

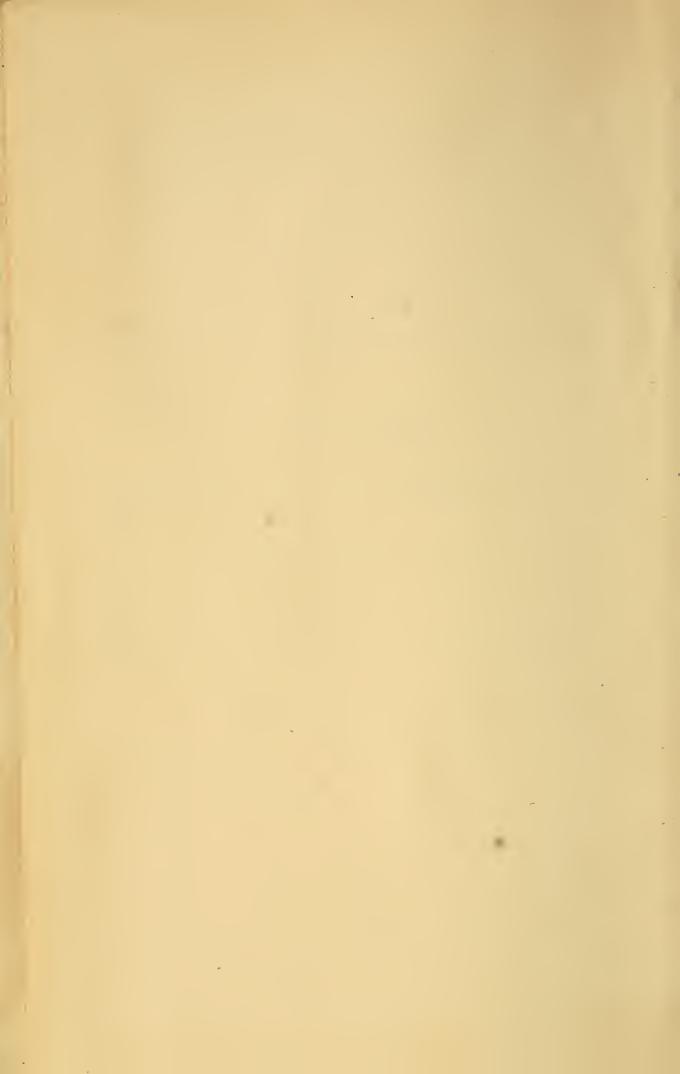
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ONE HUNDRED AND NINTH

ANNUAL CATALOGUE

OF THE

MEDICAL SCHOOL

(BOSTON)

OF

HARVARD UNIVERSITY.

1891-92.

[Reprinted from the Catalogue of the University.]



CAMBRIDGE:
PUBLISHED BY THE UNIVERSITY.
1891,



THE MEDICAL SCHOOL.

BOSTON.

Instruction in this School is given by lectures, recitations, clinical teaching, and practical exercises, uniformly distributed throughout the academic year. The year begins on the Thursday following the last Wednesday in September,* and ends on the last Wednesday in June. There is a recess at Christmas, beginning December 23, and ending January 2; and a spring recess, beginning on the Wednesday before Fast Day, and ending on the following Tuesday, inclusive.

The course of instruction has been greatly enlarged, and is so arranged as to carry the student progressively and systematically from one subject to another, in a just and natural order.

In the subjects of anatomy, histology, chemistry, and pathological anatomy, laboratory-work is substituted for, or added to, the usual didactic lectures, and is as much required of every student as attendance at lectures and recitations.

The course of study recommended by the Faculty covers four years, but until further notice the degree of Doctor of Medicine will continue to be given upon the completion of three years of study, to be as ample and full as heretofore. The degree of Doctor of Medicine cum laude will be given to candidates who have pursued a complete four years' course, and obtained an average of 75 per cent in all the examinations of this course. In addition to the ordinary degree of Doctor of Medicine as heretofore obtained, a certificate of attendance on the studies of the fourth year will be given to such students desiring it as shall have attended the course, and have passed a satisfactory examination in the studies of the same.

