSON CUNNINGHAM, Platteville: These bills should be referred to the council according to the by-laws.

DR. G. WINDESHEIM, Kenosha: I beg to differ. The house must first act upon the bills, and then they can be approved by the council.

SECRETARY: The secretary approves the decision of Councilor Windesheim, which of course makes this matter final.

Ginger tea bill approved and ordered paid.

SECRETARY: I thought the council had absolute authority, but after listening to the arguments of Councilor Windesheim I believe the proper practice is to approve bills by the house of delegates and then refer them to the council.

DR. L. M. WARFIELD, Wauwatosa: I move that the next meeting be held immediately after the

morning session tomorrow.

Seconded and unanimously carried.

Adjourned.

May 23, 1912, 12:30 P. M.

Meeting of delegates called to order by the President.

Roll called showing quorum present.

Minutes read and approved.

Report of Nominating Committee, Dr. Currens, Chairman, continued.

DR. J. R. CURRENS, Two Rivers: The following nominations are recommended:

For President, your committee after considering the matter for some time and after taking two or three ballots concluded that we settle on a man whom we considered had done perhaps as much work as any member of this Association in the last ten or twelve years, a man who has always been right and always willing to take any part of the work and has always been prompt to respond when it came to the meetings, a man who has never failed us in any place where he was put, a man that we feel will be an honor to preside at our next meeting; and we have therefore recommended Dr. Arthur J. Patek of Milwaukee. (Great applause.)

We have recommended for the first vice-president, Dr. C. A. Armstrong of Boscobel.

Second vice-president, Dr. L. E. Spencer of Wausau.

For third vice-president, Dr. John Mathieson of Eau Claire.

DR. WILSON CUNNINGHAM, of Platteville: I move that the report be adopted.

Motion seconded and unanimously carried.

DR. CUNNINGHAM: I move that the secretary be instructed to cast the ballot of the Society under suspension of the rules for the names as reported for the respective offices.

Seconded and carried.

The secretary cast the ballot as required.

PRESIDENT: The nominees are unanimously elected.

Adjourned to 8:30 A. M. next day.

May 24, 1912, 8:30 A. M.

Meeting called to order by the President.

Roll called showing quorum present.

Minutes read and approved.

Committee to co-operate with committee of Society on Criminology, etc., will be appointed later by the President.

Report of Committee on Medical Education called for.

Report of Committee on Medical Education.

DR. E. S. HAYES, Eau Claire: I understand that Dr. Harper has already given us a little dissertation on the subject; and I have nothing new to offer. I received the report of the work and I have nothing to add.

Report of Committee received.

DR. J. C. WRIGHT, Antigo: There is a little matter that the doctors in the City of Antigo requested me to mention.

About two years ago we had a doctor who claimed to be a chiropractor, come to Antigo. He has done a wonderful business financially in our city; and in connection with his work he also established a school; and he has already "graduated" a class of 15, and he has 15 more he has started out in this work; and among the cities represented there in this school are Wausau, Ashland, Marinette, Appleton and Oshkosh. We have had this gentleman under different indictments, but he has escaped so far. He will have another hearing soon, however, and Mr. Umbreit of Milwaukee is to try the case; but it has been put off from time to time and nothing has as yet been done.

I want to say that the class of men that he has taken in, consists of blacksmiths, clerks, two noted gamblers, that made their living in no other way, and men generally who have no preliminary education whatever, and most of them are really of a low class of society.

It does seem to me that something might be done more than has been done in behalf of physicians preparing themselves the way that they must prepare themselves now, who have a hard enough time to get along as it is; and that it is disgraceful that a man who has no preliminary education and no standing in the community can take a six weeks' course, pay his \$200 for it, and then make more money and easier money than we are making. This man in the last two years has cleaned up \$20,000 in the City of Antigo. Now we have that from good authority, and that glittering situation has become a very alluring inducement to these men to take up this line of business. It seems as though if we could get a committee to meet with Mr. Umbreit, our attorney, that he might devise ways and means more than what we have already used.

SECRETARY: I suppose we will have such things

as flies, bad weather, smoke, chiropractors and a whole lot of things that will bother us more or less, and we must not take it to heart too much, and we must do what we can to abate such nuisances one way and another. Of course the matter would properly come before the board of Medical Examiners. It is their function to prosecute matters of that sort; and the committee in our society which has direct charge of such affairs is the Committee on Public Policy and Legislation. I do not know whether they are doing any active work along that line or not, but I do not think that any special committee appointed by the Society will be any more effective than would be a reference in this matter of the chiropractics to this committee. I will inform the committee of the situation at Antigo and of this appeal from the citizens of Antigo, and I move that this matter be referred to the Committee on Public Policy and Legislation.

Motion carried.

DR. C. A. HARPER, Madison: We have at the present time a bill before the senate of the United States known as the Owen bill, Senate bill number 1, which provides for a national department of health. I think that a measure of this kind if it passed the Congress of the United States and was put into effect would be the most efficient and beneficial piece of legislation that the people of the United States could get hold of. I happened to be in Washington when this bill was before the Senate Committee of the United States Senate, a couple of years ago, and I found there were few men there in favor of the bill, and there were masses of people opposed to it. Petitions came in in opposition to this measure as a result of the activity of the League of Medical Freedom, by the carload. Thousands and hundreds of thousands of names were signed to this petition. Many of the newspapers of the country were active in obtaining names to the petition in order that they might continue the advertising of quack nostrums in their columns.

I got a letter a short time ago from a doctor in North Dakota who had been in Washington, who said that while there was a petition sent to the junior senator from Wisconsin, Senator Stephenson, with 3000 names signed to it in opposition to this measure, as far as he was able to learn, not a single communication had been sent to the senator in behalf of this measure; and he said unless something was done undoubtedly Senator

Stephenson would pay attention to the petition in opposition to the measure that he had then in his possession.

Now I must say that much of the quackery in this country, and much of the wrong legislation in this country, result through the indifference as it were, of the medical profession. I have lived under the dome of the capitol, I have seen 350 and 400 people come down there in opposition to a little measure like school inspection; and I have not been able to get the forces together and have more than one person assist me at any time in trying to push such legislation through.

I know that the medical practitioners are busy men and it is difficult for them to get away; but the lines are being more stringently drawn; the fight is on and, as Dr. White stated here this morning, it is a fight to the finish, and in doubt which side is going to win.

I believe that the State Medical Society of Wisconsin should unite upon this Owen bill, Senate Bill number 1; and I therefore move that a resolution be drawn up by a committee appointed by the President which is agreeable to this organization, and that copies of this resolution be telegraphed at once to Wisconsin senators and representatives.

Seconded and unanimously carried.

PRESIDENT: I would like the suggestions of the house of delegates as to the personnel of the committee.

SECRETARY: I nominate Dr. Harper.

DR. HARPER: I saw Dr. Sheldon some time ago and we sent a copy of a letter and telegram to each county society in the state, and I sent to Senator Stephenson a night letter; and also wrote him explaining to him fully the conditions existing in Wisconsin. I suggest you get names of men to go on this committee that perhaps know Senator Stephenson better than I do, and have more influence with him, and have them send letters.

DR. PINKERTON: I suggest that our present standing committee on Medical Education be the committee to draft the resolution.

PRESIDENT: I think Dr. Harper should be on that committee, and if it is agreeable to the house of delegates I will name Dr. Harper in addition to this other committee just mentioned, and ask him to act with them. If that is agreeable to the house of delegates it will be so ordered. It is so ordered.

DR. G. WINDESHEIM, Kenosha: This matter was partly talked over at the first meeting of the house of delegates Tuesday evening, and if I remember right Dr. Redelings said he was informed that many individual letters and individual requests were sent to the senators and to the various representatives in this state against the bill and none for the bill. I think, therefore, it would be advisable for every one that is here now, and every one in the medical society for that matter, to try to get as many influential citizens as possible, no matter of what political party, or who they are, to write or telegraph individual requests to the various representatives and senators from this state.

SECRETARY: I think that is a splendid suggestion, because one of these individual letters, or communications, in the mind of a congressman, weighs just as much as a communication from the secretary of this society representing 1700 members. But if every one of these 1700 persons would write a letter it would have much more influence with congressmen or senators than a simple communication from the secretary representing the entire society.

DR. S. S. HALL, Ripon: The trouble is that our senators and representatives forget that we have written to them.

DR. C. A. HARPER, Madison: I have been close to legislatures for four years, and had the misfortune to be a member of one legislature; and the letters that come in there in opposition to good measures frequently make good men shaky; and they need backing up from fellows in their districts. There is no doubt about that; and when a measure comes up in Wisconsin that has something to do with medical legislation or something to do with school inspection, a certain class of people of the state of Wisconsin are informed of that over the wires immediately; and it is just about an hour before that measure comes up for final consideration that there will be anywhere from 10 to 150 telegrams to each member come in in opposition to that measure. That is organization. That is united work. And what happens to the measure. These fellows that are right begin to get skeptical, and that measure is referred again to the committee, and when it comes up again the same programme is carried out. These letters and telegrams are stereotyped in character, and they have that influence—a remarkable in-

fluence. They will open them, see the name and number of the bill; and it is put in short terms and makes an unconscious impression hard to overcome; and the same thing happens in the national legislature. We must get together on this thing and work along the same lines that the opposition is doing, in order to defeat them.

DR. S. G. HIGGINS, Milwaukee: The consensus of opinion among those in control of the American Medical Association seems to be to continue the policy of obstructing all optometry legislation, and in theory that is probably right, that they should not have any sort of legal recognition; but the fact is that the opticians are allowed to exercise their own sweet will. Randolph in Milwaukee has a big sign, "Eye specialist," and all of them that have the nerve are doing more or less treating of the eye. The practical side of it is that they are going on with their work unrestricted. We would like to continue the policy of the American Medical Association, but the oculists of the state by a sort of consensus of opinion believe that sooner or later the opticians are going to get a bill through. There is no united feeling among the medical men of the state in regard to this matter practically; theoretically by resolution, there may be; but by general consent the optometry situation has been left to those most interested, that is the oculist. We may decide that it would be better to introduce a bill restricting the opticians to the fitting of glasses, near sight or far sight, that is for presbyopia, myopia and other very simple measures. In doing that we may in a way recognize and restrict them. The idea is not to put them under the general board of medical examiners, but to put them off under a board by themselves, such as the barbers have, and in that way we can restrict their activities.

The proposition that seems to be up to the oculists is merely a practical solution of the problem; it is not theoretical; it does not correspond with the principles of the American Medical Association; in that respect we are dead against the principles of the society of which we are a part; but unless the American Medical Association or the State Medical Society and the physicians as a whole have some way of furnishing funds to make a real active fight against those who are against us, fighting to adopt some other measures, the oculists will simply work through the offices of the legislative committee of the State Medical Society; but if there should come a time that it is thought some

other bill will have to be put through, we would like to be perfectly frank about the matter and to have as much of your support as the facts at the time justify.

DR. E. S. HAYES, Eau Claire: The committee appointed to draw up communications with reference to National Legislation, would like to report and send a dispatch to Senator Stephenson as follows:

Honorable Isaac Stephenson, United States Senator, Washington, D. C.

DEAR SIR: The State Medical Society of Wisconsin, consisting of 1700 members, now in session at Wausau, Wisconsin, unanimously urge your support of Senate Bill number 1, known as the Owen Bill.

Every country in the civilized world has a strong, efficient Central Public Health Organization except the United States. Half a million lives are annually sacrificed in the United States from preventable diseases. The federal government has assumed control of preventable diseases in animals and taken charge of the pure food and direct legislation of interstate commerce. But to the disgrace of this country it has neglected to help the well being of her citizens.

DR. G. WINDESHEIM, Kenosha: I move that the committee send the dispatch not only to both senators but also to our representatives in congress, and it seems to me that the resolution as drafted covers the ground perfectly.

Motion seconded and unanimously carried.

DR. E. S. HAYES, Eau Claire: We might send the dispatch to all the representatives, but the thought was to send this to the two senators, but as it was understood that Senator LaFollette was all right on the bill it was not thought necessary to send a copy to him, but it would not do any harm; and I think the suggestion is good; but whether it would be worth while to send the dispatch to all the representatives I do not know; possibly the secretary might send a copy by mail to the representatives if thought best. I only offer this as a suggestion.

DR. HALL: It could be arranged by the committee the way it seems best, if there is no objection.

Unanimously carried.

SECRETARY: I move a vote of thanks of the House of Delegates for the unbounded hospitality—the good will, and the fine, generous spirit which has met us here at Wausau; that the thanks of the Society be tendered to the city and the people of Wausau for their kindness and hospitality; also to

the Committee of Arrangements for the very admirable arrangements made for this meeting, as well as the Chairman of the Program Committee who has furnished us, I think, the most admirable program we have ever had.

Motion seconded and carried by a rising vote.

Adjourned sine die.

A TEXT-BOOK OF PRACTICAL THERAPEUTICS. With especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Fourteenth edition, thoroughly revised. Octavo, 984 pages, with 131 engravings, and 8 full-page colored plates. Cloth, \$4.00, net. Lea & Febiger, Philadelphia and New York. 1912.

The fact that fourteen editions of this work have appeared in the last twenty-two years is evidence of two things: first, that the book itself has been in demand to a degree which must be highly gratifying to the author, and second, that the science with which it deals has made and is making rapid progress.

In this edition, Dr. Hare has made such additions and emendations as our rapidly growing knowledge of the physiological action of drugs seemed to require, including a consideration of salvarsan, vaccine therapy and some physical methods of treatment, notably Bier's method of treating certain conditions by the induction of artificial hyperaemia.

As in the former editions, Part IV of this, deals with the treatment of special diseases, and Dr. Hare has called to his assistance in this part of the work Drs. George E. DeSchweinitz, Edward Martin, and Barton C. Hirst, all of them men of long experience in both teaching and practice. They have added much to the value of this book to the student and practitioner.

As in previous editions, Part I deals with introductory matter; Part II, with the action of drugs; Part III, with remedial measures other than drugs; and Part IV, with the treatment of individual diseases, whereby the employment of the remedies discussed in the earlier part of the book is directly applied, as at the bedside. These parts are linked together by copious cross-references in the text.—W. H. W.

MEMBERS OF THE STATE MEDICAL SOCIETY OF WISCONSIN

- Abaly, W. C., Madison.
 Abbott, C. N., Chippewa Falls
 Abbott, Le Roy, Ontario.
 Abraham, Henry W., Appleton.
 Ackerman, William, Milwaukee
 Ackley, S. Breck, Waukesha.
 Adams, G. F., Kenosha.
 Adams, H. R., Marinette.
 Adams, John C., Superior.
 Addleman, I. M., Wausau.
 Akerly, A. W., National Soldiers Home.
 Albers, Herman H., Allentown.
 Alcorn, D. N., Stevens Point.
 Alexander, J. H., Belmont.
 Allen, C. F., Middleton.
 Allen, Frank, Staples, Minn.
 Allen, J. P., Beloit.
 Allen, S. P., Oshkosh.
 Allen, W. E., Auburndale.
 Allen, W. J., Beloit.
 Altman, Maurice, Milwaukee.
 Amsel, J., Milwaukee.
 Amundson, A. C., Cambridge.
 Amundson, P. B., Mondovi.
 Anderson, C. M., Wild Rose.
 Anderson, H. B., Beloit.
 Anderson, O. N., Plum City.
 Andre, Frank E., Kenosha.
 Andrew, G. F., Ferryville.
 Andrews, N. S., Oshkosh.
 Andrus, A. P., Ashland.
 Ankenbrandt, A. A., Schleisigerville
 Antoufe, F. J., Prairie du Chien.
 Aplin, Floyd W., Waukesha.
 Armstrong, Charles A., Salt Lake City,
 Utah.
 Armstrong, C. E., Oconto.
 Armstrong, L. G., Boscobel.
 Arnold, F. W., Milwaukee.
 Arveson, R. G., Frederic.
 Ashum, D. W., Eau Claire.
 Atwood, J. B., Oconto.
 Aubin, J. N., Peshtigo.
 Aus, J. L. N., Deer Park.
 Axtell, E. E., Marinette.
 Axtell, L. E., Marinette.
 Aylward, R. C., Port Edwards.
 Baasen, John M., Mt. Calvary.
 Babeock, I. G., Cumberlaud.
 Bach, J. A., Milwaukee.
 Bachhuber, A. E., Mayville.
 Bachhuber, L. M., Mayville.
 Bachinski, L. J., Milwaukee.
 Baer, A. N., Milwaukee.
 Baer, C. A., Milwaukee.
 Bailey, F. M., Fenimore.
 Bailey, M. A., Fenimore.
 Bair, F. M., Lyons.
 Baird, John, Superior.
 Baird, J. C., Eau Claire.
 Baker, Geo. R., Tomahawk.
 Baker, J. C., Hawkins.
 Baker, W. F., Birnamwood.
 Baldwin, Geo. R., Dartford.
 Baldwin, F. H., Livingston.
 Bancroft, H. V., Blue Mounds.
 Banks, W. H., Hudson.
 Bardeen, C. R., Madison.
 Barnes, E. C., Ripon.
 Barnes, H. T., Pewaukee.
 Barnes, J. Steele, Milwaukee.
 Barnett, J. R., Neenah.
 Barnett, J. R., Jr., Neenah.
 Barnstein, C., Timothy.
 Barnstein, J. E., Manitowoc.
 Barrett, E. J., Sheboygan.
 Barry, Howard, Sun Prairie.
 Barth, Geo. P., Milwaukee.
 Bartlett, E. W., Milwaukee.
 Bartlett, Mary, Beloit.
 Bartram, W. H., Green Bay.
 Bass, E. A., Montello.
 Batchelor, Gertrude, Madison.
 Batchelor, W. A., Milwaukee.
 Bath, D. H., Oshkosh.
 Batty, A. J., Portage.
 Bauer, K. T., Adell.
 Bayer, W. H., Gleason.
 Bear, W. G., Monroe.
 Beck, A. A., Caloma.
 Becker, B. A., Silver Lake.
 Becker, W. F., Milwaukee.
 Beckman, Chas. R., La Crosse.
 Bedley, H. E., Downing.
 Beebe, Carl M., Sparta.
 Beebe, C. S., Milwaukee.
 Beebe, L. W., Superior.
 Beebe, P. A., Glenwood.
 Beebe, S. D., Sparta.
 Beech, G. D., Baraboo.
 Beffel, John M., Milwaukee.
 Berger, A. J., Wales.
 Beier, A. L., Chippewa Falls.
 Belitz, Alfred, Davenport, Ia.
 Belitz, William, Cochrane.
 Bell, A. R., Tomah.
 Bell, Samuel, Beloit.
 Bellack, Bernhard F., Columbus.
 Bellin, J. J., Green Bay.
 Bellin, Jos. J., Green Bay.
 Bellis, G. L., Wales.
 Belting, T. W., Somerset.
 Bender, J. L., Luxemburg.
 Bennett, L. J., Ft. Atkinson.
 Bennett, Wm. C., Oregon.
 Benson, Gideon, Richland Center.
 Beutler, Wm. F., Wauwatosa.
 Bentley, Frederick D., Portage.
 Bergh, C., Whitehall.
 Berglund, S., Marinette.
 Bernhard A., Milwaukee.
 Berquist, K. E., Galesville.
 Bertrand, J. H., DeForest.
 Berwick, T. A., Saukville.
 Betz, J. C., Boscobel.
 Beyer, A. G., Milwaukee.
 Bickford, L. C., Milwaukee.
 Bill, B. J., Genoa Junction.
 Binnewies, F. C., Milton.
 Binnie, John, Poyntette.
 Birbeck, Samuel, Gratiot.
 Bird, H. R., Madison.
 Bird, Maurice D., Marinette.
 Bishop, L. A., Fond du Lac.
 Black, Nelson M., Milwaukee.
 Blaine, E. S., Milwaukee.
 Blair, J. C., Hazel Green.
 Blank, Henry, Milwaukee.
 Blewett, M. T., Fond du Lac.
 Blumenthal, R. W., Milwaukee.
 Blumer, Edward, Monticello.
 Bock, F. J., Lancaster.
 Bock, Otto B., Sheboygan.
 Bodden, A. M., Milwaukee.
 Boerner, R. W., Milwaukee.
 Boernstein, Max, Milwaukee.
 Bolton, E. L., Chilton.
 Booker, J. S., Ironton.
 Boorse, Lorenzo, Milwaukee.
 Boothby, Eugene L., Hammond.
 Borchardt, A. L. C., New London.
 Borden, F. R., Plainfield.
 Bossard, Clemens, Richfield.
 Bossard, M., Spring Green.
 Bothwell, D. F., Pardeeville.
 Bouscain, G. F., Detroit Harbor.
 Bowen, H. P., Johnson Creek.
 Bowman, Frank F., Madison.
 Boyce, Samuel R., Madison.
 Boyd, C. D., Kaukauna.
 Boyd, Guy T., Fond du Lac.
 Bradbury, E. L., Neillsville.
 Bradfield, J. A. L., La Crosse.
 Bradley, H. E., Milwaukee.
 Brady, D. L., Cuba City.
 Braun, Otto, Ashland.
 Brazeau, G. W., Racine.
 Breakey, E. R., Alma Center.
 Breckenridge, H. E., Racine.
 Breed, A. L., Rock Elm.
 Brehm, H. J., Racine.
 Brehm, Theodore, Racine.
 Brett, Ben C., Green Bay.
 Brey, P. J., Milwaukee.
 Briggs, S. J., Sun Prairie.
 Broche, A. H., Oshkosh.
 Brockway, F., Oshkosh.
 Booker, John S., Ironton.
 Bromley, F. W., Palmyra.
 Brooks, E. H., Appleton.
 Brooks, F. D., Fox Lake.
 Brown, A. D., Mineral Point.
 Brown, Almon L., Wausau.
 Brown, E. B., Beloit.
 Brown, F. W. A., Oshkosh.
 Brown, Geo. V. I., Milwaukee.
 Brown, H. M., Milwaukee.
 Brown, John F., Sparta.
 Brown, J. M., New London.
 Brown, J. S., Burnett Junction.
 Brown, Robert C., Milwaukee.
 Brunckhorst, F. O., Hortonville.
 Bryant, J. R., Wausau.
 Buchan, Samuel C., Racine.
 Buchanan, R. C., Green Bay.
 Buckland, R. H., Dartford.
 Buckley, T. J., Fayette.
 Buckmaster, S. B., Janesville.
 Buehler, J. W., Prairie du Sac.
 Bugbee, Geo. R., Wausau.
 Bunting, C. H., Madison.
 Burdick, A. F., Lansing, Mich.
 Burdon, R. M., Green Bay.
 Burger, H. E., Beloit.
 Burnes, A. W., Winneconne.
 Burnes, H. J., Bruce.
 Butler, E. F., Mosinee.
 Butler, F. E., Menomonie.
 Butzke, E. J., Jackson.
 Cady, M. P., Birnamwood.
 Caffrey, A. J., Milwaukee.
 Cahoon, Roger, Baraboo.
 Cain, C. L., Elmwood.
 Cairns, R. U., River Falls.
 Caldwell, H. C., St. Croix Falls.
 Caldwell, M., Waukesha.
 Calkins, H. J., Shawano.
 Callahan, J. J., La Crosse.
 Calvey, P. J., Fond du Lac.
 Campbell, A. D., Richland Center.
 Campbell, B. L., Milwaukee.
 Campbell, A. F. L., Dunbar.
 Campbell, D. J. L., Dunbar.
 Campbell, L. A., Clear Lake.
 Campbell, W. B., Menomonce Falls.
 Canavan, J. V., Appleton.
 Canright, O. S., East Troy.
 Cantwell, W. H., Shawano.
 Caples, Byron M., Waukesha.
 Carey, G. H., Merrill.
 Cargill, Nellie W., Milwaukee.
 Carbart, G. A., Milwaukee.
 Carnahan, Geo. M., Bruce.
 Carter, R. M., Green Bay.
 Casey, Merle, Almond.
 Cassidy, W. W., Durand.
 Caswell, H. O., Ft. Atkinson.
 Caughcy, C. R., Kenosha.
 Cavanaugh, T. E., Milwaukee.
 Cavaney, J., Milwaukee.
 Chambers, H. P., Florence.
 Chandler, Ada B., Pardeeville.
 Chaney, Eugene, Wauwatosa.
 Chapman, F. M., Milwaukee.
 Charbonneau, E., Superior.
 Charles, C. H., Goodman.
 Charron, T. A., Riee Lake.
 Chase, R. R., Eau Claire.
 Chilson, Benjamin, Beloit.
 Chipman, H. A., Stoughton.
 Chlapek, C. J., Green Bay.
 Chorlog, J. K., Madison.
 Christensen, C., La Crosse.
 Christensen, E. S., Two Rivers.
 Christensen, F. C., Racine.
 Christensen, J. W., Westby.
 Christianson, Geo., La Crosse.
 Christofferson, A. M., Colby.
 Christofferson, H. H., Colby.
 Christofferson, P. J., Waupaca.
 Chnrhill, B. P., Milwaukee.
 Clancy, W. J., Eau Claire.
 Claridge, R. A., Bruce.
 Clark, P. T., Waupun.
 Clark, W. T., Ft. Atkinson.
 Clarke, Burton, Oshkosh.
 Clason, Jesse A., Neosha.
 Clawson, H. E., Red Granite.
 Cleary, B. L., Edgerton.
 Cleary, J. H., Kenosha.
 Coffey, C. J., Milwaukee.
 Cohn, Arthur H., Milwaukee.
 Cole, C. E., Superior.
 Cole, E. J., Rockton, Ill.
 Coleman, H. M., Barron.
 Collins, D. B., Madison.
 Collins, F. E., Athens.
 Collins, W. P., Racine.
 Combacker, Henry, Osceola.
 Combacker, L. C., Osceola.
 Combs, C. J., Oshkosh.
 Comer, W. C., Cecil.
 Comfort, A. I., National Soldiers Home.
 Conkey, Chas. D., Superior.
 Conklin, G. H., Superior.
 Conley, John M., Oshkosh.
 Connell, D. R., Beloit.
 Connell, F. G., Oshkosh.
 Connell, James P., Fond du Lac.
 Connor, H. J., Superior.
 Conway, H. P., Spring Valley.

- Cook, E. H., Watertown.
 Cook, F. S., Eau Claire.
 Coon, G. E., Milton Junction.
 Coon, J. W., Wales.
 Cooney, E. W., Appleton.
 Cooper, Clifton A., Norwalk.
 Copeland, Ernest, Milwaukee.
 Corbett, J. F., Los Angeles, Cal.
 Corbett, M. E., Oshkosh.
 Corlett, M. S., Waterford.
 Corr, Anna S. B., Juneau.
 Corr, John T., Kenosha.
 Cory, F. M., Menasha.
 Cottingham, Robert, Bloomer.
 Cotton, A. B., Marinette.
 Cotton, H. C., Prescott.
 Coumbe, Warren A., Blue River.
 Cowan, W. F., Stevens Point.
 Cox, James, Jefferson.
 Crane, M. C., Osseo.
 Cremer, C. H., Cashton.
 Cressey, L. E., South Wayne.
 Crikelair, F. T., Green Bay.
 Critman, E. S., Alma.
 Crockett, W. W., Beloit.
 Crommett, H. B., Amery.
 Cron, Charles O., Camp Douglas.
 Cronyn, W. J., Milwaukee.
 Crosby, E. P., Arnott.
 Cunningham, J. N., Stanley.
 Cunningham, M. A., Janesville.
 Cunningham, R. B., Cadott.
 Cunningham, Wilson, Platteville.
 Curless, Grant C., Walworth.
 Currens, J. R., Two Rivers.
 Curtin, J. J., Wheeler.
 Cutler, John C., Mt. Horeb.
 Cutler, John D., Tomahawk.
 Cutler, J. S., Wauwatosa.
 Dahl, L. A., Meunomie.
 Daniels, Alfred, Rhineland.
 Daniels, Lewis, Milwaukee.
 Daniels, W. N., Mosinee.
 Darby, G. S., Brodhead.
 Darby, Henry C., Wilmot.
 Darling, Earl, Milwaukee.
 Darling, F. E., Milwaukee.
 Darling, W. G., Milwaukee.
 Darling, W. H., Hudson.
 Daugherty, C. F., Richland Center.
 Davies, Richard E., Waukesha.
 Davis, C. H., Milwaukee.
 Dawley, Geo. T., New London.
 Dawley, J. H., Laona.
 Dawson, Chas., River Falls.
 Dean, J. F., Madison.
 Dehrholt, Hoyt E., Milwaukee.
 DeBische, Johan, Milwaukee.
 Decker, C. O., Crandon.
 DeCock, J. L., Leeman.
 Dejeher, H. F., Plymouth.
 DeLane, Viola French, Neillsville.
 Delaney, H. O., Beloit.
 DeMers, J. J., Cassville.
 Denhan, J. F., Downsville.
 Dennis, J. F., Waterloo.
 Derge, H. F., Eau Claire.
 Devine, C. B., Marshall.
 DeVoe, C. A., Berlin.
 DeWane, Jos., Boyceville.
 Dewey, Richard, Wauwatosa.
 DeWire, Milton, Sharon.
 Dickens, W. C., Wausau.
 Dickenson, G. H., Milwaukee.
 Dill, Geo. M., Prescott.
 Dillmann, A. E., Steuben.
 Dobson, J. Helen, Madison.
 Dodd, John M., Ashland.
 Dooge, Carl W., Marshfield.
 Doern, R. E., Stockbridge.
 Doern, W. G., Milwaukee.
 Doherty, W. H., Pound.
 Doherty, F. P., Appleton.
 Dollard, E. C., Neenah.
 Donaldson, F. E., Kaukauna.
 Donaldson, Geo. F., Shiocton.
 Donnell, J. E., Cuba City.
 Donnelly, F. J., Monches.
 Donohue, F. J., Antigo.
 Donohue, M. J., Antigo.
 Donohue, W. E., Manitowoc.
 Donovan, Jerry, Forrestville.
 Donovan, J. P., Madison.
 Doolittle, J. C., Lancaster.
 Doolittle, S. Wade, Lancaster.
 Dougherty, A. A., Boaz.
 Dougherty, A. A., Richland Center.
 Dougherty, J. S., Lena.
 Doyle, Jos. H., Little Chute.
 Drake, Frank L., Madison.
 Drew, R. J., Kingston.
 Drexel, A., Milwaukee.
 Dries, Joseph, Milwaukee.
 Driessel, H., Kewaskum.
 Driessel, S. J., Barton.
 Dawley, Johu H., Laona.
 Dunn, E. A. A., Platteville.
 Durr, William, Milwaukee.
 Dusenberry, G. E., Amherst.
 Dwight, C. G., Madison.
 Dysart, R. J., Winnebago.
 Eagan, J. B., Deel Rapids, S. Dak.
 Eakins, F. C., Waukesha.
 Eames, H. F., Egg Harbor.
 Eastman, J., Russell, Kenosha.
 Eaton, Howard, Shopiere.
 Echols, C. M., Milwaukee.
 Echternacht, A. C., White Creek.
 Eck, G. E., Lake Mills.
 Edwards, A., Reedsburg.
 Edwards, John B., Milwaukee.
 Edwards, W. A., La Crosse.
 Edwards, Wm. M., Milwaukee.
 Egau, Gregory, La Crosse.
 Egdahl, A., Menomonie.
 Egloff, L. W., Elkhart Lake.
 Ehlert, E. H., Minneapolis, Minn.
 Ehmer, J. W., Lomira.
 Eichelberg, F. A., Reeseville.
 Eisen, Paul, Milwaukee.
 Elfers, Jos. C., Sheboygan.
 Ellenson, Eugene, Chippewa Falls.
 Elliot, J. T., Rhineland.
 Elliott, Sara, Waukesha.
 Elliott, E. S., Fox Lake.
 Ellis, W. H., Barron.
 Ellison, F. E., Beloit.
 Elmergreen, Ralph, Milwaukee.
 Elson, J. C., Madison.
 English, J. E., Baraboo.
 Engsborg, Wm. A., Lake Mills.
 Eunis, Shullsburg.
 Epley, O. H., New Richmond.
 Erdman, Chas. H., Stanley.
 Erlanger, Jos., Madison.
 Ernst, G. R., Milwaukee.
 Evans, Curtis A., Milwaukee.
 Evans, Edward, South Milwaukee.
 Evans, Edward E., La Crosse.
 Evans, J. M., Evansville.
 Evans, J. S., Madison.
 Evans, N. C., Mt. Horeb.
 Evans, O., Bangor.
 Evans, T. W., Madison.
 Everett, E., Madison.
 Evert, F. V., Retreat.
 Ewing, M. L., Evansville.
 Eyster, J. A. E., Madison.
 Faber, Charles A., Milwaukee.
 Fairfield, W. E., Green Bay.
 Falge, Louis, Manitowoc.
 Farnham, C. R., Milwaukee.
 Farnsworth, A. L., Baraboo.
 Farnsworth, F. B., Janesville.
 Farr, J. F., Eau Claire.
 Farr, Wm. M., Kenosha.
 Farrell, A. M., Two Rivers.
 Faulds, Robert C., Abrams.
 Fazen, L. E., Racine.
 Fechter, F. J., Elkhart Lake.
 Federman, E. H., Montello.
 Federspiel, M. N., Milwaukee.
 Fehr, Henry, Burlington.
 Feld, Carl R., Watertown.
 Fellman, Geo. H., Milwaukee.
 Fenelon, Chas. D., Phillips.
 Fennies, Benta, Sparta.
 Festerling, E. J., Reedsville.
 Fetter, Edward, Plymouth.
 Fiekes, H. C., Owen.
 Fidler, C. A., Milwaukee.
 Fieblger, G. J., Waterloo.
 Fiedler, Otho, Athens.
 Field, F. T., Elroy.
 Fifield, G. W., Janesville.
 Fish, Edmund, Milwaukee.
 Fish, E. C., Mosinee.
 Fisher, B. B., Wild Rose.
 Fitzgerald, J. J., Eagle.
 Fitzgibbon, Thomas, Milwaukee.
 Fitzgibbon, Wm., Milwaukee.
 Flatley, M. A., Antigo.
 Fleek, J. L., Brodhead.
 Fletcher, E. A., Milwaukee.
 Fletcher, F. E., Ashland.
 Fletcher, Wm. T., Salem.
 Flynn, R. E., La Crosse.
 Foat, John S., Ripon.
 Foerster, Otto H., Milwaukee.
 Foley, F. P., Dorchester.
 Foley, F. R., Neshkoro.
 Forbush, S. W., Orfordville.
 Force, O. O., Pardeeville.
 Ford, A. M., Roberts.
 Ford, W. B., Norwalk.
 Forkin, G. E., Menasha.
 Fosse, Benjamin, Woodford.
 Foster, A. M., Kaukauna.
 Foster, Fred L., Fond du Lac.
 Fowle, F. F., Wauwatosa.
 Fowle, I. H., Milwaukee.
 Fowler, J. H., Lancaster.
 Fox, Geo. W., Milwaukee.
 Fox, P. A., Beloit.
 Fox, Phillip, Madison.
 Fox, Phillip R., Madison.
 Fox, W. E., Milwaukee.
 France, J. J., Milwaukee.
 Francis, John H., Bloomer.
 Frank, J. H., Milwaukee.
 Frank, J. H., Neillsville.
 Frank, L. F., Milwaukee.
 Frankel, A. H., Milwaukee.
 Franklin, Isadore, Milwaukee.
 Franzel, J. E., Howards Grove.
 Freawley, Ray M., Wausau.
 Freeman, Daniel, Colby.
 French, S. W., Milwaukee.
 Frey, G. R., Milwaukee.
 Friedrich, R. O., Milwaukee.
 Friend, L. J., Abbottsford.
 Froelich, J. H., Princeton.
 Froggatt, W. E. L., Cross Plains.
 Froney, M. A., Sheboygan.
 Frost, Carrie, Chippewa Falls.
 Fuchte, E. J., Williams Bay.
 Fuerstenau, L. A., Milwaukee.
 Fuller, C. O., Stratford.
 Fuller, M. E., Bonduel.
 Fuller, M. H., Angellia.
 Fulton, H. A., Eau Claire.
 Fulton, Wm. A., Burlington.
 Furstman, J. M., La Crosse.
 Gaenslen, Fred J., Milwaukee.
 Gasser, Herman, Platteville.
 Gates, A. J., Tigerton.
 Gates, Eugene, Two Rivers.
 Gault, John A., Lancaster.
 Gaunt, P. L., Oconto.
 Gavin, E. T., Superior.
 Gawn, Stephen A., Fond du Lac.
 Gendron, A. E., River Falls.
 Genter, A. E., Sheboygan.
 Gephart, C. H., Kenosha.
 Gerend, Alphonse, Cato.
 Germano, G. A., Kenosha.
 Gibbs, G. L., Marshall.
 Gibson, J. H., Green Bay.
 Giesen, C. W., Superior.
 Gifford, H. B., Juda.
 Gilbert, H. A., Madison.
 Gill, J. F., Madison.
 Gillen, F. C., Milwaukee.
 Gilles, A. S., Milwaukee.
 Glasler, Mina B., Bloomington.
 Gleason, C. M., Manitowoc.
 Gnagi, W. B., Monroe.
 Gobar, G. G., Muscoda.
 Goddard, J. B., Eau Claire.
 Godfrey, Joseph, Lancaster.
 Goetsch, O. F., Hinstisford.
 Goggins, J. W., Calumetville.
 Goggins, R. J., Oconto Falls.
 Golden, C. H., Wauwoc.
 Golley, F. B., Milwaukee.
 Gommer, Jacob, Gillette.
 Goodfellow, J. R., Superior.
 Goodrich, G. M., Clintonville.
 Gordon, J. B., Shawano.
 Gorst, Charles, Mendota.
 Gosin, D. F., Green Bay.
 Gotham, L. E., Sawyer.
 Gramling, H. J., Milwaukee.
 Gramling, J. J., Hales Corners.
 Grannis, E. H., Menomonie.
 Grattiot, C. C., Shullsburg.
 Grattiot, W. N., Mineral Point.
 Graves, L. S., Wilton.
 Gray, A. W., Milwaukee.
 Gray, N. A., Milwaukee.
 Gray, R. H., La Crosse.
 Green, W. A., Wausau.
 Greenberg, Harry, Milwaukee.
 Greengo, C. G., Chilton.
 Gregory, A. T., Elroy.
 Gregory, W. W., Stevens Point.
 Greiner, H. A., Fremont.
 Grinde, G. A., Cumberland.
 Griswold, C. M., Princeton.
 Griswold, Frank Viola.
 Grob, A. R., Milwaukee.
 Grosskopf, E. C., Milwaukee.
 Grotjan, W. F., Milwaukee.

- Grond, William E., Superior.
 Gudden, B. C., Oshkosh.
 Gunderson, A., La Crosse.
 Gunther, Emil, Sheboygan.
 Gunther, W. H., Sheboygan.
 Gutsch, Otto J., Sheboygan.
 Guttman, P., Kelluerville.
 Gyge, John, Big Falls.
 Habegger, C. J., Watertown.
 Hackett, James, Milwaukee.
 Haddy, G. H., Park Falls.
 Hadley, D. A., Oconomowoc.
 Hagen, Martin, Soldiers Grove.
 Hahn, A. F., Eau Claire.
 Hall, C. H., Madison.
 Hall, Sidney S., Ripon.
 Hallock, W. E., Juneau.
 Hambley, T. J., Hurley.
 Hamilton, D. B., Ridgeway.
 Hammond, F. W., Wyocon.
 Hanbriek, Herbert, Oshkosh.
 Hanke, Paul, Cashton.
 Hankwitz, P. G., Milwaukee.
 Hannum, Henry, Bayfield.
 Hansberry, J. S., Wonewoc.
 Hansberry, R. S., Hillsboro.
 Hansen, C. A., Denver, Colo.
 Hansen, J., Glenbeulah.
 Hansen, O. L., Chicago, Ill.
 Harbert, Helen, Kenosha.
 Hardy, C. F., Milwaukee.
 Hargarten, L. J., Milwaukee.
 Harlow, G. A., Milwaukee.
 Harper, C. A., Madison.
 Harriman, L. L., Alamosa, Colo.
 Harriman, Leonard, Lake Mills.
 Harrington, D. W., Milwaukee.
 Harrington, T. L., Milwaukee.
 Harris, R. R., Prairie du Chien.
 Harrison, G. H., Ashland.
 Harter, Alexander F., Marathon.
 Hartford, W. P., Cassville.
 Harvie, W. D., Oshkosh.
 Haskell, M. W., Richland Center.
 Hastings, J. F., Kenosha.
 Hatch, W. E., Superior.
 Hanshalter, H. P., Milwaukee.
 Hausmann, N. E., Kewaskum.
 Haven, S. W., Racine.
 Haverstock, H. T., Sharon.
 Hawley, F. M., Minoona.
 Hay, Thomas H., Stevens Point.
 Hayden, A., Shullsburg.
 Hayes, Charles A., Chippewa Falls.
 Hayes, D. J., Milwaukee.
 Hayes, E. L., Eau Claire.
 Hayman, C. S., Boscobel.
 Hayman, L. H., Boscobel.
 Hayward, J. C., Marshfield.
 Head, L. R., Madison.
 Hebron, R. A., Cataract.
 Hedges, A. N., Birchwood.
 Heeb, H. J., Milwaukee.
 Heidner, Gustav, West Bend.
 Heising, Albert, Menomonie.
 Helgeson, E. J., New Glarus.
 Heller, A. J., Milwaukee.
 Helm, A. C., Beloit.
 Helm, Ernest C., Beloit.
 Helz, J. W., Fond du Lac.
 Henbest, Geo. M., Appleton.
 Henderson, M. L., Milwaukee.
 Hendrickson, H., Green Bay.
 Hendrickson, J. A., Larsen.
 Henika, G. W., Beaver Dam.
 Henke, Wm. A., La Crosse.
 Heraty, J. E., Bloomington.
 Hering, E. R., Shell Lake.
 Herrer, W. L., Oshkosh.
 Herron, Allen L., Milwaukee.
 Hertzman, C. O., Ashland.
 Hess, C. F., Madison.
 Hess, J. W., Adell.
 Hewitt, M. R., Milwaukee.
 Hickey, R. E., Chippewa Falls.
 Hicks, L. N., Burlington.
 Hidershede, George N., Arcadia.
 Higgins, E. G., Melrose.
 Higgins, S. G., Milwaukee.
 Higgs, H. J., Crivitz.
 Hildreth, C. E., Mattoon, Ill.
 Hildreth, H. L., Bay City.
 Hilger, Wm. F., Milwaukee.
 Hill, Warren B., Milwaukee.
 Hilton, G. F., Sturgeon Bay.
 Hinckley, H. G., Merrill.
 Hinman, F. S., Rhinelander.
 Hinn, Louis P., Fond du Lac.
 Hipke, Gustav A., Milwaukee.
 Hipke, William, Marshfield.
 Hitz, Henry B., Milwaukee.
 Hodges, F. L., Monroc.
 Hodgson, A. J., Waukesha.
 Hoermann, B. A., Milwaukee.
 Hoerman, R. B., Milwaukee.
 Hoffman, Elmer, Lone Rock.
 Hoffman, J. F., Chebek.
 Hoffman, J. G., Hartford.
 Hoffmann, M. A. T., Campbellsport.
 Hoffman, Norman, Milwaukee.
 Hoffmann, P. A., Campbellsport.
 Hoffmier, L. A., Superior.
 Hogau, J. H., Racine.
 Hogau, J. M., Oshkosh.
 Hogue, G. I., Milwaukee.
 Holbrook, A. T., Milwaukee.
 Hollenbeck, N. W., Milwaukee.
 Holliday, Edward R., Ellsworth.
 Holliday, M. E., Appleton.
 Holtz, H. M., Beaver Dam.
 Holz, A. P., Seymour.
 Hopkins, F. G., Valders.
 Hopkins, J. W., Melrose, Mass.
 Hopkins, M. B., Oconto.
 Hopkins, W. B., Cumberland.
 Hopkinson, Daniel, Milwaukee.
 Hopkinson, L., Milwaukee.
 Horswell, U. M., Wausaukee.
 Hosmer, M. L., Ashland.
 Houck, M. P., La Crosse.
 Honck, Oscar, La Crosse.
 Hongen, Edward, Pittsville.
 Hongen, O. T., Grand Rapids.
 Hough, A. G., Morrisville.
 Hovde, A. G., Superior.
 Howard, J. J., Colmon.
 Howison, N. L., Menomonie.
 Hoyer, A. A., Randolph.
 Hoyer, G. C., Milwaukee.
 Hoyer, Lucia, Milwaukee.
 Hoyt, G. E., Menominee Falls.
 Hoyt, R. W., New Lisbon.
 Hubenthal, J. C., Belmont.
 Huennkens, J. H., Milwaukee.
 Huff, F. C., Sturgeon Bay.
 Hughes, C. W., Winneconne.
 Hughes, T. H., Dodgeville.
 Hull, E. S., Milton Junction.
 Hummel, W. J., Abelsman.
 Hunt, F. O., Fall River.
 Huntington, M. L., Port Wing.
 Hurd, H. H., Chippewa Falls.
 Hurlbut, F. D., Reedsburg.
 Hurlbut, W. H., Elkhorn.
 Hutchins, S. E., Trempealeau.
 Hyslop, F. R., Whitewater.
 Irvine, Wesley, Manawa.
 Irwin, H. J., Baraboo.
 Iverson, M., Stoughton.
 Jackey, F. D., Thorp.
 Jackson, F. A., Eldorado.
 Jackson, J. A., Madison.
 Jackson, J. A., Jr., Madison.
 Jackson, J. A., Rudolph.
 Jackson, R. H., Madison.
 Jacobs, B. U., Waukesha.
 Jacobs, E. C., Durand.
 James, A. W., Muscoda.
 Jamieson, George, Lone Rock.
 Jefferson, H. A., Clintonville.
 Jegl, Henry A., Galesville.
 Jenkins, G. W., Kilbourn.
 Jenner, A. G., Milwaukee.
 Jensen, Anton B., Menasha.
 Jermain, Hubert F., Milwaukee.
 Jermain, Louis F., Milwaukee.
 Jobse, Peter H., Milwaukee.
 Jobse, William, Milwaukee.
 Johnson, F., North Freedom.
 Johnson, F. J., Iron River.
 Johnson, F. P., Ontario.
 Johnson, H. B., Tomah.
 Johnson, H. C., Glen Flora.
 Johnson, Lanra M., Somerville, Mass.
 Johnson, J. C., Ogdenberg.
 Johnson, L. M., Winnebago.
 Johnston, G. B., Abbottsford.
 Johnston, H. F., Oshkosh.
 Johnston, W. M., Dale.
 Jones, Asa N., Reedsburg.
 Jones, A. W., Randolph.
 Jones, David F., Wausau.
 Jones, Edward H., Weyauwega.
 Jones, F. J., Reedsburg.
 Jones, J. R., Randolph.
 Jones, R. W., Wausau.
 Jones, Susan, Racine.
 Jones, Thomas R., Green Bay.
 Jones, W. A., Oconomowoc.
 Jorgenson, P. P. M., Kenosha.
 Judd, W. H., Janesville.
 Jurgens, L. W., Eureka.
 Junck, John A., Sheboygan.
 Kahn, Joseph, Milwaukee.
 Kalling, H., Black River Falls.
 Karnopp, G. L., Mishicot.
 Karske, W. C., Milwaukee.
 Karsten, A. C., Horton.
 Kastner, A. L., Milwaukee.
 Kammheimer, G. J., Milwaukee.
 Kanth, P. M., Schleissingerville.
 Kay, H. M., Madison.
 Keck, J. S., Racine.
 Keenan, George, Madison.
 Keenan, H. A., Stoughton.
 Kenney, J. F., Benton.
 Keeny, B., Hudson.
 Keithley, J. A., Palmyra.
 Keithley, John W., Beloit.
 Kelaud, G. A., Madison.
 Keller, S. C., Sank City.
 Kellogg, E., Wells, Milwaukee.
 Kelly, C. D., Blair.
 Kelly, D. M., Baraboo.
 Kelly, F. H., Merrill.
 Kelly, W. W., Green Bay.
 Kemper, Wm. G., Manitowoc.
 Kendall, Alieu, Prairie du Sac.
 Kennedy, W. R., Manitowoc.
 Kernott, E. P., Hudson.
 Kerper, C. A., Pine River.
 Kerr, A. N., Los Angeles, Cal.
 Kersten, A. M., De Pere.
 Kersten, W. M., De Pere.
 Ketterer, E. A., Montfort.
 Kiefer, J. G., Milwaukee.
 Kimball, G. F., Kenosha.
 King, C. F., Hudson.
 Kings, H. F., Mason.
 Kings, J. T., Watertown.
 Kingsley, J. R., Sheboygan.
 Kinne, Edward, Elkhorn.
 Kinney, R. H., Lancaster.
 Kissliug, C. L., Milwaukee.
 Kitzke, F. W., Milwaukee.
 Kleinhans, M. A., Milwaukee.
 Kleinschmidt, George, Milwaukee.
 Klemm, Louis F., Milwaukee.
 Kletzsch, Gustav, Milwaukee.
 Knapp, Leonard L., New Richmond.
 Knauf, F. P., Kiel.
 Knauf, Geo. E., Sheboygan.
 Knauf, Nicholas, Chilton.
 Knowles, W. M., Spooner.
 Knutson, Oscar, Dallas.
 Koch, A. T., Wausan.
 Koehler, J. P., Milwaukee.
 Kortebein, Henry, Milwaukee.
 Kradwell, Wm. T., Wauwatosa.
 Krahn, A. J., Beaver Dam.
 Kramer, W. E., Milwaukee.
 Kratzsch, A. W., Milwaukee.
 Kraut, E., Beetown.
 Kremers, Alex., Milwaukee.
 Krentzer, C. A., Milwaukee.
 Kriz, G. H., Milwaukee.
 Krueger, Bernard, Cudahy.
 Krygiar, A. A., Milwaukee.
 Kunny, Bartholomew, Cylon.
 Kyes, S. M., Weyauwega.
 LaBreck, F. A., Eau Claire.
 Lacy, S. W., Footville.
 Ladd, G. D., Milwaukee.
 Lademann, O. E., Milwaukee.
 Ladwig, W. A., Edgar.
 Laird, J. J., Black Creek.
 Lalor, J. C., Sauk City.
 Lambeck, F. J., Milwaukee.
 Lanford, A. H., Rochester, Minn.
 Lang, Jacob, Milwaukee.
 Langenfeld, P. F., Theresa.
 Langenfelder, F. V., Washburn.
 Langland, P., Milwaukee.
 Lansdowne, F. B., Kenosha.
 Larsen, G. A., Blanchardville.
 Larsen, L. A., Colfax.
 Lasche, P. G., Ithaca.
 Latham, C. O., Darlington.
 Lathrop, C. A., Tomahawk.
 Lauder, C. E., Viroqua.
 Laughlin, J. T., Rosholt.
 Law, W. G., Glidden.
 Lawler, C. F., Hilbert.
 Lawler, T. L., Lyndon Station.
 Lawlor, G. W., Sussex.
 Lawrence, G. H., Galesville.
 Layton, O. M., Fairwater.
 Le Cron, W. L., Milwaukee.
 Lee, J. H., Iola.
 Lee, J. W., Superior.
 Lee, M. A., Superior.
 Leeson, E. E., Sharon.
 Leeson, F. W., Sharon.
 Lehnkering, C. F., Darlington.
 Leich, F. P., Jackson.
 Leicht, Philip, Lake Mills.

- Leith, S. S., Junction City.
 Leitzell, P. W., Bentou.
 Leland, A. M., Whitewater.
 Lemmel, J. J., Albany.
 Lemmer, G. W., Spooner.
 Lemon, Chas. H., Milwaukee.
 Lenfesty, J. P., De Pere.
 Leonard, Chas. W., Fond du Lac.
 Lester, Wm. A., Onalaska.
 Levings, A. H., Milwaukee.
 Levitas, I. E., Green Bay.
 Lewis, James M., Bloomington.
 Lewis, S. M., Milwaukee.
 Lewis, W. H., Aniwa.
 Lid, T. A., Marinette.
 Lincoln, W. S., Dodgeville.
 Lindorer, J. D., Stevens Point.
 Lindsay, H. E., Whitewater.
 Lindsay, W. T., Madison.
 Linn, W. N., Oshkosh.
 Little, W. D., Maiden Rock.
 Lobedan, E. T., Milwaukee.
 Lochemes, W. T., Milwaukee.
 Lockhart, Carl, Mellen.
 Lockhart, Jasper W., Omro.
 Loevenhart, A. S., Madison.
 Loge, Edward S., Milwaukee.
 Lohmiller, R. K., Spnerfor.
 Langenfeld, C. F., Theresa.
 Longley, L. R., Fond du Lac.
 Loofbourou, N. A., Monroe.
 Loomis, E. E., Janesville.
 Loope, T. E., Jr., Iola.
 Looze, John J., Grand Rapids.
 Lorenz, W. F., Mendota.
 Lathrop, C. A., Sharon.
 Lotz, Oscar, Milwaukee.
 Loughman, A. J., Oconomowoc.
 Love, G. S., Waukesha.
 Lovell, A. L., Madison.
 Ludden, H. D., Mineral Point.
 Lueck, Geo. W., La Crosse.
 Luehrs, H. E., Hilbert.
 Luhmann, F. S., Manitowoc.
 Lumley, W. A., Ellsworth.
 Lumsden, William, Clayton.
 Lumsford, C. B., Gays Mills.
 Lundmark, L. M., Ladysmith.
 Lyman, J. V. R., Eau Claire.
 Lynch, D. W., Jr., West Bend.
 Lynch, H. M., Allenton.
 Lyons, J. A., Welcome.
 Lyons, William, Eden.
 McAllin, A. E., Hancock.
 McArthur, D. S., La Crosse.
 McBeath, H. F., Milwaukee.
 McBeath, N. E., Livingston.
 McBride, W. O., Marinette.
 McCarthy, G. W., North Prairie.
 McCarthy, T. H., Madison.
 McChesney, Willard, Edgerton.
 McClure, G. H., Westboro.
 MacCollum, C. L. R., Forrest Junction.
 McComb, I. N., Brillion.
 McCorkle, S. C., Milwaukee.
 McCracken, J. O., Kenosha.
 McCracken, R. W., Union Grove.
 McCutcheon, W. R., Thorp.
 McDill, John R., Milwaukee.
 McDonald, E. M., Beaver Dam.
 McDonald, Ed., Cuba City.
 McDonald, H. F., Hollandale.
 McDonald W., Lake Geneva.
 McDougall, G. T., Fond du Lac.
 McDowell, A. J., Soldiers Grove.
 McGanley, Frank, Fond du Lac.
 McGill, Patrick G., Superior.
 McGovern, John, Patosl.
 McGovern, John J., Milwaukee.
 McGovern, Patrick H., Milwaukee.
 McGrath, W. P., Menasha.
 McIndoe, T. B., Rhineland.
 McKivitt, Wm., Milwaukee.
 McGuire, W. H., Janesville.
 McKee, F. W., Rheinland Center.
 McKellar, A., Blanchardville.
 McKeon, Phillip, New Richmond.
 McKittrick, P., Eau Claire.
 McKnight, G. B., Fond du Lac.
 MacLachlan, W. G., McFarland.
 McLaughlin, J. H., Glen Haven.
 McLaurin, A. A., Hazel, S. Dak.
 McMahon, J. P., Milwaukee.
 MacMillan, A. E., Stevens Point.
 McRae, J. D., Chippewa Falls.
 Mack, J. A., Madison.
 Mackechnie, R. S., Hillsboro.
 Madison, James D., Milwaukee.
 Maerklein, B. G., Milwaukee.
 Maes, C. G., Kimberly.
 Maffey, Thos. E., Random Lake.
 Malone, Ed. W., Waukesha.
 Malone, Francis A., Waterford.
 Malone, James F., West Allis.
 Malone, Thomas C., Milwaukee.
 Malone, W. F., Milwaukee.
 Marchessault, J. A., Ashland.
 Marquardt, C. H., La Crosse.
 Marquis, A. J., Wausaukee.
 Marsden, A. L., Rio.
 Marsden, T. H., Fenniuore.
 Marsh, J. M., Elkhorn.
 Marshall, J. F., Appleton.
 Martin, George, Baldwin.
 Martin, M. T., Merrimac.
 Martins, Wm. A., New Holstein.
 Mason, C. H., Superior.
 Mason, E. L., Eau Claire.
 Mason, J. B., Marshfield.
 Mastersou, J. A., Watertown.
 Matheisou, John, Eau Claire.
 Matheson, A., Neillsville.
 Mathews, J. B., Milwaukee.
 Matter, F. E., Lake Geneva.
 Mauerman, J. F., Mouroe.
 Maurer, A. A., La Crosse.
 Maurer, H. C., Beloit.
 Maxam, M., Loyal.
 May, J. V., Marinette.
 Meachem, J. G., Racine.
 Meacher, Byron C., Portage.
 Mead, Frank, Madison.
 Meanwell, W. H., Madison.
 Meany, John E., Manitowoc.
 Mears, G. Y., Fond du Lac.
 Messman, Hngo, Milwaukee.
 Merrill, W. G., Grand Rapids.
 Meusel, H. H., Oshkosh.
 Meyers, J. M., Odanah.
 Meyst, Chas., Burlington.
 Midelfart, Christian, Eau Claire.
 Mieding, E. A., Milwaukee.
 Milbie, H. H., Marshfield.
 Miller, C. J., Whitewater.
 Miller, E. A., Clintonville.
 Miller, H. C., Whitewater.
 Miller, Thomas, Oconomowoc.
 Miller, W. F., Milwaukee.
 Miller, W. J., La Valle.
 Miller, W. S., Madison.
 Millman, J. C., Platteville.
 Mills, James, Janesville.
 Mills, Norman P., Appleton.
 Minahan, John R., Green Bay.
 Minahan, Robert E., Green Bay.
 Minshall, A. P., Viroqua.
 Mishoff, Ivan D., Milwaukee.
 Mitchell, R. E., Eau Claire.
 Mock, F. C., Milwaukee.
 Moffatt, Henry R., Poysippi.
 Monk, R. W., Neillsville.
 Monroe, Wm. B., Monroe.
 Monsted, J. W., New London.
 Montgomery, Alex., Fan Claire.
 Montgomery, R. O., Madison.
 Montgomery, William, Eau Claire.
 Moore, E. E., Merrilan.
 Moore, G. W., Antigo.
 Moore, L. A., Monroe.
 Moreaux, P., Luxembourg.
 Morgan, J. J., Durand.
 Morgenroth, H. W., Oshkosh.
 Mork, Ole, Blair.
 Morley, F. E., Viroqua.
 Morris, E. K., Merrill.
 Morris, G., Sharon.
 Morris, R. C., Ft. Atkinson.
 Morrison, M., Cashton.
 Morrison, W. W., Edgerton.
 Morse, A. J., Oakfield.
 Morse, Fdwin A., Appleton.
 Morton, H. H., Cobb.
 Mottenson, O. N., Waunaca.
 Moulding, F. C., Watertown.
 Mount, H. A., West Allis.
 Moyer, Samuel R., Monroe.
 Mulford, E. R., La Crosse.
 Mulholland, John F., Kenosha.
 Mulvaney, F. M., Marion.
 Munn, W. A., Janesville.
 Munger, D. C., Ellsworth.
 Munro, Sarah R., Milwaukee.
 Munroe, D. M., Kenosha.
 Murphy, S. W., Kenosha.
 Murphy, W. T., Waukesha.
 Murray, G. O., Tomah.
 Muth, Carl, Sheboygan.
 Myers, Albert William, Milwaukee.
 Myers, Charles F., Chippewa Falls.
 Nadeau, A. T., Marinette.
 Nahin, H. L., Milwaukee.
 Nauth, D. F., Kiel.
 Nedry, H. M., Medford.
 Nelson, A. L., Racine.
 Nelsou, C. A., Clear Lake.
 Nelson, Norman, Madison.
 Nelson, Stella B., Oshkosh.
 Newell, Frank, Racine.
 Newell, G. E., Burlington.
 Nichols, P. C., Wausau.
 Nichols, R. M., Sheboygan Falls.
 Nichols, Willard T., Milwaukee.
 Nielson, G. W., Milwaukee.
 Nielson, W. H., Milwaukee.
 Nicuann, A. C., New Ilostein.
 Nims, C. H., Oshkosh.
 Nixon, A. J. W., Delafield.
 Nixon, Henry C. B., Hartland.
 Nixon, R. T. A., Brookfield.
 Noble, Jos. B., Waukesha.
 Noer, Julius, Stoughton.
 Noer, J. P., Wabeno.
 Nolan, W. N., Kankana.
 Nolte, Lewis G., Milwaukee.
 North, Chas. F., Beaver Dam.
 Notbohm, William R., Dousman.
 Nott, Wallace G., Racine.
 Nowack, L. W., Watertown.
 Noyes, G. B., Stone Lake.
 Nuzum, Thos. W., Janesville.
 Nye, F. T., Beloit.
 Nystrum, C. E., Medford.
 Oakland, H. G., Milwaukee.
 Obertin, C. A., Union Grove.
 O'Brien, H. J., Superior.
 O'Brien, H. N., Darien.
 O'Brien, J. M., Oregon.
 O'Brien, Thos., St. Nazianz.
 O'Brien, W. T., Mauston.
 O'Brien, W. T., Ashland.
 O'Connell, D. C., Milwaukee.
 O'Connell, J. E., Milwaukee.
 O'Connor, W. F., Ladysmith.
 Oettiker, James, Platteville.
 Ogden, H. V., Milwaukee.
 O'Leary, F. J., East Troy.
 O'Leary, T. J., Superior.
 Olmsted, A. O., Green Bay.
 Oliver, F. J., Green Bay.
 Olson, A. K., Ettrick.
 Olson, E. A., Osseo.
 Omsted, Nils, Stoughton.
 Orchard, H. J., Superior.
 Orr, E. D., Mt. Hope.
 Orton, Susanne, Darlington.
 Osborne, O. S., Winnebago.
 Osborn, W. S., Winnebago.
 Ott, H. A., Oostburg.
 Overbaugh, J. H., Hartland.
 Oyen, Martin, Ellsworth.
 Ozanne, I. E., Neenah.
 Ozanne, J. T., Oshkosh.
 Packard, C. D., Rhineland.
 Pake, S. Guy, Superior.
 Palm, C. A., Kenosha.
 Palmer, B. F., Cudahy.
 Palmer, J. A., Arcadia.
 Palmer, W. H., Janesville.
 Palt, J. N., Kenosha.
 Panetti, E. J., Milwaukee.
 Panetti, P. A., Hustiford.
 Parham, G. H., Necedah.
 Park, W. H., Glenwood City.
 Parke, George, Sylvan.
 Parke, W. B., Camp Douglas.
 Parker, Albert S., Clinton.
 Parker, E. H., Eau Claire.
 Parkhill, F. G., Delavan.
 Parmley, J. P., Mineral Point.
 Parson, F. L., Mountain Iron, Minn.
 Partridge, O. F., Mattoon.
 Patek, Arthur J., Milwaukee.
 Paull, Chester A., Wales.
 Payne, A. L., Eau Claire.
 Peake, Edgar, Oshkosh.
 Peairs, Ralph R., Milwaukee.
 Pearce, W. J., Dodgeville.
 Pearson, Ogema.
 Pearson, L. M., Tomahawk.
 Pease, W. A., Otego.
 Pease, Wm. A., Jr., Rio.
 Peck, W. W., Darlington.
 Peckett, L. S., Wilson.
 Peebles, Mary, Shullsburg.
 Peoh, Fred G., Corliss.
 Pelton, L. H., Waunaca.
 Pember, John F., Janesville.
 Pemberton, W. E., Wittenburg.
 Perrin, George H., Menominee Falls.
 Perrin, H. E., Star Prairie.
 Perry, Gentz, Amery.
 Peter, H. T., Oconomowoc.
 Peterson, C. E., Independence.
 Peterson, Geo. E., Waukesha.
 Peterson, N. A., Soldiers Grove.
 Petzki, E. A., Hixton.

- Pfeiffer, C. W., Sheboygan Falls.
 Pfeiffer, F. J., New London.
 Pfeiffer, H., Jackson.
 Pfeil, R. C., Mattoon.
 Pfister, Franz, Milwaukee.
 Pflueger, J. H., Holman.
 Phaneuf, S. J., Somerset.
 Phelps, E. J., Eldron.
 Phipps, F. J., Milwaukee.
 Pickering, Charles R., Muscoda.
 Pinkertou, Wm. T., Prairie du Chien.
 Pitts, S. E., Mt. Horeb.
 Podlasky, H. B., Milwaukee.
 Pogue, M. E., Lake Geneva.
 Pomainville, Frank, Grand Rapids.
 Pomainville, George, Nekeosa.
 Pope, F. J., Racine.
 Pope, F. W., Racine.
 Poppe, Alfred, Arkdale.
 Poppe, H. B. B., Wautoma.
 Popper, Hugo, Boscobel.
 Poser, Edward M., Columbus.
 Post, C. C., Barron.
 Potter, I. Y., New London.
 Potter, Luther A., Superior.
 Potter, R. P., Marshfield.
 Powers, J. W., Burlington.
 Press, G. W., Cambria.
 Pretts, W. W., Platteville.
 Prill, H. F., Augusta.
 Prince, L. H., Madison.
 Pritchard, J. F., Manitowoc.
 Proctor, Thomas C., Sturgeon Bay.
 Proudlock, J. H., Radisson.
 Prouty, W. R., Burlington.
 Provost, A. J., Oshkosh.
 Puchner, E., Witteuhurg.
 Pugh, George H., Kenosha.
 Pugh, W. M., Kenosha.
 Pullen, A. J., North Fond du Lac.
 Puls, A. J., Milwaukee.
 Purcell, H. E., Madison.
 Purtell, Jos. A., Milwaukee.
 Quade, E. B., Wausau.
 Quam, Jacob, Deerfield.
 Quick, E. W., Green Bay.
 Quin, J. F., Milwaukee.
 Raasoch, H., Nelsonville.
 Racek, G. H., Princeton.
 Ragan, J. F., Gresham.
 Ragan, W. F., Neopit.
 Ragan, W. J., Gresham.
 Randall, A. J., Kenosha.
 Ransom, C. W., Brooklyn.
 Rasmussen, Hans, Milwaukee.
 Rath, R. R., Granton.
 Rathun, John W., Prairie du Chien.
 Ravenel, M. P., Madison.
 Ravn, Michael, Merrill.
 Ray, C. F., Milwaukee.
 Raymond, R. G., Brownsville.
 Read, Flora A., Fond du Lac.
 Reagles, Robert, Arlington.
 Rector, A. E., Appleton.
 Redelings, Theo. J., Marinette.
 Reed, W. W., Jefferson.
 Reeve, J. L., Superior.
 Reeve, James S., Appleton.
 Reeves, S. T., Albany.
 Regan, Eugene D., Milwaukee.
 Releh, Wm. F., Milwaukee.
 Reineck, C., Appleton.
 Reineking, H., Milwaukee.
 Reineking, J., Hortonville.
 Reinert, E. N., Cleveland.
 Reinhard, C., Milwaukee.
 Reinhard, Hans A., Milwaukee.
 Reinhardt, J. P., Fountain City.
 Reynolds, J. C., Lake Geneva.
 Rhode, Henry, Green Bay.
 Rice, D. B.,
 Rice, D. S., Stevens Point.
 Rice, E. M., Kewaunee.
 Rice, F. A., Delavan.
 Rice, M. H., Eagle River.
 Rice, Ray H., Delavan.
 Rice, R. H., Milwaukee.
 Richards, C. A., Rhinelander.
 Richmond, James, Loyal.
 Riddle, Julia, Oshkosh.
 Rideout, M. E., Hortonville.
 Riehl, Fred W., Milwaukee.
 Ridgeman, A. L., Grand Rapids.
 Ridgway, E. T., Elkhorn.
 Riley, E. A., Park Falls.
 Riley, P. E., Elk Mound.
 Reinhardt, D. B., Merrill.
 Rinehart, W. F., Ashland.
 Ringo, H. F., Montreal.
 Riordan, E. J., Wilton.
 Riordan, J. F., Neshkoro.
 Ripley, G. H., Kenosha.
 Ritchie, G. G., Appleton.
 Roberts, John, Portage.
 Roberts, J. A., Manitowoc.
 Robinsou, H. A., Kenosha.
 Roby, H. S., Milwaukee.
 Rock, John N., Milwaukee.
 Rockwell, J. W., Hartford.
 Rodermund, A. M., Athens.
 Radman, A. J., Delavan.
 Rogers, A. C., Cascade.
 Rogers, A. W., Milwaukee.
 Rogers, E. H., Stevens Point.
 Rogers, Philip F., Milwaukee.
 Rohr, J. H., North Milwaukee.
 Rolfs, T. H., Milwaukee.
 Rood, John F., Darien.
 Roos, Adolph, Oshkosh.
 Rosenberry, A. B., Wausau.
 Rosenberry, B. P., Arcadia.
 Rosenheimer, Max, Milwaukee.
 Rosenthal, Geo., Milwaukee.
 Rosholt, J., La Crosse.
 Ross, H. R. T., Ladysmith.
 Ross, P. M., Granton.
 Rostad, K. T., Spring Valley.
 Rothman, L., Wittenburg.
 Rowles, J. A., La Crosse.
 Rowley, A. G., Middleton.
 Roy, Emil, Wausau.
 Rudolph, S. F., Ellsworth.
 Ruekle, William, Grand Rapids.
 Rugh, R. E., Lake Geneva.
 Ruschaupt, L. F., Milwaukee.
 Russell, F. H., Omro.
 Russell, H. C., Milwaukee.
 Russell, T. P., Oshkosh.
 Ryan, C. E., Appleton.
 Ryan, D. J., Algoma.
 Sallreiter, W. P., Racine.
 Sanborn, M. J., Appleton.
 Sapper, O. L., Gresham.
 Sarazin, F. C., Superior.
 Sarles, W. T., Sparta.
 Sartell, E. N., Janesville.
 Sattre, Olaf M., Rice Lake.
 Sauerhering, D., Wausau.
 Sauthoff, August, Madison.
 Sauthoff, Mary, Mendota.
 Savage, G. F., Port Washington.
 Sayle, R. G., Milwaukee.
 Sales, L. W., Baraboo.
 Saylor, Herbert, Merrill.
 Schallern, Otmarr, Ripon.
 Schaper, Herman, Appleton.
 Schapiro, Louis, Milwaukee.
 Schatz, F. J., Waconia, Minn.
 Schee, J., Westby.
 Scheih, G. F., Fond du Lac.
 Scheid, M. M., Rosendale.
 Schein, J. E., Oshkosh.
 Schell, Ida L., Milwaukee.
 Schiller, L., Milwaukee.
 Schlag, R. A., Prairie du Sac.
 Schlegel, H. J., Wausau.
 Scheurich, L. G., Tomah.
 Schmeling, A. F., Columbus.
 Schmidt, Anthony, Beloit.
 Schmidt, E. S., Green Bay.
 Schmidt, J. A., Brillion.
 Schmidt, Philip, Milwaukee.
 Schmidt, W. J., Mayville.
 Schmit, Felix, Milwaukee.
 Schmitt, Gustav, Milwaukee.
 Schmitt, Louis, Milwaukee.
 Schmitt, W. C., School Hill.
 Schneider, Fred, New London.
 Schneider, Joseph, Milwaukee.
 Schnider, John, Oshkosh.
 Schockley, H., Lamont.
 Schoen, C. M., Milwaukee.
 Schoen, R. E., Beaver Dam.
 Schofield, H. R., Greenwood.
 Scholz, G. M., Milwaukee.
 Schoofe, J. J., Johnsbury.
 Schreiner, J. K., Westby.
 Schroeckenstein, R. S., Marlon.
 Schroeder, H. F., Marinette.
 Schulz, F. M., Wauwatosa.
 Schung, Max, Bonduel.
 Schuster, B. L., Port Huron, Mich.
 Schwalbach, C. G., Juneau.
 Schwarz, S. G., Humbird.
 Schweltzer, G. J., St. Cloud.
 Schwenderer, John, Milwaukee.
 Scollard, John T., Milwaukee.
 Scollard, W. J., Milwaukee.
 Scott, B. E., Berlin.
 Scott, H. E., Argyle.
 Scott, J. J., Weston.
 Scott, J. R., Appleton.
 Seaman, Gilbert E., Milwaukee.
 Seaman, W. O., Eau Claire.
 Sears, Harry B., Beaver Dam.
 Seegers, F. W., Milwaukee.
 Seelye, N. L., Lake Geneva.
 Seidel, J. G., Warrens.
 Seldon, W. B., Thorp.
 Senn, C. U., Ripon.
 Senn, F. C., Oshkosh.
 Seun, George, De Pere.
 Seversou, Selena, Madison.
 Sharp, E. S., Waldo.
 Shauger, L. S., Ogema.
 Shaw, A. O., Ashland.
 Shaw, Byron W., Waunakee.
 Shearer, A. T., Edgerton.
 Shearer, R. D., Milwaukee.
 Sheldon, C. S., Madison.
 Sheldon, Walter H., Madison.
 Shepard, W. A., Seymour.
 Sherman, Adin, Winnebago.
 Shiek, I. E., Rhinelander.
 Shimek, A. J., Manitowoc.
 Shimonek, F., Milwaukee.
 Shunick, Thos. F., Watertown.
 Sholdski, Jos., Milwaukee.
 Shoykett, F. E., Brandon.
 Sidler, A. C., Cudahy.
 Siefert, Arthur W., Frankliu.
 Sifton, Harry A., Milwaukee.
 Silverthorn, F. R., Berliu.
 Simonson, J., Tomah.
 Sizer, E. M., Fall Creek.
 Skwor, Chas. S., Milladore.
 Slaughter, A. W., Green Bay.
 Slyster, L. R., Waupuu.
 Slyfield, F. F., Wausau.
 Smedal, Gregor, La Crosse.
 Smedling, George, Mineral Point.
 Smiles, C. J., Ashland.
 Smith, A. D., Gilmanton.
 Smith, C. C., Scandinavia.
 Smith, C. E., Beloit.
 Smith, C. E., Mukwonago.
 Smith, C. M., Jr., Evansville.
 Smith, E. A., Milwaukee.
 Smith, E. J., Neenah.
 Smith, George Lewis, Jefferson.
 Smith, G. M., Eau Claire.
 Smith, Jos. F., Wausau.
 Smith, K. W., Madison.
 Smith, P. H., Racine.
 Smith, Sidney, South Milwaukee.
 Smith, S. M. B., Wausau.
 Smith, T. W., Neenah.
 Smith, W. F., Waupun.
 Soelberg, Paul A., Mendota.
 Soles, F. A., Spencer.
 Sorenson, Soren, Racine.
 Southwick, F. A., Stevens Point.
 Spalding, J. B., Kenosha.
 Spawn, M. G., Beloit.
 Spears, T. R., Washburn.
 Specht, John, Superior.
 Spencer, G. F., Evansville.
 Spencer, Leonard, Wausau.
 Sperry, S. P., Milwaukee.
 Spitz, Milton, Milwaukee.
 Stack, G. F., Independence.
 Stack, Stephen, Milwaukee.
 Staehle, M., Manitowoc.
 Stalker, H. J., Kenosha.
 Stanhope, C. R., Milwaukee.
 Stanley, W. S., Milwaukee.
 Stannard, Gilbert H., Sheboygan.
 Starnes, Brand, Mauston.
 Starr, F. W., Stanley.
 Stehbins, E. B., Hurley.
 Stehbins, W. W., Verona.
 Steele, G. A., Redgranite.
 Steele, George M., Oshkosh.
 Steffen, J. D., Antigo.
 Stephenson, W. L., Ladysmith.
 Steusser, C., Oconomowoc.
 Stevens, C. C., De Soto.
 Stevens, Frank E., Bristol.
 Steves, B. J., Menomonie.
 Stewart, F. W., Milwaukee.
 Stiles, F. P., Sparta.
 Stiles, V. W., Sparta.
 Stirn, F. J., Kewaskum.
 Stockman, B. G., Woodville.
 Stoelting, C. W., Oconto.
 Stolte, Herman, Milwaukee.
 Storey, C. L., Whitehall.
 Storley, K. C., Coon Valley.
 Stormont, C. J., Viola.
 Stoye, J. P., Theresa.
 Strauss, F. H., Milwaukee.
 Strong, W. B., St. Martins.
 Stubenvoll, C. E., Shawano.

- Studley, F. C., Milwaukee.
 Sully, J. I., Stoughton.
 Suiter, E. C., La Crosse.
 Sullivan, A. G., Madison.
 Sure, J. H., Milwaukee.
 Surensen, M., Viroqua.
 Sutherland, C. H., Janesville.
 Sutherland, F. E., Janesville.
 Suttle, H. J., Viroqua.
 Swarthout, E. C., La Crosse.
 Sweetman, R. H., Green Bay.
 Sweemer, William, Milwaukee.
 Sykes, H. D., Milwaukee.
 Tanner, G. F., Turtle Lake.
 Tanner, Herbert B., Kankauna.
 Tarnutzer, B. C., Beaver Dam.
 Tartar, J. W., Iron River.
 Tasche, Conrad T., Sheboygan.
 Tasche, John C., Sheboygan.
 Taugher, A. J., Milwaukee.
 Taugher, J. P., Milwaukee.
 Taylor, E. A., Racine.
 Taylor, D. A., Bangor.
 Taylor, F. B., Mt. Sterling.
 Taylor, J. R., Madison.
 Taylor, L. S., Waupun.
 Taylor, M. W., Kilbourn.
 Taylor, R. W., Pewaukee.
 Tennes, H. B., Sparta.
 Terhorst, H., Milwaukee.
 Teschan, R. C., Milwaukee.
 Teschan, R. F., Milwaukee.
 Thadlic, Jos., Lime Ridge.
 Thayer, C. E., Markesan.
 Thayer, F. A., Beloit.
 Thienhaus, Karl O., Milwaukee.
 Thieke, G. A., Wausau.
 Thill, D. P., Milwaukee.
 Thomas, J. S., Milwaukee.
 Thomas, W. O., Clinton.
 Thompson, A. S., Franksville.
 Thompson, B. V., Oshkosh.
 Thompson, F. A., Milwaukee.
 Thompson, G. E., Kenosha.
 Thompson, I. F., Reedsburg.
 Thorndike, William, Milwaukee.
 Thorne, James P., Janesville.
 Thrane, A. D. H., Eau Claire.
 Tibbits, Newton I., Grand Rapids, Mich.
 Tibbits, U. J., Waukesha.
 Timm, E. W., Milwaukee.
 Tisdale, Lewis C., Milwaukee.
 Titel, E. A., Green Leaf.
 Titus, W. H., Oshkosh.
 Todd, Samuel G., Neenah.
 Tomkiewicz, Irene G., Milwaukee.
 Tompach, Emil, Racine.
 Torney, Thomas W., Madison.
 Torpy, T. G., Arbor Vitae.
 Torpy, Thos., Minocqua.
 Towne, W. H., Schocton.
 Townsend, E. H., New Lisbon.
 Frankle, H. M., Bloomer.
 Treadwell, C. L., Kilbourn.
 Treat, Charles R., Sharon.
 Treglown, L. H., Livingston.
 Trevitt, A. W., Wausau.
 Trevitt, Margaret, Wausau.
 Trowbridge, Charles, Viroqua.
 Trowbridge, W. M., Viroqua.
 Tuffley, F. S., Boscobel.
 Tupper, E. E., Eau Claire.
 Twohig, David J., Fond du Lac.
 Twohig, H. E., Fond du Lac.
 Uren, Andrew, Montreal.
 Urheim, Olaf, Hayward.
 Valentine, L. P., Corliss.
 Van Altena, Louis, Sr., Cedar Grove.
 Van Altena, L., Jr., Cedar Grove.
 Van Delinder, E. M., Beloit.
 Van Kirk, F. W., Janesville.
 Van Tiger, W. H., Platteville.
 Van Westrienen, A., Kenosha.
 Van Zanten, W., Sheboygan.
 Vedder, H. A., Edgar.
 Vedder, J. B., Marshfield.
 Verbeck, S. F., Lodi.
 Vernon, S. G., Madison.
 Vogel, C. A., Elroy.
 Vogel, Carl C., Elroy.
 Voight, A. H., Sheboygan.
 Voje, J. H., Oconomowoc.
 Von Beust, M., Milwaukee.
 Von Hengel, G. S. A., Waupun.
 Von Neupert, C., Sr., Stevens Point.
 Von Neupert, C. Jr., Stevens Point.
 Voorus, Wesley C., Beaver Dam.
 Vorpahl, R. A., Springfield.
 Vosburgh, W. H., Cooperstown.
 Vosknil, A., Cedar Grove.
 Wade, Frank S., New Richmond.
 Wacey, B. J., Belleville.
 Waffle, G. C., Janesville.
 Wagener, N. Z., Sturgeon Bay.
 Wagner, K., Milwaukee.
 Wahl, C. M., Spring Green.
 Wahl, H. S., Stratford.
 Wahle, H., Marshfield.
 Wakefield, G. T., West Salem.
 Wakefield, P. A., West Salem.
 Wakefield, S. R., West Salem.
 Walbridge, F. E., Stevens Point.
 Walbridge, J. S., Berlin.
 Walker, L. G., Pound.
 Wall, H. J., Richland Center.
 Wallis, J. H., Milwaukee.
 Walsh, Chas. Chase, Merrill.
 Ward, John Peter, Waukesha.
 Warfield, L. M., Milwaukee.
 Washburn, R. G., Milwaukee.
 Washburn, Sarah, Hudson.
 Washburn, W. H., Milwaukee.
 Waters, D., Grand Rapids.
 Waters, Hugh, Nekoosa.
 Watkins, W. C., Oconto.
 Watson, Fred V., Antigo.
 Weaver, L. A., Medford.
 Webb, E. P., Beaver Dam.
 Webb, W. B., Beaver Dam.
 Weber, A. J., Milwaukee.
 Webster, B. N., Rice Lake.
 Webster, F. E., Amberst.
 Wegge, Wm. F., Milwaukee.
 Wehle, W. J., West Bend.
 Weideman, Wm. G., Milwaukee.
 Welch, F. B., Janesville.
 Welch, F. C., Mukwonago.
 Weld, H. J., Campbellsport.
 Wells, A. L., Clear Lake.
 Wenstrand, D. E., Milwaukee.
 Wentzell, W. L., Stoughton.
 Wenzel, J. V., Ashland.
 Werkmeister, A. M., Reedsburg.
 Werner, C. F., Calumetville.
 Werner, H. C., Fond du Lac.
 Werner, Nels, Barron.
 Werner, R. E., Eau Claire.
 Westedt, Otto E., Logansville.
 Westgate, H. J., Rhiuelander.
 Westhofen, R. C., Milwaukee.
 Westpahl, H. G., Polar.
 Wetzlar, S. H., Milwaukee.
 Wheeler, C. H. E., Platteville.
 Wheeler, W. P., Oshkosh.
 White, A. G., Milwaukee.
 White, Moses I., Wauwatosa.
 Whitehorue, E. E., Vesper.
 Whitney, D. C., Rice Lake.
 Whyte, Wm. F., Watertown.
 Wichman G. C., Rib Lake.
 Wiesender, A. J., Berlin.
 Wilcox, A. G., Solon Springs.
 Wiles, G. B., Sheboygan.
 Wiley, Frank S., Fond du Lac.
 Wilkinson, John A., Hales Corners.
 Wilkinson, M. R., Oconomowoc.
 Wilkowski, C. W., Chippewa Falls.
 Willard, C. J., Wauzeka.
 Willard, L. M., Wausau.
 Willett, Thomas, West Allis.
 Williams, H. H., Sparta.
 Williams, Jesse M., Oshkosh.
 Williams, R. L., Milwaukee.
 Williams, R. V., La Crosse.
 Williams, Stephen, Chippewa Falls.
 Williams, W. E., Cambria.
 Williamson, Geo. H., Antigo.
 Williamson, J. L., Milwaukee.
 Willis, B. C., Oshkosh.
 Wilmarth, A. W., Chippewa Falls.
 Wilson, C. J., Marinette.
 Wilson, H. L., Green Bay.
 Wilkrot, I. G., Hudson.
 Windeshelm, G., Kenosha.
 Wing, W. S., Oconomowoc.
 Winneman, F. A., Merrill.
 Winter, A. E., Tomah.
 Winter, E. H., Augusta.
 Wintermute, C. E., Kilbourn.
 Witcpalek, W. W., Collins.
 Witte, W. C. F., Milwaukee.
 Wittman, Adolph, Merrill.
 Woehos, W. M., Kewaunee.
 Wolf, H. E., La Crosse.
 Wolff, Jacob, Milwaukee.
 Wolter, H. A., Green Bay.
 Wood, F. C., Waupaca.
 Woodhead, F. J., Merton.
 Woods, E. F., Janesville.
 Woodworth, D. W., Ellsworth.
 Wright, C. A., Delavan.
 Wright, F. R., West Allis.
 Wright, J. C., Antigo.
 Wright, S. E., Marinette.
 Yanke, A. E., Milwaukee.
 Yates, J. L., Milwaukee.
 Youmans, L. E., Mukwonago.
 Young, A. F., Milwaukee.
 Young, G. H., Elkhorn.
 Ziegler, E. B., Hayward.
 Zierath, W. F., Sheboygan.
 Zilisch, Wm. E., Wausau.
 Zimmerman, A., Kenosha.
 Zimmermann, Chas., Milwaukee.
 Zimmerman, W. C., Iron Ridge.
 Zinns, A. J., Milwaukee.
 Zivuska, J. F., Milwaukee.
 Zwickey, W. H., Superior.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, JANUARY 1913

Number 8

ORIGINAL ARTICLES

THE SIMPLIFICATION OF SOME DIETS.*

BY SOLOMON STROUSE, M. D.,

ASSOCIATE ATTENDING PHYSICIAN, THE MICHAEL REESE HOSPITAL.

CHICAGO.

(From the Department of Clinical Research, the Michael Reese Hospital, Chicago.)

At the present time the field of diets is not only interesting, it is also of the utmost importance in therapeutics; yet it offers a mass of data in an unsatisfactory form, at the least discouraging. Perhaps then I may be pardoned for not bringing anything new to you when I state that I shall attempt to place certain dietetic procedures in a simple light and to show the reason and practicality of some apparently confused conditions. We hear much of protein, fat, carbohydrate values, of caloric needs; we know of Karell, Widal, and Oertel; the divergent views of treatment of typhoid fever, of ulcer of the stomach, and of diabetes make one feel with v. Krehl¹ that "was wir essen ist in der Regel unbekannt."

All forms of diet must be considered merely as forms of therapeutics, and it may serve a useful purpose to make a brief comparison between the development of drug treatment and the present status of food treatment. Ages of empiricism in drug therapy were followed by nihilism, pharmacology and now Ehrlich's conception of chemotherapy. The dicta of the old masters fell in rout before experiments of the pharmacological laboratory, and in the mad rush to be "up to date" the same mistakes were made as are being made now in the study of dietetics. Just as much harm as good resulted from the unjustifiable leap from the physiology of rabbits and guinea pigs to the pathology of man, and it took several swings of the pendulum to reach the point where it was recognized that the final test of any drug must be its

efficiency in relieving the human ill for which it was applied. As an example of the erroneous philosophy often attending medical conclusions reference need be made to only one drug—digitalis. One experimental fact of the pharmacologist that digitalis increases the period of diastole was construed as a contraindication to its use in aortic insufficiency; yet despite this fact it is now well known that the drug is a most potent therapeutic agent in this disease.

In dietetics the same final test of efficiency must be adopted. But the art is still young, and as a distinct entity it is only beginning to show signs of adult life. Based on the science of metabolism the depths of which have only begun to be explored it is hardly to be wondered at that the art of nutrition has no very distinct individuality of its own. It must be recognized in the beginning that metabolism experiments are the fundamentals of any rational dietetic procedure, but what has not been so generally recognized is that the practical application of an established principle need not be any more of a metabolism experiment than the giving of digitalis is a pharmacological experiment. Practical bed-side feeding connotes knowledge of basic principles of action, but the feeding of a typhoid patient can be accomplished successfully without repeating the extensive experiments of Coleman and Schaefer².

Before studying the relations between metabolism and practical feeding in disease we shall consider some normal conditions. While the success of an experiment is measured by an accurate chemical formula, the success of treatment must be measured by efficiency. In dietetics the individuality of the subject has to be reckoned with, and metabolic standards may not fit all persons. Taking up the question of caloric needs it is generally stated in text-books that a normal resting man requires 30 calories per Kilo body weight, and that the food should comprise about 100 grams protein, 80 grams fat, and 300 grams carbohydrate. As fundamental scientific data these figures must be accepted as true, but they make no attempt to consider any other factor than the body as a test

*Read before the Milwaukee Medical Society, Nov. 26, 1912.

tube. While it is true that a man can go along doing the mere work of existing on set standards, it is very doubtful if all men can perform at the highest point of efficiency the various tasks of a changing life on such standards. The persistently thin man with the big appetite and the consistently stout woman with the bite of a bird may and generally will do a good day's work with food values quite at variance with the values given in books. This is cited merely to illustrate a point I wish to emphasize, namely the difference between practical application and blind acceptance of metabolism principles.

That a correct and well-balanced application of metabolism work is necessary can be emphasized by another example. A good physician does not prescribe digitalis without a definite indication for the drug and a knowledge of its potency. Nor would the same physician use for instance the oat cure in diabetes unless he is acquainted with the facts that such a cure will bring results only after a gradual reduction of carbohydrate intake in severe cases. To interpret Von Noorden's results correctly and to use them profitably it is necessary to know that the proper preparation of the patient is probably a more important factor in the result of the treatment than the gruel itself, but with this information as a basis the use of oat gruel is a comparatively simple undertaking.

Rather than continue generalizations it seems wise now to turn to one disease and to apply the principles discussed in such a way that a rational diet must result.