Instead of the customary oral examination for the degree of Doctor of Medicine, held at the end of the three and four year's period of study, a series of written and oral examinations on all the main subjects of medical instruction has been distributed for regular students through their entire course of study. Every candidate for the degree must pass a satisfactory examination in every one of the principal departments of medical instruction, at some time during his period of study.

* That the time of study shall count as a full term, students of every class must present themselves within the first week of the term and register their names with the Secretary.

1891.	1892.									
JULY.	JANUARY.	JULY.								
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NOVEMBER.	MAY.	NOVEMBER.								
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DECEMBER.	JUNE.	DECEMBER.								
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CALENDAR.

The meetings of the President and Fellows are held on the second and on the last Monday of every month.

1891.

Oct. 1, Thursday. Academic Year begins in all departments of the University.

Oct. 14, Wednesday. Stated Meeting of the Board of Overseers.

Nov. 26, Thursday. Thanksgiving day; a holiday.

Dec. 1, Tuesday. Last day for receiving applications for aid from the Loan Fund.

RECESS FROM DEC. 23, 1891, TO JAN. 2, 1892, INCLUSIVE.

1892.

Jan. 13, Wednesday. Stated Meeting of the Board of Overseers.

Feb. 4, Thursday. Second half-year begins in the Medical School.

Feb. 15, Monday. Second half-year begins (except in the Medical School).

Feb. 22, Monday. Washington's Birthday; a holiday.

March 31, Thursday. Last day for receiving applications for all Graduate Fellowships and Scholarships, and for College Scholarships to be assigned to Graduate Students.

signed to Graduate Students.

March 31, Thursday. Last day for re-engaging College Rooms for 1892-93.

April 1, Friday. Last day for receiving applications of candidates for Second-Year Honors.

RECESS FROM THE WEDNESDAY BEFORE FAST DAY TO THE FOLLOWING TUESDAY INCLUSIVE.

April 1, Friday. Last day for receiving dissertations for the Boylston Medical Prizes.

April 13, Wednesday. Stated Meeting of the Board of Overseers.

April 27, Wednesday. Last day for receiving names of competitors for the Boylston Prizes.

April 30, Saturday. Applications from Graduate Students for admission to examination for any degree should be made before this date. See p. 243.

Last day for receiving applications for Price May 2, Monday. Greenleaf Aid for 1892-93. Last day for receiving dissertations for the May 2, Monday. Toppan, Dante, Sargent, and Sumner Prizes. Last day for receiving theses of Candidates for May 2, Monday. the degree of Ph.D. or S.D. See p. 247. Last day for receiving applications of Profes-May 2, Monday. sional Students who wish to be candidates for the degree of A.M. with a professional degree. Last day for receiving applications for College May 2, Monday. Rooms for 1892-93. Assignment of College Rooms for 1892-93. May 2, Monday. May 12, Thursday. Speaking for the Boylston Prizes. May 25, Wednesday. Last day for receiving applications for College Scholarships, and for aid from the Beneficiary Fund. Memorial Day; a holiday. May 30, Monday. Examinations in the Medical School begin. June I, Wednesday. June 6, Monday. Examinations in the Dental School begin. June 24, Friday. Seniors' Class Day. June 28 and 30, July 1 and 2, Tuesday to Saturday. Examinations for admission to Harvard College, and to the Lawrence Scientific School. Commencement. Stated Meeting of the Board June 29, Wednesday. of Overseers.

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT DAY TO SEPTEMBER 29.

June 30, Thursday. Examinations for admission to the Law and Medical Schools.

July 6, Wednesday.

Summer courses in Chemistry, Physics, English,
German, French, Anglo Saxon, Field Engineering, Geology, and Physical Training,
open.

Sept. 26, Monday. Examinations in the Dental School begin.

Sept. 22-24, 26, Thursday to Monday. Examinations for admission to Harvard College, and to the Lawrence Scientific School.