The dietetic treatment of nephritis has been the object of study by Dr. J. C. Friedman and myself, and through his courtesy I am allowed to present some of our work. The most important contributions to the subject have come from Karell³, advocating a milk regime, from Oertel⁴, urging restriction of fluids, and from Widal⁵, who first called attention to the therapeutic value of diminishing the salt intake in cases with edema. Dr. Friedman and I have used these three rather opposed methods as a basis for finding an ideal practical diet which would not be difficult to prepare. Nephritis is a pathological name which includes many clinical pictures, so it was necessary first to determine whether all cases of nephritis could be grouped in one class. The variations so often noted between clinical findings and the pathological picture in kidney disease compared with the findings of the students of the treatment

of the disease would lead one to adopt a rather simple and arbitrary classification. For the purposes of this discussion we shall use the symptomatic terms of wet and dry nephritis, meaning of course nephritis with and without edema.

Dividing food-tuffs into the five primary heads of protein, fat, carbohydrate, salts, and water the first problem confronting the dietitian is the adequacy of the damaged kidney to excrete these substances or their digestion products. Renal insufficiency for fats and carbohydrates may for all practical purposes be disregarded, for, as far as I am aware, no work either clinical or experimental has been done which necessitates attaching importance to these substances in the therapeutics of nephritis. On the other hand it has been shown repeatedly that the damaged kidney has difficulty in properly disposing of the waste products of protein metabolism. In connection with this point which needs no further clinical corroboration than experience it might prove profitable to quote in part the conclusions of Austin and Eisenbrey⁶. These workers showed that in the acute nephritis produced by uranium, cantharidin, or potassium chromate there was impaired power of the kidney to eliminate nitrogen, provided the nitrogen intake was high. Further no definite relation could be demonstrated between disturbances in salt or nitrogen elimination and the anatomical changes. It is hardly wise in the attempt to prepare a practical diet to go further in the disturbances of nitrogen metabolism except possibly to mention that the extractive substances have been shown to be especially harmful. From what has already been said it is logical to draw the conclusion that in all forms of nephritis protein intake should be limited, and foods containing extractives having a direct irritating effect on the kidney should be excluded.

Kidney disease with edema presents an entirely different picture and we are indebted to Widal⁵ and H. Strauss⁷ for the very important observation that in this edema salt retention occurs. In these cases then we have two other elements to consider, water and sodium chloride. It has often been proven that withdrawal of salt from the diet helps wonderfully in removing the edema, and even if the mechanism of the reaction may not be perfectly understood the efficiency of the withdrawal of salt can be easily tested and proved. In passing, attention should be called to the work of Sellards⁸ who has shown that in the uremia accompanying

cholera large doses of sodium carbonate injected intravenously often start diuresis and prevent death, whereas similar injections of physiological salt solution have no influence. The same worker⁹, independently of Fischer¹⁰, has also proved that in some cases of nephritis the organism has a markedly increased tolerance for sodium carbonate, as demonstrated by the large amount necessary to make the urine alkaline.

As for the water intake we are on the horns of a dilemma. Between uremia on the one hand and edema on the other it would seem wise to take the medium course. Strauss especially is of the opinion that it is unwise to adopt too rigid limitation of water, and that it is even dangerous to go much below one and a half liters per day. Our own experience has been that this amount of fluid does not prevent the disappearance of edema and is certainly more likely to prevent the onset of uremia.

In preparing a diet based on the principles outlined it is necessary to note (1) low protein, (2) attention to salt and to water, (3) amount, and (4) preparation. In addition it must be remembered that the amount of food ingested at a certain time will influence the ability of the kidney to functionate, and it stands to reason that small meals given frequently will distribute the burden of elimination. At the outset it is almost needless to say that the other usual therapeutic means, such as rest, purgation, drugs, are no less important when the diet is properly regulated than when there is no correct dietary control. On the other hand the efficiency of each is helped by the administration of the other. Most cases of nephritis with edema can be classified as acute exacerbations of a chronic trouble, and can be treated as acute diseases. Consequently for the first period the question of sufficient food is of much less importance than that of starting the proper function of the kidney. Milk combines all the qualifications needed. One liter of milk divided into one glass every 4 hours during the day with an extra pint of water or weak tea as a diet will furnish, low protein, low salt, controlled fluid intake, a form of food which is least irritating to the kidney and which probably has also a mild diuretic action. The milk is kept up approximately three days as a period of observation. At the beginning the patient is weighed and the daily excretion of urine carefully measured. Frequent weighings of the patient are done whenever possible and are

found to be valuable in interpreting the result of the treatment. A decrease of weight almost always means a disappearance of edema, even when as yet there may be no visible loss of water. In fact we have found in some carefully controlled experiments that the weight curve can be substituted for determinations of sodium chloride excretion, and as the latter is not a clinical procedure we combine the changes in weight and the amount of urine excreted into a clinical index of treatment.

As a rule only a few days of restricted milk diet are necessary before the patient shows signs of improvement, and then we immediately attempt to give him sufficient nourishment. Cream, sugar, butter, bread, cereals, (rice, tapioca, corn starch, oatmeal), mashed potato, cream soups, tea and coffee are allowed. Except for the bread most of these foods are salt-free in their native state, and must be cooked without salt seasoning. The preparation of foods will be discussed in a moment. These foods also contain a negligible amount of protein. At this time the diet for a day would be about as follows:

Breakfast: Cereal, $\frac{3}{4}$ tablespoonful; milk, 1 glass. Cream and sugar with cereal.

10 A. M.: Cup weak tea, 2 slices toast with unsalted butter.

Noon: Creamed soup ($\frac{1}{2}$ pint), mashed potato $\frac{3}{4}$ tablespoonful, one glass milk.

3 P. M.: One cup cocoa, made with milk, 2 pieces toast and butter.

Supper: Cereal, milk, toast and butter.

The portions allowed are calculated from a series of measurements of ordinary eating portions of food. The arrangement can of course be changed to suit the taste of the patient, and if unsalted bread is used the diet consists almost entirely of fats and carbohydrates and is practically salt-free. It can be figured from any tables that this diet contains approximately 2,500 calories, which usually is sufficient to supply all the energy requirements of a person kept absolutely at rest. In figuring the caloric value and chemical nature of foods I wish especially to emphasize the necessity of basing one's calculations on the finished preparation. Some of the German text-books give valuable information on this point, and its importance will be appreciated by a reference to gelatine. Ordinary food tables give the protein content of gelatine as about 90%, which would seem to contra-indicate its use in a diet where low protein was desired; but when it is further known

that only 1.8 grams are used in an ordinary serving the amount of protein diminishes to 1.6 grams in a portion.

After a few days, generally four or five, visible signs of edema disappear, the urine is freely passed, and the weight of the patient continues to decrease. At this time vegetables of the type well-named by Arnold¹¹ the "Fodder vegetables" are added. These include asparagus, spinach, cauliflower, string beans, cabbage, rhubarb, tomatoes. These contain a negligible nutritive value, but they help the spirit of the patient and show him that he is getting well. Salads of chicory, lettuce, celery, and stewed fruits can also be well used at this stage.

With a continuation of improvement of the patient we begin to add protein to the diet. The choice of protein need offer no great difficulties. The tradition that red meats are more harmful than the white flesh of fish or fowl can hardly be substantiated by scientific observations. Huerter¹² is of the opinion that well cooked (broiled or stewed) red meats are no longer harmful as kidney irritants, and Strauss considers that the only advantage in white meat is an easier digestibility. However no salted or preserved meats are allowed and the very gamey wild birds or animals it seems best to avoid. Eggs, red or white meats, *fresh water* fish and the leguminous vegetables are now added slowly, so that in a few days a diet is constructed on which the patient can get along very well without the continued observation of his physician.

This strict limitation of salt intake is not always easy to carry out on account of the lack of taste to the food. It is not needed in all cases, and it has been our practice to aim for a salt-free regime in the beginning, but when clinical signs indicate a rapid betterment, small amounts of salt are added and the effect controlled. When chloride determinations can not be made the tolerance can be well approximated by the amount of urine excreted, the visible changes in the edema, and the weight curve. In some cases as much as 10 grams can be added to the diet without harmful effects, but in others the addition of a very small amount of salt is immediately followed by edema and gain in weight. A few cases seem not benefited by the diminution of salt.

In preparing this diet most of the burden falls on the cook, but since a physician is sometimes compelled to give instructions in the culinary art

it might not be amiss to mention a few of the details. As mentioned above practically all the food-stuffs used are salt-free in their native state, so that the only problem is to serve them with taste and without salt. To that end pimento, celery salt, onion salt and even small amounts of potassium bromide or of sodium carbonate may give some "substance" to the food. In the preparation of salads, olive oil, lemon juice or small amounts of vinegar are used. Salt-free bread is easy enough to make. Miss Graves, the dietitian of the Michael Reese Hospital, to whom I am indebted for these instructions says that the secret of successful making of salt-free bread is to leave out both the salt and the sugar usually used.

The efficacy of this diet could be proved to your satisfaction by numerous case reports. But these are not necessary. Dr. Friedman and I have carried through several cases with metabolism studies on the nitrogen and chloride excretion and intake, and have fully substantiated the work of previous workers. But for practical purposes we do not consider it at all necessary to do more than follow the case clinically, weigh the patient and measure the amount of urine excreted. To our mind the effect of the diet is undoubted: in certain cases we have paid no attention to the salt metabolism and have only employed the usual therapeutic measures and an ordinary soft diet. While gradual improvement may occur the change appearing with the onset of a salt-free regime has been so striking that even the most skeptical must be convinced. One man with a parenchymatous nephritis and edema was being treated by a colleague who was not especially interested in the diet. When a change of service brought the man under my charge and a salt-free regime was started the amount of urine which had never exceeded 500 ccm. per day immediately rose to 1000 ccm., and the edema disappeared. Since there was hydrops of both the pleural and abdominal cavities his symptoms of severe dyspnea also cleared up, and in a short time he was able to walk.

Time does not permit a long discussion of the principles outlined to be applied to other diseases in detail, but I can not refrain from brief mention of diabetes and typhoid fever. If the one cardinal therapeutic aim in diabetes is always borne in mind the details follow naturally. To keep the patient's urine sugar-free for as long a period as possible, without producing the ferric chloride reaction or increasing the ammonia excretion as

measured clinically by the Sorenson method of formal titration, can be easily accomplished in mild cases simply by gradual withdrawal of carbohydrates. In severe cases recourse must be made to the use of a single form of carbohydrate. The oat cure of Von Noorden has given the best results, but it is indicated and successful only when the patient is properly prepared by the gradual withdrawal of carbohydrates as already mentioned. Then a day or two of vegetables, followed by three days of the oat gruel made and carried out exactly as outlined by Von Noorden and followed by two more vegetable days offers a simple and often efficient therapeutic measure¹³. Improper use of the oat gruel can certainly be harmful, as Abt and I¹⁴ have shown in the case of children.

In typhoid fever we have an excellent illustration of the ease and simplicity of practical feeding based on scientific metabolism studies. The classical work of Coleman and Schaffer² on the value of high caloric feeding has been fully substantiated by numerous workers, and only recently Graham and Poulton¹⁵ working in Friedrich Mueller's clinic have again shown that the destruction of body tissue which occurs in fever can be prevented by a diet high in carbohydrate and of sufficient nutritive value. If we add to this the now well-known fact that the incidence of the feared complications of typhoid fever is certainly not increased by high feeding, the convalescence is shortened, and the patient comes out of the disease a much stronger man it follows that a diet something like that given in the second stage of our edema cases is both logical and simple.

In bringing this paper to a close allow me to repeat what was said at the beginning. Diets are merely a form of therapeutics and must be based on the same fundamental knowledge of underlying conditions as is any other form of therapeutics. Based on such scientific knowledge rational dietetics can be and as a matter of fact are just as simple as any other treatment. Perhaps here the personal equation enters more and to quote from v. Renvers¹⁶: "Der Arzt muszt nicht nur wissenschaftliche Kenntnisse besitzen, sondern auch ein Kuenstler in der Behandlung des Menschen sein."

REFERENCES.

1. J. Krehl: *Deutsch. Med. Wehnsch*, 1908, XXXIV, 1990.
2. Schaffer and Coleman: *Arch. Intern. Med.*, 1909, IV, 538.

3. Karell, see Magnus-Levy, *Journ. Amer. Med. Assoc.*, 1910, LV, 2139.
4. Oertel, see Magnus-Levy, *Journ. Amer. Med. Assoc.*, 1910, LV, 2139.
5. Widai: *Bull. et. Mem. de la Soc. Med. des Hopit. de Paris*, June, 1903.
6. Austin and Eisenbrey: *Journ. Exper. Med.*, 1911, XIV, 366.
7. Strauss: *Diätbehandlung Innerer Krankheiten*, 3rd Ed., Berlin, 1912.
8. Sellards: *Phillipine Journ. Science*, 1910, V, Sec. B, 363.
9. *Ibid*: *Bull. Johns Hopkins Hosp.*, 1912, XXI, 289.
10. Fischer: *Nephritis*.
11. Arnold: *Journ. Amer. Med. Assoc.*, 1910, LV, 2193.
12. Hürter: *Beiheft 3 Zur Med. Klinik*, 1911, VI.
13. Strouse: *Interstate Med. Journ*, 1912, XIX, 357.
14. Abt and Strouse: *Amer. Journ. Med. Sciences*, 1911, CXLI, March.
15. Graham and Poulton: *Quart. Journ. Med.*, October, 1912.
16. v. Renvers: *Deutsch. Med. Wehnsch*, 1908, XXXIV, 2083.

PUBLIC HOUSEKEEPING WITH REFERENCE TO SANITATION.*

BY JULIA RIDDLE, M. D.,

OSHKOSH.

In presenting this subject to a scientific body, as this society is, I feel that I am really "carrying coals to New Castle."

This is a subject which I take for granted every physician has given thought to and is fully convinced of the great need of better municipal, state and national housekeeping.

Public housekeeping, like ordinary housekeeping, may be of two qualities—good and bad. Good public housekeeping is the recognition of the relation which the home bears to the city, state, and national government with the proper means of adjusting those relations to the well-being of the masses. It also includes the recognition by the government of the relation it bears to the home and its maternal as well as paternal responsibility. The failure of people in general to recognize these relations causes much, is not the greater per cent. of all our illness, vices and social unrest.

Speaking in a restricted sense, the public home

*Read at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 22, 1912.

is the city, state, and nation, but to the true patriot, the whole world is his home "for none of us liveth to himself and no man dieth to himself." The inhabitants along the Pacific coast find that their own health depends greatly upon the health of their neighbors across the seas as the bubonic and pneumonic plague may be carried to their own very doorway. The Atlantic coast and the northern and southern boundaries must likewise guard their doorways.

But the scope of this paper will only permit me to dwell upon the restricted home—our nation. Our nation is not bounded by seas nor imaginary parallels of latitude, but consists of men and women, and not lands, battleships, nor high-spired buildings.

Louis XIV. of France declared, "I am the State," and just so is this government the men and women whose crown and scepter are their right to the ballot—their right to make the laws which they must obey. The constituency, therefore, of a true democracy are each a sovereign. When we have poor food laws, insanitary conditions, short weights, low wages, high cost of living, evil social environments, who but our sovereigns are to blame? All these things are of importance to the sanitarian and are essential to good public housekeeping. Many of these are of interest to our federal government, but some are local problems. They not only call for a federal department of health, but a local and state department, well equipped and armed with power to enforce the laws along these lines. Perhaps there is not a state in our union which has better laws and laws better enforced than our own state of Wisconsin, but we are far from providing our homes with pure foods, proper sanitation, and clean social conditions.

Public opinion is essential to the enactment or enforcement of any law. Men and women are just beginning to recognize the relation of the four square walled home to the city, state and nation, and to realize that these governments have failed to recognize their duty to the home. This has produced a social unrest with both women and men. This unrest and agitation among women in all Christian and semi-Christian lands can best be expressed by the Irishman's toast—"Liberty all over the world and everywhere else." The social unrest among men consists principally of disagreement and grievance between capital

and labor. The whole trouble arises from the non-recognition of the home, the unit of society, and the child as the greatest asset of our nation. The storm and stress of this industrial and money age have caused man to think in terms of dollars and cents. Man's view has always been from the standpoint of business, party, and policy.

This state of affairs brings about the industrial unrest. It has made too great the gap between the prices of the wage and the cost of living. The problem that confronts us today is as much how we are going to get sufficient food as how to obtain pure food.

In the cities of Wisconsin the average wage paid to unskilled labor varies between \$30 and \$45 per month. The skilled laborers will not average more than \$65 per month. With a family of five children this would allow less than 20 cents a day for each child to the former and 40 cents to the latter. With eggs at 25 to 35 cents per doz., butter 30 to 45 cents, meat 15 to 30 cents per pound, and all other foods in proportion, what luxury can the man of skill hope to afford and what necessity can the unskilled afford? I started out with only the sanitary point of view, but there are so many things that bear directly on this that they too must be taken into account if we wish to understand the nature of public housekeeping. The man of these limited means must of necessity look for the cheaper foods, and when he gets these he will find that in order to be cheap they must be handled with as little care as possible and by as few hands as possible. The rule follows here, as it does in other lines of necessities, that is, the best is always the cheapest in the long run. This careless way of handling food stuffs in order to make the price less is an incentive to unscrupulous men to not only sell this kind of food (which must of a necessity be insanitary), but food that is actually contaminated by disease.

To be sure, food is something like an open wound or a case of obstetrics, the less handled the better, and the less danger of contamination. But food should pass through enough hands to insure its purity and freedom from disease. To illustrate—there should be an inspector of the foods before they are placed upon the market and one to inspect them while being kept on the market. The business of these two inspectors is first to see that the foodstuffs are obtained from a pure source, that they are handled in a sanitary manner

and not left to be exposed to sources of contamination as flies, dogs, dust and poorly ventilated rooms.

For instance, if the food to be inspected is milk or some of its products, the first requisite should be a healthy cow which should be examined at least semi-annually, and every three months would be better, as tuberculosis can develop quite as rapidly and as insidiously here as in the human host. The barns should be kept sanitary and this means at least ordinary cleanliness. Few barns which we inspect, unless they are owned and operated by persons who have made a study of real sanitation, will measure up to the proper standard. The cow should be washed every day and the udder before each time of milking. The milk should be quickly cooled and not allowed to stand in the barns and should be brought to the consumer with the greatest possible speed. It is claimed that in all large cities the milk travels on an average of sixty miles before it reaches the consumer. The breadstuffs, the groceries, and especially the meats, should be as carefully inspected as milk and its products. The lack of proper inspection of meats is manifest in this state, and all others, as is being brought out by the investigating committee in the Agricultural Department at Washington. The testimony given by J. W. Burroughs, an ex-inspector, is quite sufficient to make us all vegetarians. He testifies before the House Committee that "meat was passed as suitable food as long as it would hang on a hook." He also asserts that the standard of meat inspection has become lower by progressive steps each year since the present law went into effect, six years ago. "Conscientious inspectors regard their presence in packing houses as something merely perfunctory. When they make an objection, they know it will always be overruled by their superiors," also testifies this same ex-inspector.

Our state law permits the sale of tubercular meats, provided the animal shows but one infected organ or gland, as I am informed on good authority. We all know from personal experience that *it* is sold, and that every day. Many cases have been reported of animals diseased in various ways being sold upon our local markets. In one instance, a cow which had a large abscess on the jaw was sold direct to the local butcher. The

symptoms were that of "lumpy jaw," but the correct diagnosis can only be conjectured.

The law requiring the testing of animals for meat and dairy purposes in this state has been repealed and there is nothing to compel the farmer today to have his herd of cows examined, except as he (the farmer) does it of his own accord. As already referred to, the law permitting the sale of tubercular animals showing only one diseased spot or organ to the meat dealers for public consumption, has fulfilled its mission, i. e., "for public consumption"—for this then must account for much of this disease—consumption.

Hogs and poultry are not required by law to be examined under any circumstances, not even when shipped from the state or into it. While as to cattle there is a national law requiring this precaution in all interstate shipments. It is a common thing to find tumors in fowls. Seldom is the liver of any fowl found to be in a perfectly healthy state. This is true of livers in all animals sold for meats. Turkeys are often sold diseased by what is known as "black head." The diagnostic point is the liver, for the butcher is wise enough to cut off the head so this sign will be wanting. The liver in this disease is several times the normal in size and when an incision is made, spots, like fatty degeneration, are found all through it.

Fish in our local streams and lakes are often found in an unhealthy state, because of being contaminated by sewage which is emptied into these streams. Fish, like fowls, often feed upon the sewage and offal emptied here. One writer offers the theory that possibly this is one source of many of our cancers. He draws his conclusion from the fact that trees growing in low lands where sewage is emptied, soon develop a growth resembling cancer.

The contamination of interstate streams calls for a power higher up than the state to regulate. A department of health in the federal government would find this one of their functions to perform. The water supply, sewage and garbage disposal are three other important features in municipal and state housekeeping.

It appears to me that our pure food laws are practically a farce, for the law seems to provide more for the prosecution of the frauds than of the impurities. It seems to be more of a crime to sell "Corn Syrup", when not labeled glucose,

than it is to sell diseased or insanitary foods. How are people to know their duty in these matters unless they are taught? And who is to teach them except the physician? It is in the failure of the vast majority of people to see this relation of the home to our state and national government that causes them to not ask our government for greater home protection.

Today the mothers of our land are beginning to see that their duty lies outside the four square-walled home equally as much as within that home.

The wise mother has learned that the city streets are only hallways to this newer home where the child learns its most valuable lessons. The streets are either halls of vice or virtue, crime or morals, disease or health, and idleness or industry. The butcher shop, the grocery and the bakery are only a part of her kitchen and pantry. As the foundation of knowledge is laid in the home and the home is the unit of society, so it is also the beginning or fountainhead from which springs the great avenues of life. The mothers should, therefore, be the teachers, head nurses, matrons and housekeepers in this broader home—the city, state, and nation.

Woman's view-point will always be from the standpoint of the home, heart and child-welfare, and she will prove herself the greatest and best housekeeper in this home of the twentieth century.

Physicians, and especially the American Medical Association, working in harmony with the Committee of One Hundred have been pleading for and demanding a Department of Health to be established by our federal government at Washington to have supervision over just this kind of housekeeping and what have been the results? We seem to be almost as far from it as ever, and especially since Dr. Wiley has resigned his important position. The bill now pending in congress providing for a bureau of health seems to be meeting with greater favor than any such bills have ever met with before, but why it is not dignified with the name of "department," I am not fully informed.

There are many reasons why we should have a Department of Health with a secretary at the head, a member of the president's cabinet and having full power, with only the official head of the nation over him. Until we have obtained this, we cannot hope to keep our great home—the city, state, and nation in a sanitary condition.

The following are sixteen reasons for a national department of health given by the Committee of One Hundred:

1. To stop the spread of typhoid fever through drinking sewage-polluted water of interstate streams.

2. To enforce adequate quarantine regulations so as to keep out of the country plague and other similar pestilence.

3. To supervise interstate common carriers in so far as without such supervision they prove a menace to the health of the traveling public.

4. To have a central organization of such dignity and importance that departments of health of states and cities will seek its co-operation and will pay heed to its advice.

5. To influence health authorities, state and municipal, to enact reform legislation in relation to health matters.

6. To act as a clearing house of state and local health regulations and to codify such regulations.

7. To draw up a model scheme of sanitary legislation for the assistance of state and municipal health officers.

8. To gather accurate data on all questions of sanitation throughout the United States.

9. To establish the chief causes of preventable disease and unnecessary ill health.

10. To study conditions and causes of disease recurring in different parts of the United States.

11. To correlate and assist investigations carried on in many separate and unrelated biologic and pathologic federal, state and private laboratories.

12. To consolidate and co-ordinate the many separate government bureaus now engaged in independent health work.

13. To effect economies in the administration of these bureaus.

14. To publish and distribute throughout the country bulletins in relation to human health.

15. To apply our existing knowledge to our living conditions.

16. To reduce the death rate.

These are some of the reasons, but the exposure of the meat inspection and the experience of Dr. Wiley with the Agricultural Department is quite enough evidence to the unbiased mind that

a separate department is needed and a department headed by a scientific individual who considers life more valuable than live stock or Florida Everglades.

The great reason we have not yet obtained this federal department is because our nation has not recognized its duty to the home, and on the other hand, people in general have not recognized the relation the home bears to the city, state and nation. Many people are quite as ignorant as was the old German, who was having great sport at the expense of a lecturer on Woman Suffrage. He said this particular lecturer had made the silliest kind of a remark when she said that everything in the home—the milk, food, electricity and gas, our clothing and even the environments of the child were all under the control of politics. He added that these are under the control of a company of men, and not politics. This is about the position most persons take—that these essentials of life are absolutely outside their own control or the control of the law.

The solution to the problem seems to sum itself up in about the following manner: Every citizen should have the right to the ballot because the ballot is in itself a power, an education, a tool to work with, an instrument of protection, not only a protection from insanitary things, but against the high cost of living and the evil environments of child-life, and they should use it.

Politics is the greatest material power on earth. It can be used for good or evil; for the upbuilding of society or the destruction of the unit of society—the home; for the conservation of human life and the preservation of health or their dissipation, and the growth of a nation or its decay.

The whole world was shocked and grieved at the loss of life that the great Titanic wreck produced, but every day of the year in this country that death toll is exacted, and little is thought of it by the general public. This, too, is from preventable causes. During this same time, 1,000,000 people are sick who should be well; preventable sickness costs our government \$1,500,000,000 every year. Half the sickness in the world is unnecessary. In our state 2,500 persons die annually from tuberculosis alone, which is universally known to be a preventable disease.

The poet says, "It is not all of life to live, nor all of death to die." This is truly so in lingering diseases, where the sufferer is in constant invalid-

ism, and often suffers innocently because of the misdeeds of others. When we count the deaths we are not counting all the suffering and misery that arise from preventable diseases. There are some things in this life worse than death. While I will not take the time to mention the cost to the individual in dollars and cents, I will enumerate some of the physical, moral and mental suffering.

We stand in awe at the thought of 2,500 dying annually from tuberculosis in one state, but not many stop to think that in one city—Chicago—nearly that number (2,000) of innocent girls are stolen from pure, clean, sanitary homes and sold into a living death annually—(white slavery)—on an average of six such deaths occur daily. Think of what all this means in mental, physical and moral suffering, not only to the poor creatures themselves, but to the innocent women and children in the supposedly sanitary homes of the land. The average tenure of life for these unfortunate creatures is only about five years. It would be well were it less. It is also estimated that there are about five men slaves for every female slave. By a conservative estimate this would mean about 10,000 men frequenting these centers of vice and disease in this one city. This is indeed a conservative estimate, for those who have engaged in reform work will readily estimate a greater number. These men prostitutes come from homes of refinement, education, wealth, luxury, and even the homes of the laborer furnish their quota.

Out of these loathsome centers of disease comes the invalidism of the home, whose protectorate has sworn to love, guard and protect. Innocent wives and little children suffer more than the pangs of death, because of such cesspools of disease. More than half of all chronic illness, ninety per cent. of all deformity, sixty to seventy-five per cent. of all laparotomies, ninety per cent. of locomotor ataxia, sixty per cent. of Bright's disease, the same per cent. of all blindness, a large per cent. of insanity, imbecility, idiocy, and criminality can all be traced to this source of infection. What are we going to do about it? Who is to blame? Who permits this, the greatest scourge of our land? Is it not the sovereigns of our country?—the man who by his ballot retains the "man higher up," who takes graft, and more graft, and allows these malignant neoplastic growths to eat out the very vitals of decent society and pure womanhood—these as well as the unprin-

cipld physician, who certifies to the health of these places?

This problem must be met and solved as well as others of an unhygienic and insanitary nature before we can hope for a great decrease in death rate and less physical suffering. The laboring man must have the "square deal," as also the capitalist. We are in the midst of a civil strife between these two elements. The age of serfdom is past. We cannot hope to have sanitary homes without the laborer in the most humble home having a living wage. This means wholesome food, necessary clothing, running water, hot and cold, with proper sewage and garbage disposal in each household. The people must learn that like a chain which is no stronger than its weakest link, so neither is the health of the community any better than the poorest home makes possible.

The solution of these problems resolves itself into a wider knowledge of public affairs, stimulation of public opinion, the better use of our civic duties and the extension of the ballot to woman. Dr. Wiley, with his vast store of knowledge and experience says, that his solution of the problem is the extension of the ballot to women. His exact words are these: "It will not only be possible to secure better pure food laws, but to enforce those we already have on our statute books if woman had the ballot."

It is simple enough to see that politics is on a one-sided basis, and we cannot hope to build an enduring structure on such a foundation. We are building for future generations more than the present.

We do not claim that woman is better than man, but we do claim that her point of view is different from man's. The feminine principle is as essential in governmental affairs as is the masculine. In making of our laws we need the point of view of both. As this body has two eyes with which to see, so also ought this body politic to have two eyes, the feminine as well as the masculine. Man sees from the point of view of business, party and policy, while woman sees from the view point of home, heart and child-welfare. No wonder this old ship of state is drifting, reeling and tossing on a sea of greed, graft, gain and vice. It is not well ballasted. It is weighed down on the one side by the freight of masculinity, while on the other—the side of woman, home, heart and

child-welfare—there is no weight because they are "*non compos mentis*" in the political world.

To prove this, all we have to do is to look at our departments of state. There are the departments of state, interior, commerce and labor, agriculture, justice, post-office, war and navy. What are they engaged in? Simply business, business and fighting and fighting. I fear this is all our government has ever been interested in. It is quite natural that it should continue so until the feminine point of view is recognized.

In our federal government, our pig, sheep and calf are represented, as also our barnyard, but the child and the home are not. If our sheep, cattle and hogs become diseased, the agricultural department would become interested at once, but what of the child? There is no provision made for federal help along this line. It is worthy of notice that a bill has been passed in our last congress authorizing the establishment of a bureau of child welfare and that this bill was introduced by a senator among whose constituency are women—Senator Borah of Idaho. But congress, whose constituency are men, save in six of our states, gave the generous sum of \$30,000 for the millions and millions of children in the United States. Our government has practically put the pig into clover, but the child into the sweatshops, and frequently into the sweatbox.

It has always been man's business to provide for and to protect the home. Equally so has it been woman's work to prepare the food and keep the house clean. And now in this greater home let the man continue to provide and protect, while woman continues to prepare the food by seeing that it is handled in a sanitary manner and brought to her children and household in the same manner while she also keeps this greater home clean, pure, and sanitary for the moral and educational environments of the child in her own four square-walled home as well as that of her neighbor's. Therefore, woman's place is in the home—in the great public home—the city, state, and nation.

What we need is not less business, but more home, heart and child-welfare. Not more fightings and warrings, but more peace and harmony. Not more Dreadnoughts, but let us dread not the results when woman gets the ballot, for the child will then come into its own and will be valued above the pig, calf, and sheep. It will also be

freed from the snare of the white slave vender and be taken from the factories and be allowed to again breathe the fresh air of childhood.

Woman is coming into her own, why not welcome her? This onward sweep of human progress cannot be stopped any more than the earth in its revolutions or the sun in its course. If man tries to side-step this issue, he will only be relegating himself to a position more benighted than that of the heathen, for even the heathen today has extended the ballot to their women in China.

I can scarcely believe that there can be a man in our state who is not as progressive as China. If so, don't let him call himself progressive. If the physician today really wishes a department of health and the laws of sanitation enforced, let him look to the real home-maker—woman, and provide her with the proper power—the ballot. Emerson says, "It is very cheap wit that finds it so droll that women should vote. If she wants, the passions, the vices are allowed a full vote through the hands of a half brutal, intemperate population, I think it but fair that the virtues, the aspirations should be allowed a full voice as an offset, through the purest of people.

DISCUSSION.

DR. B. C. GUDDEN, Oshkosh: Gentlemen: Considering this subject in a general way, it comes to my mind that it brings about a very complicated state of affairs at the present time.

I remember when Louis Pasteur commenced to study the value of microbes his friends and colleagues wondered why he was studying microbes. He kept on working. They told him it was foolishness. He finally proved their importance. Then Joseph Lister came along. As Pasteur did, so he found that microbes were the cause of the destruction or souring of wine, milk and other products that were inclined to ferment. Joseph Lister took up that question and soon found that an open wound was subject to the same effects as the products that Louis Pasteur was proving. For you all know that a wound intact or an injury without a destruction of the skin, always heals readily under the laws of nature. As soon as that skin is opened your microbes have a chance to get in, and there is where the danger is especially recognized by all surgeons today.

Now, to carry out all these different preventive measures that the doctor has tried to impress on you, is a simple thing. When one of you doctors sends a specimen of water down to Madison to be examined, and you find coli bacilli you send back the order to boil it. Why not instruct the people to boil everything they eat, whether exposed to the air or any other defect?

DR. H. M. BROWN, Milwaukee: Am I to understand that Dr. Gudden proposes that the women be boiled? I do not quite see the application of his remarks. It is

true as far as the literature of medicine goes back (and it goes to the time that the memory of man runneth not to the contrary) women have kept us in hot water all the time. If I may be allowed to take Dr. Gudden's remarks as a text and as most preachers do, vary a good deal from the text, I would wish to speak rather in accord with Dr. Riddle, of Oshkosh, than otherwise.

It seems to me that it is very true that if advancement along the lines that Dr. Riddle has spoken of is to be made, we have proved in our experience in this country and the experience of all other republics has proved, that we will not find in the nature of man that same enthusiasm for a high standard of virtue that at least momentarily from time to time is the standard that women take. I say "momentarily and from time to time," for we all of us know that *varium et mutabile semper femina*, is a true remark, and you can never tell where she is going to strike next, where her variability or mutability is going to show itself on the next occasion. At present we have to commend her inasmuch as her mutability and variability takes the direction of a higher standard in life; and if this higher standard is also to regulate not only the home housekeeping, but the housekeeping of the nation, we must all of us in our humble manculine way admit that she is showing us the proper thing to do; and we must go out and agitate the Polack, Roumanian, Dalmatian, Croatian and the various mixed tribes of people that go to make up our voting mass, that they may follow carefully in the footsteps of the variable and mutable creature woman, in order, at least for a time, to get better housekeeping, more or less improved social conditions, and at last attain that perfect Utopia which apparently Dr. Riddle hopes to achieve for all mankind through her intervention with the suffrage for woman.

DR. CHARLES GORST, Mendota: The speaker has presented to us a very excellent paper, and I am glad that such a subject has been brought before this session of the State Medical Society; it is along the line of preventive medicine. If any good things have come to humanity through the medical profession, they have come more in the line of prevention than anything else.

When Jenner observed that the milk maid did not have smallpox because she had been inoculated from the cow, it was in a way a small observation but it meant that before that time 50 per cent. of all adults had pitted faces, 20 per cent. of all people who had smallpox died; so that 10 per cent. of all people born died of smallpox. We are grateful that Jenner made the observation; we are grateful for preventive medicine in every way; we are exceedingly grateful that within the last few years we have had a Lister, a Koch and a Pasteur.

Surgery has been made anew; obstetrics have been changed; the mother does not die today from "catching cold" as she did before, or as it was so said. The mother does not die today from unclean fingers and unclean instruments because the physician and his instruments are sterilized. This change is in the line of preventive medicine. It is in the same line as the Board of Health protection against tuberculosis, and of everything to protect the home, the child and those for whom we are

responsible. No order of men can do better, or so much in standing back of the suggestions which have been made by the last speaker, as the Medical Societies not only of Wisconsin, but of the Nation.

So far as the suffrage part is concerned I do not wish to speak at length about that, however, I think that no one has more right to regulate the environment of home than the woman who conceives, bears, nourishes, rears the children and educates them, and does everything that there is to be done to make them good citizens.

DR. JULIA RIDDLE: (Closing.) I will pardon Dr. Gudden for his insinuation, because Mrs. B. C. Gudden, of Oshkosh, is one of the leading suffragists of the state, and we know why he is now in hot water.

I am delighted to think there has not been a dissenting voice, and there is just one thought I want to bring to you, and that is my strongest point in favor of woman suffrage. It is this: As this body has two eyes, so this body politic needs two eyes, the feminine as well as the masculine. Our old ship of state is tossing and drifting on a sea of graft, greed and gain. It is weighed down on one side by the burden of masculinity, while on the other, the side of the woman, the child and health, there is no weight; they are non compos mentis in the political world.

A PLAN FOR THE MEDICAL INSPECTION OF COUNTRY SCHOOLS.*

BY R. H. KINNEY, M. D.,
LANCASTER, WIS.

The subject of this paper needs no introduction to the medical man nor need there be any excuse made for writing on a subject, the practice of which has shown such good results in most of our large cities. As a result of the success attained by medical inspection, most of our large cities or cities of 20,000 or more inhabitants are pretty well educated to the idea and the benefits to be derived from medical inspection.

The greater portion of the student body, however, do not as yet come under the inspection. I refer to the schools in our smaller cities, towns and in the country. These children need the inspection and are as much entitled to it as their city cousins, in fact I am not sure they do not need it more, for the reason that in the country districts the parents are slower as a rule, in consulting the physician for what they term "minor ailments" in their children.

These children suffer from refractive errors, adenoids, enlarged tonsils and glands, chest

troubles, and pediculosis the same as city children and need inspection as much.

How can this be obtained in country districts with the schools scattered over large territories and the medical men regarding each other with the jealousy that seems to be natural to these places?

In reading an article by J. W. Robertson, in the Minnesota State Medical Journal my attention was directed to a plan which seems most likely to meet with success in the communities under discussion.

He suggests that a well qualified physician be appointed by the State Board of Health for each county or, for each 25,000 of population; give him a salary of \$3,500 and require him to devote himself entirely to this work, or possibly, when the inspection work was not taking all his time, to other public health work.

This, it seems to me, would eliminate the opposition of the medical profession and would remove the office as far from politics as it is possible.

Under this plan it would cost about thirty cents a child for medical inspection. The cost is small in proportion to the benefit to be derived, but at that it would take a lot of hard work to convince these people that it would pay, even though they are paying that much or more to protect their live stock.

This medical inspection should include not only the eyes, nose, teeth, tonsils, adenoids and chest, but the limbs and spine as well. I consider a good inspection of the spine just as important as the eyes or throat, because many spinal curves can be warded off and cured if taken in time.

This County Medical Inspector might do a large amount of good by lectures or informal talks on hygiene before the scholars, by talks before teachers institutes, county school board meetings, and other teachers meetings, on such subjects as hygiene, tobacco, liquor, eye troubles, points in physiology, proper and improper eating, the relation of posture to spinal curvature, or exercise in its relation to the school life.

The benefits to the county would be hard to estimate but there can be no doubt but that it would be far in excess of the expenditures.

It would, as I have said, be hard to get this thing started even in a county as rich as Grant, but I do not for a minute doubt that it could be accomplished by a well planned and carried out campaign if the County Medical Society would take it up in earnest.

*Read before the Grant County Medical Society, Dec. 12, 1912.

Until such time, and I think it is bound to come, I would like to see this Society start a campaign of education in conjunction with our schools by having certain members prepare papers on appropriate subjects and present them before teachers meetings, county conventions or scholars. Of course these papers should be simple and easily understood by the laity.

There is a field here for much good to be done with a small amount of labor for each.

A special committee might have control of and direct the members, selecting the speakers, arranging the meetings, etc.

There are many counties working along similar lines and it is up to this Society to give Grant County a shove in the right direction.

TREATMENT OF FRACTURES.*

BY VICTOR F. MARSHALL, B. S., M. D.,
SURGEON ST. ELIZABETH'S HOSPITAL.
APPLETON, WIS.

The subject which I present for your consideration today is both an interesting and important one. Important because there is no class of cases in the management of which the physician has more at stake both as to his reputation and pecuniary affairs than in that of fractures. This condition has been largely brought about by the laity's knowledge of X-ray and skiagraphy and their demand for more perfect anatomic results. This is also evidenced by the fact that fractures have occupied a prominent position the present year upon the program of several societies of national fame. The contributions to the literature on this subject have been voluminous, however, nearly all writers are now agreed upon certain definite indications which heretofore were unsettled and which caused much discussion. My experience in this field of surgery is limited to 12 cases. A number of the patients are with us and these I have the pleasure to present for your inspection.

Fractures are, as you know, of two kinds—simple and compound. We will consider the simple first and speak of the compound later. The essential point in the treatment of a fracture is the restoration of function and the first step in accomplishing this objective is the complete reduction and retention of fragments—it would follow then that in shaft fractures fixation is a factor of first

importance. Satisfactory reduction does not mean a perfect anatomic alignment. It is almost impossible to obtain accurate approximation in oblique fractures of both bones of the leg or forearm, patella and olecranon. Excellent functional results may be obtained without an anatomically perfect alignment of bony structures. The lack of good crepitus always suggests the interposition of soft parts and bids us investigate. The keynote to intracapsular fracture is to get contact, for the synovial fluid retards or prevents union. It has also been demonstrated that no exuberant callus forms in a joint. A very common cause of lost motion in joint fractures is the failure to mobilize early to avoid stiffening of the non-bony parts. A very great advance in the treatment of fractures of the neck of femur is the two way pull of Maxwell, a weight of 12 to 15 lbs. upward and outward is necessary in its application.

To reduce satisfactorily deep anesthesia is necessary. With anesthesia spasms of the muscles is overcome. Unlocking the fragment by leverage or gravity is accomplished. The disengagements of the ends of the fragments from the tissues, viz., fascia, muscles, tendons, blood vessels or nerves, is produced. Finally, maintain the reposition of the fragments until a fixed, supporting dressing of some kind can be applied.

It is conceded and advocated by nearly all surgeons that most fractures are best treated by the closed method but where the best efforts of conservative treatment have failed, then the fracture should be treated by the open method, there being no other contraindications. In other words, no fracture should be compounded if it can be properly reduced and kept in reduction.

An open reduction is a serious operation and should only be undertaken with clear indications and with the most favorable facilities and surroundings. It is therefore necessary to have an extreme and exaggerated technique. This is more necessary in the field of bone surgery than in any other field. If then we do an open operation, as simple and as little foreign material as possible should be left in. It matters little whether a catgut suture, staple, nails, wire, plate or autogenous transplantation of bone are used so long as the approximation of fragments is accomplished. Reliance, therefore, can only be placed upon the solid external plaster case accurately and carefully applied to ensure approximation of fragments the necessary length of time for union to

*Read before the Outagamie County Medical Society, Nov. 7th, 1912.

occur. The best time to operate is from the 7th to 10th day, at least before the 15th day. During and after this period hemorrhage has stopped, the lymphatics show a cofferdamming, the chance for sepsis being less as the local resistance and local leucocytosis are greater. A naturally greater reparative reaction has begun. The muscles have not yet become set. The fractured parts are more readily reduced and drilled, making approximation more accurate. The necessity for drainage is almost remote.

Open reduction of fracture would be indicated in those cases of fracture which cannot be satisfactorily treated by means of splints, extension, posture, etc., in oblique fractures of the leg or forearm in which both bones are fractured, fractures which cannot be reduced, comminuted fractures where muscles and tendons are interposed or where a nerve trunk is caught under one fragment, fractures which cannot be reduced on account of abnormal position, fractures in close proximity to joints, an epiphyseal separation which cannot be reduced, in fibrous, delayed or faulty bony union, and in compound fractures. To be more specific open operation should be done in certain cases of fracture of the clavicle, in avulsion of the tuberosities of the humerus, fractures of the surgical neck of the humerus with or without dislocation of the head or with rotation of the upper fragment of that bone where the older methods were not altogether satisfactory. In some of these cases simple abduction of the arm with moderate traction and the extremity then dressed in abduction upon a triangular splint is all that is necessary. Buck's extension to arm from 7 to 10 days with the patient in bed during that period may also obviate the necessity of operation, after which dress up on a triangular splint. Certain spiral fractures of the humerus, fractures of the humerus just above the elbow joint where satisfactory replacement of fragments is impossible as shown by the X-ray, fracture of the olecranon with separation of fragments and laceration of ligaments require the open method. In fractures of both bones of the forearm, and in fractures of the femur, of the upper and lower thirds especially, where reduction by extension has failed after a period of 7 days, then it is needless to continue. It is difficult to control the upper fragment. The open method is also indicated in fractures of the patella and fractures of the tibia, especially the oblique and spiral types, also in cases of non-union where the position is

bad, and in old neglected cases of Pott's fractures. Here too it is especially important when the patient resumes walking to raise the inner portion of the heel and sole of the shoe—this gives the ankle an outward turn and prevents stretching of the recently healed ligaments. It is necessary to continue its use for at least six months. This was first suggested by Mr. Jones of Liverpool.

COMPOUND FRACTURES: Every compound fracture must be converted as nearly as possible into practically a simple one regardless of the deformity. The apposition obtained must be the best possible without interfering with the union of the soft parts. The first step then would be to pick out any dirt—do not wash, scrub or handle the parts—use instruments when necessary to accomplish this. Use iodine freely as a disinfectant and germicide. If there is any grease or oil about the field wash it off with benzine without letting it get into the wound. If the ends of bone are exposed wipe off and paint them with tincture of iodine—permit to dry and return. The edges of the wound are to be freshened to hasten primary union. If there is no infection, then after several days a plate may be applied if necessary through the compound opening when primary healing will occur in all probability. Apply large copious dressing of 5% carbolic gauze. The carbolic gauze prevents decomposition. Immobilize the limb and keep in elevated posture 10 to 20 days.

A few words regarding the temperature following the open reduction of fractures or the treatment of compound fractures—there are two kinds of temperature, one is primary and due to the absorption of fibrin which lasts for a few early days—ranges from 100° to 101° or thereabouts, then it subsides; however, if the temperature continues the 3rd or 4th day from 100° to 103° F., then the wound is to be inspected; the condition may be due to wound secretion with failure to escape or sepsis itself.

To summarize—1. Knowledge of X-ray and skiagraphy demands more perfect anatomical results. 2. Essential point in treatment of fractures is restoration of function. 3. Perfect anatomic alignment is not always the end result of a satisfactory reduction. 4. Lack of good crepitus is always suggestive of interposition of soft parts. 5. The more perfect the approximation of fragments, the more perfect the union. 6. Anesthesia is almost always necessary for satisfactory reduction. 7. Fractures are best treated by the

closed method. 8. Where best efforts of conservative treatment have failed, then the fracture should be treated by open method. 9. Open operation should only be undertaken by one competent and with clear indications. 10. The technique cannot be too exaggerated. 11. In open operation the essential point is the perfect approximation and retention of fragments. 12. The perfect adjustment of the external support is essential for union of the fragments. 13. Best time to operate is from 7th to 10th day. 14. Tissues at this period less subject to infection and have greater reparative action. 15. Compound fractures should be converted into simple fractures as nearly as possible. 16. Pick out dirt and foreign substances but do not wash, scrub or handle the parts. 17. Use tincture of iodine freely and let the parts dry before returning to normal position. 18. Plating may be done several days later with reasonable safety when necessary. 19. Apply large copious dressings of 5% carbolic gauze. 20. Apply external supports to limb in an elevated position.

A CASE OF EPITHELIOMA OF LIP COMPLICATED BY XANTHOMA TUBEROSUM MULTIPLEX.

BY ARNOLD DREXEL, M. D.,

PROFESSOR OF SKIN DISEASES, WISCONSIN COLLEGE OF PHYSICIANS AND SURGEONS.

MILWAUKEE.

Mrs. B., age 53, weight about 165, married and apparently healthy, was referred to me in May, 1911, for an affection of the lower lip, to which I will refer later. Incidentally I noticed a yellowness of her hands, and on questioning her, got the following history: had typhoid when 15 years of age and erysipelas of face and scalp at the age of 30; had a scarlatiniform rash over her body soon after erysipelas had subsided. Never had jaundice, and had change of life at 40. Father died from consumption at the age of 60, mother died from pleuro-pneumonia at 81, brother died from spinal meningitis. One sister is living and is healthy. No other relatives had trouble of this kind. Patient never had children.

Patient stated that about 15 years ago while in swimming, she noticed a yellowness over the knuckles of her hands. This alarmed her very much and she immediately consulted a physician who prescribed for her, but nevertheless the yellowness gradually increased over larger areas. She also noticed that at the time of change of life, the

disease spread more rapidly. Patient was under the impression that the disease was caused by the internal use of sulphur of which she had partaken very frequently while young, and the yellow deposit-like appearing spots in the skin were due to its use.

The examination of the patient revealed the following: large irregularly-outlined patches on both hands, of a pale yellow color and level with the skin, also some of smaller size, but of the same yellow color. Over the knuckles of both hands were several yellow pea-sized nodular elevations. In the palms, the only parts affected were the furrows which were of an orange color. On the toes were similar lesions to those over the knuckles of hands. One patch the size of a quarter was located over the olecranon of one arm, yellow in color and raised about 3/16 of an inch above the normal skin and somewhat hard to the touch, but in appearance not of the characteristic construction spoken of by writers on Xanthoma. On the hips and knees were similar lesions to the one mentioned on elbow, only smaller. The face showed only one small non-elevated spot. No lesions on eyelids or their immediate surroundings. None of the patches were surrounded by a reddish areola. The urine contained no sugar and was otherwise negative.

Patient stated that in 1908 and immediately after a prolonged exposure to sun rays did she notice large blisters arising on her lower lip and after their removal, a raw, oozing surface was left behind. From time to time new blisters would form at various places on the lip, and the lip was never well since the beginning of the trouble, patient complained of a burning pain in the affected lip, which she said had been almost constant, and at times had been so severe that it kept her awake at night. She also complained of an occasional swelling of one side of face or the other. Various treatments including X-ray had been employed.

The following was observed: A crusting over the greater part of the vermilion portion of the lower lip. The crusts were thicker in some places than in others, and in general were not unlike those of seborrhoea in appearance. The lip was very much swollen and inflamed, also a swelling on one side of face was noticeable, which seemed to have its original starting point in the affected lip. When placing the lip on the stretch at places not covered by crusts, small yellowish-gray spots could be seen. After removing the crusts bleeding

would follow. In several places, and especially where crusts were thickest, ulcers were found beneath them. Pus was not perceptible. The borders of two of the ulcers showed induration, but not to any marked degree, and were smooth and slightly elevated. The ulcers were not deep seated. No glandular enlargement could be detected in the neighborhood. The diagnosis of epithelioma made by Dr. Weideman was confirmed, although no microscopic examination was made, as no section could be obtained, which is to be regretted.

On account of the conditions that presented themselves, the lip was considered inoperable and therefore other methods of treatment had to be resorted to. In order not to produce too much discomfort to the patient, and also to be able to watch more closely the result of the treatment, the lip was treated in sections.

After the crust had been removed from the part to be treated, a piece of muslin cut to fit the part and on which arsenic paste had been spread was then applied, and leaving about $\frac{1}{8}$ inch of this muslin free at the margin. After the plaster had dried, flexible collodion was painted over that half, which was nearest to the mouth, and also over the margin left free from paste. The covered half prevented the tongue and saliva from coming in contact with the arsenic, and the uncovered half allowed frequent moistening, thereby obtaining renewal of action of the arsenic. The collodion over the margin not only kept the plaster more secure, but also prevented the frequently moistened paste from running on to healthy skin. After sufficient action of the arsenic had been obtained, other parts were treated similarly. Only once, and that towards the end of treatment, did I notice a swelling on one side of face, which I could attribute to the arsenic. Later the whole lip was treated by a slightly astringent, soothing lotion. The lip healed nicely, but occasionally little moist spots would occur, which were touched up lightly with nitric acid.

It must be mentioned that the patient, although steadily improving, was never entirely free from the burning pain, until most of the vermilion portion of the lip had been destroyed. At present the lip presents a whitish appearance due to scarring, otherwise appears normal. The result obtained by the treatment was most gratifying, considering the condition the lip was in before this was begun.

The question naturally arises: Was the disease

of the lip epithelioma? The injury to the lip caused by sunrays and the subsequent blistering may have been only an exciting factor, but when we take into consideration that the disease of the lip had existed for a period of over three years and that the lip from the beginning of the trouble gradually grew worse, that the greater portion of the lip was covered by crusts and that their removal caused bleeding, that ulcers were present and that the borders of these ulcers were sharply defined, smooth and somewhat hard to the touch, that the lip was never well since the trouble began the diagnosis of epithelioma seems to be well founded, although no microscopical examination had been made. If we consider the smooth and hard border of the ulcers, tuberculosis may be excluded, although the family history points that way. Whether the disease Xanthoma with which the patient was afflicted had anything in common with the disease of the lip, I am unable to say, but am of the opinion that the yellowish-gray spots in the lip were Xanthoma, and that the fatty degeneration within the lip, caused by that disease, indirectly prevented repair from going on, in that way exposing the excoriated surfaces constantly to irritation, and thereby causing epithelioma.

SPECIAL ABSTRACT

THE BENICE-JONES BODY IN THE URINE.

Attention is called from time to time to conditions which seem to be very rare, but which probably owe their infrequency not so much to their uniqueness as to a lack of recognition. Such a case in point is the presence of the much discussed Benice-Jones body in the urine. Since the discovery in 1848 by Benice-Jones, and the association of the substance with multiple myelomata of bone pointed out by Kahler in 1889, it has been taught that the finding of this body in the urine was definite evidence of multiple bone-marrow tumors. It was also taught that the body was of albumose nature, some writing pamphlets to prove or to disprove its relation to Kuhne's peptone, and much confusion has arisen in regard to this body and the albumose which occurs frequently in febrile conditions, notably advanced pulmonary tuberculosis.

Evidence has already been adduced to show that the Benice-Jones body is a true protein and not a particular form of albumose, so that it is more

correct to call the presence of the body in the urine, Bence-Jones proteinuria until someone gives it its proper name.

T. R. Boggs and C. G. Guthrie report four cases of this interesting condition and in a further article report in detail a case of multiple metastatic carcinoma, in the urine of which this protein was found. Of the many theories of the origin of this protein there are only three worthy of mention. It is derived (1) from the protein of the tissues or blood, (2) specifically from the tissues of the bones, or (3) as a product of abnormal protein metabolism, either endogenous or exogenous. The weight of evidence seems to be in favor of the last view. Bence-Jones proteinuria is not in every case pathognomonic of multiple myelomata, although it must be admitted that there are but few diseases so far discovered in which this body is present in the urine. It has been found in cases of leukemia, chloroma, lymphosarcoma, myxedema (?), and carcinomatous metastases. It will be noted that in all of these diseases (the case of myxedema is doubtful) the bone marrow was the seat of new growth.

Furthermore there are well authenticated cases where the protein was not found in multiple myelomata, and numerous diseases of the bone marrow, whether secondary malignancy or leukemia, where the protein is not found in the urine. Nevertheless it would seem that the marrow is in some way concerned in its production. Studies in metabolism have thus far revealed no association between the presence of this body and the kind of protein ingested. "It is possible that the bone marrow has some function in connection with the endogenous metabolism of proteins, which may be disturbed by any one of a variety of disease processes."

In the cases reported, the three which were cases of multiple myelomata, the protein was found in the urine before the development of actual nodules on any of the bones. X-ray examination, however, revealed, areas of rarefaction of the ribs and long bones, and while no autopsy was permitted in any of the cases, there is no doubt but that three of the cases were multiple myelomata, the fourth (reported separately in detail) was a case of primary carcinoma of the breast with metastases to practically all the bones including the cranium. The X-ray pictures in this case show beautifully the areas of softening and microscopical examination of a portion of the femur showed typical

secondary carcinomatous growth. This is the second reported case of multiple bone metastasis associated with Bence-Jones protein. The other case was a primary carcinoma of the stomach with metastases in the bones reported by Oerum.

The detection of the protein in the urine is a matter of no great difficulty. It depends upon the careful examination of the specimen bearing in mind the possibility of finding the body particularly in obscure cases. Since it is characteristic of the protein that it coagulates upon heating at a temperature of 56°-60° C., dissolves appreciably on boiling and reprecipitates on cooling, it is essential to heat the acidulated specimen of urine gradually and to note when a precipitate occurs. Should coagulation occur much below the boiling point, further tests should be made. To another specimen is added 25 per cent. nitric acid. The precipitate which forms increases up to 60° C. on heating, disappears on boiling and reappears on cooling the specimen. Further evidence is obtained by treating a specimen with two volumes of saturated ammonium sulphate solution, when a voluminous precipitate is thrown down. These tests suffice to prove the presence of the Bence-Jones protein.

Boggs and Guthrie procured the protein in pure dried form by precipitation, freezing and desiccating in vacuo. The material is insoluble in water, but readily dissolves in a dilute solution of sodium carbonate with the aid of heat, giving a clear solution which responds to all the tests for the protein.

They were unable to produce any specific precipitins by injecting animals with solutions of the dried protein. The rabbits which were injected intravenously with the protein had anuria for twenty-four hours, and in some cases excreted the protein in the urine in the next forty-eight hours. After the second injection none of the animals excreted the protein as such.

The authors believe that the condition is more common than the literature would lead one to suppose. They also call attention to the striking fact that the kidney was permeable for the Bence-Jones protein, but held back serum albumin, and in all cases there was a striking diminution of the chloride excretion. These would seem to indicate functional disturbance of the kidney rather than a true nephritis.

1. Amer. Jour. Med. Sciences, 1912, CXLIV, 803.
2. Bulletin Johns Hopkins Hosp., 1912, XXIII, 333.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

A. J. PATEK, M. D., Milwaukee; G. E. SEAMAN, M. D., Milwaukee; O. H. FOERSTER, M. D., Milwaukee; C. S. SHELDON, M. D., Madison; S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON...Oconomowoc; J. V. MEARS...Fond du Lac; O. T. HOUGEN...Grand Rapids; G. WINDESHEIM...Kenosha; H. W. ABRAHAM...Appleton; R. U. CAIRNS...River Falls; F. T. NYE...Beloit; EDWARD EVANS...La Crosse; J. M. DODD...Ashland; W. CUNNINGHAM...Platteville; T. J. REDELINGS...Marinette; H. E. DEARHOLT...Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents
Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI. JANUARY, 1913. No. 8

EDITORIALS

PAPERS FOR THE NEXT MEETING.

We had a splendid meeting last year, good papers and a large attendance. Let us make the meeting this year even better. The Program Committee wants live papers. Who has been doing some special work or tabulating his cases so that he can give us for our meeting in October something worth while? This may seem a long way ahead, but it is a reminder to get busy and if anyone has anything to say let him write to the Chairman of the program Committee, L. M. Warfield, Goldsmith Building, Milwaukee.

Let everyone work for 1913, a banner year.

MAKING GRAFT EASY AND PLEASANT.

"— Wis., Oct. 30, 1912.

"Dr. ———

— Wis.

Dear Doctor:—

I recently operated on Miss. of your town for appendicitis and through her had learned of you.

You must have surgical work that you refer to surgeons here and elsewhere as well as consultation work.

I would be pleased to co-operate with you. I am fully prepared to do anything in the surgical line in an expert manner.

For references I would refer you to the ——— Hospital of this city where I do my work.

I would be pleased to have you send me a case. You can be assured that I will use you square.

Yours fraternally, ———"

The above letter was sent by a surgeon in a good sized Wisconsin city to a doctor in a neighboring village.

How pleasant and inoffensive this all sounds. "Co-operate with you"; "use you square"! What smooth sounding words. Nothing to hurt the most refined sensibilities! But what a contemptible spirit when viewed in its nakedness.

There was a "certain Samaritan" of whom we have heard who was something of a surgeon. At least when he found by the way-side a man who went down from Jerusalem to Jericho and fell among thieves, he went to him and bound up his wounds, pouring in oil and wine in accordance with the best practice of his time. Furthermore, he brought him to an inn, which was the nearest approach to a hospital in those days, and took care of him. Now on the morrow when he departed if he had said to the host: "This man or his friends must have money, I will leave him here with you if you will give me forty per cent. of what you get out of it," what would we think of him?

COUNTY OR COUNTRY HEALTH COMMISSIONERS.

In the paper by Dr. R. H. Kinney on A Plan for the Medical Inspection of Country Schools which appears in this number of the Journal, the idea is suggested that a well qualified physician be ap-

pointed by the State Board of Health for each county or for suitable units of population, to give his entire time to public health work, including the medical inspection of the pupils of the country schools. Of course, adequate compensation would have to be given to the men undertaking this work, but as Dr. Kinney well says the cost would be small in proportion to the benefit to be derived from the work.

Improvement of the hygienic conditions in the rural districts is one of the crying needs of the day. Conditions could be bettered with comparatively little cost; the information as to how to go about it is readily available; the people would not take long to wake up to the advantages of better living conditions if the matter were presented to them in the right way.

If a start is made medical men would gladly prepare themselves for such work as this by taking courses such as the Public Health Course offered by the University of Wisconsin. Special preparation of this kind is necessary for the work could not be done properly by every general practitioner who might volunteer.

Fortunately for us the educational opportunities are already prepared. Let us hope that in a few years the need for trained public health workers will be so widely recognized that this department of the University will become one of its most beneficial activities.

"HOW LONG, OH LORD, HOW LONG?"

After receiving a report of a positive sputum from the laboratory, one of the visiting nurses of the Division on Tuberculosis of the Milwaukee Health Department called upon the attending physician. The purpose of the visit was to see about registration of the case and if any co-operation on the part of this Division, in home care or toward securing admission to any of the public sanatoria, was desired.

In response to the overtures of the nurse, the physician responded that he was not certain that the case was one of tuberculosis, "*for while it was true that there had been two positive sputum examinations, one had been negative!*"

THE MEDICAL SCHOOL SITUATION IN MILWAUKEE.

When the time comes to write in full the history of medical education in Wisconsin, it will be said

of the medical schools in Milwaukee that the night seemed the darkest just before the dawn.

Six months ago the situation seemed very discouraging and the hope of material betterment seemed very remote. Proprietary medical education seemed to have as firm a hold as Sinbad's Old Man of the Sea and the only hope of escape appeared to be the payment of an impossible ransom in the shape of purchase money.

Then the Council on Medical Education of the American Medical Association made its third inspection of Medical Colleges and things began to happen.

As in the previous classification, "all medical colleges have recently been rated by the Council on Medical Education on a civil service basis on a scale of 1,000 points. The data relating to each college were grouped under ten general heads in such manner that the groups would have as nearly equal weight as possible, each group, allowing a possible 100 points (10 per cent.) out of possible 1,000 points (100 per cent.). The ten heads under which the data were arranged are as follows:

1. Showing of graduates before state boards and other evidences of the training received.
2. Enforcement of a satisfactory preliminary educational requirement and the granting of advanced standing.
3. Character of curriculum, grading of course, length of session, time allowed for matriculation and supervision.
4. Medical school buildings; light, heat, ventilation, cleanliness.
5. Laboratory facilities and instruction.
6. Dispensary facilities and instruction.
7. Hospital facilities and instruction, maternity work, autopsies, specialties.
8. Faculty, number and qualifications of trained teachers, full-time instructors, and assistants, especially of the laboratory branches, and extent of research work.
9. Extent to which the school is conducted for properly teaching the science of medicine rather than for the profit of the faculty directly or indirectly.
10. Possession and use made of libraries, museums, charts, stereopticons, etc.

Colleges receiving a rating of 70 per cent. or above in each and all of the ten divisions of data were included in Class A+; colleges receiving an average of 70 per cent. or above, but which receive a rating below 70 per cent. in one, two or three of the divisions were included in Class A; colleges receiving an average of between 50 and 70 per cent. and colleges having an average of above 70 per cent., but which received a rating below 70 per cent. in more than three of the divisions above

named, were included in Class B, and colleges receiving less than 50 per cent. were included in Class C. In other words, Class A+ colleges are those which are acceptable; Class A those which need improvement in certain respects, but which are otherwise acceptable; Class B, those which, under their present organization, might be made acceptable by general improvements, and Class C, those which require a complete reorganization to make them acceptable."

Under the previous classification the two medical schools in Milwaukee were placed in Class B, but in both institutions the "progress" has been in a retrograde direction and it became evident that in the present classification nothing better than Class C could be expected.

It may be thought at first sight that the rating of an institution is nobody's business but that of the college concerned and its student body; but in twenty-four states the state licensing boards have adopted resolutions refusing to recognize colleges rated in Class C by the Council on Medical Education, or else have prepared lists of their own in which the names of very few, if any, Class C colleges appear.

Furthermore a considerable number of the states refusing to recognize colleges rated in Class C also refuse reciprocity to state licensing boards which do recognize such colleges.

Under these circumstances, if the Wisconsin State Board of Medical Examiners continued to examine the graduates of Class C colleges our reciprocity with most of the important states would have been cut off.

It is easy to see, therefore, that the character and standing of the medical schools in Wisconsin is of great importance to the whole profession of the state.

When it became known that the Milwaukee institutions were in danger of falling into Class C the Council on Medical Education was asked to advise how the medical schools of that city might secure a higher rating. The Council outlined provisions similar to what it has outlined in several other cities where two or more medical schools have been competing for students and clinical advantages. The suggestions made were as follows: (a) The merger of the two medical schools of Milwaukee; (b) a change from the stock basis to control by a board of lay trustees; (c) the organic union with a liberal arts' college or university; (d)

the securing of at least four full-time professors in (1) anatomy, histology and embryology, (2) physiology and pharmacology, (3) chemistry and physiological chemistry and (4) pathology and bacteriology; (e) it was also suggested that the college appoint a committee of the faculty to take up the work of the college department by department and to bring about changes in accordance with modern medicine.

Naturally the individuals most affected, the student body, took an intense interest in the standing of the medical schools. The Milwaukee Medical College, the larger institution, has been affiliated rather loosely with Marquette University, the connection being such that the University had practically no control over the admission requirements or the teaching. After the situation had become thoroughly understood the students of this institution held a mass meeting and demanded definite information as to what steps would be taken to secure a higher rating for the medical college. When no satisfactory answer was forthcoming, the entire student body left the Milwaukee Medical College and marched to the Wisconsin College of Physicians and Surgeons and enrolled themselves there with the understanding that action would be taken immediately to make the changes required to obtain a higher rating.

Being thus suddenly bereft of all its students the Milwaukee Medical College may be said to have ceased to exist then and there. Certain it is that the authorities of Marquette University felt themselves relieved of the entanglements which had burdened them with the nominal responsibility for the Milwaukee Medical College and yet had given them no control over it.

Being thus relieved they promptly acquired entire control of the Wisconsin College of Physicians and Surgeons and made it an integral part of the University. For a time the owners of the bulk of the stock of the Milwaukee Medical College threatened to carry the matter into the courts, claiming that the terms of their lease of the college to Marquette University had been violated. But fortunately all those questions have been adjusted and the buildings formerly occupied by the Milwaukee Medical College have been leased to Marquette University for the use of its dental department, while the work of the Medical Department of Marquette University, as it is now entitled, will be carried on in the buildings formerly occupied by

the Wisconsin College of Physicians and Surgeons.

Of course, it is not possible to create a Class A+ medical school in the twinkling of an eye. The evolution of the Medical Department of Marquette University from the chaos of this revolution into a thoroughly satisfactory school will take time. But the spirit in which the work is being undertaken is so earnest and sincere that there is every reason to hope for a bright and creditable future for it.

So far two full-time professors have been added to the faculty. Dr. H. C. Tracy has been appointed Professor of Anatomy, Histology and Embryology, and Dr. Albert F. Boretti has been appointed to the chair of Pathology and Bacteriology. Other appointments will be announced in the near future.

CORRESPONDENCE

New York, December 4, 1912.

To the Editor:

The visit by a party of German physicians to the recent International Congress on Hygiene and Demography has proven that a well managed Travel Study party of physicians can make a trip through a foreign country in a far more pleasant and profitable manner, and at less expense, than can be done by travelling alone. Clinics can be arranged in advance, lectures prepared and visits made to the best hospitals and health resorts, with the assurance of a hearty welcome from the leading medical men of the localities visited. For those unable to speak the languages of the countries on the continent, this disadvantage is reduced to a minimum and the benefits of the trip correspondingly increased by travelling with such a party.

The coming International Medical Congress, London, Aug. 6-12, 1913, gives a splendid opportunity for organizing an American Tour of this sort and plans are now ready for a Physicians Travel Study Tour, leaving New York July 3rd for the most important capitals and health resorts on the European Continent: Paris, Munich, Carlsbad, Marienbad, Dresden, Berlin, Nauheim, Wiesbaden, Cologne, Brussels, the Hague, Amsterdam, etc., ending with the week of the Congress in London.

The plan of this tour has been seen and endorsed by Drs. A. Jacobi, T. C. Janeway, C. G. Kerley, O. G. T. Kiliani, L. R. Williams, Wisner R. Townsend and others. Physicians interested in such a

trip should write for further and more detailed information to

RICHARD KOVACS, M. D.,
236 East 69th Street, N. Y. City.

TWO YEARS' INTERNESHIP—GOOD SAMARITAN HOSPITAL, GUANAJUATO, MEXICO.

This is a missionary hospital which was started by the Methodist Episcopal Church. Another Christian doctor is needed for the staff.

Guanajuato is a city of 60,000, the capital of the state of the same name. It is located 160 miles northwest of Mexico City. It stands at an altitude of 6,500 feet in a rich silver-mining region. The Mexican Central Railroad passes through the city.

One year's report of the hospital staff shows 339 visits to homes, 4,579 consultations, 24,523 treatments, 52 major and 279 minor surgical operations, medicines furnished 17,587 patients. Fifteen different nationalities were included among those who were treated.

For this internship a man is required who has had a thorough medical education and who is prepared to make his professional knowledge and skill directly subservient to the furtherance of the gospel.

Communications may be addressed to the director of the hospital, Dr. Levi B. Salmans, Good Samaritan Hospital, Guanajuato, Mexico.

The undersigned will be glad to communicate with any medical men who are interested in the need for physicians in foreign countries.

Mr. Wilbert B. Smith, 125 East 27th Street, New York City.

NEWS ITEMS AND PERSONALS

DR. D. F. GOSIN was elected city physician of Green Bay on December 23rd.

DR. A. GUNDERSON, La Crosse, has returned from a six months trip to Europe.

DR. G. E. KNAUF, Sheboygan, was re-elected county physician for Sheboygan County on December 5th.

DR. W. T. WATKINS, Oconto, was on December 20th elected health officer, to succeed Dr. J. B. Atwood, resigned.

DR. S. S. LEITH of Junction was stricken with apoplexy on January 1st while at home in bed, and has since been in an unconscious condition with little or no hope for recovery.

DR. JOHN DODSON, Berlin, who has been seriously ill and is now at Clear Water, Florida, is reported much improved.

DR. P. F. GAUNT, of Oconto, who was operated upon for gall stones about a month ago, has recovered and resumed practice.

DR. ROBERT E. FLYNN, La Crosse, was elected county physician for La Crosse County for the ensuing year on November 18th.

ST. VINCENT'S HOSPITAL, Green Bay, is erecting a new addition, which will cost \$40,000. The new addition will contain thirty-six rooms.

DR. G. C. BOWE of Chardon, Ohio, formerly of Fond du Lac, sustained a fracture of the left leg on January 11th, by the overturning of his cutter.

G. D. CLAUS, Milwaukee, was sentenced to serve 30 days in the county jail, without the alternative of a fine, for practicing medicine without a license.

DR. A. S. GILLES, for the past four years connected with the Sacred Heart Sanitarium, has been appointed medical director of the Waukesha Moor Baths.

DR. D. J. HAYES, Milwaukee, suffered a fracture of the left leg on December 25th. While cranking his automobile he was struck by another machine.

THE NATIONAL ASSOCIATION OF RETAIL DRUGGISTS, which recently met in Chicago, adopted resolutions opposing the appointment of Dr. Harvey W. Wiley as Secretary of Agriculture.

DR. D. B. HAMILTON of Ridgeway met with a serious accident on January 3. While turning suddenly his eye came in contact with a sharp stick; the injury may necessitate the removal of the eye.

The County Board of Supervisors of Kenosha County, at the November meeting, appropriated \$2,000 for the erection of a tuberculosis sanatorium. A site for this purpose has been secured near Camp Lake.

DR. F. O. HUNT of Fall River met with a painful accident on December 30th. While leading his horse from the barn he slipped on the ice and fell under the horse. One of the caulks in the horse's shoe penetrated his hand, breaking one of the bones.

Dodgeville is to have a general hospital. The Franciscan Sisters of Little Falls, Minn., are planning to erect a hospital to cost approximately \$15,000. Representatives of the order are soliciting funds. A committee has been appointed by the Council to aid the sisters in the movement.

DR. RUPERT BLUE of the United States Public Health and Marine Service at Washington, was entertained at a banquet on November 23rd, given by the Milwaukee members of the Lake Michigan Sanitary Association.

DR. J. E. B. ZIEGLER, Hayward, will discontinue practice and will spend a few months studying in the leading hospitals of the United States, after which he will go to Germany and take a two years' course of post graduate work.

REMOVALS

Dr. Stiles, Racine to Sparta.

Dr. A. M. Foster, Oconto Falls to Appleton.

Dr. F. W. Lehmann, Sun Prairie to Hartford.

Dr. Thomas R. Jones, Green Bay to Milwaukee.

Dr. A. C. Echternacht, White Creek to Mason City, Iowa.

Dr. O. A. Fiedler, recently of Athens has removed to Sheboygan and taken offices with Dr. Carl Muth.

Dr. H. F. Ohswald, formerly of Oconto Falls, has returned and taken the offices vacated by Dr. A. M. Foster.

Dr. F. W. Lehmann, who has been practicing medicine at Sun Prairie for the past six months has removed to Hartford.

Dr. G. W. Henika, Beaver Dam, will give up general practice, February 1st, and enter the University of Wisconsin to take up Public Health work as a specialty.

Dr. J. B. Atwood, who has been located at Oconto for seventeen years, has disposed of his practice to Dr. T. C. Clarke, formerly of Milwaukee, and will remove to California.

Dr. J. B. Atwood, who has practiced medicine at Oconto for the past 17 years has disposed of his practice to Dr. T. C. Clark, formerly of Milwaukee. Dr. Atwood intends shortly to leave for Edgerton and from there he will remove to the west, intending to re-establish himself in practice on the Pacific Coast.

DEATHS

Dr. Edgar D. Ford, formerly of Waunakee and Cambria, died suddenly at his home at Trout Lake, Michigan, November 14th, where he had established a hospital. He was 46 years old. Dr. Ford received his early education at Fordville, and afterward attended medical college in Chicago.

DR. JAMES GIBSON, Janesville, died on January 6, 1913. Death was due to dilatation of the heart. Dr. Gibson was born a short distance north of

Janesville on the Milton Road, 52 years ago. He was graduated from the University of Illinois, College of Medicine, in 1886. Dr. Gibson had practiced in Janesville about 27 years.

DR. J. B. RICHARDS, Janesville, died on January 2, 1913, aged 80 years. Dr. Richards came from Boston to La Crosse in 1859 and since that time had resided in Wisconsin, practicing his profession until advanced age compelled his retirement about one year ago. He conducted a pharmacy at La Crosse for about twenty years. He also practiced at Viroqua and during the later years of his life at Janesville. He graduated from Harvard Medical College in 1852.

Dr. Isaac Cohen, one of the best known of La Crosse surgeons, died at the La Crosse Hospital December 1, after an illness of two days, of an acute attack of peritonitis. Dr. Cohen was born in Hanover, Germany, 63 years ago. In 1872 he was graduated from King Frederick's University, at which time he accepted a position as surgeon in the royal army, serving until 1890. He removed to America in 1891, and located at Tacoma, Washington for a year, after which he changed his residence to La Crosse.

DR. H. B. LAFLIN, the oldest practicing physician in La Crosse, died on December 21, 1912. Death was due to a stroke of paralysis. Harvey B. Laffin was born in Chautauqua County, New York, July 27, 1834. He received his education in the state of New York and Rock Island, Ill. He was graduated from the Bennett Medical College, Chicago, in 1873, and immediately after his graduation he began the practice of medicine at La Crosse. With the exception of a few years spent at Caledonia, Dr. Laffin spent his entire professional life in La Crosse. He served as president of the State Medical Society and was one of the leading factors in the organization of the La Crosse County Medical Society.

DR. L. D. CLARK, Stoughton, died on December 23, 1912. Lorenzo D. Clark was born at Andover, Vermont, October 16, 1841. His boyhood days were spent among the Green Mountains. When he was 14 years old the family removed to Wisconsin and settled in the vicinity of Union, Rock County. In 1861 he enlisted in the War with an Illinois regiment, but a disease of the right knee, with which he was afflicted, became aggravated and he was discharged after six months' service. He then took up the study of medicine at Ann Arbor

University and completed his medical studies at Cleveland, Ohio, graduating in 1865. In the spring of 1866 he located at New Lisbon, Juneau County, remaining there until 1870, when he removed to Stoughton, which has since been his home. He retired from active practice in 1892.

DR. W. H. TITUS, Oshkosh, died on January 7, 1913, after an illness of a week's duration of grippe and heart complications, aged 65 years.

Willard H. Titus was born March 30, 1847, at Constantine, Mich. His early education was received at Hillsdale College. He studied engineering at Ann Arbor but went to Chicago for his medical training. In 1874 he was graduated from Hahnemann Medical College, Chicago, after which he came to Wisconsin to practice. He spent a short time at Milwaukee, but went to Shawano to begin his active professional work. Here he received an appointment from the government as physician to the Stockbridge and Menomonic Indians at the reservation near Shawano. In 1878 Dr. Titus removed to Oshkosh where he continued to reside up to the time of his death. He was a member of the Winnebago County and State Medical Societies.

DR. E. M. ROGERS, Hartford, died on December 17, 1912, aged 82 years. Ezra M. Rogers was born in the town of Windham, Bradford County, Pa., January 14, 1832. His parents were natives of Albany County, N. Y. Dr. Rogers was reared in the place of his birth and in the state of New York. He received his education in the district schools. When 18 years of age he left home and studied in the Oswego Academy, from which he graduated. He afterwards taught for four terms. While teaching he took up the study of medicine and afterwards became a student in the medical department of the University of Michigan. Subsequently he was graduated from the medical school of the University of New York. He began the practice of medicine in Boltonville, Washington County, in 1856, remaining there for a year and then removed to Cascade, where he resided until the outbreak of the Civil War, when he was commissioned and served for three years, becoming assistant surgeon of the Twelfth Wisconsin regiment. Six months later he was promoted to the rank of surgeon and served until the close of the War.

He was a member of the Washington County and State Medical Societies.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

ARIHUR J. PATEK, Milwaukee President

Officers 1912-1913. C. A. ARMSTRONG, Boscobel 1st Vice President

L. F. SPENCER, Wausau 2d Vice President

JOHN MATHIESON, Eau Claire. 3rd Vice President

CHAS. S. SHELDON, Madison Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917 1st Dist., M. R. Wilkinson, Oconomowoc 2nd Dist., G. Windesheim, Kenosha

TERM EXPIRES 1913 5th Dist., J. V. Mears, Fond du Lac 6th Dist., H. W. Abraham, Appleton

TERM EXPIRES 1915 9th Dist., O. T. Hougen, Grand Rapids 10th Dist., K. U. Cairns, River Falls

TERM EXPIRES 1918 3rd Dist., F. T. Nye, Beloit 4th Dist., W. Cunningham, Platteville

TERM EXPIRES 1914 7th Dist., Edward Evans, La Crosse 8th Dist., T. J. Redelings, Marinette

TERM EXPIRES 1916 11th Dist., J. M. Dodd, Ashland 12th Dist., H. E. Dearholt, Milwaukee

Delegates to American Medical Association.

J. J. McGOVERN, Milwaukee.

C. A. HARPER, Madison.

Alternates

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette

Committee on Public Policy and Legislation

J. P. McMAHON, Milwaukee

F. F. BOWMAN, Madison.

Committee on Medical Defense.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison

L. F. BENNETT, Beloit.

F. S. WILEY, Fond du Lac.

A. W. GRAY, Milwaukee, Chairman.

G. E. SEAMAN, Milwaukee, Chairman.

M. P. RAVENEL, Madison.

J. M. BEFFEL, Milwaukee.

T. H. HAY Stevens Point

Program Committee.

L. M. WARFIELD, Wauwatosa, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER 1-3, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

Table with 3 columns: County, President, Secretary. Lists medical society officers for various Wisconsin counties including Ashland, Barron, Brown, Calumet, Chippewa, Clark, Columbia, Crawford, Dane, Dodge, Door, Douglas, Dunn-Pepin, Eau Claire, Fond du Lac, Grant, Green, Green Lake-Washara-Adams, Iowa, Jefferson, Juneau, Kenosha, La Crosse, Lafayette, Langlade, Lincoln, Manitowoc, Marathon, Marinette-Florence, Milwaukee-Ozaukee, Monroe, Oconto, Oneida-Forest-Vilas, Outagamie, Pierce, Portage, Price-Taylor, Racine, Richland, Rock, Rusk, Sauk, Shawano, Sheboygan, St. Croix, Trempealeau-Jackson-Buffalo, Vernon, Walworth, Washington, Waukesha, Waupaca, Winnebago, Wood.

SECRETARY'S NOTES

There are many things in the medical profession which are not satisfactory, and which we should seek to correct. Most of these short-comings and abuses could be very much lessened if an aroused sentiment in the profession itself were only to assert itself. As a whole, I believe the medical profession is headed in the right direction, and is making progress. The problem of medical organization is being gradually solved. The standards of medical education have manifestly improved, while, from a scientific standpoint, no profession is making more rapid progress. The greatest obstacle is an apparent indifference in the rank and file of the profession, but this indifference might be largely overcome by proper effort. I think the State and County Societies should single out some one of these abuses and persistently bring the question before the individual members. At present, the Commission-evil deserves attention, since it is unquestionably one of the most insidious and demoralizing influences we have to contend with, and because the practice has, of late, become very prevalent. The causes which have led to this deplorable evil are clearly in evidence. In spite of fewer Medical Colleges, the profession is much overcrowded. The fierce competition and the struggle for a living income which greet every young physician, strongly tempt to methods which are unworthy, and which ultimately lead only to professional disaster. The plea that the medical man usually secures a fee disproportionate with that of the operating surgeon is given as an excuse, but it is in no sense a justification. Commercialism, the lowering of the medical profession to a mere money-making trade, is really at the bottom of the whole traffic.

The Erie County Medical Society is one of the first bodies to take the question of fee-splitting under serious consideration. The report of the Committee of investigation is so much to the point, that I will quote a part of it.

"We thoroughly approve acquainting the profession with the facts concerning this vicious and dangerous innovation, and favor warning the public of the unhappy results which will follow its continuance or increased prevalence.

"The division of fees has been accomplished by numerous methods. All of them are more or less adroit, deceitful and dishonest. The principal effort has been directed to provide secrecy. In the course of time, some operators have become bolder than others, and have gradually converted the practice of surgery into a traf-

fic of operating on commission. No one publicly justifies the commercial bargain. If defended privately, the excuse or argument is cynical, shifty, selfish or sophistical. After examination from every side, there is no honest course except emphatic and unequivocal condemnation of this rather new species of hidden graft. No matter how cleverly the division of a fee is accomplished, it is done almost invariably without the knowledge of the patient. The person who pays for an operation does not know that part of the amount, which has varied from 25 to 50 per cent., occasionally goes to the physician who recommended the operator. The physician and the surgeon are supposed to render their individual bills, and the person afflicted is entirely ignorant of the "gentlemen's agreement" or "community of interest" which has been introduced from the realms of high finance and legal honesty. The real purpose of the deal is to encourage the physician to send his patients where he can obtain a share of the money paid for relief or attempted relief. The surgeon may be highly competent or he may not, and the physician may be influenced by financial encouragement. Anyway, the performance must pay because it has flourished and been profitable at times when other methods would probably have failed. At times, the demands of the physicians have been quite high, and then some the prosperous merchants in surgery may begin to wonder if they have not created a Frankenstein.

"The practice may lead to unnecessary operating and junk surgery, through increasing zeal to be busy, and establish a false measure of success by the amount of income derived from business instinct and sagacity. The untrained and inexperienced cutter, who has learned there is money in operating, which is lost by the physician, is encouraged to obtain work which should go to the experienced, skillful surgeon who clings to the traditions and ideals of the profession, and will not cringe, stoop or barter to obtain his earned and rightful privilege of employment. The fee may be increased or stretched by agreement to provide for distribution of the spoils, and altogether there is something about the whole wretched proceeding which smells of the rebater, the promoter, and the greed for disguised plunder.

"There is at least one profession that should be clean and have the confidence and trust of the public. Whatever may be its shortcomings in ability to help or save, the effort and purpose must be free from the taint of sordid and commercial deals dependent upon human suffering and woe. There is often no more complete picture of helplessness than the sick yearning for relief and not knowing where to seek needed succor. If abuses exist, the profession must decide whether it will abolish them or allow them to prevail until the public is allowed to undertake the task. Your committee believes that the medical profession should perform the disagreeable work, and that an element is not afraid to expose or renounce iniquities which tend to degrade those who decently follow a noble calling."

There is practically no difference of opinion as to the real character of the practice. It is unqualifiedly condemned by every right-thinking phy-

sician in the whole country. It has no defense,—nor defenders,—except those who wish to continue the business for the money they think there is in it, and who are willing to defy the overwhelming sentiment of the profession. However, these men are in such a very small minority as to be a negligible quantity.

Such being the case, the only important question is, how shall we best deal with it? How can we stop it? The plan which I outlined in the November Journal was sent to several hundred physicians for signatures and criticism. While the response was quite general, and nearly always favorable, it may be that a simpler plan will be less open to adverse criticism, and less liable to misconstruction. If making a correct diagnosis, and gaining permission to operate, are half the battle, I am inclining to the opinion that, after all, it may be the best way for the attending physician to stand by his guns, and frankly tell the patient at once what his charge will be for taking him to the surgeon, rather than to ask the surgeon to assist in its collection, and the patient be compelled to pay a larger sum than he expected. It is more dignified, manly and professional. If a service has been rendered, it should be paid for, but it may be necessary first, to educate the public to a proper appreciation of the real value of the services of the attending physician. Most will agree that it is right for a medical man to demand a larger fee for the added responsibility and trouble accompanying the diagnosis of many surgical cases, the selection of the surgeon, etc., and if the matter is presented in a proper light, the public would see the justice of the charge. *Until* the public has become so educated, it might be permissible for the surgeon and physician to present a joint bill, specifying the exact sum due both attendants, and itemized, if requested by the patient. It will be urged that even this plan might be abused by unscrupulous surgeons. But, if the physician's charge should be made unreasonably large, the abuse would probably correct itself.

An indispensable agency in the care of fee-splitting is publicity. The medical profession knows pretty well who the commission men are. The general public must know the facts just as well. For the protection of the honor and good name of the medical profession, as well as for the protection of the public, everyone should know who is the "commission doctor" and who is the surgeon who obtains his work by paying commissions

rather than proving his skill, and it is our duty to make the facts known.

The difficulty in curing this evil is so great that some are already looking to the coming legislature for relief. They urge that a law providing that the physician or the surgeon who is found guilty of fee-splitting, shall lose his license, would strike more directly at the root of the evil than any other method. But I feel that we should not call on the strong arm of the law till all other means have failed. This is a disease within our own ranks, and the medical profession should be strong enough itself to effect a cure.

The Annual Meeting of the Council will be held Jan. 10th. At that meeting, I hope some decisive action will be taken regarding this matter, and some plan formulated for bringing the subject before every County Medical Society. The Council is the Board of Censors, and has to do with everything of an ethical nature affecting the medical profession of the State, and it should properly take the initiative. If any member has suggestions to make as to a solution of this problem, please send to your Councilor or to the Secretary.

C. S. S

SOCIETY PROCEEDINGS

ASHLAND-BAYFIELD-IRON COUNTY

Ashland-Bayfield-Iron County Medical Society held its annual meeting and election of officers on December 30. The following is the result of the election: President, Dr. W. T. Rinehart; vice-president, W. G. Law; secretary and treasurer, Dr. C. J. Smiles.

BROWN COUNTY

Brown County Medical Society held an interesting meeting on December 5th at the office of Dr. A. W. Slaughter at Green Bay, a large number of physicians attending. Dr. W. H. Bartran talked of his trip abroad, especially of the medical teachings in London, Vienna, Berlin and Munich. A discussion followed by Drs. Quiek and John R. Minahan. After the meeting the doctors were invited by the president, Dr. T. J. Oliver, to DeLair's cafe, where a turkey banquet was served.

At the January meeting papers will be presented by Drs. King and Mix. The society will hold monthly meetings during the winter. The physicians look for profitable sessions.

CRAWFORD COUNTY

Crawford County Medical Society held its annual meeting on December 27, at the Prairie du Chien Sanatorium, at Prairie du Chien. Dr. M. P. Ravenel of the University at Madison addressed the Society on "The

Preservation of Public Health as a Duty of the State." Papers were presented by Drs. Cunningham of Platteville, Bannen of La Crosse and R. R. Harris of Prairie du Chien. The election resulted as follows: president, Dr. C. B. Lumsford, Gays Mills; vice-president, Dr. Fred Peterson, Soldiers Grove; secretary-treasurer, Dr. A. J. McDowell, Soldiers Grove; delegate, Dr. W. T. Pinkerton, Prairie du Chien.

DANE COUNTY

Dane County held its annual meeting on December 10th. The following officers were elected for the ensuing year: president, Dr. C. A. Harper; vice-president, Dr. J. P. Donovan; secretary and treasurer, Dr. F. S. Meade; censor, Dr. L. H. Prince.

Dr. James A. Jackson, Sr., addressed the meeting on the changes that have taken place in the medical profession during the fifty years of his practice. Dr. Jackson credited the present high state of excellence of medical science to the development of hospitals and medical laboratories.

DOUGLAS COUNTY

The annual banquet and meeting of the Douglas County Medical Society was held at the Commercial Club, Superior, on December 4th. The feature of the program was an address by Dr. A. Schwyzer of St. Paul, one of the northwest's leading surgeons.

DUNN-PEPIN COUNTY

The Dunn-Pepin County Medical Society met at the Hotel Royal, at Menomonie, on December 8th, elected officers and transacted other routine business, and following a paper by Dr. L. A. Dahl, held a general discussion, and went on record as opposed to contract practice, such as asylum, charity and corporation practice.

The officers elected for the ensuing year were: president, E. H. Grannis; vice-president, A. F. Heising; secretary, L. A. Dahl; treasurer, B. J. Steves. Drs. F. E. Butler and A. Egdahl were appointed as a program committee, and Drs. G. A. Baker, N. L. Howison and J. C. DeWane, censors. Dr. J. J. Curtin of Wheeler, formerly of Wabeno, transferred his membership to the local society from the Oneida-Forest-Vilas County Medical Society, and Dr. Knute Albin Ruethin of Ridgeland, formerly of Lisbon, Ill., was elected to membership.