Sept. 26, Monday. Examination for admission to the Medical School.

Sept. 26, Monday.	Examination for admission to the Dental School.
Sept. 26, Monday.	Examinations in the Medical School begin.
Sept. 28, Wednesday.	Annual Meeting of the Board of Overseers.
Sept. 29, Thursday.	Academic Year begins in all departments of
	the University.
Sept. 29, Thursday.	Examination for admission to the Law School.
Sept. 29, 30, Thursday	and Friday. Examination for admission to
	advanced standing in the Law School.
Oct. 12, Wednesday.	Stated Meeting of the Board of Overseers.
Oct. 31, Monday.	Last day for receiving applications of Candidates
	for Final Honors in 1893. See p. 174.
Oct. 31, Monday.	Last day for receiving dissertations for the Bow
	doin and Chauncey Wright Prizes.
Dec. 1, Thursday.	Last day for receiving applications for aid from

ABBREVIATIONS.

the Loan Fund.

C.	College House.	H'y.	Holworthy Hall.
D.	Divinity Hall.	M.	Matthews Hall.
D. H.	Divinity House.	S.	Stoughton Hall.
F.	Foxcroft House.	$\mathbf{T}.$	Thayer Hall.
G.	Grays Hall.	W.	Weld Hall.
H.	Hollis Hall.	W. H.	Walter Hastings Hall.
H'ke.	Holyoke House.		

Note. — Dormitories within the College grounds are known as Halls: those outside the College grounds, but owned by the University, are called Houses; while others, the property of private owners, are called Blocks or Buildings.

THE MEDICAL SCHOOL.

FACULTY.

CHARLES W. ELIOT, LL.D., President.

HENRY P. BOWDITCH, M.D., Dean, and Professor of Physiology.

DAVID W. CHEEVER, M.D., Professor of Surgery.

JAMES C. WHITE, M.D., Professor of Dermatology.

OLIVER F. WADSWORTH, M.D., Professor of Ophthalmology.

CLARENCE J. BLAKE, M.D., O.M., Professor of Otology.

FRANK W. DRAPER, M.D., Professor of Legal Medicine.

FREDERICK I. KNIGHT, M.D., Clinical Professor of Laryngology.

CHARLES B. PORTER, M.D., Professor of Clinical Surgery.

J. ORNE GREEN, M.D., Clinical Professor of Otology.

AMOS L. MASON, M.D., Assistant Professor of Clinical Medicine.

J. COLLINS WARREN, M.D., Associate Professor of Surgery.

REGINALD H. FITZ, M.D., Shattuck Professor of Pathological Anatomy.

WILLIAM L. RICHARDSON, M.D., Professor of Obstetrics.

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.

EDWARD S. WOOD, M.D., Professor of Chemistry.

FREDERICK C. SHATTUCK, M.D., Jackson Professor of Clinical Medicine.

EDWARD H. BRADFORD, M.D., Instructor in Surgery and Orthopedics.

WILLIAM H. BAKER, M.D., Professor of Gynaecology.

T. M. ROTCH, M.D., Assistant Professor of the Diseases of Children.

WILLIAM B. HILLS, M.D., Associate Professor of Chemistry.

WILLIAM F. WHITNEY, M.D., Curator of the Anatomical Museum.

CHARLES S. MINOT, S.D., Assistant Professor of Histology and Embryology.

MAURICE H. RICHARDSON, M.D., Assistant Professor of Anatomy.

SAMUEL J. MIXTER, M.D., Demonstrator of Anatomy.

HAROLD C. ERNST, M.D., Assistant Professor of Bacteriology.

CHARLES HARRINGTON, M.D., Instructor in Materia Medica and Hygiene, and Assistant in Chemistry.

OTHER INSTRUCTORS.

THEODORE W. FISHER, M.D., Lecturer on Mental Diseases.

SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

HENRY P. QUINCY, M.D., Instructor in Histology.