It was decided to hold meetings every month during the next year, and to secure physicians of state and national reputation from time to time to give papers.

EAU CLAIRE COUNTY

Eau Claire County Medical Society held an election of officers on December 23, 1912. The election resulted as follows: Dr. A. L. Payne, Eau Claire, president; Dr. E. E. Tupper, Eau Claire, secretary and treasurer.

FOND DU LAC COUNTY

The tenth annual meeting of the Fond du Lac County Medical Society was held at the Bellevue, Fond du Lac, Nov. 14th. Dr. G. F. Scheib, president of the Society

for the past year, gave the annual address, on The Conservation of the Medical Profession. Officers were elected as follows: president, Dr. L. A. Bishop; vice-president, Dr. C. W. Leonard; secretary-treasurer, Dr. Flora A. Read; delegate, Dr. J. P. Connell; censors, Drs. G. V. Mears, S. E. Gavin and V. U. Senn.

A regular meeting of the Fond du Lac County Medical Society was held on January 6, at the Bellevue. H. A. Melville, secretary of the University Extension course, gave a short talk on his work. Dr. Charles Lemon of Milwaukee read a paper on "Spinal Injuries and the Effects, Signs and Symptoms."

GRANT COUNTY

The tenth annual meeting of the Grant County Medical Society was held on December 12, 1912, at Lancaster. Through the courtesy of Judge E. B. Goodsell, the meeting was held in the Probate Court room. The president and vice-president being absent, Dr. C. S. Hayman was chosen chairman and the following program rendered. A paper by Dr. R. H. Kinney, "A Plan for Medical Inspection of Country Schools," gave some new and practical ideas on a subject of interest to all—the maintenance of the health of the growing child. Dr. J. H. Fowler read a paper on "Two Remarkable Sequelae of Acute Follicular Tonsillitis," being a history of two unusual cases occurring in his practice, which was followed by a general discussion. "Ins and Outs of Appendicitis," by Dr. S. W. Doolittle, emphasized the importance of early diagnosis and prompt and correct treatment in this oft occurring malady. Discussion was led by Dr. J. C. Betz.

The next order of business was the election of officers and resulted as follows: president, Dr. J. C. Betz, Boscobel; vice-president, Dr. John McGovern, Potosi; secretary-treasurer, Dr. M. B. Glasier, Bloomington; delegate, Dr. C. S. Hayman, Boscobel; censor for three years, Dr. J. C. Doolittle, Lancaster. The names of Drs. A. Grassau, Stitzer, H. C. Waddle, Hazel Green and N. E. McBeath of Livingston, being reported upon favorably by the censors, they were elected to membership in the Society.

A splendid turkey dinner, served in the private dining room of the Wright House, was given by the Lancaster physicians, and was most heartily enjoyed by all.

There being no further business, adjournment was in order, all agreeing that this, the last meeting of 1912, was one of the most enjoyable of the year.

M. B. GLASIER,
Secretary.

GREEN COUNTY

Green County Medical Society held its yearly business meeting at the Court House on January 4th. The following officers were elected: president, Dr. L. A. Moore; vice-president, Dr. E. J. Mitchell; secretary, Dr. S. R. Moyer; delegate, Dr. W. B. Gnagi; censor, Dr. N. A. Loofbourow.

A resolution was passed favoring the holding of quarterly meetings and the program committee, consisting of the president, vice-president and secretary, was

instructed to make out a program for the entire year and send one to each member as early as possible, assigning a topic to each one with the request that they prepare a paper or give a lecture some time during the year.

JUNEAU COUNTY

The tenth annual meeting of the Juneau County Medical Society was held at Camp Douglas, December 3, 1912. There was a large attendance. An interesting program was presented. Papers were read by the following: Dr. C. O. Cron, Camp Douglas; Dr. T. S. Lawler, Lyndon Station; Dr. Brand Starnes, Mauston; Dr. F. T. Field, and Dr. A. T. Gregory, Elroy. Dr. C. R. Bardeen, of the Medical Department of the University of Wisconsin, gave a most interesting lecture on the Pathology, Treatment and Sequellae of Grippe Infection. A banquet was held at 7 o'clock at the Briek Hotel. The following officers were elected: president, Dr. T. S. Lawler, Lyndon Station; vice-president, Dr. W. B. Parke, Camp Douglas; secretary-treasurer, Dr. A. T. Gregory, Elroy; delegate, Dr. E. H. Townsend, New Lisbon; alternate, Dr. C. O. Cron, Camp Douglas; censor, Dr. F. T. Field, Elroy.

KENOSHA COUNTY

The regular meeting of the Kenosha County Medical Society was held December 5th, at the home of the president, Dr. H. A. Robinson, with twenty members in attendance. Dr. Bertram W. Sippy of Chicago delivered an address on "The Development of the Esophageal Bougie." He laid special emphasis on the value of the preliminary swallowing of a silk thread which could be used as a guide in all subsequent manipulations in esophageal work. He also said that the old stiff whale bone staff bougie had been discarded for flexible ones of rubber and coiled spring wire. The statement was made that a gastrotomy was never necessary except for malignancy.

Dr. J. T. Corr brought the matter of the collection of statistics in regard to ozena before the Society asking all members to coöperate with him in this task.

By a unanimous vote Dr. N. A. Pennoyer was elected an honorary member of the Society.

A movement asking Congress to appropriate \$50,000 for the purpose of studying the chemistry and therapeutic value of the waters of Hot Springs was endorsed.

Officers for the ensuing year were elected as follows: president, Dr. William Pugh; vice-president, Dr. F. E. Audre; secretary-treasurer, Dr. C. H. Gephart; censor, Dr. C. A. Palm. The election of a delegate to the State Society was deferred until a subsequent meeting.

C. H. GEPHART,
Secretary.

LA CROSSE COUNTY

At the seventh regular meeting of the La Crosse County Medical Society, held at the La Crosse Club, December 5, 1912, the following officers were elected for the ensuing year: president, Dr. Osear Honek; vice-president, Dr. H. E. Wolf; secretary-treasurer, Dr. Geo. W. Lueck; delegate, Dr. A. Gunderson; alternate, Dr.

Geo. W. Lueck; censor for term expiring Dec., 1915, Dr. Edwards; censor for term expiring 1914, Dr. M. Arthur; censor for term expiring 1913, Dr. Gunderson.

There being no further business, the Society adjourned.

The first regular meeting for 1913 of the La Crosse County Medical Society was called to order at the La Crosse Club by the president, Dr. Oscar Houck. The minutes of the previous meeting were read and approved.

Moved by Dr. Evans that the La Crosse County Medical Society urge the postoffice department to vigorously continue its prosecution of quacks and abortionists. The president then read his address which was well received by the members present. The Society then listened to an address by Dr. C. H. Bunting of the Pathological Department of the State University on "The Red Blood Cell in Its Physiologic and Pathologic Relation," the same being the first of a series of six lectures to be given by Dr. Bunting before the Society. After a general discussion of the points brought out by Dr. Bunting, the Society adjourned.

LANGLADE COUNTY

The Langlade County Medical Society met at the City Hall on January 6th in annual session. The first matter of business was the election of officers which resulted as follows: president, Dr. G. W. Moore; vice-president, Dr. G. H. Williamson; secretary-treasurer, Dr. J. C. Wright; delegate, Dr. J. C. Wright; alternate, Dr. I. D. Steffen. The reports of the officers showed the society to be in a flourishing condition. After the business meeting a banquet was served at the Fifth Avenue Cafe, followed by a Smoker. Arrangements are under way for a banquet to be held at the March meeting, at the Butterfield Hotel, at which time some outside physician will be invited to address the Society.

MANITOWOC COUNTY

At the annual meeting of the Manitowoc County Medical Society held on Jan. 8, at the Williams House, the following officers were elected: president, Dr. Max Staehle; vice-president, Dr. J. A. Shimek; secretary-treasurer, Dr. J. Donahue.

MARINETTE COUNTY

The annual meeting of the Marinette County Medical Society was held the last week of November and the officers of the previous year were re-elected, that is, Dr. H. F. Schroeder, president; Dr. S. Berglund, vice-president; Dr. T. J. Redelings, delegate to the State Society; Dr. M. D. Bird, secretary. Dr. Redelings had a most interesting paper on "Cold Taking" and Dr. Luella Axtell covered the situation very thoroughly in her paper on "Diet in Typhoid." She dwelt especially on the giving of solid or semi-solid foods in addition to the large quantities of liquids. Our society now is comprised of twenty-five members, the largest and most healthful condition that our organization has ever experienced.

MAURICE DUANE BIRD, M. D.,
Secretary.

MARATHON COUNTY

One of the most interesting and enjoyable meetings of the Marathon County Medical Society has ever had was held in this city on November 8th, 1912, at which meeting the druggists of the city were our guests. After a six o'clock dinner served in the dining room of the Wausau Club, the meeting was held in the Club parlors. The paper of the evening was read by Dr. W. G. Merrell of Grand Rapids on "Proprietaries." The subject was discussed pretty thoroughly by both the druggists and physicians. Taken all together this was one of the best meetings ever held by this Society.

S. M. B. SMITH, *Secretary.*

MILWAUKEE COUNTY

Milwaukee County Medical Society held its annual election of officers on December 16. The result of the election is as follows: president, Dr. C. H. Lemon; vice-president, Dr. D. J. Hayes; secretary, Dr. Daniel Hopkinson; treasurer, Dr. William Thorndike; trustee, Dr. R. G. Sayle.

OUTAGAMIE COUNTY

The regular meeting of the Outagamie County Medical Society was held at the Hotel La Salle at Kaukauna, January 16, 1913. The meeting was called to order by the president, Dr. James Reeve, at 3 o'clock.

There being no clinical material available, Dr. C. D. Boyd proceeded to read a paper—"The Doctor in the Community." The paper was well received, being entirely original and called forth a general discussion. Papers like these are appreciated as they do not read like repetitions of the text book. Dr. Mears of Kimberly was to have read a paper on "Hemorrhoids," and in his absence Dr. Sandborn read a very interesting article which dated back 110 years.

A motion was made and carried to have the secretary and president draft a resolution commending the action of the Postmaster General and President as to their able stand in prosecuting the medical fakers and prohibiting their use of the mails. A motion was also made instructing the secretary to secure some outside man to address us at the annual meeting in March.

There were twelve members present. There being no further business, the Society adjourned.

FRANK P. DOHEARTY, M. D., *Secretary.*

PORTAGE COUNTY

Portage County Medical Society held its annual meeting on December 17 and elected the following officers: president, Dr. A. E. MacMillan; vice-president, Dr. D. N. Alcorn; secretary-treasurer, Dr. W. F. Cowan; delegate, Dr. W. F. Cowan.

An excellent paper on "Fallacies of Diseases of Children" was read by Dr. Lindores, after which a discussion followed.

RICHLAND COUNTY

The Richland County Medical Society met on January 9th at the office of Dr. Campbell. Officers for the ensuing year were elected as follows: president, Dr. R. H. LeLap; vice-president, C. F. Daugherty; secretary-

treasurer, G. R. Mitchell; delegate, M. W. Haskell; alternate, Dr. F. W. McKee. Dr. McCarthy was elected a member. Dr. A. D. Campbell, the retiring secretary, was tendered a vote of thanks for the very acceptable manner in which he had conducted the office for so long a period. Dr. Haskell reported a case of Mental Aberration; Dr. Campbell, a case of Peritonitis; Dr. Benson made a blood test. Dr. C. F. Dougherty reported the hospital as meeting the expectations of the public. The next meeting will be held in February.

ROCK COUNTY

Rock County Medical Society met at the City Hall at Janesville, on November 26.

Program: The Real Value of Vaccine Therapy, Dr. J. H. Stealy, Freeport, Ill. Report of One Hundred and Fifty Cases of Appendicitis, Dr. J. F. Pember. Obstetrical Emergencies, Dr. C. E. Smith. Fractures of the Skull, Dr. H. E. Burger.

Rock County Medical Society met on December 31, 1912, at Beloit. The following officers were elected: president, Dr. Frank Van Kirk; vice-president, Dr. H. L. Delaney; secretary-treasurer, Dr. Fred Sutherland; delegate, Dr. E. B. Brown; alternate, Dr. J. F. Pember; censors, Drs. Keathley and Chilcotte. Owing to the absence of Dr. G. W. Fifield, the discussion of the topic "Changing Conditions of the Medical Profession" was postponed to a later date. The next meeting of the Society will be held in Janesville.

SHAWANO COUNTY

The Shawano County Medical Society at its adjourned annual meeting, held at the Murdock House, Shawano, January 8th, 1913, elected the following officers: Dr. W. J. Ragan, Shawano, president; Dr. H. Calkins, Shawano, vice-president; Dr. C. E. Stubenvoll, Shawano, secretary-treasurer; Dr. L. Rothman, Wittenberg, censor for three years; Dr. W. H. Cantwell, Shawano, delegate for state; Dr. E. R. Van Schaick, Caroline, alternate.

The Lutheran Hospital Association, consisting of Lutheran ministers of the Missouri Synod, in Brown, Shawano, and other counties belonging to their district, voted for a hospital which is to be built at Shawano this year. The site for the hospital has already been donated by the city of Shawano.

The Shawano County Insane Asylum, under construction since 1911, will be ready for patients within two months. The cost of this institution amounts to \$150,000.

At the last meeting of the Shawano County Board of Supervisors, Dr. W. H. Cantwell of Shawano was elected County Physician.

Yours very sincerely,

C. E. STUBENVOLL.

SHEBOYGAN COUNTY

Twenty members of the Sheboygan County Medical Society held a banquet at the Elks' Club on Nov. 24th. The Society was addressed by Dr. S. S. Hall of Ripon, who spoke on malpractice suits.

Sheboygan County Medical Society met at the office

of Dr. G. H. Stannard on January 11th and elected the following officers: president, Dr. J. R. Kingsley; vice-president, Dr. H. F. Deisher; secretary-treasurer, Dr. W. F. Zierath; delegate, Dr. O. A. Fiedler; alternate, Dr. Wm. Van Zanten; censor, Dr. R. M. Nichols.

WAUKESHA COUNTY

Regular meeting of the Waukesha County Medical Society was held at Dr. Margaret Caldwell's residence, Waukesha, on December 4th. Seventeen members were present.

Dr. Caldwell read a very interesting and instructive paper on "Eugenics" and a general discussion followed.

Officers elected for 1913 were; president, Dr. Margaret Caldwell, Waukesha; vice-president, Dr. W. S. Wing, Oconomowoc; secretary-treasurer, Dr. Sara J. Elliott, Waukesha; delegate, Dr. M. R. Wilkinson, Oconomowoc; alternate, Dr. R. E. Davies, Waukesha; censor, Dr. B. U. Jacob, Waukesha.

Refreshments were served and a pleasant social hour concluded the last meeting for 1912. We are now endeavoring to prepare a complete program for nine meetings in 1913.

S. J. ELLIOTT,
Secretary.

WOOD COUNTY

Wood County Medical Society held its December meeting in Marshfield, December 17. Program: "Convergent Squint," Dr. Wm. Ruekle, Grand Rapids; "Treatment of the Genital Canal During and Subsequent to Labor," Dr. H. H. Milbie, Marshfield; "Blood Pressure," Dr. O. T. Hougen, Grand Rapids; "Technique of Tonsillectomy and Adenectomy," Dr. Wm. Hipke, Marshfield.

At the January 9th meeting of Wood County Medical Society action was taken to consolidate with Clark County Medical Society.

WEST WISCONSIN DISTRICT

The West Wisconsin District Medical Society held a successful and pleasant meeting at Eau Claire on November 29th. The attendance was between 90 and 100, and although quite a number could not remain for the banquet in the evening, there were 80 guests at the feast. Dr. J. V. R. Lyman was re-elected president and Dr. E. E. Tupper, secretary-treasurer.

The following was the program: Nephritis, Dr. C. H. Bunting, Madison. Certain Features of Disease of the Coronary Arteries, Dr. James B. Herriek, Chicago. Fractures, Dr. J. M. Dodd, Ashland. Surgical Operation Under Local Anesthetic, Dr. H. B. Sweeter, St. Paul.

FOX RIVER VALLEY MEDICAL SOCIETY

The Fox River Valley Medical Society met on December 15th in Oshkosh to listen to the last of a series of six lectures delivered by Dr. M. P. Ravenel. About fifty physicians were present and enjoyed the lecture and the banquet that followed. This was held at the Athearn.

MILWAUKEE MEDICAL SOCIETY

The annual meeting and election of officers of the Milwaukee Medical Society was held on January 15, 1913. Officers elected were: Dr. Gilbert E. Seaman, president; Dr. Hoyt E. Dearholt, vice-president; Dr. C. A. Baer, secretary; Dr. R. C. Brown, treasurer; Dr. W. L. Le Cron, librarian.

THE ASSOCIATION OF COUNTY SECRETARIES AND STATE OFFICERS of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette President. M. B. GLASIER, M. D., Bloomington Vice-President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County Society. It will be edited by Rock Sleyser of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

ANNUAL ADDRESS OF THE PRESIDENT OF THE LA CROSSE COUNTY MEDICAL SOCIETY.

BY OSCAR HOUCK, M. D.,
LA CROSSE.

As it is customary for the incoming president to make a few remarks I want to read a short paper before the lecture begins. I shall make it very short so as not to impose on your good nature, as we are anxious to hear Dr. Bunting. I am sorry that you have chosen a president who has no experience as such, or inclination for this office; yet, since the mistake has been made I shall endeavor to do my best, and will ask you to be lenient in your judgment. At any rate, I thank you for your good intentions in bestowing the honor upon me.

In order to make these meetings a success each and every member must show his willingness to pull his part of the load. First by his personal attendance, secondly, by urging his colleagues to attend regularly, and thirdly by writing short snappy papers on the vast number of subjects at his command. It is especially the younger members who will profit by this practice, yet I hope that the older practitioners will not forget to contribute of their experience in papers as well as in discussions.

As we have chosen the regular meeting nights for our Bunting lectures, we must not neglect to set aside a certain time for business and individual efforts.

The aim of this society, as I understand it, is to further the welfare of the physician both professionally and economically. The present status of medical practice is very unsettled and unsatisfactory. It is in a transitional state, being neither fowl nor fish, therefore it behooves us to lead it into the right channels, by discussions and by honest and earnest labor for the benefit of humanity.

A physician who has eyes to see with, and who is willing to see, can find a subject for a sermon at every turn in his daily routine. It is ridiculous indeed that such work as the physician has to perform, shall be on a compensation basis. When the public is waked up to the realization of this abnormality, it will not take very long until the practice of medicine will be regulated in such a manner that the public will have free services of the best talent that can be obtained, and people will be encouraged to consult these medical caretakers of the public health. The community will have the appointment of the physicians, and these will be subject to recall in case of any inefficiency. They will be well paid, and very short hours will be the rule. They will be expected to take regular trips to the polyclinics where no trouble or expense will be spared in order to give them the cream of the highest achievements of medical science and art. What an opportunity for the development of these men for the benefit of humanity! When the physician has attained these heavenly conditions, the rest of the people each in his special occupation will also have his industrial branch worked out, so as to give the highest satisfaction to the individual as well as to the community.

While the above is sorely desirable and not so very far away, yet we must not expect medical men, under the present conditions, to be angels. Saints are not living at the present time, because the almighty dollar and the bread and butter problem are continuously staring us in the face, making brutes of us occasionally. The medical society by its beneficent influence should help its members to follow the golden rule and to teach that self-control is a most valuable qualification.

A man possessing common sense, and with the

training such as a physician gets in diagnosing disease, should be the very person to ferret out the causes for all this unnecessary misery, injustice, and waste that you and I meet at every step, in our practice and out of it. You know for certain, that most of your patients would not be patients but for the breaches of the laws of nature. Most of them are ill because of the slavery that they are subjected to: The workman slaving 10 to 12 hours of wearing toil in the shops, the farmer 14 to 16 hours a day to eke a living out of the soil, the housewife keeping house, bearing and rearing children busy night and day so to say; no rest for the wicked; Oh, how wicked they must be! You prescribe rest, good food, a cheerful disposition, etc. If they have any sense of humor left, they will laugh right in your face and tell you to step into their shoes if only for a short time. These manufactured invalids represent an army larger than all armies combined. Teach the young folks some of these truths, show them moving pictures of such conditions, the results of gonorrhoea, syphilis, tuberculosis, cancer, etc., etc., and inform them that these avoidable diseases will be theirs by following in the footsteps of their elders; but that by culture and education of the right stamp they can be avoided and thereby saving human lives, and the country billions of dollars every year by changing the capitalistic system producing these conditions for the sake of filthy lucre, into the co-operative commonwealth, with equal opportunity for all. The stubborn idiocy of the rich, of the middle classes, and even of the poor laborer, in imagining that they will suffer by this change which in reality will make life so much sweeter, and purer, and really worth living, which cannot by any means be said of the present existence. Let me mention in conclusion the little epidemic of smallpox that the health department has at present on its hands. In my opinion, the only way to stamp out contagious diseases will be by free medical service, compulsory vaccination in case of smallpox, and by relieving people of all expenses and avoidable inconveniences by providing isolation hospitals, besides a heavy fine for neglect of calling medical assistance for which neglect there would then be no excuse. With these weapons the health officers would have an easy time and could attend to other and pleasanter duties.

BOOK REVIEWS

PROGRESSIVE MEDICINE, a Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences, Edited by H. A. Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, assisted by Leighton F. Appleton, M. D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia. Lea & Febiger, Publishers, Philadelphia and New York. Price, \$6.00 per annum.

Vol. 3 of Progressive Medicine contains: Diseases of the Thorax and its Viscera, including the Heart, Lungs, and Bloodvessels, by William Ewart, M. D., F. R. C. P.; Dermatology and Syphilis, by William S. Gottheil, M. D.; Obstetrics, by Edward P. Davis, M. D.; Diseases of the Nervous System, by William G. Spiller, M. D.

Vol. 4 of Progressive Medicine contains: Diseases of the Digestive Tract and Allied Organs, the Liver, Pancreas, and Peritoneum, by Edward H. Goodman, M. D.; Diseases of the Kidneys by John Rose Bradford, M. D., F. R. C. P., F. R. S.; Genito-Urinary Diseases, by Charles W. Bonney, M. D.; Surgery of the Extremities, Shock, Anesthesia, Infections, Fractures and Dislocations, by Joseph C. Bloodgood, M. D.; Practical Therapeutic Referendum, by H. R. M. Landis, M. D.

The great value of this publication is that it gives much more than an abstract of the work done in these departments of Medicine during the current year; it presents an appraisal by a competent authority of the year's progress and so economizes the reader's time by presenting for his consideration only what is important, supplemented throughout by judicious editorial comment.

Progressive Medicine is the best sort of perennial post-graduate course and we hope the number of its readers may steadily increase.

PRACTICAL MEDICINE SERIES. Vol. IV, series 1912, Gynecology, edited by Emilius C. Dudley, A. M., M. D., and C. von Bachelte, M. S., M. D., Chicago. Pp. 228. Price, \$1.50.

PRACTICAL MEDICINE SERIES. Vol. V, series 1912. Obstetrics, edited by Joseph B. DeLee, A. M., M. D., and Herbert M. Stowe, M. D. Pp. 229. Price, \$1.50.

PRACTICAL MEDICINE SERIES. Vol. VI, series 1912. General Medicine, edited by Frank Billings, M. S., M. D., and J. H. Salisbury, A. M., M. D., Chicago. Pp. 240. Price, \$1.50.

PRACTICAL MEDICINE SERIES. Vol. IX, series 1912. Pediatrics, edited by Isaac A. Abt, M. D., and May

Michael, M. D., Orthopedic Surgery, edited by John Ridlon, A. M., M. D., and Charles A. Parker, M. D. Pp. 240. Price, \$1.50.

PRACTICAL MEDICINE SERIES. Vol. VII, series 1912. Skin and Venereal Diseases, Miscellaneous Topics, edited by W. L. Baum, M. D., and Harold N. Moyer, M. D. Pp. 237. Price, \$1.50.

Price of the series of ten volumes, \$10.00. The Year Book Publishers, 180 N. Dearborn Street, Chicago.

These volumes of a handy size and attractively arranged for the student and busy practitioner, are replete with suggestions of the best practice of the day. The material of the volumes consists almost entirely of abstracts of important recent articles, in each case giving the reference to the original article. The ground is covered with great thoroughness, so that these books present in condensed form what has been done during the year that is really good.

By means of this excellent series of books it is possible for the general practitioner to keep in touch with medical progress in all its directions, an undertaking which the growth of medical literature has rendered an impossibility without such an aid. The judicious editorship of the entire series and of the individual volumes eliminates most of the superficial and unsound in current medical literature and presents the articles of real value in a form full enough for satisfactory use.

For the busy general practitioner, who desires to keep moving with the current of progress, this series will prove most helpful.

HANDBOOK OF GENERAL PATHOLOGY. Krehl, L., Prof., Heidelberg. and Marchand, F., Prof., Leipzig. "Handbuch der allgemeinen Pathologie." In conjunction with Aschoff, L., Freiburg in Br., Askanazy M., Genf., von Baumgarten, P., Tübingen, Beneke, R., Halle, Boehm, R., Leipzig, Ernst, P., Heidelberg, Fischler, F., Heidelberg, Fraenkel, C., Halle, Henke, F., Königsberg i. Pr., Hering, E., Prag, von Hess, C., Würzburg, Hirsch, K., Göttingen, Hoche, A., Freiburg i. Br., Klemensiewicz, R., Graz, Kraus, F., Berlin, Kretz, R., Würzburg, Lüthje, H., Kiel, Minkowski, O., Breslau, Moritz, F., Köln, Paltauf, R., Wien, von Romberg, E., Tübingen, Schmidt, M. B., Marburg, Schwenkenbecher, A., Frankfurt, a. M., Sobernheim, G., Berlin. Volume II, Part I. General pathology of circulation, lymphocurrent and respiration. 658 pp. with 9 figures. Leipzig. S. Hirzel. 1912. 21 Mark (\$5.25).

The general scope and the great value of this important work, in which a comprehensive presentation of the doctrine of the pathological processes, including their causes, is intended, was set forth in our review of the first volume. The second volume contains the first part of the section on circulation, viz., chapter I on the pathology of the blood, by R. Paltauf, E. Freund and C.

Sternberg, and chapter 2 on the disturbances of the distribution of the blood, by F. Marehand. The first chapter is sub-divided into: quantitative changes, chemism, coagulation, osmotic pressure of the blood; pathology of the red blood corpuscles: form and structure, morphological and chemical changes, resistance, regeneration, number, increase, decrease, amount of hemoglobin in the blood, hemolysis, hemagglutination, viscosity of the blood; pathology of the white blood corpuscles: morphology and biology, origin, number, leucocytosis, leukemia; pathology of the blood-forming organs, blood plates and hemoconia. Marehand discusses in the 2nd chapter the disturbances of the distribution of the blood, which consist in a diminished or increased flushing, diminution of the quantity of the blood, anemia, or augmentation, hyperemia, and in hemorrhages. He speaks here of the contractibility, innervation, and physical properties of the bloodvessels, local anemia from increased outflow of the blood, diminished arterial afflux, or compression; active hyperemia, viz., the neuro-paralytic, irritative, and other forms, and passive venous hyperemia, passive congestion. The hemorrhages are considered under traumatic and spontaneous hemorrhages, including hemorrhagic diathesis, congenital and acquired; the idiopathic and symptomatic purpura in intoxications, diseases of the blood and infections.

The pathology of the lymph current is presented by R. Klemensiewicz in chapter 3 under the subdivisions: lymph paths, interstices of the tissue, relation between tissue and lymphatics, tissue fluid, formation of lymph and the transudates, capillary walls and function of membranes, vasomotor regulation of the lymph current in the range of the capillaries, the propelling force of the lymph current, edema, hydrops, composition of transudates and their absorption.

Chapter 4, on the pathology of respiration, has been allotted to O. Minkowski and A. Bittorf. Minkowski takes up the regulation and insufficiency of respiration and the means of their compensation, the supply of air and blood to the lungs, exchanges of gases in the lungs and tissues, finally the special protective arrangements of the respiratory organs: secretion of mucus, ciliated epithelium, reflex closure of the glottis, coughing and sneezing.

In the 2nd part the various causes of insufficiency of respiration and its results are considered by A. Bittorf under change of respired air, admixture of abnormal gases, diseases of the respiratory, abdominal, circulatory, organs and blood, general diseases, disturbances of metabolism and intoxications, diseases of the nervous respiratory apparatus. The chapters are generally preceded by a brief physiological introduction. A bibliography is appended to each chapter, and carefully prepared indexes of subjects and names and a special table of contents to each volume, greatly facilitate orientation. The discourse is very clear and interesting, giving a splendid and exhaustive modern exposition of the pathological processes.

C. ZIMMERMANN.

H. VON HELMHOLTZ: DESCRIPTION OF AN OPHTHALMOSCOPE FOR EXAMINING THE RETINA IN THE LIVING EYE. Introduced by Hubert Sattler, Leipzig. *Klassiker der Medicin*, edited by Karl Sudhoff. 36 pp. with 3 figures in the text. Leipzig. Johann Ambrosius Barth, 1910. Cloth, 1.20 Mark (\$0.30). Every ophthalmologist will be eager to possess this reprint of the classical essay, in which Helmholtz in 1851 described his wonderful instrument. With admirable clearness and precision Helmholtz propounds here the conditions under which the background of the eyes becomes visible and distinct images of the details are perceived. Within the 60 years since the appearance of the work, nothing essential has been added to what Helmholtz wrote at that time. The publisher certainly deserves our gratitude that he made this famous little book again accessible.

C. ZIMMERMANN.

ATLAS TO THE EMBRYOLOGY OF THE HUMAN EYE. Baeh, L. Marburg, and Seefelder, R., Leipzig. No. 2. 73 pp. with 30 figures in the text and 19 lithographic plates. Leipzig, Wilhelm Engelmann. 1912. 36 M. \$9. In our review of the first number the unique features of this monumental work were set forth. Its presentation of an uninterrupted series of all phases of the development of the human eyeball from the earliest stages has never been attempted before. 10 plates of the 2nd number, and the text to sutures of the lens, vitreous and zonula, are the work of the late L. Baeh, the chapters on the development of the cornea, iris, ciliary body, sphincter and dilatator muscles and sinus of anterior chamber, are by R. Seefelder. The plates, like those of the first number, are magnificent and with the concise text give a splendid exposition of this interesting branch of science

C. ZIMMERMANN.

THE ENERGETIC IMPERATIVE. Ostwald, Wilhelm. First Series. 544 pp. Leipzig, 1912. Akademische Verlagsgesellschaft m. b. H. 9.60 Mark (\$2.40). Ostwald created the term energetic imperative in analogy to the "kategorie imperative" of Immanuel Kant. It differs from it, however, in that it does not mean a command, but simply a guide to help us attain by the best and fastest route what we intend and wish. It says: utilize, but do not waste energy. This brief sentence is, as the author sets forth, indeed the most general rule of all human actions and extends not only to technical or practical works, but to all activities of man, up to the highest and most valuable achievements. It is the most effectual and enduring bridge between the apparently separated domains of matter and mind. From the physiological proof, that no sensory apparatus can become active if it does not receive or emit energy, follows that our whole knowledge of the outer world depends upon the knowledge of the physical and temporal

arrangements of the energies of our sensory organs. Thus the conception of matter may be reduced to that of energy. On the other hand the psychical phenomena can be shown to be immediate manifestations of the energies existing in the organisms, e. g., in mental work the consumption of chemical energy of the food is transformed into physical energy. Ostwald considers his philosophical task of life, to apply the laws of energy to all realms of pure and applied sciences, well founded

by the histological development and the present state of all sciences. In this spirit the numerous essays of this series are presented in a wonderful variety, dealing with philosophy, organization and internationalism, pacifism, pedagogics and biography. Many of the topics here discussed are of the greatest interest to the physician, to whom the fascinating book is warmly recommended for leisure hours.

C. ZIMMERMANN.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, FEBRUARY 1913

Number 9

ORIGINAL ARTICLES

THE NEEDS OF THE EYE, EAR, NOSE AND THROAT SURGEON IN GENERAL HOSPITALS.*

BY FRANK ALLPORT, M. D.,

CHICAGO, ILL.

All eye, ear, nose and throat specialists are well aware of the difficulties to be encountered in endeavoring to do their work in general hospitals.†

We visit such institutions as the New York Eye & Ear Infirmary, the Massachusetts Eye and Ear Infirmary, etc., and we envy those surgeons who seem so easily to dispose of their work. In these institutions we find permanent operating room nurses and internes who serve long terms and who become familiar with their duties. We find good instruments, solutions, lights, wards, etc., all arranged for the convenience of the surgeons and for the benefit of the patients. The surgeon is thus enabled to give his entire time and attention to his work, his operations and his service, which, of course, results in a quiet undistracted mind, better scientific thought, and a higher percentage of good results. The work proceeds easily and comfortably, accompanied with only a minimum amount of confusion and irritation, and with all equipments and apparatus for ordinary and extraordinary occasions. To work in such institutions is a privilege and a pleasure, and it is an incontestable fact that, whatever may be the cause, whether it resides in the men themselves, or in their atmosphere and surroundings, or whether it is the combined influence of both, men who work in such institutions, as a rule,

stand at the head of their profession and become recognized leaders and teachers.

In sharp contrast with these almost ideal working conditions, let us picture the difficulties encountered by the eye and ear surgeon in endeavoring to perform his duties amid the bewildering surroundings of a general hospital. It is not too much to say that he works in an alien atmosphere from beginning to end—in which he is constantly compelled to fight for his own rights and for the rights of his patients. Everybody is interested in surgery, in general medicine, in obstetrics, etc., but hardly anybody is interested in ophthalmology and otology. This is true of the superintendent, of the head nurse, of the internes and of the operating room nurses and other nurses. A general hospital interne, who takes any particular interest in ophthalmology and otology, and who intends to make this his life's work, is a species of interne that seldom I see. The consequence is that this service is an undesired one, and barren of interest to the interne, who therefore gets through with it as quickly and easily as possible. Such unwilling and perfunctory assistance is entirely unsatisfactory to the oculist, who learns to depend less and less upon it, until, through force of circumstances, he pays but little attention to the interne, and learns to do practically all his important work himself; or, if he has an assistant in his office, he avails himself of this assistance, not only in his office work, but in his hospital work as well. The assistant accompanies him in his hospital rounds, makes independent calls, dresses patients, assists at operations, etc., etc., and in fact, almost usurps the function of the interne, an improper situation, which has been largely and gradually evolved by the conduct of the average hospital interne himself. Such conditions occasionally precipitate unfavorable criticism from the medical staff, and from the internes themselves; the former, feeling that proper discipline is not being maintained, and the latter feeling that they are being ignored and their places supplanted by interfering usurpers. The

*Read before the Chicago Laryngological and Otological Society, Jan. 31, 1913.

†For purposes of convenience in writing, such specialists will, hereafter in this article, be usually designated as "Oculists and Aurists or Surgeons", although I include under this one title men who do all kinds of eye, ear, nose and throat work.

surgeon is sometimes called upon to defend himself under such conditions, and he is reminded that hospitals are training schools for doctors, and that the internes are giving their services to the hospital in exchange for experience, and that therefore it is their right to receive from each attending medical man all the instruction that the material affords. Such protests are not frequent, however, for, as a rule, the average interne is only too glad to shirk the eye and ear service; still such protests do occasionally occur, and when they occur a defense is necessary.

I have already given some reasons why the services of the average hospital interne is unsatisfactory to the eye and ear surgeon; but in addition I desire to say that our specialty is quite unlike any other specialty, and requires special training, experience, adaptability and delicacy of touch and manipulation.

I have seen eyes ruined after operation, by willing, but untrained and clumsy internes, and a few experiences of this kind are not conducive to the fostering of ideas concerning the desirability of training green and transient internes at the expense of human eyes. An interne may be quite capable of dressing ordinary wounds, and of doing ordinary hospital, surgical and medical service, and yet be quite incapable of dressing eyes after cataract or other operations, or of dropping medicine into the eyes without inflicting pain and injury, or of dressing a head after a radical mastoid operation, without defeating the purpose of the operation. Oculists and aurists, therefore, frequently form the habit of devising methods by which they can, at least measurably, dispense with the services of the interne, either by doing the work themselves, or by deputizing it to their office assistants. Even when (as occasionally happens) an interne appears who seems to take a real interest in this department, the surgeon's general line of conduct has become so well-defined, that it hardly seems worth while to change it for the brief space of one interne's service in this particular department.

And this brings us to a consideration of the great undesirability of short interne services in general hospitals. It is a fact that no intelligent surgeon will dispute, that the usual short term of interne service in a given department is not conducive to good work and is irritating and unsatisfactory to all concerned, for no sooner does an

interne begin to wear off the newness and become really useful, when he is transferred to another department, and a new man presents himself to be initiated into the mysteries of the department. This difficulty is overcome in some hospitals by allowing internes to serve only in a limited number of departments during their months of duty. This plan seems to be quite satisfactory where it has been tried, but I believe that some better method will be devised by those who are giving special thought to the subject. Certain it is, that until eye and ear surgeons can command the services of internes for many months of continuous service, these young doctors, however willing and earnest they may be, cannot be of any great utility to this department. At the present time, and under existing conditions, hospital superintendents, and internes, superintendents of nurses and nurses, seem to think that the main object of hospital work is to educate internes and nurses. My own opinion as to the use of hospitals is, that they exist for the purpose of benefiting the sick, and for the convenience of physicians, and *incidentally* for the education of internes and nurses.

And this leads naturally to the subject as to how the eye and ear department in a general hospital can best utilize the services of the general hospital nurse. When it comes to being of any real assistance to the surgeon in his hospital work, the general hospital nurse is nearly a hopeless proposition. This is not an ill-natured criticism, it is simply a statement of an unfortunate fact; neither is it a reflection upon the nurse, or her intelligence or willingness, as this statement is only possible because of circumstances and conditions over which the nurse has no control, viz., the constant changing of her location and occupation from ward to ward and from service to service. Between educating new nurses and new internes, and patiently enduring their mistakes and shortcomings, the path of the attending oculist and aurist in a general hospital is certainly not strewn with roses. I wish to again emphasize the fact that I am not blaming these young people, indeed, I am not blaming anybody—I am simply endeavoring to present my subject truthfully, for the purpose of ultimately producing better conditions.

The oculist and aurist in a general hospital has his patients scattered from ward to ward and from room to room. As he progresses from place

to place he is constantly confronted with a new nurse and with new conditions. If an interne goes with him, he may carry a tray of drugs, instruments, appliances, etc., for whose reliability as to cleanliness, aseptic qualities, etc., no one can vouch, as it is no one's duty in particular to guard the dependability of these articles. He is, therefore, constantly in fear of using impure solutions, dirty droppers, infected ointments, etc. Sometimes each ward or room contains the particular articles he intends using on the patients in that particular locality; but here again he is confronted with the same fear of contamination that is in evidence when he is using solutions, etc., from a migrating tray whose reliability is more than doubtful, and he is almost certain to want something, such as a solution, a light, a probe, an ophthalmoscope, etc., that is not at hand and that takes much time and confusion to secure. And so he proceeds from one portion of the hospital to the other, changing nurses from place to place, encountering fresh obstacles and annoyances as he continues in his calls, dressings, etc., until he emerges from the hospital tired and dissatisfied with his work and the conditions under which he is obliged to prosecute his labors. Besides this the proper fulfillment of the surgeon's orders in the interim between his visits, in a general hospital, is a practicable impossibility. The ever-changing ward nurse is quite incompetent to instill drops into the eye, or to irrigate an eye, or to put ointment into the eye, or to change bandages, or to irrigate or dress an ear, etc., etc. And as these things cannot be done properly during the surgeon's absence, he either dispenses with such necessary attentions altogether, or has them performed as infrequently as possible, in order to guard against the occurrence of damage occasioned by an inexperienced and therefore incompetent, not to say dangerous nurse.

The operating room conditions for the oculist and aurist in the general hospital are thoroughly unsatisfactory. The head operating-room nurse is by no means a fixture in most hospitals, and her time is usually absorbed in laparatomies, amputations, etc., so that when the eye and ear surgeon desires to operate, he is usually assigned to one of the assistant nurses. There are several of these endeavoring to obtain operating-room experience, so that it may easily happen that the surgeon may be assisted by an ever-changing new

nurse in his operations from day to day. He is thus irritated and annoyed, and therefore more or less incapacitated from doing the best work, by being constantly obliged to coach the nurse in her duties, and by using poor knives, scissors, sutures, etc., that are out of order, owing to the lack of proper inspection. In fact, the general hospital operating-room nurse has no conception of the instrumental necessities of instruments for the proper performance of ophthalmic surgery. Her ideas of surgical instruments are based upon those required to do large surgical work, and the necessities of a cataract or iridectomy knife, or a pair of de Wecker scissors, or a proper needle, are apparently beyond her conception. She drops cataract knives into a tray, with perfect unconcern, and allows them to collide with the sides of the tray, without any conception of the delicacy of the knife, or with the fact that it should not be used at all if its point is not perfectly true. Nor does it do any good to instruct her for she may be gone from her operative experiences tomorrow, and a new face, with all of its discouraging possibilities may confront the surgeon. These are some of the difficulties that constantly confront the oculist and aurist who endeavors to do his work in a general hospital. I have not completely covered the ground by any means, but I have perhaps said enough to afford an insight into the subject. Again I wish to disclaim any intention of critical indulgence upon hospitals, internes or nurses, they are merely the natural products of misconceptions.

Eye and ear work was the first to become isolated and it still is the most clearly defined of all the specialties. Almost all general physicians and surgeons refuse to do any appreciable amount of eye and ear work. They frankly admit their ignorance, and do not care to overcome it. This idea prevails amongst internes and nurses, who consequently take but little interest in this clearly defined and isolated specialty, which is therefore neglected as much as possible during their hospital service.

Having thus, at least to a degree, called attention to certain unfortunate conditions interfering with desirable eye, ear, nose and throat work in general hospitals, let us endeavor to see if something cannot be done to remedy such conditions.

Concerning the interne situation, I have the following plan to suggest: What is needed is a

long service of perhaps one year. Of course, it would not be possible to dictatorially appoint staff men to a year's service of this nature, without first gaining their consent; but if it was known that a certain hospital had a large eye, ear, nose and throat service, to which men desiring such work could be assigned for a year or more, I am inclined to believe that the position would be kept constantly filled. It should probably best be understood that while such internes would consider their eye, ear, nose and throat service to be of primary importance, yet they would be expected to work in other departments if their time was not fully occupied. This would probably be an additional incentive to secure the position, for most young doctors are anxious to round out their education, and to secure as much general knowledge and experience as possible. Eye, ear, nose and throat hospitals are comparatively few in number, and there are many young men desirous of special hospital training, who are unable to secure an internship in such special hospitals who would eagerly grasp at a prolonged special service in a high-grade general hospital. Such hospitals could, if thought desirable, issue a special certificate to those men who have served a year or longer in this department. I believe this plan is feasible and practicable, and could be successfully carried out in hospitals having a sufficiently large service to be a temptation to the embryo specialist.

This plan as just depicted, is now being carried out in St. Luke's Hospital in this city. Some time ago Mr. Curtis, the superintendent, told us that if we desired it and he could find a suitable man, we could have our own exclusive and continuous interne. Some pessimists believed a man could not be found who would be willing to give up a year's time to what eye, ear, nose and throat experience he could secure in a general hospital, but with remarkable promptness Mr. Curtis had about fifty applications for the position, from which he selected a man who is now the special eye, ear, nose and throat interne of St. Luke's Hospital. He will always have one or two junior internes working under him, who will change their service once in two months. The chief interne will have complete charge of the indoor and outdoor eye, ear, nose and throat service of the hospital, and at the end of his year's service he will be given a proper certificate. He will be present

at all operations, and will himself do all the operating it is possible to entrust in his hands. It should be clearly understood that this interne is the eye, ear, nose and throat interne for the entire service, and that his services are just as much at the disposal of specialists that are not on the staff, as they are for staff members. There is no salary connected with the position, but the interne is supplied with his living expenses. He is at liberty to do all the pathological work in the laboratory he desires, and we hope soon to have a special paid eye, ear, nose and throat pathologist at St. Luke's, as we all recognize that the average general pathologist is not qualified to perform satisfactory pathological work in our department.

Concerning the nurse situation, I believe we have at St. Luke's Hospital gone a long distance in solving this vexed problem. Some years ago, recognizing the necessity for better service, we secured through the cordial co-operation of the superintendent, Mr. Curtis, and the head of the training school, Miss Johnston, a nurse who was assigned especially to our department. She was an undergraduate and her term of service was for three months. Her first duty was to us and to our patients, but if her time was not fully occupied she could be assigned to other work. She kept the eye and ear trays stocked with fresh dependable solutions, ointments, droppers, instruments, pads, bandages, cotton, etc., etc., and always made the round of calls with the surgeons. She dressed and treated the patients between visits, kept the operating room instruments in order, and was always present at operations to be of all possible assistance, although she did not supplant the function of the operating-room nurse. Just before her term of service expired another nurse was appointed to take her place, and for several days she instructed the new nurse in her duties, so that the break in service would be as little apparent to the surgeon and patient as possible. In this way, it will be observed, four special nurses were educated in a year, and these nurses have been most valuable to the staff, who always request the employment of these nurses, in case private nurses are desired in eye, ear, nose and throat cases. This plan worked very well for some years, but the need of continued service was constantly apparent to all concerned. Just as the nurse became of real service and de-

pendability she would be exchanged for a new one, and then the educational process would begin all over again. The superintendent then still further improved our department, and enhanced the possibility of superior work by giving us an experienced graduate nurse to stay permanently on our service. She receives a regular salary, lives at the hospital, is an officer of the institution, and has immeasurably lightened our burden and relieved our responsibilities. She has four assistant undergraduate nurses a year, who are assigned to her service, and who are instructed by her. This is done for the purpose of relieving the special nurse of certain routine work, and also for the purpose of continuing the process of educating nurses concerning the duties of eye, ear, nose and throat nursing.

The possession of our special interne and special nurse, has lead us to hope for still better things in the future. We hope and believe that if our present conditions work harmoniously and successfully, and if our earnestness and usefulness to the hospital are further demonstrated, that within a short time a floor of the hospital will be devoted to our service, where we will have a superintendent, with nurses, sufficient internes, with a chief interne in charge, wards, rooms, operating rooms, dressing rooms, etc., in short, a hospital within a hospital, where the cares of management will be lifted from our shoulders, and where the advantages of a special hospital will be at our disposal.

One of the most useful steps for the upbuilding of a successful eye, ear, nose and throat service, in a general hospital, is the establishment of a regular day and hour for an operating clinic, where operations shall be performed, and where doctors and medical students shall be welcomed. If there is sufficient material, two or more operating days should be established, and these days should be filled with unflinching regularity and should be made as interesting as possible. At St. Luke's we now have two such days. Upon Thursday afternoon for many years all kinds of eye, ear, nose and throat operations have been performed, and recently Tuesday afternoon has

been set aside for all kinds of nose and throat work. Before long it is believed that more days will have to be added, and we hope that soon continuous operative work in our department will be performed every day in the week. The necessity for filling up these operative days is a great inspiration in the search for proper operative material. Besides this, it magnifies the importance of the department, keeps the beds filled, keeps the special interne and nurse busy, and undeniably maintains and improves the technic and experience of the operator.

Every hospital, supporting a live eye, ear, nose and throat department, should possess an active dispensary for the treatment of these diseases, which should be under the charge of the eye, ear, nose and throat surgeons of the staff, aided by the chief eye, ear, nose and throat interne and his interne assistants. Such a dispensary is desirable, not only because it affords experience in refraction and other general work in these specialties, but because it must surely become a most important source of operative supply to the regular operative clinic. Outside of special hospitals or infirmaries, where the daily attendance of patients is abundant, it is not an easy matter to keep one, two or three operative clinics a week well supplied with material. Every effort should be made to bring this about, and of the several available methods, a good live dispensary is one of the best.

This paper has been written with the purpose of suggesting how the eye, ear, nose and throat work in general hospitals can be improved, and made better and more convenient and useful for all parties concerned.

I have explained to you what we have done and are trying to do at St. Luke's Hospital in this city, but I do not wish to be understood as claiming a perfect service at this institution, as much remains to be done. But of one thing I am sure, viz., that the service in our department, under the present conditions, is infinitely superior to what it once was, and that the ideas carried out in this hospital might with great benefit be put in force in all general hospitals.

SYMPTOMS AND DIAGNOSIS OF PATHOLOGICAL CONDITIONS OF THE CECUM AND TERMINAL ILEUM.*

BY NEIL ANDREWS, M. D.,
OSHKOSH.

This paper emphasizes three facts:

First: There are pathological conditions in the abdomen simulating chronic appendicitis which have no relation to the appendix.

Second: These conditions are characterized by a fairly uniform symptomatology.

Third: A correct diagnosis may usually be made on the basis of a combination of symptoms plus the anamnesis and the Roentgen Ray.

The material from which these facts have been deduced is from the service of Dr. F. Gregory Connell, and consists of sixty-five cases which I had the opportunity of observing both before and after operative procedure.

First: The fact that there are pathological conditions of the terminal ileum and cecum simulating chronic appendicitis but having no relation to the appendix is abundantly proved by the failures to ameliorate symptoms in 25 per cent. of cases of so-called chronic appendicitis in which the appendices had been removed. This large percentage of failures led clinicians to look elsewhere for the causative factors.

Albu in 1905 emphasized the truth that appendectomy was in many cases a failure and that we would have to look to other sources for the origin of the clinical symptoms.

In 1908 Wilms wrote that many of his chronic cases of appendicitis upon which appendectomy had been performed were in no wise benefited.

In studying conditions that might give these symptoms, he concluded that they were due to a long cecum mobile.

In 1909 Fischler declared that a large part of the trouble heretofore called by the name of chronic appendicitis was due to a more or less pronounced muscular insufficiency of the cecum which he named "typhalatonia."

As early as 1901 Arbuthot Lane had emphasized the failures of appendectomies to relieve the symptoms and in a series of studies and brilliant operative procedures, culminating in the publica-

tion in 1909 of his classic on Chronic Intestinal Stasis, we have the beginnings of diagnosis and treatment of cases we formerly diagnosed and treated as those of chronic appendicitis.

Charles Mayo in 1910 in a paper on "Intestinal obstruction due to kinks and adhesions of the terminal ileum" concluded: "The object of this brief paper is the earnest recommendation that the terminal four inches of the ileum be examined in all cases where it is convenient to do so when the abdomen is opened."

Dr. Franklin Martin of Chicago writing in 1911 on the treatment of kinks causing intestinal obstructions declared, "We not only find this important pathological condition in a large number of cases, but we have learned to realize that it accounts for uncured appendicitis and some of us have demonstrated it by reoperating on our patients."

Dr. Sailer in a discussion of cecum mobile in 1912 affirmed that many cases were wrongly diagnosed as chronic appendicitis, that in these cases the removal of the appendix even if it showed signs of inflammation was not followed by the relief of the symptoms, and therefore some other etiological factor must be found, and that in his opinion the essential lesion was the atony which resulted from partial and occasional obstructions.

By the pathological conditions of the cecum and terminal ileum I refer to what is commonly known as Lane's Kink, Jackson's Membrane, and Movable Cecum.

In the sixty-five cases observed one, often two, and on several occasions three of the conditions referred to existed. Lane's Kink and Jackson's Membrane however were those most frequently present. Jackson's Membrane existed in seventy-two per cent., Lane's Kink in thirteen per cent. Lane's Kink and Jackson's Membrane were both present in seventeen per cent. and Cecum mobile occasioned the symptoms in twenty per cent. of the cases. Of thirty-seven cases operated on for chronic appendicitis twenty-eight patients, i. e., seventy-seven per cent., revealed either a Lane's Kink or a Jackson's Membrane. Of these sixty-five cases, previous appendectomy had been performed upon twelve, or about nineteen per cent. In all of these cases the condition of the appendix was such that I am certain that it in no wise occasioned the symptoms. It was the kinks causing partial obstruction that caused the patho-

*Read at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

logical condition. I admit this is not a generally accepted dictum.

It was only a few weeks ago at a meeting in Chicago one of her representative surgeons and a prominent educator affirmed that there was no such lesion as a kink, that it existed "in Lane's brain and not in the patient's abdomen." But I have seen the kinks. I have handled them. I have observed closely the changed condition of the patients before and after operation and know that the kinks caused the symptoms for their removal resulted in the cure of the patient. This is the testimony of others and I believe the next decade will witness a new phase of abdominal surgery in which emphasis will be placed not upon a diseased appendix but upon an existing kink or membrane causing partial obstruction.

Second: These pathological conditions are characterized by a fairly uniform symptomatology.

A marked and probably the most important symptom for which the patient comes to us is pain. The pain is variously described. With most it is a dull, boring pain and intermittent in character. It comes on at any time but is most severe when the patient has been on his or her feet any length of time. It is increased in walking up stairs, or in hurrying to catch a car, or in the indulgence in any violent exercise. Often the first complaint of a housewife was that she could not engage in her ordinary household duties without suffering from pain in her side, and while not severe in most cases, its everlasting presence was a source of discomfort and worry which disheartened and unfitted her for her task.

Sometimes the pain was noticed as in the case of a school girl of eleven who could go about her ordinary work without trouble, but when she ran up stairs or when she attempted to skip rope with the other girls, she had to hold her side it pained so.

The seat of pain is not always constant as in acute appendicitis. While often over McBurney's point, it is as likely to manifest itself a little higher up in the region of the gall bladder, or a little below in the neighborhood of Poupart's ligament.

Though most frequently described on the right side, it was occasionally located to the left of the umbilicus.

The relation of the pain to eating was characteristic. It was usually increased anywhere from

one to two hours after a hearty meal. The patients complained that though their appetites were good they were afraid to eat because it caused pain.

A second symptom equal in importance to pain was that of constipation. It was not always present however. Sometimes there was diarrhea alternating with constipation. Sometimes there was no apparent difficulty, the bowels moved normally and regularly. Yet with all it was one of the most constant symptoms. It was spoken of as having arisen slowly and in the beginning was easily overcome by a mild laxative. Now, however, the strongest cathartics are required and even these often fail to accomplish the desired effect.

If this was all they would offer no complaint but as a result of the constipation severe conditions have arisen and they want relief—relief not medication.

Their appearance was suggestive: As a result of the absorption of toxic material they were sallow, their skins were muddy and mottled, dry and inelastic; their bodies were poorly nourished, their movements were dull and sluggish. This appearance together with the clinical history suggested a chronic intestinal stasis due to pathological conditions of the cecum and terminal ileum.

The observation of these cases compels me to emphasize the necessity of treating seriously every case of chronic constipation that presents itself. Faulty intestinal drainage often is the beginning of life-long invalidism. Many of the ills to which flesh is heir owe their origin to this. Headache, dizziness, loss of control of temper, irritability, depression of mind and body, the proneness to every disease that lurks about on account of the diminution of resistive power due to absorption of toxic material—these are the results in many cases of chronic constipation.

We must remember that brains and bowels separated considerably anatomically are very closely related physiologically. Clear brains demand clean bowels.

When therefore patients come to us with constipation and resulting sluggishness of mind and body our business is not to drug them but to find out the cause of defective drainage and to correct it.

A third symptom is that of tenderness on pressure. This tenderness you may elicit almost any-

where on the right side but it is most constant a little below the umbilicus. While usually present it is most readily obtainable from one to two hours after ingestion of food.

In some of the cases the patients complained of a sense of fullness after eating. There was no pain anywhere. Examination revealed a remarkably sensitive area on even light pressure over the abdominal wall. This symptom of tenderness on pressure especially an hour or two after eating probably owes its origin to the retardation of food at angulations and kinks along the terminal ileum or colon and the consequent irritation of the intestinal tract at these points.

While there is usually tenderness it is noticeable that there is complete absence of rigidity of the recti muscles such as we find in cases of acute and chronic appendicitis.

A fourth symptom of these pathological conditions is what our patients call stomach trouble. They complain of their stomachs, they have no appetite. If they do eat they become bloated, sometimes food nauseates them, they belch gas, or they want to and can't get it up. They are progressively losing in weight. Anorexia, flatulency, biliousness, nausea and vomiting, dizziness, bad taste in the mouth, these are the reasons they come for help.

In most cases the stomach has nothing to do with these symptoms. They are reflex, brought about by the pathological conditions described.

It is well to bear in mind that seventy-five per cent. of symptoms referred to the stomach by our patients have absolutely no direct relation to the stomach but are usually traceable to some part of the intestinal tract.

The progress of a bismuth meal shows conclusively the cause of the symptoms mentioned. The kinks in the bowel or adhesions of the bowel retard the progress of food with resulting fermentation, and the stomach symptoms complained of arise.

The fallacy of the administration of drugs such as silver nitrate, bismuth, nux vomica, etc., is clearly portrayed. None of them touches or can touch the cause. Often we have tried our favorite stomachics and digestives with absolutely no results. The patient is no better, only more disheartened. He tries another doctor who administers his favorite and with the same uselessness

and the patient's hope is still deferred. He tries another and so on ad infinitum until altogether discouraged he gives it all up and resigns himself to a life of hopelessness. Or, he falls into the hands of a surgeon who advises operative procedure and with the removal of the kinks the breaking up of the adhesions, the anchoring of the colon or the short circuiting of the ileum, the symptoms disappear, hope dispels discouragement and good health dissipates invalidism, while the surgeon is apotheosized and the internist is damned.

Another though infrequent symptom is that of nervous irritability. This is characterized by palpitation, dyspnea, sleeplessness, mental depression and melancholia. We have heretofore classed these symptoms under neurasthenia and treated them accordingly. However a few of our patients demonstrated that cases supposedly hysterical or neurotic, may have a demonstrable anatomic lesion the repair of which will ameliorate the symptoms of so-called neurasthenia.

Thorough physical examination is often impossible in these cases for the abdomen cannot be palpated satisfactorily because all areas appear equally sensitive.

One case in point was that of a girl of nineteen in whom nervous symptoms predominated. She had complained for two years prior to the spring of 1911 of a pain in her right side and a diagnosis of chronic appendicitis had been made and operation recommended. Her appendix was removed without any amelioration of the symptoms. In the spring of 1911 she complained of nausea, vomiting, constipation, sleeplessness, hot and cold flashes, melancholia, a clinical picture so often attributed to neurasthenia. She was treated with baths, salt glows and sedatives without avail. This fact together with the personal history which recorded that the pain in the abdomen had preceded the nervous manifestations led me to diagnose a case of partial intestinal obstruction due to kinks of the bowels. On operation there were found a Lane's kink and Jackson's membrane. These were broken up and the cecum attached in its normal position to the abdominal wall. A year has elapsed and the patient declares herself better than at any time in the last four years.

This and other similar cases suggest that there are symptoms classified under neurasthenia that may be shown to have their origin in an existing

and demonstrable pathological condition of the cecum and terminal ileum.

In the diagnosis of these cases the existence of this combination of symptoms while it should always suggest the possibility of kinks in the abdomen, does not prove those pathological conditions.

Equally important facts are to be considered.

First I place the anamnesis of the patient, valuable in all cases it is especially so in these. We are to note carefully not only pain but how long has it existed and what has been done for it and with what result. We must not only know that there has been trouble—some gastric symptoms, but how long have they persisted, what has been done for them and with what, if any, benefit.

We are to note not only the fact that constipation is complained of, but the length of time it has existed. The fact that at first only light laxatives were required but that now even the strongest cathartics are often powerless. The period through which the patient sought and found little if any relief will enable us to diagnose pathological conditions due to kinks of the intestines.

The time element is always an important factor in the personal history of all cases and assists us in avoiding error in diagnosis. Medical insufficiency over a period of several months or several years with the persistence of the symptoms mentioned usually point to pathological conditions of the cecum or terminal ileum. In a large percentage of the cases under observation the diagnosis was thus made and in less than two per cent. of cases was it found incorrect.

A second important factor in the diagnosis of these cases is the Roentgen Ray. Through the painstaking efforts of Dr. C. H. Nims we have come to realize the invaluable assistance of the skiagram and advise it as a routine procedure in all cases.

So clearly has the progress or retardation of a bismuth meal been portrayed that the kinks causing obstructions have been located and later proven on operative procedure. In doubtful cases it has often proven the decisive factor.

The diagnostic value of radiography has been admirably emphasized by Dr. Alfred C. Jordan, medical radiographer to Guy's Hospital, London, in two monographs, one on "Radiographs in Intestinal Stasis" and a second on "Duodenal Obstruction as Shown by Radiography." These

papers are replete with skiagrams of the progress of the bismuth meal through the intestinal tract and so clearly are they brought out that even a novice can see the pathological condition which we so often ascribe to chronic appendicitis, and we cannot but heartily subscribe with him in his conclusion:

"Radiography is of the greatest assistance by offering evidence which is positive and beyond dispute of the existence and the position of the obstruction in the intestines. The condition can now be accurately diagnosed beforehand by radiography and the accuracy of the diagnosis afterwards tested by operation. Obviously this means of diagnosis is of greatest value." I emphasize, therefore, the association with a skillful radiographer as invaluable in securing an accurate diagnosis.

In the diagnosis we are to differentiate:

1. From chronic appendicitis in which the history of a previous attack of acute appendicitis will often assist. Further, palpation of the abdomen reveals considerable resistance of the rectus muscle, which is absent in kinks, and cecum mobile, while pressure reveals the absence of any gurgling sound.

2. Cholecystitis is at times difficult of differentiation. Here the pain is paroxysmal and sporadic while in kinks it is steady. It extends to the right costal arch and scapular region rather than over the cecum while the personal history reveals an irregularity in attack directly opposite to that of kinks.

3. Gastric ulcer sometimes resembles the pathological conditions under consideration. The helpful points are, in ulcer the sensitive area is in the epigastric region and to the left of the eighth and ninth dorsal vertebrae. In ulcer the pain comes on almost immediately after eating and radiates to the back, while vomiting is frequent.

4. Duodenal ulcer is to be differentiated by a pain appearing an hour or two after eating and usually relieved temporarily by food; and by the presence of blood in the stools.

5. Movable kidney at times simulates kinks and cecum mobile and is to be distinguished by the greater pain and the fact that by palpation you can usually distinguish the upper pole.

6. Ovaritis and salpingitis on the right side are to be differentiated by the location of pain,

bimanual examination and the absence of digestive disturbances.

7. Glenard's disease is at times difficult of differentiation because of the similarity of the symptom group, also when we remember that almost all cases of kinks have a general enteroptosis. Dragging pain in the back, polyuria, the sense of relief when the abdominal wall is strapped up, and the Roentgen Ray are the points to be borne in mind.

From the foregoing I would emphasize the following facts:

1. That there are pathological conditions in the cecum and terminal ileum simulating chronic appendicitis without any involvement of the appendix.

2. That these conditions are variously known as Lane's Kinks, Jackson's Membrane, and Cecum mobile.

3. That they present a symptom group fairly constant that should suggest their presence.

4. That in diagnosing this condition the personal history is of importance especially as relating to the period of disturbance and the insufficiency of medical means.

5. That diagnosis is not to be lightly made in a few moments of a busy office practice but only after careful study of symptoms and

6. The treatment will then be easy and many patients will be spared prolonged periods of invalidism.

DISCUSSION.

DR. F. G. CONNELL, Oshkosh: The subject that has been so well brought to your attention by the essayist, is one that is in its developmental stage, and is well worth very serious consideration. There is no question as to the fact, that the symptoms such as have been described do occur with most persistent frequency. There is also no question as to the fact, that the ileal kink of Lane; the pericolic membrane of Jackson; the cecum mobile of Wilms; the typhlatonia of Fischler, one or more, are not infrequent. And a third and important fact that may not be questioned, is that these symptoms and this pathology are found, very commonly, in the same individual.

And the question then remains, what is the relation existing between the symptoms and the abnormal condition? 1. Do the symptoms, one or more, cause the pathology? 2. Does the pathology cause the symptoms? 3. Or are they merely coincidental and both the result of some common etiological factor?

The second proposition is the most rational, but the third question brings one at once to a consideration of the etiology, where a conflict of opinion will be found: one considering these conditions to be the result of pre-

vious inflammation in the neighborhood; and the other that they are the consequences of imperfect or incomplete development of the relations of the intestinal tract.

Coincident, subsequent, or even resultant inflammation may tend to confuse a differentiation, but before accepting either it is incumbent that we consider the normal development of the intestinal tract, and especially that of the ileo-cecal junction.

(The following remarks were made in explanation of diagrams.)

The normal embryology of the ileocecal region is shown by the first five diagrams which I present, which show the ileocecal region receding into the abdominal cavity ascending to the sigmoid flexure coming to the hepatic flexure and descending to its permanent location. This state of perfect development does not take place until after birth. So in order to have a perfect development of the ileocecal region, three factors are necessary: First, migration, the transit around the abdominal cavity; Second, the rotation of the cecum. At this stage the ileum enters from above. In this diagram the ileum has rotated on its long axis through an angle of 180°, and this usually takes place at what is to become the hepatic flexure.

Now in order to maintain the relative position that the ileocecal region has secured by the two movements, migration and rotation, a third procedure comes in play, and that is the fixation of the viscera in normal position. This is shown in cross section in the diagram. Here is the ileocecal region showing the normal serous surfaces and this shows the blending of the cecum in the prerenal location of the abdominal cavity. In this we have fusion of the primary peritoneum. The serous membrane and the posterior layer of the visceral peritoneum become blended; and what was the visceral peritoneum becomes the parietal. This section shows the same fusion, the red lines showing the primary visceral peritoneum. They not only become adherent but fused, and the peritoneum is obliterated in this space.

So to get normal ileocecal relations, it is necessary to have a complicated migration, rotation and fixation. So the wonder is not that we have so few abnormalities, but that there are not more.

There are various abnormalities which may occur in this complicated procedure. Take that of migration. The ileocecal junction may stop anywhere from the splenic flexure across the abdomen and down to the hepatic flexure. In the cases where it stops before it reaches the hepatic flexure, then the ileum enters from the right side and above and it is not fixed, and it drops back into the left side, which will account for some cases of true appendicitis in the left iliac fossa.

If the descent continues from the hepatic flexure and rotation does not take place, as we have seen in a number of cases, the ileum enters from the right side instead of from the left. The cecum may be arrested anywhere from the hepatic flexure to its normal location in the right iliac fossa.

The rotation has not taken place in this picture. The ileum enters from the right instead of from the left. In this case there has been an excessive rotation. The rotation has been more than 180°; and the ileum enters

from the front instead of from the left. That is important when we come to the subject of fixation of this bowel.

This is perhaps one of the most interesting conditions of all. It is a diagram from an actual case in which the descent has been imperfect, the adhesions in the improper place causing marked stenosis and interference.

Normal rotation takes place from above and behind, downward and forward.

If that rotation had been reversed and instead of downward had turned upward and forward, then we would have a condition as is shown in this picture which will very closely comply with the description of the Jackson membrane as described by Jackson.

This shows an absence of peritoneal fusion, resulting in the condition called cecum mobile.

This picture gives a plausible explanation for the formation of the membrane of Jackson. The rotation has been excessive. Instead of the ileum entering the cecum from the left, it has gone on another right angle, and enters from before backward. Nature has attempted to fix it in place by adhesion. After birth, when the small bowel begins to functionate and contains contents so that gravity may exert a pull upon it, then it tends to fall back into its normal location, and in so doing this line of peritoneal fusion becomes a membrane and a band is spread out which also applies perfectly and accurately with the pericolic membrane of Jackson.

DR. W. W. KELLY of Green Bay: I am so completely in sympathy with the paper of Dr. Andrews and my small experience coincides so entirely with his, that I feel I should not occupy your attention with needless repetition.

As to Lane's Kink, had it been said that it existed only where those who were searching for it found it, I think the statement would have been more correct than that given by the surgeon who said it existed only in the imagination of Mr. Lane. One man of my own acquaintance, a prominent surgeon, told me he did not believe it existed, because in a series of over 2,000 operations for appendicitis he never saw a Lane's Kink. But he had not searched for it; and I have no doubt that he will discover it from now on.

I believe when in the course of an operation these abnormal bands, such as Lane's Kink and Jackson's membrane are discovered, unless we are satisfied that they are producing anatomical conditions which lead to interference with the normal function of the bowel, or unless we have a history of symptoms pretty definite that would point to operation, and this we can verify undoubtedly by the X-ray and bismuth meal, which will be described to you, I believe by Dr. Nims, I say that in these cases we are not justified in interfering with these bands. In other words, I am making a plea that we do not go crazy on this subject of Lane's kink and Jackson's membrane, and thus produce unnecessary traumatism and subsequent adhesions that will leave the patient worse than he was before the operation. Apart from this however, I am satisfied that this is a definite condition, presenting definite symptoms and calling undoubtedly for definite surgical intervention.

DR. C. H. NIMS, Oshkosh: Mention has been made several times of the bismuth meal and the X-ray in connection with the diagnosis of these cases of intestinal stasis. It might not be out of place to speak of the methods used and the value of the X-ray in determining these conditions.

About a year and a half ago I began using the technique of Dr. Jordan of Guy's Hospital in London. In using that, I have learned a good many new facts about the intestinal tract, and if I can present a few of these facts to you it will give a better understanding of the relation of the X-ray to intestinal stasis.

In the first place it was found that heroic doses of bismuth could be given by giving the carbonate instead of the nitrate; that danger from bismuth poisoning was due to the nitrate and not to the bismuth. So we can give doses aggregating quarter of a pound without trouble. I give it mixed with malted milk—take a sample bottle of malted milk and mix that with the bismuth.

Second, the most important thing to bear in mind in the use of the bismuth meal, is the fact that this bismuth meal is an entity, that it goes through the intestinal tract as an entity; and you can find it with the regularity of a Chicago and Northwestern express train at certain points on schedule time in the normal individual. This fact was unknown before we began locating this bismuth in a series of radiographs. We supposed that it was scattered along over ulcers and lurked in various pockets along the intestinal tract remaining there for some time.

When we give a bismuth meal we observe it by the means of radiograph at the following times. Immediately; after one and a half to two hours; after four and a half to five hours; after nine hours; and after twenty-four hours.

The immediate picture gives us the outline and position of the stomach. It also tells us if the bismuth has been stopped before reaching the stomach. This would be true in case of cardio-spasm, stricture, or diverticulum of the esophagus.

The second picture would show the food passing out of the pylorus. This determines the position and to some extent the patency of the pylorus. This picture usually gives clearly the peristaltic wave of the stomach. It is interesting in cases where we have a more or less mobile stomach to take two pictures, the first with the patient upright and the second reclining. In the first the stomach will be found in the pelvis while in the second it will be in a nearly vertical position to the left of the vertebral column.

But to go on to the picture taken four or five hours after ingestion of the bismuth. It is in this picture that we find our first inkling of the trouble that is under discussion, namely intestinal stasis. At this time our entire meal should be found in the head of the cecum. Often there is a little residue in the last two or three loops of the ileum. The bulk, however, in the normal individual has passed the ileo-cecal valve. Probably this will seem to you a little surprising, it certainly was to me. It was only after taking a large number of normal cases that I became convinced that such was the

usual condition and that any marked delay beyond this time constituted intestinal stasis and was due to some unusually demonstrable lesion.

When we find at this time (four or five hours after the meal) that only a small portion of the bismuth has reached the cecum, while all the lower loops of the ileum are full of the powder, we are assured that there is some delay in intestinal progress at or near the ileo-cecal valve. To determine the extent of this delay radiographs are taken later with the patient in the same dorsal position. The usual time is nine hours after the meal. In the most marked cases we will find still at this time that there has been but little progress since the last picture was taken. When this is true we can make with perfect positiveness the statement that there is great delay.

Mention has been made of the fact that this picture is taken in the dorsal position. This would seem to have little significance at the first thought. However, on thinking of the anatomy of the right iliac region you will remember that in operating in this locality the brim of the pelvis acts as a sort of water shed and unless the patient is in the extreme Trendelenberg position the pelvis is full of small intestine. This condition is even more marked when the lower loops are loaded with heavy bismuth. The tension is so great that the very last loop short of the ileo-cecal valve is often stretched out so that it can be clearly differentiated from the rest of the intestinal tract. In cases of marked Lane's kink it is often possible to make out the portion right up to the kink distended with the bismuth that the peristaltic wave is trying to force past the obstruction. The part between the kink and the ileo-cecal valve shows either as a narrow cord with little bismuth in it or is entirely invisible in the radiograph.

Where this terminal loop is not shown in this manner it leads to the suspicion that the trouble is not a simple case of Lane's kink, but may be due to some other condition causing delay at this site. A chronic inflammation of the appendix will act in the same way as the cause of a marked delay in this region.

Now, as has been mentioned, what we call a "marked delay" is by taking a second picture nine hours after the bismuth meal, and still finding the bismuth in the ileum. This is indicative of a pathological condition. And I have yet to see a case where you find the bismuth meal in the ileum nine hours after giving the meal, where there is not a distinct pathological change demanding operative procedure of some kind.

I distinctly remember one case where I was quite positive that there must be a Lane's kink, and instead of that there was a marked chronic appendicitis. The delay was at the same place, and in our early experience we thought it must always be Lane's kink; but the delay is at the ileo-cecal valve.

Now in the movement onward of this bismuth meal, if it is normal and in the ascending colon four and a half hours after ingestion, then the delay is not in the lower ileum. Then the delay must be sought in another picture twenty-four hours after the meal is given. In this you get an outline clearly of the whole colon, the

ascending, transverse and descending colon, showing the loops of the sigmoid portion.

We find that at the two flexures the transverse colon is looped up, higher at the splenic flexure than at the hepatic, and at these points there is likely to be a certain amount of kinking. These are probably more or less normal. You find them in most cases; but I presume you will find cases where they do assume a pathological importance.

Bear in mind that this meal moves as an entity; that we take our pictures at the time we know where the meal ought to be and if it is not there then we can go back and find it; or if it has gone ahead where movement is too rapid, we can also find it. This is the method by which the X-ray determines the amount of intestinal stasis. It is not by imaginary findings in the examination of the plate that this is done, although skill in diagnosing a plate is of value. The diagnosis is effected through the discovery by means of the X-ray of the principle that the bismuth meal passes through the normal alimentary canal in twenty-four hours.

ABNORMAL PELVIC CONDITIONS IN INSANE WOMEN AND THEIR RELATION TO THE MENTAL STATE.*

BY MARY SAUTHOFF, M. D.,

STATE HOSPITAL FOR THE INSANE, MENDOTA, WIS.

For many years pelvic lesions have been thought a large factor if not the sole cause of many of the psychoses in women. In the past the statements as to the influence of these diseases upon insanity have been subject to the most extravagant assertions. The result has been that the laity has been so impressed with the relation between abnormal pelvic conditions and deranged mental conditions that even today, the relatives of patients all but insist that the mental aberration of their friends is due to some pelvic disturbance.

Dr. Frederiek Peterson of Columbia University says: "There are serious disorders of the genital organs which occasionally play a role in the causation of insanity, but their importance as factors has been grossly exaggerated and much harm and little good has followed operative interference for the relief of insanity. Probably the cessation of menstruation (common in the acute insanities) has been misinterpreted as significant of genital disease and thus given rise to grave error. I would not deem operative or other treatment if it be indicated, but let no one be deceived into

*Read before the Dane County Medical Society, Oct. 15, 1912.

expecting benefit from these procedures except in rare instances."

Now it would seem reasonable to suppose that all factors, especially serious somatic conditions, capable of bringing about a profound exhaustion of the organism might be placed in the etiology of insanities in which there is a large element of exhaustion, and in this list of etiological factors we may place the severe pelvic inflammations and the puerperal state in which exhaustion and nutritive disorders occur. According to Binswanger the action of these factors is explained in this way that "the general exhaustion of the organism brings about deficient cerebral nutrition the clinical expression of which is primary mental confusion." Kraepelin says that "these causes bring about disturbances in the nutritive changes and determine the production of toxic substances which, acting upon the cerebral cells, give rise to an intoxication psychosis."

Dr. Walter Manton of Detroit reports 100 examinations among insane women, 81 of which he found to be abnormal and yet he doubts whether pelvic disorders ever cause insanity but he thinks that pelvic diseases act as foci of irritation and in this way do keep up the insane condition and add more or less to its severity.

It would seem, however, that no one can doubt for a moment but that in some cases there is some relationship between a pelvic lesion and a mental derangement, when he sees the disturbances that occur at puberty, pregnancy, and the menopause. Every physician has seen insanity occur at puberty or during gestation and in many of those cases who have shown mental symptoms prior to this time, the manifestations become aggravated during these periods of stress. There are also cases that manifest symptoms only during menstruation and other cases in which the symptoms are greatly increased during the menstrual period. Again we have the insanity which follows puerperal infection or other severe acute pelvic inflammations. I would not convey the impression that these conditions are the sole cause of the mental upsets but in many women of unstable mentality these periods of stress and strain may result in actual insanity.

There has as yet been very little work done on the percentage of pelvic disease among insane women and the exact nature of these lesions. It is also true that little has been done towards

showing whether or not there is any relationship between the kind of lesions and the form of psychosis. In the *Journal A. M. A.* for August 31st, 1912, there appears a paper on this subject by Dr. Fredrick Taussig of St. Louis. He reports the result of pelvic examinations in 537 insane women, 47 per cent. of whom he finds to have some pelvic lesion. Among these 252 diseased patients he finds 319 pelvic abnormalities. These cases he has tabulated according to the various forms of psychoses and finds a noticeably higher per cent. among the Manic Depressive class. He also calls attention to the large proportion of chronic inflammatory conditions of the genital tract in this form of insanity and he concludes that every patient suffering from Manic Depressive Insanity should be examined and any lesions treated.

It has been the rule in this hospital to make a pelvic examination in the case of every female patient. These examinations are usually made as soon as possible after the admission of the patient though the length of time elapsing necessarily varies with the mental condition. Before the examination is made it is my practice to explain as well as possible to the patient just what is to be done and in this way to try to set aside any fear or apprehension that she may have. Plenty of time is always taken for the examination in order that the nurse may not have to hurry in making preparations and in that way cause excitement. In every case if the patient becomes excited and resistive the work is stopped and the case left until there is some improvement in the mental condition and in most cases it is possible to make a satisfactory bi-manual examination before the patient has been in the house very long. An anesthetic is never used as it is probable that such a procedure would only serve to excite the patient and increase the tendency toward delusions. As a rule the patients do not become excited after the examination and only rarely do they develop delusions as to the purpose and nature of the procedure. In this series of 200 insane women taken without selection from the admissions to this hospital, only four have expressed such delusions and in no instance did any of these retain such belief for any length of time.

In making the examination of these 200 patients recently admitted to this institution, 103 were found to have some lesion that was grave enough

to cause symptoms, or to have had lesions grave enough to have required operation before admission. Very small cervical lacerations with no erosions and very small tears of the perineal body with no symptoms have not been classed as abnormal. In many of the women who have some pelvic abnormality more than one lesion was found and in the entire 103 abnormal cases there were 251 pathological conditions (Table 1).

In noticing the character of these pathological states we find that a non-adherent retroverted uterus was frequently found and that this condition occurred in 33% of the abnormal cases. While an adherent retroverted uterus was rare, occurring in only 5%. Laceration of the perineum was frequent, being found in 27%; arrest of development was noticed in about 12%; while inflammatory lesions were found in about 54%, but only a few of which were acute, the majority being of a chronic or sub-acute nature. Cervical tears of any magnitude occurred in only 16% of the diseased women; polypi were few in number, as were the cases of other tumors, and there was not a single case of malignancy. There were many cases that showed a post-operative condition in which the operation had been of greater or less severity varying from a perineorrhaphy to a pan-hysterectomy. This list, however, does not include those cases who had had an immediate repair of the perineum following parturition. It was found that 19% of the abnormal women and 10% of the entire number examined had had operations for the relief of some pelvic lesion and that in 60% of these cases the operation was performed after the onset of the mental symptoms and in only one case has it been possible to ascertain positively that the mental trouble came on after the operation. While the pregnant state was not classed as abnormal it is interesting to note that 3½% of the whole number were in various stages of pregnancy at the time of their admission to the hospital and two-thirds of these cases were of the Manic Depressive group.

Many of the men who have reported diseased pelvic conditions among insane women have placed the percentage of those showing disordered conditions higher than the 51½% of this report. (Tables 2 and 3.)

In this series of 200 unselected cases we find the highest percentage in Paresis where every case examined was found to be abnormal. In the Infec-

tive Exhaustive group 75% showed lesions. The cases of Involution Melancholia showed 61% of abnormal cases. The Manic Depressive group showed 58% and the Dementia Precox 47% abnormal. In the Paranoic conditions and the Epileptic Psychoses there were only about one-third of the cases that showed lesions. In the Alcoholics, the Imbeciles, and the Psychoses with other Brain or Nervous Diseases there were about one-half of the cases abnormal. 40% of the Constitutionally Inferior Individuals and 43% of the Senile cases showed lesions.

The cases of Paresis were all of a chronic inflammatory nature and those of the Infective Exhaustive group were more acute. The Manic Depressive cases showed a relatively large number of lacerations, misplacements, and sub-acute or chronic inflammatory conditions, while among the cases of Dementia Precox there was a large number of cases showing defect of development. Two-thirds of all the cases of arrest of development were found in the Dementia Precox group and in those cases listed as Imbeciles and Inferiors.

Although the result of these examinations showed that about one-half of all the insane women had some pathological condition of the genital tract it does not follow that all of them were in need of treatment and there were about 53 of the 103 abnormal women that received treatment. So far, we have not had any of these cases treated surgically though there are some that might be benefited. The treatment has consisted of conservative measures such as douches, tampons, pessaries, etc., with the result that none of the patients have seemed to grow worse as far as the mental condition is concerned, while 20 have shown various degrees of improvement, and in 33 cases there has not been very much, if any, change in the mental condition. Of these 33 cases some are still in the hospital and it is possible that there may be some further improvement later. There was a greater improvement in the Manic Depressive group but when one considers that this form of insanity tends toward recovery it would seem doubtful if the recovery had been the result of the treatment though it is impossible to state that the attack might not have been shortened by the treatment and the removal of this source of irritation. (Table 4.)

Rohe reports 34 cases operated on in the Maryland Asylum: 30 of these were abdominal sections

for the removal of the appendages and in 3 of these secondary vaginal hysterectomy was performed. In two there was a repair of a lacerated cervix and in two a vaginal pan-hysterectomy was performed. Of the 30 abdominal sections 10 were cured mentally and physically, four were much improved, 13 unimproved and 3 died. Of the three that had secondary vaginal hysterectomies one was cured and two were not improved. The cases of vaginal pan-hysterectomy showed one cured and one improved and the trachelorrhaphy cases both recovered. The forms in which recovery took place were Infective Exhaustive, 4; Manic Depressive Insanity, 9; Hystero-epilepsy, 1. The cases in which recovery did not take place were: Manic Depressive Insanity, 7; Infective Exhaustive, 1; Dementia Precox, 1; Paranoia, 2; Hysteria, 2.

Leroy Broun of New York, published observations on a large number of operative cases and reached the following conclusions: 1. "If the necessary operation is satisfactorily performed and unnecessary castration is not carried out the mental condition is never aggravated." 2. "There exist many pathological conditions which give rise to symptoms detrimental to the patients physical health and mental recovery." 3. "Under the stimulus of an improved somatic state resulting from surgical relief, patients show greater advancement toward recovery."

Dr. Manton also says, "I can say that I have never yet seen an insane patient cured by surgery *per se*. We have had many cases of so-called cures and there is no doubt that surgical procedures in their proper place do act as factors in helping to restore the disordered mind but I doubt very much whether surgical operations alone on the insane have a curative effect. Relative to the large number of cases of Manic Depressive Insanity and Dementia Precox in which pelvic disorders are found I think that these forms of insanity make up the largest percentage of insane cases in most hospitals and so naturally we should expect to find the largest number of pelvic and abdominal conditions in the insane associated with these two mental disorders."

It would seem permissible to conclude therefore that: 1. There can be no doubt that pelvic disease, especially the infections and acute inflammations may be the cause of insanity in some of the psychoses, especially the Infective Exhaustive

group, and that in these cases treatment may remove the cause and shorten the attack.

2. That periods of stress and strain (puberty, gestation, and the menopause) may be the exciting cause in mentally unstable women.

3. That abnormal pelvic conditions acting as foci of irritation may prolong and aggravate the mental condition.

4. That while there are a greater proportion of cases of arrest of development in Dementia Precox, Imbeciles and Inferiors, this may frequently be one of the stigmata of degeneracy often found in such cases and not the cause of the mental trouble.

5. That there are in cases of Manic Depressive Insanity a greater proportion of lacerations, displacements, and chronic inflammatory lesions, but this may be due to the fact that there are more cases of Manic Depressive Insanity during the reproductive period in which these lesions are also more common.

6. That every patient should be carefully examined as soon as possible, whatever the form of mental trouble.

7. In any instance every case should be treated if necessary in order to remove every focus of irritation possible.

TABLE 1.

Varieties of Pelvic Lesions Found in the 103 Diseased Patients.	
Anteflexion	8
Arrest of development	23
Atrophy of uterus.....	8
Cystocele	7
Cystic ovary	2
Endocervicitis	10
Endometritis	19
Fibroid uterus	4
Laceration of cervix (severe).....	17
Laceration of perineum.....	28
Prolapse of uterus.....	10
Polypus of cervix.....	2
Post operative condition.....	20
Retroverted and adherent uterus.....	6
Retroverted but non-adherent uterus.....	34
Retroflexion	9
Retroversion and anteflexion.....	3
Rectocele	8
Salpingitis	10
Tubo-ovarian mass	7
Urethritis	8
Vaginitis	4
Vulvitis	5
Total	251

TABLE 2.

Percentage of pelvic disorders in insane women.

Physicians reporting	No. Examined	Diseased	Percentage
Manton	100	31	31
Lawrence	100	84	84
Hobbs	220	188	85
Claus	554	...	15
Danillo	200	138	69
Hall	154	...	38
Taussig	537	252	47
Sauthoff	200	103	51½

TABLE 3.

Number of abnormal pelvic examinations among 200 insane women.

Form of insanity	Exam-ined	Abnor-mal	Nor-mal	Percen-tage
Dementia Precox	53	25	28	47
Manic Depressive	79	46	33	58
Involution Melancholia	13	7	6	61
Paranoic Condition	20	6	14	30
Senile Psychoses	7	3	4	43
Infective Exhaustive	4	3	1	75
Paresis	5	5	0	100
Epileptic Psychoses	6	2	4	33
Alcoholic Psychoses	2	1	1	50
Idiocy and Imbecility	2	1	1	50
Constitutional Inferiority	5	2	3	40
Psy. with other disease	4	2	2	50
	200	103	97	51½

TABLE 4.

Results of treatment in the 53 abnormal cases.

Form of Insanity	Improved	Unimproved	Worse
Manic Depressive	13	12	0
Dementia Precox	2 (slight)	5	0
Involution Melancholia	2 (slight)	3	0
Paranoic Condition	0	2	0
Senile Psychoses	1	2	0
Infective Exhaustive	1	2	0
Paresis	0	5	0
Alcoholic Psychoses	0	1	0
Psy. with other diseases	1	1	0
	20	33	0

FOR AN EARLIER DIAGNOSIS OF TUBERCULOSIS.

BY G. L. BELLIS, M. D.,

ASSISTANT MEDICAL DIRECTOR, WALES SANITORIUM.

WALES, WIS.

It is not so very long ago that a diagnosis of pulmonary tuberculosis was seldom made prior to the time when emaciation, night sweats and hectic fever had ushered its victim so close to the door of death that to advise the patient of his true condition was considered to be poor practice indeed. To pronounce a patient a "consumptive"

was akin to reading his death warrant, and in most instances the word was passed to the relatives and friends while the patient himself was advised to try the West as a panacea for weak and sickly lungs. Occasionally a cure was made; most often a death resulted in a "fashionable way" and a monument erected in token of our ignorance of the Great White Plague.

Time has wrought decided changes in the attitude of the knowing and conscientious physician toward his tubercular patients. He no longer hesitates to pronounce a case tubercular when afternoon temperature, adventitious chest sounds, bacilli in the sputum, and positive tuberculin reaction proclaim the nature of the illness. He knows that fresh air, good food, sunshine, and rest, properly administered, will almost invariably check the disease and in many instances result in apparent and actual cure. To be sure such an advance compared with the uncertain methods of diagnosis and ineffectual medication of years now past is certainly gratifying, and yet in this day and age of progressiveness, we cannot rightfully boast of being able to demonstrate "pulmonary tuberculosis a curable disease" in more than a very small percentage of cases applying for treatment. There are two very important reasons why this statement is true; first, the difficulties attendant upon the recognition of the disease in its very incipency; and second, the reluctance with which patients properly classified as incipients will accept the truth, undertake "the cure", and persevere in it for a sufficient length of time to obtain permanent results.

Granting the truthfulness of the well proven statement that the infection is universal; that all are exposed, the important etiological factor to be considered in diagnosing the presence of an early lesion is the soil. The personal history records of patients in institutions treating tuberculosis show in over 90 per cent. of cases the preparation of the soil for the infection by reason of the intervention of conditions that draw heavily upon the patient's vitality. Acute infectious diseases, confining occupations in vitiated atmosphere, intemperance, prolonged mental and physical strain, traumatism (especially to chest wall), and excessive childbearing and lactation appear to be especially favorable to the development of tuberculosis and should be given due consideration in summing up the evidence for or against in-

ipient tuberculosis. A history of direct and prolonged exposure to the disease during a time of lessened resistance is especially valuable. Not infrequently a soil harboring a demonstrable lymphatic involvement, the remains of an acute or chronic adenitis during childhood, will under the strain of an active adolescence, part with sufficient resistance to favor an extension of the tuberculous process to pulmonary tissue. How very important therefore is a painstaking examination in all cases presenting a history of conditions responsible for suitable soil before eliminating tuberculosis as the cause of trouble.

The physical examination of a chest harboring an early lesion presents certain phenomena that may be considered to be pathognomonic of pulmonary infiltration; for Nature's attempt to put the diseased portion of the lung at rest brings about changes in the physiology and even the structure of the chest wall that are plainly noticeable. The muscle tension signs of Pottenger are as constant in the musculature overlying or associated with an active process as muscle spasm in hip-joint disease, or rigidity of the rectus in acute appendicitis. The long continued spasm attendant upon the more advanced stages of the disease results in atrophy, and evidences of healed lesion, fibroid deposit, or cavitation are found in auscultating the chest underneath marked atrophic areas. Regional rather than general atrophy mark the presence of advanced tubercular infection.

Lagging of the respiratory movement at base or apex can be made out in early cases by careful inspection and palpation and is of much diagnostic value.

The early physical signs ascertained by the use of the stethoscope would tend to prove that the diseased portion of the lung is restrained in motion as a result of spasm of its associated respiratory muscles. This is well demonstrated by the sounds of enfeebled respiration and prolongation of the expiratory murmur. The sounds from an affected area lack the "snap" present in normal lung; i. e., expansion is retarded, contraction takes place more slowly and is thus prolonged. Rales, crepitant or plainly moist, show a more advanced condition. Because of the increased blood supply rendering the medium more dense, voice conduction is increased and can be readily recognized by the trained ear. Percussion may be said to be of but little value from a diagnostic standpoint until

after partial consolidation has taken place the development of which may require considerable time after the advent of the more important earlier signs.

The clinical reading in a case of suspected incipient tuberculosis is of value when properly taken. To advise a patient to remain quiet for a week while taking a record of pulse and temperature will often defeat the object intended, for it is a well known fact that rest quiets the capricious fever and pulse of tuberculosis. A temperature record, however, which shows variations of a degree and more, usually subnormal in the morning, above normal in the afternoon, the patient engaged in the meantime at his usual occupation, is of course valuable confirmatory evidence of the presence of tubercular infection. The pulse in early cases is unusually excitable and rapid.

The value of the reaction following the application of the Moro cutaneous, Calmette ophthalmic, and the Von Pirquet tuberculin tests has been much overrated and while their use may give us some evidence to work with in obscure cases, strong objection must be made to the indiscriminate practice of ascribing the cause of any and every reaction in adults to an active lesion. When used as a confirmatory measure in the presence of other suspicious signs of infiltration, the time required to produce the maximum reaction will indicate to some extent the activity or latency of the lesion present. The absence of reaction in an adult is not positive evidence of the absence of tubercular trouble.

From the above description the reader will infer that a diagnosis of pulmonary tuberculosis can and should be made prior to the advent of the classical symptoms that have governed the diagnosis of this disease for years. The inference is correct and present indications are that as this standard of efficiency in diagnosis is reached the percentage of thorough and substantial cures will increase in proportion.

The role played by the laity in its dealings with the physician is an important element demanding consideration in the solution of the tuberculosis problem. Without a doubt the attitude of antagonism shown by many patients and their would-be friends toward an early diagnosis of tuberculosis is responsible in no small degree for the long and unnecessary delays in diagnosis so obvious in many of the cases seeking sanatorium treatment.

The attempt of the early case to avoid mentioning the word "tuberculosis" or "consumption" as a possible solution of the ailment together with the strenuous objection made, often through tears, to any such idea being entertained by the physician, is so apparent as to almost demand recognition as a diagnostic feature.

The solicitude and suggestions of ignorant but well-meaning friends and neighbors are often accountable for the loss of valuable time. Only too often the services of irregular practitioners are sought and accepted until the pocket book is emptied of shekels and the chest filled with rales. Fake consumption cures collect toll from early and late cases alike. Such meaningless expressions as "weak lungs," "a spot the size of a nickel," "poor development," "just a cold," etc., are occasionally used by some physicians to ease the anxiety of the patient, when a more thorough examination with the chest bared to the waist, including careful microscopical work, would disclose the truth in time to save the patient's life. Such are the cases that subscribe heavily to the death rate from tuberculosis.

Notwithstanding the many handicaps to the successful treatment of pulmonary tuberculosis the outlook at present is very encouraging. The decided increase in interest manifested by both the profession and laity in bringing to a successful termination the world-wide crusade against the Great White Plague has already borne much fruit and bespeaks the accomplishment of greater things in the very near future.

RETENTION OF URINE.*

BY E. A. FLETCHER, M. D.,

MILWAUKEE.

Probably in the practice of all specialties peculiarities in patients common to a certain class of diseases are noticed. In the practice of Urology, the peculiarity of patients that is most striking is the little complaint that a man will make with a urinary symptom compared with the very decided complaint that he makes with even the slightest genital disorder.

Retention of urine may occur at any period of life and may be acute, chronic, incomplete or com-

plete; it is a symptom of a local or a general condition.

In seeking a cause for retention of urine we naturally first think of the urinary tract—upper as well as lower—failing to find it here the cerebro-spinal system should be considered and finally reflex causes of vesical inhibition located in organs adjacent to the bladder must be sought. Of the local causes, prostatic hypertrophy is the most common, while tabes is the most common of the general causes of retention. In tabes sometimes anomalies in voiding precede all other subjective symptoms and in such cases a urological examination will point out the diagnosis by an absence of any other local lesion.

In chronic retention the entire urinary apparatus is congested, the distention of the bladder causes dilatation of the ureters and kidney pelves, and finally the kidney parenchyma suffers. Sixty hours after acute retention a degeneration of the kidney cells can be noticed.

Every retention is dangerous to the kidney integrity. The alterations occurring in the upper urinary tract in acute retention are transitory while in chronic retention they are permanent and these alterations favor infection.

Chronic complete retention may follow either acute retention or chronic incomplete retention.

Chronic incomplete retention in an aseptic bladder may be almost symptomless—only a moderately increased frequency, or at regular intervals an increased desire to void resulting. The bladder may be stretched to the maximum and generally the man urinates a little and has little complaint to make.

More marked in these cases, often, are the digestive disturbances, as was noted by Civiale, which are due to renal insufficiency—dry coated tongue, anorexia, increased thirst, distaste for solid food, and constipation or diarrhea.

Sir, H. Thompson said that the healthy bladder never ruptures from distention—the urine sooner or later finding an exit through the urethra, but in the meantime irreparable damage may ensue. Of course in these distended bladders the chief immediate indication is to use the catheter; only when the residual urine is of small amount and the bladder aseptic do we not use it.

Frequency of urination, a symptom common to almost all urinary diseases, is often associated with incomplete retention. If a bladder contains fluid,

*Read before the Milwaukee Medical Society, January, 23, 1912.

firm pressure over it will almost always cause marked desire to void. Sometimes a distended bladder can be seen or felt and percussion may elicit a flatness, but the only absolute way of detecting residual urine is to have the patient void and then immediately catheterize.

In a much distended bladder, following a catheterization, both local and general symptoms may be seriously aggravated if the bladder be completely evacuated, hence, the rule is never to withdraw large quantities in the first few catheterizations. These patients may require the use of the catheter during the balance of their lives if the cause of the retention cannot be removed.

Illustrating the early age at which chronic retention can occur, let me cite the following history of a baby now eleven months old. Baby well till three months of age when its mother noticed that it cried much before and while voiding, voided at longer intervals than usual, and strained, also that the urine contained pus and was very offensive in odor. The baby was circumcised and has taken much medicine without any relief. Immediately following urination of 2 oz. the baby was catheterized and 2½ oz. of very turbid urine withdrawn—sp. gr. 1010, no albumin or sugar or renal elements, but large amount of pus and colon like bacilli and an occasional red blood corpuscle. X-ray examination did not show any stone in the urinary tract, but did give a kidney shadow on the right side twice the size of that on the left. Of course in such a case an absolute diagnosis cannot be made, but it has seemed most likely that we have here a right-sided hydronephrosis with a complicating cystitis. Under agryrol injections and urotropin the baby has no more pain, does not strain, and the pus in the urine is very greatly lessened. A vesical stone or polyp cannot be eliminated but the absence of blood in the urine speaks against rather than for such a diagnosis.

The following case illustrates the slight urinary complaint a distended bladder may cause: A man aged seventy-three came saying that he knew he was in the wrong place as his stomach and not his kidneys bothered him, but he came to satisfy his friend and his complaint was dryness of mouth and tongue, thirst, lack of desire for solid food, slept badly and lacked energy. On inquiring he stated that he had frequency but this had existed for several years and he paid no attention to it. A large soft prostate was felt per rectum, a pint

of residual urine was withdrawn greatly to the surprise of the patient, and this amount did not represent the total residual urine as his bladder was not emptied.

The following urinary history is that of an early tabetic, aged forty. For the past six months patient has had urinary symptoms, has had to strain in voiding, hesitancy, poor projectile force, at times voids involuntarily especially at night. After voiding 6 oz. of normal urine 12 oz. were withdrawn. A cystoscopic examination revealed a markedly trabeculated bladder but no mechanical cause for the retention. The patient had absent patellar reflexes and lightning pains in the legs. He was given .5 Salvarsan and in a few weeks time his urinary symptoms entirely disappeared—he no longer had any residual urine. At the present time his urinary condition is entirely satisfactory.

There is another interesting bladder condition very much discussed of late in which residual urine is a factor—the symptom-complex known as vesical prostatism, the etiology of which is not definitely settled. Clinically the symptoms are the same as those of prostate hypertrophy, but one is not able to detect any enlargement of the gland, moreover the condition may arise at a much earlier age than we are accustomed to look for the development of prostate hypertrophy. By some this condition is thought to be due to a lack of vesical power, such as is seen e. g. in old women who sometimes have retention. By others the lesion is thought to be at the vesical neck. Chetwood thinks it is located here and that fibroid tissue forms as a result of chronic inflammation.

Young thinks that a median bar forms and has devised a punch for its endovesical removal. Then again others are of the opinion that the condition results from an atrophy of the prostate.

Marion, who is perhaps the leading genito-urinary surgeon in France today, while he does not deny absolutely the possibility of vesical prostatism says he has never seen a case. Some of these cases, so called, are really men with a spinal lesion and others are due to some lesion of the urethra or bladder, but most of these cases instead of being prostatitis without prostates, are prostatitis with prostates. That is to say, there is really in these cases prostatic hypertrophy but the hypertrophy is of such small volume that it has been overlooked. In such cases nothing short of a cysto-

scopic examination will enable one to make a diagnosis. These patients with the very small prostatic hypertrophies are the ones he says that are the most apt to be complete retentionists.

Marion says that sometimes these little pericervical or periurethral adenomata are impossible to detect by any sort of an examination and are so small that they could not cause a mechanical retention but must cause a reflex vesical inhibition. He reports two such cases—complete retentionists cured by a supra-pubic prostatectomy.

The following history is that of a patient who may belong in the above class, though here the possibility of tabes cannot be excluded:

Man of 53 years, syphilis sixteen years ago, mouth treatment for one year, has seen no signs since, but he has a strong positive Wassermann now and absent patellar reflexes. Present illness began six months ago with frequency, for four months has voided generally three times at night and every two hours in day—no pain, no blood, no projectile force. Withdrew one pint of cloudy urine (residual), cystoscopic examination showed bladder trabeculated and some diverticula, no evident prostatic hypertrophy. The urethra is very tender, and it was endoscoped thinking that perhaps there was a lesion in it, such as an ulcerating vegetation which was causing the retention, but none was found.

SPECIAL ABSTRACT

THE DIAGNOSIS OF GALL-STONES.

Every physician and surgeon knows full well the difficulties which attend the diagnosis of gall-stones in very many cases. A recent article by Elsner* based on a study of 123 personal cases emphasizes certain points which it seems worth while to note in this place.

He remarks that there are two theories as to the formation of gall-stones, one, that infection of the bile passages is a *sine qua non* of stones; the other, that obstruction to the outflow of bile is sufficient to produce them. The cholesterin on the one hand is believed to be formed only in an inflamed gall-bladder, on the other hand it is thought to be precipitated from the bile itself. Most authorities agree that the fixed stones are

unquestionably dependent upon associated infection. We may assume that in the majority of cases with infection there is (1) stasis of bile, (2) precipitation of cholesterin, (3) cleavage of albumin content, and (4) epithelial degeneration.

Cholelithiasis occupies a position on the borderline of medicine and surgery. The stones may be present in the gall-bladder or bile-passages for years without exciting suspicion of their presence. True, there may not be any striking symptoms but yet there is from time to time evidence that points to the presence of stones. Such cases may at any time suddenly develop alarming symptoms which may end in death.

Elsner believes that gall-stones in the bile-passages are always a menace to health. They do not dissolve. They may be passed through fistulous openings in the duodenum or colon. The train of infectious inflammatory changes in the upper abdomen caused by them is to be feared.

It is well known that gall-stones frequently follow typhoid fever. It is not unusual to find chronic cardiac disease, coronary disease, arteriosclerosis and gouty conditions associated with innumerable gall-stones within the gall-bladder or bile passages, which during life give rise to but few symptoms or to no symptoms which could be interpreted as meaning the presence of these concretions.

Chronic indigestion is one of the most frequent symptoms of gall-stones. Examination of the stomach contents is most misleading. Many cases show persistent hyperacidity, others show constant subacidity, or a case may show excess of HCl at one time and decrease at another time.

Elsner considers that it is extremely doubtful whether there is such a neurosis as gastralgia. When there are repeated stomach cramps one should look for organic disease of the stomach, gall-stones, duodenal ulcer, locomotor ataxia, diseases of the cardiovascular system, of the spinal membranes or even of the spine itself. One should never neglect to test the reflexes—deep, superficial and ocular. Very embarrassing mistakes may thus be prevented. Cases of gastric crises have been operated upon under the supposition that the patients had gall-stones.

The pain of gall-stones may be either (1) dull aching, (2) gall-stone colic, or (3) referred or reflex pain.

1. The dull aching pain is likely to be con-

*H. T. Elsner, Interstate Med. Jour., 1913, XX, 101.

tinuous, referred to the back with tenderness near the eleventh and twelfth ribs. The pain may be referred to the left side. Radiation of pain upward to the right toward the shoulder, or into the back is suggestive of gall-stones.

2. The typical gall-stone colic, the sudden excruciating pain with nausea and vomiting and fever, rigidity of the right rectus muscle and tenderness, needs no comment. For several days after the attack, the region of the gall-bladder is very tender to touch, and the edge of the liver is usually painful on palpation.

3. Reflex pains due to stones are present in the abdomen, thorax, right shoulder, occasionally in the right side of the neck, and in the precordium; these may be associated very often with obstinate constipation, or with symptoms of acid dyspepsia.

It is most important to remember that jaundice is present in the *minority* of cases. (Elsner found 20 per cent in his series.) Jaundice depends upon the location of the stone and the associated secondary changes; Moreover Courvoisier's law by no means always holds good.

Nausea and vomiting, hiccup and loss of appetite are common symptoms. Elsner thinks that there is a characteristic indescribable odor to gall-stone disease. Charcot's intermittent fever is typical of irritation of the mucosa of the bile ducts by stone. The fever resembles, and has been mistaken for, malaria. Transitory glycosuria is not infrequent; indicanuria is rare; albuminuria is frequent.

Careful examination of the stools for stones in suspicious cases should never be neglected. Sometimes only after repeated consecutive examinations are stones found. Concretions of fat following olive oil medication are often mistaken by the patient for gall-stones. If there is complete

obstruction of the bile passages the stools are fatty and clay colored, otherwise they are not changed.

X-ray examinations have not been of the same assistance in the diagnosis of gall-stone disease as they have in that of renal calculi. Dilatation of the heart with mitral murmurs is not infrequent in the attacks. Possibly the collapse sometimes seen is due largely to this factor. Long continued gall-stone disease with associated infections unquestionably lays the foundation of degenerative myocardial, arterial, and kidney disease.

Of the diseases which may be mistaken for gall-stones are angina pectoris, and angina abdominalis, renal colic, Dietl's crises, appendicitis, gastric and duodenal ulcer, and lead colic. If these are borne in mind constantly there would be fewer mistakes in diagnosis. The appendix may be attached to the under surface of the gall-bladder and form an abscess beneath the liver causing symptoms indistinguishable from those of gall-stones. However, the treatment for both is surgical so the error in diagnosis may not be detrimental to the patient.

It is generally accepted that the formation of stones after thorough removal is rare.

The author relates in brief several atypical cases of gall-stone disease. In one of his cases, an old man in whom for a long time there had been persistent jaundice due to gall-stone impaction, violent insanity developed. The insanity disappeared upon the removal of the stone and the clearing of the jaundice.

He makes a plea for closer co-operation of physician and surgeon in these border-line cases, as he feels that the patient will thereby derive the most benefit from the two opinions.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

J. PATEK, M. D., Milwaukee G. E. SEAMAN, M. D., Milwaukee O. H. FOERSTER, M. D., Milwaukee
C. S. SHELDON, M. D., Madison S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc	J. V. MEARS.....Fond du Lac	O. T. HOUGEN.....Grand Rapids
G. WINDESHEIM.....Kenosha	H. W. ABRAHAM.....Appleton	R. U. CAIRNS.....River Falls
F. T. NYE.....Beloit	EDWARD EVANS.....La Crosse	J. M. DODD.....Ashland
W. CUNNINGHAM.....Platteville	T. J. REDELINGS.....Marinette	H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents

Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

FEBRUARY, 1913.

No. 9

EDITORIALS

AN IMPORTANT CORRECTION.

In the article by Dr. Solomon Strouse on "The Simplification of Some Diets" which appeared in the January JOURNAL, two typographical errors were made which require correction. On page 241 in lines 24 and 29 the quantities of cereal and of mashed potatoes are given as $\frac{3}{4}$ tablespoonful, while in Dr. Strouse's manuscript the amounts are given as 3 to 4 tablespoonsful.

The difference in caloric value between $\frac{3}{4}$ tablespoonful and 3 or 4 tablespoonsful is so marked that we wish to call particular attention to this error.

PAPERS FOR THE NEXT MEETING.

Do not forget the next meeting of the State Medical Society. October is beginning to seem a possibility and no longer a mere poet's dream. We want papers and good ones. Send in your application to the Program Committee before it is too late.

LEGISLATION ON FEE-SPLITTING.

The following letter has been sent out by the Secretary of the State Medical Society to each County Medical Society and it is to be hoped that free discussion of the subject may be secured.

MADISON, WIS., February 17, 1913.

To the Secretary County Medical Society:

DEAR DOCTOR:—The consideration of the "Commis-

sion or Fee-splitting" evil, is engaging the attention of the Medical profession all over the country, and bids fair, soon, to reach an acute stage.

The Judicial Council of the A. M. A. has instituted an enquiry of the most searching character, through correspondence with several thousands of the most prominent physicians in the county, and will report the results, with recommendations, at the Annual Meeting of the Association at Minneapolis next June.

The various State and County organizations are also awaking to the fact that the fair name of our calling is being scandalized, and that it is their bounden duty, from every point of view, to devise some plan by which this demoralizing practice may be abated. Like many other abuses, this practice has grown gradually, and almost unnoticed, until it has gained a firm foot-hold in many communities, and has become wide-spread in its evil influences.

The marked disparity, and seeming injustice, between the large fee of the operating surgeon, or specialist, and that secured by the family physician, has induced many practitioners—otherwise honest and well-intentioned—to accept this bribe where their own pecuniary interests were involved.

Every right-thinking man must admit that the practice is wrong—that it is utterly indefensible—and that the medical profession, by a vigorous and united action, should place its seal of condemnation upon it.

The State Medical Society of Wisconsin cannot afford to shut its eyes to this evil, nor shirk its duty in attempting to correct it, and it has already taken the first step forward.

At a meeting of the Council of the Society held in Milwaukee, January 10, 1913, the following resolution was unanimously adopted, and the Secretary was directed to send a copy to the Secretary of each County Society, with a request that it be presented to the Society, and strongly urging its adoption:

Resolved, That we unqualifiedly condemn the secret giving or receiving of Commissions or so-called "Fee-

splitting." We believe it is wrong, and is injurious in the highest degree to all parties concerned. We would call the attention of the members of the society, and strongly endorse Sec 3, Article 6 of the Principles of Medical Ethics of the A. M. A. which reads as follows:

"It is detrimental to the public good and degrading to the profession, and therefore unprofessional, to give or to receive a commission. It is also unprofessional to divide a fee for medical advice or surgical treatment, unless the patient, or his next friend, is fully informed as to the terms of the transaction. The patient should be made to realize that a proper fee should be paid the family physician for the service he renders in determining the surgical or medical treatment suited to the condition and in advising concerning those best qualified to render any special service that may be required by the patient."

It is the wish of the council that as speedy action as possible should be taken in the matter, and that whatever action is taken should be reported to me as soon after the meeting as practicable.

Also, the Council would esteem it a favor if you would report, at the same time, all the information you can obtain as to the prevalence of the practice in your locality, and suggest what you think are the best measures to be adopted for its abatement.

I enclose a copy of a bill which has been introduced in the Legislature, the object of which is to check this evil by legal enactment. What do you, and the Society, think of the plan in general, and this, in particular?

Fraternally,

CHARLES S. SHELDON,
Secretary of the Council.

Two bills have been introduced in the Assembly bearing on the subject: No. 227, A, introduced by Mr. Frederick; and No. 300, A, introduced by Mr. Laursen. These bills are given below.

No. 227, A.

February 5, 1913—Introduced by MR. FREDERICK. Referred to committee on Judiciary.

A BILL

To create section 1436g of the statutes, and to define and punish fee-splitting.

The people of the State of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. There is added to the statutes a new section to read: Section 1436g. 1. A split-fee is anything of value paid, passed over, or given by any person to any person as a consideration that such other person shall cause any third person, desiring medical or surgical treatment, or residence or treatment in any hospital or sanitarium of any kind, to apply for such treatment to and to be treated by any particular person or hospital, sanitarium or other institution giving such services and treatment. Any person who shall give or receive any split-fee as above defined or become a party in any manner, either as principal or agent to any contract, agreement, understanding, arrangement, negotiation or deal of any kind whatever for the paying, bestowing or receiving by any person of a split-fee at any time or

place shall be guilty of a felony and shall upon conviction be punished by a fine of not less than two hundred dollars nor more than one thousand dollars or by imprisonment in the state prison not more than five years or by both such fine and imprisonment.

2. If any person, holding a license or certificate of registration issued by the Wisconsin state board of medical examiners, shall be convicted and sentenced under the provisions of this section, the court shall, in addition to such punishment, revoke and annul such license or certificate. The clerk of such court shall forthwith cause a certified copy of such judgment of conviction to be sent to the secretary of the state board of medical examiners to be filed for record in the office of said secretary.

Section 2. This act shall be in force from and after the date of its passage and publication.

No. 300, A.

February 11, 1913—Introduced by MR. LAURSEN. Referred to committee on Public Welfare.

A BILL

To create section 1436h of the statutes, relating to immoral, dishonorable and unprofessional conduct in the practice of medicine, surgery, osteopathy and midwifery, and providing a penalty therefor.

The people of the State of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. There is added to the statutes a new section to read: Section 1436h. 1. Any person licensed or registered to practice medicine, surgery, osteopathy or midwifery, in this state, who shall split or divide, or agree to split or divide, any fee or charge paid, or to be paid, on account of any treatment administered, or to be administered to, or on account of any operation performed, or to be performed upon, any patient, with any other person, or who shall pay or give, or agree to pay or give any commission, compensation or thing of value, to any other person, in consideration of such other person accompanying, bringing or referring to him such patient for any treatment or operation, or on account of such other person assisting him in reference to such treatment or operation, without the knowledge and consent of such patient, shall be deemed guilty of immoral, dishonorable and unprofessional conduct under section 1436g of the statutes, and his license or certificate shall be revoked and annulled as therein provided.

2. Any person, licensed or registered to practice medicine, surgery, osteopathy or midwifery, in this state, who shall directly or indirectly, aid, abet, or assist in any act prohibited by the preceding section shall also be deemed guilty of immoral, dishonorable and unprofessional conduct under section 1436g of the statutes and his license or certificate shall be revoked and annulled as therein provided.

3. Any person, whether licensed or registered to practice medicine, surgery, osteopathy or midwifery, or not, who shall split or divide, or agree to split or divide, any fee or charge, paid, or to be paid, by any patient to any physician, surgeon, osteopath or midwife, on account of any treatment administered to or operation performed upon such patient, or to be administered or

performed, with any physician, surgeon, osteopath or midwife, or who shall receive, or agree to receive, any commission, compensation or thing of value, in consideration of accompanying, referring or taking any patient to such physician, surgeon, osteopath or midwife for any such treatment or operation, or on account of assisting in such treatment or operation, without the knowledge and consent of such patient, shall be guilty of a misdemeanor, and shall be punished by imprisonment in the county jail not more than six months or by a fine not exceeding one hundred dollars for each and every offense.

Section 2. This act shall take effect and be in force from and after its passage and publication.

Anyone reading these bills will observe that fee-splitting or commission giving, while easily understood, is difficult to define.

But in spite of this difficulty in defining the term the medical profession ought to give its hearty support to the effort being made to put some law on the statute books to deal with this iniquitous practice. Even an imperfect law will be better than none, for it will definitely stamp as criminal a practice which is now looked upon by some physicians as merely a clever way of collecting accounts.

PROPOSED MEDICAL PRACTICE ACT.

The following bill has been introduced at Madison and will come up for consideration in due time.

A BILL

To repeal sections 1435, 1435a, 1435b, 1435c, 1435d, 1435e, 1435f, 1435g, and 1436 of the statutes, and to create nine new sections of the statutes to be numbered sections 1435, 1435a, 1435b, 1435c, 1435d, 1435e, 1435f, 1435g, and 1436, relating to the practice of the art and science of health.

The people of the State of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. Sections 1435, 1435a, 1435b, 1435c, 1435d, 1435e, 1435f, 1435g, and 1436 of the statutes are repealed.

SECTION 2. There are added to the statutes nine new sections to read: Section 1435. There is created a board of examiners to be known as the Board of Health License Examiners. Said board shall consist of seven members skilled by education and experience in the art and science of treating the afflicted and licensed to practice such art and science in this state. The members of said board shall be appointed by the governor, but no person a member of the faculty of a private corporation, owning and conducting a professional or scientific school or college preparing persons for the practice of the art and science of health, or who is financially interested in any way in such corporation, shall be eligible to membership on said board. The term of office of the members of said board shall be four years, but the members first

appointed shall hold office for terms as follows: two for one year, two for two years, two for three years, and one for four years, the term of each member to be designated by the governor at the time of appointment, and their respective successors shall be appointed for a full four year term. Any vacancy occurring in said board shall be filled by the governor for the unexpired term.

SECTION 1435a. 1. Said board shall meet annually on the second Tuesday in July and organize by electing from among its members a president, a secretary and a treasurer. The president and secretary shall have power to administer oaths. The board shall also hold one regular meeting in each year on the second Tuesday in January at Madison, one regular meeting in Milwaukee on the second Tuesday in July, and may hold such other meetings at such other times and places as it may from time to time deem necessary.

2. The board shall have a common seal and shall keep a record of all its proceedings and also a register for all applications for licenses showing the age of the applicant, time spent in the study of the art and science of health and the name and location of all institutions which have granted to the applicant any degree or certificate of lecture in any branch of the science of treating the afflicted. Said register shall also show whether the applicant was rejected or licensed, and all such books and registers shall be prima facie evidence of all the matters required to be listed and kept therein.

SECTION 1435b. 1. On and after the second Tuesday of July, A. D. 1913, all persons, other than those licensed or qualified by law on that date to practice medicine, surgery or osteopathy in Wisconsin, desiring to practice the art and science of health in this state shall apply to said board at the time and place designated by the board, or at any regular meeting thereof, for a license authorizing such practice, and shall present to such board a diploma from a reputable scientific or professional school or college which specifically prepares persons for the practice of the art and science of health. A college or school to be deemed reputable by said board shall require at least four courses of not less than seven months each, no two of such courses to be within any one twelve months, and shall require for admission there a preliminary education equivalent to graduation from an accredited high school of this state, and shall require for matriculation to the freshman class entering in the year 1913, and thereafter an additional preliminary education the equivalent of one year's attendance at the university of Wisconsin. Such persons so presenting such diploma before a license is issued to them, shall submit to an examination in the following branches and subjects: Anatomy, Histology, Physiology, Pathology, Chemistry, General Diagnosis and Hygiene.

2. If the applicant desires to practice the art and science of health in accordance with a particular or special system or school of practice, such applicant shall submit to an examination on subjects peculiar to such school or system of practice, such examination to be conducted by a member of the board of health license examiners belonging to or following such school or system of practice. If there be no member of the board

belonging to or following such system of practice, then the board may appoint an experienced and skilled person belonging to or following such school or system of practice to conduct such examination under its supervision. No person, however, shall be granted such special license unless he has successfully passed the general examination provided for in subsection 1 of this section.

3. After taking such examination the board shall, if it find the applicant qualified, grant a license to said applicant to practice the art and science of health in this state. When granted, and after payment of the fees provided for in subsection 4 of this section, said license shall be signed by the president and secretary of the board and shall be stamped with the official seal of the board.

4. The fee for examination shall be fixed by the board, but shall not exceed twenty dollars in each case with five dollars additional for the license issued. All fees and charges for licenses shall be paid by the applicant to the treasurer of the board and the moneys so procured may be applied toward defraying any proper and reasonable expenses of the board.

5. It shall be unlawful for any person to give or prescribe drugs or perform a surgical operation or to practice obstetrics in this state unless such person has secured from the board a license specifically authorizing him so to do. Any person violating any provision of this subsection shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars or by imprisonment in the county jail for not less than sixty days nor more than one year.

SECTION 1435e. Any practitioner of the art and science of health holding a license or certificate from any board or officer of any other state authorizing such person to practice such art and science of health therein, if such board or officer under the laws of such state imposes requirements equivalent to those established and imposed by section 1435b and upon presentation of such license or certificate, together with a diploma from a reputable scientific or professional school or college, which specifically prepares persons for the practice of the art and science of health, may, in the discretion of the board, and upon payment of a fee to be fixed by the board at not to exceed fifty dollars, be admitted to practice the art and science of health within this state without an examination. Any honorably discharged surgeon of the army or navy or of the public health service of the United States may obtain a license without examination, by filing a sworn and properly authenticated copy of his discharge with the board and paying a fee of fifty dollars.

SECTION 1435d. 1. All moneys received by the board shall be placed in the custody of the treasurer, and the board shall pay therefrom all legitimate and necessary expenses incurred by its members, agents or employes in the discharge of their duties. The board shall have power to retain and pay a duly licensed attorney at law for counsel, and the members of the board may receive for their services such sum as may be determined by the board, not to exceed, however, the sum of ten dollars for each day actually spent in attending to the business of

the board. The secretary shall receive a salary fixed by the board at not to exceed one thousand dollars per annum and shall furnish such bonds as the board may from time to time require.

2. The salaries, compensation and expenses provided for in subsection 1 of this section shall be paid out of the fees and other moneys received by the board.

3. It shall be the duty of the board to make a report of its proceedings to the governor at the end of each biennial period. Said report shall contain a detailed account of all moneys received and disbursed by the board, and all moneys on hand in excess of actual expenses and disbursements at the time of filing such report shall be turned into the state treasury, there to remain as an emergency fund which may be withdrawn in whole or in part by the board in case of necessity upon the approval of the governor.

SECTION 1435e. Every person practicing the art and science of health in any of its branches in this state as a licensed practitioner, shall have a license as provided in sections 1435b and 1435e of this act, or one heretofore issued by the Wisconsin state board of medical examiners, and all persons having or hereafter receiving a license authorizing such practice shall record the same with the county clerk of any county wherein said person shall practice and shall pay to such county clerk a fee of fifty cents for recording same, and said clerk shall enter a memorandum of such license in a book to be kept for that purpose. It shall be unlawful for any person to practice the art and science of health in any county unless he has recorded his license therein as provided in this section.

2. Any person practicing the art and science of health as a licensed practitioner without obtaining and recording his license, or who obtains any such license contrary to law, or any person not having such a license who shall advertise or hold himself out to the public as a healer of diseases, or as being able and qualified to treat, cure or relieve any wounds, fracture, bodily injury, infirmity, or disease or who shall use the word doctor or append to his name the words "doctor", "Dr.", "Professor", "Prof.", "specialist", "M. D.", "M. P.", "D. O.", "D. C.", or any other title letters, combination of letters or designation which in any way represents him or may tend to represent him, as engaged in the practice of the art and science of health in any of its branches (excepting dentists) shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars for each offense, or by imprisonment in the county jail for a term not exceeding one year or by both such fine and imprisonment.

3. If any person licensed to practice the art and science of health in this state shall be convicted of any crime involving moral turpitude committed in the course of his professional conduct, the court in which such conviction is had, shall, in addition to any other punishment inflicted pursuant to law, revoke such license.

4. Any person practicing the art and science of health without a license shall not be exempted from, but shall be liable to all the penalties and liabilities for malpractice which licensed practitioners of the art and

science of health are liable to, and ignorance on the part of any such person shall not lessen such liability for failing to perform or for negligently or unskilfully performing or attempting to perform any duty assumed and which is ordinarily performed by practitioners of the art and science of health.

5. It shall be the duty of the board to investigate complaints in regard to the violation, non-compliance with or disregard of the provisions of sections 1435a to 1435g inclusive, and to bring all cases to the notice of the proper prosecuting officers, and it shall be the duty of the district attorney of the proper county to prosecute all violations of said sections 1435a to 1435g inclusive. In such prosecutions, and with the consent of the court and the district attorney, the attorney retained by said board may assist the district attorney, and the courts of record of this state are authorized to appoint the attorney of said board as counsel for the prosecution to assist the district attorney.

SECTION 1435f. All itinerant practitioners of the art and science of health shall obtain an annual license, in addition to the license or certificate of registration heretofore obtained or hereafter to be obtained, from the board of health license examiners, and shall pay to the board as a fee for such license the sum of two hundred fifty dollars per annum. All persons practicing the art and science of health or professing or attempting to treat or heal diseases, ailments or injuries by any means whatever, who go from place to place at regular or irregular intervals, shall be considered itinerant practitioners. Any person violating any provision of this section shall be deemed guilty of a misdemeanor and upon conviction thereof, shall be punished by a fine of not less than two hundred fifty dollars nor more than five hundred dollars or by imprisonment in the county jail for not less than three months nor more than one year.

SECTION 1435g. 1. The provisions of sections 1435a to 1435g shall not apply to commissioned surgeons of the army and navy and of the public health service of the United States, or to physicians or surgeons of other states or countries in actual consultation with resident practitioners of this state, nor shall such section be construed as forbidding the practicing of the healing art or the art and science of health by an unlicensed person, if such person, shall display prominently upon all his advertisements, signs, cards, letter heads and office door or window, if he maintains an office, circulars or any literature used in connection with or with reference to his vocation, the following words: "Not licensed to practice the art and science of health in Wisconsin," but such unlicensed person shall treat or undertake to treat only persons of full age and of full mental capacity and he shall notify every person before beginning any treatment that he is not licensed to practice the art and science of health in Wisconsin, and no such unlicensed person shall treat any minor or any person mentally deficient, nor shall he treat contagious or venereal diseases. For violation of any of the provisions of this section the unlicensed practitioner shall be punished by a fine of not less than five hundred dollars nor more than one thousand dollars, or by imprisonment in the

state prison for a term not exceeding three years or by both such fine and imprisonment.

2. The board shall have power to adopt such rules for its government as it may deem proper, and may require the filling out of such blanks by applicants for licenses as it may deem necessary in order to ascertain the true character and qualifications of an applicant and it may refuse, in its discretion, to grant a license to any person who does not furnish satisfactory proof of good moral and professional character.

3. The board created by section 1435 shall supersede and supplant the Wisconsin state board of medical examiners, and the said state board of medical examiners shall turn over to the board of health license examiners all books, records, documents, funds and papers in its possession or under its control.

SECTION 1436. No person practicing the art and science of health shall have the right to collect by law any fees or compensation for the performance of any professional service, or to testify in a professional capacity as a practitioner of the art and science of health, or insanity expert in any case, unless he holds a license or certificate of registration heretofore granted or hereafter to be granted, with a diploma from a reputable professional or scientific school or college, and has been duly recorded as such practitioner in the state of Wisconsin; provided that nothing herein contained shall be construed as forbidding any court in a criminal action in its discretion receiving the testimony of any person as an expert witness, and provided further that practitioners of the art and science of health licensed in other states may testify as experts in this state when such testimony shall be necessary to establish the rights of citizens or residents of this state in a judicial proceeding and expert testimony of licensed practitioners of this state sufficient for the purpose is not available. No person shall be appointed as a health officer of the state or of any county, township or municipal corporation, unless he be a licensed practitioner of the art and science of health or an authenticated graduate from a scientific school or college which specifically prepares its students in the science and art of public health and sanitation, and all birth and death certificates or certificates of physical disability shall be null and void and of no effect, unless signed by a duly licensed practitioner of the healing art.

SECTION 3. This act shall take effect and be in force from and after the second Tuesday in July, A. D. 1913.

It is believed that the bill in this form will meet with the approval of the State Board of Health and the State Board of Medical Examiners. It may reasonably be hoped that if passed it will help to heal those sectarian differences which have been growing steadily less in recent years and which now ought to vanish forever.

The establishment of higher preliminary educational requirements and of uniform examinations in the fundamental branches ought to commend itself to all.

The exceptions in regard to unlicensed practitioners contained in Section 1435g ought to relieve the minds of the Christian Scientists and others of their kind and thoroughly divorce them from the medical profession.

The medical profession has no desire to be responsible for these so-called "healers" and their acts, and yet under the present law we really are. If they can be finally detached, thoroughly and completely, and obliged to stand on their own feet, it will be a great relief to all concerned and they will sink back into the mist of obscurity and ignorance from which they arose even faster than they are doing at present.

CORRESPONDENCE

DIABETES-MELLITUS.

I am undertaking an exhaustive research into the pathology, etiology and dieto-therapy of Diabetes Mellitus. I am very anxious to hear from every physician in the United States who has a case under treatment, or who has had any experience in the treatment of this malady. Von Noorden says, "The best treatment for the diabetic is the *food* containing the *greatest* amount of *starch* which the patient can bear without harm." If any physician who reads this has similar or contrary experience and would take the trouble to write me, I would esteem it a special privilege to hear from him, if only a postal card.

Kindly address,
WILLIAM E. FITCH, M. D.,
355 West 145th St.,
New York City.

NEWS ITEMS AND PERSONALS

MILWAUKEE PROVIDES OPEN AIR SCHOOL.

Milwaukee is opening its first open air school, says the Crusader of the Wisconsin Anti-Tuberculosis League. There will be a wood balcony with canvas top and sides in which twenty-five pupils who are anemic or predisposed to tuberculosis but are not actually afflicted with the disease, may be taught. There are more children needing such treatment than can be accommodated. No heat will be put in the school room. An inner room will be warmed where the children may retire in case of emergency.

MINNESOTA PROVIDES FOR ORGANIZATION OF HEALTH WORK IN SCHOOLS.

The State Board of Health and the Department of Public Instruction of Minnesota have appointed Dr. Ernest P. Hoag to organize health work in Minnesota schools. It is proposed to demonstrate to towns, cities, and counties that rational conservation of the mental and physical health of our school children is possible and practical with the means already at hand.

Three plans will be suggested:

1. Organization with a medical officer and nurse or nurses.
2. Organization with school nurse or nurses only.
3. Organization by the employment of a simple non-medical health survey on the part of the teachers only. Such a survey is provided by a series of questions based upon ordinary observation of physical and mental condition.

The State Board of Health will maintain a clearing-house of information concerning child hygiene, medical supervision, the teaching of school hygiene, sex hygiene, etc.

WANTED FOR A CURE.

"Have you got any of those anti-tuberculosis Red Cross stamps?" a young woman asked, as she entered a drug store.

"Yes, ma'am," replied the clerk.

"Are they good?" she asked.

"Yes."

"Well, I would like about ten cents' worth of them."

The clerk gave them to her.

"Could you tell me now," the purchaser continued, "where I had better put them on. I am a little afraid I have a touch of the disease."—Columbus Dispatch.

DR. GEO. PEIRCE, of the Department of Physiology, University of Wisconsin, gave a lecture Feb. 6th before a large number of Milwaukee physicians on "Nutrition and Diet," one of a series of six lectures to be given under auspices of the University Extension Bureau.

DR. C. R. NUTT, Plymouth, who was recently operated upon, has recovered and resumed practice.

DR. MARY BARTLETT, Beloit, narrowly escaped death in a runaway on February 6th.

The estate of the late Dr. James Gibson of

Janesville is being sued for \$5,000 damages by Nicholas Kehoe, who claims that Dr. Gibson was negligent and unskillful in setting his broken arm, for which he was being treated by the physician at the time of his death.

Dr. J. W. EHLER's residence at Lomira was completely destroyed by fire on January 30. It was partly covered by insurance.

Ashland doctors are inspecting the schools of that city for eye, ear, nose and throat troubles.

The Columbus Hospital of Columbus, owned by Drs. Bellak and Meacher, has been purchased by the Order of the Divine Savior.

The new St. Michael's Hospital at Stevens Point was formerly opened to patients on February 5th.

Milwaukee is to have a Physicians' Building, designed exclusively to fit the needs of medical men, if plans which are now being formulated are carried to completion. The site selected for the new building is at the southeast corner of Wisconsin and Jackson Streets.

DEATHS

Dr. I. T. W. BOWEN, Bennett, died at his home on January 26th, after an illness of two weeks' duration.

Dr. S. S. LEITH, Junction City, died on January 15, of apoplexy, aged 44 years.

Samuel S. Leith was a native of Wisconsin, his birthplace being on a farm near Van Dwyne, Fond du Lac County. He attended the local schools and Oshkosh Normal, later teaching for a few years before entering the medical department of the Northwestern University, Chicago, from which institution he was graduated. Dr. Leith began the practice of medicine at Phillips, but nine years ago came to Junction City, where he had since resided. He was a member of Portage County and the State Medical Societies.

Dr. E. J. SMITH, Neenah, died suddenly at the Theda Clark Memorial Hospital, on Jan. 31, 1913, of heart disease. Dr. Smith was born at Cascade, Wisconsin, July 24, 1856, and was a graduate of the University of Michigan. He began the practice of his profession at Fort Atkinson. About twenty years ago he located at Neenah. He was a member of the Winnebago County and State Medical Societies.

Dr. E. H. PARKER, Eau Claire, died after a several days' illness of heart disease, aged 58 years. Dr. Parker was born November 27, 1854, at Hartford, Wis., and moved to Fond du Lac when 13 years of age. In 1876 he graduated from the high school at that place, then read medicine with Drs. Patchen and Bishop. Later he graduated at Hahnemann Medical College, Chicago and had one year's experience as house surgeon in a Chicago Hospital. He commenced to practice in Eau Claire with the late Dr. D. W. Day, and remained with him until May, 1881. Dr. Parker was a member of the Eau Claire County and State Medical Societies.

REMOVALS

Dr. M. Maxam, Loyal to Stetsonville.

Dr. F. J. Stirn, Kewaskum to West Bend.

Dr. J. W. Lockhart, Omro to Oshkosh.

Dr. W. Roscoe Bell, Marinette to Texas.

Dr. Forest Slyfield, Sheboygan to Chicago.

Dr. J. A. Clason, Neosha to Fond du Lac.

Dr. A. E. McCallin, who has recently returned from the west has located at Waupaca. He was formerly located at Hancock.

Dr. G. F. Murphy, recently of Duluth, has located at Junction City. He succeeds the late Dr. S. S. Leith.

Dr. George W. Krahn, formerly of Kaukauna, but who has been practicing in Ohio for some time, has located at Oconto Falls.

THE STATE MEDICAL SOCIETY OF WISCONSIN
ORGANIZED 1841

Officers 1912-1913.

AR. HUR J. PATEK, Milwaukee
President

C. A. ARMSTRONG, Boscobel
1st Vice President

L. E. SPENCER, Wausau
2d Vice President

JOHN MATHIESON, Eau Claire. 3rd Vice President

CHAS. S. SHELDON, Madison Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917

1st Dist., M. R. Wilkinson, - Oconomowoc
2nd Dist., G. Windesheim, - Kenosha

TERM EXPIRES 1913

5th Dist., J. V. Mears, - Fond du Lac
6th Dist., H. W. Abraham, - Appleton

TERM EXPIRES 1915

9th Dist., O. T. Hougen - Grand Rapids
10th Dist., R. U. Cairns, - River Falls

TERM EXPIRES 1918

3rd Dist., F. T. Nye, - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1914

7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - Marinette

TERM EXPIRES 1916

11th Dist., J. M. Dodd, - Ashland
12th Dist., H. E. Dearholt, - Milwaukee

Delegates to American Medical Association.

F. BENNETT, Beloit.

J. J. McGOVERN, Milwaukee.

C. A. HARPER, Madison.

Alternates

F. S. WILEY, Fond du Lac.

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette

Committee on Public Policy and Legislation

A. W. GRAY, Milwaukee, Chairman.

J. P. McMAHON, Milwaukee.

F. F. BOWMAN, Madison.

Committee on Medical Defense.

G. E. SEAMAN, Milwaukee, Chairman.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

M. P. RAVENEL, Madison.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison

J. M. BEFFEL, Milwaukee. T. H. HAY Stevens Point

Program Committee.

W. F. Z ERATH, Sheboygan.

L. M. WARFIELD, Milwaukee, Chairman.

C. S. SHELDON, Madison.

Committee on Arrangements.

C. A. EVANS, Milwaukee, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER 1-3, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	W. T. Rinehart, Ashland	C. J. Smiles, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	W. L. M. Knowles, Spooner	B. N. Webster, Rice Lake.
Brown-Kewaunee	Julius J. Bellin, Green Bay	I. E. Levitas, Green Bay.
Calumet	W. Martens, New Holstein	J. A. Schmidt, Brillonn.
Chippewa	C. A. Hayes, Chippewa Falls	A. L. Beier, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Nellisville.
Columbia	B. F. Bellack, Columbus	A. T. Schmeling, Columbus
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	C. A. Harper, Madison	F. S. Meade, Madison.
Dodge	J. A. Clason, Neosho	G. W. Henika, Beaver Dam.
Door		N. Z. Wagener, Sturgeon Bay.
Douglas	T. J. O'Leary, Superior	W. E. Hatch, Superior.
Dunn-Pepin	E. H. Grannis, Menomonie	L. A. Dahl, Menomonie.
Eau Claire	A. L. Payne, Eau Claire	E. E. Tupper, Eau Claire.
Fond du Lac	L. A. Bishop, Fond du Lac	F. A. Read, Fond du Lac.
Grant	J. C. Betz, Boscobel	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	S. R. Moyer, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	R. H. Buckland, Green Lake.
Iowa	J. P. Parmley, Mineral Point	H. D. Ludden, Mineral Point.
Jefferson	W. T. Clark, Ft. Atkinson	C. R. Feld, Watertown.
Juneau	T. S. Lawler, Lyndon Station	A. T. Gregory, Elroy.
Kenosha	William Pugh, Kenosha	C. H. Gephart, Kenosha.
La Crosse	Oscar Houck, La Crosse	G. W. Lueck, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	Susanne Orton, Darlington.
Langlade	G. W. Moore, Antigo	J. C. Wright, Antigo.
Lincoln	C. C. Walsh, Merrill	Herbert Saylor, Merrill.
Manitowoc	Max Staehle, Manitowoc	A. J. Shimek, Manitowoc.
Marathon	L. E. Spencer, Wausau	S. M. B. Smith, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	M. D. Bird, Marinette.
Milwaukee-Ozaukee	C. H. Lemon, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	A. E. Winter, Tomah	A. R. Bell, Tomah.
Oconto	J. B. Atwood, Oconto	C. C. Faulds, Abrams.
Oneida-Forest-Vilas	T. J. Elliott, Rhinelander	R. A. Richards, Rhinelander.
Outagamie	J. S. Reeve, Appleton	F. P. Doheart, Appleton.
Pierce	A. E. Gendron, River Falls	S. F. Rudolf, Ellisworth.
Portage	A. E. MacMillan, Stevens Point	W. F. Cowan, Stevens Point.
Price-Taylor	C. E. Fenelon, Phillips	G. H. McClure, Westboro.
Racine	W. S. Haven, Racine	Susan Jones, Racine.
Richland	R. H. De Lap, Richland Center	G. R. Mitchell, Richland Center.
Rock	Frank W. Van Kirk, Janesville	F. F. Sutherland, Janesville.
Rusk	G. M. Carnahan, Bruce	W. F. O'Connor, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	J. F. Ragan, Gresham	C. E. Stubenvoll, Shawano.
Sheboygan	J. R. Kingsley, Sheboygan	W. F. Zierath, Sheboygan.
St. Croix	L. A. Campbell, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	E. A. Moore, Merrillan	H. A. Jegl, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	H. C. Miller, Whitewater	M. V. Dewire, Sharon.
Washington	W. J. Wehle, West Bend	S. J. Driessel, Barton.
Waukesha	Margaret Caldwell, Waukesha	Sara T. Elliott, Waukesha.
Waupaca	P. J. Christoffersen, Waupaca	G. T. Dawley, New London.
Winnebago	L. P. Allen, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. A. Jackson, Rudolph	J. B. Vedder, Marshfield.

SECRETARY'S NOTES

ANNUAL MEETING OF THE COUNCIL.

The Annual Meeting of the Council of the State Medical Society met in the rooms of the Milwaukee Medical Society, Jan. 10th, 1913, and was called to order at 11 A. M. There were present Councilors Evans, Wilkinson, Windesheim, Nye, Mears, Abraham, Redelings, Hougen, Cairns, Dodd and Dearholt, Pres. Patek, Treas. Hall, Secy. Sheldon, Editors Myers and McMahon, and Warfield, Chairman Program Committee. Dr. A. R. Craig, Sec'y A. M. A., was the guest of the Council. Sec'y Sheldon reported the 1912 membership to date as 1672, a gain of 36 over the total membership of 1911.

Of the 53 County Societies, 27 show a gain, 19 a loss, while 7 are the same. Of the 12 Councilor Districts, 8 have gained, 1 lost, and 3 are the same. The County showing the largest gain is Winnebago, 9, and Dane County next with 8. No Society shows a loss of over 4. Likewise, the Councilor District showing the largest gain is the 6th, a gain of 9, while the only one showing a loss is the 5th, which is 4. The individual Councilors then made their reports, showing the 53 societies completely organized so far as the payment of dues is concerned, while about 30 are doing fairly good scientific work. At the suggestion of Councilor Dearholt, the Council recommended that the House of Delegates detach the County of Ozaukee from Milwaukee in the 12th District, and attach to Sheboygan in the 5th to form the Sheboygan-Ozaukee Medical Society. The Council then adjourned for lunch at the University Club.

After lunch, the question of Commissions or Fee-splitting was brought before the Council for consideration, and in the extended discussion which followed, the members of the Council were unanimous in the opinion that the practice was deplorable and demoralizing in the highest degree, that it was already somewhat widely spread and should receive the serious attention of every County Society.

The following resolution was unanimously adopted and the Sec'y was directed to send it to each County Society for consideration, and with a recommendation for its adoption.

"We unqualifiedly condemn the secret giving

or receiving of commissions or so-called fee-splitting. We believe it is wrong and is injurious in the highest degree to all parties concerned. We would call the attention of the members of the Society and strongly endorse Sec. 3, Art. 6 of the Principles of Medical Ethics of the A. M. A. which reads as follows:

"It is detrimental to the public good and degrading to the profession, and therefore unprofessional, to give or to receive a commission. It is also unprofessional to divide a fee for medical advice or surgical treatment, unless the patient or his next friend is fully informed as to the terms of the transaction. The patient should be made to realize that a proper fee should be paid the family physician for the service he renders in determining the surgical or medical treatment suited to the condition, and in advising concerning those best qualified to render any special service that may be required by the patient."

On motion of Councilor Dearholt, a standing Council Committee of three was appointed by the Chairman to further consider the question of Commissions and other Medico-sociological questions and report to the Council at the time of the State Meeting in October, and by mail at other times. Councilors Dearholt, Windesheim and Sheldon were appointed as such Committee.

At the last meeting of the A. M. A., the Commission question was referred to the Judicial Council for consideration and action, and it was deemed best to take no further action as a State Society till their report is received.

Dr. J. P. McMahon, Managing Editor of the Journal, made the Annual Report of the Publication Committee. On motion, the report was received and placed on file. Drs. Seaman, Patek and Hall were re-elected as members for one, two and three years respectively of the Executive Council.

It was voted to recommend to the House of Delegates the following amendments to the "Rules and Regulations of the Executive Committee."

Three (a) "Defense shall be refused a member of this Society in whose case the charge of a violation of a State law or statute is substantiated."

Also, to alter the existing titles of "The Committee on Medical Defense," and that of "The Executive Committee" calling the larger Committee (the officers of the Society and the Councilors) "The Council on Medical Defense" and

retaining the term "Executive Committee" for the smaller body of three.

The Committee on Medical Defense adopted the following additional rules:

1. Non-payment of Medical Defense dues shall disqualify a member from the privilege of defense by the Society. By "non-payment of Medical Defense dues" is here meant a failure to pay the dues for each and every year of the individual's membership in the Society.

2. Any delinquent member of the Society who wishes to come under the protection of the Defense clause, must pay the total assessment of his years of delinquency.

3. The reinstatement of a delinquent, as provided for in the preceding paragraph, does not entitle him to protection of the Society in the event of suit for malpractice being brought against him for an act committed prior to such reinstatement.

On motion it was voted to furnish the Executive Committee official stationery for the necessary correspondence.

On motion, the Secretary was directed to write the President of the United States and the Postmaster General, conveying the hearty approval of the Council of their efforts in the prosecution of the criminal abortionists and the medical fakers, and that the Councilors request the County Secretaries to write similar letters, as well as to their Representatives and Senators in Congress. Dr. Hall was elected Treasurer, and Dr. Sheldon was elected Secretary for the coming year.

CHARLES S. SHELDON,
Secretary.

SOCIETY PROCEEDINGS

BROWN-KEWAUNEE COUNTY

The annual meeting of the Brown-Kewaunee County Medical Society was held at Dr. A. W. Slaughter's office, January 23, 1913, the attendance being large. The following officers were elected for the ensuing year: President, Dr. Julius J. Bellin; Vice-President, Dr. E. W. Quick; Secretary-Treasurer, Dr. I. E. Levitas; Delegate, Dr. W. Webber Kelly; Alternate, Dr. R. H. Sweetman, Censor, Dr. W. H. Bartran.

Papers were read by Dr. King on the Pathology of Nephritis and by Dr. Mix on Duodenal Ulcer. The meeting was also addressed by Dr. H. W. Abraham of Appleton, Councilor of this district.

Following the meeting a banquet was held at DeLair's Cafe.

I. E. LEVITAS, *Secretary.*

DUNN PEPIN COUNTY

The annual meeting of the Dunn-Pepin County Medical Society was held at the Hotel Royal on December 8, 1912, at Menomonie. A short program was given after which the following officers were elected: President, Dr. E. H. Grannis; Vice-President, Dr. A. F. Heising; Secretary, Dr. L. A. Dahl; Treasurer, Dr. B. J. Steves; Censors, Drs. J. C. DeWane, N. L. Howison, Geo. Broker.

The president was instructed to appoint a program committee for the next year. Dr. A. Egdahl and Dr. F. E. Butler, both of Menomonie were appointed. Meeting adjourned with the serving of a good supper at the hotel.

L. A. DAHL, *Secretary.*

January Meeting.

The first monthly meeting of the year was held at Dr. A. F. Heising's office, January 15, at 8 P. M., Menomonie. Dr. Heising delivered an address on Diseases of the Blood, illustrating same with lantern slides. A very instructive lecture was given and the differential points in diagnosis were demonstrated. The paper was discussed by Dr. Broker. Dr. Heising did the Society "up right" both mentally and physically as he served a fine supper cooked by his own hands. For those who do not know the reason for the doctor being his own chef I must say that he is our only bachelor doctor.

L. A. DAHL, *Secretary.*

JEFFERSON COUNTY

A meeting of the Jefferson County Medical Society was held on February 6 at Fort Atkinson. An interesting address on Vaccines and Serum Therapy was delivered by Dr. M. P. Ravenel of the University of Wisconsin. The following officers were elected for the year: President, Dr. W. T. Clark, Fort Atkinson; Vice-President, Dr. Charles Carmichael, Helenville; Secretary and Treasurer, Dr. C. R. Feld, Watertown.

KENOSHA COUNTY

The regular meeting of the Kenosha County Medical Society was held at the home of Dr. J. H. Cleary, Feb. 7, 1913, with seventeen members in attendance. Dr. C. G. Grulee of Chicago addressed the Society on "The Use of Carbo-Hydrates in Infant Feeding". In the opinion of Dr. Grulee the most satisfactory carbo-hydrates for use in modified milk mixtures to obtain the proper sugar percentage are maltose and the maltose compounds. Dr. Geo. H. Ripley gave the salient features of a new medical bill for the control of the Practice of the Healing Art in Wisconsin, which is to be presented to the legislature some time this winter. It was discussed at some length.

The Society by motion agreed to bid for the Pauper Medical Work in the City of Kenosha the coming year. The work if obtained to be done by all members of the Society under some equitable arrangement and the money received to be placed to the Society's credit.

C. H. GEPHART, *Secretary.*

ROCK COUNTY

Rock County's monthly meeting was held in Janesville on January 28th and was well attended. An effort is being made to bring the 1914 State Medical Meeting to Janesville and a Rock County doctor is being boomed by the local medical men for president of the State Society. A paper on the Pathology and Diagnosis of Acute Diseases of the Abdomen delivered by Dr. Connell at the Wausau meeting of the State Society was again read last night at the request of the County doctors. The paper was discussed by Drs. E. C. Helm and J. F. Pember.

SHAWANO COUNTY

The annual meeting of the Shawano County Medical Society was held on January 14 at the Murdock House. The following officers were chosen for the ensuing year: President, Dr. J. F. Ragan; Vice-President, Dr. Calkins; Secretary and Treasurer, Dr. C. E. Stubenvoll; Censor, Dr. L. Rothman; Delegate, Dr. W. H. Cantwell.

SHEBOYGAN COUNTY

Sheboygan County has arranged the following schedules of meetings and addresses for the season:

March 18. Bacterial Therapy. Dr. O. A. Fiedler.

April 15. Tuberculosis of the Kidney. Dr. A. E. Genter.

May 20. Our Shortcomings in Medical Ethics. Dr. W. H. Gunther.

June 17. Enuresis in Childhood. Dr. W. F. Zierath.

July 15. Infant Feeding. Dr. E. A. Bruns.

Aug. 19. Typhoid Fever, Pathology and Treatment. Dr. J. R. Kingsley.

Sept. 16. Sterility in the Female. Dr. O. J. Gutsch.

Oct. 14. Pathological Resulting from Abnormal Conditions in Male and Female Genitalia. Dr. G. H. Stannard.

Nov. 18. Preliminary and Obstetrical Preparation and Management up to the Beginning of Labor. Dr. Emil Gunther.

Dec. 16. Treatment of Lacerated and Contused Wounds. Dr. O. B. Boek.

Jan. 20. Non-Surgical Treatment of Chronic Prostatitis. Dr. G. E. Knauf.

WAUKESHA COUNTY

Regular meeting of the Waukesha County Medical Society was held at Dr. Hodgson's residence on January 8th. 15 members present; Drs. Hodgson, Caldwell, Caples, Jacobs, Murphy, Noble, Eakins, Tibbits, Peterson, Love, Gilles, and Elliott of Waukesha; Dr. H. G. B. Nixon, Hartland; Dr. A. J. W. Nixon, Delafield; Dr. Urban Schneter, North Prairie. The petition of membership of Dr. A. S. Gilles of Moor Baths, Waukesha, was accepted by transfer card from the Milwaukee County Medical Society.

The president, Dr. Caldwell, appointed Drs. A. J. Hodgson, Henry A. Peters and G. E. Peterson committee on Health and Legislation.

Dr. J. B. Noble presented an interesting case of Infantile Paralysis and Dr. W. T. Murphy a case of Trophic Ulcer located in the appendiceal region. A resection of the ileo-hypogastric nerve had been done for relief of pain. Mr. Sommers of the Waukesha Gas and Electric Company demonstrated the use of the Pulmotor to be used in cases of asphyxiation.

After the business meeting Dr. Hodgson entertained the members at a dinner at the Hotel Waukesha. A vote of thanks was extended to the doctor for his cordial reception to the Society.

S. J. ELLIOTT, *Secretary*.

WINNEBAGO COUNTY AND OSKOSH MEDICAL

The Winnebago County Medical Society and the Oshkosh Medical Club held a joint meeting on January 22 at the office of Dr. J. M. Conley. Papers were read by Drs. L. P. Allen and J. M. Conley, and were followed by a general discussion of the subjects treated.

THE ASSOCIATION OF
COUNTY SECRETARIES AND STATE OFFICERS
of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette President. M. B. GLASIER, M. D., Bloomington Vice-President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County Society. It will be edited by Rock Sleyster of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

HERE'S TO SHAWANO.

S stands for Shawano but it also stands for Stubenvoll, C. E. Stubenvoll! Shawano has taken the championship pennant and I suspect Stubenvoll of being the man who stole it! Here's some strychnia for the County Secretary who is tired. Listen!

Shawano, Jan, 27, 1913.

DEAR DOCTOR:

In reply to yours of yesterday would say: things look good here for 1913. Every physician in this county is a member of our County Society.

Yours Sincerely,

C. E. STUBENVOLL,

Secretary.

Nuff said! Next!

FIRE IN SHEBOYGAN.

We have by this mail an eight page booklet from the Sheboygan County Medical Society. It is printed on good paper and neatly covered in brown. The first page gives the names of the officers of the society, the second gives the rules governing the meetings, the following four give the detailed program for the entire year, and the seventh and eighth is a register of all physicians in the county—the members being indicated by a star before their names.

With the program is sent a printed letter from the secretary, Dr. W. F. Zeirath (Zeirath is a Hindoo word meaning "Hustle"—the "W" stands for "Willing"—he won't tell me what the "F" stands for). Anyway this letter of Zeirath's is a dandy and I'll pay the postage on it to anyone who will write him for a copy of both. Here's a little part of it:

"At the next meeting sixteen new applications for membership will be acted upon. Out of fifty-seven physicians in this county all but five are members or applicants for membership in the society. One is a member of Calumet. We also have a member who resides outside the county. Thus our present membership is fifty-two."

We congratulate Sheboygan on having a Zeirath and Zeirath on his work and this letter and booklet. It bears the odor of smoke—smoke that means fire, action, work—and best of all—the fragrant smoke of the pipe of peace—the smoke of good-fellowship. I'm mighty sorry for those five heathens who haven't learned to inhale.

ROCK SLEYSER.

 WHAT IS THE COUNTY MEDICAL SOCIETY AND WHY SHOULD WE JOIN IT?

Men in the same pursuit often feel the need to get together to discuss common problems, to exchange views and experiences, to gain inspiration. It is this necessity that brings business men and professional men together. What profession has more problems to meet every hour of the day than the medical profession? First the problems pertaining to medical practice in general. The constant changes in the science and art of practice, the learning and unlearning of supposed truths, the ever shifting field of practice, the transitions from old to new conceptions—each gives rise to new problems which must be solved and can be

solved only by free discussion and interchange of ideas and experiences. The young doctor brings his theory and the old doctor brings his mature experience, and they swap, each profiting by the deal. The county society, therefore, is the doctors' exchange, and a seat in this exchange should be as valuable as in the stock market, for a profitable deal often means financial success. And, by the way, this is the only kind of stock—the stock of knowledge—that the doctors should deal in, for every other kind usually spells r-u-i-n.

Business men often get together to protect their guild against unfair competition or other conditions inimical to their business interests. Medical practice is a business and requires the same kind of guardianship. The underpaid doctor, the "cheap" doctor, the lodge doctor, the commercial school, the school with a low standard of medical education, the quack, the faker, the patent medicine man, the quack druggist—these are the enemies of the legitimate practitioner, and these enemies we can fight only by combining our forces. The county society is the headquarters of our fighting army.

Intelligent, broad-minded men often get together to discuss and take action on matters pertaining to public welfare. They take up politics, industrial conditions and other social problems and by their discussion and co-operative action frequently mold public opinion and help to direct public policy. Is there any other profession that can boast of a larger number of public-spirited men than the medical profession? Who looks after the health of the community? Who makes the town and the city habitable? Who saves the babies from untimely death? The doctor. Who transformed pest-holes into summer resorts? Who made commerce between these same pest-holes and the rest of the world possible? Who brought about the successful issue of the greatest engineering undertaking the world has even witnessed? The doctor. With such great achievements to our credit, it is only proper that the doctors should get together to encourage this social service.

The county medical society should be a civic center.

Men of like tastes often get together for social intercourse. During their busy hours they have no time or opportunity to meet in a social way. To fill this gap, clubs of various kinds are formed. The doctors, more than any other people, stand in

need of social intercourse. The opportunities of meeting for a friendly chat are so few that unless satisfactory arrangements are made, they may go through life perfect strangers to each other. Such opportunities are provided by the county medical society.

The county medical society should be the social center.

To perfect the organization of the doctors in this country, the county medical society was made the unit. Therefore, no doctor can belong to the American Medical Association unless he is a member in good standing of his county society. As a matter of fact, the American Medical Association has no independent existence. It is the association of county and state societies which control the policies of the Association through their delegates—truly, a democratic arrangement. Every doctor, therefore, no matter how humble, may help to determine the policies of this great medical body by his influence in the county society.—*Delaware State Medical Journal*.

BOOK REVIEWS

HIMSELF, Talks with Men Concerning Themselves, by E. B. Lowry, M. D., and Richard J. Lambert, M. D. Price, \$1.00; by mail, \$1.10. Forbes & Co., 443 S. Dearborn St., Chicago.

This book by Dr. Lowry succeeds in giving a large amount of the information which is needed by every boy as he approaches young manhood, and gives it in simple language and without exaggeration. This freedom from exaggeration which is in evidence throughout the work really increases the force of the author's statements as books of this character are sometimes so rabidly partisan that they lose in effectiveness, even though the partisanship is on the side of purity and virtue.

It seems a thoroughly safe book to place in the hands of those for whom it is intended.

A TREATISE ON FRACTURES AND DISLOCATIONS. By Lewis A. Stimson, B.A., M.D., LL.D., Professor of Surgery in Cornell University Medical College, New York. New (7th) edition, thoroughly revised. Octavo, 930 pages, with 459 engravings and 39 plates. Cloth, \$5.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

The new issue of Stimson's Fractures and Dislocations stands in no need of an extended review; a book which has reached its seventh edition must almost necessarily be well known. Previous editions have earned for the work a position of authority among surgeons of the

present generation. This edition differs from previous ones in that it embraces a more extended discussion of the treatment of old dislocations, the operative treatment of recent fractures, new sections on some fractures of small bones of the hand and foot and many more illustrations.

The first nine chapters, covering a hundred and thirty pages, are given to the discussion of general principles of pathology, etiology, symptoms, diagnosis, prognosis and treatment. These chapters are especially good—compact yet comprehensive—and are well worth reading.

Fractures of the skull are taken up in a section of twenty well written pages, as compared with seventeen pages in the previous edition. It is perhaps a fault of most books on the subject of fractures, that injuries of the head—fractures of the skull—are given too little attention. A study of the records of city hospitals would I think, reveal the fact that fractures of the skull are relatively more frequent than they were a decade ago; the automobile, the electric car, and the well advertised revolver being to some extent responsible. Many of the injuries are hopeless from the beginning, but to train men in the more intelligent observation of these cases,—the constant and careful watching for symptoms of intracranial pressure and interference with nerve function is certainly a desideratum; and with this increased and trained experience will come doubtless some widening of the field of operative interference and other improvements in the management of even desperate cases.

Following this are the usual special articles on all fractures and dislocations—up to date and well written in every instance and one feels that he may refer to anything in the book with safety and satisfaction.

A MANUAL OF AUSCULTATION AND PERCUSSION, EMBRACING THE PHYSICAL DIAGNOSIS OF DISEASES OF THE LUNGS AND HEART, AND OF THORACIC ANEURYSM, AND OF OTHER PARTS. By Austin Flint, M.D., LL.D., Late Professor of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., New York. Revised by Haven Emerson, A.M., M.D., Associate in Physiology and in Medicine, College of Physicians and Surgeons, Columbia University, New York. 12mo, 361 pages, illustrated. Cloth, \$2.00, net. Lea & Febiger, Philadelphia and New York, 1912.

It is a delight to read this book on account of the remarkable clearness and accuracy of the author's style. There is no groping for words, no obscurity in the descriptions. Every word is the right word in the right place to convey the thought with the greatest lucidity and precision.

The foundation of diagnosis, in spite of all our laboratory aids, still rests so largely upon auscultation and precussion that no practitioner of medicine can afford to neglect the cultivation of these arts. And in their cultivation this excellent work of Professor Flint's, which in this new edition has had its scope widened by the inclusion of chapters on the examination of the abdominal viscera and of the nervous system, will be most helpful.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, MARCH, 1913

Number 10

ORIGINAL ARTICLES

THE TREATMENT OF PARALYSIS AND DEFORMITIES FOLLOWING INFANTILE PARALYSIS.*

BY F. J. GAENSLEN, M. D.,
MILWAUKEE.

The author desires to preface his remarks by saying that the following paper contributes nothing original, but that it is rather a survey of personal experiences and a resume of modern literature pertaining to this subject which the general practitioner may not have time to go over for himself.

Involvement of the upper extremities is comparatively infrequent, and fortunately so, as the disability in severe cases is great. These cases also are less favorable for surgical treatment than cases involving the lower extremities. Starr and Lovett found the lower extremities alone involved in 81%, the upper alone in 5%, the remaining 14% covering cases in which the paralysis was distributed over upper and lower extremities and of the trunk musculature.

Permanent extensive paralysis of the abdominal muscles is not amenable to treatment; on the other hand localized hernia-like protrusions may very possibly be remedied by the method of free fascial transplants, though thus far no reports were found in the literature to this effect. A division is sometimes made between actual deformities due to shortening of non-paralyzed muscles and stretching of paralyzed muscles on the one hand, and mere distortion of completely or partially paralyzed limbs due to gravity and strain of weight bearing. A distorted member can be brought passively into normal position, while in the actually deformed the reposition to normal is prevented by shortening of soft parts.

Paralytic deformities as the name implies are permanent deviations from the normal form due to disturbance of muscular balance. This disturbance of muscle balance is brought about by paralysis, partial or complete of one muscle or group of muscles, while the antagonists either escape entirely or are involved to a less degree. In time the weaker groups become stretched together with the associated soft parts, joint capsule and ligaments, while the healthy or less paralyzed antagonists are gradually shortened. This causes a permanent hindrance to active motion as well as to passive manipulation aiming at restoration of normal form.

In the lower extremity the equinus positions characterized by pointed foot or toe drop are dependent upon paralysis of muscles on the anterior aspect of the leg, the dorsal flexors of the ankle. This deformity alone or in combination with valgus or varus constitutes roughly 60% of all foot deformities due to poliomyelitis. The calcaneus positions characterized by pointed heel are due to relative loss of power of muscles in the posterior group, the plantar flexors, and constitute approximately 25%. The valgus or flat foot position in which the foot is held in marked pronation results from paralysis of supinating muscles, notably the tibialis anticus and posticus and flexor longus hallucis, while the varus positions are due to paralysis of the pronating muscles, the peronei extensor longus digitorum. These latter groups constitute about 13%. Because of this more frequent involvement, the lower extremities deserve special consideration though the principles of most remedial procedures considered are applicable to the upper extremities as well. These then briefly are the types of deformities met with and of course they may be and very frequently are seen in various combinations.

As to prophylaxis it may be said, that marked fixed deformity can practically always be prevented by keeping in mind the factors bringing about the deformity. Among these may be mentioned:

*Presented by title at the Sixty-sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

1. Stretching of the paralyzed muscles.
2. Shortening of non-paralyzed muscles and associated soft parts.
3. The influence of gravity as seen in toe drop.
4. The influence of perverted use—e. g., weight bearing.

These factors naturally suggest the following remedies:

1. Measures designed to restore function in the paralyzed muscles, e. g., warmth, massage, electricity, functional use with suitable protection.
2. Measures designed to prevent the gradual contraction of non-paralyzed muscles, at the same



Fig. 1.

time relieving tension and stretching of the weaker muscles. To counteract the undesirable influence of gravity and weight bearing various mechanical splints have been designed.

In paralysis of the dorsal flexors for instance prolonged recumbency promotes toe drop by gravitation as well as by pressure from bed clothes, while in cases with inclination toward varus and valgus, weight bearing tends to increase the deformity. For these conditions Lange advises variously shaped celluloid supports with steel wire reinforcement to be worn during the day if the patient is about, and for the night, splints serving to hold the foot in an over-corrected position. As a rule marked fixed deformity should be regarded as a result attributable largely to neglect

either on the part of the parents who fail to live up to instructions, or on the part of the physician who fails to impress the importance of these measures upon the parents. A. H. Tubby in his recent work states that every case of poliomyelitis allowed to result in marked deformity is a reproach to the medical profession.

Having outlined the types of deformity and the elements in prevention, a consideration of corrective measures at the command of the surgeon must be considered. First, in the milder cases forcible manipulation and long continued retention in over-corrected position favoring the disabled muscles will give good results. If plaster is used immediately after correction it should be replaced as early as possible with the lightest kind of a splint, permitting as free use of the limb as possible. The resulting relief from tension in the over-stretched muscles is an extremely important factor. The over-stretching of a partially paralyzed muscle forms an insurmountable obstacle to recovery, and the removal of this disadvantage by restoring muscle balance will often times bring to light considerable recuperative power in a muscle apparently beyond hope of recovery. Partial recoveries have been noted even three to five years after the acute illness. It must be remembered as Gowers and Taylor have pointed out that this late improvement is dependent upon the slow growth of a muscle which is recovering under the stimulus of use and not upon any regenerative changes in the central nervous system, which no doubt have been completed at the end of six months.

Among the operative procedures to be considered in these deformities are tenotomies, fasciotomies, shortening of relaxed tendons and ligaments combined with excision of soft tissues, tendon transplantations, silk ligament insertions, arthrodeses, nerve grafting, and so called nerve fusion.

Tenotomy of contracted muscles especially in combination with tendon transplantation or with shortening of tendons of over-stretched muscles has a wide range of usefulness in overcoming contractures. These measures relieve the continued tension on the paralyzed groups and as already stated an over-stretched muscle has no chance for recovery. Tenotomy by relieving the abnormal strain on the weakened muscle is frequently followed by at least partial restoration of function in

muscles seemingly completely degenerated. This statement of course would apply only to muscles apparently but not really completely degenerated.

Methods of tenotomy. Formerly the subcutaneous method was regarded as entirely adequate. However, cases of defective union especially of the tendon Achilles are being noted more frequently. In spastic cases which are not considered here, simple transverse subcutaneous tenotomy should never be done as the muscular belly of the muscles retracts so far that union may not take place. In the paralytic cases proper, coming under this discussion union practically always takes place, though sometimes the connecting fibrous tissue is so thin that it stretches in time resulting in marked weakness and atrophy of the muscle. The Bayer subcutaneous method for tendon lengthening may here be used or any one of the open methods may be resorted to. This is especially advisable in cases where the deformity is extreme and the separation of the tendon ends after section would be unusually great. Whitman cautions especially against pressure of the plaster cast over the sectioned tendon, as the compression might prevent the formation of a blood clot, upon the organization of which the union of the tendon is dependent. Prolonged fixation in the corrected position is a most necessary adjunct to the operative part of the treatment. Many failures are no doubt due to insufficient protection after operation. As a further help toward permanent fixation in conjunction with the measures just referred to, Robt. Jones has resorted to excision of a diamond shaped area of skin on the paralyzed side of the deformed joint and bringing the skin edges together under tension. He has used this as a supplementary measure in the correction of valgus and varus deformities of the foot, also to fix a flail elbow at right angles so that any remaining power in the shoulders and hands might thereby be utilized to greater advantage. It must also be remembered that treatment does not end with operation nor with adequate fixation, but that every effort should be made to stimulate the muscles by measures already referred to, of which massage is the most important. In correcting fixed deformity by tenotomy, or tendon lengthening as the case may be, tendon shortening of the over-stretched muscles is frequently a necessary supplementary proceeding. This of course is of value only in cases where the muscles are only partially paralyzed so that taking up the slack and putting

them under normal tension will prove a stimulus to further growth. When a muscle is completely degenerated relapse after simple plication will surely follow and in such cases tendon fixation to the periosteum or fascia is indicated. In this case the tendon is transformed into a ligament. The amount of shortening requires careful consideration of the amount of muscular power remaining in the weak group as well as of the power of the antagonists.

Tendon Transplantation. This is useful in cases where the anatomical conditions are such



Fig. 11.

that a healthy muscle can be utilized to perform the function of the paralyzed muscle or group of muscles. This procedure has been in use since 1882 when Nicoladoni supplanted the paralyzed calf muscles by the peroneus longus and brevis. Nicoladoni's contribution, though the ultimate result of this first case is said to have been unsatisfactory, marked a very distinct advance in orthopedic surgery, and since that time, as Whitman says, "the field of the operation has been extended to include almost every possible combination of tendons and muscles." In the earlier operations, among many successes, there were also numerous failures in the form of relapse occurring after long periods. Dr. Lovett of Boston, several years ago analyzed the causes of such failures and as a result emphasized certain features

essential to success which had been largely neglected previously. Proper selection of cases is most important, the most frequent error being the application of the method in cases of too extensive paralysis. Improper selection of muscles is a very common source of error, while adhesions about the transferred tendons are also responsible for numerous failures. Adhesions are largely preventable by avoiding all unnecessary manipulation, and by passing the tendons through the subcutaneous fat, or better still, through tendon sheath of the muscle to be replaced. In the earlier cases tendons were united to tendons and in these in-



Fig. 111.

stances relapse was not infrequent due to gradual stretching of the paralyzed tendon portion. In late years, however, the technique was modified by inserting the tendon of the healthy muscle directly into the bone, at or near the insertion of the paralyzed muscle. This was done by drilling directly through the bone, passing the healthy tendon through the channel and suturing it, or by direct suture to the periosteum without channeling the bone. As a preliminary to the operation of tendon transplantation emphasis is laid on over-correction of the deformity by forcible manipulation combined, if necessary, with tenotomy of antagonists to avoid undue strain on the newly attached tendon. The tendon also must be attached securely and under slight tension so that the muscle on contracting will pull im-

mediately on its load without having to take up slack. A further essential is prolonged immobilization, about six weeks being required to insure union before putting the new tendon insertion on strain.

The field of tendon transplantation has recently been further increased by the use of silk ligature extension in cases where the tendon of the healthy muscle is not long enough to reach to the insertion of the paralyzed. This method was devised by Lange. In some instances his extensions have been over eight inches in length. An advantage is that the transplanted muscle, by means of this elongated tendon, may be inserted at the point where it may exert its pull most effectively. Lange showed that the silk ligature during use became greatly thickened due to the ingrowing of connective tissue between the meshes of the silk. The late results due to adhesions which seem very difficult to avoid are not as encouraging as at first anticipated.

Lovett lays especial stress in the after treatment on muscle training for about six months with a view to educating the muscles to their new function. Among the most successful results may be mentioned the replacement of the quadriceps extensors by the sartorius or by the ham strings in restoring the power of extension at the knee. In the feet the replacement of the paralyzed tibialis anticus by one of the peronei for valgus deformity and vice versa for varus deformity is frequently called for.

In cases of extensive paralysis involving especially the dorsal flexors resulting in toe drop, Lange of Munich has also used silk ligatures to suspend the ankle when tendon transplantation is not feasible. Silk threads are attached to the tarsus at the points of greatest mechanical advantage. These threads are then passed up under the annular ligament and inserted some distance above the ankle on the anterior aspect of the tibia either to the periosteum or directly to the bone through drill holes. These silk cords are so adjusted as to prevent the foot from sinking beyond 90°, resulting in decided improvement in gait by doing away with the necessity of the patient swinging the leg outward in a circle in order to clear the floor with the toes, or of raising the knee and slapping the foot on the ground. The passage under the annular ligament is of great importance as it is easily conceivable that with the constant tendency

of toe drop the silk ligament in being stretched taut might push the skin forward over the front of the ankle resulting in tenderness or excoriations of the skin. This operation is too recent to judge of its merits. The question has been raised whether in young children the foot might not be drawn up as a result of growth of bone, even though the principal growth takes place from the upper epiphysis. The operation has been in use several years and no instance of such complication has come to the writer's notice.

Arthrodesis. Another measure in the treatment of paralytic deformity, and adapted especially to those cases where practically all muscular power of the part has been lost is arthrodesis. This consists in opening the joint widely and removing the contiguous cartilaginous surfaces of the bones forming the joint, followed by fixation by nail or suture or by encasement of the part in plaster of Paris. The object of this operation is to maintain the part in normal position during weight bearing by securing firm bony ankylosis so that the limb may be used as a prop without the necessity of supportive apparatus in the way of brace or crutch. An objection to this operation in the ankle is that while the patient is able to walk with comfort on even ground, an uneven surface presents difficulties as the lack of inversion particularly of the posterior portion of the foot does not permit of the necessary adaptation in walking on an irregular surface. In this respect the silk ligament suspension above referred to, preventing toe drop beyond 90° is an improvement in as much as at least inversion and eversion are not materially interfered with. Arthrodesis is no doubt most frequently called for in the ankle joint, though it may also be indicated at the knee and occasionally at the shoulder, so that the shoulder muscles may be used in moving a paralyzed arm.

Neuroplasty. A farther attempt in this field is that of nerve grafting in which the nerve of the paralyzed muscle is divided and the distal end sutured into a slit in some healthy available motor nerve. Spitzky states that a muscle atrophied but not degenerated for a period of eight years may be made to respond if provided with a healthy nerve. Prof. Lange two years ago said he had not seen a single convincing case, that once a muscle is degenerated, supplying it with a healthy nerve will not allow the muscle to regenerate, and if the operation is resorted to in a muscle not completely

degenerated, proof is lacking that the recovery may not have come as a result of relief from overstretching or some of the other measures used in conjunction with neuroplasty. Kilvington sums up the situation briefly as follows, the opinion now held seems to be that it is only in cases of anterior poliomyelitis where the muscles supplied by a single nerve are paralyzed, and where the



Fig. IV.

adjacent nerves are uninvolved, that nerve anastomosis is justified. It has a rather limited field. Good results have been reported by some, and absolute failures by others. Allison and Schwab of St. Louis, who are among those reporting partial successes emphasize the importance of blocking the impulses in the healthy nerve below the point of the anastomosis by injection of alcohol directly into the nerve. They believe that centrifugal impulses under these conditions will find their way down the paralyzed nerves more readily. Neglect of this precaution may possibly account for some of the failures.

Dr. Feiss of Cleveland, within the past year has reported some interesting work along new lines in the treatment of paralysis following poliomyeli-

tis. He styles his method "nerve fusion." He calls attention first to the fact that the larger branches of a nerve trunk can easily be followed centrally in the trunk as separate bundles. A cross section of the sciatic nerve, for instance, shows some distance above its division, separate bundles enclosed in endoneurium corresponding to the internal and external popliteal nerves and these, in turn, show further division into separate compartments corresponding to further subdivisions. This arrangement of the cross section of



Fig. V.

the nerve trunk he styles the nerve pattern. When a nerve is crushed as by a clamp, the nerve fibres as well as the endoneurium are crushed. In the process of repair, the axis cylinders at first penetrate the scar very irregularly, not having the guidance of the endoneurium; the nerve pattern is thus effaced. Later on, the fibres show a strong tendency to seek out their original bundles. By his method of nerve fusion Feiss attempts to render more permanent this early irregularity in the nerve pattern and so to cause the regenerating axis cylinders to travel down columns whose nerve fibres have degenerated. The bearing on spinal paralysis is therefore at once apparent. If healthy neurones can be made to grow down nerve bundles whose axones are degenerated, recovery of the corresponding muscles could be hoped for.

Feiss himself, however, admits that complete degeneration of the muscles may form a serious obstacle as already urged against nerve anastomosis. The advantage of the method over nerve anastomosis would be that it could be carried out in cases where a healthy motor nerve is not accessible.

ILLUSTRATIVE CASES.

Case 1. G. K. Age 8 yrs. Flail Ankle.

Attack of poliomyelitis at 1½ years, leaving him with extensive paralysis of the left thigh and leg. In the thigh practically all the muscles were weakened although there was enough power left to manage the limb. Below the knee there was complete paralysis of all muscles except the extensor proprius hallucis, where very slight power remained, and in the peronei and extensor communis digitorum, where there was the barest trace. No fixed deformity. The leg and the foot were considerably shorter than the opposite. In walking the foot was held in extreme valgus, accentuating the shortness of the paralyzed leg and resulting in compensatory scoliosis. Operation, Arthrodesis, Dec. 7, 1911. Bony ankylosis was obtained and there is now less limp than previously because the os calcis bears the weight in direct line whereas previously it was tilted inward. Patient wore brace for one year as protection.

Case 2. O. G. Fixed deformity of the ankle in extreme equinus position.

At 8 mos. said to have had meningitis. After the immediate recovery the mother noticed paralysis of arm and some impairment of left leg. Right leg is normal. Left leg shows normal extensor proprius hallucis. Other dorsal flexors all paralyzed. The peronei and tibialis anticus very weak. There is moderate cavus or "hollow foot." In walking the patient bears weight almost directly on the distal ends of the metatarsals. There is extreme fixed equinus deformity of the left foot. The cavus or hollow foot was corrected first by a complete subcutaneous division of the plantar fascia followed by forcible manipulation. Correction of equinus deformity followed by subcutaneous division of the tendon Achilles. Retention of the angle at an angle of 90° was effected by insertion of two No. 14 braided silk ligaments passing from the base of the first metatarsal beneath the annular ligament to be inserted into the tibia through a channel drilled through the anterior portion about 8 c. m. above the joint. The patient

is now able to walk with the whole foot flat on the ground.

Case 3. Girl. Age 7 years.

Infantile paralysis when 10 months old. Final result, paralysis of the extensors of the toes and of the peronei with the foot held in equino varus due to unopposed action of the antagonists. Operation Feb. 26, 1910. Lengthening of tendon Achilles, grafting of portion of Achilles to peroneus longus. At the dorsum of the ankle the extensor tendons were divided. Distal ends sutured to periosteum of tibia. The proximal ends overlapping the distal end sutured. The toe drop which was very disabling in walking has been corrected, but the varus was not entirely overcome. As a supplementary measure transference of the tibialis anticus to the outside of the foot would undoubtedly be helpful.

Case 4. H. Age 5 years. Fixed contractures both knees and feet.

Acute attack at 17 months, resulting present condition marked fixed equinus with slight valgus in both feet. Flexion deformity 45° both knees. There is slight power in the ham strings of both thighs. Very slight power in quadriceps extensor on left. Practically all remaining muscles show very extensive paralysis though occasionally fibrillary contractions are seen in various muscles. Faint flicker on voluntary effort in both extensors and flexors of toes. Operation May 13, 1912. Lengthening of both tendon Achilles by the open method followed by forcible over-correction of both ankles and both knees. In this case the muscular balance was destroyed so completely that only after prolonged period of fixation, massage and allied measures, will it become possible to say what further measures will be necessary.

CASE 1.

FIG. I. Flail ankle before operation. Note also marked atrophy of calf. Fixed in corrected position later by arthrodesis at ankle.

FIG. II. Same patient 1½ years after operation.

CASE 2.

FIG. III. Before operation. Fixed equinus. Patient walks on ends of metatarsals.

FIG. IV. After operation. Lengthening of tendon Achilles and silk ligament suspension of ankle. Note periosteal thickening over silk insertion on tibia.

CASE 3.

FIG. V. Extensive paralysis from hips down. Faulty position aiding in production of flexion contracture at knees and extreme equinus of both feet.

A CASE OF PARESIS WITH FOCAL SYMPTOMS.*

BY AUGUST SAUTHOFF, B. S., M. D.

STATE HOSPITAL FOR THE INSANE.

MENDOTA, WIS.

A. G., a male, aged 48; born in Wisconsin; married; was admitted to the Wisconsin State Hospital on April 29, 1911.

His family history shows that one brother was insane. The patient was father of three children; one was born dead; one died when three weeks old, and one is now living, aged 23 years.

Years ago before he was married the patient contracted a primary sore for which he took treatment. In 1891 he received a slight injury to the head in a railroad wreck. For about fifteen years he was employed as a brakeman and for years he used alcohol to excess.

The present trouble came on gradually in October, 1910. He seemed confused; mistook his daughter for his sister, was unable to keep track of time and frequently turned the hands of the clock. He appeared dazed, showed considerable defect of memory and was no longer able to carry on his business. As a rule he seemed quiet, talked but little and never showed any tendency toward violence. Frequently he would over-eat, then vomit and later say that he never had enough. He expressed a few persecutory ideas, thought his neighbor was trying to beat him out of his property and one morning he asserted that he had borrowed a team and that some one had stolen it during the night. At times he imagined that he heard his sister calling.

The present physical examination reveals a well nourished individual with no malformations, whose respiratory, circulatory and digestive systems are fairly well intact aside from the general lack of tone. The cutaneous sensibility is fairly acute, co-ordination is defective, there is a noticeable Romberg sign, and walking in a straight line is difficult. All muscles are flabby, movements are sluggish and awkward, and in walking the left foot occasionally drags. Superficial reflexes are decreased. Knee reflexes are exaggerated and sphincteric control is poor. There is no evidence of tremors or convulsions.

The present mental examination shows a patient who is very quiet, prefers to lounge about or go

*Read before the Dane County Medical Society, Oct. 15, 1912.

to bed, and who spends most of his time in sleeping. Whenever he is addressed he answers cheerfully but never makes any attempt to speak to others of his own accord. He seems well satisfied with his surroundings, usually smiles in a good natured way and never gives any indication of irritability or resistance. If a request is made of him, he complies readily although he does not like



Possible Lesion on Motor Cortex.

to exert himself. He is prone to make off-hand statements and when he is more closely questioned he makes no attempt to substantiate his assertions. He is decidedly easy-going, makes no effort to restrain himself in any way and is neglectful of his manners and appearance.