FRANCIS A. HARRIS, M.D., Demonstrator of Medico-legal Examinations.

JAMES J. PUTNAM, M.D., Instructor in Diseases of the Nervous System.

ELBRIDGE G. CUTLER, M.D., Instructor in the Theory and Practice of Physic.

FRANCIS H. DAVENPORT, M.D., Instructor in Gynaecology.

EDWARD M. BUCKINGHAM, M.D., Instructor in Diseases of Children.

GEORGE M. GARLAND, M.D., Instructor in Clinical Medicine.

JOHN W. ELLIOT, M.D., Assistant in Clinical Surgery.

WILLIAM W. GANNETT, M.D., Instructor in Clinical Medicine.

CHARLES M. GREEN, M.D., Instructor in Obstetrics.

FRANKLIN H. HOOPER, M.D., Instructor in Laryngology.

CHARLES F. WITHINGTON, M.D., Assistant in Clinical Medicine.

GEORGE H. MONKS, M.D., Assistant in Clinical and Operative Surgery.

FRANCIS S. WATSON, M.D., Assistant in Clinical Surgery.

HERBERT L. BURRELL, M.D., Instructor in Clinical Surgery.

CHARLES P. STRONG, M.D., Assistant in Gynaecology.

FRANK B. HARRINGTON, M.D., Assistant in Clinical Surgery.

THOMAS F. SHERMAN, M.D., Assistant in Diseases of Children.

HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.

WILLIAM M. CONANT, M.D., Assistant Demonstrator of Anatomy.

HENRY JACKSON, M.D., Assistant in Bacteriology.

JOHN C. MUNRO, M.D., Assistant in Anatomy.

EDWARD REYNOLDS, M.D., Assistant in Obstetrics.

CHARLES W. TOWNSEND, M.D., Assistant in Obstetrics.

CHARLES L. SCUDDER, M.D., Assistant in Clinical Surgery.

HENRY F. SEARS, M.D., Assistant in Pathology.

CHARLES P. WORCESTER, M.D., Assistant in Chemistry, and Secretary of the Medical Faculty.

WILLIAM S. BRYANT, M.D., Assistant in Anatomy.

JOHN C. CARDWELL, M.D., Instructor in Physiology.

FRANK B. MALLORY, M.D., Assistant in Pathology.

E. STANLEY ABBOT, A.B., Assistant in Histology.

ARTHUR H. WENTWORTH, M.D., Assistant in Chemistry.

The following gentlemen will give special clinical instruction: -

JOHN HOMANS, M.D., in the Diagnosis and Treatment of Ovarian Tumors.

EDWARD COWLES, M.D., in Mental Diseases.

FRANCIS B. GREENOUGH, M.D., and ABNER POST, M.D., in Syphilis.

GEORGE W. GAY, M.D., in Surgery.

ARTHUR T. CABOT, M.D., and FRANCIS S. WATSON, M.D., in Genito-urinary Surgery.

GEORGE L. WALTON, M.D., and PHILIP C. KNAPP, M.D., in Diseases of the Nervous System.

JOHN B. SWIFT, M.D., in Diseases of Women.

STANDING COMMITTEES.

Executive Committee. — Dean, Drs. Warren, Shattuck, Whitney, Harrington.

Advertising and Catalogue. — Drs. Wood, Fitz, Whitney.

Admission Examinations. — Drs. Green, Dwight, Hills, Rotch, Whitney, Harrington.

Course of Study. — Drs. Fitz, Bowditch, Draper, Mason, Warren, W. L. Richardson, Dwight.

Nominations. — Drs. White, Draper, W. L. Richardson, Baker, M. H. Richardson.

Building. — Drs. Bowditch, Wood, Whitney.

Library. — Drs. Bowditch, Dwight, Cheever, Fitz, W. L. Richardson, Hills, Bradford.

Graduate Courses. — Drs. Blake, Wadsworth, Rotch, Knight, Bradford.

STUDENTS.

IN COURSES FOR GRADUATES.