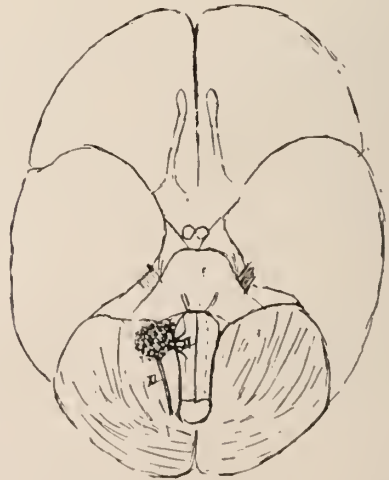
All his thought processes are sluggish though usually coherent. He is readily fatigued and at times shows a tendency to ramble. His attention is passive and weakened and details go unnoticed. Although he has been in a room with ten beds for months he does not know how many beds there are. Apprehension is slow; he has difficulty in comprehending commands. All his reactions are sluggish. There is a noticeable lack of initiative and a strong tendency toward suggestibility. Emotional response is usually lacking but as a rule there is a general feeling of well-being. He expresses a few transitory ideas of persecution and physical illness which indicate a marked defect in judgment. On one occasion he told how the doctor took a sheet of rubber at least a foot square, rolled it up and inserted it into his ear. At another time he explained that the doctor thrust a knife into his chest and let out some paregoric.

Orientation is confused with respect to time and occasionally with respect to surroundings. As a rule he realizes that he is at Mendota but at other times he asserts that he is at Whittelsy or Mankato or "up at the Brewery." Memory for recent past

is poor and frequently the gap is bridged over by fabrications. If, for instance, he is questioned as to where he has been lately, he will say: "Oh, I just came back from the church sociable," or "I have just been out in Frisco for the last three weeks," or "I just drove over from Fond du Lac, I am going to open up a place there." One noon he left his dinner and when he returned to the room he refused to eat because he explained that he had just had some pickles and some bread. Memory for past events reveals many contradictions; he states that he is 48 years of age, that he began to work for the railroad company when he was fifteen, that he worked for them fifteen years and that he stopped one year ago. Retention is poor; he has difficulty in repeating figures of five places. His stock of general information is limited. His attempts at calculation show a lack of concentration and of serious effort. Although he was able to read a paragraph readily he had no clear conception of the contents and his enunciation showed a tendency to slur the "R's". His writing was slipshod and sprawling. He has no insight.

The findings of most interest in this case are the signs pointing toward focal lesions.

During the month of October, 1911, the patient suddenly developed a facial paralysis involving all



Possible Lesion Involving X, XI and XII Nerves.

the muscles of the left side. There were no convulsions or indications of hemorrhage. In attempting to locate a lesion of this kind we must consider the possibility of an involvement of the facial nerve or the motor area in the cortex connected with that nerve. For clinical purposes the

facial nerve may be divided into four parts. The first consists of the nucleus in the pons. This could not be involved because the abducens escaped and as the seventh winds around the nucleus of the sixth the former could not have been affected alone at this point. The second, the division just outside of the brain, could not have been implicated, because the auditory nerve escaped. The seventh and eighth lie close together at the base of the brain. The third division, the portion in the Fallopiian canal below the geniculate ganglion, could not have been concerned because there was no involvement of the branch to the stapedius. It was impossible to determine whether the chorda



Possible Lesion Involving Nucleus of 11th Nerves.

tympani was affected as the sense of taste was very deficient on both sides of the tongue. The fourth division outside of the stylo-mastoid foramen or else the motor area of the cortex, either of these two could have been involved.

Last February the patient began to speak with a thick voice. His throat seemed full as though inflamed and on examination it was noticed that the palate was wider on the right side and that the uvula hung lower and when he produced the sound "Ah" the raphe deviated toward the left. Also when he protruded his tongue it deviated toward the right and when he retracted it, it deviated toward the left. The right shoulder hung much lower and the scapula fell away from the median line. Now a paralysis of the right side of the tongue speaks for a lesion of the twelfth nerve or the area of the cortex connected with that nerve. The position of the right shoulder lower and of the scapula outward indicates paralysis of the trapezius muscle which is supplied by the eleventh nerve. This nerve could be involved somewhere in its course or the motor area could contain the lesion. The paralysis of the right side of the palate would indicate an affection of the

part of the pneumogastric supplying that muscle or of the motor cortex. It would hardly be possible to have one lesion in the pons at the nuclei of these three nerves cause these paralyzes as a lesion at this point would most likely extend to both sides of the canal. The lesion could not very well be located on the cortex on the left side as the areas controlling the tongue and shoulder are far apart and could hardly be involved simultaneously without including the area between. It is much more probable, however, that the lesion is located at the base of the brain where the tenth, eleventh and twelfth nerves lie close together and a small patch of meningitis or thickening of the meninges could explain the lesion.

Last July the patient grew dizzy, carried his head inclined toward the right and was able to walk only with great difficulty. His right eye was lower than the left and deviated outward. He could move both eyes readily from side to side but could not move them upward or downward and was unable to converge the right eye. When he looked forward he saw two images, the right one was always higher and nearer. There was no evidence of hemianopsia or optic atrophy. Both pupils were approximately equal and reacted slowly. Such a lesion would indicate involvement of the oculomotor nerves of both sides and especially the one on the right side. This lesion could hardly be explained by a simultaneous involvement of both cortical areas but would more probably be located at the nucleus in the floor of the iter.

Recently it became noticeable, after the patient had walked a little, that the ball of the left foot occasionally caught the floor and that he used the left hand awkwardly. This would tend to indicate a cortical involvement or a lesion in the internal capsule.

Finally the patient showed a slight tendency to deviate the jaw to the left. This would indicate involvement of the third branch of the tri-facial nerve on the left side or involvement of its nucleus or involvement of the cortex.

To explain a paralysis of the left side of the face and the left arm and leg we might suppose the lesion to be in the cortex rather than the internal capsule as the tongue, the lips and the throat escaped on the same side.

Therefore, it might be permissible to suppose that there were at least three lesions in this case; one involving the motor cortex on the right side

of the brain; one involving the oculomotor nuclei, especially the right and one at the base of the brain on the right side involving the pneumogastric partly, the spinal accessory, and the hypoglossal nerves.

DUODENAL MOTILITY.*

BY PAUL EISEN, M. D.
MILWAUKEE.

The motility of the duodenum, in its normal state, is not the subject of this paper. The term "duodenal motility"^{17a} is associated with a certain train of phenomena observed in the course of a radiosopic examination. The motor functions of the duodenum are associated with the mechanical as well as with the chemical changes of the stomach's contents. Nevertheless the chemical alterations will only be dealt with, where they are directly associated with disturbances of the stomach's activity.

The nature of the normal stomach's action is twofold, one being its own activity, the other being the pyloric reflex. The factors controlling this latter function are put down by William Mayo¹ in the following words: "When a certain degree of acidity exists in the pyloric antrum, the pylorus opens^{6b} and the chyme passes into the duodenum, and when a certain degree of acidity takes place in the duodenum, the pylorus automatically closes. It should not be forgotten that the duodenum has the paramount right over the stomach in the control of the pyloric apparatus,⁴ and this right to control is not confined to the duodenum, but is possessed to some extent by all the derivatives of the midgut from the common duct to the splenic flexure of the colon and accounts for gastric disturbances in the presence of intestinal disease."

"The control of the primitive intestinal tract is dependent upon chemistry, internal secretions which Starling² calls hormones. These internal secretions are correlated through the bloodstream and the sympathetic nervous system upon which the internal secretions act."

This description, with the one exception of the term "antrum pylori", whose existence in the human has been disputed by Kaestle, Rieder and Rosenthal^{8a} in their cinematographic study on the motility of the normal stomach, will serve me as

an introduction to the subject of my paper. I may add that Hausmann^{40b} has lately contended this presumption and still believes in a concentric contraction of an antrum pylori, beginning with a true sphincter antri, being also present in the human.

The phenomena that I am about to describe have been observed and were thought to have been characteristic of duodenal ulcer alone. The first publication by Barelay¹⁰ in the Archives of the Roentgen Ray of October, 1910, as well as subsequent articles in the following year by Hertz,¹¹ Jordan,^{12a} Skinner,¹³ Baron and Barsony,¹⁴ Hauddek,¹⁵ and others, treat only with duodenal ulcer. It is within the year 1912 that the presence of this remarkable chain of symptoms was met with in other lesions, notably of the gall-bladder, by Bier,¹⁶ Kreutzfuchs,^{17a, b} and Moynihan.^{7a} The latter two have called especial attention to the fact of its association with duodenal ulcer and appendicitis combined. Its association, in some cases, with diseases about the ileo-cecal valve, causing both duodenal and ileal stasis, has been suggested in reviewing the work of Jordan^{12b, c} and Case²⁹ of last fall. The term introduced by Kreutzfuchs^{17b, c} of Duodenal Stomach Motility being a bit long and confusing, the term Duodenal Motility is substituted, as it also better conveys what is meant by the expression. As the opening of the pylorus is controlled by the duodenum, the motor functions of the stomach as well as of the duodenum must naturally undergo a change, in such cases where this control is tampered with,^{17b} and that which results is termed duodenal motility.

All observations brought forth in this paper are a review of only such cases in publications, where the operation or autopsy confirmed the radiosopic findings. Also no personal case will be considered.

Because of their nature, being based on fluoroscopic findings for the most part, the phenomena do not lend themselves to radiographic demonstration; a cinematographic film, if taken at the critical moment, would probably fulfill this requirement. The presentation of these phenomena ought, nevertheless, to prove valuable in understanding the hitherto obscure disturbance of the stomach and once for all to do away with the idea that the motility of the stomach was normal.

The normal motility of a stomach was thought to have been properly ascertained, if it was found empty on washing it out seven hours after a Leube

*Read before the Medical Society of Milwaukee County, Feb. 21, 1913.

meal, or fluoroscopically, six hours after a Rieder bismuth meal. That the stomach is often empty two hours after a meal in duodenal ulcer, was known to Riegel³ and the profession years ago. It was further known that these patients, similar to those having Achylia gastrica and pancreatica, would have a rapid evacuation of the bowels, often shortly after a meal. Another clinical manifestation of an altered motility was recognized in a palpable³⁹ "pylorospasm," later seen and confirmed at operation.⁴¹ This tonic contraction is regarded by William Mayo¹ as a safeguard in time of distress; to quote his words: "Nature's endeavor to secure rest by means of the so-called 'pylorospasm' which acts to prevent food from passing out of the stomach"; for instance, in gunshot wounds of the small intestines.

Although closely allied to this pylorospasm, I will not take up the matter of muscular rigidity of the abdominal muscles or of the muscular diaphragmatic spasm, as it does not strictly come within the subject of this paper, this study being less a treatise on points of differential diagnosis than rather a summary of changes in the motility of the stomach and duodenum in a certain group of cases, the lesion of which being in the midgut.

The duodenal control over the opening of the pylorus, or the duodeno-jejunal reflex, as Kretzschuch^{17b} terms it, is affected by any disturbance in the midgut. According to this author, animal experimentation is of little value in studying these conditions, as the duodenal fistula is of itself a lesion. This accounts for the phenomenon seen in a dog with a duodenal fistula, in which the stomach, if filled with an inert fluid like water or a highly acid fluid, shows abnormal features. The pylorus, according to him, opens and closes automatically with the automatic peristalsis of the antrum and not in response to the degree of acidity in the stomach or in the first part of the duodenum. This change in motility seen in dog experimentation is encountered in the human in duodenal ulcer, but also in lesions where derivatives of the midgut are affected. One stomach lesion alone shows this type of motility, achylia gastrica; but as this lesion is nearly always associated with achylia pancreatica, the loss of control may be explained, as the pancreas is a derivative of the midgut.

The first change we encounter in duodenal ulcer and lesions in the midgut is the *open pylorus*. The patient must be examined in the fasting con-

dition,^{17b} and not six hours after a bismuth meal, as Haudek^{15a} is accustomed to do. The test meal is then seen, on passing through the stomach, to appear immediately in the duodenum. Just beyond the pylorus, in the so-called *bulbus duodeni*,^{22a} a small residue remains, the rest passing rapidly through the duodenum into the jejunum. With ingestion of more food the same phenomenon repeats itself, the pylorus *opening* regularly with the antrum peristalsis, a sign that there is no pyloric control through the duodenum. This same condition naturally prevails in the pyloric insufficiency seen in such cases of cancer, where the lumen of the pylorus is converted into an inflexible tube. But in our cases the pylorus can and does close at intervals, but these intervals do not seem to be regulated by any duodenal reflex action or control. Neither does the degree of acidity act as a control in our cases,⁴³ as hyperacidity is the rule and ought to bring it about.

Naturally following this alteration, the stomach is often completely empty after one and a half to two hours following a Rieder meal, whereas a normal motility would consume some three hours, using barium sulphate, or four hours using bismuth; the latter retards, through reflex action from the jejunum,¹⁸ the evacuation of the stomach. But this early empty stomach is not always seen, not even upon a second examination in the same case. The stomach then shows a small residue to the left or below the pylorus, distinctly apart from the residue mentioned before in the *bulbus duodeni*. This is explained by Haudek^{15a} by assuming the existence of a "pylorospasm" at the second examination. That pylorospasm is often present in the cases under consideration, has been mentioned before, as recognized by surgeons^{1,7} at operation, where the stomach is empty, or by clinicians^{31b, 39, 40a, 41} by palpation of a fasting stomach. On the other hand, the Ewald test meal invariably shows a decided increase in the amount and the percentage of hydrochloric and total acids, if properly conducted, taking 0.2%-0.25% for total acidity as the normal.³¹ The same increase is seen in the first stages of ulcer of the stomach⁵ where the pylorospasm can co-exist, but the acidity is often normal or subacid in later stages, and still pylorospasm may be present. The increase in acidity is considered by some to cause pylorospasm in gastric ulcer. On the other hand, experiments show that the pylorus opens in the normal, when a certain degree of acidity exists in the

stomach, therefore before superacidity can take place. How can superacidity therefore cause spasm of the pylorus? Besides secretion is a factor controlled by the vagus, whereas pylorospasm is a myenteric reflex action (see below). The radioscopic examination reveals another factor with which we will presently deal, excessive peristalsis of the stomach. Peristalsis^{6f, 21, 38} is not under control of the central nervous system, but an automatic function, regulated by Auerbach's myenteric plexus.²⁰ But only in part is this true. In a recent publication Cannon^{6d} summarizes his view of Auerbach's plexus in the following words: "The myenteric plexus (Auerbach's) is fairly uniform in structure throughout that part of the alimentary canal which is provided with smooth muscle. Excised parts of the esophagus, stomach, and colon, like the *gastric spincters* and the small intestine, exhibit contraction above, and relaxation below, a stimulated point. This may properly be called the myenteric reflex."

The myenteric reflex is not always operative. In the stomach and colon it is not operative when antiperistaltic waves are passing, nor is it needed for normal gastric peristalsis.^{6f} Tonus and distension alone effect rhythmic contractions.

What causes the myenteric reflex to occupy at times the local neuromusculature is not known; there is some reason for thinking that the nature of the contents or the relation of the contents to the mucosa determines the appearance of the reflex.

The pneumogastric or vagus nerve can be severed, the whole stomach even excised, automatic peristalsis goes on unimpaired with clock-like regularity. Powerful peristaltic waves may even occur, as Cannon has shown,^{6e} when the gastric contents are strongly alkaline. In the human, Schicker^{21, 42} has noticed a slower tempo in cases having hyperchlorhydria and supersecretion, whereas cases of achylia and subacidity show a more rapid time in the succession of the waves. Stierlin²¹ has also noticed slower peristalsis at the beginning and toward the end of digestion than at its height. Does this altered tempo of peristalsis, this excess, not also make it plausible, that pylorospasm is the precedent of hyperacidity and hypersecretion? It is true, Pawlow⁴ has "proven that during the mastication and ingestion of food impulses pass down the vagi to the stomach, bringing on the psychic secretion of gastric juice." And in neurotics one finds a different degree of acidity

as often as one examines the stomach contents. But does that prove that in tangible lesions of the midgut, for instance appendicitis, the central nervous system alone has control over the glandular activity of the stomach? Besides, the human being is only conscious of the degree of acidity in the fundus of the stomach, and often is wholly unaware of it. Now internal secretions are present before a central nervous system is in control. And as the duodenum has lost control over the pyloric apparatus in lesions of derivatives of the midgut, does it not seem plausible that also the central nervous system, here the vagus, should have lost control over the production of acid or the lesion in the midgut, inciting the glands to oversecretion? Fenwick²⁴ has recently called attention to the hyperacidity and hypersecretion seen in appendicitis, Graham⁵ some time ago noted it in both appendicitis and gall bladder trouble. On the other hand, Moynihan⁷ has found appendicitis in a large percentage of cases having duodenal ulcer. This would lead one to assume that appendicitis, caused by colon infection through fecal stasis, causes pylorospasm, but also hyperactivity, hypersecretion and hyperchlorhydria, the latter, according to Mayo¹ and most pathologists, duodenal ulcer. A more recent theory is offered by Moynihan,^{7b} basing it on Lane's work on intestinal stasis. He says: "The view I (Moynihan) take of 'gastric ulcer' (complaint) is that in the majority of cases it is not primarily or chiefly a lesion in the stomach, but consists of a persisting chronic infective lesion in, as a rule, some abdominal organ, and that in this focus more acute infections from time to time arise which cause those transient exacerbations in, or additions to, the symptoms which are sustained more quietly throughout the whole course of events. Whether the more quiescent symptoms are due to a secondary infective gastritis, to an enhanced or erratic activity in the secretion of the gastric juice, or to those irregular muscular conditions which are known as "pylorospasm" or to any combination of these, seems to be quite uncertain." A similar line of thought is offered by Roessle and Bergmann, the latter in propounding the spasmogenic origin of peptic ulcer due to vagotonic.⁴³ The same may be said of gall bladder trouble or lesions leading to congestion in the duodenum.

After this digression, let us consider other changes noted in stomachs so affected. The position of the stomach is not always normal. It is

seen, especially in the beginning, high up above the navel or better above the interspinal line, so drawn across the median line towards the right that the pylorus is often under the right lobe of the liver. Upon relaxation through massage or at another examination, the pylorus may again be found in its normal place over the second or third lumbar vertebra or in women, to the left to the same and lower. In the former case however the pylorus is not fixed except where there are adhesions around the pylorus or duodenum, but these may be considered advanced cases. Bier¹⁶ calls attention to just such cases, in which the stomach is often prolapsed and slightly ectatic, reaching over toward the right and presenting often, as Bruegel has demonstrated cinematographically, a horizontal level. Our cases, however, will more often present the first picture, of a stomach high up and above the navel. Of more importance is the shape of the stomach. At first appearance one would be led to believe it to be the cow-horn shape of Holz knecht.¹⁹ However, the pylorus is not the most dependent part, but well above the sinus²⁷ or pouch, formerly termed pyloric portion of the body of the stomach, between which two is the antrum pylori. On the food appearing in the fornix or fundus of the stomach, one sees the peristaltic function of the stomach, to grasp and hold its contents, exaggerated; the whole stomach is in a state of tonic contraction, noticeably different from the normal or orthotonic shape, and termed by Schlesinger³² very aptly, hypertonic. This *hypertony* is the outcome, as every stage of tonicity of the stomach, of the state of contraction of the musculature, the vagus nerve supplying the tonic impulses.^{6e} The muscular fibres having a certain direction,²⁷ terminate in fibrous bands at the pylorus, up the lesser curvature and around the cardia. These anatomical relations determine for the most part the shape of the stomach during its activity. That there are other factors^{26a, b} calling for consideration, one must not forget. Often constitutional changes influence the stomach's shape, as the narrow chest and low diaphragm in congenital universal asthenia, or enteroptosis; changes due to peristalsis, of which we will speak presently; its correlation to surrounding parts and other organs, their respective solid, fluid or gaseous contents. We must further consider the cushion of intestinal fat, abdominal tension due to rigidity or posture, and abdominal pressure, whose determining factors are still under

dispute. Again we must bear in mind the stretching due to the weight of the contents in the upright position in which the examinations are conducted, the upward distension by swallowing gas while belching, and many other factors. But nevertheless one will easily recognize the tensity of the tonus of the stomach, especially evident in the distal parts having thicker musculature, but so much more remarkable in the proximal portion.

In close relation to and absolutely dependent upon^{6e} the hypertonic condition of the musculature is the excessive and vigorous peristalsis so exceedingly characteristic of these cases. This involves²⁸ either the whole stomach, in hypertonic shaped stomachs, or the antrum alone in those advanced cases showing all forms of atony.

The nature of gastric peristalsis is cited from the following summary by Cannon:

"Gastric peristalsis is like colonic antiperistalsis in consisting of serial waves starting at a pulsatile source and advancing without far-projected inhibition. Nicotine does not stop them. Gastric peristalsis results from tension produced by internal pressure acting on the tonically shortened gastric musculature, for (1) distension of the inactive stomach causes peristalsis when the musculature is tonically shortened, but not when it is relaxed; (2) considerable intragastric pressure (sustained tension) prevails in the stomach manifesting peristalsis; and (3) within limits peristalsis is augmented or weakened as intragastric pressure is experimentally increased or decreased. Tension can be produced by stretching tonically contracted muscle walls with increased contents, or by inducing tonus in the muscle. The pulsatile source of the gastric waves has no fixed seat. The conical shape of the stomach permits a graded relation between internal pressure and the tonic musculature. The region that pulsates is that which is not over-distended or inadequately distended. By increasing internal pressure the over-distended region at the cardiac end is enlarged, and the source of the waves is moved towards the pylorus where the muscles have greater mechanical advantage. The pulsations of the circumference where the waves start can be explained as the result of pressure causing contraction, and thus relative refractoriness to stimulation until relaxation is occurring. Then the ring is again stimulated as before. The passage of peristaltic waves away from the source can be explained as the result of increased internal pres-

sure, for (1) increased internal pressure brings parts towards the pylorus into activity; (2) internal pressure is greater as the pylorus is approached; and (3) the waves can move smoothly from the source to the pylorus when the continuity of the myenteric plexus is interrupted by many incisions encircling the stomach. As the stomach empties, the cardiac incisure becomes the most contracted place. As such it pulsates most readily, and starts the peristaltic waves. Only when the medium for distributing internal pressure, i. e., the contents—disappears, does peristalsis normally cease.

"Tonus as an essential factor of gastric peristalsis is first given by vagus impulses and later maintained by the stomach itself, for (1) severing the vagi before feeding results in inactivity; (2) severing the vagi after digestion is started causes no change in gastric movements or in the rate of discharge. Probably a psychic tonus is developed by the taking of food. The method of maintaining the tonic state locally as digestion proceeds, and of increasing it as the stomach empties, is not yet determined; it may be the result of a "contraction remainder" after each rhythmic pulsation. The above results account for the functions of the vagi and the splanchnics. They are nerves which increase or decrease the tonus of gastric musculature, and thereby affect peristalsis. The absence of stomach movements, for example, in states of exhaustion, can be explained by the failure of vagus impulses; and in emotional states, by the presence of splanchnic impulses. Both conditions result in absence of gastric tonus."

The peristaltic wave, generally beginning as a slight furrow at a tonic ring in the upper end of the tubular corpus in a normal stomach at the "incisura cardiaca," is here seen to start higher up, right below the shallow domed air space, at both ends of the horizontal line constituting its base, "the pulsating source being as near the fundus as the relation between tonus and internal pressure will permit."⁶⁰ The wave deepens quickly along the lesser curvature side as well as at the greater curvature and before it reaches far down is rapidly succeeded by another and another, meeting the corresponding ones at the incisura angularis or most dependent part of the lesser curvature and dividing the stomach contents into segments which are carried past the antral sphincter region right down to the pylorus proper. At the pylorus the contents are not held back as in the

normal, but are seen passing through the open pylorus. Whereas the time measured in the normal for one wave to succeed another is 18-22 seconds,^{20,21} here it takes but a few seconds for the wave to travel the full length of the stomach. In prolapsed cases the peristalsis is seen in the antral portion alone, but the wave is deeper than in purely atonic stomachs, having to overcome an obstacle presented by the pylorospasm not encountered in simple atony, or obstruction further on in the duodenum in lesions of that part or of the terminal ileum.

The rapid onward movement of these deep peristaltic waves, although they nearly divide the stomach's contents, can not easily be confused with an *intermittent hour-glass contraction* when examined fluoroscopically, although a radiograph will give this impression. Nevertheless an intermittent hour-glass contraction, due to a tonic contraction, and therefore a vagus stigma,⁴³ from what source is not known, is often encountered in just such cases under consideration,^{14a} where no stomach lesion of any kind exists. That the contraction is spastic, even if lasting for some time, and not organic, can quickly be determined. Letting the patient draw in his lower abdomen, or effleurage, or atropin injections which influence the vagus, will reveal the true spastic nature of the hour-glass contraction. The hour-glass stomach, however, need not be a sign of a florid condition, as the pylorospasm. It is seen as well opposite the site of a florid gastric ulcer as of an ulcer scar or even at the point where an ulcer has been excised.^{19,44} That a spastic hour-glass contraction is associated with lesions even though the stomach is normal, has alone been brought out by fluoroscopy. That a gastric spasm may in time lead to true stenosis, making an organic hour-glass stomach, can hardly be disputed,⁴³ the same conditions prevailing as in pylorospasm of long standing. The etiology of so-called congenital pyloric stenosis is liable to undergo a revision of opinion.

Considering the change in motility of the stomach, the examination must extend to the duodenum, as the first four inches are, functionally,¹ a part of the stomach. The open pylorus has been noted before, the natural result being the uninterrupted filling of the duodenum: the duodenal contents move on rapidly, but a shadow in the bulbous duodeni shows local retention and on pressure will not be emptied completely. This *constant* shadow of the bulbous duodeni is an impor-

tant feature in our cases and has been recognized as such by many observers. However, Hausmann^{40b} believes it not to represent the bulbus duodeni at all, but to be the antrum pylori, the interruption in the shadow preceding it not being the pylorus, but the sphincter antri. Recent personal investigations have convinced me, though, that Hausmann's view does not hold true. The retention itself is explained by some as being due to a spasm in the duodenum, or, according to Holzknrecht, a kink of the descending part and the bulbus.²⁵ An air-bubble is sometimes seen capping it, and this leads me to believe that the bulbus duodeni has, in these cases of duodenal retention at least, a similar function to the fornix²⁷ of the true stomach, in that it acts as a reservoir to control the different degrees of pressure in this part, just as the air-filled fornix in the stomach takes care of the excessive pressure in other parts of the stomach. Again, according to physiologists, no air passes into the duodenum in the normal; the air bubble, therefore, would be another sign of an open pylorus. The dark shadow in the lumbar vertebrae on plates must not be taken for an air bubble.

Any consideration of the whole subject would be incomplete without taking into account those changes seen in duodenal obstruction, either by florid ulcer, cicatricial stenosis, adhesive bands or kinking, constricting its lumen at one or more points. One remarkable factor has been disclosed by radiologic findings. The obstruction in the duodenum may be ever so marked, there is very little change in the size of the stomach, while pyloric obstruction leads invariably to hypertrophy, and later, dilatation, extension to the right with horizontal level.⁴⁵

It is important to differentiate between obstruction at the duodeno-jejunal junction from obstruction near the pylorus, the latter making less change in the duodenum itself. Not alone may adhesive bands and the like cause obstruction, but also kinking as observed before, due to the downward pull of the mesentery by a distended loop of the terminal ileum, this again brought on by obstruction at the ileo-cecal valve or by antiperistalsis with valvular insufficiency, the ileo-cecal valve acting like the open pylorus. Here duodenal and ileal obstruction co-exist, appendicitis and its consequences being the indirect cause of both. Again, the question interesting us most is, if the duodenum of itself could overcome the difficulty

and compensate the stenosis.²³ One will see at a glance that the thin walled duodenum will not primarily hypertrophy as the stomach, but will first become dilated, the increased peristalsis in the duodenum being ineffective. It will also cause some retardation of stomach contents, but not enough to cause dilatation of the latter. Putting these patients before the fluorescent screen, one sees very lively duodenal peristalsis, but without any progression of the duodenal contents. Jordan^{12b} terms it a writhing movement, and has seen duodenal retention for upward of twenty-four hours. The duodenum is distended to double its normal width, under and below the right lobe of the liver. As long as the patient is upright, the duodenum cannot empty, this the patient accomplishes only on lying down. The residue in the stomach, however, is small or nil after six hours, and the stomach shows no enlargement, judged by transposition to the right, although it may be drawn some to this side. There is little, if any, hypertrophy of the duodenum. "Hypertrophy," to quote Schwarz,²⁸ "can only develop upon a marked and long-standing obstruction at the pylorus, the degree of hypertrophy depending on the size of the lumen, the length of existence and the quantity of contents discharged." Now, as the size of the lumen of the duodenum is much greater than that of the pylorus, it follows that it would naturally take longer before obstruction prevails. This is augmented by the small quantity of contents discharged into the duodenum, but the consistence being also liquid or soft, the obstruction is overcome with less degree of force, until the obstruction is nearly complete. Therefore the hypertrophy of the stomach that we see in pyloric stenosis, is missing. Instead, we encounter the early appearance of congestion and dilatation of the proximal duodenum or duodenal stasis. And sometimes we see, beside excessive peristalsis, also antiperistalsis in the duodenum.^{6c} The latter Haudek^{15b, c} attributes to pylorospasm when seen in pyloric stenosis, although not mentioning this factor when he describes the phenomenon of antiperistalsis in the duodenum. In a review of the subject, Arnsperger³⁰ quotes as causative agents of antiperistalsis beside pylorospasm also toxic products, large particles of food and cold water. That antiperistalsis is a normal phenomenon of the ileum and colon was recognized by Cannon^{6c, d, e} years ago, (1902) and has since been confirmed in recent^{19, 20, 28b, 34, 35, 36, 37} radiological experiments on

the human being, although antiperistalsis has never been directly observed fluoroscopically in the human. In his publication (Dec., 1911,) on the "relation of tonus to antiperistalsis", Cannon summarizes his observations in the following words:

"Antiperistaltic waves of the colon normally start at a tonic contraction in the gut, and they can be produced by making a tonic ring. They recur rhythmically, and originate in the rhythmic pulsations of a tonic ring.

"These rhythmic pulsations are a response to the stretching of the tonically contracted muscle by internal pressure. Withdrawal of the colonic contents stops pulsations, return of the contents restores them. If the muscle is not tonically contracted, internal pressure does not produce pulsations.

"The tonic ring is especially subject to stimulation by distension. As the ring relaxes it pulsates less rapidly, and as it relaxes more it stops pulsating. Refractoriness to stimulation during contraction and the first part of relaxation explains the rhythmic response.

"The waves pass away from the pulsating source probably as a result of stretching the relaxing muscular rings by increased internal pressure. As these waves are themselves moving refractory phases trailing regions of lessened irritability, they can only progress in a direction leading away from their source.

"The precise relations between the state of tonus and the internal pressure which induce rhythmic response cannot yet be defined. The distending force, and the tonus also, may be too great or too slight to result in effective pulsations.

"The conditions which originate the tonic state in the proximal colon are not yet definitely determined."

Radiographs are naturally unable to show up this phenomenon, but may reveal such conditions, where stenosis is absolute.^{16, 22}

If the obstruction therefore is nearer the pylorus and within the first superior part of the duodenum, the principle factors upon which to rely are the aforesaid phenomena of an overactive stomach, due to an open or insufficient pylorus, and a constantly filled bulbus duodeni. In duodenal ulcer a point of tenderness may correspond with the site of the bulbus duodeni shadow, but this sign is only of value, when it can be ascertained that the projected area belongs to, that means, moves with the bowel. In a few cases,

Haudek^{15a} discovered a shadow apart from the bulbus duodeni, but very small and like a niche, filling out a cavity of a perforated ulcer. Bier¹⁶ even saw the same associated with the air bubble on top, seen only heretofore in perforated ulcer of the stomach. It is therefore important not to confuse the latter with the true bulbus duodeni and also to see duodenal contents passing by it. When the stenosis has become complete, there is seen, from the open pylorus on, a continuous, finger-like projection¹⁶ to the point of a stenosis, which, as said, a radiograph will aptly reveal. That there is really a spasm at the site of, or directly above, a florid ulcer, has not been definitely proven.³⁰

To summarize, the main value of these examinations has led to the recognition of *changes in the motility* of a stomach hitherto thought to have been normal, and due to lesions often far distant from its immediate neighborhood. Errors are fewer, if the clinical facts are taken into consideration. Chronic achylia of long standing, duodenal catarrh associated with jaundice, chronic pancreatitis can give a similar picture for reasons before mentioned.¹⁷ But with these as with other lesions, the clinical findings will have to help explain the roentgenological picture. Radiographs alone, even if in serials,²⁵ may catch certain phases of the phenomena, but may just as often miss them.

REFERENCES.

1. Mayo, Wm., St. Paul Med. Jour., Jan. 1911.
2. Mayo, Wm., Boston Med. & Surg. Jour., Apr. 1911.
3. Starling—Recent advances on the physiology of the digestive tract. Keener—Chicago, 1907 (cit. 2).
4. Pawlow—The work of the digestive glands. London. 1910 (cit. 2).
5. Graham, Christ. New York Med. Jour., Sept. 1909.
6. Cannon—a. Am. Jour. of Med. Sc., Apr. 1906, pp. 429.
- b. Am. Jour. of Physiol. Vol. I. 1898. (cit.)
- c. Am. Jour. of Physiol. Vol. 6, 1902, p. 265.
- d. Am. Jour. of Physiol. Vol. XXX. Apr. 1912, p. 114.
- e. Am. Jour. of Physiol. Vol. 29, Dec. 1911, p. 238.
- f. Am. Jour. of Physiol. Vol. 29, Dec. 1911, p. 250.
7. Moynihan—a. Lancet, Jan. 1912, p. 9.
- b. Brit. Med. Jour., Feb. 1912, p. 345.
8. Kaestle, Rieder & Rosenthal—a. Muench. Med. Woch., Febr. 1909, p. 280.
- b. Zeitsch. fuer Roentgenk. Bd. XII, 1910 (cit).
9. Riegel—Erkrankungen des Magens, (cit. 17c). Nothnagel. Spez. Path. & Ther. 1897.

10. Barclay—Arch. of the Roentgen Ray., Oct. 1910, p. 123 (cit).
11. Herz—Brit. Med. Jour., Feb. 1912, p. 225.
12. Jordan, Alfred—a. Lancet, Dec. 1911, p. 1824.
b. Brit. Med. Jour., June 1912, p. 1225.
c. Brit. Med. Jour., May 1911, p. 1172.
13. Skinner, E. M.—Arch. of Intest. Med., Nov. 1911, p. 574.
14. Baron & Barsony—a. Wien. klin. Woch., 1912, p. 1185.
b. Wien. klin. Woch., 1912, p. 1521.
15. Haudek—a. Med. Klin., 1912, Nos. 5 and 6.
b. Muench. Med. Woch., 1910, No. 47.
c. Med. Klin., 1911, p. 513.
16. Bier. Deut. Med. Woch., Apr. 1912, p. 778-836.
17. Kreutzfuchs—a. Wien. Klin. Woch., 1912, p. 1526.
b. Wien. Klin. Woch., 1912, p. 411.
c. Deut. Med. Woch., 1912, p. 2168.
18. Best & Cohnheim—Muench. Med. Woch., 1911, p. 2732.
19. Jonas, S.—a. Deut. Med. Woch., 1906, No. 23.
b. Arch. f. Verdauungsk. Bd. XIII, p. 591.
20. Kaufmann & Kienboeck—Muench. Med. Woch., 1911, p. 1237.
21. Schicker, A.—Deut. Arch. f. kl. Med., 1911, Bd. 104, p. 566.
22. Holz knecht—Zeitsch. f. Physiol. Bd. 26 (cit).
—Deut. Zeit. f. Chirurg. Bd. 105 (cit).
23. Jonas, S.—Arch. f. Verd. 1912, Bd. 18, p. 308.
24. Walton, A.—Brit. Med. Jour., Oct. 1912, p. 829.
25. Cole, L. G.—Jour. Am. Med. Ass., Nov. 1912, p. 1947.
26. Groedel, F.—a. Deut. Med. Woch., 1910, p. 701.
b. Muench. Med. Woch., 1909, No. 11.
27. Forssell—Muench. Med. Woch., July 1912, p. 1588.
—Fortsch, a. d. G. d. Roentg., 1912, Congress No.
28. Schwarz, G.—Fort. a. d. G. d. Roentg., 1911, Bd. 17.
—Muench. Med. Woch., 1911, No. 28.
29. Case, James—Am. Quart. of Roentgenology, Nov. 1912, p. 71.
30. Arnsperger, Hans—Die Roentgenuntersuchung des Magen—Darmkanales und ihre Ergebnisse fuer Physiologie & Pathologie. 1912. Vogel.
31. Schuetz, Emil—a. Wien. Klin. Woch., 1912, p. 1513.
b. Arch. f. Verdgsk., 1909 (cit).
32. Schlesinger, Emmo—Berl. Klin. Woch., Oct. 1910, p. 1977.
33. Braeuning—Muench. Med. Woch., 1909, p. 277.
34. Bloch. Med. Klin., 1911, No. 6.
35. Albrecht. Muench. Med. Woch., 1911, p. 2689.
36. Boehm—Deut. Arch. f. kl. Med., 1911, Bd. 3102.
37. Bergman & Lenz—Deut. Med. Woch., 1911, No. 31.
38. Hofmeister & Schuetz—Arch. f. exper. Path. & Pharm. (cit. b20).
39. Obrastzow—Deut. Med. Woch., Oct. 1902, p. 769.
40. Hausmann, Theod.—a. Muench. Med. Woch., Feb. 1912, p. 416.
b. Muench. Med. Woch., Sept. 1912, p. 1992.
41. Manasse Paul—Berl. Klin. Woch., Feb. 1912, p. 255.
42. Carlson—Am. Jour. of Physiol., Dec. 1912, p. 151.
43. Bergmann—Muench. Med. Woch., Jan. 1913, p. 169.
44. Stierlin—Muench. Med. Woch. No. 15 & 16, 1912.
45. Bruegel—Muench. Med. Woch., Jan. 1913, p. 179.

CHRISTIAN SCIENCE—A PROTEST.*

BY A. N. KERR, M. D.,

MARTELL, 'WIS.

The general impression among the rank and file of people, even to a certain extent among our own profession, is that Christian Science has a certain value therapeutically, that it has to its credit a large number of miraculous cures, that it is a science of healing based on Christianity, or Christ, advocated or sanctioned by Him.

You as members of the medical profession will undoubtedly say, when asked, that Christian Science cannot cure organic, infectious or malignant disease, but that it probably can cure hysteria, neurasthenia, and some of the obscure nervous disorders. In any event it is worth the trial, inasmuch as if it does not do any good, it can at least do no harm. This is where you err. We know that there are a large number of the latter class of patients who are not amendable to treatment at our hands, and we are glad to have someone cure them if they can.

If the activities of Christian Scientists were limited to the alleviation of pain and disease, I should not have written this protest, but when they invade the field of preventive medicine, hygiene, and prophylactic therapeutics with their absurd teachings, I think it is time for us to recognize them as more of a curse than a blessing.

An excellent heading for this paper would have been, The Great American Fraud, but as that was the title of Dr. Boothby's paper last year I shall not use it though it would be more applicable here, as the institution I am speaking of is a purely American one and just as purely a fraud.

I shall not enter very largely into the theological side of the question any further than to quote a few passages from Mrs. Eddy's book and to pass my opinion of the same, but shall confine myself

*Read before the Pierce County Medical Society, September, 1912.

to giving a brief history and a criticism of the system as a whole. Christian Science is nothing more nor less than Mrs. Eddy and her book, Science and Health or Key to the Scriptures. The latter is said by her to be a divine revelation from the Almighty to her direct. This sacrilegious lie is proven such by the fact alone that there have been forty or more revisions of the book. The edition of today has a very small number of the original quotations. This book written by God himself has been copyrighted by her, and sold for three dollars and up, each new issue being the same price. All healers and followers of the cult are obliged to purchase these editions as they come out, and are pledged to sell as many of the same as they can.

Mrs. Eddy was born of poor parents in New Hampshire in 1821. She had practically no education. In 1843 she married a bricklayer, Geo. W. Glover, and moved to North Carolina, where he died three months later. Six months after his death their son was born. Mrs. Eddy has of late years been exceedingly rich in this world's goods but no stone marks the site of this husband's grave. The son was abandoned by her in his infancy and I think now lives in South Dakota. She never spent a cent on his education. He is now nearly seventy years of age and can neither read nor write. In 1853 she married Dan Patterson, a dentist, with whom she lived twenty years, when he flew and she was granted a divorce on the grounds of desertion. In 1877 she married Gilbert Asa Eddy. The record of this marriage states her age as forty years, just fifty-six years after the date of her birth. G. A. Eddy died a few years later and many think that Mrs. Eddy was again married to Calvin A. Frye. Some years ago she adopted E. J. Foster, a medical man, who was at the time over forty years of age.

Just a few words on the theology of Christian Science. According to the discoverer it is based on the following propositions: God is all. God is good. God is mind. God Spirit, being all, nothing is matter. Like mathematics the proof of her writings are shown by inversion. For example: There is no truth in pain and no pain in truth. No matter in mind and no mind in matter. No nerves in intelligence and no intelligence in nerves. No matter in life and no life in matter. How these incoherent statements prove anything is more than I can understand.

The services in a Christian Science church con-

sist entirely of the reading of passages from the Bible and from Science and Health alternately by two persons known as the first and second readers. When passages from Mrs. Eddy's book are read they must always be preceded by the author's name. There are no baptisms nor marriages in these churches. No prayers for those who are sick or afflicted. It would seem as though you went there to hear the inspired utterances of this woman, which are really an unintelligible jumble of nonsense. The more incoherent they are the more impressed you must feel, as though they are too deep for the average mind to grasp. In fact it is partly a worship of Mary—this Mary who claims to be more divine than Mary the mother of Christ. A portion of the services consists in the taking of testimony of those who have been cured through its teachings.

Now we come to the therapeutic value of Christian Science. Mrs. Eddy claims she can and has cured consumption in its last stages; cases that the doctors had pronounced incurable. She also has healed malignant tubercular diphtheria, and carious bones that could be dented with the finger; and has healed a cancer in one visit that had so eaten the flesh of the neck as to expose the jugular vein. All this and more she published in the *N. Y. Sun*, for Dec. 16, 1898.

In the Jan. 1, 1899, issue of the *Sun*, Dr. C. A. Reed of Cincinnati published a challenge to her to prove the truth of her assertions. He offered to furnish her cases identical with those she claimed to have healed.

In 1902, Mrs. Mary Ann Baker, widow of Mrs. Eddy's brother, died in Boston of cancer of the breast, after several years of suffering. She had been under treatment by Mrs. Eddy's healers for years. Why did she permit her third husband to die of heart disease when one treatment would have cured him? Why did she not save the daughter of her only son, who died in agony in South Dakota. After piteous appeals from the father she authorized a retired sea captain to give the child absent treatments. I myself have seen people under treatment by Christian Scientists who deny to themselves the reality of disease; not that they had been cured of such, but had been taught the unreality of sickness and death, of poverty and sin. If none of these exist then there is no occasion for charity, compassion, nor sympathy. All these humane qualities are absent in her followers. In one of the monthly periodicals

a short time ago was an article written by the Earl of Dummors in which he told of his conversion to Christian Science due to his having been cured of heart disease by a healer after having been told by an eminent London surgeon that he was incurable. His death occurred within a few weeks after the publication of the article. Christian Science never cured anyone of anything but imaginary illness. It never relieved anyone of anything but his money.

In every school where vaccination and examination of school children is compulsory, the Christian Scientists have set up an awful howl. The profession has of late years been endeavoring to establish a National Board of Health, which would govern, protect, and insure the health of the people, especially in the event of contagious or infectious disease. The Christian Scientists are spending thousands of dollars to fight this.

The greatest undertaking of the present century is the building of the Panama Canal. The credit for the success of this feat is due almost entirely to the physicians whose efforts brought about such an improved sanitary condition, with a marked conservation of the health of the zone. I have not heard a Christian Scientist explain how we were able to produce such an improvement. Any of us who make application to practice medicine in Panama, would be obliged to pay a fee of \$200.00 and to pass an examination in all the branches. But I notice by one of the daily papers of a month or more ago that our President has granted the Scientists permission to practice their profession in the canal zone—a class who claim that there are no such diseases as typhoid and yellow fever; that vaccination, prophylaxis, and sanitation are unnecessary; and are merely the products of a disordered mind.

Here are a few quotations from Mrs. Eddy's book. "The less we know of, or think about hygiene, the less disposed we are to be sick," that is to say, the more we know about how to keep well and how to avoid conditions breeding disease, the more likely we are to be sick. Again, "the daily ablutions of an infant are no more natural or necessary than would be the process of taking a fish out of water every day and covering it with dirt in order to make it thrive more vigorously thereafter in its native element." "The condition of the stomach, bowels, food, clothing, etc., is of no serious import to your child." "The blood, heart, lungs, etc., have nothing to do with life." "You say or think that because you have partaken of

salt fish that you are thirsty, and you are thirsty accordingly, while the opposite belief would produce the opposite result." "Not because of muscular exercise, but because of the blacksmith's faith in muscle his arm becomes stronger."

"The not uncommon notion that drugs possess absolute, inherent curative virtues of their own involves an error. Arnica, quinine, opium, could not produce the effects attributed to them except by imputed virtue. Men think they will act thus on the physical system, and consequently they do. The property of alcohol is to intoxicate, but if the common thought had endowed it with a nourishing quality like milk it would produce a similar effect. This so called science also teaches us, that if it were commonly believed that strychnine were a proper remedy to administer to infants for colic, it would be as harmless as an infusion of catnip, while if catnip were conceived to be a deadly poison it would produce effects as violent as those which now follow the administration of strychnine." You will ask then, why should the administration of a poison prove fatal to a person who takes it in complete ignorance of its imputed action, as morphine for quinine, or why should a dose of strychnine kill an unconscious infant, or a dog that swallows it hidden in a mouthful of meat? Mrs. Eddy's answer to this is as follows: In the event of a person swallowing poison by mistake and death resulting though he and those with him expected recovery, a few persons believe the drug harmless, but the vast majority of mankind—though they know nothing of this particular case—believe the arsenic, strychnine, or whatever drug was used, to be poisonous because it has always been classed as such. As a consequence this large majority of opinions overrules the minority in the sickroom.

I have often wondered how the Scientists handled their surgical cases, and as yet I know nothing very definite as to their treatment of the same. One of them told me of having healed in one treatment a partly united fracture of forearm which had been improperly set, with the result that the next day the arm was straight, the callus gone and the muscles had regained their power.

Mrs. Eddy's book says: "Man is indestructible and eternal, hence no breakage or dislocation can occur, fractures are only an appearance, a subjective state of normal mind." Nevertheless she advises her healers, that until the advancing age admits the efficacy of mind, it is better to leave the adjustment of broken bones or dislocations to

the surgeon while they confine themselves to mental reconstruction. Christian Science is always the most skillful surgeon but surgery is the branch of its healing which will be last demonstrated.

The word demonstration, is very frequently used by them. It signifies the amount of power they have individually. Some healers get larger fees than others, because they can demonstrate more, that is to say, their ability to cure is greater because they have the power to concentrate thought antagonistic, or opposite to the belief of the patient and friends whose belief is the same.

In conclusion I want to say a few words which will help to take off the rough edges of this "knock", namely, to call your attention to the large amount of optimism evidenced by Scientists. You will invariably find them cheerful. They live well and dress well, are always smiling. They have no troubles whatsoever, they will lie religiously and with utter abandon rather than admit a fault or a misfortune. They state that God will take care of them, consequently they give no heed to tomorrow and have no financial worries. They endeavor to live with a quiet mind, without worry and without anxiety. This is, I believe, the secret of their power.

There is no doubt in my mind but that any cure that Christian Science has performed can be paralleled or even surpassed by the present system of medical practice. They publish the number and extent of their cures, but they keep no record of their failures. There is nothing to be gained by burdening medical treatment or even suggestive therapeutics with a theory which opposes itself to common sense and ordinary intelligence, and with a theological belief which is antagonistic to the history of Christianity, and which denies the presence of facts which are evident in themselves to us.

A CLEVER BABY.

"I have met many proud mothers," says a Rochester physician, "but no maternal pride eclipses that of a young woman to whose baby I have given some attention.

"One day she was pointing out to me the superlative excellences of her offspring, its intelligence, cleverness, etc., when she wound up with this:

"See, Doctor, watch now, as I take him in my arms. Do observe how intelligently he breathes!"
—*March Lippincotts.*

SPECIAL ABSTRACT

CONCERNING THE SYMPTOMATIC DIFFERENTIATION BETWEEN DISORDERS OF THE TWO LOBES OF THE PITUITARY BODY, WITH NOTES ON A SYNDROME ACCREDITED TO HYPERPLASIA OF THE ANTERIOR LOBE AND SECRETORY STASIS OR INSUFFICIENCY OF THE POSTERIOR LOBE.*

Within the past few years we have learned much that is interesting and important in regard to the small gland lying in the sella turcica of the sphenoid bone, the hypophysis cerebri or pituitary body. In spite of its small size it seems to have a profound influence upon the growth and sexual development of the body. It is a gland of internal secretion similar in that respect to the thyroid or adrenal and, with the internal secretions of those glands, of the testis (ovary) and of the pancreas, forms a "system" which has much to do with the maintenance of physiological equilibrium in the body.

The pituitary body has two distinct lobes, the pars anterior (anterior lobe) developed as a glandular structure from the roof of the buccal cavity, the pars nervosa (posterior lobe) developed from the brain stem. These two parts have separate functions. It would appear that the anterior lobe is a true gland of internal secretion discharging its products into the veins of the cavernous sinus. The posterior lobe is, in a sense, a gland of external secretion in that it seems to discharge its active principles through the stalk into the cerebrospinal fluid. Only since the work of Cushing and his associates have we come to know with some degree of certainty of the symptomatic lesions of this gland. The writer knows of no more entertaining book than that by Dr. Cushing on Disorders of The Pituitary Body, and nowhere, so far as the writer knows, can one find descriptions of these disorders except in that book.

It seems to be shown that hyperactivity of the anterior lobe leads in youth to giantism, in later life to acromegaly. Hypoactivity in youth leads to dwarfism, and to effeminacy in the male. Hyperactivity of the posterior lobe results in tissue waste, intolerance for carbohydrates, often with spontaneous glycosuria, moist skin, elevated tem-

*Cushing, Harvey: Amer. Jour. Med. Sciences, 1913, CXLV, 313.

perature. Hypoactivity results in a relatively high sugar tolerance, marked obesity, lack of development of secondary sexual characteristics, or later to loss of sexual power, a subnormal temperature, somnolence, dry skin, polydipsia and polyuria, loss of hair, characteristic psychic, often epileptiform, disturbances—pituitary myxedema, so to speak.

It can readily be understood from this sketch, that if a combination of hyperactivity of one portion and hypoactivity of the other portion, vice versa, or any other combination occurred, we might have very curious clinical pictures. Such actually seems to be the case.

Recently Cushing has described several cases in the paper with the title of this abstract. The so-called syndrome of Froelich, in which a tumor of the hypophysis or its vicinity, in the comparatively young, is accompanied by lack of full skeletal development, by adiposity, and by the failure of full secondary sexual characteristics to appear, is produced experimentally in puppies by removal of a large part of the gland and therefore is presumably due to deficiency of the pituitary secretion. As the stalk of the hypophysis is the channel through which the posterior lobe discharges its secretion into the body, clamping of the stalk experimentally or blocking of the stalk by any process in the human body will produce symptoms of deficiency (hypoactivity) of the lobe.

In a careful study of over sixty cases it has seemed to Cushing that there were cases which did not conform to the acromegalic type, hyperplasia of the anterior lobe, or yet to the adiposogenital (Froelich) type, hypoplasia or stasis of the posterior lobe secretion. They suggested more a functional hyperplasia of one lobe with lowered activity of the other.

He outlines three general types of disorders of the hypophysis.

1. The Acromegalic Syndrome.—In several of his cases of acromegaly there were evidences of adiposity, high tolerance for sugars, somnolence, anaphrodisia, etc., what he has learned to interpret as posterior lobe deficiency. Again there might be periods of exacerbation, of functional hyperplasia, when the reverse picture took place and spontaneous glycosuria would be present.

2. The Syndrome of Dystrophia Adiposogenitalis.—Most of these cases begin in the young and

would seem to be due to general glandular hypoplasia. The implication of the anterior lobe causes small stature; the adiposity, lack of sexual development, etc., indicate a posterior lobe deficiency.

Acromegaly and dystrophia adiposogenitalis are therefore expressions of opposite conditions in the hypophysis. It is conceivable, Cushing says, that at some time only one lobe of the gland might be deranged. Hydrocephalus, for example, may cause mechanical retention of the products of secretion of the posterior lobe without affecting the anterior lobe, possibly even exciting the anterior lobe to overactivity. Thus with slight functional hyperplasia of the anterior lobe and deficiency of the posterior lobe we see

3. The Syndrome of Overgrowth with Adiposity.

Three case histories are given in some detail to illustrate this type and photographs are shown. All show marked increase of skeletal growth with excess of flesh.

Case I. Was a boy aged ten years with adiposogenital dystrophy, epilepsy, and overgrowth. He weighed 155 pounds, 66 pounds more than normal for a boy of his age.

Case II. Was in a youth aged 16 years who showed general pressure phenomena, secondary hypophysial symptoms, overgrowth, adiposity, and sexual dystrophy. With brain tumor he had increased two inches in height and 72 pounds in weight within nine months.

Case III. Was also in a youth aged 16 years who had overgrowth, adiposity and hypertrichosis. When 11 years old this boy was a foot taller than boys of his age and weighed 168 pounds (normal average, 72 pounds).

Cushing considers that he has demonstrated a type of disorder which can be "interpreted as the expression of an anterior lobe hyperplasia combined either with posterior lobe hypoplasia or with what is in effect the same thing, stasis of posterior lobe secretion."

A careful reading of this article would repay all. There is no doubt that some who read this all too brief abstract have such cases in their practice or have seen such cases in the families of their patients. Much can sometimes be done for these unfortunates, so that a recognition of the condition becomes of the utmost importance.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

J. PATEK, M. D., Milwaukee
C. S. SHELDON, M. D., Madison

G. E. SEAMAN, M. D., Milwaukee

O. H. FOERSTER, M. D., Milwaukee
S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc
G. WINDESHEIM.....Kenosha
F. T. NYE.....Beloit
W. CUNNINGHAM.....Platteville

J. V. MEARS.....Fond du Lac
H. W. ABRAHAM.....Appleton
EDWARD EVANS.....La Crosse
T. J. REDELINGS.....Marinette

O. T. HOUGEN.....Grand Rapids
R. U. CAIRNS.....River Falls
J. M. DODD.....Ashland
H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents

Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

MARCH, 1913.

No. 10

THE ADVERTISING PAGES.

In a letter from a man in the advertising business which has recently come to our attention the following paragraphs appear:

"While the very opposite should be the case, it is nevertheless a fact that the officially-owned state journals are not considered by the advertisers as good advertising mediums; there seems to be an impression that the members of the state societies pay little attention to the advertising pages of the state journal. Of course there are exceptions.

"Now it seems to me that where a journal is owned and controlled by a society, and published exclusively in the society's interest, some effort should be made to induce members to read the advertisements—especially since the state journals are, as a rule, very particular as to the advertising they accept—and to let the advertisers know that their announcements are being read."

This presents the difficulties of the advertising question in a nut-shell. The man who advertises is not a philanthropist seeking for opportunities to give away his money; he is a business man attempting to enlarge his list of acquaintances and customers. If a journal is to obtain and keep the best grade of advertising the advertiser must have some evidence that his "announcements are being read".

This Journal belongs to the State Medical Society and every member owns a share in it and is, or ought to be, interested in its financial success. Why not help things along by looking over the ad-

vertising pages when you are in need of surgical or medical or orthopedic or automobile supplies of any kind to see who is anxious to supply your wants? And when you write to inquire about anything mention the journal, *your* Journal. For it is yours whether you realize it or not.

WHAT CONSTITUTES MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.

THE PROPOSED CHANGE IN NAME.

Few of us realize that the voting membership of the American Medical Association is the "combined membership of all the 2,000 (more or less) component county societies, amounting approximately to 70,000 members. These elect the delegates to the House of Delegates of the state associations; they in turn elect the delegates who form the House of Delegates of the American Medical Association. Before 1901 the delegates to the American Medical Association were elected, or appointed, by the "affiliated" societies, which included local, district and state societies. Since 1901, that is, since the reorganization, the delegates to the national body are elected not by local, district and state societies, but by the state societies alone."

"The so-called 'members of the American Medical Association' are the direct successors of the old 'members by application.' By their payment of dues and their subscriptions to the JOURNAL, they were and are today the supporting or con-

tributing group of the members of the organization.

"The House of Delegates is composed of approximately 150 members, who are elected by the various state Houses of Delegates, which are in turn composed of delegates elected by the members of the component county societies. The House of Delegates of the American Medical Association, therefore, is created by, and represents the combined membership of all the county societies of all the states; it is not elected by, nor does it represent, the present 'members of the American Medical Association' as such; it never has.

"The result is that we have two classes which could be called members. First, the actual, logical memberships of 70,000, usually designated as 'the membership of the organization.' Second, the 36,822 contributing or supporting members, who are designated as 'members,' although these 'members of the American Medical Association' have no more privileges than have all the members of the organization, except the right to take part in section work."

In order to make the situation perfectly clear to all concerned it is proposed to designate the 70,000 members of the 2,000 component county societies as "members of the American Medical Association". This is not changing the conditions in any way. They are and always have been members and have played their part in the administration of the affairs of the Association by helping in the election of the House of Delegates.

Those who have hitherto been called "Members of the American Medical Association", that is, those members in good standing of their county and state societies, who also pay \$5 a year to support the work of the American Medical Association, it is proposed to designate as "fellows of the American Medical Association" instead of "members".

If this plan is adopted all members in good standing in their state organizations will be designated as "members of the American Medical Association", while those members who contribute \$5 a year to support the work of the Association will be designated as "fellows of the American Medical Association".

The great advantage of this proposed change is that it will make clear the relationship between the county and state societies and the American Medical Association. It will not add in any way to the cost of membership, for there is no inten-

tion to compel the 70,000 members of the county societies, who would be recognized and labeled as "members" under the new plan, to become supporting members or "fellows".

The only objection to the proposed change which has occurred to us is that it might cause a reduction in the income of the Association. Some of the present "supporting members" might feel that they were relieved of all responsibility when they discovered that they were members of the American Medical Association by virtue of their membership in their county and state organizations. They might refuse to continue the payment of \$5 a year to support the work of the Association under these circumstances. In a case of that kind the subscription to the Journal of the American Medical Association would stop, of course, and perhaps the right to take part in section work, but no other penalty could be inflicted.

It is to be hoped that few would be so unpatriotic, medically, as to take such a course, but the possibility of it must be considered. The subscription to the Journal of the American Medical Association is so valuable, however, that we feel sure very few of the 36,822 supporting members would forfeit the privilege of receiving it for the sake of saving this small sum of money.

TOBACCO SMOKE AT RACINE.

Dr. Susan Jones, the able secretary of the Racine County Medical Society, writes that after a talk on "tobacco smoke" by one of their members at the December meeting, a committee was appointed to arrange for monthly instead of quarterly meetings during the coming year (see report elsewhere). She does not say that the "tobacco smoke" was responsible for the enthusiasm that prompted the appointment of this committee, but I've a notion that it had a lot to do with it! The banquet and the smoker will do more to get doctors together than anything of which I know, and especially do they appeal to the man who lags behind and to the non-member. "Tobacco Smoke" breaks down all barriers and we are content to meet as doctors only and not as the only doctors. We meet at these functions on a level and learn to push together, and you can't quarrel in a side by side push! The man we have regarded as a "cussed outlaw and pirate" (because our patients told us he was), appears through the haze of an

after-dinner cigar not unlike ourselves, and we learn to know him as he is.

We congratulate Racine County on that talk on "tobacco smoke" and on the enthusiasm which demands monthly meetings. I am afraid it is up to Dr. Jones to learn to smoke!

ROCK SLEYSER.

WHAT IS PRACTICAL TO A PHYSICIAN.

It has come to our attention rather forcibly recently that many doctors are crying out to some medical journals "Give us practical stuff; material that we can use daily" and it has bothered this member of this particular journal to know just what is meant. This criticism has been aimed at the Journal of the A. M. A., at the Wisconsin Medical Journal, and other State journals. The writer can see that special journals would not give the practitioner much that was immediately practical. However, much knowledge that today seems theoretical, tomorrow may be used very practically and to great advantage, but it requires some mental effort on the part of the reader to make use of such knowledge. Those who wish their knowledge handed down to them in the form of pap and liquids rarely get beyond the infantile stage in the practice of medicine and are apt to form a large portion of those who jeer at scientific work. On the contrary those who nourish their mental processes on beefsteak and corn soon become able to digest raisin pie and plum pudding. Of course we as the editorial staff could fill the journal up with such maxims as, "When a blood vessel is cut, stop the flow of blood by tying a necktie around the limb towards the heart;" or "Whenever you see a yellow, thick fluid exuding from an angry-looking surface you must think of pus;" "Blood in the stools means that some vessel along the gastro-intestinal tract has ruptured;" etc., but we do not see much practical value in that sort of tablet information.

We are just foolish enough to believe the doctor of medicine is an educated man; if he is not, then let him see to it that he works to be one, and we do not believe that any doctor was ever made a better doctor by stocking his cranium full of isolated facts. We ourselves read much that we can not at once comprehend but we feel that by the exercise of endeavoring to understand we are that much ahead and soon will be able to grasp something worth while out of our studies. In all sin-

cerity we urge our fellow-practitioners to try the same method and we can confidently predict that the amount of practical value obtained will be surprising because unexpected. It must ever be borne in mind by the readers of this journal that the editors seek to please everyone. We therefore invite comment and criticism but we ask that these be specific in their terms so that we may be able to trim our sails to the prevailing winds.

NEWS ITEMS AND PERSONALS

Plans are under way for the erection of a hospital at Waukesha costing \$13,000.

DR. H. E. TWOHIG, Fond du Lac, is a candidate for mayor at the spring election on the Republican ticket.

DR. A. P. ANDRUS, Ashland, has been appointed health commissioner of that city to succeed Dr. M. S. Hosmer.

DR. S. M. SMITH, South Milwaukee, suffered a dislocation of the right shoulder on February 22, when his team collided with a wagon.

DR. D. H. GREGORY, Green Bay, has been appointed local physician for the Chicago, Milwaukee and St. Paul Railway Company.

DR. CHARLES J. COFFEY, Milwaukee, is in Europe for six months attending the special clinics at the hospitals in Vienna, Berlin, Paris and London.

COL. JOHN B. EDWARDS, surgeon general of the Wisconsin National Guard, recently reached the retiring age and has been placed on the retired list of officers of the Wisconsin Guard.

DR. E. H. GRANNIS, Menomonie, for several years major of the Medical Corps attached to the Third Regiment, Wisconsin National Guard, has been promoted to be surgeon general.

DR. F. S. WILEY, Fond du Lac, celebrated the thirtieth anniversary of his entrance into the ranks of the medical profession on February 21, by entertaining the physicians of the city and a few intimate friends.

Because Milwaukee physicians have abused the privileges of the ordinance granting them immunity against automobile speeding when responding to a call, the council judiciary committee has recommended the repeal of the law, placing physicians on a plane with other automobile speed violators.

Menomonie, Wisconsin, is to have a hospital. Drs. Butler, Dahl and Steves have purchased the Morgan property on Seventh Street and preparation will be begun this spring.

A bill will be introduced at this session of the Legislature at Madison by Senator Cunningham of Beloit, providing for the establishment of a state hospital and school for cripples and deformed children.

DR. S. WEIR MITCHELL of Philadelphia, one of the foremost authorities in America on diseases of the nervous system, spent a few hours in Milwaukee on February 28th, the guest of the Milwaukee Medical Society.

The Pasteur treatment for the prevention of hydrophobia has been given to 288 persons threatened with rabies, at the University Hygienic Laboratory, during the two and one-half year period ending January 1, 1913.

The city of Kenosha is to convert the old Washington Home on Washington Island into an Isolation Hospital. The Council has made an appropriation of \$1,000 for improvements, and it is expected to have the building ready for occupancy by June.

Racine's Common Council's appropriation of \$3,000 is insufficient for the erection of an Isolation Hospital. At a meeting of the Board of Health, held on February 26th, bids were opened and it was found that \$4,544 was the lowest bid received.

The jury in the case of Dr. Anthony I. Schmidt of Beloit against the Rockford and Interurban Railroad for \$5,000 damages for personal injuries, returned a verdict for the company, holding that Dr. Schmidt was guilty of contributory negligence.

A suit for \$500,000 has been started against the American Medical Association and eleven physicians, who as the Council on Medical Education, have been making war on such medical schools as they consider lacking in facilities to give proper medical education. The suit was filed by Charles J. O'Connor, attorney for Jenner Medical College. He charges the physicians with conspiracy to wreck the institution.

An English-speaking Conference on the Prevention of Infant Mortality will be held in Caxton Hall, Westminster, London, on Monday morning, Monday afternoon and Tuesday morning, August

4th and 5th. The meetings will be held under the auspices of the (British) National Association for the Prevention of Infant Mortality and The Welfare of Infancy under the Patronage of the King and Queen, and will convene immediately preceding the opening of the International Medical Congress.

A tentative program has been issued by the Committee which indicates that the papers will consist largely of medical opinion. The subjects treated will be:

The responsibility of central and local authorities in infant and child hygiene.

The administrative control of the milk supply.

The necessity for special education in infant hygiene.

Medical problems in infant nutrition.

Ante-natal hygiene.

The President of the Conference will be the Hon. John Burns, M. P., President for the Local Government Board. The chairman of the English Executive Committee is Sir Thomas Barlow and the Secretary, Miss J. Halford, 4 Tavistock Square, London, W. C.

The American Committee, in charge of the part to be taken by the United States and Canada, will furnish information to those desiring to attend the conference.

Dr. Henry L. Coit, Chairman, 277 Mt. Prospect Avenue, Newark, N. J.

Dr. Philip Van Ingen, Secretary, 125 East 71st Street, New York City.

DEATHS

Dr. P. B. Stewart, Chetek, formerly of Rhineland, died at his home on March 6th, of heart failure, aged 46 years. Dr. Stewart was a graduate of the University of Vermont College of Medicine, class of 1898.

REMOVALS

Dr. W. D. Harvie, Oshkosh to Lake Land, Fla.

Dr. G. A. LeGault, Winter to Hayward.

Dr. S. E. Wright, Marinette to Portland, Ore.

Dr. C. W. Griswold, Princeton to Plymouth.

Dr. F. M. Hawley, Minocqua to Bayfield.

Dr. M. Maxam, Loyal to Stetsonville.

Dr. George H. Williamson, Antigo, has purchased the practice of the late Dr. E. J. Smith at Neenah and will locate in that city.

Dr. W. E. White, formerly of Lyons, who removed to Roswell, New Mexico, about one year ago, has located at Burlington.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1912-1913.

ARTHUR J. PATEK, Milwaukee President

C. A. ARMSTRONG, Boscobel 1st Vice President

L. E. SPENCER, Wausau 2d Vice President

JOHN MATHIESON, Eau Claire. 3rd Vice President

CHAS. S. SHELDON, Madison Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917

1st Dist., M. R. Wilkinson, Oconomowoc
2nd Dist., G. Windesheim, Kenosha

TERM EXPIRES 1913

5th Dist., J. V. Mears, Fond du Lac
6th Dist., H. W. Abraham, Appleton

TERM EXPIRES 1915

9th Dist., O. T. Hougen, Grand Rapids
10th Dist., R. U. Cairns, River Falls

TERM EXPIRES 1918

3rd Dist., F. T. Nye, Beloit
4th Dist., W. Cunningham, Platteville

TERM EXPIRES 1914

7th Dist., Edward Evans, La Crosse
8th Dist., T. J. Redelings, Marinette

TERM EXPIRES 1916

11th Dist., J. M. Dodd, Ashland
12th Dist., H. E. Dearholt, Milwaukee

Delegates to American Medical Association.

F. BENNETT, Beloit.

J. J. McGOVERN, Milwaukee.

C. A. HARPER, Madison.

Alternates

F. S. WILEY, Fond du Lac.

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette

Committee on Public Policy and Legislation

J. P. McMAHON, Milwaukee

F. F. BOWMAN, Madison.

Committee on Medical Defense.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison

J. M. BEFFEL, Milwaukee.

T. H. HAY Stevens Point

Program Committee.

W. F. ZIERATH, Sheboygan.

L. M. WARFIELD, Milwaukee, Chairman.

C. S. SHELDON, Madison.

Committee on Arrangements.

C. A. EVANS, Milwaukee, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER 1-3, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

Table with 3 columns: County, President, Secretary. Lists medical society officers for various Wisconsin counties including Ashland, Barron, Brown, Calumet, Chippewa, Clark, Columbia, Crawford, Dane, Dodge, Door, Douglas, Dunn, Eau Claire, Fond du Lac, Grant, Green, Green Lake, Iowa, Jefferson, Juneau, Kenosha, La Crosse, Lafayette, Langlade, Lincoln, Manitowoc, Marathon, Marinette, Milwaukee, Monroe, Oconto, Oneida, Outagamie, Pierce, Portage, Price, Racine, Richland, Rock, Rusk, Sauk, Shawano, Sheboygan, St. Croix, Trempealeau, Vernon, Walworth, Washington, Waukesha, Waupaca, Winnebago, Wood.

SOCIETY PROCEEDINGS

DOUGLAS COUNTY

A meeting of the Douglas County Medical Society was held at the Commercial Club rooms at Superior on March 6th. Dr. M. A. Lee addressed the members on "Our Prescriptions", which was followed by a general discussion. About 12 members were present.

LANGLADE COUNTY

That the Antigo Doctors know how to banquet royally upon the "fat of the land" was exemplified last night when they met for a social evening at the Hotel Butterfield. The hospitality of the Doctors was also shown in their invitation to a member of the press who after enjoying the delightful menu and refreshing cigars listened to a learned discourse upon the diseases of the body and in the space of an hour and a half heard more big words than he had ever heard before in all his life.

Dieting may be all right for patients but not for Doctors themselves. At least none of the Doctors felt called upon last night to practice what he preaches. There was a first course of grape fruit. This was followed by bouillon and oysters on the half shell. Planked white fish was next, then came the meat course of turkey and dressing accompanied by potatoes, mushrooms, peas and cranberry sauce. Salad was next, and then ice cream and cake. The banquet courses were closed with coffee and cigars.

Dr. Jos. F. Smith of Wausau addressed the Doctors upon Renal Tuberculosis. In opening his remarks, Dr. Smith laid stress upon the importance of the Doctors getting together in social ways to discuss matters of interest to their profession. Such discussion would lead to the benefit of all of them professionally and would aid in promoting good feeling and understanding.

"The busy Doctor needs the advantages that he would get from discussing problems of surgery and medicine with others of his profession. He should not become too engrossed in the financial side of his profession to forget that there is a scientific. The Doctor as with other profession must at times get away from the humdrum of his practice in order to keep at his best."

In opening the subject of Renal Tuberculosis, Dr. Smith classed it as purely in the field of surgery stating that a tubercular kidney had never been known to heal. The Doctor in a comprehensive manner took up the symptoms that are evidenced by a patient with tuberculosis of the kidney; he followed with a clear explanation of detecting in which kidney the diseased condition existed and how it could be determined whether if one kidney was removed the other would be of sufficient capacity to perform the function of the both. A general discussion followed the Doctor's paper and questions were asked by the physicians and various experiences were narrated by different ones.

The meeting was most successful from every point of view—all the doctors had a good social time, a general feeling of good fellowship seemed to prevail and the evening's program was valuable and instructive to all present. To Dr. Wright who had charge of the arrangements the success of the meeting is due.

MARATHON COUNTY

Marathon County Medical Society held a meeting at the Wausau Club House on February 17th, which was followed by a banquet in the Club dining room. Dr. M. P. Ravenel of the State Hygienic Laboratory at Madison spoke upon the subject of "Principles of Serum and Vaccine Therapy". There was a large attendance. The evening closed with a smoker and a general good time.

OUTAGAMIE COUNTY

A regular meeting of Outagamie County Medical Society was held at Appleton, March 4, 1913, at Hotel Ritger.

Meeting called to order by the president, Dr. J. T. Reeve at 3:30 P. M.

Minutes of previous meeting read and approved.

The president appointed a nominating committee of three consisting of Drs. Marshall, Sandborn and Rector.

Committee reported as follows: For president, C. G. Maes, Kimberly; vice-president, E. W. Cooney, Appleton; secretary and treasurer, F. P. Dohearty, Appleton; delegate, F. P. Dohearty, Appleton; alternate delegate, J. T. Reeve; censor, Chas. Reineck, Appleton.

On motion rules were suspended and the secretary instructed to cast a ballot of the society for the above officers, motion carried.

A banquet was served at 7:00 P. M. after which Dr. Dean Lewis of Chicago gave us a paper on "Fibrous Osteitis and Giant Celled Sarcoma—Differentiation and Diagnosis and Treatment." This paper was well rendered and showed that the doctor had spent considerable time along that line, this paper was also illustrated with lantern slides showing actual cases. A vote of thanks was extended to Dr. Lewis after which the society adjourned.

FRANK P. DOHEARTY, M. D., *Secretary*.

RACINE COUNTY

DECEMBER MEETING.

Regular meeting of the Racine County Medical Society was held at the Hotel Racine, Racine, on December 19, 1912.

Dr. John Bffel of Milwaukee was to have given an address on the subject of "Child Welfare" but was unable to be present on account of illness. Dr. S. Sorenson gave a very interesting and humorous talk on "Tobacco Smoke". Dr. L. E. Fazen and Dr. R. W. McCracken reported some very interesting clinical cases in their own practice.

It was the sense of the physicians assembled that we were not getting what we should out of the Society. A motion was made and passed that a committee composed of Drs. L. E. Fazen, E. A. Taylor and H. J. Brehm, be appointed to formulate plans and prepare a place of meeting, time of meeting, and subject to be discussed at such meeting to be held regularly each month.

Officers elected for 1913 were: president, Dr. J. S. Keech, Racine; vice-president, Dr. L. W. Hicks, Burlington; secretary-treasurer, Dr. Susan Jones, Racine; dele-

gate, Dr. R. W. McCracken, Union Grove; alternate, Dr. John Meachem, Racine; censor, Dr. R. W. McCracken, Union Grove.

JANUARY MEETING.

The first regular monthly meeting of the Racine County Medical Society was held in the Lecture Room in St. Mary's Hospital, January 9, 1913.

The subject under consideration was *Diphtheria*. Dr. Theodore Brehm, Racine, read a paper on The History and Etiology of the Disease. Discussed by Dr. W. S. Haven, Racine. Dr. S. C. Buchan, Racine, read a paper on Symptomatology and Sequellae. Discussed by Dr. J. H. Hogan, Racine. Dr. J. S. Keech, Racine, spoke on Treatment. Dr. Keech said in part that there is but one remedy and that is Antitoxin. He called especial attention to diphtheritic paralysis, stating that at times the throat symptoms are entirely overlooked and the development of paralysis the first thing to arouse suspicion of a previous diphtheria. Dr. G. W. Nott of Racine led the discussion.

The papers were thoroughly prepared and the discussions full of enthusiasm.

The second monthly meeting of the Society is to be held at the City Hall.

FEBRUARY MEETING.

The Racine County Medical Society met in the Health Department Room in the City Hall, February 13 at 8:30 P. M. The subject discussed was Pneumonia. Dr. A. S. Thompson, Franksville, was to have read a paper on the History and Etiology of the Disease, but was unable to be present. Dr. J. H. Hogan, Racine, was persuaded to give an impromptu talk on the subject. Dr. R. W. McCracken, Union Grove, read a very interesting and instructive paper on Symptomatology. Dr. E. Tompaeh, Racine, read an exhaustive paper on Treatment.

Dr. C. A. Kerner, Racine, was elected a member of the Society by a transfer card from the Green Lake County Medical Society.

Sixteen members present.

SUSAN JONES, M. D., *Secretary*.

ROCK COUNTY

Rock County Medical Society held a meeting in the Municipal Court Room, February 25th, and was addressed by Dr. Jos. Breneman, of Chicago on "Diseases of Children" and demonstrated by three interesting cases. Delegations from Janesville and Evansville were present in addition to the Beloit doctors.

FOX RIVER VALLEY MEDICAL SOCIETY

At the annual meeting of the Fox River Valley Medical Society held at Green Bay on February 21st, the following officers were elected: President, Dr. F. Gregory Connell, Oshkosh; first vice-president, Dr. W. Weber Kelly, Green Bay; second vice-president, Dr. A. T. Nadeau, Marinette; secretary-treasurer, Dr. R. H. Sweetman, Green Bay. After the meeting fifty physicians enjoyed a banquet.

SECRETARY'S NOTES

SOME THINGS THE COUNTY MEDICAL SOCIETY CAN DO FOR THE PUBLIC HEALTH.*

BY H. E. DEARHOLT, M. D.,

MILWAUKEE.

Guarding and fostering the public health is as much public responsibility and obligation as any other function of government. Communicable disease is a product of community life. It is an incident of the gregariousness which forms the basis of the most primitive and complex civilizations.

Government represents the attempt made by man at co-operative management of those enterprises which man can no longer successfully manage as an individual when he enters into a relationship with other men which must inevitably be accompanied by friction.

As you must be well aware, the present organization of the Health Power in Wisconsin, as in almost if not every other commonwealth of America, is inadequate. Efficiency cannot be secured with so primitive and outworn an administrative machine (if the present disorderly system of detached and inco-ordinate wheels and cogs can, by any stretch of the imagination, be termed a "machine").

As you probably know, health administration, unlike nearly every other important concern of the government, is in the hands of almost entirely independent local, city, village and township health boards. From the last figures available, contained in the report of the State Board of Health of 1903-1904, there were, at that time, 836 local health officers. The only centralized authority over these boards is entrusted to the State Board of Health.

How impossible it is to secure a desirable, if not an imperatively necessary, surveillance under present conditions, is indicated by the fact that in 1909, according to the report of the Secretary of State, a total of \$13,178 was allowed for administration and all other expenses. From this amount, it was necessary to deduct sufficient to carry on our elaborate and creditable system of Vital Statistics. A comparison of the amounts paid for the administration of other important

*Read at the Third Annual Meeting of the Association of County Secretaries and State Officers, Wausau, May 21, 1912.

departments of the state government is not alone interesting but suggestive in this connection. In making this comparison, keep in mind the amount, \$13,178, paid by the state for the administration of public health.

Attorney General's Department.....	\$ 22,783
Supt. of Schools.....	42,876
Insurance	28,888
Railroad Commission	94,887
Banking Department	20,281
Bureau of Labor.....	40,678
Dairy and Food.....	42,251
Supreme Court	61,134
Circuit Courts	153,450
Civil Service Commission.....	12,351
Board of Health.....	13,178
Veterinarian and Live Stock Board....	9,008
Fish and Game.....	38,093
Forestry	14,034
National Guard	146,192
State Historical Society.....	52,949
Free Library Commission.....	42,349
Geological and National History Survey.	24,997
State Board of Agriculture.....	14,634
Bounty on Wild Animals.....	23,853
County Agricultural Societies.....	86,401

The above does not represent the entire amounts expended in all of the departments, but, as I gather from the reports, covers the general maintenance and administrative cost. For example, in the department of the State Veterinarian and Live Stock Sanitary Board there was paid in 1909 \$65,307.93 for animals slaughtered by order of the Board.

It has interested me to trace the origin and theory upon which our present thoroughly incompetent system of administration of that division of the police power which has jurisdiction over public health, has come to be adopted and from present indications bids fair to be perpetuated. I may, perhaps, be permitted, therefore, to go into a brief elementary and somewhat pedantic discussion of the theory and practice upon which the distribution of general administrative authority is based.

As our government is constituted in the United States; the sovereign power is vested by the people from whom it ultimately arises, in the state or commonwealth government. The federal government obtained whatever power it possesses by specific grant of the original component states.

By the same process, the state has, within its borders, delegated its authority in the administration of local affairs to county, city and village units. The authority thus vested in local governments is by individual grant through charters which are in no wise uniform.

The general functions of local government are held to be regulation of order, institution and maintenance of public utilities, poor relief, education and sanitation. The state commonly reserves supreme authority and the right to inspect and to enforce compliance with a characteristic state standard in the regulation of its various police powers. Municipalities receive their authority in special charters which are supposed to be adapted to the needs of the community and are thus taken more or less out of the general scheme. The county, in turn, has, largely for convenience and expediency in the administration of matters of purely local concern (as straying of cattle, building and maintenance of neighborhood roads, and the regulation of petty infringements of peace and order) been subdivided into townships usually six miles square.

Administration through the town unit was originally fairly well suited to the needs of rural inhabitants. As civilization has become more complex, however, administration seems to have been proven and accepted to be inadequate for all but one of these functions, namely: sanitation.

Even the building and repair of roads and bridges, which at the present time constitutes the chief concern of the town boards, is being assumed by the county. The country roads in the United States offer obvious evidence of economic waste and ridiculous inefficiency. While less obvious, rural public health administration is even more discreditable.

It was the necessity of better administration of justice, excepting for the most trivial offenses and disputes between neighbors involving property rights of small intrinsic value, which led to the establishment of the county, which unit did not originally exist in the commonwealths of New England, whose constitutions and laws have served as models for the newer states. Supreme jurisdiction in the municipality is through the county circuit court, which is no less a state court.

At this point let me inflict more figures of administrative allowances. The Attorney General receives a salary of \$5,000. The salary of his deputy and three assistants aggregates not less

than \$10,000. Seven judges of the Supreme Court receive salaries aggregating \$43,500. Twenty-six Circuit Court judges receive salaries aggregating \$130,000. County judges, of whom there is one for each county, receive annually \$102,380. District Attorneys, not taking into account regular and special assistants, receive \$72,050 annually.

These sums aggregate an annual expenditure of \$373,930. Added to this are salaries of reporters, and other court officers and employes not here considered.

A county officer, the sheriff, is responsible for the peace of the several municipalities which constitute the county, being the official through whom the state maintains its supreme authority over even large cities. The district attorney shares with the sheriff the enforcement of the state laws; it is his duty, in addition to being councilor to the county board, to prosecute infringements of all laws which have been enacted for the maintenance of a uniform standard of protection of personal and property rights except the purely local regulations. The coroner also is a county official, and uniform probating of estates, guardianship of minors, mental incompetents and dependent poor are secured through county jurisdiction.

The conduct of schools, while originally conceived to be of only local concern, has been recognized, by the provision of county superintendents, as falling more properly under county and thence state jurisdiction.

Each of these county agents is answerable to the state and may be removed on cause and a temporary appointment made by the governor of the state, to fill the vacancy.

In contrast to the relatively munificent provision for administration cited above, let me show what was provided for local health administration in 1903-1904—the last report I have been able to secure covering the subject. This discrepancy in dates is unfortunate, although I am certain that the situation as regards local health administration has not been materially bettered since that time.

But a relatively small number of health officers receive any regular salary whatever, being dependent for their remuneration upon fees alone or fees and a per diem. The per diem is most commonly \$2.00 per day, although, according to the report cited, Hammond, in St. Croix County allowed three cents per hour. The lowest salary noted was \$1.00 per year at Hickory Grove in

Grant County. From this amount, salaries range upward to \$2,500, which is paid in Milwaukee.

How inconsiderable the amount secured from fees may be judged to be in the smaller communities, is indicated by the fact that in Milwaukee they aggregate only something like \$5,000 per year. The annual salaries paid the local guardians of the health of our men, women and children in Wisconsin, according to the official report, total \$14,940.50! The highest amount in any county is \$2,790, paid by the municipalities of Milwaukee County. In eight counties, no salaries whatever are paid. In twenty-six of the remaining counties, the salaries of the local health officers did not aggregate \$100 per year. In but five counties did they aggregate \$500 or over.

Recall that there is no provision for intermediate jurisdiction between the State Board of Health and the local health boards.

In addition to the comprehensive system indicated above for the state, district and county administration of the general laws, there are additional municipal provisions which it is safe to say far exceed in every instance all that is provided for public health administration. Every city (of which there are 124) is provided with a city attorney, to whom a living salary is given, in the larger municipalities at least. There are in addition many special municipal and civil courts which play no small part in administrative control and cost. In the entire state, but three cities, Milwaukee, La Crosse and Kenosha, provide a sufficient amount to secure the individual attention of an efficient health officer.

On account of the difficulty of securing data, I have not been able to trace cost of municipal legal departments as I should like to do. It may be objected that the general administration of the law is designed to cover health laws quite as much as any others. Whatever the intent, we know in point of fact that little time is given or taken for this purpose. As nearly as I can learn from informants whose judgment is based upon thorough familiarity with the courts, something like 90% of the time and cost of courts is devoted to the protection of property interests.

The only way this amazing situation, as regards public health, can have come to be tolerated by the people of this great state is upon the conception that communicable disease is entirely a matter of neighborhood concern. We, of today, are entering upon an age in which distance is be-

ing, in a measure, obliterated; in which contact with ones fellows is not restricted to the residents of a few square miles.

The demonstrations of the economists of the money value of human life, however, is directing attention to another than sentimental need of conserving human life. Again, while it is true that the spread of the more acute of the contagious diseases can usually be controlled, largely through the fact that the victim is confined to bed by the prostration incidental to the disease, note is being taken of the unruly member of the communicable disease group—tuberculosis.

In tuberculosis the nature of the disease permits the patient to wander even long distances from his home and jeopardize the lives and health of his fellows, without let or hindrance except as he may be influenced by his conscience. This latter consideration presupposes that he has learned the nature of the disease and its prevention, largely through the instrumentality of the volunteer and philanthropic anti-tuberculosis organizations. In these relatively rare instances, when the spread of an acute contagious disease becomes threatening, a crisis is precipitated in which even ordinarily incompetent and uninterested officials will be stimulated to prompt and wonderful efficiency. Again, in extreme need, the State Board of Health may be expected to take charge of the situation.

In the regulation of crime, the building of roads and bridges, the protection of cattle and swine or the prevention of the ravages of Canadian thistle or other pests of the vegetable life, however, dependence is not put upon such a stupid short-sighted system.

I hope I may have succeeded above in attracting your attention to a situation which is of concern to us as citizens and which ought to be intolerable to us as disciples of the dignified science of medicine. What are you going to do about it? It's time for *action*. It seems to me that we of the medical profession have up to the past very few years been in *motion* instead of in *action* in our relationship to the public life of our respective communities. Someone has said, "The basis of *action* as distinguished from *motion* or movement, is the existence of desire residing in the animate organism".

Now, *desire* may be passive—it may mean to *long for*; it may mean to *request*—or, perhaps, only to *invite*; but best, it may mean to *require* or to *claim*.

Time does not permit, nor am I inclined to set forth in detail the method by which this situation is to be corrected. If the members of the County Society are interested, desire, and are determined to take efficient action, the measures, best suited, will present themselves. I will state, however, the obvious fact that change will only be brought about through public education.

Upon whom, if not upon the medical profession, is to be placed the responsibility and the opportunity for this general enlightenment? To continue my suggestions beyond this general statement would be, I am certain, an encroachment upon the domain of the first three speakers who follow on this programme. As I suggested in my paper read before the general session last year, the tuberculosis campaign has secured to the medical profession an entering wedge into the public apathy concerning its health. It has offered "a point of contact already fairly well secured between the medical and non-medical public."

If that contact is broadened and mutual respect and esteem are thereby fostered, any object earnestly desired and advocated by the County Medical Society will be secured.

CONCERNING DOCTORS.

The doctor is the first person we meet when we come into this world, and, unless we go out by accident or other unexpected summons, he is the last with us when we leave it. Such devotion is worthy of the highest praise, and that is often about all the doctor gets for it. Still, he keeps at it, because practice makes perfect, and a doctor without practice isn't worth much.

Who the first doctor was is not known, but he must have arrived shortly after the devil broke into the Garden, because before that there wasn't any need of him. In other words, a doctor is a matter of necessity. When you need him, oh, say, but you do need him, and if he had the nerve to present his bill just after he had pulled you out of the hole—one of those holes, you know, with a marble top to it—you would be glad to pay any amount he might ask. But later you feel some different, and you charge him with graft when he charges you with a sum which would have seemed small enough when you thought you were going to lose it all. But this is to a considerable extent the doctor's fault, because he should never let a patient get well enough to feel frisky like

that until the bill is paid. That is one reason why doctors so often need the money, and doctors have expenses to meet just as other people do, though they never have any doctor's bills to pay. This is owing to the fact that the ethics of the profession forbid one doctor from charging another for professional services. Right here comes in one of the greatest temptations a doctor is called upon to resist, to-wit, repairing one until he is as good as new and getting nothing for it, when by quietly letting him drop out, he might not only get rid of a competitor, but secure much of his practice. But no instance is on record of any doctor doing this. Really, don't you know, doctors are not nearly as bad as people in debt to them say they are.

It is common talk—very common—that the doctor is in league with the undertaker, and that you might as well begin to pack up for the long journey when the doctor comes around. But plain business sense controverts this fallacy. "Live and let live," is the doctor's motto. *De mortuis non payabus*, which, being translated, means, "The dead ones don't pay." True, some of the live ones don't, but some do, and never a dead one does. A graveyard may mean something to an undertaker, but it doesn't to a doctor.

There are nearly as many kinds of doctors as there are varieties of professors of religion and politics. For example, allopaths, homœopaths, hydropaths, milkopaths, restopaths, and mentalo-paths, electropaths, osteopaths, aeropaths, prayeropaths, quackopaths, and numerous other paths, all going different directions, but all leading to the same destination: the cure of the ills that flesh is heir to. So Protestant, Catholic, Mohammedan, Jew, Buddhist, and the rest of them, all going differently, but all headed for heaven; Democrat, Republican, Socialist, Prohibitionist, Populist, Progressive, each taking a different way, but all headed for the Pie-Counter. Man is fearfully and wonderfully made. If he were not, the doctors wouldn't have half the trouble with him they now do getting him started and keeping him going.

There are also women doctors. Women never have had any difficulty getting into religion, but getting into medicine and politics is quite another matter, and even in this day of phenomenal human progress, women doctors and women politicians are looked upon with more or less suspicion. They have got far enough along in medicine to have "Dr." prefixed to their names, but not far enough

along in politics to prefix "Hon." yet. Note, please, that there is a strong accent on the "yet" in that sentence.

In conclusion, it may be stated, without fear of successful contradiction, that while there has been wonderful progress made in all branches of medical sciences and practice, mankind goes on dying about as usual, and if the dead were as greedy as the living are in grasping as much of the earth as they can get hold of, there wouldn't be any room for the live ones.—*W. J. Lampton in March Lippincott's.*

ABSTRACTS

METASTATIC OPHTHALMIA DUE TO PNEUMONIA. Cosmettatos, G. F., Athens. (Archiv für Aug. 73, p. 30). Pneumonia may be complicated by ocular affections, e. g. hypopion keratitis, palsies, metastatic ophthalmia, purulent or not. The purulent metastatic ophthalmia is the most dangerous and frequently entails the loss of sight. After a review of literature, C. reports a case in a man, aged 32, affected with left sided pneumonia. The crisis came on the 7th day. 6 days later the sight of the right eye was impaired. The eyeball was painful and projected from the palpebral fissure, with swelling of the lids and chemosis. The cornea lacked its lustre, the anterior chamber was filled with pus, the eyeball hard. This was enucleated the next day, and the patient was cured after 2 weeks. The histological examination revealed purulent chorio-retinitis, with purulent infiltration of the whole uvea, retina and vitreous, which contained typical pneumococci, as well as the cultures. It showed that the metastasis commenced in the chorioid, whence it reached the retina which could not be separated from the chorioid, starting the purulent infiltration of the vitreous, a very apt soil for the propagation of pathogenic micro-organisms. The presence of pneumococci in the vitreous proved that they were conveyed by the blood to the chorioid and elicited the suppuration of the eye.

C. ZIMMERMANN.

INTESTINAL AUTOINTOXICATION IN THE PATHOGENESIS OF ECZEMATOUS KERATO-CONJUNCTIVITIS. Coloboma, G. L., (From the eyeclinic of Prof. C. Gallenga in the University of Parma. Klin. Mon. für Aug., 50, II, Nov. 1912, p. 610), attributed in a former article, (Klin. Mon. für Aug., August, 1911, reviewed in Ophthalmology), very great importance to intestinal autointoxication in the etiology of eczematous Kerato-conjunctivitis, because he found in 43 cases, with the exception of 1, indican in the urine. Since then 115 further cases of eczematous Kerato-conjunctivitis were examined, with the following results: indican and uroscerin abundant in 74 cases, marked in 21, together 82.6%, traces in 18, none 2, together 17.4%. Arnold found in 23 (57.5%), out of 40, cases a positive, in 17 (42.5%) a negative result.

C. ZIMMERMANN.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, APRIL, 1913

Number 11

ORIGINAL ARTICLES

ADDRESS OF PRESIDENT OF WISCONSIN MEDICAL WOMAN'S ASSOCIATION.*

BY LUELLE AXTELL, M. D.,

MARINETTE, WIS.

"Heaven, forming each on other to depend,
A master, or a servant, or a friend,
Bids each, on other for assistance call,
Till one man's weakness grows the strength of
all."

This is the excuse of our society for being; and this is my appeal to you for concerted effort toward growth, strength, and usefulness. Even Altruism, like Charity, begins at home. The circumference of every circle is drawn around its center. We must have in order to give. There are two distinctly different manifestations of selfishness,—one, mean and despicable, would ruthlessly obtain possession by robbing others. In contradistinction, is the quality which would enrich self by growth and exchange. Call it selfishness if you will, it is most beneficent, adds to the sum of riches of the world, and like the quality of mercy: "It blesseth him that gives and him that takes."

Only three short years ago were laid the beginnings of our society, but to those of us who have been members have come benefits beyond expectation. We have broadened in sympathy and increased in knowledge through our added experience; and as we grow in strength, we will, I am sure, find increasingly large returns for the little we put into this work.

Right here I wish to emphasize that we are organized for positive benefits only. We plan no aggression against any good thing. So far from antagonizing any society already established, we hope to work in harmony with all societies, having like interests and objects. Older and larger organizations, with established standing, have a place we cannot hope, nor do we wish to take. Because

*Read at the Annual Meeting of the Wisconsin Medical Woman's Association, Milwaukee, Nov. 12, 1912.

a man is a loyal citizen of his state, it does not follow that he holds less dear the stars and stripes, quite the contrary. We send men to Congress, we elect a president, and arrange for judges to attend to our National Housekeeping. A few act for all in these large affairs. In our own little household each individual member has important active duties, but because one is a householder does not militate against his patriotism. The smaller the unit the more depends upon each component part, therefore a small organization offers great opportunity to each individual member. All must help, therefore all must grow just a little at least, the amount of benefits received being in direct proportion to the effort expended.

And so I am entering a plea that each of us do her utmost to include in our organization every woman physician of the state, who is alive to her responsibilities and privileges. Knitted together, we may do much to help one another, and to strengthen the position of women in the profession of medicine; to convince the skeptical that the woman physician supplies a real want, and also greatly increase her power for good.

We owe it to ourselves, we owe it to each other to stand shoulder to shoulder and lift, lift each other's burden and incidentally the burden of humanity. How? By putting courage into the heart, and iron into the strength of those who minister; by increasing incentive and interest, conviction and purpose; by broadening outlook, and concentrating effort. We will give out the strength of one and get back the power of many. And the queer thing will be that the more we think of what we will get, the less will come to us; and the more we think of what we may give, the greater will be our returns.

One bright woman said to me: "Do you know I'm a member of so many things that I'm pretty nearly 'associated' to death, and it seems as though I ought not to join another thing, or say I'll be on another committee, or attend any meeting where I'll be 'doing good to other folks' or where I'll 'be done good to' myself." Now we all, I am sure,

sympathize with her feeling. At the same time this is different. In the first place it is a professional obligation which places it in a class apart, moreover it is an opportunity for personal growth on our professional side and even viewed from a purely selfish standpoint, it is to our advantage and pleasure. Don't ask anyone to drop any professional affiliation to come with us. Everyone should hold fast to all that is really worth while; but after considering carefully all clubs and associations, and balancing benefits both coming and going, I'm sure there is something every "associated to death" woman physician can drop in favor of the Wisconsin Medical Women's Society. I make this statement with the greater confidence relying as I do upon the medical woman's keen sense of duty which must bring home the realization that the privilege of our high calling carries with it the obligation to a peculiar service, a part in the world's work which is distinctly woman's and which we can do better than other women because we know better how, because we understand better the needs.

This briefly reviews our reasons for organization and now that a good beginning has been made and we are growing and in a fair way to accomplish much of good let us continue to work in perfect harmony, not allowing differences of opinion to interfere with appreciation of one another nor accomplishment of our object. Women have been accused of being petty and personal and narrow. And though such arraignment has been repeatedly proved unfair, we must go on proving it by being broad, just, large minded and big hearted, tolerant of another's weakness and forgiving others' mistakes. I quote a little verse we may well take measure by.

"We all make mistakes, the more's the pity.
The man from the country, the man from the city;
And I try, when I find one has made a mistake,
To cover it up for sweet Charity's sake.
For I know not what moment that something I do
May call for a censure, my brother, from you."

At the outset of this society we adopt as Article II of our constitution the following:—

"The object of this society shall be to bring into one organization the medical women of the State of Wisconsin for the purpose of mutual improvement, harmony, and social intercourse, and to formulate and execute plans for the education of the public in preventive medicine."

A board of Preventive Medicine was established at our organization meeting and for two years Dr. Julia Riddle, its chairman, most ably edited and managed the "Journal of Preventive Medicine", a periodical devoted to the education of the layman on subjects relating to health. Other work has been prosecuted, calculated to help this great movement, but not so systematically nor energetically as we hope to be able to do in future. I have asked for a report from our chairman and hope what she has to suggest may result in a definite plan of action. As we increase our membership to a more thorough state-wide representation, we will be able to work more effectually, not only on new plans of action originating with ourselves, but as well in furthering work already organized.

On the different occasions of our previous meetings we have adopted certain resolutions. May I suggest that in future when we pass resolutions a committee be appointed to make them stand for something tangible, not merely an expression of commendable but inert sentiment. We have been perfectly sincere in thus giving expression to our high mental strivings. Nevertheless it is now time to come to earth, review our possibilities, and take in hand our task, remembering that it is necessary to hold firmly to practicalities. To attempt too much is to accomplish nothing.

To revert to Article II of our Constitution, we note as one of the purposes of our organization mutual improvement and promotion of harmony among the women of our profession. This may mean a great deal to us if we make it. In a certain sense we rise and fall together, in reality, as well as in public mind. It is the duty of each of us not only to do our own best but to support all other deserving women in our profession whenever it is possible by the good word and the helpful act. To the public every woman physician is a *woman* first. This we must remember, and it imposes a double obligation to faithful, thorough, earnest effort. If we fail it is too often attributed to the fact that we are women. For myself I would much rather personally bear the odium of my own blunders, but I cannot, wholly. At least seven times out of ten, collective woman in medicine must bear the burden of *my* faults, and yours, and yours. Is it not then incumbent upon us to lift all we can? We hope to do this by making our meetings just as inspirational as possible, by holding up just as high professional ideals as we can, by helping each other at every opportunity, by doing better work because of the help given us, and because united

and organized, to make our influence for the general good more potent and far-reaching.

Let no one join this organization simply because of benefits expected. We want no members who come from such motive. We are tacitly pledged in this society to help deserving women in the profession of medicine, but we are just as truly pledged in spirit not to help the undeserving, not to encourage anything that will tend to lower our professional ideals, or render us less worthy of the respect and confidence of the world at large.

In retrospect, I see a good beginning toward a desired end. Since I have been president I have come to realize more fully what fine, able women we have and I wish to thank those who have so splendidly assisted me. A president of an organization of scattered membership is almost helpless alone. Our members have done valiant service. I am proud to know so many splendid, capable and helpful women and it gives me unbounded faith in the future of this our organization.

In outlook, I see not a dull procession of irksome tasks; but a vista of pleasant times, of good fellowship meetings, of increased faith in ourselves, and the courage and strength it brings, of inspiration to go on doing our best even better because of brave, strong comradeship, of increased opportunity which a higher public esteem shall bring to us. Can you not see my vision and tell it to all you know in better phrase than I can master? Next year I hope to see our attendance and membership doubled. This is woman's hour, let us make the most of it. "We must take the current as it serves" or, partly at least, "lose our ventures."

THE DIFFERENTIAL DIAGNOSIS OF MORBID CONDITIONS WITH SYMPTOMS RESEMBLING THE NEURASTHENIC SYNDROME.*

BY ARTHUR W. ROGERS, M. D.,

OCONOMOWOC, WIS.

The more comprehensive understanding of the relationship between normal and abnormal psychology in recent years has made possible greater refinement in the classification of the psychoses. At the present time all classifications present many weak points and it would seem as if none could be wholly satisfactory until one is developed, based

entirely on a pathological basis. I need not call your attention to the present difficulties of this problem, yet with greater refinement in our laboratory methods and with an increased number of experienced investigators, it is not too much to hope for such a classification. "Functional" is a term too long applied to various neuroses and psychoses to cover up our lack of understanding, and these conditions must ultimately make way for an established pathology of states altogether too real.

The proper presentation of psychiatry, even in the highest grade medical schools, has been of such recent development, and advances in psychiatric lines have been so rapid of recent years that we feel no need of an apology in this attempt to illuminate some of the finer points of diagnosis in conditions of similar symptomatology.

Little wonder that the general practitioner becomes confused when at times the trained alienist experiences difficulty in making a positive diagnosis in many cases of incipient insanity.

As with other morbid conditions, so with mental diseases, the most important feature is Diagnosis. What, in brief, is essential in reaching a correct diagnosis? A knowledge of normal and abnormal psychology, a knowledge of and practical experience with the various types of insanity, a careful investigation of the individual's heredity, familiarity with his environment, education and training, a painstaking examination and withal the ability to distinguish between the various symptoms and apply the proper significance to each. This ability is granted to so few that most of us experience the need of repeated examinations and daily observation for some time before absolutely satisfying ourselves as to diagnosis.

The value of correct diagnoses in abnormal nervous and mental conditions is appreciated if we desire to properly treat and direct many individuals in the pre-insane period of their sickness. We earnestly believe that upon the proper interpretation of the significance of symptoms in many of these incipient cases depends the outcome of the disease, whether it develop into a full blown insanity and dementia or whether it be checked and brought to an early cure. When it is known that the great majority of recoveries in cases of acute insanity occur among those patients coming under proper treatment during the first few weeks of their illness, it becomes apparent that a correct diagnosis is a powerful therapeutic agent.

The above facts along with our own difficulty in

*Read at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 23, 1912.

always reaching a correct diagnosis and the missed diagnoses I have witnessed from other sources have constrained me to call your attention to several diseases which in their earliest stages manifest symptoms greatly resembling the symptom-complex recognized as neurasthenia, and to endeavor to elucidate them in such a manner as to enable the general practitioner to more readily distinguish between them.

Confusion apparently exists in the minds of some practitioners between the terms nervousness and neurasthenia or nervous prostration. Nervousness merely describes a condition or symptom, while we must accept neurasthenia as a distinct disease entity of which nervousness may be but one manifestation.

It would seem desirable at the outset to refresh our minds as to the most important symptoms of neurasthenia and thus better enable us to compare conditions which at times prove confusing. It has been my experience that the ordinary neuroses and most of the insanities have some one or two cardinal symptoms around which the others revolve and this observation has frequently been of great assistance to me.

Neurasthenia is par excellence a fatigue neurosis; whether we consider the physical or mental symptoms, the one feature that always confronts us is fatigue. The neurasthenic is always tired, whether his work is hard, or whether he devotes himself to some quiet and moderate task, or does no work at all. He is just as exhausted upon waking from eight hours sleep as if he lay awake all night, and usually is more weary in the morning than at the close of his day's work at night. Whether he sits, stands, walks or lies down, he is ever conscious of this exhaustion. This fatigue is invariably accompanied by irritability, so that the merest trifles of the daily routine irritate out of all proportion and frequently precipitate scenes.

We are disposed to consider the combination of this type of fatigue and irritability as the cardinal manifestation of neurasthenia, and characteristic only of this disease. Headache is the next most common complaint of the neurasthenic and characteristic because of its location and the sameness in the phraseology that patients use to describe it. This pain which is not a pain is most frequently located in the occiput or "base of the brain", as these patients are fond of saying, and usually described as a sensation of pulling or drawing of the head backward or as a fullness, or as if an iron

hand was grasping the back of the head. I have heard patients refer to it as a "feeling of uneasiness", at times extending down the spinal column and spreading over the shoulders—one describes a sensation as if the head were splitting or the skull lifting, another has a terrible weight or sense of pressure on top of the head or a severe constriction around the head. These head sensations have two common characteristics. They are accentuated by physical and mental effort and are usually constant. This triad of symptoms, constant fatigue, irritability and headache, can suggest but one diagnosis and when accompanied by cardiac palpitation, flatulent dyspepsia and intestinal atony, lumbar ache, tremors, heightened reflexes and insomnia, we can scarcely go astray. Permit me briefly to call your attention to some of the mental manifestations of the neurasthenic inasmuch as they are always present and of great importance from the point of differential diagnosis. We find here the same elements which dominate the physical features, namely, weakness and irritability. "The capacity for mental work is abridged, just as the muscular power is reduced. Protracted mental efforts become irksome or impossible, and in many instances attempts to read or think or converse for a few minutes produce so much fatigue and discomfort that they must be discontinued." Mental concentration and the power of attention to details is so impaired in these patients that they fail to properly grasp things, hence the universal complaint of loss of memory and fear of impending insanity. Attracted by some physical manifestation of their illness they develop fears of disease. They become morbidly self-watchful and tend to hypochondriacal depression. Morbid fears of darkness, lightning, certain localities, etc., often harass these patients and the characteristic of all these fears is that the patient always recognizes their baselessness and can be reasoned out of them and comforted by firm assurance of his unreasoning.

In taking up those conditions which have been confounded with neurasthenia, I wish to speak first of tabes and paresis. I shall consider them together, because of the similarity of their symptoms. At all times in referring to these various diseases, I am, you understand, dealing only with the incipient stage.

The only excuse for confusing tabes dorsalis with neurasthenia, is in the preataxic stage of those tabetic cases very slow in development and

presenting irregularities in their symptom-complex. These patients complain of a lassitude very similar to the neurasthenic, but sleep usually rests them and they awaken after it refreshed. This, too, is mostly a physical exhaustion while the mental fatigue of the neurasthenic is absent. The introspective tendency is, also, lacking in the tabetic. With the lassitude we frequently find associated, in this type of tabes, gastric and intestinal symptoms suggestive of nervous indigestion which further adds to the confusion. I am confident that careful and repeated examinations will invariably disclose in these tabetics the beginning lancinating pains which may have been mistaken for rheumatism, as well as diminished activity in the deep reflexes or a slightly sluggish light reflex, the first suggestion of the Argyle-Robertson pupil, along with slight irregularities and inequalities of the pupils.

Of late years there seems to have developed a new type of paresis, longer in duration, more insidious and less marked by exaltation; indeed depression and other unusual symptoms have given rise to a neurasthenic type of this disease. In distinguishing neurasthenia from paresis, we must remember that the latter is pre-eminently a mental disease and that its earliest symptoms are mental. It is the depression and nervous irritability that have led to confusion in diagnosis. A careful analysis of this depression will discover it to be shallow and devoid of reason, although the individual will, contrary to the neurasthenic, make light of his condition and argue that there is little or nothing the matter with him. The irritability is of different origin, i. e. not of a nervous type but the result of interference—in short entirely unreasonable and suggesting a deluded state of mind. Careful comparison of the parietic's mode of thinking and acting with his former habits, will usually reveal the fact that a gradual change of character covering many months has been taking place and that he exhibits an unnatural disregard for others and for ethics. Memory tests early in paresis show varying defects for immediate events. At this time we can expect to find the pupils more or less rigid as well as heightened reflexes. Neurasthenia never gives rise to rigidity of the pupils, genuine amnesia or true weakening of the intellectual capacity. A history, or even a suspicion, of syphilitic infection, in any patient with one or more symptoms suggestive of tabes or paresis, will usually serve to confirm our diagnosis.

A positive Wassermann reaction in these cases of incipient tabes and paresis is a very helpful corroborative feature and the cytological examination of the contents of the spinal fluid promises much assistance in the matter of differential diagnosis.

Neurasthenia cannot readily be confused with true hysteria, but in the loose way in which the term hysteria is frequently used, it may be possible to confound these two diseases. We are, at present, inclined to consider all the symptoms of hysteria of psychic origin. In hysteria we are ever impressed with the apparent lack of genuineness of the symptoms. Lassitude, if complained of, does not seem real. In no other condition do we find the emotional make-up, the anesthetics and hyperesthesias, reversal of color fields and constriction of the usual field along with the urinary changes so characteristic of hysteria. It is necessary to bear in mind that hysteria can complicate not only neurasthenia but also any organic nervous and mental disease.

I have reserved for the last a discussion of the most important morbid condition which in its diagnosis is confused with neurasthenia. We consider dementia precox the most important because of its frequency nearly one-fourth of the admissions to our state hospitals coming under this head, because of the comparatively recent description of this disease, because recovery depends upon what is done early in its course, and because I have had so many of these cases referred to me as neurasthenics, and much surprise manifested when the disease progressed slowly into an unfavorable prognosis instead of recovery. Tanzi defines dementia precox as "a process of mental disorganization of irregular course, which affects predestined individuals who have previously been intelligent, and who in most instances are youthful. Of all mental diseases it is the one that is most distinctly hereditary, and especially from the mother's side."

In dementia precox we are dealing with a mental disturbance entirely and we must depend much in our diagnosis upon the previous history, course of development and the general picture of the disease. As we have studied this condition it would seem as if there were certain traits of childhood, certain ways in which children are trained or better still, not trained, in the home and school, certain habits of mind and body formed which almost invariably develop into this disease. The syndrome, begins in early childhood and matures with the period of adolescence while neurasthenia

is more often a disease of adult years. These individuals as children are inclined towards morbid sensitiveness, are rather precocious and inclined more toward intellectual than physical pursuits, their social inclinations are not strong and they find the most satisfaction in their own company. Adolescence, with its accompanying disturbance, seems to accentuate all the native peculiarities of these patients, and we find them becoming restless, nervous and displaying increased emotional manifestations. They are liable to exhibit lack of interest in home matters and show lack of affection for the family and fail to appreciate kindly interest and the sacrifices frequently made for them. A careful analysis of the patient's mental condition at this time will discover an unimpaired memory, poor judgment, the faculty of attention more or less disturbed, and above all a distinct deterioration of the emotional sphere.

Dementia precox can be rather readily confused with neurasthenia because it has a prolonged period of development during which time the individual is nervous and irritable but does not complain much of fatigue other than mental which is more the confusion of mind arising from impaired power of attention. Emotional displays and impulsive acts at times suggested a neurasthenic condition and failing to recognize the more profound and significant symptoms, frequently a diagnosis of neurasthenia is erroneously made.

It has been said that the treatment of all mental diseases is alike. This statement exhibits only a pitiful degree of ignorance and never emanates from those familiar with the subject. We know of no form of sickness where, of necessity, treatment must be so individual and symptomatic as in diseases of the mind.

Not only does treatment depend upon proper diagnosis but another and equally important feature is involved: viz. *prognosis*. Compared to other acute diseases most cases of insanity pursue a long course: some three, some six, and others nine to fifteen months. In some the prognosis is good, in some poor, in others bad. At a glance you see the need of being able to anticipate the course and approximate the time of an attack of a disease that so disqualifies one for his duties as an attack of insanity. Especially is this so when the head of the house or the breadwinner is the unfortunate subject.

At a time when so much is said and written advocating an improvement in the methods of

teaching psychiatry in our medical colleges, when the professional and lay press is calling our attention to the rapid increase of insanity and our states are heavily taxed in constructing buildings for their care, I wish to add my word of encouragement along these lines and make a personal appeal for a more careful and intelligent consideration of mental diseases in order that greater prophylactic measures may be developed and the proportion of recoveries among the insane increased.

DISCUSSION.

DR. A. J. PATEK, Milwaukee: The lesson which this paper teaches is prophylaxis. Dr. Rogers emphasizes the fact that mental diseases are often considered purely functional, and from that standpoint are treated as functional. This is perhaps one of the greatest errors into which practitioners can fall. There is always great danger ahead when we make a diagnosis of functional disease, whether it be of the brain or the heart. It has always seemed to me to be a great fallacy to speak of and consider certain heart murmurs as functional. If a murmur is caused by a dilated valve ring—then, for the time being, that murmur is caused by an organic condition as pronounced as if the valve itself were organically incompetent, and it must be treated accordingly. "Functional" mental cases are functional only to the physician who fails to recognize certain organic elements that form a background. Hysteria is a diagnosis frequently made, and symptoms are frequently called hysterical when, as a matter of fact, if properly analyzed, they will be found to be based upon some organic development. People never die of hysteria, and yet many people have been called hysterical and have died of the disease so-called. As Dr. Rogers has emphasized, hysterical symptoms very frequently mask organic conditions, and may exist in association with organic spinal and brain lesions.

Mental symptoms, if they mean anything at all, denote some fundamental, deep seated disturbance, and must, where threatened, be treated prophylactically, just as must any other disease, in order to obtain a proper result. There is no illness that strikes home more deeply than that of dementia precox, because it usually attacks a promising member of a family, a child that has been petted, that has shown precocity, that has advanced beyond its years in early mental development; but the mental symptoms are frequently not recognized in time to be given the proper interpretation, so the good result expected of early treatment is lost.

Dr. Rogers' paper teaches us that the sooner we forget that certain diseases are functional, or that symptoms are purely functional, the sooner will we arrive at a proper appreciation of their organic nature, and in this, in my opinion, lies the future in this field of work—diseases of the mind.

Dementia precox is so serious, and so few cases comparatively recover, that it must be a source of gratification to us to have it emphatically stated that prophylaxis can at times be successfully used, and better results attained than has hitherto been the case.

DR. W. F. LORENZ, Madison: If the general practitioner recognizes the condition in its incipency and can direct the friends or relatives as to the probable outcome of that case, they will be as a rule very appreciative. These mistakes are made constantly; every one in this line of work knows that. So that the early recognition of these cases is essential.

Aside from the mental differentiation between these types of disease, there are certain physical findings, especially the mechanical aids, through which differentiation is possible.

There is a type of nervous disease or neurosis, that is frequently confused with neurasthenia, and it is a case that has the same symptom-complex; flatulency, cardiac trouble, headaches and fatigue. Here the mental fatigue and the neurasthenia complex are due to the physical derangement, and differentiation is possible by the blood pressure estimation. They are probably due to intestinal toxemias, and the blood pressure is increased; whereas in neurasthenia ordinarily it is not much above the normal.

In early paresis and tabes I was somewhat surprised that Dr. Rogers laid more stress on the Wassermann test than on the cytologic examination of the fluid. It has been shown that early in paresis, long before the physical signs manifest themselves, you get typical changes in the spinal fluid. You may have lymphocytosis which is very probable, and as a matter of fact it has been my experience that the earlier one gets the case and makes the puncture the larger lymphocytosis you get,—and next the globulin increase; that is an absolute means of differentiation.

The same thing holds good in tabes. The cytologic and chemical examination of the fluid is positive in nearly 100% in tabes, whereas the Wassermann is positive in not more than 70% on the average, although authorities differ somewhat as to the percentage.

As to dementia precox, I must take exception to Dr. Patek's remark that the case that develops dementia precox is the most promising. If anything he is not. The very fact that he is precocious, that he is the petted child, shows he is abnormal; he is below par. These precocious tendencies are in themselves abnormal. Meyer, now at Johns Hopkins, and Hoch, have conclusively shown that these cases that develop dementia precox have what they term a "shut in" personality; they are not the same as the other members of the family; and investigation will almost always bring out this typical personality.

When a dementia precox has developed to some degree, it seems to me that the point of differentiation is that in dementia precox there is a loss of interest. The neurasthenic as Dr. Rogers has said, is extremely introspective—too much so; while the person suffering from dementia precox may have the same symptom-complex, but he does not speak of it of his own accord, unless you ask him concerning these things,—for the complaints are of short duration.

I have a case which probably illustrates that point, now at the state hospital. He is a neurasthenic, but he has a symptom-complex which might be looked upon as dementia precox. This individual claims that he has distress in the neighborhood of the prostate gland and

the neck of the bladder, urethra and rectum. There is no physical basis for his complaint, yet that individual has visited a great many physicians, been in the hands of a large number of quacks; he has been to the Hot Springs and many other places seeking treatment. He has gone to the extent of studying the anatomy of the parts and knows them intimately, and his knowledge of the anatomy of the pelvis would do justice to a medical man. This shows his extreme interest in his condition, he having gone to the extent of studying and seeking advice, and that seems to me to exclude dementia precox.

DR. CHARLES GORST, Mendota: I never have claimed to be a great alienist, I was a physician in general practice for twenty-five years and under the existing conditions in Wisconsin was asked by the State Board of Control and the Governor to take charge of the Wisconsin State Hospital at Mendota. I thought at the time that the appointment of a general practitioner for such a position was improper and that the state ought to have secured a man specially trained for the place, but I do not know that such a man was available among the rest of you. (Laughter.)

When I left home, I put the keys of my residence and my office in my pocket, and carried them for a year—I did not expect to stay. After a short time I went to the Board of Control and said, "Gentlemen, I feel that I know little enough about insanity or about a hospital of this kind, but I do know that very little is being done for the patient that is sent to this institution; and I do not wish to remain unless you are going to do something more for the patients and give me an opportunity to do so. Conditions must change materially in regard to the methods used, especially in the examination and treatment." The Board promised to do any thing they could do for me; and for eight years we have been working together to change conditions, and we have changed them.

The buildings have been remodeled inside and out and the surroundings improved; and we are using the best known methods of diagnosis and treatment. We are ready to say to you that we are a hospital instead of an asylum. Personally I do little treatment of the patients. I go in consultation because the law says that I am a superintendent and should know more than my staff (the boys) (laughter), and of course I do (laughter) because I go and tell the boys what to do. I claim this much, however, that I think I know what kind of physicians I must have for the necessary work and at the present time we have a staff of five efficient physicians one of whom is a woman. I wish to repeat that the conditions are changed, that we are no longer an asylum but a hospital; that we are investigating; that we are making diagnoses; that we are treating patients; and we have reason to say, especially in some of the very excitable cases, that under our present method of hydrotherapy, some of the patients are getting well that used to die under the use of restraint and drugs.

I am very pleased that such a paper as Dr. Rogers presented this morning could be read before this society.

It is only of late that any of us have listened to such a paper; it is not very long that mental disease has

received any especial attention; it is not very long since it was first thought necessary to give consideration to mental disease and to realize that it is a disease and that something can be done; it is not very long (and we have not done very much of it yet) that we have been in position to make careful diagnoses.

There are two or three points of importance in connection with this subject. The patient should come to the institution early. Statistics show that the early treatment is the basis of recovery; that procrastination is the basis of failure to recover. I hope that the medical men of this society and of the state will advise the families with which they come in contact to send their afflicted people to the institution early. I will guarantee you that you will not be in error when you say to the family that the state hospital today is really a hospital; that we can and we do make diagnoses, and we do offer treatment and we do secure good results. (Applause.)

DR. ARTHUR W. ROGERS, Oconomowoc: (Closing) We have heard for several years of the wonderful "progressivism" of the state of Wisconsin, but our progression has not been along the lines of caring for the insane. We had rapidly been falling behind all of the Northern states in the care of these unfortunates, and my hat is in the ring, and I am sure that every member of this society is ready to throw his hat in the ring, to indicate appreciation of the work that has been started by Dr. Gorst at Mendota. At last our hospitals in Wisconsin are beginning to do something other than board their patients.

There are many factors which enter into the reasons why the average general practitioner is not interested in mental diseases. The subject has been shrouded for centuries in so much mystery, so much gloom and ignorance, that I believe 90% of the general practitioners believe that when they get a case of insanity that it is tantamount to hitting the patient in the head with a hatchet.—that in short, it is all over.

Gentlemen, I want to tell you that under proper treatment 80 to 85% of the cases of acute insanity recover. There are not many conditions or many other acute diseases that that can be said of.

Dr. Gorst is in a much better position than those of us who are at the head of private institutions, to advocate early treatment; but it is an established fact throughout the civilized world that these cases are given a much better opportunity, that the chances for recovery are made infinitely greater, by speedy and early removals from home under intelligent, systematic, scientific treatment, rather than under the usual circumstances of delay.

It is so often the case that the practitioner and the family back of him, are saying, wait, wait, next week there will be a turn; and a change or a slight remission of the disease encourages the friends and family to delay. But as Dr. Gorst has said, waiting is the dangerous element in the care and treatment of these patients.

I do not believe the general practitioner realizes the need of studying into these conditions. Those of us who are working exclusively among mental and nervous cases, must study other diseases; we have those intercurrent diseases to treat; we are free and prompt to call in consultation where it is needed; but the general prac-

itioner does not seem to feel the need of studying and familiarizing himself with the common forms of insanity.

The chief burden of my paper was regarding dementia precox. There is an appalling amount of dementia precox coming under the care and treatment of men working among insane patients; and it is a disease that is readily understandable, as Dr. Lorenz has pointed out and as I endeavor to show in my paper, in the traits of the child, especially the "shut in" characteristic, the tendency to isolation. These children, many of them are precocious in some ways. I have seen a great many of these children very precocious in school; and that same precocity serves to help break them down. They are allowed to work ahead of classes, jump grades in the public schools, take four years in three; and that is one of the prime reasons of their breaking down. It is right there where the general practitioner might save many of these individuals, by recognizing this type, advising the parents, checking the school work, reorganizing the child's life, turning it from intellectual to physical pursuits, and in many ways staving off an insanity in which the prognosis is infinitely bad. (Great applause.)

TRACHEO-BRONCHOSCOPY IN DIAGNOSIS AND TREATMENT.*

BY W. E. GROVE, M. D.,

MILWAUKEE.

Perhaps nothing has done more to enrich our knowledge of the pathology and therapy of the upper and lower air passages than the discovery by Kirsstein that rigid steel tubes can be introduced into the trachea without direct injury to the patient. Kirsstein's fruitful idea was still further enlarged upon by Gustav Killian and his assistant Bruennings. They, by ingenious devices evolved methods of practical application. They were able to introduce their tubes through the larynx into the trachea, and showed that on account of the elasticity of the trachea the tubes could be introduced into the bronchi of the first, second, and third orders.

Tracheo-bronchoscopy and the methods involved in the examination of the trachea and the bronchi have now become so generally known to the profession that it is hardly necessary to describe the instrumentarium employed. For those of you, however, who may not be familiar with the details involved I will take up briefly the instruments most commonly employed and touch upon the methods of examination.

The instruments consist, in general, of a series of rigid steel tubes of various diameters which can

*Read at the meeting of the Third District Medical Society at Madison, February 27, 1913.

be introduced first into the trachea and then past the bifurcation into the bronchi by means of upper or lower bronchoscopy. By upper bronchoscopy we mean the introduction of the tubes through the mouth and larynx. In lower bronchoscopy the tubes are introduced through a tracheotomy wound previously made. The instruments used for this type of work may be roughly divided into two general types—the American and the European. They differ quite markedly in detail.

Inasmuch as the larynx of the child is much smaller than that of the adult and the larynx of the female smaller than that of the male, we must have tubes of various diameters to work with. Then, inasmuch as the depth at which we are working is not always the same, we must either have a number of tubes of different lengths but of the same diameter, or we must have, for each tube of a certain definite diameter an inner tube which can be pushed through it and thus elongate it. In the American type of instrument this requirement is met by having a number of tubes of varying lengths for each diameter employed. If in the examination a short tube has been introduced and found of insufficient length it must be withdrawn and another longer one introduced in its place. In the European type of instrument with which I have had more personal experience we use only one tube for each diameter, which tube is long enough to reach to the bifurcation of the trachea. If greater depth than this is desired, as for bronchoscopy, it is not necessary to remove the tube originally introduced. The length of the original tube can be increased to any extent desirable by pushing a properly fitting inner tube through it.

In the American type of instrument the source of light is a small incandescent lamp placed in a groove at the distal end of the tube.

This has the disadvantage of being easily covered with blood and mucus and in this way thrown out of function. If this happens the tube must be withdrawn and the lamp cleaned or replaced with a new one. The light in the other type of instrument is provided for by a larger incandescent lamp with a bull's eye condenser at the proximal end of the tube. This light, attached to a fixed handle, is reflected into the tube from the surface of a plane mirror. These instruments, perfected by Bruennings, seems to me to have a double advantage. If the tube introduced is not long enough it does not need to be withdrawn and another one inserted. A greater depth can be attained by leav-

ing the first tube in place in the trachea and pushing another tube of slightly smaller calibre through it. The light too, being at the proximal instead of the distal end of the tube, is not so easily obscured.

Bronchoscopic examinations can be made in patients of any age. In children general anesthesia is almost always employed, chloroform being preferred to ether because it has less tendency to stimulate the bronchial secretions. When the anesthesia is complete the examination can be made with the child in the lying position or the assistant can take the child on his lap and the examination can then be made in the sitting posture. In adults, when possible, I always prefer the sitting posture and local anesthesia. I make all my examinations with the patient in a specially constructed low chair of Bruennings, whose seat and back together constitute a segment of a circle. This prevents the patient from getting out of the chair very easily during the examination. The anesthesia is produced in the usual manner by first spraying the pharynx with a 10 per cent. solution of cocaine hydrochloride and later swabbing the posterior wall of the pharynx, the root of the tongue, the hypopharynx and especially the interior of the larynx with a 20 per cent. solution to which some adrenalin has been added. This process is continued at intervals until all sensation in the larynx has been lost.

The tube is then carefully passed over the middle of the root of the tongue toward the posterior pharyngeal wall until the epiglottis is seen. After the distal end of the tube is seen to be posterior to the epiglottis it is gradually brought forward, elevating at the same time the proximal end of the tube, thereby pressing the root of the tongue forward forcibly. This is all done with the head in the extended position. The larynx is now in view at the end of the tube. It can be studied and operated upon or foreign bodies can be seized and removed. Now, during a deep inspiration the tube is gently and carefully slipped past the vocal cords and into the trachea as far as the bifurcation. Now whereas the tracheal or bronchial walls themselves are only very slightly sensitive the carina of the bifurcation is very much so and before we can pass the tube or its prolongation into either bronchus 20 per cent. cocaine must be applied to this structure.

The right bronchus is very easily entered because it leaves the trachea at a very obtuse angle.

In fact, in many cases it is almost a downward continuation of the trachea. The left bronchus, however, leaves the trachea at an angle of about 45 degrees. The walls of the trachea and the bronchi are very elastic and the carina of the bifurcation can easily be dislocated to either side unless there is present some abnormal and pathological fixation to the mediastinal tissues. Therefore by pressing the proximal end of the tube into the one or the other corner of the mouth the distal end of the tube can be directed toward and pushed into one or the other bronchus, making of the trachea and the bronchus into which it is projected a straight line. The carina of each successive order of bronchi must now be thoroughly cocaineized before proceeding any farther, after which we can explore all the branches of the bronchial tree up to bronchi of the third order. On the right bronchus, in an adult, one can reach a depth of 32-35 cm. from the teeth, on the left side somewhat less.

With this introduction we can pass on to a consideration of the uses of this method in the diagnosis and therapy of diseases of the larynx, trachea, and bronchi. It is not my purpose here to take up the most important and best known function of the direct methods which is the diagnosis and extraction of foreign bodies from the esophagus, larynx, trachea, and bronchi. It is rather to the uses and advantages of the direct methods of examination in other pathological conditions of the larynx and lower air passages that I wish to direct your attention today. Whereas the foreign body work immediately claimed all the attention of the new method in the early years of its existence and still is a very important feature of that work, in more recent years more and more attention is being paid to its value in the diagnosis and treatment of disease of the upper and lower air passages.

We will now take up briefly and in order, first the pathological conditions of the trachea, then those of the bronchi, and finally those affecting both the trachea and the bronchi together. The condition clinically known as ozena was formerly, in prebronchoscopic times, supposed to affect only the nose, naso-pharynx and larynx in the order named, but a routine examination of the trachea will show that the pathological changes are also frequently found in the trachea as far as the bifurcation and even beyond, as the following case will illustrate. About one year ago a woman aged 50 consulted me for a dryness of the throat and a feeling of pressure combined at times with dull pain

behind the manubrium of the sternum. Physical examination showed a moderate grade of atrophy of the inferior turbinates, a chronic pharyngitis and a chronic laryngitis. The cords were slightly thickened and reddened. The breath was somewhat foul. A chest examination revealed a healthy heart and arterial system and no evidence of any mediastinal growth or irregularity. The patient showed a high degree of reflex nervous irritability and was just past the menopause period. I was about to treat her merely on a neurotic basis when it occurred to me to bronchoscope her. On doing so I found typical greyish-green crusts of a foul odor attached to the tracheal rings from the subglottic space to the bifurcation, a typical condition of ozena of the trachea. The condition quickly yielded to intra-tracheal injections of menthol oil in increasing doses. Many similar interesting cases can be found in the recent literature, one of the most striking being reported by Alexander, who by this method diagnosed an ozena trachealis of such a degree that a tracheotomy was necessary because of it in a patient not showing the disease in the nose until fully two months later.

Not only can the trachea be rendered almost impassable as a respiratory tube by the crust formation of ozena within its lumen, it can also be so compressed by tumors outside of it, such as goiters, aneurysms, enlarged thymus glands, and enlarged bronchial and mediastinal lymph glands, as to greatly obstruct the respiration through it. The direct method of examination is especially valuable to the surgeon in the examination of goiters and particularly those which are intrathoracic and retrosternal in position and which demand operation because of their compression of neighboring structures. It is often practically impossible to determine by any other method than bronchoscopy exactly how far these tumors extend into the thoracic cavity and yet with the bronchoscope we can exactly delineate the lower limits of tracheal compression. This is specifically illustrated by a patient who came to me complaining of a swollen neck. In the last two months the neck had grown considerably larger and she had developed hoarseness, dyspnea and painful deglutition. Examination showed a swelling of the left thyroid lobe which seemed to extend inferiorly to the left sterno-clavicular articulation but it was impossible to palpate its lower pole. Tracheoscopy disclosed a bulging of the left anterior tracheal wall reducing the lumen of the trachea to about

one-half its normal diameter and extending from 16.5 to 18 cm. from the teeth, which lower limit corresponded just about to the level of the sterno-clavicular articulation. Subsequent operation proved this definition of the tumor to be a correct one.

One would suppose, a priori, that any dyspnea occurring in a patient with a goiter of any size would be due to the pressure of the tumor on the trachea itself. And this is, indeed, the usual cause of the dyspnea. That this may not necessarily always be the case is shown by a case of Ephraim who tracheoscoped a patient with struma associated with an increasing dyspnea and found that the shortness of breath was due, not to the thyroid tumor, but to a compression of both main bronchi near the bifurcation by swollen mediastinal lymph glands.

A symptom not at all uncommon in goiters of any considerable size is the hoarseness due to injury through compression of one or the other recurrent laryngeal nerve. Ephraim, by the aid of tracheoscopy, was able to show in one case with considerable struma that the hoarseness in this particular case was not due to the above mentioned cause but to a beginning aneurysm of the arch of the aorta.

And this leads me to a consideration of the uses of this method in cases of aneurysm. In cases of outspoken aneurysm where the diagnosis has already been made I am not in favor of attempting a tracheoscopy even if dyspnea is present because no good can be done by it and a great deal of harm may come from it. Indeed, a number of cases have been reported where the aneurysm has ruptured into the trachea during the bronchoscopic examination. It is, however, in incipient cases of suspected aneurysm where the diagnosis can not be made by any of the other methods of physical examination that the introduction of a tracheal tube and the direct inspection of the trachea can render us much valuable information. But even here it is not necessary for us to introduce the distal end of the tube very far beyond the larynx, for after so doing we are able to inspect the entire length of the trachea to the bifurcation unless such a view is prevented by some abnormal compression of the trachea. If we see such a compression of the left wall of the trachea above the bifurcation which has a pulsation synchronous with the heart beat we can be certain of the diagnosis of aneurysm even if other general physical signs are wanting. I do

not, even in these early cases of incipient aneurysm advise any attempt to push the tube beyond the tumor.

Tertiary luetic involvement of the trachea or the bronchi is a condition which was formerly practically unknown except at the autopsy table but it is now being quite frequently recognized *intra vitam* by means of the direct methods of examination. The tertiary syphilides, the gumma, the gummatous infiltration and ulceration, are found in all parts of the trachea and bronchi. During the last year a young man aged 16 consulted me complaining of difficulty in breathing, and at times even painful respiration. On deep inspiration a marked stridor was audible. Examination per tracheoscope, showed the larynx to be normal except for somewhat reddened cords. But just below the glottis the trachea was constricted by a prominence of the right tracheal wall, which bulging prevented the inspection of the tracheal rings below it. The lumen of the trachea was narrowed to about one-half of its normal diameter. General physical examination was negative; the Wassermann reaction was positive. Salvarsan, 0.6 gm. was given twice at an interval of about a month and the patient was placed upon a course of potassium iodide. The patient steadily improved and a second tracheoscopy at the end of three months showed only a very slight degree of constriction of the trachea. Otherwise everything was of normal appearance and the breathing was much improved. Denker reported a case in which he found ulcerations of the trachea near the glottis and near the bifurcation. The left main bronchus was stenosed to a slit-like opening not passable to any tube. The Wassermann reaction was positive. The diagnosis of tertiary syphilis was made. Treatment was begun but the patient succumbed to an attack of asphyxia and at section the bronchoscopic diagnosis was confirmed. In all 28 to 30 cases of syphilitic involvement of the trachea or bronchi have been reported up to the present time.

The carina of the tracheal bifurcation, normally narrow and wedge like, is situated somewhat to the left of the mid line of the body and has a rhythmical movement synchronous with the respiration. When the carina has lost this movement, has become broadened or has been pushed into the mid line of the body or even beyond we must look for some pathological changes in the mediastinal tissues immediately around it. Such changes may be caused by enlarged tubercular or anthracotic

glands of the mediastinum, by aneurysms in some cases, by an enlarged left ventricle of the heart, or by some primary tumor of the mediastinal tissues.

In a case of Pollak's, a child of two and a half years with severe stenosis of the lower air passages, a loud whistling inspiratory stridor, inspiratory retraction of the epigastrium and jugulum, and frequent attacks of asphyxia, the general physical examination and X-ray findings were negative. He found on direct examination of the trachea a well defined swelling of the posterior wall near the bifurcation with a broadening and fixation of the carina. Seven days later there was a sudden attack of asphyxia with the expectoration of pieces of necrotic tissue. A second tracheoscopy showed the absence of the above mentioned tumor. Histological examination revealed a necrotic tissue with round celled infiltration and a diagnosis of tuberculous glands of the mediastinum was made.

Almost the entire mediastinal space beneath the bifurcation of the trachea and beneath the left bronchus is occupied by the left auricle of the heart. The more horizontal course of the left bronchus as it leaves the trachea is explained by the position of the auricle beneath it. The aorta arches above the left bronchus so it is easily conceivable that if a pathological enlargement of the left auricle exists a compression of the left bronchus between the auricle and the aorta must take place. In this connection Kahler examined with the bronchoscope 11 cases of mitral stenosis and 1 case of mitral insufficiency. He found the carina of the bifurcation of the trachea very much broadened and displaced to the right in practically all of the cases. In 6 of the cases the left bronchus formed with the trachea almost a right angle instead of an angle of about 45 degrees. In all the cases except one, that of mitral insufficiency, there existed a relative stenosis of the left bronchus almost directly proportional to the size of the auricle. In 3 of the cases with auricle enlargement he found an accompanying paralysis of the left recurrent laryngeal nerve.

We now come to the diagnosis, per bronchoscope, of tumors of the trachea, bronchi, and lungs, in which field a large experience has been gathered since Killian's first application of Kirstein's fruitful idea in 1898. Practically all the tumors which are known to pathology may arise in this territory, the sarcomata, however, being quite rare. These tumors may be growths of these organs themselves

or they may be new growths of neighboring organs, i. e. the esophagus, which make themselves known in the trachea or the bronchi by compressing them or by ulcerating through their walls. Their general symptoms are coughing, bleeding, and dyspnea. Their absolute diagnosis can be established by making through the bronchoscope a probatory excision of tissue and examining it pathologically. If they are benign they can be removed with proper instruments as has been repeatedly reported in many cases by such men as Killian, Kahler, Mann, Spiess, Jackson and many others. Inasmuch as these cases are practically always initiated by coughing, bleeding or dyspnea, I think we can go as far as to say that a bronchoscopic examination should be made in every case where these symptoms are present and can not be explained in any other way.

That not every case of hemoptysis is due to tuberculous involvement of the lungs has been clearly demonstrated by Ephraim. This author made direct examinations in a large number of cases of hemoptysis where the history and physical findings could reveal no cause for the condition, and found these bleedings to be due to such causes as hemorrhagic tracheitis, bleeding varicose veins of the trachea, and bleeding tumors of the lower air passages. In the course of these investigations Ephraim has examined per bronchoscope a large number of patients with pulmonary tuberculosis and declares that the direct examination, if carefully made, does not in the least increase the danger of hemoptysis. There are certainly a considerable number of cases of chronic cough, dyspnea and hemoptysis, in which the diagnosis of tuberculosis is made and where the correct diagnosis can be made and the correct treatment instituted only if we examine the trachea and the bronchi directly. Not that I recommend the use of bronchoscopy as a routine measure in all cases of pulmonary tuberculosis. I should only like to see it used a little more regularly and consistently in all those cases where the physical and X-ray findings are not conclusive and where there is a reasonable doubt of the diagnosis, phthisis.

A few words are necessary as to the use of tracheo-bronchoscopy in children. It is in children that the method finds its greatest application. At the same time it must be remembered that it is in children also that it manifests its greatest dangers. It is not strange at all that the method has found great application in the examination and treatment of children when we remember that in the first

place the child's larynx is practically impossible of inspection and examination by the mirror method, not to mention operating upon it with this illumination. The examination with the direct laryngoscope on the other hand, is rendered very easy in the child by the fact that in children the base of the tongue presents very little resistance to the forward pressure of the tube. In the second place, the direct method finds great application in the early years of life because 70 per cent. of all the foreign bodies in the lower air passages, according to Gottstein, are encountered in children between the ages of one and twelve.

But it is also among the younger children that we encounter the greatest dangers of the method and meet the largest number of its complications. And this applies particularly to the method of upper bronchoscopy. The complication most frequently met with in these examinations is the development six to twenty-four hours after the operation of a subglottic edema and infiltration. The submucous tissue in the subglottic space, especially in the younger children, is very susceptible to injury or pressure of any sort and if such pressure is made upon this region for any length of time by the tracheal tube the subglottic tissue responds with an inflammatory reaction or edema to such an extent as to practically close the trachea for breathing purposes and necessitate tracheotomy. Such subglottic swellings are especially liable to occur in children under five years of age who have been subjected to prolonged examination and with tubes so large that they are only inserted with difficulty through the subglottic space. 23 such cases necessitating tracheotomy have been reported by Killian, Kûmmel, Hinsberg and others. In view of the appearance of these complication in children it has been recommended not to do the upper bronchoscopy on a child with an already existing subglottic swelling, to always use during the examination the smallest tube possible, not to prolong the examination more than ten to fifteen minutes at the outside, and if a foreign body of any considerable size is diagnosed in the trachea or the bronchi, not to attempt its removal through the larynx. For it would be far better to do a tracheotomy first and extract the large foreign body through the lower opening, than to push a large sized tube through the larynx and the subglottic space. We must remember in this connection that the larynx and the subglottic space constitute the narrowest part of the tract and that the trachea rapidly widens

below. In children under seven years of age the upper bronchoscopy should only be made in hospitals where the patient can be kept under close observation for a considerable time after the operation.

I have in these few words tried to sketch to you the uses and advantages of tracheo-bronchoscopy in the diagnosis and treatment of disease, only having touched upon its more important and well known uses in the internal surgery of the larynx and in the extraction of aspirated foreign bodies, and not having mentioned at all the new field, still in its developmental stages, of the direct treatment by spray and application of the chronic bronchial diseases, chronic bronchitis, bronchial asthma and bronchiectasis, as it is being developed by Ephraim, Galebsky and others.

INAUGURAL ADDRESS OF THE PRESIDENT OF THE MILWAUKEE MEDICAL SOCIETY.

BY GILBERT E. SEAMAN, M. D.,

MILWAUKEE.

Gentlemen of the Society:

In assuming the duties of your presiding officer permit me to say that I am impressed with the responsibility of the office and that I am grateful indeed to you men with whom I have been associated for twenty years in this society, for your confidence in choosing me as president. I shall not expect to equal the record of my predecessors in this office, but I shall at least give you the best service of which I am capable and shall hope for a successful year in increase of membership as well as in the quality of the scientific work done.

The Milwaukee Medical Society has surely had an honorable and successful career during the quarter century of its existence, and the members have reason for pride in, even if they are not wholly satisfied with, its accomplishments.

I came to this society as a young man, a stranger in the city, a novice in practice, I made my first real professional friendships here. It has been my professional home for twenty years, and while I would not care to pose as a typical product of this society, I may be permitted to say that these friendships, these meetings, this professional association has ever been a great help and an inspiration in my professional work, so much indeed that I am compelled to say that my heart is more with you my brothers here, with these books, with the

men who have played their earthly part and left the stage, than with any other association in life outside the family circle.

"For some we loved, the loveliest and the best,
That from his vintage, rolling time has pressed
Have drunk their cup, a round or two before
And one by one crept silently to rest."

—Omar Khayyam.

This society, my friends, like every other well conducted medical society has been an effective Post Graduate school for its members and will continue to be such as long as we keep the best medical ideals in view even though we often fail of actual attainment.

The medical society is the continuation school of the physician. The changing conditions, trials and problems of medical education, the increasing requirements laid down by the colleges and medical boards are matters of vital interest to the medical student of today, but the rapid changes and advances in the science and art of medicine itself, make the question of the continuous education of the physician one of the most vital importance to him and just here appears the highest function of the medical society:—to provide if possible the means by which its members may preserve contact with the ever advancing column and keep informed as to the contemporary changes in our science and art, by presenting a modern program at the meetings and maintaining as good a library as the funds will allow.

And this brings me to speak particularly of our library. It seems to me that the library is not made use of by the members to the extent that it should be. It will be the effort of the coming year to encourage a more general use of the library and the officers will gladly receive suggestions from any member to that end.

To study the phenomena of disease without books, says Osler, "is to sail an uncharted sea." We have a valuable collection of books here. The seventh largest and one of the best medical libraries in the United States. I wonder if we all appreciate these facts? We should appreciate them, and moreover we should constantly bear in mind the fact that somehow this library must be adequately maintained and safely housed as soon as possible. I recently visited Philadelphia and Baltimore and again went to the libraries of the College of Physicians in Philadelphia and the Medico-Chirurgical Faculty of Maryland. I came home consumed

with envy of the magnificent buildings in which they are housed and I have been dreaming ever since of the day when our society and our library will be safely and comfortably housed, of the day when the cherished vision of the founders of this society shall have been realized. One of the founders of this society, Alden B. Farnham, peace to his ashes! was a man of vision, a dreamer who died as many do still in the happy possession of his dreams, few of them having come to fruition: and one of his dreams was a home for this society. All ill-starred dream some will say, and one that came to naught. Cynics may always be found in plenty to rail at him who has striven and failed.

"Their feeble satire ne'er can do him wrong,
His dreams were dreams,
But hope and love were strong."

God bless the dreamer when all is said and done. If he has not been the mainspring of all the real progress the world has ever made, he has at least been the leaven of the whole lump; and so I say we should be thankful for the dreamer, and we should be grateful to our old friend Farnham for planting the seed which has grown into this excellent library, and for his early insistence upon the idea of a permanent and safe home which has come down through the years in the minds of most of the members. He who plants the seed does not always reap the crop. The ground may have needed more cultivation than he thought, he may have misjudged the warmth of the soil, the clouds were more in evidence than the sunshine or the expected showers were slow in coming and he could not wait, and so it was that others were enriched by the harvest. Let it be so, but let us not fail to plant the seed or till the soil because of the possibility that we may not reap the harvest.

The harvest time will come, if not to us, then to those who are on the way but have not yet arrived. In the sowing of the seed we may at least enjoy the fruits in anticipation.

"Some for the glories of this world, and some
Sigh from the prophet's paradise to come."

Let us if we may in the matter of our attitude toward this library home enjoy the companionship of both of these classes of whom the tuneful Omar sang.

But I hear the practical man say, why this pironetting in the clouds: Why not make a landing and announce a plan? I leave that to others. I

an indulging in a dream tonight and if the face of the morning reveals no indication of a realization of that dream, in other words, if the coming year does not show some progress in the matter of a home for our library, I shall be disappointed but not discouraged. Let us even though we be practical men, physicians, if you please, strongly inclined to the materialistic and the real, believe in, assert, and reassert the substantiality of this particular dream, until it becomes as it surely will in time an accomplished material fact!

ABSTRACTS

SALVARSAN CASES. Goldzieher, W., Budapest. (Centralblatt für prakt. Aug., 36, May, 1912, p. 129.) A man, aged 22, was almost totally blind from iridocyclitis, seclusion of the pupil and secondary glaucoma. The right eye had no sensation of light, the left only slight, with uncertain projection. The attempt to cut out a piece of iris failed, but the intraocular tension was diminished and the pain relieved. As the history revealed a former syphilitic infection, 0.45 salvarsan was injected into a vein. A wonderful improvement of the eyes was noticeable on the 2nd day, which was still greater after a 2nd injection of .35 after 2 weeks, with L V 5/10, R return of perception of light in temporal visual field. 10 days later a broad iridectomy was performed on each eye, and inunctions ordered. The concomitant deafness was also much improved. It apparently was due to a syphilitic affection of the auditory nerve. Case 2. A gumma of the size of an apple at the left upper orbital margin of a man, aged 30, healed at once after an intravenous injection of 0.5 salvarsan. The simultaneous gumma of the larynx subsided more slowly. G. says that the effect of salvarsan is the more sure, the more certain the syphilitic nature of the eye trouble is. Not every ocular affection in a syphilitic person is syphilitic, as illustrated on a man, aged 25, with diffuse chorioiditis and hyalitis, who gave very positive Wassermann's reaction. V. diminished under salvarsan, while tuberculin treatment, continued for quite a while, gave good results. G. had the most brilliant results in recent syphilitic iritis, the ordinary, papulous or gummatous forms), much faster than with the most energetic mercurial treatment. Salvarsan was also effectual, although not as fast, in luetic ocular palsies, especially total paralysis of the 3rd nerve. It had no effect whatever in parenchymatous keratitis and pigmented chorioiditis in hereditary syphilis, which G. consider as metasyphilitic, and atrophy of the optic nerve from central causes. Not quite certain was the result in recent chorio-retinitis and optic neuritis, in which G. prefers energetic mercurial inunctions.

Finally G. mentions a case in a man who had overcome by mercurial treatment various severe syphilitic attacks, also hemiparesis. He developed a left-sided retinitis with a peculiar solid exudation, so that the central portion of the fundus was converted into a white

mass with a greyish spot at the macular region. This healed after intramuscular injection of salvarsan, but a diffuse syphilitic retinitis with perivasculitis developed in the so far healthy eye, so that there was no sterilisatio magna. C. ZIMMERMANN.

ON THE INJURIOUS ACTION OF CHRYSAROBIN ON THE EYES. Igersheimer, J., (From the eye clinic of Prof. E. von Hippel in the University of Halle. Klinische Monatsblätter für Augenheilkunde, 50, I, May, 1912, p. 518), reports the clinical histories of 2 cases, which, after using chrysarobin ointment on the skin, showed the same affection of the eyes: Conjunctivitis without secretion and superficial punctated keratitis, consisting in fine greyish opacities of the cornea. The chrysarobin keratitis disappeared after a few days in some cases, in others it persisted for weeks; the iris was not involved. In some patients an ectogeneous origin by the introduction of particles of chrysarobin could be observed, but not in the majority. In some the chemical agent may have reached the lids intracutaneously and from there the conjunctival sac. In some, although rare cases, an absorption of larger quantities was surmised.

In experiments of rabbits J. could not produce an inflammation of the eyes, if the salve was brought on the surroundings of the eyes, but, if introduced directly into the conjunctival sac, a conjunctivitis with secretion and participation of the cornea resulted, similar to that in the patients. The anatomical examination of several globes of the rabbits, however, showed no distinct changes of the cornea. The characteristic intense photophobia in these cases is undoubtedly due chiefly to the corneal process. As the affection consists in a disease of the epithelium of the cornea, cocain is contraindicated, and, the iris not being involved, also atropin, which is apt to aggravate the photophobia. Besides discontinuing chrysarobin, a mild eye salve, e. g. of sublimate, and dark glasses will be most suitable. C. ZIMMERMANN.

ON A CASE OF PARALYSIS OF THE 4TH NERVE IN THE COURSE OF TYPHOID. Kummagai, N., Tokyo, (Centralblatt für prakt. Aug., 36, Sept., 1912, p. 262), reports a case of paralysis of the right 4th nerve in a man, aged 28, which developed at the end of the 3rd week of typhoid. Prism 9°, base downwards and outwards, fused the double images. Under aspirin, 1.50 daily, and subcutaneous injections of pilocarpin 0.1, every other day, the affection healed within 6 weeks.

Literature contains only one case of paralysis of the 4th nerve in typhoid, published by Runeberg. The pathogenesis of the ocular palsies in typhoid is difficult to explain. It may be of central origin, as Brown found softening in the nucleus of the abducens, or in consequence of meningitis, like in Boden's case, or due to peripheral neuritis, which is caused primarily by typhoid toxin, like most diphtheritic paralyzes. In typhoid also occurs a kind of waxy degeneration in various muscles, which occasionally may effect an ocular muscle. As in this case the typhoid took a light course, no brain symptom being present, K. assumed a peripheral neuritis.

C. ZIMMERMANN.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

J. PATEK, M. D., Milwaukee; G. E. SEAMAN, M. D., Milwaukee; O. H. FOERSTER, M. D., Milwaukee; C. S. SHELDON, M. D., Madison; S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc; J. V. MEARS.....Fond du Lac; O. T. HOUGEN..... Grand Rapids; G. WINDESHEIM..... Kenosha; H. W. ABRAHAM..... Appleton; R. U. CAIRNS..... River Falls; F. T. NYE..... Beloit; EDWARD EVANS..... La Crosse; J. M. DODD..... Ashland; W. CUNNINGHAM..... Platteville; T. J. REDELINGS..... Marinette; H. E. DEARHOLT..... Milwaukee

Annual Subscription Two Dollars Single Copies Twenty-five Cents

Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

APRIL, 1913.

No. 11

EDITORIALS

FRIEDMAN AND HIS SERUM.

In order to have some news from the front the editor asked Dr. T. H. Hay of Stevens Point, who has been in New York watching Friedman and his work, to give the readers of the Journal his impressions of what has been happening. His letter, from which only a few personal details have been eliminated, is as follows:

Elizabeth, N. J., Apr. 18, 1913.

Friedman is so erratic it is hard to express an opinion of him. He has absolute faith in his Remedy and treats everything presented from the cradle to old age and even to the verge of the grave, but he balked on those Seton Hospital cases which, as nearly as I can determine, are composed mostly of a fit lot to demonstrate the efficacy of an embalming fluid on. I think he has been much affected personally by a feeling of general antagonism to him. Nevertheless he has obtained remarkable effects in the majority of the joint cases treated and only time can show the permanent results. The pulmonary cases have either exhibited no change of any kind or improved subjective conditions, which, of course, might come from rest, air, and good diet. It is not claimed that lungs show changes in the physical signs for from five to eight weeks, in fact, usually not until after the second injection. (I hope to see these second injections.) So you see any opinion at this time would be rather premature.

The Vaccine is a slightly pearl-colored liquid, as injected. I am reliably informed that it contains acid-fast bacilli, morphologically T. B's. How this vaccine is produced from the culture is, I understand, the great secret. When the doctor finishes a clinic he carefully pours all left over down the sink before he lets go the vials.

What Friedman proposes to do with his "Cure" I don't think anyone knows, not even God Almighty. He has had all kinds of vultures about him making all kinds of offers, principally in the interest of "suffering humanity", but I fail to see where the latter will get in except by the fire escape. So far, he has refused to give up the secret for money and even his own brother does not possess it. But what he means to do ought to develop in a few days. So there you have the whole thing as it stands at this time.

Most sincerely yours, T. H. HAY.

PUBLIC MEETINGS.

We should never lose sight of the fact that the county society is working primarily in the interest of the public and while we are educating ourselves, the public through the county society, should be educated to an appreciation of medical ideals. It should be taught the true relation of the physician to society. It should know and understand what medical organization stands for, that we may receive the coöperation of the people in the work we are trying to do for them. An open meeting should be held each year to which the other profes-

sions and the public are invited. These meetings should be devoted to a discussion of some public welfare work.

The Madison County (Illinois) Society last year invited the legal fraternity to one of their meetings with "Law and Medicine" as the subject. This year they have invited the editors of the county to attend the meeting and discuss "The Relation of the Press to Medicine". What could be more productive of good than a meeting of this kind? It gives a chance for a sane discussion of advertising. The question of what is legitimate news as it affects the doctor could be opened up. The advertising doctor, the doctor who arrives just in time to save his patient and then tells the reporters all about it, the man who tries to gain an advantage over his professional brother by calling public attention to his wonderful skill, in the home paper, could all have their inning!

It can hardly be expected that the public shall be familiar with medical ethics nor should we wonder that they fail to appreciate them. They do not understand. The education of the public along these lines is work for the county medical society!

PREVALENCE OF ANTERIOR POLIOMYELITIS IN WISCONSIN.

The extent to which anterior poliomoyelitis is still prevalent in Wisconsin is shown by the fact that the last State Board of Health Bulletin, containing the reports for the months of October, November, and December, 1912, records the following cases: Brown County, 1 case; Columbia County, 2 cases; Dodge County, 3 cases and 2 deaths; Douglas County, 1 death; Grant County, 1 case; Iowa County, 2 cases; Jefferson County, 1 case; LaFayette County, 1 case; Milwaukee County, 2 deaths; Outagamie County, 1 death; Pepin County, 1 death; Richland County, 3 deaths; Rock County, 3 cases; Taylor County, 5 cases; Walworth County, 7 cases and 3 deaths; Waukesha County, 2 cases; Waupaca County, 3 cases; and Winnebago, 2 cases. Total, 33 cases and 13 deaths.

OCCURRENCE OF SPIROCHETA PALLIDA IN THE BRAIN IN CASES OF GENERAL PARALYSIS.

Noguchi and Moore in the Journal of Experimental Medicine for February report the results of examinations of seventy parietic brains. In this

series Noguchi succeeded in finding the pallidum in twelve out of the seventy specimens. The tissues were stained with the Levaditi silver method modified in certain respects to produce an elective stain for the pallidum. The specimens in most of the cases were taken from the first right frontal gyrus, in some from the left hemisphere or gyrus rectus.

The cases in which the pallida were found showed the classical physical signs but the majority were much below the average duration, as estimated by various authors, which varies from twenty-four to thirty-two months. Noguchi and Moore suggest that possibly the spirochetæ may be found more readily in those cases which run a fairly rapid course.

CHOLIN IN INOPERABLE CANCER.

Czerny and Werner, both of Heidelberg, have recently reported their results in the treatment of inoperable cancer by the use of cholin. Of the cholin salts both of these authors prefer the borate. Werner uses a 10 per cent. solution giving 2 to 3 c.c. diluted to 20 c.c. by intravenous injection. Later the dose is increased to 4 or 5 c.c. For injection into the tumor he used undiluted 10 per cent. solutions in doses of 2 to 5 c.c. He usually gives 4 or 5 injections a week. In all Werner has treated 171 patients, including inoperable or recurrent cases of various kinds. All were advanced and apparently hopeless cases. 122 patients did not derive any particular benefit from the treatment; in 28 cases a considerable improvement and decrease in the size of the tumor was observed; and in 21 cases marked improvement was manifested. In the last group of 21 cases were found 1 rectal carcinoma, 1 round-cell sarcoma, 2 lymphosarcomata, 1 carcinoma of the parotid gland, 7 mammary carcinomata, 2 uterine carcinomata, 2 carcinomata of the stomach, 1 carcinoma of the bladder, and 1 of the gall bladder.

Werner thinks that under the administration of cholin the tumors soften and become fluid in a manner similar to the changes seen in mice cancers under chemo-therapeutic remedies. He considers it too early to speak of the ultimate value of this method of treatment as he has used it for only about a year and he gives emphatic utterance to the warning that these non-operative measures should be applied only in cases in which an operation cannot be performed, or in order to prevent recurrence after an operation.

PSYCHOTHERAPY IN ORGANIC DISEASES.

We in the medical profession are so familiar with the credulity of the American public, and we have struggled so frequently to protect from quacks and charlatans this public which usually does not open its eyes wide enough to appreciate its need of protection, that we are at times inclined to view this situation as a purely American condition. It is therefore reassuring to review the history of the various forms of psychotherapy, or the cure of symptoms of disease by means of mental influence, and to realize that these systems in one form or another are almost as old as history, and that each in its turn has faded and died without preceptibly hindering the steady though gradual development of scientific medicine.

In an interesting article on Psychotherapy in Organic Disease (Albany Medical Annals, Jan., 1912) Walsh recalls to our minds the story of Perkins and his Tractors. Nearly a hundred years ago, not long after Galvani's discovery of the fact that if two pieces of metal of different kinds in contact are made to touch an exposed nerve and muscle in a frog's leg the muscles twitch, Perkins adopted this idea and proceeded to apply it in medicine. He took two pieces of metal about the thickness and length of lead pencils, and tapering towards one end and stroked people with them. It was not long before Perkins' Tractors began to work wonders. He did not succeed very well in this country at first, but he had a wonderful success in Europe, going first to Copenhagen and later to England. He "cured" thousands of cases of chronic disease, especially of so-called cases of chronic rheumatism and made an immense amount of money. As Dr. Walsh relates the reputation of this wonderful invention was somewhat impaired after a time by the fact that an English physician used a pair of wooden tractors painted to resemble metal, and got exactly the same results.

Apparently Perkins sincerely believed in his tractors for some time after his return to America, when Philadelphia was in the midst of one of its serious epidemics of cholera he declared that his tractors could not only cure the disease, but would prevent it. He went to Philadelphia, caught cholera and died.

In the next generation St. John Long rubbed a magic liniment of which he alone possessed the secret, upon the aching shoulders and knees and elbows and hips and backs of the English nobility

and produced so many wonderful cures that Parliament finally bought his secret from him and published it to the world for the benefit of mankind. It was only an ordinary liniment and as soon as its composition was known it ceased to work any magical cures.

In commenting on these incidents Dr. Walsh remarks that "in all these cases the effective therapeutic agent at work was surely not the tractors—though the liniment may have done some good—but was the expectant condition of mind of the patient aroused by many cures that they had heard of". And again he states: "Evidently organic disease can be distinctly modified by mental influence." In illustration of this view he goes on as follows: "I have known a patient who suffered for some months from what was thought to be indigestion and then finally when examined proved to have a tumor in the gastric region. Cancer was diagnosed and an exploratory incision made, though the patient, of course, was told that an operation in the sense of an attempt to remove the cancerous growth was intended. It was found that conditions were unfavorable for radical operation and the patient was simply closed up. On recovery from the anesthetic he was not told that his case was inoperable, but that now that an operation had been done he ought to be better. It was intended to break quietly to him later just what the state of the case was, though there was some thought that probably that would not be necessary and the progress of the case would make the revelation to him. During his convalescence his appetite returned, he began to take more interest in life, he lost the sense of discouragement that had marked the last few months, and feeling that whatever discomfort he now felt could all be referred to the operation scar, he proceeded to gain in weight. During the course of six months he gained over thirty pounds in weight. Of course, he subsequently died of his cancer, but not without having been given many months of vigorous active life and a sense of well being that was eminently worth while. I believe that there are cases on record where patients have gained forty, fifty, and even sixty pounds weight under similar circumstances. Here is a typical example of the influence of mind over body and its power to overcome even the depressing effect of the growth of a cancer in the system."

Dr. Walsh continues: "It is not for the special nervous diseases or those that have their seat in the mind, but for the thoroughly physical affec-

tions that psychotherapy needs to be used most. Organic disease is often quite amenable to treatment in this way and we are bound to see every helpful factor that we can. In tuberculosis the state of the patient's mind is all important. It has been well said that tuberculosis takes only the quitters. A patient who faces the outlook bravely may very well live in spite of such ravages of the disease in the lungs as makes it hard to understand just how life can be continued. Our three greatest specialists in tuberculosis in this country were all given up as hopelessly affected by the disease in their earliest career, yet all have done fine work. In heart affections of all kinds, not alone the cardiac neuroses, but in organic heart affections, the patient's state of mind means more than any drug that we can give him. Drugs are helpful, but the background of encouragement or discouragement is all important."

A little further on Walsh observes: "In our own times when we see around us the very interesting results of the influence of mind on body as exercised by the various schools of New Thought and Mental Healing, and the various classes of irregular practitioners who do many different kinds of stunts with their patients, none of which we know, however, are of serious therapeutic significance, but who yet are able to cure them or at least relieve many of their symptoms by securing diversion and occupation of the mind, we must come to use psychotherapy even more than before. It is the very newest thing according to the new thoughts, it is the very oldest thing in therapeutics on earth, but then after all, we physicians are familiar with the fact that the very newest of the new is a first baby's first tooth, though babies have been having teeth from time immemorial."

And again: "What we need is to keep before us certain definite ideas with regard to the place and the power of mental influence. Patients must be aroused out of any discouragement in which they sink. Unfavorable suggestions must be removed. They must not be allowed to cherish certain forebodings with regard to the course of their disease nor to keep turning over in their minds dreads of developments that may come."

"There has been general recognition of these psycho-therapeutic ideas for nervous affections, but little appreciation of their value in even serious organic diseases. Prof. Richet called attention not long since to the fact that in these conditions the physician can seldom cure, can often relieve, and

can always comfort and console. This very bringing of consolation keeps patients from using up their natural forces through worry. The increase of resistive vitality which results is often extremely helpful. The psychotherapy of organic disease then, is a large and important field little tilled as yet but of great promise."

The entertaining paper from which these extracts have been quoted is well worth reading and the suggestions contained in it should receive consideration, but one's enthusiasm for psychotherapy should not run to the extent of causing a neglect of accurate diagnosis and intelligent therapeutics. To the average practitioner of medicine a conscious dabbling in psychotherapy would result in slipshod methods of practice. In the words of Meltzer which we have already quoted in these columns: "Have a thorough knowledge of your subject which entitles you to speak with conviction; be sincere in your dealings with your patient so as to gain his confidence; have sincere sympathy with your client which ought to manifest itself without obvious demonstration; be practical in your advice, and talk in common-sense terms—and you will have practiced psychotherapy honestly and successfully."

DOCTORS IN TIMES OF PERIL.

"During the recent period of disaster and havoc ordinary events were relegated to the back pages of the newspapers. Every issue of the dailies was full of heartrending and pathetic stories of disasters, storms and floods. The people responded to the call for help with the magnanimity and promptness which characterize the nation. From the scenes of the disaster came the call for food, clothing and shelter. But before this there came a call for physicians to minister to the wounded, the sick and the dying. From almost every afflicted locality soon came the statement, 'A special train carrying volunteer physicians, nurses, dressings and medical supplies is on the way to the scene of disaster.'

"So it is after every great calamity. The first men on the scene are physicians, performing their sacred work of saving life and relieving the suffering. This happens so constantly as to be an accepted occurrence. No one expresses any surprise. On the contrary, surprise would be aroused only if the nearest available physicians ever failed to respond in numbers equal to the need.

"At such times what becomes of the innumerable sects and cults, which, under ordinary condi-

tions, are constantly trying to usurp the place of the scientific medical profession and undermine the confidence of the public? Apparently they sink into obscurity and silence. When the emergency arises, what have they to offer? Suppose the dispatch from Ohio last week had read: 'A special train containing one hundred osteopaths is on the way to Dayton. All of the sufferers will be given spinal adjustments as soon as the train arrives.'

"Or let us suppose that those who disdain all material methods should emerge from their state of self-absorption long enough to do something practical: 'Senator Works telegraphs that he has arranged for a special train, containing one hundred Christian Science healers, to be sent to Omaha. This train has been given the right of way over all railroads. All persons injured in the cyclone and the blizzard will be given mental treatment as soon as the train arrives.' No such items have appeared in any of the newspapers. They would be greeted with laughter from all over the country. The peculiarity common to all of the unscientific and irrational cults and fads is that, in times of real peril and need, they have nothing to offer. When lives are in danger and when death rides on the wind and waters, the people want the men of scientific training and experience, of cool judgment and steady nerves, who can carry to them all the aid the human intellect in its centuries of struggle has been able to discover. Fads and isms may be followed by some of our people in times of peace and safety, but they fail when real danger threatens."—*Journal of the American Medical Association*.

FOURTH INTERNATIONAL CONGRESS ON SCHOOL HYGIENE.

There is now being arranged for the Fourth International Congress on School Hygiene, which is to be held in Buffalo, August 25-30th inclusive, a comprehensive program of papers and discussions covering the entire field of school hygiene. There will be scientific exhibits, representing the best that is being done in school hygiene, as well as commercial exhibits of practical and educational value to school people. Nor will the entertainment of the delegates in any way be a minor feature. Plans are being made for a series of social events, including receptions and a grand ball, a pageant in the park, and excursion trips to the great industrial

plants of Buffalo, as well as to the wonders of Niagara Falls, and the Rapids. Buffalo itself has just taken up a collection of \$40,000, for the purpose of covering the expense of the Congress.

Delegates will attend from all the leading nations, from every college and university of note in this country, and from various other educational, scientific, medical and hygienic institutions and organizations. The Congress is further open to all persons interested in school hygiene.

THE USE OF GLYCERINATED ALCOHOL FOR WET DRESSINGS.

Doerken is of opinion that this application will entirely replace the use of liq. alumin. acet., which is sometimes irritating, especially to children with an exudative diathesis. In their case the application of the aluminum dressing, even for a short time, produces reddening of the skin, which develops into a rash, if the dressing is not removed. The preparation recommended is a mixture of equal parts of glycerine and alcohol, 96% strength, in which the dressings are soaked, and then wrung out for use. Over the dressing is placed a piece of Billroth's batiste, and over this a layer of absorbent wool, to hinder the evaporation of the alcohol. Dressings of this kind have been used successfully in cases of suppurating glands, mastitis, purulent inflammations, omphalitis in the new-born babies, etc.

The mixture can also be used with advantage in place of alcohol for rubbing into the skin, for instance, in the case of broncho-pneumonia. The skin is not excoriated. Applied on a dressing surrounding the neck, it is useful for treating the affections due to chills, so common in infancy. Doerken carried out several experiments to compare the effect of this glycerinated alcohol with that of other topical applications and found it possessed marked antiphlogistic properties, with a minimum effect upon the skin. He considers it the dressing for choice in infants and children. (*Therap. Monatshefte*, abstracted in *Practitioner*.)

THE INTRA-PERITONEAL USE OF CAMPHORATED OIL.

Hirschel continues to urge the use of the procedure first suggested by him in 1907. He uses a 1 per cent. solution when peritonitis is already present. The surface of the peritoneum is swabbed clean of pus, and the peritoneum is then swabbed

in all parts, including all the folds and diverticula, especially the pouch of Douglas, with wool swabs soaked in the camphorated oil. The abdominal wound is then closed up, leaving openings for the drainage. He has often introduced in this way 200 to 300 c.c. of oil; about 30 to 50 c.c. escape when the sutures are drawn tight. The effect on the heart is produced slowly, but it is lasting, whereas hypodermic injections of the same liquid are useless. He has never seen any ill effects. The oil prevents the formation of adhesions. (Münch. Medizin. Wochenschr., abstracted in Practitioner.)

THE POOR ORPHAN.

An old country-woman stepped into a suburban drug-store and laid on the counter a prescription for a mixture containing two decigrammes of morphia.

The druggist exercised the utmost care in weighing the dangerous drug.

"What a shame!" she cried. "Don't be so stingy; it's for an orphan girl."

—April Lippincott's.

NEWS ITEMS AND PERSONALS

DR. SARA T. ELLIOTT, Waukesha, is at Lake Worth, Florida, for an indefinite stay, on account of ill health.

DR. GEO. H. SCHEER, Sheboygan, has been appointed by Governor McGovern, as a first lieutenant in the medical corps of the Wisconsin National Guard.

DR. EDWARD HOUGEN, Pittsville, suffered a fractured foot and a sprained ankle in a runaway accident on March 19th.

DR. JAMES W. FREW, Milwaukee, surgeon Troop A., Wisconsin National Guard, is attending the army medical school at Fort Leavenworth.

DR. ROCK SLEYSER, Waupun, has been elected mayor of that city. The Waupun Democrat in its issue of April 4th, in commenting on the election says: "The candidates who had competition had to put up a stiff fight to win out, the afternoon of election day reaching the boiling point. Mayor and street commissioner had the most candidates, Dr. Sleyser's victory being won against three rivals.

"Our congratulations are extended to the new mayor. We hope he will do things. He is young, independent, enthusiastic and abreast of the times.

Aided by the advice of experienced councilmen and his own observation of what the city needs, we believe he will put it in a condition and position which will make us all proud to be citizens of Waupun."

Work on the Eau Claire County Tuberculosis Sanatorium will commence at once. The building will cost \$16,000.

Marquette University Medical School at a meeting of the faculty, held on March 13, decided to drop seventeen students from the school as the result of the semester examination. This is in line with the policy of the school to raise the standard of medical education. Marquette is considering requiring students to spend five years in the medical course.

DR. G. H. CAREY, of Merrill, has removed to Los Angeles, Cal., where he will establish a practice.

DR. GILLETTE, Packwaukee, is critically ill at the Portage Hospital. Blood poison resulted from an infection while he was treating an erysipelas patient.

DR. SIMON BERGLUND, of Marinette, is said to have been poisoned by eating a breakfast food containing flaxseed, on April 12th. He is reported recovering.

DR. HERBERT W. POWERS, for seven years at the Kenilworth Sanitarium, has joined the staff of the Milwaukee Sanitarium at Wauwatosa as senior assistant physician.

Revised Itinerary of the Travel Study Tour to the XVII. International Medical Congress, London, Aug. 6-12, 1913.

THURSDAY, JULY 3rd—Leave New York by North German Lloyd Twin-Screw Steamship "Bremen."

PARIS: Arrive Saturday, July 12th, noon.

Sunday, July 13th.

Monday, July 14th.

Tuesday, July 15th, leave Paris at about 5 p. m. for Munich.

MUNICH: Arrive Wednesday, July 16th, 8:30 a. m.

Thursday, July 17th, leave for Vienna at noon.

VIENNA: Arrive Thursday, July 17th, 9:30 p. m.

Friday, July 18th.

Saturday, July 19th.

Sunday, July 20th, leave for Marienbad, 8:30 a. m.

MARIENBAD: Arrive Sunday, July 20th, 4:30 p. m.

CARLSBAD: Arrive Monday, July 21st, about noon.

JOACHIMSTAL. Excursion from Carlsbad on Tuesday, July 22nd. Leave Carlsbad Wednesday, July 23rd.

DRESDEN: Arrive Wednesday, July 23rd, about 4:00 p. m.
Thursday, July 24th, leave for Berlin, about 4:00 p. m.

BERLIN: Arrive Thursday, July 24th, about 6 p. m.
Friday, July 25th.
Saturday, July 26th.
Sunday, July 27th, excursion to Potsdam.
Monday, July 28th, leave for Frankfurt a.M. at 8:00 p. m.

FRANKFURT a.M.: Arrive Tuesday, July 29th, 8:00 a. m.

WIESBADEN: Arrive Tuesday, July 29th, at noon.

HOMBURG a.H.,

BAD NAUHEIM,

Wednesday, July 30th.

ON THE RHINE: Thursday, July 31st.

COLOGNE: Arrive Thursday, July 31st, 5:00 p. m.
Friday, August 1st, leave 3:00 p. m.

BRUSSELS: Arrive Friday, August 1st, 7:00 p. m.
Saturday, August 2nd.
Sunday, August 3rd, leave for the Hague, 9:30 a. m.

THE HAGUE: Arrive Sunday, August 3rd, 1:30 p. m.
Spend evening in Scheveningen.
Monday, August 4th, leave for Amsterdam, 10:24 a. m.

AMSTERDAM: Arrive Monday, August 4th, 11:22 a. m.
Leave Monday, August 4th, 9:45 p. m., via Hook of Holland for London.

LONDON: Arrive Tuesday, August 5th, 8:30 a. m.
Wednesday, August 6th.
Thursday, August 7th.
Friday, August 8th.
Saturday, August 9th.
Sunday, August 10th.
Monday, August 11th.
Tuesday, August 12th.
Wednesday, August 13th.

The tour ends on Wednesday morning, August 13th, and members of the party may return independently according to their own personal plans. On account of heavy west-bound ocean traffic, however, it is most advisable to book for the return definitely, before sailing from New York.

DR. RICHARD KOVACS, *Secretary*.
236 East 69th Street.
New York City.

REMOVALS

Dr. L. A. Shogren, Oshkosh to Bayfield.
Dr. J. T. Laughlin, Rosholt to Alma Center.
Dr. E. P. Andrews, Lodi to Portage.
Dr. Martin Hagen, Soldiers Grove to Viroqua.
Dr. F. E. Ellison, Beloit to Argyle.

DEATHS

Dr. T. H. McCarthy, of Fair Oaks, near Madison, died suddenly on April 1st of apoplexy, aged 38 years. He was a graduate of Rush Medical College, class of 1900. He spent one year as interne of St. Francis Hospital, LaCrosse. From 1902 until 1907 he practiced at Janesville. He was a member of the Dane County and State Medical Societies.

Dr. P. B. Stewart, of Chetek, formerly of Iron River and Lake Nebagamon, died on March 5, aged 43 years. The cause of death is not announced. Dr. Stewart graduated at the University of Vermont, College of Medicine, in 1898. He was a member of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society.

ON THE EFFECT OF SALVARSAN ON THE EYE. Fehr, Oscar, (From the eye department of the Rudolf Virchow-Krankenhaus at Berlin. *Centralblatt für prakt. Augenheilkunde*, 36, June, 1912, p. 164), reports on his experiences with salvarsan and gives the following resumé: In none out of 2,700 syphilitic patients, treated with salvarsan, a damage to the optic nerve has been observed. The forms of optic neuritis, seen after the treatment, presented the same ophthalmoscopic aspect and the same course as those discovered before the injection, which partly had been treated elsewhere with mercury. Likewise the other ocular affections, which occurred after salvarsan treatment, remained in the scope of pure relapses of lues. Only in 1 case of paralysis of the 3rd nerve in tabes there was reason for assuming a causal connection. A striking cumulation of relapses on the eye could not be ascertained. Iritis and neuro-relapses on the optic and ocular nerves were decidedly less frequent within the last year which is to be attributed to the more energetic salvarsan treatment now adopted. The therapeutic failures of the first period of salvarsan treatment must not be charged to salvarsan, but to the insufficient doses, for the curative results have become better with the perfection of the methods. We have now learned to give 10 times the former doses without detriment to the organism and especially the eye. The best results were noted in those ocular affections, in which also mercury is very effectual. The action of salvarsan is undoubtedly faster and more energetic. It is of especial value when irreparable damage is to be feared in longer durations of the syphilitic process. In affections, in which mercury is of doubtful value not too much must be expected from salvarsan. It helped, however, in a series of cases where iodine and mercury failed. It will take decennia to gain a final judgment on the value of salvarsan. Our experiences so far are such that there is no reason for pessimism, and it is our duty to continue our efforts for trying Ehrlich's remedy, which is at least a valuable addition to our weapons against syphilis.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1912-1913.

ARTHUR J. PATEK, Milwaukee
President

C. A. ARMSTRONG, Boscobel
1st Vice President

L. E. SPENCER, Wausau
2d Vice President

JOHN MATHIESON, Eau Claire. 3rd Vice President

CHAS. S. SHELDON, Madison Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917
1st Dist., M. R. Wilkinson, - Oconomowoc
2nd Dist., G. Windesheim, - Kenosha

TERM EXPIRES 1913
5th Dist., J. V. Mears, - Fond du Lac
6th Dist., H. W. Abraham, - Appleton

TERM EXPIRES 1915
9th Dist., O. T. Hougen - Grand Rapids
10th Dist., R. U. Cairns, - River Falls

TERM EXPIRES 1918
3rd Dist., F. T. Nye, - Beloit
4th Dist., W. Cunningham, - Platteville

TERM EXPIRES 1914
7th Dist., Edward Evans, - La Crosse
8th Dist., T. J. Redelings, - Marinette

TERM EXPIRES 1916
11th Dist., J. M. Dodd, - Ashland
12th Dist., H. E. Dearholt, - Milwaukee

Delegates to American Medical Association.

F. BENNETT, Beloit.

J. J. McGOVERN, Milwaukee.

C. A. HARPER, Madison.

Alternates

F. S. WILEY, Fond du Lac.

F. T. NYE, Beloit.

J. J. REDELINGS, Marinette

Committee on Public Policy and Legislation

A. W. GRAY, Milwaukee, Chairman.

J. P. McMAHON, Milwaukee

F. F. BOWMAN, Madison.

Committee on Medical Defense.

G. E. SEAMAN, Milwaukee, Chairman.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

Committee on Prevention of Tuberculosis.

M. P. RAVENEL, Madison.

G. E. SEAMAN, Milwaukee.

C. A. HARPER, Madison

J. M. BEFFEL, Milwaukee. T. H. HAY Stevens Point

Program Committee.

W. F. ZIERATH, Sheboygan.

L. M. WARFIELD, Milwaukee, Chairman.

C. S. SHELDON, Madison.

Committee on Arrangements.