1890-91.*

Applegate, William A., M.D.
Bolles, William Palmer, M.D.
Codding, Edwin Hayden, M.D.
Conroy, Peter John, M.D.
Cottrell, Samuel Parker, M.D.
Egan, Peter Ralph, M.D.
Finch, Charles Harvey, M.D.
Flanders, Frank Byron, M.D.
Forsyth, Frank Lyons, M.D.
Gallison, John Cushing, M.D.
Goss, Ossian Wilbur, M.D.
Harrington, Arthur Hudson, M.D.
Jones, Elgin Wilbur, M.D.

Lamson, H. H., M.D. Moran, Benjamin George, M.D.

Morrell, F. A., M.D.

Parsons, Ralph Alfred, M.D.

Sanford, Arnold, M.D. Sawyer, Carlton, M.D.

Swarts, Gardner Taber, M.D.

Sylvester, William Hillman, M.D.

Trowbridge, Edward H., M.D. Reynolds, Henry Vose, M.D.

Wardwell, William T. Sherman, M.D.

Whitney, George Franklin, M.D.

1891-92.

Call, Charles Henry, M.D.
Cowan, George, M.D.
Gage, James Arthur, M.D.
Gallison, John Cushing, M.D.
Harriman, Charles H., M.D.
Hubbard, Frank Allen, M.D.
Lecherzack, Bernard, M.D.
McCarthy, John Coakley, M.D.
Morris, George Patrick, M.D.
Scudder, Charles Locke, M.D.
Terry, Charles Church, M.D.

Boston.
Roxbury.
Boston.
Brewer, Me.
Boston.

E. Providence.

Providence, R. I.

Franklin.

Boston.

Lake Village, N. H.

Danvers.
Medford.

Hanover, N. H. Nashua, N. H. Putnam, Conn.

Boston. Everett.

No. Conway, N. H.

Providence.
Natick.
Worcester.
Dorchester.
Roslindale.
Cleveland.

Brockton.
Danville, Ky.
Lowell.
Franklin.
Whitinsville.
Taunton.
Boston.
Malden.
So. Boston.
Boston.

Taunton.

^{*} After the issue of the Catalogue.

FOURTH CLASS.

Balch, Franklin Greene, A.B. 1888, Jamaica Plain. Cabot, Follen, Jr. Brookline. Cavanagh, Charles Russell, Mattapan. Coggeshall, Frederic, A.B. 1886, Cambridge. Cogswell, George Proctor, A.B. 1888, Cambridge. Dane, John, A.B. 1888, Boston. Edson, Carroll Everett, A.B. 1888, Roxbury. Francis, Carleton Shurtleff, A.B. 1888, Brookline. Charlestown. Frothingham, Richard, Harwood, Charles Hamant, A.B. 1888, Boston. Holder, Oscar Howe, A.B. 1888, Boston.Wentworth, N. H. Hoyt, Edward Malcolm, Keany, Francis Joseph, A.B. (Boston Coll.) 1888, Boston. Keleher, William Henry, Woburn. Peabody. Lane, Francis Augustus, Leahey, George Henry Aloysius, Lowell. Concord, N. H. Lund, Fred Bates, A.B. 1888, Lyons, Christopher Philip, E. Boston. Macdonald, William Huntley, A.B. (St. Francis Xavier Coll.) 1888, Antigonishe, N. S. McKenna, Francis Patrick, So. Boston. Moran, John Joseph, So. Boston. Murphy, Timothy Joseph, A.B. (Boston Coll.) 1888. Roxbury. O'Brien, John Francis, A.B. (Boston Coll.) Charlestown. 1888, Porter, Charles Allen, A.B. 1888, Boston. Powers, Edward Joseph, A.B. (Holy Cross Coll.) 1888, E. Boston. Risk, Winthrop Allen, Providence, R. I. Rowen, Henry Stanislaus, Cambridge. Sawyer, Walter Fairbanks, Keene, N. H. Shepard, Thomas Osborne, A.B. 1888, Salem. Charlestown. Stacey, Charles Franklin, Stebbins, Walter Gay, A.B. (Yale Univ.) 1886, Springfield. Stickney, Edwin Pangman, Sunapee, N. H. Tilton, Edward James, A.B. 1885, Andover. Whipple, Farrington Hasham, A.B. 1888, Portland, Me.