C. A. EVANS, Milwaukee, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER 1-3, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	W. T. Rinehart, Ashland	C. J. Smiles, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	W. L. M. Kuowles, Spooner	B. N. Webster, Rice Lake.
Brown-Kewaunee	Julius J. Bellin, Green Bay	I. E. Levitas, Green Bay.
Calumet	L. Bolton, Chilton.	P. P. Knauf, Kiel.
Chippewa	C. A. Hayes, Chippewa Falls	A. L. Beier, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	B. F. Bellack, Columbus.	A. T. Schmeling, Columbus
Crawford	C. B. Lumsford, Gays Mills.	A. J. McDowell, Soldiers Grove.
Dane	C. A. Harper, Madison	F. S. Meade, Madison.
Dodge	J. A. Clason, Neosho	G. W. Henika, Beaver Dam.
Door	T. J. O'Leary, Superior	N. Z. Wagener, Sturgeon Bay.
Douglas	E. H. Grannis, Menomonie	W. E. Hatch, Superior.
Dunn-Pepin	A. L. Payne, Eau Claire	L. A. Dahl, Menomonie.
Eau Claire	L. A. Bishop, Fond du Lac	E. Tupper, Eau Claire.
Fond du Lac	J. C. Betz, Boscobel	F. A. Read, Fond du Lac.
Grant	L. A. Moore, Monroe	M. B. Glasier, Bloomington.
Green	G. E. Baldwin, Green Lake	S. R. Moyer, Monroe.
Green Lake-Washara-Adams	J. P. Parmley, Mineral Point	R. H. Buckland, Green Lake.
Iowa	V. T. Clark, Ft. Atkinson	H. D. Ludden, Mineral Point.
Jefferson	T. S. Lawler, Lyndon Station	C. R. Feld, Watertown.
Juneau	William Pugh, Kenosha	A. T. Gregory, Elroy.
Kenosha	Oscar Houck, La Crosse	C. H. Gephart, Kenosha.
La Crosse	J. C. Hubenthal, Belmont	G. W. Lueck, La Crosse.
Lafayette	W. Moore, Antigo	Susanne Orton, Darlington.
Langlade	C. C. Walsh, Merrill	J. C. Wright, Antigo.
Lincoln	Max Staehle, Manitowoc	Herbert Saylor, Merrill.
Manitowoc	L. E. Spencer, Wausau	A. J. Shmek, Manitowoc.
Marathon	H. F. Schroeder, Marinette	S. M. B. Smith, Wausau.
Marinette-Florence	C. H. Lemon, Milwaukee	M. D. Bird, Marinette.
Milwaukee-Ozaukee	A. E. Winter, Tomah	Daniel Hopkinson, Milwaukee.
Monroe	J. B. Atwood, Oconto	A. R. Bell, Tomah.
Oconto	J. T. Elliott, Rhinelander	R. C. Faulds, Abrams.
Oneida-Forest-Vilas	G. M. Maes, Kimberly	C. A. Richards, Rhinelander.
Outagamie	A. E. Gendron, River Falls	F. P. Dohearty, Appleton.
Pierce	A. E. MacMillan, Stevens Point	S. F. Rudolf, Elisworth.
Portage	C. E. Fenelon, Phillips	W. F. Cowan, Stevens Point.
Price-Taylor	J. S. Keech, Racine	G. H. McClure, Westboro.
Racine	R. H. De Lap, Richland Center	Susan Jones, Racine.
Richland	Frank W. Van Kirk, Janesville	G. R. Mitchell, Richland Center.
Rock	G. M. Carnahan, Bruce	F. E. Sutherland, Janesville.
Rusk	D. Hulbert, Reedsburg	W. F. O'Connor, Ladysmith.
Sauk	J. R. Kingsley, Sheboygan	Roger Cahoon, Baraboo.
Shawano	L. A. Campbell, Clear Lake	C. E. Stubenvoll, Shawano.
Sheboygan	E. A. Moore, Merrilan	W. F. Zierath, Sheboygan.
St. Croix	John Schee, Westby	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	H. C. Miller, Whitewater	H. A. Jegl, Galesville.
Vernon	W. J. Wehle, West Bend	F. E. Morley, Viroqua.
Walworth	Margaret Caldwell, Waukesha	M. V. Dewire, Sharon.
Waukesha	P. J. Christofferson, Waupaca	S. J. Driessel, Barton.
Waupaca	L. P. Allen, Oshkosh	Sara T. Elliott, Waukesha.
Winnebago	J. A. Jackson, Rudolph	G. T. Dawley, New London.
Wood		H. W. Morgenroth, Oshkosh.
		J. B. Vedder, Marshfield.

SOCIETY PROCEEDINGS

CALUMET COUNTY

The Calumet County Medical Society met at the Hotel Thomas, Forest Junction, March 27th, at 10:30 P. M. Dr. I. N. McComb was appointed censor for the unexpired term of Dr. Greengo who has removed from the county. Dr. R. E. Dorn was elected censor for three years. The society endorsed Bills relating to the prevention and cure of Tuberculosis now before the legislature and the secretary was instructed to communicate with our representatives at Madison, urging them to give these bills their earnest support. The secretary was also instructed to inform the State Industrial Commission what the minimum prices for treatment of casualties under the Workmen's Compensation Act are in this county.

Drs. McComb and Schmidt were appointed a committee to select date for the fourth annual automobile run and to make all arrangements. It was decided to include in our itinerary a visit to the new Manitowoc County Tuberculosis Sanatorium.

Dr. Sleyster of Waupun then addressed the society. His effort was enthusiastically received. It was one of those happy addresses that the doctor knows well how to make. This was followed by a paper by Dr. Lawler on *The High Cost of Living and the Physician's Fees*. This paper brought a thorough discussion of this important subject which lasted until almost 2 A. M. A committee was appointed to confer with the county newspaper men relative to inserting the card of the *County Medical Society* in the papers.

The society then adjourned to the dining room and partook of coffee and luncheon, and it then being train-time the doctors left for their homes, having spent a pleasant and profitable evening. Notwithstanding the unseemly hour of meeting it was the best attended meeting of the year. The Forest meeting is surely a fixture and the thanks of the society are due Dr. MacCollum for his share in making the evening comfortable and pleasant for his colleagues.

F. P. KNAUF, M. D., *Secretary*.

COLUMBIA COUNTY

Columbia County Medical Society met at Portage on March 12th. The following officers were elected: President, B. F. Bellack, Columbus; vice-president, O. O. Force, Pardeeville; secretary-treasurer, A. F. Schmeling, Columbus; censors, John Roberts and B. C. Meacher, delegate, O. O. Force, Pardeeville.

Dinner was served at the Hotel Portage.

DOUGLAS COUNTY

Douglas County Medical Society held a meeting at the Commercial Club rooms, Superior, April 2nd. The business session followed a dinner. Those attending were: Drs. L. K. Lohmiller, W. E. Hatch, W. H.

Zwickey, C. H. Mason, P. G. McGill, H. J. Orchard, John Baird, C. S. Knox, T. J. O'Leary, C. W. Giesen, Campbell, C. M. Gould, and A. G. Hovde.

LANGLADE COUNTY

Langlade County Medical Society held a very successful meeting on March 15th, at the Butterfield Hotel, Antigo. Dr. Jos. Smith of Wausau read a paper on Renal Tuberculosis, which was followed by a general discussion.

To Dr. Wright, who had charge of the arrangements, the success of the meeting is due.

KENOSHA COUNTY

The regular meeting of the Kenosha County Medical Society was held at the home of Dr. G. Windesheim, April 4th, with twenty-eight members present. Dr. M. A. Bernstein was elected to membership.

Dr. Wallace Blanchard of Chicago, addressed the Society on "Tuberculous Arthritis". He showed several cured cases and also some cases under treatment.

Dr. Ripley brought before the Society a Bill known as No. 653A, prepared by Mr. Umbreit of Milwaukee, for the regulation of the healing art in Wisconsin, especially that section relating to the appointment of board members provided for under this law. An original draft of this Bill, sent out to members of the State Board of Medical Examiners and others interested, restricted the Governor in his appointments to lists of physicians recommended by the various state medical societies and corporations. In a second draft of this Bill, printed in the March Wisconsin Medical Journal, the power of selection was placed without reservation in the hand of the Governor, i. e., political allegiance and support and not scientific attainment would determine the membership of this Board. According to the personal belief of the future governors, this Board could be made up entirely of osteopaths, eclectics, homeopaths or regulars, as he wished. A condition which no physician with the interest of the medical profession or the people of the State at heart, could countenance for a moment.

The following motion was made by Dr. J. B. Spaulding and carried unanimously: "That the Kenosha County Medical Society disapprove of the section of this Bill (653A) relating to the appointment of Board members as now drafted, and that we authorize Dr. Ripley to use the influence of the Society in an effort to get the original Bill before the Assembly."

C. H. GEPHART, M. D., *Secretary*.

MILWAUKEE COUNTY

The Milwaukee County Medical Society held its regular meeting in the Public Museum, Milwaukee, on March 15th. Papers were read by Drs. L. F. Jermain, L. M. Warfield, John R. McDill and A. F. Boretti. Dr. Halsey, a former Milwaukeean, now an assistant United States surgeon, was the guest of the Society.

THE ASSOCIATION OF
COUNTY SECRETARIES AND STATE OFFICERS
of the STATE MEDICAL SOCIETY of WISCONSIN

M. D. BIRD, M. D., Marinette M. B. GLASIER, M. D., Bloomington
President. Vice-President.

ROCK SLEYSER, M. D., Waupun, Secretary.

NEXT ANNUAL SESSION, MILWAUKEE, 1913.

Under this heading will be published each month, papers, editorials, sermons, reports of meetings and all that relates to the County Medical Societies of the state. To it all are invited and asked to contribute, especially the County Secretary. It is yours—make good use of it, and may it be of help to every County Society. It will be edited by Rock Sleyser of Waupun, secretary of the new association, to whom all communications, for this department, reports of meetings and news matter should be addressed.

SOME THINGS THE COUNTY SOCIETY
CAN DO TO AID IN SECURING MEDI-
CAL LEGISLATION.*

BY A. W. GRAY, M. D.,

MILWAUKEE.

It would be possible to write volumes upon the subject assigned to me which is, "Some Things the County Society can do to Aid in Securing Medical Legislation and Enforcing Present Medical Laws," but do not be alarmed. I propose to take but a few minutes of your time.

Some years ago when we thought we needs must advocate certain legislation which was strenuously opposed by the newspapers, the State Medical Society had a legislative organization which was very effective. The needs of the time created the organization. But in the last few years we have been asking very little of the legislature and in consequence very little has been required of county societies. It has been possible to do by individual effort all that had to be done. But now it is very apparent that the time is shortly coming, in fact it is probably already here, when we shall again have to perfect our organization and prepare ourselves to come down upon the legislature with all the force and influence which we can bring to bear. I shall proceed to treat the subject of my paper under two heads:

1. Why is it necessary for us to use our influence?
2. How are we going to use it?

*Read at the Third Annual Meeting of the Association of County Secretaries and State Officers, Wausau, May 21, 1912.

The answer to the first question—why is it necessary for us to use our influence?—is twofold. Ignorant opposition on the one hand and intelligent opposition on the other, pool their influence to offset ours, and this pooled influence is being used against us every day to stop our march of progress toward medical and health ideals. Ignorance, being inert, is a block to all progress, but it is especially a block to progress along lines of public health and sanitation. The average citizen and the average legislator are unable to grasp the details of the simplest health problems unless these problems have to do with cattle and, in addition, look with native suspicion upon everything offered or backed by the medical profession. However, ignorance can be overcome, as we have demonstrated again and again in the past.

But there is an *intelligent* opposition on the other hand, which has lately so organized itself and thereby become so powerful that we must of necessity recognize its strength and prepare ourselves to meet it. I refer to the so-called League of Medical Freedom. It is said that this organization is made up of patent medicine men, quacks, irregulars, and Christian Scientists, but the real strength of the organization, as I know from experience, is in the Christian Scientists. Now do not underestimate this strength. You may think that a thing which represents to you a mere negation of your five senses, and is therefore a will-o-the-wisp, can have no real strength, but I want to assure you that each Christian Scientist *feels* more deeply, and *thinks* that he thinks more profoundly than you or I do in our matter-of-fact environment, and I want to impress upon you the fact that he *acts* accordingly. It is this influence which at the present time is showing its strength in opposition to the Owen bill, and which in my opinion will prove more than a match for the American Medical Association at the present session of Congress. During the last session of our legislature this well organized religious body maintained the most active and effective lobby there was at Madison. It scrutinized, and made its influence felt against every act which could have the slightest bearing upon progress in health and medicine. It actually defeated the school inspection act. It will attempt to do so again at the next session. It is opposed to the educational propaganda on tuberculosis and to every other state effort along the line of preventive medicine. You can see therefore that it is necessary for us to take this influence into account.

It has always been our policy to ignore the Mother Eddyites, even going so far as to except mental healing in defining what constituted the practice of medicine, and this policy was adopted because we believed that our opposition, or any opposition, to their practice would increase their strength. Irregular medicine, and Christian Science is irregular medicine, has always waxed fat on opposition. I still believe that we should not oppose their practice, although we must insist that they obey quarantine regulations and all laws dealing with public health, but in these new activities which they have undertaken, in their active lobbying against progress in preventive medicine, we must prepare to meet them, and in order to do this successfully we must not underestimate their strength. A few words in explanation of how they exert their influence. Legislators have great respect for numbers and Christian Scientists are numerous. I am informed that there are 25,000 in the state of Wisconsin. Now John Jones, Christian Scientist, does not sign himself "Christian Scientist" when he sends his letter or telegram in opposition to a health measure, but he registers himself as a voter or taxpayer. His motive is unknown to the legislator, but the fact that he is a voter is well known. Don't you see how it works? When many thousand letters and telegrams from these zealots pour into the legislature you can easily understand the result. Likewise, when they appear in large numbers at committee hearing, as they did in opposition to the school inspection act during the last legislature, they appear as citizens merely. They wish not to be known as Christian Scientists, and so, with their numbers, and with their arguments for "medical freedom," whatever that means, against the "doctor trust," they carry a greater weight than you appreciate.

How are we going to use our influence to the best advantage? As you know we now have the skeleton of an organization for this purpose, but it must be extended. We have our state society committee on public health and legislation and we have, or are supposed to have, a similar committee in each county. And more important than the latter we have our county secretaries, who as executive heads in our unit organizations are in close touch with local conditions. Now we, the state committee on public policy and legislation, want in the first place, the hearty coöperation of county secretaries: for with the secretaries, in fact if not in theory, lies all the initiative in county societies.

The county secretary is the live wire, or ought to be, and his president should see that his county legislative committee is to his liking, and coöperation. Correspondence from the state legislative committee will, in the first instance at any rate, go to him, and the state committee will look to him for results if his county legislative committee proves inactive. Within the counties it will be necessary to get the coöperation of individual physicians in different towns and villages so that different legislative and senatorial districts can be adequately covered. It is true that we want every physician in every county society to understand the legislative program on which we are working and to help bring our program to fruition, but in order to do this there must be an organization which will reach into every village and hamlet. The following, then, is the organization which we must have. At the head is the state society's committee on Public Policy and Legislation, working under instructions from the House of Delegates, or from the Council, or in emergencies on its own initiative. Next comes the county secretaries, the most important individuals in the organization, the power cogs that make the machinery go. Then come the county legislative committees who *must* work at the behest of the secretaries, or be whipped into line or get out if they do not. Last, but still of great importance, for they must do much of the personal work, come designated or appointed village, or ward, or even precinct leaders, who with the individual physicians, must stir the waters and start the flood of influence in our behalf at Madison. What is there for this organization to do when the word is passed along the line? First we want our legislators and even prospective legislators and citizens generally to know the doctors. We want them to know and appreciate how many doctors there are, and how many friends they have, how many votes they can influence when their cause is right, and that they intend to influence those votes. We want them to understand that the statutory control of the practice of medicine has been decided again and again by our supreme court to be for the protection of the people, not for the benefit of the doctors. We want them to know this so that they shall not misunderstand our motive when we ask for purely medical legislation. We want them to know that our medical practice act with its machinery for judging and raising the standard of medical education and for licensing practitioners of medicine is not primarily for our

good, but for the protection of their constituents against quacks, charlatans, and harpies. And then we want them to know that the real aim of the medical profession, the ultimate goal of our ideal, is the prevention of disease. All this we want them to know so that when we ask for legislation of any kind they can square our proposals with these premises and know that our motives are right. But we want them to understand, while we are at it, that we have the votes, and that we are going to push for what is right along medical and health lines as fast as public opinion will let us, and at the same time that we are going to make the public opinion. In other words we intend to use persuasion and "the big stick". This in general is what our organization is for. It will be up to the state society's legislative committee to send you details of the actual work.

What legislation must we have to do with this year? An optometry bill will have to be considered. A state wide school inspection bill will come up for passage and we must be prepared to help along this enormously important policy in preventive medicine. And remember what I said about Christian Science opposition. Reorganization of the state department of health and of the state board of medical examiners has been proposed and is in the air, though it may not come up at this session. And undoubtedly there will be other things to trouble us.

One part of my subject has not been touched upon, the enforcement of present medical laws. I shall barely touch it in passing. I must admit that the present chairman of the committee approaches the enforcement of medical laws with little enthusiasm, because of a bitter and expensive experience some years ago. My advice to the county secretaries would be, however, about as follows. Know the laws, watch for violations, then report your findings to the proper officials and use your influence to secure their enforcement. Each law makes it the duty of some official to see to its enforcement on information or belief. Just inform him and make him believe it, and your duty is done. This is all that you can do, though I must add, it usually accomplishes nothing.

BOOK REVIEWS

NEW ASPECTS OF DIABETES. Pathology and Treatment. Lectures Delivered at the New York Post-Graduate Medical School, New York. By Prof. Carl von

Noorden, Professor of the First Medical Clinic, Vienna. E. B. Treat & Co. 1912.

This volume on The New Aspects of Diabetes embodies the substance of several lectures recently delivered in this country by the author and furnishes exceedingly interesting and valuable reading. The pathogeny of the disease is stated in the clearest and most understandable form ever seen by the reviewer and the philosophy of the treatment is handled in an equally clear and succinct manner.

MUSCLE SPASM AND DEGENERATION IN INTRATHORACIC INFLAMMATIONS—The Importance as Diagnostic Aids and Their Influence in Producing and Altering the Well Established Physical Signs, also a Consideration of Their Part in the Causation of Changes in the Bony Thorax, etc. By Francis Marion Pottenger, A. M., M. D., L. L. D. C. V. Mosby Co., St. Louis. 1912.

This volume on Muscle Spasm and Degeneration embodies in an elaborate form Pottenger's views and clinical experiences and observations on these phenomena. This is a valuable contribution to our knowledge, and must be an aid to any one who is engaged in thoracic examinations especially with a view to determining the presence of tubercular infection.

W. H. W.

THE CHEMIC PROBLEM IN NUTRITION (Magnesium Infiltration). A Sketch of the Causative Factors in Disorders of Nutrition as Related to Disease of the Nervous System. By John Aulde, M. D., etc. Philadelphia, 1912.

One cannot arise from a perusal of this book without feeling that the author is obsessed with the notion that "Magnesium Infiltration" is a most active and potent factor in nearly every case of disease or abnormality with which the physician is called upon to deal. There appears to the reviewer no legitimate excuse for the publication of this book.

W. H. W.

THE BLOOD OF THE FATHERS. A Play in four Acts, by G. Frank Lydston, M. D. The Riverton Press, Chicago, 1912.

The reviewer is at times called upon by his friend, the Editor, to write a review of some book quite out of the ordinary run of medical works. This happens at present rather frequently as our colleagues feel their literary wings beginning to sprout and, like fledglings, are anxious to see if they can use them in literary company. When one considers the matter at all seriously he asks himself the question, "Why cannot physicians write novels, stories, comedies, dramas, as well as, if not better than many who are lay authors only?" And he answers in the pride of his profession, "they can", using the briefest form of expression.

However a man can not expect to be a good physician and be a Stevenson or a Dickens, or an Ibsen, or a Shaw. No one really expects a man to do well more than one thing. I feel reasonably sure that Dickens, for example, could not have written such charming novels and have been a first rate doctor. He might have been a poor doctor. Now and then a genius is born like Sir Thomas

Browne or Sir Charles Bell but they are excused from the discussion because they are geniuses.

Now one of our colleagues in a neighboring city, who has written much, has put some of his thoughts into a play which he calls "The Blood of the Fathers". There is a dedication to Jaek London which is rather fulsome. A preface follows in which is set forth the central idea of the play, to wit. Love is not a safe guide in mating the sexes for the protection of generations yet unborn. "Love is not a bad guide—to the jail, the asylum, the hospital—and to Reno." There follows the Persons of the play with a short description of every one and then a longer rather sketchy description of every character. Next comes several pages devoted to the description of what every character wears in every scene of every act. We have then a synopsis of the scenes. Now we are at the play, the first act. One is reminded in the long introduction to the act of a Bernard Shaw play. In this respect it is modern. Seriously though Dr. Lydston, so it seems to us, has a good plot, entertaining, not gruesome as the name might indicate, but he must not be offended if it is said that he is not a dramatist. His inability to write a play is not so noticeable until he approaches his climax. Then one feels that it were a pity that such a plot should not have been handled by Brieux or Shaw for example. The very fact that the climax is flat takes the forcefulness from the play and the lesson is not taught. This seems to the reviewer most unfortunate for the uplift of the race and for the unborn generations. He says he wants this play to drive home to its readers certain glaring failings of Society. It should do so, but actually it doesn't, at least it doesn't to the reviewer.

So that when we say that Dr. Lydston had better stick to prose we are not slurring him but rather are complimenting him upon the fact that in prose he can be and is a forceful writer.

AN INTRODUCTION TO THE STUDY OF INFECTION AND IMMUNITY. INCLUDING SERUM THERAPY, VACCINE THERAPY, CHEMOTHERAPY AND SERUM DIAGNOSIS. By Charles E. Simon, M.D., Professor of Clinical Pathology and Experimental Medicine, College of Physicians and Surgeons, Baltimore. Octavo, 301 pages; illustrated. Cloth, \$3.25. net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

Within the past few years a new science has been born of the union between Bacteriology and Pathological-Physiology having as its chief function the experimental investigation of the interrelation between the macro- and micro-organism during infection. One has only to glance through the literature to see how much space is devoted to this most important branch of medical science. Necessarily research workers have been compelled to coin words to express their meaning as they discovered new facts for the communication of which there were no adequate terms in any language. Consequently a new terminology has arisen which is unintelligible to one not familiar with the work as it has progressed.

There has been need of some book which would put into intelligible form and in a readable manner, the gist

of the new science. The book before us aims to fill this want. The reader is led by easy stages through an Introduction, to the Nature of Infection, then to the Offensive Forces of the Invading Micro-organism, Bacterial Poisons, The Defensive Forces of the Micro-organism, The Bactericidal Substance of the Blood, Antigens and Antibodies, The Side-Chain Theory, The Different Types of Immunity, Anaphylaxis, Anaphylaxis in its Relation to Disease, Active and Passive Immunization, Chemotherapy, to The Application of Immunological Principles to Diagnosis. It can be seen that the author has about covered the essential features and we think that with such a subject he has done exceedingly well.

While not wishing to be classed as a purist, yet we do most seriously object to such expressions as "tubercular cystitis" (p. 198), "tubercular animal" (p. 200), "tubercular individual" (p. 200), etc., where the proper adjective should, of course, be "tuberculous". To say that good men use that term is to accuse good men of ignorance of correct English, (or carelessness), but it does not excuse them. It would be a delight to find medical books expressed in good English, at least, free from gross grammatical errors. Let us be optimistic and believe that that day will come.

On the whole this particular book is well-written, passages here and there excepted, and we believe that it would be of value for the practitioner, wherever he may be, to read it carefully.

The few illustrations have been carefully selected and serve well to elucidate the text. The book making is well done and an adequate index is appended.

ABSTRACTS

ON THE PATH OF THE PUPILLARY REFLEX. Karplus, J. P., and Kreidl, A., (From the physiological institute in the University of Wien. *Klin. Mon. für Aug.*, 50, I, May, 1912, p. 586). contest the surmise of Bumke and Trendelenburg, (*Klin. Mon. für Aug.*, 59, reviewed in *Ophthalmology*), that the pupillary reflex fibers penetrate, or surround the cerebral peduncle, and then proceed between both peduncles to the central ventricular grey substance. Karplus and Kreidl proved experimentally on cats and monkeys, that the pupillary fibers run in the optic tract, without reaching the external geniculate body, then between both geniculate bodies through the arm of the anterior quadrigeminal body where they can be traced to the anterolateral margin of the anterior quadrigeminal body. Wherever they were severed on this course, the excitation of the peripheral part, (toward the chiasm), was without influence on the pupils, whereas excitation of the central part, (towards the quadrigeminal bodies), promptly elicited contraction of both pupils. Cats and monkeys, kept alive for quite a time, after the pupillary fibers in the arm of the anterior quadrigeminal body were cut, showed complete reflex immobility of both pupils to light, while the pupils reacted on accommodation and convergence and changes of psychical condition.

C. ZIMMERMANN.

SOME CASES OF ACQUIRED OCULAR PALSIES IN CHILDREN. (POLIOMYELITIS ANTERIOR). Lundsgaard, K., Copenhagen, (Klin. Mon. für Aug., 50, II, Dec. 1912, p. 734), reports 5 cases of ocular palsies in small children, which he observed from September to November, 1911. Most likely they were due to anterior poliomyelitis, which was epidemic at that time in Denmark, group 5 undoubtedly. It occurred in 3 children, who apparently had the same disease. In all it commenced with fever, one child developed a paralysis of the 3d and 4th nerves, the other a slight paresis of the left leg, and the 3d stiffness of the neck and headache, meningitic symptoms. L. considers his cases as abortive in concordance with Wickmann who frequently observed them during the epidemic in Sweden with the following characteristics: early age, the duration of the fever from a few days to about a week, general malaise, headache, somnolence, pain in the limbs, profuse perspiration, gastro-intestinal disturbances. The remaining 4 cases of L. had a paralysis of the abducens. He considers the abortive cases, of which the atypic cases with ocular palsies are frequently misjudged, of great epidemiological importance. Medin was the first, who recognized the connection between isolated paralyzes of the cranial nerves and infantile paralysis. In 49 children, most of whom had paralyzes characteristic for poliomyelitis, he saw several times affections of the facial nerve, one paralysis of the 3d nerve, one exterior ophthalmoplegia, one paralysis of the facial and 6th nerves, and 5 paralyzes of the 6th nerve. According to the predominance of spinal or cerebral affections, the clinical picture varies. There are also cases which present only symptoms of the bulbus, pons and cerebral stem. In these chiefly the facial nerve is affected, in several cases it was associated with paralysis of the hypoglossal nerve. Of ocular palsies the paralysis of the 6th nerve is the most frequent, then that of the 3d nerve.

C. ZIMMERMANN.

TO THE OCULAR AFFECTIONS AFTER VACCINATION. von Herrenschwand, F., (From the eyeclinic of Prof. St. Bernheimer in the University of Innsbruck. Archiv für Aug., 73, p. 1), reports a case of a transient paralysis of both 6th nerves in a boy, aged 6, which was observed with the maximum of temperature, on the 7th day after vaccination. An adulteration of the lymph could be excluded as the large number of the other pupils of the same kindergarten showed a normal course of vaccine reaction. The author attributes the palsy to a nuclear lesion of the abducens caused by toxins circulating in the blood, analogous to those frequently observed in other febrile toxic diseases, as botulism, influenza, etc. Literature contains only one similar case, a complete paralysis of the 3rd nerve, which gradually subsided, published in 1903 by Smiley.

C. ZIMMERMANN.

TO THE KNOWLEDGE OF ENDOGENOUS GONORRHOIC AFFECTIONS OF THE CORNIA. Pincus, F., Coeln. (Archiv für Aug., 73, p. 36). The occurrence of metastatic or endogenous gonorrhoeic conjunctivitis is to-day generally accepted. P. reports a case of a woman who had been suffering for several months from gonorrhoeic urethritis and vaginitis and suddenly noticed an inflammation of her right eye, characterized by a circumscribed edema or serous exudation at the lower retrotarsal fold. Repeated examinations of the conjunctival secretion revealed no gonococci. It healed in 4 days, but, on the 2nd day, a painful swelling of the left ankle joint developed.

The number of cases of metastatic gonorrhoeic keratitis which have been published is very small. The 2 cases here reported answered all the requirements for this diagnosis: 1. the existence of urethritis with gonococci, 2. other simultaneous signs of gonorrhoeic general infection, in form of relapsing affections of the joints, 3. the absence of gonococci in the conjunctival secretion. One case was a typical example of a gonorrhoeic general affection lasting for years and relapsing with each reinfection, respectively recrudescence of an uncured urethritis. The affection of the cornea in both cases consisted in a disease of the epithelium, vesicular detachments and defects which spread, but also healed, rapidly. They bore a certain resemblance to herpes of the cornea. Hence P. concludes that the majority of cases, which may be considered as endogenous gonorrhoeic keratitis, shows a disease of the corneal epithelium, characterized by more or less extensive detachments with their sequels. Under indifferent treatment recovery is speedy, if not complicated by purulent-infiltration.

C. ZIMMERMANN.

LOYAL.

Sister Kittie's home from college with a host of modern kinks

In the way of hygienics, sanitation, food, and drinks.

Proteids and carbohydrates she combines exactly right

For the strictly balanced ration she identifies at sight.

She knows all about digestion, what is best for us to eat,

What we need for body-building, growth and force, repair and heat;

And the dinner-table's lovely when my sister has it set;

But we haven't lost our confidence in Mother's cooking yet!

—March Lippincotts.

THERAPEUTIC NOTES

THE NEW VACULE PACKAGE.

A novel package is now being extensively advertised by the **H. K. Mulford Company** of Philadelphia as the "New Vacule Package". These "vacules" are vacuum containers especially employed for the prevention of deterioration in the activity of potent drugs especially Digitalis, Ergot and Strophanthus. Careful investigations show that many preparations undergo changes, even



when kept in tightly corked bottles, which result in a great loss of activity and thus render them unreliable as therapeutic agents. Only recently was it discovered, as the result of a series of experiments conducted in the Mulford Research Laboratories, that the changes to which the deterioration in these preparations is due, are caused primarily by the action of oxygen of the air which is held in solution in the liquid.

Further investigations show that with complete exhaustion and exclusion of air from the container and its contents, practical permanency may be secured, and in accordance with this, the **H. K. Mulford Company** have placed upon the market standardized preparations of Ergot, Digitalis and Strophanthus in "Vacules" (Vacuum Ampuls), which differ from ordinary "sealed ampuls" in that all the air is removed from the liquid contained in the Vacules, which ensures permanency to the product.

"Children of 7 years and upwards may be given 0.3 gram **salvarsan** and 0.5 gram **neosalvarsan**, and the same proportion to the adult dosage followed with respect to the total amount." Chetwood, *Practice of Urology*, p. 794.

Prof. Edward Martin, of the University of Pennsylvania, writing on the treatment of syphilis in the latest volume of Keen's *Surgery*, Vol. VI., p. 111, says: "**Salvarsan** is indicated in all stages of syphilis. Given in full dosage and repeated in 7 days, it produces its maximum safe effect, and if used in the early stage of chancre, seems capable of producing an immediate and permanent cure. The lesions of syphilis yields more promptly to salvarsan than to mercury, and the Wassermann reaction becomes negative in a larger proportion of cases. It is generally accepted that **salvarsan** should be supplemented by mercury, the latter being given in doses as large as are compatible with bodily and mental vigor, preservation of appetite and digestion, free elimination, and the holding of the normal weight."

AN IMPORTANT AUXILIARY AFTER ABDOMINAL OPERATIONS.

After operations upon the abdominal viscera, nothing will be found to give patients more genuine comfort when ready to re-enter active life, than the application

of a well fitting abdominal binder. But even more essential is its use from a strictly medical point of view. No matter how skillful the technic of suturing the divided muscles may be there is always a risk of weakening at the point of coaptation with resulting hernia of the abdominal wall. This condition may occur from any effort on the part of the patient that increases intra-abdominal pressure, as in the ordinary exertions of household duties or ordinary vocations as lifting, straining, etc. For reliability, adaptability, efficiency and comfort the **Storm Binder** and Abdominal Supporter, as washable as underwear, (containing no whalebones, no rubber and no leather, but made of elastic weave which is perfectly flexible) has no peer and fulfills every requirement. Its originality is shown by the fact that its inventor, Dr. Katherine L. Storm, who has patented the **Storm Binder**, July 10, 1906, in the United States, has recently been granted other patents upon the improvements, June 18, 1912, United States. It was also patented in England, May 16, 1911, and in Canada, September 5, 1911.

Order blank for measurements and new illustrated booklet showing improved modifications sent upon request to **Dr. Katherine L. Storm**, 1541 Diamond Street, Philadelphia, Pa.—*International Journal of Surgery*, July, 1912.

INTESTINAL PUTREFACTION

is responsible for many of the major as well as minor ills that afflict mankind. Intractable Headaches, Epileptiform Seizures, Neurasthenic "Breakdowns", Vertiginous attacks and many obscure neuroses are often but the symptomatic manifestations of poisoning of the nerve centers by self-generated toxins absorbed from the intestinal tract. The regular administration of **Chologestin** (or **Tablogestin**), by virtue of its combined cholagogue, antiseptic and digestive properties, tends to overcome Biliary Inactivity, control undue putrefactive changes, accelerate the onward passage of putrescent material, and obviate the constitutional absorption of toxins and ptomaines, thus preventing Intestinal Auto-intoxication and its protean sequelae. Samples, formula and literature from **F. H. Strong Company**, 58 Warren St. New York.

FACTS ABOUT PHYLACOGENS.

Practitioners who have fondness for figures, and who want definite, first-hand knowledge of what the **Phylacogens** are accomplishing in the way of actual clinical results, are urged to turn to the display announcement in the current issue of this journal bearing the signature of **Parke, Davis & Co.** Here, under the title "The Value of the Phylacogens", one finds the results in 4148 cases of infectious disease that have been treated with Phylacogens. One also reads in detail what is credited to each individual **Phylacogen**. For instance, you may be interested in rheumatic affections. You see at a glance that a certain number of cases have been treated and reported; the same glance tells you how many of them were treated successfully. This is equally true of pneumonia cases, erysipelas cases, gonorrhoeal cases, mixed-infection cases. Figures are apt to be tiresome. These figures are not so: they tell what every practitioner of medicine wants to know or should know.

The Wisconsin Medical Journal

Volume XI

MILWAUKEE, MAY, 1913

Number 12

ORIGINAL ARTICLES

APPARENTLY NON-SUPPURATIVE NASAL SINUS DISEASE.*

BY SAMUEL G. HIGGINS, M. D.

MILWAUKEE.

Your attention is called to apparently non-suppurative nasal sinus disease. A word as to suppuration in the sinuses may be permitted by way of more sharply contrasting and defining the two conditions. Pus in the sinuses produces the same symptoms as an abscess in any other locality, swelling, pain, local and referred, with the general manifestations of sepsis. If there is drainage then pain, the symptom most alarming to the patient, is relieved. Indeed the other symptoms are so ameliorated that the physician is very apt to overlook the nature of the disease itself especially when he is not guided by the existence of an actual pus discharge.

All rhinologists are aware that there may be latent or chronic pus formation with but little discharge. Negative pressure as applied through the agency of Brawley's suction apparatus has withdrawn pus from the various sinuses and rendered a probable diagnosis positive.

We have erred in the belief that all sinus disease must reveal itself by the appearance of pus. In this there are two factors to be reckoned with, the one the extreme irregularity and anatomical seclusion of the sinuses, and the other the inability of the physician to expose the natural openings and probe or drain the infected cells. Not having been able to demonstrate the diseased area ourselves, we are apt as individuals to say it can't be done and to offer with more or less authority a negative diagnosis. In the face of some remarkable results following operations giving free drainage of the sinuses by H. Manning Fish and the reports of others, it behooves us all to devote closer study to nasal sinus disease.

*Read at the Sixty-Sixth Annual Meeting of the State Medical Society of Wisconsin, Wausau, May 24, 1912.

To quote from the abstract of Wendell Reber's article on Orbital Diseases Secondary to Sinusitis (Annals of Ophthalmology, Jany. 1912.): "It is the writer's belief that we are on the threshold of surprising development that will follow upon systematic daily study of this relation. It is no longer necessary to offer evidence in support of the existence of the relation. What is now needed is demonstration of the paths by which infective or irritative material gains access from the sinus to the orbit, and to the globe itself and its appendages.

"All manner of extra and intra-ocular diseases are today traceable to suppurative and non-suppurative diseases of the accessory sinuses. Ofttimes it will require the most prolonged study on the part of the rhinologist to finally establish the relation. In ocular conditions of seemingly obscure origin, no case can be said to have been properly studied until the accessory sinuses have been shown to be plainly non-causative; and not infrequently we shall be obliged to direct treatment to the suspected sinuses in spite of a negative report of the rhinologist when the ocular signs justify it."

It is my personal opinion that it matters not so much whether the disease is a low grade infection or the remains of a suppuration. If we place our ultimate diagnosis upon the findings of pus many cases will go undiagnosed and untreated where treatment is urgently indicated.

The commonest type of an acute sinusitis occurs with a cold in the head. With the acute rhinitis is the closure of the natural openings of the sinuses. Stasis and congestion in the cells quickly follows. Following the subsidence of the rhinitis relief comes by the escape of the muco-purulent secretion from the infected sinus.

Resolution is not always complete. We meet cases of acutely infected sinusitis as a sequence of these colds. Some relief of the congestion in the nose may be brought about by drawing the blood from the head with hot mustard footbaths, quinine, sweating and so forth, but it is far more logical to

apply our efforts to the locality of disturbance itself.

In acute conditions drainage in the nose and of the involved sinuses can easily be accomplished by the application of a weak cocain, or a cocain and adrenalin solution. The next step is to make local applications in subacute sinus infections. Nor does the drainage of the sinuses end here. We next approach the borderland of sinus disease, either infection with organisms of inhibited virulence or retained mucous secretion and lymphatic stasis. In this sequence of infection the pathology is that of chronic stasis and congestion, deficient aeration and drainage of the normal fluids from the sinuses, lymphatic stagnation, edematous swelling, cystic degeneration of the mucous membrane with polypoid degeneration and polyp formation, the formation of granulations, loss of equilibrium of vasodilatation and obstruction in both arteries and veins, hypertrophy of the structures of the turbinated bodies and loss of strength in the papyraceous sinus walls with necroses of the bony frame work.

Skillern reports of Uffenorde's observation on non-suppurative diseases of the ethmoid bone: "Of the chronic inflammations, the one by far the most common and least recognized, at the same time presenting the most varied and complex symptoms, is that of ethmoiditis hyperplastica. This disease is caused by prolonged and repeated irritations (frequent attacks of coryza, influenza, long exposure to dust surroundings, etc.) and is always confined in the beginning to the body of the ethmoid capsule, being characterized by polypoid swelling of the mucous membrane in the basal cells affected, depending upon the degree and length of time the irritation was directed against the parts. This inflammation (polypoid swelling) spreads through the various cells of the labyrinth without regarding the ostium. In other words as the mucous membrane of these cells is so intimately connected with the periosteum and bone that it practically forms an anatomical unit, the inflammation goes over from one structure to the other really by continuity, so this polypoid inflammation will appear in a cell entirely closed from its diseased neighbor as far as the ostium is concerned. The appearance of polypi or polypoid swelling in the nose proper will depend entirely on the position of the middle turbinate. If this structure lies close to the lateral wall of the nose (normal position), the ordinary rhinoscopic examination will disclose nothing

abnormal unless the disease has progressed for a long period of time, in which case the middle turbinate will show pathological changes. This can only be accomplished by the so-called rhinoseopia media of Killian, in which the middle turbinate is fractured at its insertion with the ethmoidal capsule, whereby the bulla ethmoidalis and base of the capsule are brought into view. It is impossible, however, to judge the extent of the disease by mere inspection, as the confined conditions of the middle nasal passage are not propitious for the growth and retention of large polypi (polypi being merely considered as an aggravated form of polypoid swelling.)

"It is important to recognize the normal mucous membrane of the ethmoid and differentiate it from the diseased. The normal mucous membrane covering the bulla, outer side of middle turbinate and processus uncinatus is extremely thin and of a grayish red color quite different from that of the septal side of the middle turbinate. One can easily differentiate it from the pathological with the help of the sound, an instrument which cannot be dispensed with in these cases. If the floor of the ethmoid capsule shows a constant swelling, one can safely consider that some portion of the ethmoid labyrinth is diseased. Opening the most depending portion of this capsule will confirm our diagnosis. Mucous polyps grow only in the line of least resistance, therefore, if the basal cell of the ethmoid is the first to experience the irritation and consequent inflammation, it depends entirely upon the position and relation of the middle turbinate to the lateral wall of the nose, how much of the disease process we can observe by anterior rhinoseopy. In those cases in which the middle turbinate lies close against the lateral wall of the nose, even after it has been inflected, the appearance of the base of the ethmoid capsule will not give us a definite idea of the extent of the disease, because there was not sufficient space for the polypi to become prominent. And, if the disease has progressed for a long period of time, the hyperplastic inflammation will be found in the superimposed cells. These cases present unmistakable subjective symptoms, such as profuse watery secretion, intraerianial pressure, lacerating pains over the eyes, pharyngitis, laryngitis and asthma. The severity of these symptoms depends largely upon the neurotic condition of the individual as well as on the extent of the disease, as in certain instances only the dependent cells are affected, while in other

instances the mucous membrane of the entire labyrinth, and even the sphenoid sinus has become polypoid. The patient has the experience of a continuous cold which is not influenced by the ordinary treatment. He also complains of frequent attacks of sneezing, a continual sense of tickling in the region of the superior nares, headaches, sharp pains above and below the orbital cavity, ciliary neuralgia and a more or less profuse secretion from the diseased side. One of the principal symptoms is the headache, which manifests itself as a drawing, sticking pain between the eyes, above and below the orbit, sometimes radiating toward the temples. In acute exacerbations of chronic ethmoid diseases, the headache is severer, of a more diffuse character, and radiates toward the occiput and mastoid process, which is also typical for affections of the sphenoid sinus. Occasionally there is marked dizziness, the patient experiencing a feeling as though the eyes were being bulged outward.

"The orbital manifestations of chronic hyperplastic ethmoiditis are of special interest, not only on account of the obscure picture which they often present, but also on account of the frequency with which they appear. These are usually of a mechanical origin, due either to the intracellular pressure from the hypertrophied mucous membrane or from the stasis in the hematogenous or lymph channels, or both. These may be estimated as follows: (1) Interference with the mobility of the globe. (2) Irritation of the optic nerve through pressure. (3) Changes in refraction. (4) Disturbance of physiological lachrymation (epiphora.)

"The subjective symptoms consist of scotoma, neuralgic pains in the eye, ciliary neuralgia and photophobia. In severe cases vaso-motor disturbance, such as hyperemia of conjunctiva and edema, of eyelids and peri-orbital tissues may occur. The appearance of these reflex neuroses is but to be expected when one recalls that the orbital and nasal cavities are supplied by the same sensory nerve."

Brawley recognizes certain disturbances due to rarefaction of the air in the sinuses. His views on this point are concisely stated in Wood's System of Ophthalmic Operations: "Another class of cases which is very important to the Ophthalmologist has been omitted, namely the UNILATERAL HEADACHE AND ASTHENOPIC SYMPTOMS due to rarefaction of the air within the frontal sinus and anterior ethmoidal cells. The pain is unilateral, although if severe it may become general in attack.

Stooping increases the pain and slight vertigo frequently is noted upon assuming the erect position. Lachrymation, edema of the upper eyelid and injection of the conjunctival vessels have frequently been noted in this condition.

"During the attack the patient is unable to read without aggravating the symptoms and complains of blurred vision, although during the intervals between the attacks the eyes may be used for near work with perfect comfort. The attacks seem to be brought on by an acute coryza, the menstrual period, or damp, chilly weather. There is usually tenderness to pressure against the floor of the frontal sinus, especially in the region of the pulley of the superior oblique muscle and against the inner wall of the orbit, the osplanum of the ethmoid. This symptom is not constant but may often be elicited by producing pressure on corresponding points in both orbits simultaneously, when greater tenderness will be felt on the affected side. The nasal examination may be negative even when made by a competent rhinologist, but if the patient is seen during the attacks the middle turbinal will usually appear turgescient or will be found closely applied to the lateral nasal wall blocking the hiatus semilunaris. The attack may then be modified or entirely relieved by the application of cocain and suprarenalin to the middle turbinal and infundibulum. When such a case is observed between attacks it is often possible to produce the symptoms by applying the author's suction pump, subsequently relieving the congestion thus produced by the use of the cocain and suprarenalin as previously described. Then having proved the diagnosis the relief may be made permanent by resecting sufficient of the middle turbinal to uncover the lower end of the fronto-nasal duct and hiatus."

Before the British Medical Association in July, 1907, Fish stated, "The three cardinal symptoms of closed sinusitis to be *dizziness, pain*, either dull or severe, and *nasal congestion*."

SUBJECTIVE SYMPTOMS.

Discharge.—Having had our attention first directed to nasal sinus disease by the purulent discharge we may consider today this symptom. This is often the symptom that suggests a nasal examination to the patient, and is not an essential part of this paper except in that we are including those subacute infections which require a thorough nasal

examination with complete shrinking of the turbinated bodies.

Discharge from the sinuses shows in several localities—from the maxillary sinus at the natural opening of the sinus beneath the posterior third of the middle turbinal and flowing back in the middle meatus over the posterior end of the inferior turbinal. Discharge from the frontal sinus comes down the naso-frontal duct and may be met by that from the anterior ethmoid cells in the hiatus semilunaris and appear beneath the anterior third and middle of the middle turbinal.

Discharge from the posterior ethmoids and sphenoid is in the upper meatus beneath the superior turbinate, if the turbinate is present, and flows back over the upper end of the middle turbinate to the posterior nares.

In non-suppurative sinus disease this discharge is a watery mucus. Usually there is none at all. Following the use of Brawley's suction pump and careful probing, a muco-purulent secretion may appear, revealing a subacute suppuration in the nose, which on casual examination would appear to be non-suppurative.

The post-nasal dropping so often complained of by the patient is the irregular escape of fluid pent up in the upper sinuses.

Sneezing.—Sneezing is often an irritative symptom from ethmoiditis. It is produced at the variable times of engorgement of the middle turbinal and is especially liable to occur in the morning, and when the individual is exposed to dust or a wind. In this connection we must mention *hay fever*. Ballinger considers hay fever to be incited by ethmoiditis. Todd, on the other hand, attributes to the hay fever the production of ethmoiditis. Here is a vicious circle, one condition making the other worse.

Asthma.—Reflex irritation from ethmoiditis, especially with the presence of polyps is a causative factor in the production of asthmatic attacks. Witness the relief obtained by the use in atomizers of the advertised asthma cures. These preparations owe their sedative action to cocain which relieves congestion and irritation by shrinking the swollen mucous membrane.

Cough.—Irritation in the upper respiratory tract may produce a tickling in the throat with a dry cough, or paroxysm of coughing.

Local Pain.—The pain is often spoken of as a dull feeling or ache at the bridge of the nose.

With this is a "tight" feeling about the middle turbinate high up in the nose. Closely associated with this pain due to an ethmoiditis is the frontal headache and dull pain over the eyes from a frontal sinusitis. Pressure beneath the eyebrow may reveal a tenderness, more easily elicited in case of unilateral involvement. On stooping the pain is increased, and accompanied by dizziness on assuming the erect position.

A symptom complex known as neuralgia is attributable to nasal sinus disease. The pains are in the back of the eyes radiating up over the forehead and beneath the eyes over the cheek.

In a recent case the removal of all fillings and crowns in the upper teeth failed to influence the neuralgia. These neuralgic pains frequently radiate toward the ear, and with some pain in the ears. This ear ache appears to be due to blocking of the sphenoidal sinus. I have noticed the complaint of pain in the ear in instances after removal of the middle turbinal when a fold of the mucous membrane or a rapidly developed polyp obstructed drainage and aeration of the sphenoidal sinus.

A pain from sphenoid disease finds expression in a dull, intermittent ache at the top of the head. A close history reveals the presence of this pain in the early morning with its subsidence during the activities of the day and after relief of nasal congestion. Associated with this pain may be a similar dull ache in the occiput.

Deafness.—Nasal congestion has long been known to be a factor in catarrhal deafness. The cause of this has always been held to be by extension of the catarrhal condition of the nasal mucosa into that of the Eustachian tube. Continued rarefaction of the air in the Eustachian tube permits alterations in the contour of the membrana tympani, and resultant loss of hearing. On the other hand it is the writer's opinion that there is more to the subject than this simple explanation. We have recently received the exhaustive reports of Poli, Turner and Broeckaert delivered before the Third International Laryngo-Rhinological Congress at Berlin, and the publication with detailed illustrations of Harty's report before the American Academy of Ophthalmology and Oto-laryngology on the "Lymphatics of the Nose, Throat and Accessory Sinuses."

From these reports we learn that the lymphatic streams of the upper nasal cavities and accessory cells drain back and meet the lymphatics from the

sphenoidal sinus in the area adjacent to and above the Eustachian tube. The lymphatics from the Eustachian tube and middle ear meet at this plexus.

From a theoretical basis one may assume that blockage of drainage and aeration of the sinuses, especially the sphenoid, might by lymphatic stasis produce a retardation of lymph from the middle ear and Eustachian tube with consequent interference in function. This is a point well worthy of practical application and at this moment I wish to mention one of the most important phases of this sinus subject.

I have noticed marked improvement in acute suppurative otitis media in adults following shrinkage of the nasal mucosa when I had been able to establish free drainage and aeration of the sphenoid. I also am of the opinion that the application of argyrol to the sphenoid area added somewhat to the cure of the otitis through the goodly office of the lymphatics. My attention has been particularly directed to this by the routine nasal treatment of all cases of otitis media under the care of Dr. J. S. Evans in Madison.

Asthenopia.—Some symptoms usually attributed to the eyes, such as headache and pain in the eyes have been mentioned. It is the experience of all oculists to have some patients who are not fully relieved of certain asthenopic symptoms associated with eye strain. Pain attributed to the eyes and not relieved by the wearing of glasses is usually due to nasal sinus disease. Muscular imbalance as a result of a paresis of the extra ocular muscles may be due to sinus disease.

Visual Field.—The test of the visual field is used to reveal impairment of the optic nerve or retina. The change of the visual field from sinus disease is most apt to be a unilateral central scotoma for colors and in advanced cases also for white.

The most pronounced pathological changes in the eye have been observed by many to have been produced by infection in the accessory cells of the nose. Also there are now numerous reports of iritis, ciliary congestion, glaucomatous increased ocular tension, uveitis, retinitis and optic neuritis as a consequence of non-suppurative nasal sinus disease.

OBJECTIVE SIGNS.

The physical signs upon which one may base a diagnosis need not be pronounced. It seems to me

that one may expect more improvement in cases presenting the most marked pathology. If one sees on casual examination of the nasal chamber pus, and then often polyps, he must immediately recognize sinus disease, no matter what the extra nasal symptoms are. Indeed all of the above mentioned symptoms may be present in a series of chronic suppuration of the accessory cells of the nose. But admitting all this, we have endeavored to refer to diseased cells where pus is not the pathognomonic sign. After shrinking the mucosa overlying the natural sinus openings and with the means of a probe, or by irrigation through a cannula one may find pus in what is known as a closed sinusitis. It is often found that by the means of negative pressure with Brawley's pump one may actually suck out pus from a hidden cell. Thorough examination will often reveal this type of disease which at first thought was apparently non-suppurative.

Sinus disease may be suspected in all noses presenting gross nasal obstruction or congestion, boggy inferior turbinals, swollen middle turbinals, a high deviation of the septum occluding the middle and upper meatus. Add to this polypoid degeneration of the middle turbinate body and polyps and the diagnosis is complete.

Joseph Beek presented this winter to the Milwaukee Oto-Ophthalmic Club, specimens of nasal polyps of a non-suppurative type.

Also granulation tissue may be present in non-suppurative disease. With this the scratchy feeling of necrosed bone may be detected by the probe.

There are instances of nasal sinus disease in which the examination of the nasal chamber is reported negative. I am free to confess that I, in common with other rhinologists who desire to be conservative, have held aloof from operating under such circumstances. However, I believe that we have sometimes failed and have not given the patient all of the chances he was entitled to have. In spite of negative nasal findings one has to back up his diagnosis by a careful perusal of the history of former nasal infection together with a complete analysis of present and recent symptoms.

The first operation for nasal sinus disease in the presence of negative nasal findings is credited to Dr. H. Manning Fish. The case reported by him is one of bilateral optic neuritis, operated upon January 8, 1907. Other cases reported by Fish and others are to my mind convincing evidence of

the necessity for serious study of nasal sinus disease.

SUMMARY.

There is nasal sinus disease without pus discharge and yet with sufficient pathology to produce polyps, granulation tissue and necrosed bone, as well as vascular and lymphatic stasis.

The involved area is apt to be a closed sinusitis of one or more of the cells of the ethmoid, sphenoid or frontal. Much can be accomplished by medical treatment which should be instituted as soon as a sinus involvement is suspected.

Remarkable results are often obtained in the clearing up of an acute cold, and subacute infection of the sinuses. Source of many severe headaches, neuralgia, unsatisfactory eye glasses, optic neuritis and inflammations in the eye may be traced by exclusion to the nose.

A probable diagnosis is strengthened by relief given from local treatments.

Operative procedures on the sinuses require careful and thorough technique with exploration and free drainage of the involved cells. This usually necessitates the removal of the middle turbinated bone. Cauterization of the turbinals, removal of low septal spurs, and the sawing off of a slice of the inferior turbinated are permissible for the relief of obstructed nasal breathing, but have no place in the surgery of nasal sinus disease.

DISCUSSION.

DR. A. L. PAYNE, Eau Claire: I think the subject of Non-Suppurative Sinus trouble is one that we can afford to consider carefully. I will relate a recent case I operated upon. A woman 47 years old, passed an uneventful menopause, came to me after suffering about ten days with eye ache, total paralysis of the left external rectus, considerable diminution of vision and terrible headache. I had an X-ray taken, the radiograph, however, failed to show any sinus trouble, but did show a pituitary body considerably enlarged. There had been a gain of ten pounds in weight in three or four weeks, which made me think that possibly there was some acromegaly, but not being able to find sinus trouble either by nasal examination or X-ray, put me up against a serious proposition. However, as the middle turbinals were considerably enlarged and pressing, I removed them, after which, more through curiosity than anything else, I decided to open into the bulla and immediately there was a foul stench from the nose. Then I decided to go through the ethmoids into the sphenoids and the stench upon the breaking down of the cells was terrific. I was rewarded by finding the eye conditions much better the next day, there was a gradual improvement until there was total relief from the headache and pain, but not of the muscular trouble. I

advanced the external rectus, nicked the internal, thus giving the lady a fairly straight eye. The vision, I think at first examination was 4/10-, which has improved to 8/10+. There has been no gain in weight recently and the woman is well and happy.

DR. L. M. WILLARD, Wausau: There is so much of merit and importance in Dr. Higgins' paper that I am sorry it was not put on the programme yesterday. Coming so late, nearly all the doctors in this society have left the city and I do not believe that I can criticise the paper because he has covered the ground so thoroughly.

The ethmoid bone has lately been recognized as being one of the most important bones of the head suffering from pathologic infection. We have always considered that the temporal bone was the surgical bone in the head, but at the present time I think that the ethmoid is running it a close race for first place.

A great many years ago a very prominent man made the remark, which has been a maxim ever since, that "Beyond the Alps lies Italy," and I would like to say that beyond the middle turbinated bone very frequently can be found a pathologic museum and during the last ten years remarkable strides have been made in rhinology in that region which is called the vicious circle of the nose and which is located in the region of the middle turbinated and the ethmoid bones. We very often are surprised at what we find when we make investigation.

DR. F. S. COOK, Eau Claire: The doctor has read a very good paper on the subject and I think in connection with obscure conditions of the eye that the nose should always be looked into. I have recently had a case which had a very amazing result, and was very interesting; it was the case of a man brought in with absolute glaucoma of both eyes; he was blind; I saw him six weeks after the condition had gone into absolute glaucoma, and double iridectomy was made with no relief. Dr. Payne and I were talking the matter over and he suggested that we examine the nasal condition. We had an X-ray taken with a report of ethmoidal and sphenoid trouble. I cleaned out the ethmoids and sphenoids on both sides, with the result that the tension dropped within 48 hours; and pain was relieved absolutely. That was about six weeks ago. Today the man has motion vision and the tension is normal in both eyes. He has not had any increase of tension since, and the iridectomies did not relieve the tension; he would have a recurrence of the pains every few days; but since the nasal condition has been corrected, the condition is very much improved. I think we should all work on that line, especially in these miserable cases of glaucoma.

DR. SAMUEL G. HIGGINS of Milwaukee: This field is so large that it is absolutely impossible to cover it and do it justice in a short time. I appreciated the fact yesterday afternoon that much of the technique regarding some special work is not of much interest to the general practitioner; and so I omitted much of the quotations from others.

The point is that every man in practice has many

patients who have severe headaches and they get nursed and have some relief; they have more headaches and have attacks; and women every month have a time with their heads; and naturally they become nervous and very neurotic; and they are quite neurasthenic and they are passed around.

There is a tendency now in all lines of practice to find the cause for this nervousness which women call "nerves" and doctors call neurasthenia. There is assumed to be some definite pathological source for this trouble; and in a recent paper in the Archives of Internal Medicine by Frank Billings, he pointed to focal infections which cause general debility and general depletion of vitality and the loss of nervous force. He included in that list the old gall bladder cases, chronic abscesses and chronic inflammations about the appendix, ovarian troubles, uterine inflammations, chronic infected tonsils, and retention of pus and mucopurulent and watery mucus in the accessory sinuses of the nose.

I remember a young man, a student, who was unable to do his school work at the close of his sophomore year. He had been very bright as a freshman. He would study until about ten o'clock; then he became sleepy, his eyes bothered him and he could not concentrate his attention. He was treated medically by the shrinking of the nasal congestion, with some temporary relief. During the summer I operated on him and removed the entire middle turbinate, removed a polypus of the ethmoid and opened the ethmoid cells also and drained his sphenoid. In his junior year he was a member of the band, of the Engineers' Club, was elected to the honorary society in the Engineers' Club, and had three or four outside duties, and gained about 15 pounds in weight. This trouble was simply due to the remains of an influenza which he had had at the beginning of the sophomore year; he had focal infection of the sinuses which depleted his vitality. A point of interest to the eye and the ear men is the fact that the drainage of the nose and the shrinking of the mucosa permitting drainage of retained fluid in the sphenoid, will often remove the source of infection which has extended into the middle ear and caused a purulent otitis media. We used to treat the ear all by itself but inasmuch as it is very much associated with the nose, it is best to treat in connection with the ear the nose as well, employing the shrinking of the mucosa and normal salt irrigation of the nose.

This holds true with the eye, and no acutely inflamed eye should be passed by without a look into the nose. You will find that you have the remains of some acute infection in a person predisposed to colds affecting the ethmoid and frontal sinuses, and drainages through the lymphatics affecting the optic nerve. You are aware of the fact that there is a close lymphatic association between the nose and accessory sinuses. The orbit is close; and the venous discharge is into the same ophthalmic vein. Congestion in the one branch of this stream naturally causes congestion and stasis in the other parts.

I believe that is a subject of interest to every one and well worthy of your close attention.

Before doing a sinus operation I have availed myself

of the excellent X-ray pictures taken by Dr. E. S. Blaine of Milwaukee. This shows internally the extent of disease, and the peculiarities of the anatomical formations of the nose and sinuses are a guide in operating.

THE TOXEMIAS OF PREGNANCY.*

BY WALTER G. DARLING, M. D.,

MILWAUKEE, WIS.

The object of this paper is to discuss in a general way this most serious disease in pregnancy, which at present is holding the attention of the obstetricians of the world and about which so little is definitely known. The problem of the care of the pregnant women as concerns her own self-poisoning is one of the most complex known to medical science. There is perhaps no other condition in which the border line between health and disease is less sharply marked. It manifests itself in varying degrees of intensity; from the mildest, transient vertigo to the violent convulsive seizures, which rapidly terminate in death.

Under the heading of toxemia the following diseases are now generally recognized: (a) pernicious vomiting, (b) acute yellow atrophy of the liver, (c) nephritic toxemia, (d) pre-eclamptic toxemia, and (e) eclampsia.

Concerning the etiology of the toxemias investigators are widely at variance. However, we recognize that general metabolism becomes profoundly altered during gestation, as shown by the fact that during its later months, the pregnant woman stores up nitrogen and water to a far greater extent than at any other time. And it is not improbable that the excretory functions are more liable to serious derangement at this time, since they are called upon to care for the waste products of the fetal as well as the maternal metabolism.

Bouchard believes that all pregnant women suffer to a greater or lesser extent from auto-intoxication, and it is further taught by such investigators as Pinard, Stone, Strauss, and Ewing that such mild conditions as slight headache, salivation or certain skin eruptions on the one hand; and such a serious disease as eclampsia on the other, represent respectively, the early and advanced stages of one and the same process, which they designate as hepato-toxemia. J. Whitridge

*Read before the Milwaukee Medical Society, Feb. 25, 1913.

Williams believes such views to be erroneous, basing his dissent upon the fact that each of the toxemias, although having many symptoms in common, presents a distinct pathology of its own.

PERNICIOUS VOMITING OF PREGNANCY.

Until later years the nausea and vomiting which occurs in the earlier months of pregnancy has been looked upon as normal to this condition. But since the days of more accurate laboratory methods, whereby the urine and blood findings may be more clearly determined, investigators are generally agreed that the so-called "morning sickness" is a manifestation of a deranged metabolism resulting in an intoxication of more or less severity. Statistics show that the condition is present in but forty per cent. of pregnant women; hence it is logical to assume that this number is abnormal as against sixty per cent. in which vomiting is absent and which number we may reasonably assume to be normal.

Etiology.—Three types of serious vomiting have been differentiated, namely reflex, neurotic and toxic, some believing that a toxic element underlies all three varieties. The reflex variety as the name implies, results from structural abnormalities in other portions of the body, especially the generative tract. Often this is due to such lesions as retroversion of the uterus, an ovarian or uterine tumor, cervical erosions, or inflammatory conditions of the urogenital apparatus. Kaltentbach in 1891 called particular attention to the neurotic type stating that vomiting of pregnancy is often a manifestation of a neurosis somewhat allied to hysteria. Clinical observation affords abundant evidence in favor of the soundness of such a view, as it is well known that many women on the verge of death from starvation as a result of vomiting, suddenly become better spontaneously, following a threat to produce abortion, and that prompt cures have been produced by the use of an electric battery which was entirely out of order. In the true toxic variety on the other hand, the reflex and neurotic elements are entirely absent, and the condition is associated with a profound alteration in metabolism, which is manifest by marked changes in the urine. Normally in pregnancy the ammonia coefficient varies from 4 to 5 per cent, but in toxic vomiting it may rise to 20 or 50 per cent. Stone, Ewing and Williams, showed that in many of the fatal cases, lesions were found which were strikingly similar to those

found in acute yellow atrophy of the liver; namely, a necrosis of the central portion of the lobule, with the periphery remaining intact. The renal changes are degenerative in character and practically limited to the convoluted tubules, which show epithelial necrosis and lumina filled with detritus.

Symptoms.—Pernicious vomiting usually begins as the simple nausea of pregnancy, which gradually becomes so severe that nothing can be retained by the stomach. Unfortunately the mere severity of the vomiting gives no clue as to whether one has to deal with the simple neurotic or fulminant toxic variety of the disease. In the former the vomiting may continue for weeks until the patient becomes more and more emaciated, eventually dying of starvation unless suitable treatment be instituted. In the more severe toxic variety, the disease pursues a more rapid course, and the patient after but a few days of ordinary vomiting, may pass into a somnolent or comatose condition, dying within a week or ten days without emaciation. In the latter variety, the urine shows decided alterations, early becoming scanty and containing large amounts of albumen, with hyaline and granular casts in abundance. The nitrogen partition also is found to be altered in the toxic form, much as it is in eclampsia.

Diagnosis.—It is highly important that an early differential diagnosis between the three types be made; this only being possible from a careful physical and urinary examination. Three women may apparently be equally ill and all present the same degree of inanition; one may be suffering from a retroverted pregnant uterus, the second from a simple neurosis, and the third from the pure toxic variety, and it is obvious that a single line of treatment would not be suitable for the relief of all three cases. If after thorough physical examination, no abnormality or lesion can be detected in the generative tract or other portion of the body which is of any consequence, it may be reasonably assumed that one has to deal with either the neurotic or toxic variety. These can usually be differentiated by a chemical examination of the urine. As above suggested the pure neurotic type does not show the alterations in the urea and ammonia partition which are found in the fulminant toxic type. Blood pressure readings are of assistance in the differentiation, as in the toxic type vascular tension is high. Williams states that an ammonia coefficient over ten per cent.

indicates a deranged metabolism and, with the presence of albumen in any considerable quantity, is an indication to terminate pregnancy. While a reading of five per cent. or less calls for conservative treatment, the symptoms being controllable by means of rest in bed and suggestion.

Treatment.—Treatment depends entirely upon the type of vomiting with which one has to deal. In the reflex variety, treatment should be directed to the correction of any lesion or deformity which may be of sufficient severity to be considered the causal agent in the condition. In the neurotic type, rest in bed and the institution of such treatment as the attendant deems necessary to produce the required suggestive effect upon the patient. Severe cases of this variety have been controlled by the hypodermic injection of sterile water, the patient believing the medication to be a powerful sedative. In dealing with the fulminant type, the most rational treatment seems to be the immediate interruption of pregnancy, thus removing at one stroke the cause of the intoxication. When the decision has been reached to induce abortion the most conservative method should be employed. Because of the possibility of chloroform further damaging the already pathologic liver and of nitrous oxide increasing an already high blood pressure, the anesthetic of choice should be ether. When the duration of pregnancy is four months or under, the cervix may be dilated by means of the Hegar dilators to a sufficient degree to permit the introduction of the ovum forceps with which instrument supplemented by the curette, the products of conception may be completely removed. After the fourth or fifth month, the cervix (if patulous) may be dilated manually, or if rigid may be managed by vaginal section. Packing the cervix or the introduction of tents often means two sittings in order to empty the uterus, as often (especially in the earlier months of pregnancy) the fetus is expelled without the placenta following spontaneously. Each operative manipulation increases the risk of infection to which toxemic patients are especially susceptible. Hence in carrying out the principal of conservatism that method should be employed which tends to complete the work of thoroughly emptying the uterus in the shortest time consistent with the safety of the patient. Following the operation, the stomach should be washed out, leaving therein from three to five hundred cubic centimeters of a 1 per cent. solution of sodium bicarbonate. This is of benefit in not only

removing ether which may have been excreted into the stomach; but also as a means of increasing the urinary output. Numerous drugs have been employed in the treatment of vomiting of pregnancy, no one of which has been found to be entirely dependable, although their administration has been followed by relief in some instances. Among those in common use are: pepsin, silver nitrate, effervescing cerium oxalate, dilute tincture of iodine, hydrochloric acid, bismuth subnitrate and gallate, as well as the sedatives, chloral, veronal, trional and morphia. Recently the advocates of organo-therapy have reported cases much benefited by the administration of thyroid extract. Le Lorier reports marked improvement in several cases following the injection of 12 to 15cc. of serum from a healthy pregnant woman. In some cases the injection was repeated two or three times at intervals of three and four days. Meyer reports three interesting cases so treated as follows: Case primipara in the tenth month of pregnancy who complained of itching, deafness, tingling of the fingers, and symptoms resembling some observed in acromegaly. Intravenous injection of serum from a normal pregnant woman was followed in three days by complete cessation of symptoms. A second case was that of a patient in the middle of the tenth month of pregnancy who was seized with vomiting and labial herpes. Labor ensued which was normal. On the third day of her puerperium she became covered with a vesiculo-papular eruption. Twenty cc. of serum from a normal pregnant woman at term was injected into the muscles, which was followed by improvement after three days, when a second injection of 35 cc. was given, followed by complete recovery in two days. The third case was an eclamptic, multipara, of 23 years, six months pregnant, pulse 96, temperature normal, urine containing large amounts of albumen and casts, blood pressure 175 mm., uterine contractions every five minutes, 20 cc. of serum from a normal puerperal woman were injected subcutaneously and in fifteen minutes the patient became more conscious, but after a severe convulsion she again became comatose. Another injection of 20 cc. was administered followed by a return to consciousness. Some hours later a third injection of 20 cc. was given after which the urine increased considerably. The patient gave birth spontaneously to a normal child with no more convulsions, making a gradual recovery.

Dr. Gray Ward in his studies of the thyroid in the toxemias of pregnancy divides the cases into two groups: namely, cases having no Graves disease, but with insufficient thyroid secretion to promote the increased metabolism in the liver made necessary by pregnancy and probably due to the failure of the thyroid to hypertrophy; and second, cases associated with Graves disease, which condition usually causes serious disturbance in metabolism. He finds that toxemias of the first group are frequently much benefited by the administration of thyroid substance, in the form of either dry extract or the serum. In toxemias of the second group, it is essential to determine whether the Graves disease is a condition of hyper- or hypo-thyroidism. If the former, rest, application of ice to the neck, milk diet, and sedatives should be employed and if these measures fail, an anti-serum such as the cyto-toxic serum of Beebe and Rogers should be administered. If one is dealing with hypothyroidism, thyroid extract or if possible to obtain, a saline extract prepared from normal human glands for hypodermic injection should be administered.

ACUTE YELLOW ATROPHY OF THE LIVER.

Although a rare complication of pregnancy the condition is exceedingly grave. It usually occurs in the later months of pregnancy or early in the puerperium, yet cases have been reported as early as the sixth week.

Pathology.—The pathology is very similar to that of pernicious vomiting; the center of the lobule being the first to show necrotic changes, the process extending toward the periphery with more or less rapidity depending on the severity of the disease. The essential difference in the pathology of the two conditions is that in acute yellow atrophy of the liver, the entire organ rapidly diminishes in weight, which in a comparatively short time may be reduced to less than one-half that of normal. As in toxic vomiting the kidneys show the changes of acute nephritis, with degenerative changes in the epithelium of the convoluted tubules.

Symptoms.—The onset is usually so stormy as to arouse the suspicion of acute poisoning, in some instances having been mistaken for phosphorus and arsenical poisoning. There is usually intense abdominal pain, severe headache, nausea and vomiting. The patient soon becomes torpid or delirious, rapidly passing into a condition of coma, with or

without convulsions. The urine is diminished in amount, highly colored, and contains albumen and casts of various kinds.

Diagnosis.—The diagnosis is often very difficult ante-mortem; however, the sudden onset, early jaundice, highly colored urine, and persistent coma are very suggestive that the case presenting such symptoms is one of acute yellow atrophy of the liver.

Suffice it to say that the uterus should be emptied as rapidly as is consistent with the safety of the patient, and the various excretory organs stimulated by every means at our disposal.

NEPHRITIC TOXEMIA.

This condition depends upon primary lesions in the kidneys, occurring in women who have been suffering from chronic nephritis prior to pregnancy. It should be considered analogous to uremia.

Symptoms.—The symptoms are those of malaise, headache, and edema, and ocular symptoms associated with albuminuric retinitis. And if the above symptoms are allowed to go on untreated convulsions and coma may develop.

Diagnosis.—Only by means of urinary analysis can the condition be differentiated from pre-eclamptic toxemia. In the latter, the urea, ammonia and total nitrogen is markedly altered early in the disease, the kidneys being involved later; while in nephritic toxemia, albumen and casts in the urine make their appearance early. Although as a rule edema is not manifest in pre-eclamptic toxemia, it is nevertheless sometimes met with.

Treatment.—The treatment is the same as for eclampsia and will be discussed under that subject.

PRE-ECLAMPTIC TOXEMIA.

This is the most frequent variety of toxemia and for years was considered as its sole representative.

Symptoms.—The disease usually occurs in the later months of pregnancy, rarely being seen in the first half. The symptoms vary from malaise or a mild headache to profound coma. In the more severe cases the patient suffers from persistent headache, epigastric pain, dizziness, disturbances of vision, and in some cases hallucinations, which border on insanity. In those cases presenting ocular symptoms, the ophthalmoscope may reveal the characteristic symptoms of albuminuric retinitis. The total amount of urine is usually diminished, sometimes falling as low as 200 or 300 cc.

in twenty-four hours. Hyaline and granular casts associated with varying amounts of albumen are common findings. The total nitrogen, urea, and ammonia output are altered in varying degrees depending on the severity of the intoxication. The blood pressure is usually high, often rising to 180 or 200 mm.

Diagnosis.—In the absence of a history of a pre-existing nephritis it is impossible to differentiate the disease clinically from nephritic toxemia.

Treatment.—In the way of prophylaxis it becomes one of the most important duties of the physician practicing obstetrics to instruct his patients in those symptoms which may arise during her pregnancy indicative of an auto-intoxication. Also to make frequent chemical examinations of the urine in order to detect the disease in its incipiency. And should any alteration be found, twenty-four hour specimens should be measured, in order to determine the total output. By means of the Esbach albumenometer, the amount of albumen per litre may be determined and a careful record should be kept for comparison with subsequent readings. The Doremus ureometer is sufficiently accurate for practical purposes in determining the urea output. It was formerly taught that a small amount of albumen in the urine of pregnant women was normal or physiological to the condition. But of late years such authorities as Webster, Williams, Zweifel and others hold this not to be true, and although its presence does not necessarily mean that serious consequences are to follow; nevertheless the finding of such calls for vigilance on the part of the attendant. Ordinarily if the urea output is normal (16 to 24 grams per diem) the presence of a slight amount of albumen is in itself not especially significant; whereas, if 5 grams or more per liter be found and the urea at the same time falls below 10 grams, the patient should be regarded as in serious danger and should be kept under close observation. On the above findings the patient should be put to bed, and be placed upon a restricted diet until by repeated examination the urine has been found to have again become normal. Frequent blood pressure readings should be taken from which much valuable information may be obtained as to the efficiency of the treatment. For a while she should be upon a simple milk diet, to which fish, lettuce, toast and tea may be added by way of varying the monotony of such a schedule. She should be encouraged to drink water freely,

the carbonated waters being especially beneficial in cases where there is a tendency to an irritability of the stomach. As the urine shows improvement, the diet may be made more liberal by the addition of carbohydrates, in the form of baked potatoes, or unsalted wafers, fat may be given as cream or unsalted butter, etc., and finally eggs and well cooked meats may be allowed. These latter, however, only after symptoms have disappeared for a considerable time, and then only in amounts sufficient to supply the elements necessary to the metabolism of the mother and growing fetus. Many cases have been submitted to unnecessary starvation, after having presented toxic symptoms through the needless anxiety of an unscientific attendant, with the result that the women have come to labor physically unprepared for the ordeal, soon becoming exhausted and finally by the aid of instrumentation, delivering an emaciated infant which survived but a few hours. An estimation of the albumen content alone is not sufficient to determine the proteid tolerance in these cases. For it has been found that cases showing as high an albumen content as 6 or 8 grams to the litre, with a normal nitrogen output will tolerate a proteid diet far more liberal than those in which the albumen is slight yet in which there is an alteration in the output of urea and total nitrogen. In most cases the institution of the above treatment is rapidly followed by a marked amelioration of symptoms, an increased urinary output, a sharp fall in the blood pressure, and a prompt return to normal. On the other hand there are cases in which in spite of restricted diet, sweating and purging the urinary output continues to diminish, the ammonia coefficient falls, persistent headache, dizziness and abdominal pain develop and unless prompt interference is instituted true eclampsia supervenes. When such cases are encountered, prompt termination of the pregnancy is indicated. A discussion of the methods commonly employed will be taken up in the treatment of eclampsia.

ECLAMPSIA.

Eclampsia is an acute toxemia occurring in the pregnant, parturient or puerperal woman, and is usually accompanied by clonic and tonic convulsions during which there is loss of consciousness followed by more or less profound coma.

Frequency.—Statistics show that eclampsia occurs about once in every 500 labors; but as these statistics have been taken from hospital records alone

they hardly represent the true incidence of the disease, since cases of eclampsia come to the hospital which otherwise would not come except for the condition. On the other hand, cases occur so rarely in the practices of the physician doing general work, that accurate estimates from this source are almost impossible.

Symptoms.—An eclamptic convulsion sometimes occurs without warning in women who are apparently in perfect health. In the majority of cases, however, an attack is preceded by a longer or shorter period of premonitory symptoms indicative of pre-eclamptic toxemia. An attack may come on at any time; even when the patient is asleep. If she is awake the first sign of an impending convulsion, is a fixed expression of the eyes, which soon begin to roll from side to side. The pupils are usually dilated. The mouth begins to twitch and is drawn to one side. The seizures rapidly extend to the arms, body, and finally to the legs. The convulsions are usually clonic in character although in some cases they may be tonic; the patient becoming rigid. The breathing is stertorous, the patient frothing at the mouth, grinding the teeth, often biting her tongue. When the disorder appears during the later part of pregnancy, or early in the puerperium, a single convulsion may be observed. Often, however, the first is only a forerunner of other seizures which may number as many as one hundred in severe cases, the intervals becoming shorter with each succeeding convulsion. When the convulsions are infrequent the patient may regain consciousness between them, but in the severe cases she lies in coma throughout the attack. The arterial pressure is decidedly increased, rising in some instances to 180 or 200 mm. with the pulse usually full and bounding. A temperature of 104° is not unusual, in some cases rising to 106° or 108°. While convulsive seizures are the rule in eclampsia cases have been noted in which the patient fell into coma at the onset of the disorder and died without regaining consciousness and at autopsy the liver and kidneys were found to present lesions typical of the disease.

Varieties.—Three varieties of eclampsia are designated according to whether the attacks occur before, during, or after labor. According to statistical tables the last is least frequent, while the two former occur about equally often. Ante-partum eclampsia may terminate in one of several ways. Usually labor sets in with the first convulsion, the

woman delivering spontaneously or with the aid of operative procedures. In some cases labor does not supervene, the woman recovering, and later giving birth to a macerated fetus; or she may recover and at term bear a living child. When the attack comes on during labor, the uterine contractions are increased in frequency and severity; thus hastening the termination of labor. And in cases of a disproportion unattended, the patient may die undelivered. In the post-partum variety the attack comes on soon after delivery and may be manifested by but a single convulsion. Olshausen and Lichstein have noted a mortality of 26 and 27 per cent respectively, in this variety of the disease. Jaundice is observed in a small number of cases, and is a grave prognostic sign, as it indicates a profound derangement of the liver.

The urine in eclampsia shows changes indicative of extensive renal damage, being greatly reduced in total secretion as well as bearing large amounts of serum albumen and serum globulin, as well as hyaline, granular, and waxy casts. In extreme cases there may be a complete suppression of renal activity for several hours. Considerable work has recently been done on the question of the nitrogen partition in eclampsia by Williams, Zweifel, Ewing, Wolf and others, whose results have thrown considerable light on this hitherto obscure subject in metabolism. They find the urea which normally represents four-fifths of the total nitrogen, is reduced to less than one-half, there being on the other hand a relative increase in the amino-acids. In studying the ammonia coefficient, it was found that at the onset of the convulsions, a decrease is observed, which is soon followed by a marked rise, so that the ammonia coefficient remains high for a variable period of time. Williams has observed that in those cases showing a high ammonia coefficient, the prognosis is more favorable, than those in which the coefficient remains low. Very recently Murlin and Bailey in a study of 100 eclamptic urines, have published results which are at great variance with those reported by the investigators previously mentioned. They find that the ammonia coefficient may be as high or higher in normal women in the last months of pregnancy than in women who have pre-eclamptic or eclamptic signs. They attribute the high ammonia readings observed by others to decomposition changes of residual urine in the bladder, especially prevalent after catheterization, such being due to a low grade cystitis usually pres-

ent in these cases. This work remains to be corroborated, however, before definite conclusions on this point can be drawn.

In all three varieties, the urine rapidly returns to normal after delivery. However, in some a chronic nephritis may persist for several months after an attack, requiring careful treatment and watchfulness on the part of the physician to ward off a chronic intoxication and subsequent uremia.

Pathology.—Rayer in 1839 and Lever in 1843 were the first to demonstrate the presence of albumen in the urine of eclamptic women and for a number of years it was believed that the fundamental lesion was in the kidneys and that the disease was identical with uremia. After Schroeder showed that the urine in eclampsia did not necessarily contain albumen, and pointed out that women suffering from chronic nephritis did not necessarily become eclamptic, the view previously held was gradually abandoned. Autopsy findings by Polak and Bar in 38 autopsies showed renal lesions which were but slight in character in one-half of the cases, and Saint Blaise states that these organs are perfectly normal in some cases dying of eclampsia. Jurgens and Klebs in 1886, pointed out the existence of a hemorrhagic hepatitis in certain cases of eclampsia. But it remained for Schmorl in 1893 to report the result of the study of 17 cases in which identical hepatic changes were present in all, from which he concluded that the essential lesion of the disease was in the liver. This consists of irregularly-shaped, reddish or whitish area scattered throughout the entire organ in the neighborhood of the smaller portal vessels. Microscopically they appear as areas of necrosis, involving the periphery of the individual lobules and portal spaces. Schmorl attributed their formation to thrombotic processes in the smaller vessels, and considered that their presence justified the diagnosis of eclampsia without further knowledge of the history of the case. Prutz has noted edema of the brain in 35 per cent. and apoplexy in 42 per cent. of cases. Many observers have noted giant cells in the pulmonary capillaries similar to those of the syncytium of the placenta and many believed these explained the thrombotic processes present in the various organs in this disease. Zangmeister called attention to two conditions which he believes to be intimately associated with eclampsia; namely, cerebral edema and reflex irritation from the birth canal. Three cases of severe puerperal eclampsia recently came under his care and

in each he trephined the skull in front of and behind the temporal region. The dura was found to be extensively stretched, so that all pulsation was absent. When a small incision was made in it, a portion of brain tissue was forced into the opening and a large quantity of serum escaped. When the pressure decreased the pulse slowly approached normal. The increased pressure was caused by a high grade cerebral edema, in other words, a cerebral glaucoma. After the operation the patients became more quiet and the respirations more normal. The temperature rose, then fell to normal within a few hours. Urinary secretion became more active and the convulsions lighter in character and the interval longer than previously. All these cases so treated recovered.

In summing up the evidence at hand, it must be assumed that the essential feature of the morbid process, is the circulation of some as yet unknown toxic substance in the blood, which produces lesions of varying intensity in the several organs of the body.

Etiology.—Under the heading of etiology it may be interesting to briefly review some of the more common theories which have been advanced as to the cause of eclampsia. In the earliest periods it was considered a disease of the nervous system peculiar to pregnancy. Following this came the uremic theory after the discovery of albumen in the urine. Traube held the essential lesion to an edema of the brain, then followed the bacterial theory of Delore. Reviere in 1888, was the first to put forward the theory of auto-intoxication, resulting from a heaping up of some substance in the blood during pregnancy. Tarnier and his students attempted to demonstrate the correctness of this conception by a series of experiments in which they injected the urine and blood serum of eclamptic women into the peritoneal cavities of guinea pigs. They found the blood to be more and the urine to be less toxic than that of normal pregnant women concluding therefrom that the blood was carrying toxic substances which should ordinarily be borne by the urine. Volhard in 1887, however, failed to substantiate their findings and later investigators have shown that the injection of blood and urine into animals may give widely varying results depending on many factors, such as hemolysis and the presence of organisms in the urine.

Bouffe de Saint Blaise considers the essential feature of the disease to consist in an alteration

in the function of the liver, which fails to render innocuous certain poisonous products of metabolism, and that these in turn give rise to an auto-intoxication or hepato-toxemia. In 1889 Fehling brought forth the theory that eclampsia was due to products of fetal metabolism, the maternal organism being unable to accommodate itself to the increased strain incident to their elimination. He pointed out that convulsions sometimes occur in infants of eclamptic mothers and that at autopsy, changes in the organs are found identical with those present in those women dying of eclampsia. This view receives support from clinical observations, since it is well known that convulsions usually cease after delivery; while spontaneous recovery is the rule when the fetus dies in utero. Based on the fact that fetal ectoderm and even fragments from the chorionic villi gain access to the maternal blood stream, and have been noted in the lungs, brain and liver. Viet contended that these gave rise to a toxin which he designated as syncytio-lysin. To prove his theory, he injected varying amounts of macerated placental tissue into the peritoneal cavities of laboratory animals with results which he took to be conclusive. Later investigators in repeating the work, came to the conclusion that placental tissue contains no such toxins, and that Viet's animals died of a bacteremia caused by organisms introduced in the injection of the material to be studied. Massen in 1895 found the relative amount of urea greatly diminished in the urine of eclamptic women and Helouin later stated that the amount of nitrogen contained in urea, as compared with the total nitrogen, was profoundly altered. Further studies of the nitrogen partition by Zweifel, Stone, Williams and others, gave evidence of a marked derangement and indicates imperfect oxidation and disamidation. The intimate relation between the thyroid gland and metabolism led Nicholson to assume that eclampsia might be due to thyroid insufficiency. And Lange observed that thyroid hypertrophy was a usual concomitant of normal pregnancy, and that its absence predisposes to the occurrence of toxemia. Sellheim suggested the mammary origin of the disease, conceiving his ideas from the experiences of veterinarians, in that the "so-called" paresis observed in cows is relieved by the injection of air into the udder. Furthermore, on injecting colostrum from such animals into guinea pigs, lesions very similar to those of eclampsia were produced. In spite of the seeming

absurdity of Sellheim's hypothesis, the report of a case of eclampsia proves at least interesting. Herrenschneider recently operated upon a case of a primipara, 18 years of age, brought to the hospital unconscious. She had two convulsions before abdominal section was performed, after which the coma became more profound, the patient rapidly sinking into a moribund condition. As a last resort, both breasts were amputated. Following this there were no more convulsions, the patient passing from a deep coma to a restless condition in forty-eight hours. Pneumonia then developed with hallucinations and acute mania and during her struggles the patient burst her abdominal wound, forcing out considerable portions of the intestines. These were replaced and the abdominal wound closed. Later she developed a pulmonary abscess with foul expectoration which persisted for several days finally clearing up, and the patient making a complete recovery.

Diagnosis.—The diagnosis is comparatively easy in the majority of cases. However, it must be borne in mind that atypical cases present themselves, which require careful study before a definite opinion can be given. This is especially true in those cases not manifest by convulsions, in which event a differentiation between uremia, metal poisoning and even hysteria must be made before proper treatment can be instituted.

Prognosis.—The prognosis is always serious, eclampsia being one of the most dangerous conditions with which the obstetrician has to deal. The average maternal mortality by all methods of treatment is about 20 per cent. The average fetal mortality about 25 per cent. A high ammonia coefficient is considered a favorable prognostic sign and the fewer the convulsions and the longer the interval between them, the better the chances for the patient's recovery.

Treatment.—The prophylactic measures in this condition are of the greatest importance and call for regular and frequent examinations of both the urine and arterial pressure in order to detect the disease in its incipency. In so doing the physician performs one of the highest duties to the pregnant woman: safeguarding her from this dire peril of motherhood. As to the method of treatment after the onset of eclampsia, it may be said that obstetrical teaching is at present divided between the so-called radical and conservative methods. Each has its followers among leaders in the profession in both this country and abroad. Some advocate

immediate abdominal section; while others believe better results are obtained through the institution of the milder therapeutic measures, relying largely upon drugs in controlling the attacks and allowing delivery to take place without interference. Of the latter school Stroganoff is the principle exponent, presenting the report of a series of 330 cases so treated, with a mortality of but 6.9 per cent. Lichstein also contends that the benefits derived from early operation are in a large part illusionary and depend almost entirely upon the amount of blood lost during the operation, and that equally good or better results are obtained by performing venesection and allowing the spontaneous termination of labor. The method of practice employed in the Rotunda at Dublin is conservative. Similar to the treatment of Stroganoff, a large dose of morphine and chloral is given immediately after the first convulsion, repeating with quarter-grain doses until not to exceed two grains of the drug have been given in twenty-four hours. Combined with this, purges of croton oil and magnesium sulphate are given until free catharsis has been induced. Forceps are applied when the cervix is completely dilated and effaced. This clinic reports a mortality of 16.4 per cent. by this method of treatment. The question as to the advisability of early operative interference can only be decided by determining the proportion of cases in which the convulsions cease after the birth of the child. Durrhusen, Olshausen and Zweifel note a cessation in 93, 85, and 65 per cent. respectively. In studying the mortality tables of the larger European clinics in order to determine the comparative value of the two methods of treatment, Seitz found a mortality of 28.5 per cent. in the expectant, and 11.25 per cent. in operative methods. Lichstein on the other hand, reporting his studies of 400 cases, states that convulsions ceased after delivery in but 25 per cent. of them. For years Veit, Charpentier, de la Harpe and others have taught the conservative to be the better line of treatment in these cases. Williams, Webster, DeLee, and others in this country, notwithstanding the claims of Stroganoff and his followers, are firm advocates of early delivery. They hold that delivery should be promptly effected irrespective of the condition of the cervix, and whether labor has begun or not.

For reasons previously set forth ether is the anesthetic of choice. In operative work in these cases careful examination should be made in order to determine the conditions present, in order that

the most conservative method consistent with rapid and safe delivery may be selected. And in such selection not entirely disregarding the rights of the unborn child. Depending on the condition of the cervix, either completion of the dilatation by the Harris method, (if found partially dilated, soft and patulous,) or if rigid, vaginal caesarian section, are the operations of choice, followed either by version or the application of forceps. Although abdominal section is advocated by a few, in view of the greater shock produced in this operation, as well as a longer convalescence, the former operative procedures appear to be the more rational. However, if the attendant is not a competent operator, and is unable to secure the services of one, the treatment should be far more conservative. For awkward attempts at *accouchment force* will expose the patient to great risks of hemorrhage, laceration and infection, which in themselves are as dangerous to the woman as the underlying disease itself. After the delivery, treatment must be directed toward the stimulation of all of the excretory organs. The bowels should be moved by the administration of croton oil and the salines, and diuresis prompted by means of entero- or hypodermoclysis.

Sweating by means of hot packs or the electric light cabinet is a generally accepted beneficial procedure. However, there are some who discredit this, believing that by so doing the toxins remaining in the blood are concentrated by the withdrawal of the watery element of the blood and further that the strain produced upon the heart, offsets any beneficial action which might be gained. To the essayist these arguments are largely theoretical and the above mentioned objections may be met by the use of subcutaneous injection of saline solution and of heart stimulants preferably one of the digitalis preparations. Digipuratum is held to be the least toxic of the group. It is now generally used in these cases in the clinic of the Presbyterian hospital of Chicago. If only a comparatively small amount of blood has been lost during the delivery, venesection is indicated, withdrawing from 200 to 500 cc. depending on the weight of the woman. In a study of 36 cases of eclampsia with complications, Davis and Carley report the following: in 36 cases there were 9 who suffered from uterine hemorrhages, 3 with purpura with hemorrhages from the mucous membrane, 10 showed a marked hematuria, and 13 had concealed accidental hemorrhages and there was one with a cerebral

hemorrhage. This report is valuable in that it illustrates the tendency to hemorrhagic conditions in the toxemias.

In concluding this paper I wish to lay especial emphasis upon the duty which rests with every practitioner of obstetrics of impressing upon his patients, the necessity of presenting their cases as soon as they find themselves to be pregnant, so that he may instruct them in the proper hygiene necessary to their health in this condition, and that he may inform them of symptoms which may arise indicating a metabolic derangement. He must see them frequently during their pregnancies in order that observations as to the arterial pressure may be made. Above all a chemical examination of the urine must be made at regular intervals, at least once a month during the first six months and twice monthly thereafter. Only through such instruction and care will the practitioner be able to safeguard womankind against this most serious condition of motherhood, therein fulfilling in a great measure at least that social obligation which her confidence imposes.

PSYCHO-ANALYSIS.*

BY W. F. BECKER, M. D.

MILWAUKEE, WIS.

In no department of medicine, I take it, has there been more teeming activity and fine achievement, in the last decade, than in the field of psychopathology. This has come about by the contributions of workers in related fields, correlated and integrated. So there has been much reason to be proud. We have indeed hitched our wagon to a star and though there may be many air castles en route, the view is most inspiring. Perhaps its most striking aspect is that of psycho-analysis with which the literature inspired by Freud is just now bristling. That may serve as my excuse for bringing a subject like this before you, even though crudely set forth.

Hitherto we have tried to understand mental disorders largely in terms of clinical pictures made of symptom groups. We have but to glance at the columns devoted to causation in hospital reports to see how little we have done in study of the antecedents of a psychosis or the upsetting cause and how much less we have pursued or utilized that

little in analytic or therapeutic ends. Now we have ventured into the field of the actual mental mechanism of a psychosis, by exploring the great reservoir of the subconscious mind. We have always been naively aware that there is such a thing as the subconscious mind, but we have never fully appreciated how much we live and move and have our being in it, how it largely determines mental life; and particularly how, by so-called mental mechanism, we really think and feel and act for other reasons than we give ourselves for such thinking, feeling and action, i. e. how the conscious mind explains in fallacious terms of its own, what really has its *raison d'être* in the subconscious mind.

The unconscious as Freud has called it (*Das Unbewusstsein*) is that part of our mental life of which we are unaware. The "unaware" is in some respects a better term.

Whether academically it be the fore-consciousness or the co-consciousness, or whether it should include all phenomena which happen not to be under immediate attention and lie on the fringe of consciousness, or whether its nature be psychic or physiologic or its character rises to the dignity which Myers ascribed to it, and long ago Hartman, or a subliminal self, a superman, something more than human and less than divine, or per contra, the Boris Sidis theory that it is stupid, immoral, more approaching the brute, we know that the unconscious is the essential mental life and that consciousness is only an intermittent state, awakened when new adjustments are necessary. It has a certain structure, if we may confuse psychic and physical terms for simplicity, and a certain function. It consists of instinctive and elemental states of mind, harking back to primitive periods, and of acquired states, which having once been conscious mental processes have been delegated to the unconscious, remaining there latent but greatly influencing our mental life. If we could split the personality into two parts, the individual self, who is concerned with nothing but his self-preservation and well-being and the propagation of his kind—the individual, on the one hand, and the social self, that portion which concerns his relation as a social being, the socius, on the other, the unconscious is largely, though not wholly, concerned with the individualistic life.

We all have experiences with the unconscious in the broader sense, in the daily acts that are performed below the threshold of full consciousness.

*Read before the Medical Society of Milwaukee County, April 11, 1913.

We rise in the morning in a very conscious state perhaps, but the complicated process of dressing goes on largely automatically, except here and there in the performance, and so on during the day's activities, we "come to" now and then, if I may put it that way.

We are often aware of certain projections of the unconscious into the conscious, as for example, in riding in a street car, we may suddenly find ourselves on the platform at a transfer point where it was our business to alight, without having had any conscious impulse to rise and go there. These projections often influence our actions when we are not aware what is directing us. Dr. White of Washington persistently wrote an address in a certain way, after he had been asked repeatedly not to do so. He was quite unaware of his reasons until it appeared that there was a similar name in the same apartments where the letter went, which he had quite forgotten and that he had unconsciously written it a certain way to avoid confusion in the mail. We all have the common experience when the unconscious cerebral activities solve problems for us, the solution coming into our mind perhaps full fledged over night, and may go complacently to bed in that hope. We are capable of recalling varied experiences or ideas or quotations under stress, which were entirely forgotten by consciousness. Like the housemaid who recited Latin in her delirium, which she disclaimed any knowledge of, it developing that she had occupied an adjoining room to a priest whose recitations in Latin had entered her unconscious mind. This is the field for exploiting the astounding things classed as occult, like the erstwhile fad of crystal gazing, whereby for instance in some persons a lost address, which had disappeared from memory, could be brought back into the visual field by gazing fixedly into the crystal. Mrs. H. in Washington County, gained some renown after the death of Dr. Hunt, keeping him in posthumous practice by automatic writing and also selling prescriptions which it was her sincere belief and that of her dupes, were messages from the deceased doctor. I saw some of these which were made up mostly of domestic remedies. In one case she assured me, in regard to a certain drug, the name of which she had thus written, that she never knew that there was such a drug until she had consulted the druggist. I do not now recall the name of this drug, but I am convinced that she thought she spoke the truth, the word having been buried deep in the

unconscious mind and resurrected only during the activity of her split-off consciousness which was dominant during the automatic writing and projected into consciousness.

The unconscious contains the mental material of these split-off states, dissociated states so-called, in varying degrees from the ordinary moods of the normal to multiple personalities. This dissociation is best illustrated by the familiar example wherein the hysteric, though anesthetic in her hand may still use the same in writing and sewing, etc., which would be impossible were there real anesthesia, and which proves that the sensations necessary for these acts must go to some split-off co-consciousness, which presides over this complex sensory-motor mechanism of writing or sewing and of which the main consciousness is unaware. It has long been shown to be possible to reach and hold conversations under certain conditions with such split-off consciousness. A recent case of Dr. Fraser may be mentioned in illustration: A healthy middle-aged, unmarried woman, very busy in philanthropic work, arrived at an English country home for the week end. She was much fatigued but entirely normal and retired early. In the morning the maid brought her breakfast to her room finding her still entirely natural though very tired. Later she went to the bath room where she remained so long as to arouse apprehension, but while her friends were considering as to what should be done, she came out looking very ill and suffering from a psychosis in which she believed that she was the wife of a prominent gentleman in the town with whom her name had in no way ever been linked. Later this idea became elaborated so that she believed that they also had a baby, which she believed was in the house. Dr. Fraser found her quite clear on other subjects but amnesic as to what happened in the bath room and also as to an experience of a few days previous in which he and the patient had very narrowly escaped a serious runaway accident. In order to bring out these lost memories he had the family physician ply her actively with questions on her delusion while he (Dr. F.) keeping his hands over her eyes, said to her in a whisper. "What happened in the bathroom?" At once came the reply, "Oh, I was very ill." Under the same conditions he asked her about the runaway when she replied in a fragmentary way, "horse, foot, trace," showing that she remembered the incident. On removing his hands and the colleague ceasing to ply her with distract-

ing questions, she again knew absolutely nothing of the two episodes.

Such states, as we all know, may involve entire cleavages in personality by which secondary and multiple personalities, alternating, may come into being, each having no memory of the other, though such memories are capable of being aroused by hypnotism, distraction and other measures capable of resurrecting buried memories in the unconscious. This is illustrated in the case of the Denver horse-dealer, who turned up in Milwaukee some time ago and who, after "coming to," and being then oblivious of his Milwaukee life, could be made to recall fragments of his conduct in a West side boarding house while in his Milwaukee personality. For instance, he had been reading a popular book for days and also had made a young man his companion and room-mate of which he had no recollection. One of the difficulties to unravel was, how he had come by a large amount of money he had, which gave him considerable apprehension lest he should have gotten it dishonestly and made himself amenable to the law. The classic case of Ansel Bourne is recalled in this connection in whom Prof. James was able to recall details of conduct of another personality in which Mr. Bourne, a clergyman, had made quite a career in another state. A more recent case in a Milwaukee department store girl, I cannot take the time to go into. She has now recovered a stable personality, but which one it is, I am unable to say.

But what concerns us most are certain mechanisms of the unconscious upon which much light has recently been thrown by Freud and Jung and their disciples. Many of the states of mind contained in the unconscious are wishes, desires, cravings, yearnings, connected with the instincts of self-preservation and race-preservation, which can find no welcome, are repudiated in the higher social consciousness and are repressed by the censor. A man may wish his father dead so that he may inherit his money or his wife dead so that he may marry another woman. They are not admitted or are given but stunted freedom in consciousness being unattainable or wrong, or sinful, or immoral, or punishable, or incompatible with self-respect, etc., and are kept in the background of consciousness. We are apt to be unaware of the wide scope of these elemental feelings just because they are subjected to this very repression.

Likewise mental experiences that are painful or

shocking or deeply humiliating, are also thus repressed and often forgotten, annihilated as far as possible, although their echo may reverberate through life and sometimes find morbid expression. A middle-aged woman has an unaccountable antipathy to red-haired women and can scarcely treat them decently. The reason of this was quite unknown to her until it was traced to a very humiliating experience she had in her childhood with a red-haired girl, the experience having been repressed but still capable of finding expression in devious ways. A friend has a mild horror which is sometimes akin to nausea of a certain shade of yellow, especially, yellow paper. It is quite an active thing in his life and confronts him on many occasions. It has not been possible to uncover the particular forgotten experience on which it is founded but he connects it with something in his childhood.

These repressions are accomplished by a so-called mechanism of defense, which does biologically for the mind, what compensation and defense do for the body, as illustrated by the phenomena of phagocytosis, thickening of bloodvessels, compensatory hypertrophies, etc. They are all defense actions and the mind seems to require them quite as much as the body. The other day a bear escaped from a show and entered a yard on Wells St. where a child was at play, whereupon the child straightway fainted. When an experience is too intolerable to the hypersensitive woman, she escapes it by fainting—a sort of transient suicide. A young man when brought before the judge to be lectured, and possibly sentenced, told me that he knew absolutely nothing of what was said to him, that he was quite oblivious of the situation, only having sense enough to appear contrite. A shoplifter, the other day, caught red-handed in a department store, was taken to the Emergency Hospital where I found her entirely amnesic as to the act, but the repression was finding vent in an acute hysteria, in which appeared so-called substitutive mechanisms related to the crime. Among other things, she believed that some one was to be slaughtered. We are often struck with the amnesia after a crime and are wont to interpret it as deception.

To digress a moment here, we might show that, not only must the mind be saved from the intolerable, but it requires a certain amount of flatteringunction. The ego demands a certain subjective well-being, a certain imperialism, however, limited. It seems to need to stand well before the censor

by hook or crook at the cost of any amount of sophistry. If wounded it must still seek the balm of James' fraction by which our success or well-being is equal to our achievement divided by our pretensions, thus $\frac{\text{achievement}}{\text{pretensions}} = \text{success}$. If we cannot increase the quotient (to the necessary measure demanded by the hungry ego) by increasing the dividend, the numerator—achievement, we still do it by decreasing the divisor, the denominator—pretensions, and get some comfort just the same. Thus if we fail to get the prize in Latin, we feel that we never *did* make great claims or pretensions in Latin and that we are much better in mathematics, say. I may illustrate, as it happened only yesterday, a bond man was figuring out some interest in my office. He had much difficulty and finally got it wrong. He was perceptibly annoyed as he regarded himself with right as a good business man. So he said in explanation: "I never was any good at mathematics anyway," and then added with some feeling, "I have my opinion of these auditors who haven't anything more than figures in their heads. Human adding machines, that's about all they are." Upon which remark he seemed much relieved.

The James' fraction is widely applicable to our conduct, too. If the conduct we achieve does not satisfy our ego and we cannot, or do not wish to change it, we still get satisfaction by diminishing our pretensions in that direction or changing our philosophy along that line. Thus, a man, who from principle had always shunned saloons, now frequents them and satisfies the censor by changing his philosophy, saying he no longer takes stock in such puritanic ideas.

To return to the subject of the repressions in the unconscious mind, it is with these, that psychopathology largely concerns itself. Many of them are sexual in character, that is, related to the "love motive." When such repression is successful they can and do become sublimated, that is, spent in higher channels of activity, their tension thus carried off. Thus much of the world's best activity from the highest works of creative art to the more humble activities are forms of sublimation. So that a man's real character and activity as we see it, is often a sublimation of some repression, his real trends are entirely covered by other activities he steers them into, which, except for finding vent in this manner might express themselves in terms of psychotic symptoms.

Sometimes the repressions cannot find relief of this kind. They struggle to find expression in spite of the censor. They cannot be annihilated, their ghost arising under the slightest and remotest associations. They form a so-called complex which insists upon recognition, the censor forbids it and the fight is on, with tension and conflict. When there is compromise and the complex is allowed, or forces some entry into consciousness, it is only permitted to do so in some converted form, some disguised or symbolic expression which is often the psychotic symptom itself.

Even in our dreams whose mechanism is similar to the psychoses, capable of the same interpretation and incidentally greatly illuminating them, the censor is fairly active. One of my patients who thought she had repressed all love and sex feeling, together with the desire for children and marriage, (her sister had an unhappy experience with children—she felt herself necessary to her aging parents and she had some ideas of derogation—believed she was a wall flower) has dreams in which she does the cooking and mending and home-caring, but the censor of the dream will not admit the sex element, the man, and the dream takes the form of a compromise, namely, that she is settled and keeping house, truly enough, but for a priest. (She is a Roman Catholic.) Conditions in her life prevent a full sublimation of what might broadly be called the love motives which tend to express themselves in terms of a mild psycho-neurosis.

How complexes thus break into psychoses may be illustrated by the case of Elizabeth of Freud. This girl had been nursing her very sick father. One evening when he was particularly ill, she met her lover and gave herself up to the happiness of the occasion. When she returned home she found her father much worse, she reproached herself, but repressed the disagreeable thought from her consciousness. It was her duty to dress her father's leg each morning, and she was obliged in doing this to rest it upon her thigh. The repressed complex seized upon the weight and pain of her father's leg upon her thigh, as an efficient means of expression and the repressed erotic wish comes to consciousness under the disguise of a painful area of her right thigh corresponding in extent and location to the place upon which she had rested her father's leg. One of my patients quite free from criminal instincts had been put through a so-called "sweating" third degree process. He

suffers from a psycho-neurosis in which fear of people plays a great part, especially those with sharp features, he avoids crowds and is nervous when he hears loud language which makes a great impression on his daily conduct and influences him to do many roundabout and peculiar things, the reasons for which are not always apparent, but traceable to this experience. The connection was not known to himself until established by psycho-analysis. We see the same things in patients who have been in railway wrecks, the connection here, however, is more obvious. There is no doubt that many fear states of later life have their source in harsh words applied to children. Brill quotes a case illustrating the similar psychogenic origin of the "tic." A very sick child falls asleep and her mother exerts all her will-power *not* to awaken it, but just because of this resolve, emits a clicking sound with her tongue (hysterical counter-will) which was repeated on another occasion when she wished to be absolutely quiet. This developed into a regular tic which lasted for years. No symptom of the insane, however bizarre, fails to have its meaning, under interpretation of psycho-analysis, in some mental mechanism of some experience, though it cannot always be revealed. I may mention August Hoch's precox case in which the patient among other symptoms went through a peculiar one of breathing deeply and bearing down, which on analysis proved to be due to the fact that when her baby was born, a long time before, and the doctor had told her that her pains were inadequate and that she would have to breathe and bear down, she did not do so because she secretly wished her baby might be born dead, so that she might the more easily marry a dentist with whom she was in love. Now in her psychosis she goes through this performance of breathing and bearing down, unconsciously connected with her repressed complex of the birth of her child, by a so-called mechanism of atonement.

The mechanism of the mental symptom is usually an escape from the tension in which the repressed complex finds relief by a process of wish-fulfillment. By hallucination and delusion in which the patient escapes the intolerable real and sees and believes things as he wants to see and believe them; by amnesias in which he is relieved by forgetting the unendurable experience; by ideas of negation through which he thinks himself or others or the universe non-existent, by which the self or the environment becomes dissolved, in order

to escape the intolerable; by dissociated states (even reveries or day dreaming in the normal) by which he practically abdicates from the intolerable personality, he achieves a wish-fulfillment, a conservation of his mental well-being, a flight into psychosis which changes the situation from an intolerable real to a tolerable or gratifying fictitious one. Thus insanity itself has been called a lightning rod of despair, drawing off the anguish of mental conflict from experiences in life that cannot be handled or assimilated as indicated above. A patient of mine about thirty years of age, has recently recovered from a manic-depressive attack. Her life had been full of repression and difficult adjustment. The daughter of rather physically poor country folk, a rich relative furnished her opportunity to leave the farm and satisfy a somewhat ill-directed ambition and mediocre ability. She studied hard, changed her intellectual and social environment completely. In this new atmosphere she was constantly in need of repressing elemental impulses some of which were marked sexual and maternal longings and others difficult to subordinate to the conventions that now surrounded her. One day after a period of mild depression she went on a strike, so to speak, fell into a psychosis and abandoned herself to her natural impulses. Her hallucinations and delusions fulfilled her wishes. Her censor was off guard, she had, so to speak, "the time of her life." For three or four months, playful, mischievous, witty, abandoned, she roamed about the countryside unrestrained, climbed trees, lived the life of a gypsy (she was always passionately fond of out-doors) said just what she meant, told everybody what she thought of them, in short, lived out many of her original impulses. Now on her recovery she is living the sad repressed life again realizing with a certain pathos that for four months she had lived the unrestrained life of the individual self, uninfluenced by the social consciousness, illustrating the lines of the poet, that there is no joy like the joy of being mad.

In defining the complex then, it may be put without being technical, that it is a certain assembling or constellation of ideas based upon some experience or state of mind which has not been assimilated into the mental life nor easily tolerated there, (like a foreign body,) which has been repressed by the censor into the unconsciousness, which has a strong feeling tone and a large life of its own, kindled easily into activity by slight

and remote and unconscious associations and capable of influencing strongly the psychic life, causing tension and conflict which tend to express themselves in the various psychotic symptoms of the insane and the psychoneurotics; which symptoms either guard the mind from too painful realizations or relieve it by wish-fulfillments or other mechanisms.

It is the problem of psycho-analysis and psychotherapy of which it is often, ipso facto, a part, to penetrate the operation of the unconscious to discover the complex, bring it forth into consciousness, thus to purge the mind (mental catharsis) to establish normal associations by therapeutic conversations, by re-education, by sublimation, etc.

One method is that of free analysis. This is especially applicable where patients are accessible i. e. frank, responsive and confiding—patients being easily divisible into the accessible and inaccessible groups. This consists of conversations, probings, confidential confessions which must depend upon rapport and confidence in the physician, and which no matter what their character, must meet with an entirely uncritical attitude from him. The patient here must be free from disturbing sensations and relaxed and if possible, be as if he were alone talking to himself and ready to utter and uncover unreservedly any associations that come to his mind entirely unconstrained, no matter where they may lead and following them naively to their deeper recesses. In this material and atmosphere the examiner looks for the so-called complex indicators.

Another method is that of word analysis. This furnishes very useful data especially in patients not accessible to the method of free analysis. For while patients may hesitate to confide their inner thought and experience, they are often willing to co-operate to the extent of telling what words or ideas certain words given them, recall. A list of fifty or a hundred words are used, so called test words or stimulus words. A standard list has been in use, made up of certain words and arranged to strike some of the common complexes. I will mention a few of them here: Sick. Pity. Head. To Sin. Money. Finger. To part. Family. To Marry. Dear. Luck. To Wash. Kiss. To abuse. To die. Woman. Among the list others can be interspersed that may have a special bearing on the patients' trends if these are known. The patient places himself in a passive and responsive state and is asked to respond to the word uttered by

the examiner by a word or idea with which it happens to spontaneously and promptly associate itself. A stop-watch marked in one-fifths of a second is used to measure the reaction time, that is, the time it takes from the moment the test word is uttered until the moment of response by the patient. This, as well as the response is recorded. The list is then gone over again. The existence of a complex is indicated or suspected when the answer is accompanied by some emotional reaction, or the reaction time is greatly prolonged, or there is no reaction or a faulty reaction or a repetition of the stimulus word, or the effect of the reaction is noticeable in the next word or a failure to reproduce the first word in going over the list again. A complex thus disclosed, is easily worked out further by free analysis. With these analyses the source of the symptom is often revealed, the character greatly modified and sometimes dispersed.

A patient, quite inaccessible, suffering from a paranoid trend, answered the first half-dozen words of a word association test readily. When I came to the word "man" she answered with a great deal of feeling, "brute." On analysing this answer it appeared that we had disclosed an important complex which would not have been brought out by any free analysis. She said "all men are brutes." It happens that she believed that a certain man was in love with her. I said "do you think the fact that he was in love with you by itself constitutes him a brute?" Then she admitted that he looked at her in a significant way, admitting reluctantly that it was at her mouth. It appears that her husband had told her about certain practices some time previously, by a mental mechanism, I cannot stop to describe, she developed the belief that the man had such practices in mind. Hallucinations were also formed as the result of this belief under expectant attention, in which she heard the man's wife say among other things, "we women have to do such things." This condition would never have been revealed except for such a test. The examination of John Schrank, the assailant of Roosevelt, may also be mentioned. The word test was not necessary to bring forth the findings in this case, as the man was very accessible. Had he not been so, however, it would have been of large value. One of the words given him in this test was the word "four." (I might say that it is well to include numerals in the stimulus words as I find that con-

plexes sometimes have a numerical content.) To this word "four" he answered "traditions." He had grouped a set of ideas, so-called traditions, to-wit: that no president was to seek a third term, that the Monroe Doctrine was to be held inviolate, that no Roman Catholic was eligible for the presidency, and that no war of conquest should be waged by the U. S. These ideas were accompanied with a strong feeling tone, were actively nurtured, became the subject of meditations and poems and systematized elaboration, and he soon regarded these "traditions" as sacred and their violation as deserving assassination. It was but a short step from this to the development of certain mechanisms which deluded him into the belief that he was the selected agent.

Perhaps even a more important form of psychoanalysis is the disinterring of complexes and mental mechanisms in the interpretation of dreams. For the dream consciousness knows and recollects things unknown to the waking consciousness. Combined with free analysis and word analysis it is most illuminating. Dreams according to the Freudian psychology are invariable wish fulfillments—often unconscious, (not always as we wish things to *be* but as we wish them *not* to be). In children particularly the dream content is very obviously and directly, a wish fulfillment. The child's dream is full of that it would have, or be, or do. In adults the dream is a more or less distorted and indirect wish fulfillment. The child wants things—is a persistent little pleasure seeker, inheriting the earth and crying for the moon and all but getting it. Gradually as the social consciousness develops its wishes have to be conditioned by the rights of others—have to be repressed or compromised. But we never stop wanting things. Our wants are insatiable, but they are not so easy to get, are repressed and may come to us more or less realized in dreams. Thus what is denied us in reality, what is not admitted to waking consciousness because of the activity of the censor, we can still get a sort of disguised or fictitious or poetic gratification of, in other ways and one of these is dreams. Another is play. The child cannot get a real horse so it rides a stick and plays it is real, or it dreams that it has one and so has its wish. Reveries, day-dreams, illusions and hallucinations are allied to dream states is another form. Goethe saw a vision of himself passing him as he was riding away from the home of his beloved Fredericka after what he supposed

a farewell meeting. He was deeply depressed at the parting and adds that the hallucination gave him a sense of great relief, but he did not know that this comfort came through a wish fulfillment mechanism by which he saw himself in the vision, riding back again to the home of his beloved. Creative poetry, which is allied to dreams, is another form in which wish fulfillments are realized. Poets are proverbially dreamers, setting forth in their poems (dreams) things as they would *have* them be and in similar disguised and symbolic expression. Like the dream, too, an involuntary expression, the muse compelling them; the tension of repressed emotion finding a safety valve of relief (as Shelley says, "the mind boiling and throwing off images") that might otherwise break into psychotic symptoms.

These all have an analogous character and mechanism to dreams. If we have any quarrel with the wish fulfillment theory of dreams, we may note that the very word "dream," as used in language and song is naively synonymous with gratified wishes of one kind or another. What we want and cannot get we call "a dream," so that at the outset we have such evidence for the contention as almost to shift the burden of proof on the other side.

The substance of the dream is only the repressed material out of which is worked in some distorted form the particular wish fulfillment. The material may be this or that set of ideas or images. The actual events of the day being only the setting, the construction material, the dream capable of the same interpretation with any other material, just as systematized delusions can find their support in any constellation of actual events. The dream as remembered is usually a jumble, but it has a manifest content and a latent content. The manifest content is the dream as it is recalled, usually distorted, bizarre, incomprehensible, the latent content, is the dream as analyzed and contains the fundamental thoughts of the dreamer (some form of wish fulfillment) before they were subjected to the psychic censor who, we may put it, permitted only such material to trickle into dream consciousness as had been first subjected to a certain distortion and mental mechanism.

The transformation of the latent into the manifest content of the dream, the so-called dream-work, "Traumarbeit" is accomplished by the so-called processes of displacement, condensation, and

secondary elaboration which cannot be more than mentioned here.

Much then can be gleaned by dream analysis of the deeps of the psychic life which can be further worked out by free analysis and word analysis and which bears upon the psychosis or psychoneurosis both in diagnosis and treatment.

Dreams are the guardians of sleep. The dream appeases the sleeper. He has thirst or hunger, or calls of nature, and he eats, drinks and gets relief in his dream and so continues asleep. The sense activities of the day and the idea and emotional associations are so lively, as to interfere with the advent of sleep, then the seething, teeming mental life is transformed by the dream work and sleep is possible and the tension is appeased by the relief received in the smaller or greater wish fulfillment of the dream.

In closing, I may mention a fairly undistorted dream requiring no analytical technique of one of my patients who, in the form of a nightmare, dreamed that she was struggling with and assaulting a lady friend and benefactor. On analysis it turned out that the woman, though her friend, was the subject of a decidedly pathological complex in the patient's mind, the patient having a grievance against her entirely gratuitous and unjustified, which never disclosed its magnitude on superficial questions, indeed, quite the contrary. But it appeared that for a long time she harbored the feeling, though not admitting it fully to her waking consciousness, that her friend was responsible for her breakdown because she did not understand her and had urged her to ignore early symptoms. This then, found full expression in her dream when the censor was off guard and by a wish fulfillment she was getting even and incidentally great relief by violently pounding her erstwhile friend.

REPORT OF TWO CASES WITH TUMORS,
ORIGINATING FROM THE REGION
OF THE PITUITARY BODY.*
BY FRANZ PFISTER, M. D.,

ASSOC. PROF. DISEASES OF EAR, NOSE AND THROAT, MED.
DEPT. MARQUETTE UNIV.
MILWAUKEE.

Two cases are reported which are totally different in every respect, and neither of them presents the classical picture of hypophysis tumor. The

*Read at the March, 1913, meeting of the Medical Society of Milwaukee County.

first was a gumma of the pituitary body and adjacent structures, which was absolutely uninfluenced by salvarsan, mercury injections and prolonged mixed treatment in hospital. The second is a sarcoma originating anterior to the anterior lobe of the pituitary body, but closely connected with it. The first caused blindness in both eyes, and the latter only on the right side. In both cases, an X-ray picture was taken, showing the absence of the sella turcica, and the presence of a tumor like mass in its place.

In the first case, there were distinct typical symptoms of the hypophysis tumor, and in addition to that, vertigo, a tendency to fall backward, and severe constant headache, but no vomiting nor nystagmus. The second case was free from all those symptoms, but showed obstruction of the nose on both sides, the nose being filled up with polypoid masses; very marked exophthalmus was present on the right side.

The first case was accompanied by double pansinusitis, both nasal cavities being filled with pus and crusts. The second case was accompanied with very little pyogenic process in nose.

Case I. Leonard B., American, 39 years of age, sent to me by the Workshop for the Blind in the Spring of 1912, had been treated years ago and at various times for sinusitis, an external opening in both frontal sinuses having been made. Nose full of polypi and pus; fairly well obstructed. Blindness in both eyes existing for over six years. No history of syphilis, but Wassermann strongly positive. Salvarsan, mercury injections, and mixed treatment for two months brought no change in symptoms. Dr. L. F. Jermain and Dr. E. Mensing diagnosed the case as a pituitary tumor. They found in addition to the symptoms mentioned, increase in weight, subnormal temperature, slight exophthalmus, atrophy of left testicle (probably due to orchitis,) loss of sense of smell. No thickening of skin, no overgrowth of hands. Markedly reduced potentio sexualis. X-ray picture (Fig. II.) taken by Dr. E. Blaine, shows the absence of sella turcica, the tumor mass extending forward and downward toward the sphenoid sinus.

With Dr. Messmer, I operated after Chiari, removing frontal process of superior maxillary bone on the right side, part of lachrymal and the middle turbinate bone; removed also ethmoidal labyrinth. Found cribriform plate partly destroyed; also most of anterior, superior and lateral walls of sphenoid sinus. Dura in some parts along roof of



Normal Sella Turcica

A—Sphenoidal Sinus. B—Site of Hypophysis. C—Sella Turcica (normal). D—Frontal Sinus.



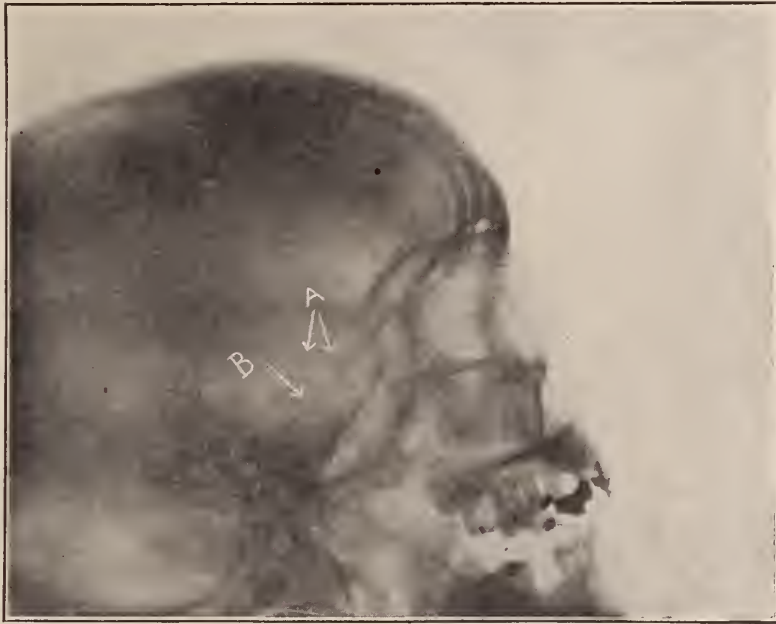
Arrows indicate location of tumor replacing Sella Turcica and Hypophysis.

nasal cavity and sphenoid region exposed; the whole superior and posterior nasal cavity filled with disorganized and polypoid substance. Under the circumstances it was considered best to discontinue operation. Patient recovered without febrile reaction, and afterward had much relief from headache and dizziness and went back to work. Died two months later in convulsions, after one day's sickness. Autopsy by coroner showed septic meningitis, the cranial cavity full of pus. A large tumor of hypophysis was found which proved to be a gumma.

Case II. Mrs. Alice H., American, 52 years old, came to me September last, emaciated and

mann negative. For several weeks treated with K. I. and mercury.

Because tumor seemed rather unilateral, Dr. E. J. Purtell upon my advice, in his clinic, ligated right common carotid artery under local anesthesia. Uneventful recovery and patient very much better, even gaining nine pounds in weight in two weeks after operation. Tumor in nose shrinking up allowing patient to breathe through nose to some extent. Patient also received several injections of Coley's mixed toxins. One month after operation, patient was taken with hemiplegia, which perhaps was due to embolism or thrombosis, and was removed to the County Hospital where she died ten



A—Anterior clinoid processes. B—Site of Tumor showing absence of Sella Turcica.

cachectic. Had for three years at different times and at different places, polypi removed from nose. Some operators claimed malignancy, others pronounced growth myxoma. Both nasal cavities filled almost to the anterior end with polypi, which would bleed on the slightest touch. Septum, also right nasal bone perforated by tumor masses which also invaded the right orbit, pushing eye almost out of orbital cavity. Post nasal space filled with mass which looked like large polypus. Specimen taken from nose histologically diagnosed myxo-sarcoma.

Dr. E. Blaine took X-ray picture, (Fig III.) which showed surprising similarity in condition of sella turcica and pituitary body to picture of the first case. Operation deemed unwise. Wasser-

days later. Autopsy showed sarcoma originating in immediate proximity of the pituitary body, invading sphenoidal sinus, postnasal space, nasal cavities, sinuses and right orbit.

In conclusion I wish to recapitulate and emphasize the important points of these two cases:

1st. The fact that X-ray pictures in both cases gave reliable information in regard to conditions existing.

2nd. The unilateral blindness in the second case.

3rd. The striking difference of intercranial symptoms of the two cases.

4th. The fact that anti-syphilitic treatment of

the most vigorous kind did not influence the first case.

5th. The absence of febrile reaction following operation in the first case although dura exposed.

6th. The absence of any untoward symptom following ligation of common carotid artery in second case for some time after operation with a possible connection of the hemiplegia with the operation.

THE AMERICAN COLLEGE OF SURGEONS.

An American College of Surgeons was organized at a meeting in Washington on Monday evening, May 5th, 1913. Four hundred and fifty prominent surgeons of the continent of North America came together at the invitation of an Organization Committee which was appointed by the Clinical Congress of Surgeons of North America at its meeting in November, 1912. This committee consisted of Edward Martin of Philadelphia, Emmet Rixford of San Francisco, John B. Murphy of Chicago, Rudolph Matas of New Orleans, Albert J. Ochsner of Chicago, Charles H. Mayo of Rochester, Minn., Frederic J. Cotton of Boston, George Emerson Brewer of New York City, J. M. T. Finney of Baltimore, W. W. Chipman of Montreal, George W. Crile of Cleveland and Franklin H. Martin of Chicago.

The invitations, which resulted in this large gathering of surgeons in Washington, were extended by the Organization Committee after a carefully prepared campaign in which each large university city on the continent was visited by a member of the committee who met, in person, a group of selected men brought together by a committee of three in each locality, which committee had been authorized by the Organization Committee to extend an invitation to the surgeons in their locality to meet the representative of the Organization Committee. These five hundred men who were invited to the meeting in Washington, four hundred and fifty of whom responded, represented all branches of surgery and surgical specialties. The surgeons responding to the invitation were designated the Founders of the College.

FOUNDERS MEETING.

At this meeting in Washington, called for the purpose of effecting an organization, the Committee on Organization presented a definite tentative

plan which plan included a call of the meeting, the presentation of by-laws, the presentation of resolutions, a plan for the completion of the organization by the election of governing bodies and executive officers.

CALL OF THE MEETING.

The men were called together by Edward Martin, Chairman of the Organization Committee, who called for the reading of the Call of the Meeting.

The Call of the Meeting was read by Franklin H. Martin, Secretary of the Committee. This call, which is herein quoted in part, summarizes the work for which the Committee was authorized:

"First, It should formulate a minimum standard of requirements which should be possessed by any authorized graduate in medicine, who is allowed to perform independently surgical operations in general surgery or any of its specialties.

"Second, It should consider the desirability of listing the names of those men who desire to practice surgery and who come under the authorized requirements.

"Third, It should seek the means of legalizing under national, colonial, state or provincial laws, a distinct degree supplementing the medical degree, which shall be conferred upon physicians possessing the requirements recognized by this law as necessary to be possessed by operating surgeons.

"Fourth, It should seek co-operation with the medical schools of the continent which have the right to confer the degree of M. D., under the present recognized standards, and urge these colleges to confer a supplementary degree on each of its graduates who have, in addition to their medical course, fulfilled the necessary apprenticeship in surgical hospitals, operative laboratories and actual operative surgery.

"Fifth, It should authorize and popularize the use of this title by men upon whom it is conferred, and its use should especially be urged in all directories of physicians in order that the laity as well as medical men can distinguish between the men who have been authorized to practice surgery, and those who have not."

"The net result of the Committee's efforts is that five hundred surgeons of all specialties, representing every large center of population, every important university city with a teaching faculty of medicine, every special and general society repre

senting a specialty of surgery, all the important surgical clinics and hospitals, besides many independent surgeons from all portions of the North American continent have consented to become founders of the organization under contemplation, and of this five hundred fully four hundred and fifty are here at this hour ready to fulfill their obligation."

The Founders Organization was then completed by the election of Edward Martin as Chairman and Franklin H. Martin as Secretary and the authorization of an order of business.

BY-LAWS.

The interest in the By-laws centered in: 1. The name. 2. The object. 3. The forming of the organization. 4. Its administrative plans. 5. The meaning of the fellowship. 6. Fees. 7. Directory. 8. Expulsion. 9. Standing committees.

I. NAME. The name of the corporation is the College of Surgeons.

II. OBJECT. The object of the College shall be to elevate the standard of surgery, to provide a method of granting fellowships in the organization and to formulate a plan which will indicate to the public and the profession that the surgeon possessing such a fellowship is especially qualified to practice surgery as a specialty.

III. ORGANIZATION. The corporation is to be known as the College. The College shall consist of all members of the corporation, to be known as Fellows, and shall vest the general management of the corporation in a Board of Governors, and the Board of Governors shall in turn vest the details of the management in a board of trustees, to be known as the Board of Regents.

IV. ADMINISTRATIVE PLANS. 1. The Board of Governors shall consist of the five hundred surgeons invited by the Organization Committee to serve as founders of the College and who have signified their willingness to act in that capacity. The individuals of the first Board of Governors shall also be known as the founders of the College of Surgeons.

This original Board of Governors shall be divided into three classes to serve one, two and three years. At the annual meeting in 1914 and at each succeeding annual meeting, the Fellows of the College shall elect fifty surgeons to membership in the Board of Governors, each for a term of three years.

Thirty of these are to be elected from a list of nominations consisting of two members each nominated by the following surgical societies and associations of North America:

American Surgical Association. Section on Surgery of the American Medical Association. Section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association. General Surgical Division of the Clinical Congress of Surgeons of North America. Division of Surgical Specialties of the Clinical Congress of Surgeons of North America. American Gynecological Society. Southern Surgical and Gynecological Association. Western Surgical Association. Section on Surgery of the Canadian Medical Association. American Association of Obstetricians and Gynecologists. American Orthopedic Association. American Association of Genito-Urinary Surgeons. American Laryngological Society. American Ophthalmological Society. American Otolological Society.

Twenty members shall be elected at large to represent surgeons of North America not affiliated with the above societies or associations.

The Board of Regents shall consist of twelve surgeons, members of the Board of Governors, elected by the Governors, these to be divided into three classes whose terms of service shall expire in one, two and three years. Their successors shall be elected each for a term of three years. Not more than three of each class of four shall be elected from one country. The Board of Regents is increased to fifteen in number by three officers of the Corporation, the President, Treasurer and General Secretary. The two Vice-Presidents are ex-officio members of the Board. The Board of Regents is the administrative body of the corporation, corresponding to a board of trustees in other corporations.

V. FELLOWSHIPS. The Fellows of the College shall be graduates in medicine, who are legalized to practice medicine in their states and provinces, who have made an application for fellowships, such application to be endorsed by three Fellows of the College, one of whom shall be a member of the Board of Governors, and who meets the qualification requirements that shall, from time to time, be established by the Board of Regents, and who shall be elected to fellowship by the Board of Regents on recommendation of the Committee on Credentials.

All Fellows of the College shall be designated a

Fellow of the College of Surgeons and shall be authorized and encouraged to use the letters F. C. S. after his name on professional cards, in professional directories and in scientific articles published in surgical literature.

VI. FEES. An initial fee of Twenty-five Dollars shall be required of each member of the College on his election to fellowship by the Board of Regents. The annual dues will be Five Dollars.

VII. DIRECTORY. The Board of Regents shall issue each year a directory containing the names and addresses of the Fellows of the College of Surgeons, arranged by states, provinces and colonies.

VIII. EXPULSION. Any member of the College may be expelled for unprofessional or other conduct inconsistent with the rules and regulations of this Corporation by a majority vote of the Board of Regents.

IX. STANDING COMMITTEES. The Board of Regents shall elect the following standing committees: 1. Credentials. 2. Legislation. 3. Graduate Schools and Hospitals.

These by-laws were unanimously adopted with the provision that the Board of Regents should make any minor corrections deemed desirable and present such corrections for adoption at the next meeting of the Board of Governors.

OFFICERS ELECTED.

President, J. M. T. Finney, Maryland; First Vice-President, W. W. Chipman, Quebec; Second Vice-President, Rudolph Matas, Louisiana; Treasurer, A. J. Ochsner, Illinois; General Secretary, Franklin H. Martin, Illinois.

BOARD OF REGENTS.

J. M. T. Finney, Maryland; A. J. Ochsner, Illinois; Franklin H. Martin, Illinois; George E. Brewer, New York; George E. Armstrong, Quebec; John B. Murphy, Illinois; Edward Martin, Pennsylvania; F. J. Cotton, Massachusetts; Herbert A. Bruce, Ontario; C. F. Stokes, Washington, D. C.; William D. Haggard, Tennessee; George W. Crile, Ohio; Robert E. McKechnie, British Columbia; Charles H. Mayo, Minnesota; Harry M. Sherman, California.

SELECTION OF FELLOWS.

Much interest was manifested in the method to be pursued in the selection of the members of the

Corporation and in the method of conferring fellowships. A series of resolutions covering this subject were offered by the Secretary and adopted.

The prospective Fellows are to be divided into four classes, A, B, C, and D. Classes A, B, and C are by resolution to be admitted without the formality of submitting to an examination under the following resolution:

“RESOLVED, That the A class shall consist of founders of the College.

“The B class shall consist of the members of the special surgical societies constituting the Congress of American Physicians and Surgeons and one hundred each, nominated by accredited committees, from the Surgical Section of the American Medical Association, from the section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association, from the General Surgical Section of the Clinical Congress of Surgeons of North America, from the Division of Surgical Specialties of the Clinical Congress of Surgeons of North America, from the American Association of Obstetricians and Gynecologists, from the Surgical Section of the Canadian Medical Association, from the Southern Surgical and Gynecological Association and from the Western Surgical Association.

“The C class shall consist of surgeons of prominence of five years in the practice of surgery or a surgical specialty and who, in the opinion of the Committee on Credentials, are eligible for fellowship in the College without formal examination.”

For all others, coming under Class D, the following resolution was passed:

“BE IT FURTHER RESOLVED, That the Board of Regents, through the Committee on Credentials, limit the admission of the Fellows to classes A, B, and C until the Board of Regents formulates a standard of requirements for class D and reports the recommendations back to the Board of Governors for approval at the meeting to be called by the Board of Regents in Chicago, November, 1913.”

APPLICATIONS FOR FELLOWSHIPS.

It will be the spirit of this Association to open the fellowship to all competitors in surgery without favor. Scientific attainments, surgical ability, unquestioned moral character, measured by the College's standards, shall constitute the measure for fellowship.

There are many hundreds of surgeons on the

continent, who are not included in classes A and B, who fall into the C class. Applications from these men will be welcome and their names will have the most careful consideration by the committee on Credentials.

All applications for membership should be forwarded to the Secretary of the corporation. It would add to the ease of the work of the Committee on Credentials if references in the way of vouchers or recommendations from one or more well known surgeons accompany each application for fellowship.

FORMAL CONFERRING OF FELLOWSHIPS.

The first convocation for the formal conferring of fellowships will occur in November, 1913, at a time and place that will be designated later. The first directory of Fellows will be distributed at that meeting. For that reason the applications for fellowships on the part of A, B, and C classes should be filed as promptly as possible in order to facilitate the correcting of lists for publication.

CHANGES AND INJURIES OF THE EYE BY LIGHT. Schanz, F., Dresden, (*Deutsche Medizinische Wochenschrift*, Feb. 20, 1913, No. 8, p. 365), gives a very good synopsis of the action of the different kinds of rays of light, which excite the sensitive elements of the retina

directly, indirectly, or not at all. All 3 reach the anterior segment of the eye and act on the parts which are not permeable by light, the more intense, the more shortwaved they are. The transparent parts of the eye are influenced only by the rays which are absorbed by these parts. These are chiefly the shortwaved rays, which by being absorbed by the cornea irritate the sensitive nerves and in the conjunctiva cause the distressing symptoms of pressure, burning, lachrimation and, by longer action, catarrh of the conjunctiva, electric ophthalmia, etc. A large portion of the shortwaved rays after passing through the cornea into the lens are partly absorbed by this partly converted into rays of greater wave length causing the fluorescence of the lens. Their augmentation does not seem irrelevant for the lens. The cataract of glass blowers and the occurrence of senile cataract in tropical India at a much earlier age may be attributed to these rays. The fluorescent light irritates the retina by glaring. A part of it, the lavender grey is the fluorescent light of the retina. Another part is not transformed and, on more intense action, produces microscopic changes of the retina. Functionally they seem to diminish the dark adaptation of the eye. By continued action they may produce chronic electric ophthalmia and disturbances of the color sense.

For protecting the eye euphos glass seems best adapted, as it absorbs very well the indirectly acting rays and very little the visible rays. By absorbing the rays which produce fluorescence in the eye vision is increased by this glass, as found empirically by hunters. Grey euphos glass and the Fieuzal glass absorbs the indirect rays and weakens the visible rays like the smoked spectacles.

C. ZIMMERMANN.

THE WISCONSIN MEDICAL JOURNAL

OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

A. W. MYERS, M. D., Editor
141 Wisconsin Street, Milwaukee

J. P. McMAHON, M. D., Managing Editor
141 Wisconsin Street, Milwaukee

Publication Committee:

A. J. PATEK, M. D., Milwaukee

G. E. SEAMAN, M. D., Milwaukee

O. H. FOERSTER, M. D., Milwaukee

C. S. SHELDON, M. D., Madison

S. S. HALL, M. D., Ripon

Collaborators:

THE COUNCIL

M. R. WILKINSON.....Oconomowoc
G. WINDESHEIM.....Kenosha
F. T. NYE.....Beloit
W. CUNNINGHAM.....Platteville

J. V. MEARS.....Fond du Lac
H. W. ABRAHAM.....Appleton
EDWARD EVANS.....La Crosse
T. J. REDELINGS.....Marinette

O. T. HOUGEN.....Grand Rapids
R. U. CAIRNS.....River Falls
J. M. DODD.....Ashland
H. E. DEARHOLT.....Milwaukee

Annual Subscription - - - Two Dollars Single Copies - - - Twenty-five Cents

Address all business communications to THE WISCONSIN MEDICAL JOURNAL, 504 Goldsmith Building, Milwaukee

Vol. XI.

MAY, 1913.

No. 12

EDITORIALS

THE MINNEAPOLIS MEETING.

The coming meeting of the American Medical Association at Minneapolis, June 17-20, ought to bring out a full regiment of Wisconsin medical men and women. The change in the time of meeting of the State Medical Society of Wisconsin from May to October was made in order to give us all a chance to go to both meetings and we ought to make use of the opportunity.

It is good for us to see and to hear the men whose names are familiar to us in the medical literature of today. It is good for us to widen our acquaintance and to meet the members of our profession from other states. It is good for us to get new ideas and new inspirations and new enthusiasms. No profession is more wearing and exacting than medicine and so in none is there more danger of growing "stale."

Let us all get away from the grinding weight of it for a few days and we shall come back freshened and invigorated, better able to again take up our burdens.

THE MILWAUKEE COUNTY HOSPITAL SUMMER CLINICS.

The authorities at the Milwaukee County Hospital wish to announce that in pursuance of a long-cherished plan to make the hospital serve as great a number of doctors as possible, there will be sum-

mer clinics in Medicine and Surgery at the hospital, beginning on Friday, June 6th, at nine in the morning. The Surgical clinic will be held in the amphitheater on Fridays, the Medical Clinic will be held in the wards on Saturdays at nine o'clock.

The hospital is situated at Wauwatosa, seven miles from Milwaukee, a half-hour's ride on the street car from the center of the city.

Physicians and surgeons in the state are cordially invited to be present at these clinics. In the wealth of material at this large hospital many interesting and instructive cases are always to be found. Notices detailing the week's material will be posted each Wednesday on the bulletin board of the Library of the Milwaukee Medical Society on the third floor of the Goldsmith Building. It is hoped that physicians who are in Milwaukee and those who come to Milwaukee on visits will find it convenient to be present at one or more of these clinics.

THE BULLETIN OF THE CALUMET COUNTY MEDICAL SOCIETY.

The Calumet County Medical Society has put itself distinctly on the map by being the first organization in Wisconsin to publish its own Bulletin.

The announcement appears on its first page that: "The Bulletin is not published to settle your personal differences, but it is published to create and maintain interest in the Society," and, if we

may venture to do a little something in the line of prophesying, it is going to accomplish its purpose. Dr. F. P. Knauf, the Secretary of the Society, deserves great credit for the first number which is before us. It is alive from start to finish. And you can tell by reading it that there is a live organization back of it. If there are any "dead ones" in Calumet County who do not belong to the County Society this is exactly the thing to bring them back to life again and make them want to join.

THE AMERICAN COLLEGE OF SURGEONS.

A full statement of the aims and plans of the American College of Surgeons is given in this issue of the Journal. Every man who is doing surgical work ought to read this statement carefully.

The organization of this body is not an advertising scheme started by shallow enthusiasts. It is a serious attempt to deal with a large and difficult problem undertaken by a cool-minded, level-headed body of practical men.

How much success will attend the efforts to raise the standard of surgical practice as it exists today, time alone can tell, but the fact that the effort is being made is a most encouraging sign. No one can clean house for the surgeons except the surgeons themselves.

They are going about the work in a way which seems to have large possibilities for good and their efforts should receive the cordial support of all.

The qualifications for fellowship in the College will be entirely professional and moral, and it is proposed to have the society a democracy, based upon efficiency, and not an aristocracy, based upon position. Every man qualified for surgical work and of good moral character will be entitled to membership. It being intended to make the new society as broad as possible, yet at the same time keeping out all men who are likely to bring reproach upon the profession. The purpose of the society is primarily for the protection of the patient and the honor of the profession and to help the people to discriminate between men qualified to operate on them and those who are not.

The standards for admission into the society have not yet been fixed, but it is not likely that those surgeons who are now practicing will have to undergo an examination, although this will be

required of new graduates of the medical schools who may apply for admission after this season. The society is to be absolutely independent and is not to have any connection with any professional organization now in existence or with any college or university of medicine.

THE MEDICAL CLUB IN THE SMALL TOWN.

"The physicians of Rantoul who belong to the County Society have formed a club for scientific and social purposes, and meetings are held once in two weeks to discuss the current diseases, interesting cases and anything that may be for the benefit of the community or fraternity. They also exchange opinions on the new things that are constantly coming before the medical profession. It is said that since the organization started not a meeting has been missed by any member, for it is felt by all that the club promotes harmony, cements friendships, raises the tone of the profession and strengthens ethics. So far as we know this is an innovation for a small town. May the Rantoul Physicians' Club live long and attain great honor!"

Bulletin of the Champaign County

Medical Society.

Rantoul, (Illinois) is a town of sixteen hundred! We have in Wisconsin more than a hundred cities larger than Rantoul. How many have a physician's club which meets every fortnight that they may better serve the public? Is there any reason why every town of that size cannot have a physician's club? Why not start one in your town now? It takes only two members to start a club! If there are only two physicians in your town you will have a complete membership. If there are more they will come. You and some other "good fellow" start it and watch it grow!

Now I have never been in Rantoul but I'll wager ten pounds of Boosterism against your last summer's hat that it is a good place to live in, that the medical men are the best of friends, that they have the respect of the public and that every one of them is happy and having a bully good time doing good, conscientious work. Who will be the first to organize a physicians' club in a Wisconsin town of less than two thousand?

ROCK SLEYSER.

CHEAP SURGERY.

On another page of this number of the Journal is printed a letter to the editor from a physician in a neighboring state on the subject of cheap surgery. Green Bay is the city mentioned in the communication and we shall be glad to present the views of the Green Bay surgeons if any of them wish to give their ideas on this very practical and interesting subject.

Whether or not the charge is true with reference to Green Bay the editor is not in a position to judge, but it is true of so many localities that it is worth stopping for a few minutes to consider the matter.

A few extracts from the Principles of Medical Ethics may help us to see the different aspects of the situation: "A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals." And again: "The poverty of a patient * * * should command the gratuitous services of a physician." And again: "It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession."

One of the most frequent reproaches cast upon our surgical brethren is that their charges are sometimes too large, quite out of proportion to the fees charged by the ordinary practitioner of medicine. It is therefore a novelty to have to stop and examine the possibility of the injury which may result to the profession as a whole from too small a charge.

Of course there are in every community people who cannot afford to pay more than twenty-five dollars for an operation, no matter how complicated or difficult it may be, just as there are people needing operations who have no money at all. Both of these classes of patients have received and always will receive the services of our profession, for we should be proud and thankful to say that as a profession we have not forgotten that "the poverty of a patient should command the gratuitous services of a physician."

But when it comes to a consideration of those

who can pay a reasonable fee for the attention required, where should the line be drawn? Let the man who is doing "cut-price" surgery examine himself for a moment. Does he imagine that he is doing it to render a service to humanity? If he does he is trying to pull the wool over his own eyes. He is out for the financial gain which should be the subordinate consideration. But he has figured it out that a hundred times twenty-five is very much the same as twenty-five times a hundred.

But let him remember that "in choosing his profession an individual assumes an obligation to conduct himself in accord with its ideals," and that one of its ideals is that "it is unprofessional for a physician to dispose of his services under condition which interfere with reasonable competition."

Now, the kind of competition we hear of in the letter from our brother in Michigan is not "reasonable competition," it is the competition of greed, not that of fair play. It is exactly the kind of competition which is "detrimental to the public and to the individual physician, and lowers the dignity of the profession." Thorough, honest, conscientious surgical service cannot profitably be rendered with twenty-five dollars as a standard price for major operative work. Who is to blame?

FRIEDMANN AND HIS SERUM.

The present status of the Friedmann serum is well indicated by the following resolution adopted May 9th at the annual meeting at Washington of the National Association for the Study and Prevention of Tuberculosis:

"Whereas, Widespread publicity has been given to the claims of an alleged cure for tuberculosis,

"Resolved, That there is no information before the National Association for the Study and Prevention of Tuberculosis to justify the belief that any specific cure for tuberculosis has been discovered which deserves the confidence of the medical profession or the people; and

"Resolved, That it is the duty of the public to continue unabated all the present well-tried agencies for the treatment and prevention of tuberculosis."

The action taken in the adoption of this resolution was based on the report presented by Dr. J. F. Anderson of the United States Public Health Service, of the investigations made by Drs. Anderson and A. M. Stimson who were detailed by the United States Government to observe the progress of the Friedmann patients at Mount Sinai Hospital in New York.

"We believe that at the present time," says their report, "we are not as yet in position to express an opinion based on the present conditions under observation. The disease for which the remedy is used is prolonged, and is characterized by periods of advancement and retrogression. It is also one in which psychic influences are a powerful factor. Time is therefore necessary to properly evaluate the effect of therapeutic measures.

"We must not lose sight of the possible therapeutic value of this preparation and on the other hand it is necessary to guard against too great an optimism in respect to its merits. Without presenting in detail the condition of patients under observation, we are in a position to state that the facts thus far observed do not justify that confidence in the remedy which has been inspired by widespread publicity.

"In our opinion harm may have been done by this undue publicity in so far as it has lessened the confidence of tuberculous persons in well recognized methods of treatment or interrupted their use, and we are constrained to advise against any lessening of those well-known measures which not only had effected cures, but which have reduced the incidence of the disease. We are aware that Doctor Friedmann does not wish to be judged scientifically on newspaper statements and he would undoubtedly disclaim responsibility for certain of those which have appeared. Nevertheless, it is on those that the public bases its opinion until replaced by reliable and unbiased scientific pronouncements supported by convincing data.

"In our series of patients Doctor Friedmann has almost exclusively made use of the intramuscular method alone in pulmonary cases and a very considerable proportion of them have either developed no considerable infiltrate at all or have suffered from abscess formations. It is evident, therefore, that a very considerable portion of these patients may expect their treatment at the hand of Doctor Friedmann to extend over a long period.

"Concerning the cultures submitted to us we may state that a series of experiments is under way. The bacillus has been found to be an acid-fast organism, having properties quite different from those of any tubercle bacillus with which we are acquainted. It appears to be identical with an organism cultivated from a few loop-fulls of the material used for injection which Doctor Friedmann permitted us to place on culture media in his presence.

"We requested Doctor Friedmann to furnish us with a large amount of this material for examination, but this he has declined to do. We can state, however, that living acid-fast bacteria are being injected by the intramuscular and intravenous method, although we are ignorant of what medium they are suspended in or what additional substance or substances may be contained in the final mixture."

The report covers exhaustively the history of the Friedmann "cure" so far as the facts have been available to the Public Health Service from the time of its announcement in Berlin in November, 1912, and reveals the efforts of the Public Health Service to gather material from Doctor Friedmann for its investigation.

On the whole, Doctor Friedmann's reluctance to furnish certain details "were not satisfactory from a scientific standpoint," but the report says, "in view of the great importance of the matter to tuberculosis patients throughout the country and in the hope that a valuable remedy might have at last been found not only to cure tuberculous patients, but to prevent the disease, the conditions imposed by Doctor Friedmann were accepted. An additional reason for taking advantage of opportunities to make every study possible was the assurance by Doctor Friedmann of its harmlessness when injected into human beings."

One of the conditions imposed by Doctor Friedmann, according to the report, was that he would furnish detailed information of the methods of preparing his remedy when the Public Health Board recognized favorable results in patients.

The board found that under all the conditions imposed it would have opportunity only to study a culture of the bacteria said to be used in some way by Doctor Friedmann in the preparation of his treatment, to test its pathogenicity on the lower animals and observe the effect of treatment by him of tuberculosis patients with his finished remedy.

These limitations the investigators found unsatisfactory from the scientific standpoint.

The report is careful to say that Friedmann's reticence has in no way been allowed to interfere with the judgment of the board of the effects which it has observed.

The Government investigation is not finished as the tests being conducted in the hygienic laboratory and the observations of the persons inoculated will be continued.

PROGRESS IN THE DIAGNOSIS AND TREATMENT OF INTUSSUSCEPTION.

In an interesting paper published in the *Boston Medical and Surgical Journal* for April 10, 1913, W. E. Ladd reports a series of twenty cases of intussusception operated upon during the last five years with a mortality of 45 per cent, just half the mortality rate reported from three of the leading Massachusetts hospitals for the preceding five years.

The average duration of symptoms in the cases recovering was between thirty-six and forty-eight hours. In only one instance did recovery occur when the duration had been over forty-eight hours.

Ladd contrasts these results with those of Clubbe who reported a series of fifty cases with only 8 per cent. mortality. The striking thing is that in Clubbe's series of fifty cases the average time between the onset of symptoms and operation was only seventeen hours. In explanation of this condition Clubbe says: "We seem to have educated our medical community in this matter, and convinced them of the extreme importance of never missing a case of intussusception at the first visit."

In order to bring about this prompt recognition of early cases Ladd believes that it is "very important for the practitioner to have a different picture in his mind of intussusception from the one given in many text books. That is, the classical signs and symptoms often given are: a pallid face with pinched features, sunken eyes, a rapid and feeble pulse, a distended abdomen with a palpable tumor in the left lower quadrant or by rectum, bloody stools and stereoraceous vomiting. This makes the picture of an infant who has suffered from obstruction for two days or more, at a time when the diagnosis is of little value. It is of far more use for the practitioner to remember that infants in the early stages of intussusception, between paroxysms of colicky pain are apt to look perfectly well and have no elevation of pulse or temperature; and that the mother's story of a baby who has been well and suddenly taken with an attack of abdominal pain associated with drawing up of the legs and followed by vomiting, is sufficient reason for making a thorough abdominal examination even if the baby looks well. At this period before any distention has taken place, a small mass or sense of resistance may be felt at any place along the

course of the colon, but in this early stage is most likely to be felt at the cecum or between there and the middle of the transverse colon. The next sign which presents itself is the appearance of blood in the stools. The presence of blood without much feces, and without mucus and the frequent movements characteristic of infectious diarrhea, is practically pathognomonic of intussusception. Any patient passing blood as described should be taken to the surgeon at once, whether any tumor can be felt or not. Later, in thirty-six to forty-eight hours the classical symptoms appear and the diagnosis is easy when the treatment becomes difficult and the prognosis grave."

Having been helped in making a diagnosis of partial obstruction of the bowel in the region of the hepatic flexure by an X-ray picture taken after injecting bismuth into the colon, Ladd applied this method with advantage in the diagnosis of intussusception. In a case of twenty-four hours duration the plate showed clearly the cervix-like shape of the advancing part of the intussusception with the bismuth clinging to the wall of the intussusciens extending back over it.

In the plate of another case of three days duration no bismuth showed above the sacrum and the tumor was found to have extended to within two inches of the rectum.

Ladd expresses the hope that in the future the use of the X-ray may clear up the diagnosis at an early stage in some of the doubtful cases and thus permit the early operation which holds out the surest prospect of recovery.

CORRESPONDENCE

Wisconsin Medical Journal, Milwaukee, Wis.
Gentlemen:—

Will you kindly allow me, as a member of the profession, a little space in your publication for the insertion of this communication?

Whither is the practice of surgery drifting? And why? Is the status of the profession retrogressing or progressing? What do the past few years reveal? True the science is progressing. Then what is retrogressing? The *business aspect*.

The object of this letter has for its purpose to call attention to the profession as practiced in Green Bay. The cheap surgery that is practiced there by which neighboring cities have been forced

to meet and cheapen likewise. I refer to twenty-five dollar major surgical fees.

Dear brother of Green Bay what do you realize by \$25 surgery? What are we going to do about it? Oh—we're doing it too. Yes, we have been following your example since its inception. Is it not better to keep fees up, and much rather do one operation the price of which will reap the profits of four as heretofore and at present still in vogue?

Every day we men of Escanaba are confronted with "Doctor, you'll have to charge \$25 for the operation—otherwise I shall go to Green Bay." What a proposition, and yet able to pay more. Every traveling man that comes our way tells us of the cheap practices of the profession in Green Bay. Practitioners of Green Bay why should your remuneration dwindle in these years of higher cost of living when all other trades and professions have gone up? Why again do the people turn to the unscrupulous fakirs, quacks, chiropractors, etc., etc., and pay higher fees and cash too? Does not the cheapening influence of your conduct instill in them the belief that your services should be rated accordingly?

We here find ourselves sinking to your plane. We want to do something. Why not you? Will it not benefit both if we raise the scale where it should be? We of Delta County, Michigan, desire to make it pay. Will you do likewise? Is it going to help you any to force neighboring cities to meet your price? Assuredly not. Then in the name of justice let us call for a new deal. Let us elevate the profession instead of inviting upon it besmirching influences. It is indeed sad to observe that a highly intellectually developed profession must sink to the station which is referred to as "scab" labor.

A word to the wise is sufficient.

Fraternally yours,

O. B. LAMBERT, M. D.

Escanaba, Michigan, May 1, 1913.

NEWS ITEMS AND PERSONALS

DR. E. GRIGNON, Marinette, who has been traveling in the west for several months, on account of ill health, has recovered and will resume his practice at Marinette.

DR. A. P. MINSHALL, Viroqua, has recovered from an attack of scarlet fever.

DRS. F. C. SUITER and C. J. EGAN, La Crosse, have been reappointed surgeons for the River and the La Crosse Divisions of the Milwaukee Road for the year 1913.

DR. R. B. COLLINS, Madison, was seriously injured on April 20th, when a bottle of permanganate of zinc exploded in his face. He may lose the sight of both eyes.

DR. A. G. HOUGH, DeForest, is in Berlin, Germany, for post-graduate work. He expects to return in the fall.

DR. C. A. H. FORTIER has entered into partnership with Dr. Edward S. Blaine, Milwaukee, and will be associated with him in the limited practice of Roentgen Diagnosis. Dr. Blaine wishes it to be known that the current rumor that he is about to leave Milwaukee is erroneous. On the contrary he has decided to remain there permanently.

DR. FRED C. KOVATS, of Milwaukee, has been appointed medical director of the North Shore Health Resort, Winnetka, Ill.

DR. O. E. GIBSON, Platteville, who underwent an operation at Rochester, Minnesota, is reported convalescing.

DR. HEALY, of Durand, was painfully injured in a runaway on May 8th. Several ribs were fractured and he received scalp wounds.

DR. T. W. NUZUM, of Janesville, is suing the Janesville Traction Company to recover damages to his automobile in a collision with one of their street cars a year ago.

DR. M. L. HENDERSON, Milwaukee, has gone to Europe for a six months' stay.

DR. FREUND, of Grand Rapids, who was operated upon for hernia, which was followed by pneumonia, is convalescing.

DR. W. E. ALLEN, of Auburndale, has disposed of his practice and has left for Europe, where he will remain about one year.

Dodgeville's new \$40,000 hospital will be erected this summer by the Franciscan Sisters.

The senate bills to curb the sale of cocaine were recommended for passage by the assembly committee on public welfare, April 24. These bills were drawn by District Attorney Yockey of Milwaukee, as the result of recent disclosures of cocaine fiends in Milwaukee.

According to Dr. C. A. Harper, secretary of the State Board of Health, the corporation which purchased the rights of the Dr. Friedmann tuberculosis cure may come to Wisconsin to treat patients.

The creation of a State Board of Health composed of a chief and five officials in as many districts of the state is the proposition presented in one of the last bills to be offered in the assembly. The measure carries \$60,000 and pays the chief official \$5,000 per year and the deputies \$3,000.

MARRIAGES

Dr. F. A. Kraft and Miss Elizabeth Tegge, both of Milwaukee, May 7th.

REMOVALS

Dr. R. D. Moray, Manawa to Cornell.

Dr. G. C. Stimpson, White Creek to Dunbar.

Dr. Horton of Barneveld has disposed of his practice to Dr. J. C. Tyvand of Mt. Horeb.

DEATHS

Dr. O. T. Hougen, Grand Rapids, died at Chicago, on May 13, aged 51 years, following an operation for carcinoma of the stomach.

Dr. O. T. Hougen was the third son of Mr. and Mrs. T. K. Hougen, born September 22, 1862, at Liberty, Manitowoc County, Wisconsin. He attended the common schools of that town and the high school at Manitowoc and later the Oshkosh Normal. He graduated from the Normal at Oshkosh in 1884. He taught school one year at Little Wamingo, Wis., and for a short term at Plover. Then he entered the Chicago Medical college in the fall of 1885 and graduated therefrom in the year 1888. He was married to Miss Hattie Humphrey at Omro, Wis., April 4, 1888, from which union four children were born, three of whom are living, Leslie, eighteen years of age, Helen, twelve years old, and Alice, three years old. Harry, the first born died, when three years of age. The doctor practiced one year at Hilbert, Calumet county and then located at Grand Rapids, in August 1889, where he has practiced his profession and resided ever since.

He was a member of Wood County Medical Society, and the State Medical Society of Wisconsin and has been the councilor for the Ninth District for several years.

Dr. G. M. Goodrich, Clintonville, died May 5,

1913, of uremia, aged 53 years. Dr. Goodrich was born at Brasher Falls, N. Y., October 17, 1860. He was a graduate of the Eclectic Medical Institute, Cincinnati, Ohio, class of 1883. He practiced at Jerry City, Ohio for three years. In 1886 he removed to Clintonville and practiced there up to the time of his death.

He was Health Officer of Clintonville and a member of the Waupaca County and State Medical Societies.

Dr. S. B. Bell, Beloit, died on April 18, 1913, of pernicious anemia, aged 72 years. He was a graduate of the University of Michigan, Department of Medicine, in 1864.

Samuel B. Bell was born in the state of New York, and came to Rock County soon after the Civil War and located at Beloit many years ago. He served in the war as a surgeon in the Army. He was for many years surgeon for the Chicago and Northwestern and Chicago, Milwaukee and St. Paul Railroads, one of the founders and a former president of the State Medical Society of Wisconsin, a member of the Wisconsin State Board of Medical Examiners, the first president of the Wisconsin State Board of Health, president of the Strong Emergency Hospital, a member of the Beloit School Board and a member of the Loyal Legion. He was also a former surgeon general of the department of Wisconsin, G. A. R.

He was a member of the Rock County and State Medical Societies.

Dr. Gustaf Bjorkman, one of the best known physicians of Racine, died on April 28, 1913, aged 58 years. Dr. Bjorkman was born in Stockholm, Sweden in 1855. After his preparatory education he entered the Royal University at Upsala, where he took a classical course. He graduated from this institution in 1879. He then entered the Royal Carolyn Medical Institution in Stockholm and graduated from that institution in 1887. He practiced for a time in the Surgical Hospital of the Province of Upland, but after being licensed went to Stockholm, where he practiced until the spring of 1890, when he emigrated to America. Landing in New York, he practiced there for a few months, and then decided to come west, locating at Racine. He had practiced at Racine 23 years.

He was a member of the Racine County and State Medical Societies.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1912-1913.

ARTHUR J. PATEK, Milwaukee
President

C. A. ARMSTRONG, Boscobel
1st Vice President

L. E. SPENCER, Wausau
2d Vice President

JOHN MATHIESON, Eau Claire. 3rd Vice President

CHAS. S. SHELDON, Madison Secretary.

S. S. HALL, Ripon, Treasurer.

ROCK SLEYSER, Waupun, Assistant Secretary.

Councilors.

TERM EXPIRES 1917

1st Dist., M. R. Wilkinson, Oconomowoc
2nd Dist., G. Windesheim, Kenosha

TERM EXPIRES 1913

5th Dist., J. V. Mears, Fond du Lac
6th Dist., H. W. Abraham, Appleton

TERM EXPIRES 1915

9th Dist., O. T. Hougen, Grand Rapids
10th Dist., R. U. Cairns, River Falls

TERM EXPIRES 1918

3rd Dist., F. T. Nye, Beloit
4th Dist., W. Cunningham, Platteville

TERM EXPIRES 1914

7th Dist., Edward Evans, La Crosse
8th Dist., T. J. Redelings, Marinette

TERM EXPIRES 1916

11th Dist., J. M. Dodd, Ashland
12th Dist., H. E. Dearholt, Milwaukee

L. ROCK SLEYSER, Waupun

Delegates to American Medical Association.

J. J. McGOVERN, Milwaukee.

J. F. PEMBER, Janesville.

W. T. MURPHY, Waukesha

Alternates

F. T. NYE, Beloit.

T. J. REDELINGS, Marinette

A. W. GRAY, Milwaukee, Chairman.

Committee on Public Policy and Legislation

J. P. McMAHON, Milwaukee.

F. F. BOWMAN, Madison.

G. E. SEAMAN, Milwaukee, Chairman.

Committee on Medical Defense.

S. S. HALL, Ripon.

A. J. PATEK, Milwaukee.

M. P. RAVENEL, Madison.

Committee on Prevention of Tuberculosis.

G. E. SEAMAN, Milwaukee.

T. H. HAY Stevens Point

C. A. HARPER, Madison

W. F. ZIERATH, Sheboygan.

Program Committee.

L. M. WARFIELD, Milwaukee, Chairman.

C. S. SHELDON, Madison.

Committee on Arrangements.

C. A. EVANS, Milwaukee, Chairman.

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER 1-3, 1913.

The Wisconsin Medical Journal. Official Publication.

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	W. T. Rinehart, Ashland	C. J. Smiles, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	W. L. M. Knowles, Spooner	B. N. Webster, Rice Lake.
Brown-Keweenaw	Julius J. Bellin, Green Bay	I. E. Levitas, Green Bay.
Calumet	F. L. Bolton, Chilton	F. P. Knauf, Kiel.
Chippewa	C. A. Hayes, Chippewa Falls.	A. L. Beier, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Nellisville.
Columbia	B. F. Bellack, Columbus	A. T. Schmeling, Columbus
Crawford	C. B. Lumsford, Gays Mills.	A. J. McDowell, Soldiers Grove.
Dane	C. A. Harper, Madison	F. S. Meade, Madison.
Dodge	J. A. Clason, Neosho	G. W. Henka, Beaver Dam.
Door		N. Z. Wagener, Sturgeon Bay.
Douglas	T. J. O'Leary, Superior	W. E. Hatch, Superior.
Dunn-Pepin	E. H. Grannis, Menomonie	L. A. Dahi, Menomonie.
Eau Claire	A. L. Payne, Eau Claire	E. E. Tupper, Eau Claire.
Fond du Lac	L. A. Bishop, Fond du Lac	F. A. Read, Fond du Lac.
Grant	J. C. Betz, Boscobel	M. B. Glasier, Bloomington.
Green	L. A. Moore, Monroe	S. R. Moyer, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	R. H. Buckland, Green Lake.
Iowa	J. P. Parmlay, Mineral Point	H. D. Ludden, Mineral Point.
Jefferson	W. T. Clark, Ft. Atkinson	C. R. Feld, Watertown.
Juneau	T. S. Lawler, Lyndon Station	A. T. Gregory, Elroy.
Kenosha	William Pugh, Kenosha	C. H. Gephart, Kenosha.
La Crosse	Oscar Houck, La Crosse	G. W. Lueck, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	Susanne Orton, Darlington.
Langlade	G. W. Moore, Antigo	J. C. Wright, Antigo.
Lincoln	C. C. Walsh, Merrill	Herbert Saylor, Merrill.
Manitowoc	Max Staehle, Manitowoc	A. J. Shimek, Manitowoc.
Marathon	L. E. Spencer, Wausan	S. M. B. Smith, Wausan.
Marinette-Florence	H. F. Schroeder, Marinette	M. D. Bird, Marinette.
Milwaukee-Ozaukee	C. H. Lemon, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	A. E. Winter, Tomah	A. R. Bell, Tomah.
Oconto	J. B. Atwood, Oconto	R. C. Faudts, Abrams.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	C. G. Maes, Kimberly	F. P. Dohearty, Appleton.
Pierce	A. E. Gendron, River Falls	S. F. Rudolf, Ellsworth.
Portage	A. E. MacMillan, Stevens Point	W. F. Cowan, Stevens Point.
Price-Taylor	C. E. Fenelon, Phillips	G. H. McClure, Westboro.
Racine	J. S. Keech, Racine	Susan Jones, Racine.
Richland	R. H. De Lap, Richland Center	G. R. Mitchell, Richland Center.
Rock	Frank W. Van Kirk, Janesville	F. E. Sutherland, Janesville.
Rusk	G. M. Carnahan, Bruce	W. F. O'Connor, Ladysmith.
Sauk	F. D. Hulbert, Reedsburg	Roger Cahoon, Baraboo.
Shawano	J. F. Ragan, Gresham	C. E. Stubenvoll, Shawano.
Sheboygan	J. R. Kingsley, Sheboygan	W. F. Zierath, Sheboygan.
St. Croix	L. A. Campbell, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	E. A. Moore, Merrill	H. A. Jegl, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	H. C. Miller, Whitewater	M. V. Dewire, Sharon.
Washington	W. J. Wiehe, West Bend	S. J. Driessel, Barton.
Waukesha	Margaret Caldwell, Waukesha	Sara T. Elliott, Waukesha.
Waupaca	P. J. Christoffersen, Waupaca	G. T. Dawley, New London.
Winnebago	L. P. Allen, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. A. Jackson, Rudolph	J. B. Vedder, Marshfield.

SOCIETY PROCEEDINGS

CHIPPEWA COUNTY

The Chippewa County Medical Society held its annual meeting and election of officers April 20th at the office of Dr. C. A. Hayes at Chippewa Falls. Following is the result of the election: President, Dr. C. A. Hayes; vice-president, Dr. J. D. McRae; secretary-treasurer, Dr. A. L. Beier; censors, Drs. C. W. Wilkowski, H. H. Hurd and C. N. Abbott.

DOUGLAS COUNTY

At a meeting of the Douglas County Medical Society held at the Commercial Club, May 8th, it was decided to call on the State Board of Health to make an investigation of conditions at Maple, Wisconsin, with a view to ascertaining the cause of the great prevalence of tuberculosis at that place.

The members of the medical society are inclined to the belief that there is some serious source of infection, because of the large number of cases that have come to their attention from that locality.

Those present at the meeting were: Drs. W. H. Hateh, John Specht, H. G. Hovde, T. J. O'Leary, H. J. O'Brien, John W. Lee, L. A. Hoffmeier, C. H. Mason, R. K. Lomiller, C. W. Giesen, P. G. McGill, John Baird, D. R. Scarles and W. H. Zwiecky.

JEFFERSON COUNTY

Jefferson County Medical Society met at Johnson Creek, on April 25th. Dr. O. H. Foerster of Milwaukee read a paper on "Consideration of Some of the More Common Skin Diseases"; Dr. Habegger "The Open Treatment of Fractures." Drs. Caswell and Clark also read papers.

KENOSHA COUNTY

The regular meeting of the Kenosha County Medical Society was held at the house of Dr. C. H. Gephart, Friday evening, May 2nd.

Dr. H. A. Robinson reported that the City had accepted the Society's bid of \$200.00 for the City Poor Work the coming year. This amount will go practically intact into the Society Treasury.

Dr. C. A. Evans of Milwaukee addressed the Society on "Subcutaneous Rupture of the Intestinal Tract with a Report of Two Cases". The address was much appreciated by those present. Most of them had seen a few such cases. Dr. Evans believes in operating early and on the slightest indication of trouble in these cases. He believes that in this manner a large percentage will be saved.

By the expectant method the mortality is nearly 100% where a serious injury is present.

C. H. GEPHART, M. D., *Secretary.*

MILWAUKEE COUNTY

The following resolutions were adopted at the meeting of the Medical Society of Milwaukee County on May 8:

Whereas, Last November Dr. Friedrich Franz Friedmann read a paper before the Berlin Medical Society

announcing that he had succeeded in producing a strain of avirulent tubercle bacilli by introducing virulent tubercle bacilli into turtles and by which he claimed to be able to produce curative effects in all but the most advanced cases of tuberculosis to immunize children advanced cases of tuberculosis and to immunize children the world.

Whereas, The announcement was received by the medical profession of Germany with justifiable, scientific and humanitarian skepticism, although anxious and ready at all times to enthusiastically employ any and all remedies which promise temporary or permanent relief or benefit in the treatment of any ills which humanity may suffer as is the medical profession of all countries.

Whereas, Dr. Friedmann shortly undertook to demonstrate the efficiency of his new vaccine in the United States, untruthfully stating that he did not nor could he secure a fair hearing on the merits of the remedy from the profession of his own country.

Whereas, Upon his arrival in New York, he was greeted with courteous open mindedness and afforded an opportunity to demonstrate the action, merits and results of the remedy, notwithstanding the facts that he had as yet acquainted but one person with the details of the method of preparation of the vaccine—that he had maintained an attitude of unwarranted, unscientific, secrecy and mystery with respect to the supposed knowledge necessary to the selection of patients which could be benefitted by the remedy, the technique of administering it and the proper post-administrative clinical observation of the cases treated.

Whereas, In spite of the above attitude, the cases treated in America were selected after the most superficial and unapproved examination and many of them were not seen by him since the administration of the vaccine.

Whereas, From the date of the first announcement, thinking conservative medical men all over the world had suspicion that Dr. Friedmann was actuated by commercial rather than by scientific or humanitarian motives as evidenced by his premature announcement, by his lack of patience with his German colleagues, by his unsuccessful attempts to secure a patent on the preparation in his own country, by his as yet unsuccessful attempt to secure a patent from our own government, by his early conference with the ever present unscrupulous promoters who eagerly improve every opportunity to exploit the unsuspecting sick for profit and by his arbitrary attempts to exact pay for the treatments when at all possible.

Whereas, These early suspicions of commercialism have recently become pretty well established facts by the authentic report that the Doctor has sold the privilege of manufacturing and of administering the remedy to a self admitted commercial corporation which is said to be contracted to administer the treatment only in institutions controlled by the corporation and from which, according to the same reports, Dr. Friedmann is to receive a royalty in addition to the original worth

while cash consideration and which sale it is understood was hastened by the probable refusal of the United States government to grant a patent on the remedy or to endorse its efficiency or use.

In view of the data and facts as above stated it is the opinion of your Committee on Public Policy and Legislation that one of its most pressing duties is to bring this information to the attention of the public and to advise the public that the sentiments expressed represents the consensus of opinion of the great majority of the membership of the Medical Society of Milwaukee County.

And to state further that Dr. Friedmann's conduct with respect to this so-called cure has been and is still unscientific, unethical, dishonorable and devoid of any trace of humanitarianism—that Dr. Friedmann has presented no scientific or clinical evidence that can be considered conclusive in establishing the claim that he has developed a cure for consumption.

Your Committee further proposes that it is the consensus of opinion of the membership of the Medical Society of Milwaukee County, that the investment of money in a local institution for the manufacture and administration of the Friedmann vaccine at this time promises nothing more than an additional means of extracting money from the wasted hands of the tuberculous—that it would be to say the least premature and poor business judgment.

It is of course understood that the membership of the Society will keep themselves fully informed of future developments with respect to the end results of the patients thus far treated and should the remedy possess any merit whatsoever the Medical Society of Milwaukee County will gladly change its opinion and cooperate in every way possible with all concerned to secure the remedy for all who may be benefited by it.

Resolved by the Medical Society of Milwaukee County that the above opinion on Dr. Friedmann and his supposed cure, as advanced by the Committee on Public Policy and Legislation, be endorsed as the opinion of the Medical Society of Milwaukee County.

And be it further resolved that the chairman of the Committee be instructed to furnish copies of the opinion and resolution to the press of the city.

Committee on Public Policy & Legislation of the Medical Society of Milwaukee County.

J. P. McMAHON, *Chairman.*
SAMUEL G. HIGGINS.
WALTER G. DARLING.

OUTAGAMIE COUNTY

The regular meeting of the Outagamie County Medical Society was held at Appleton on May 6th. A paper on the "Diagnostic Significance of Pain in the Back" was presented by Dr. M. El. Rideout of Hortonville. Dr. W. H. Towne of Schiocton read a paper on "Scarlet Fever".

May 21. Outagamie and Winnebago County Medical Societies met in joint session at the Menasha Hotel in Menasha. At this session Dr. N. P. Mills of Appleton read a paper on "Brain Abscess".

ROCK COUNTY

The regular monthly meeting of the Rock County Medical Society was held at Beloit on April 29th. The following program was given: "Open Treatment of Fractures with Report of Cases Operated Upon During the past Three Years." Lantern slide pictures. Dr. Nelson M. Percy of Chicago. "Hospital Management," Dr. A. C. Helm.

SHEBOYGAN COUNTY

The Sheboygan County Medical Society met at the Grand Hotel, Sheboygan, together with the dentists of that city to witness demonstrations of the Sheboygan Railway and Electric Company's new pulmotor. The machine was examined and tested. It is at the disposal of all of the physicians of the city at any time for emergency cases.

OSHKOSH MEDICAL CLUB

The annual banquet of the Oshkosh Medical Club was held at the Athearn Hotel May 1. Dr. Frank Brockway acted as toastmaster. Dr. John F. Schneider responded to "The Physician", Attorney E. J. Dempsey "The Patient", Dr. C. J. Combs "The Prescription". A most entertaining and instructive evening was the result.

NORTH SIDE PHYSICIANS' CLUB

The election of officers of the North Side Physicians' Club, Milwaukee, resulted as follows: President, Dr. A. J. Weber; vice-president, Dr. A. C. Mieding; secretary-treasurer, Dr. H. Podlasky.

BOOK REVIEWS

HANDBOOK OF GENERAL PATHOLOGY. Krehl, L., Prof., Heidelberg, and Marchand, F., Prof., Leipzig. "Handbuch der allgemeinen Pathologie." In conjunction with Aschoff, L., Freiburg in Br.; Askanazy, M., Genf; von Baumgarten, P., Tuebingen; Beneke, R., Halle; Boehn, R., Leipzig; Ernst, P., Heidelberg; Fischer, F., Heidelberg; Fraenkel, C., Halle; Henke, F., Koenigsberg i. Pr.; Hering, E., Prag; von Hess, C., Wurzburg; Hirsch, K., Goettingen; Hoche, A., Freiburg i. Br.; Klemensiewicz, R., Graz; Kraus, F., Berlin; Kretz, R., Wurzburg; Luethlie, H., Kiel; Moritz, F., Koeln; Paltauf, R., Wien; Minkowski, O., Breslau; von Romberg, E., Tuebingen; Schmidt, M. B., Marburg; Schwenkenbecher, A., Frankfurt a. M.; Sobernheim, G., Berlin. Volume II, Part 2. General pathology of circulation II, of the psychical functions, visual sense and secretion I. 535 pp. with 38, partly colored figures. Leipzig. S. Hirzel. 1913. 19 mk. \$4.75. The first part of the 2nd volume of this important work, which gives a comprehensive presentation of the doctrine of the pathological processes, including their causes, was reviewed in Wisconsin Medical Journal, January, 1913, p. 270. In the 2nd part the general pathology of circulation is continued, commencing with the essays of F. Moritz and D. von Tabord on the general pathology of the heart and the blood vessels. The anomalies of the dynamics of the heart and vessels are preceded by a physiological introduction on the muscular apparatus, the work, energy, adaptation power of

contraction, etc., of the heart and bloodvessels, and are considered under weakness, hypertrophy, compensation, and its disturbances. Then the anomalies of the factors determining the blood pressure are discussed: elasticity, capacity, and filling of the vascular lumen, followed by anomalies of the beat and current volume, viscosity of the blood, vascular tonus pressory properties of adrenalin, the anomalies of the blood pressure, of the pulmonary circulation, and the relations of the nervous system to the organs of circulation, anomalies of the succession and frequency of heart beats.

Chapters 6 and 7 on thrombosis and embolism, by R. Beneke, contain very interesting historical introductions and an exhaustive discourse on the morphology of coagulation, general morphology, etiology, topography and semiology of thrombosis, power and direction of the blood or lymph current as the determining forces and paths of embolism, different kinds of embolisms, anatomical and clinical sequels, and occurrence of embolism.

The next chapter on disturbances of psychical functions by A. Hoche is a splendidly written essay on the question what at the best can be expected from pathological anatomy for the understanding of morbid psychical disorders. Any attempt at correlating certain anatomical changes of the brain to the majority of phenomena of abnormal psychical life meets with difficulties which H. considers insurmountable. The hope of gaining a universal anatomopathological base of psychical diseases seems utopic. He says we do not possess a pathological anatomy of psychoses, not because the methods are insufficient, but we shall not and cannot possess it, because the material processes which run parallel to the psychical in the proper sense of the word, are probably neither by seat nor manner such that they would be microscopically demonstrable. One must imagine that a large part of the specific parenchyma of the brain simultaneously participates in the evolution of normal and morbid psychical processes, and that we shall more readily explain psychical abnormalities by a shifting of dynamic reciprocity of large portions of the brain than by localized disturbances of single anatomical elements.

The general pathology of the visual sense by Carl von Hess is introduced with the remark: the morphological peculiarity of our visual organ is essentially determined by the concentration of very heterogeneous, partly highly differentiated, tissues in a relatively small space. The same may be said of this chapter, admirable in its conciseness and the completeness, with which the essential general pathology of the dioptric apparatus, functional disturbances from diseases of the cornea, lens, vitreous, anomalies of refraction and accommodation, diseases of the light preceiving parts, the conducting paths, the central nervous system, the disturbances of the ocular movements and sympathetic ophthalmia, are presented in a most fascinating style.

In the 10th chapter the pathological disorders of the secretion of the skin receive a very able exposition by A. Schwenkenbecher, and in the 11th chapter the disturbances of the secretion of the liver and pancreas by A. R. Kretz and B. K. Helly. Like in the preceding volumes also in this part a bibliography is appended to each chapter, and carefully prepared indexes of subjects

and authors and a special table of contents, greatly facilitate orientation. The collaborators have done their best to fully impart also to this volume the superior value which recommended so much its predecessors.

C. ZIMMERMANN.

ORGANOLOGY OF THE EYE. Pütter A., Professor, Bonn, Graefe-Saemisch Handbuch der gesamten Augenheilkunde, Third revised edition. Part I, Chapter 1. 424 pp., with 220 figures in the text and 25 on 10 plates. Leipzig, Wilhelm Engelmann. 1912. 10 Mk. \$2.50. This volume, when it appeared in 2nd edition, was an entirely new work and the demand for it was so great, that within less than 4 years a new edition was needed which gave the author the opportunity of supplementing it by the very important recent researches, especially those by C. Hess on the light sense in the different classes of animals. The general plan and the distribution of the subject matter, as set forth in our review of the 2nd edition in Wisconsin Medical Journal April, 1909, has been retained in the new edition. Organology is defined as the doctrine of the eyes as organ which is built from different elements, forms as a whole a functional unity and is merged in an organism which it subserves and with which it has many correlations. According to the usual terminology it might be called partly comparative anatomy, partly comparative physiology, partly biology or ekology of the eye. These constitute, however, only one methodical point of view, while organology in the sense understood by the author comprises, for the solution of its problems, all methods available: anatomical, histological, embryological, as well as physiological, chemical and etiological methods.

It is presented under a general part on light and effects of light, excitation by light, light sense, visual sense and optical sense of space, distribution and achievements of the organs of light sense.

In the special part the nervous apparatus of the organs of light sense are discussed: light sense cells, light sense epithelium and their central combinations, and accessory apparatus: refracting, for forming images, diaphragms, for contrast, accommodation, molding and supporting tissue, circulatory and protective apparatuses. Under light sense organs as unities the physiological, systematical and morphological types of eyes are portrayed, under light sense organs in connection with the organism, the size of the eye, the eye in its relations to other organs, the optical space, the visual acuity, and finally the conditions of the specific formation of the visual organs.

The author considered as his task: evolution of the problems, comprehension under general points of view, formulation of new questions and outlooks. From the immense material of organology, distributed in innumerable single observations over an abundant literature he selected what appeared to him most important. Still there is an unusual wealth of knowledge in the work, which does not allow the entering into detail. The reader will be extremely fascinated by the interesting book whichever chapter he may take up. The numerous black and colored illustrations are most artistically executed. P.'s work is an excellent addition to the great handbook.

C. ZIMMERMANN.