THIRD CLASS.

Basel, Switzerland. Achard, Hermann Jacoby, Rowley. Bailey, George Guy, Brewster, George Washington Wales, A.B. Jamaica Plain. 1889, Brookline. Cabot, Richard Clarke, A.B. 1889, Lynn.Chase, Arthur Brown, W. Baldwin, Me. Chase, Richard Fitch, Jr. Dorchester. Cobb, Farrar Crane, A.B. 1890, Bangor, Me. Coffin, Rockwell Augustus, Allston. Cogswell, Charles Frederick, A.B. 1889, Malden, W. Va. Courtney, Samuel Edward, Malden. Craig, Daniel Hiram, Cambridge. Cunningham, Joseph Henry, Waltham. Cutler, George Washington, Brooklyn, N.Y. Davis, Abel Albert, E. Boston. Deal, George Francis, Roxbury. DeLue, Frederick Spaulding, Indian Creek, W. Va. Dunlap, Charles Bates, A.B. 1889, Boston. Edmonds, Louis, Boston. Edwards, William Lothrop, Emerson, Herbert Clark, A.B. (Amherst Coll.) Newton. 1889. Lowell. Fox, Charles Leonard, Boston. Gallivan, William Joseph, A.B. 1888, Boston. Gay, Warren Fisher, A.B. 1890, Cambridge. Goodale, Joseph Lincoln, A.B. 1889, Newton. Hardon, Robert Wallace, Harlow, George Arthur, A.B. (Amherst Coll.) Augusta, Me. 1889, Hastings, Robert Worthington, A.B. (Amherst Warren. Coll.) 1888, Roxbury. Hodges, Almon Danforth, A.B. 1889, Chelsea. Ilsley, Frederick Roscoe, Winchester. Jordan, Charles Harold, Waltham. Keith, Frederick Scott, Lincoln. Kidder, Edward Hamilton, A.B. 1888, Menomonie, Wis. Knapp, Edgar Jonas, Leahy, Thomas Joseph, A.B. (Holy Cross Coll.) Cambridge. 1888, Charlestown. Libby, Jesse Herbert, Roxbury. Littlefield, Samuel Horace,

Loveland, John Elijah, A.B. (Wesleyan Univ.) 1889,	Middletown, Conn.
Lynam, Frank, A.B. (Bowdoin Coll.) 1889,	Bar Harbor, Me.
McIntyre, James Angus, A.B. (Univ. of N. B.)	
1880,	St. John, N. B.
Manahan, Herbert Wellington,	Lawrence.
Merrick, Robert Michael,	Dorchester.
Mongan, Charles Edward, A.B. (Boston Coll.)	
1883,	Somerville.
Moran, Horace Sheridan, A.B. (Williams Coll.)	
1889,	Wakefield.
Murphy, John Henry,	Boston.
Norton, Rupert,	Cambridge.
Oakey, Daniel,	Cambridge.
O'Brien, Denis Aloysius, A.B. (Holy Cross Coll.)	
1888,	Lewiston, Me.
O'Donnell, Louis Patrick,	Plymouth.
Ogden, Jay Bergen,	Rochester, N.Y.
Palmer, George Monroe,	Boston.
Phelps, John Samuel, A.B. 1889,	Lynn.
Phillips, James Lee,	Boston.
Quirk, Charles Hudson,	Buenos Ayres, So. Amer.
Ruppel, Emil Fraser,	Boston.
Selva, Julio, A.B. (Coll. of Nicaragua) 1888,	Leon, Nicaragua.
Shaw, John Holbrook,	Plymouth.
Shurtleff, George Frederick,	Westfield.
Silva, Francis Pierce,	Charlestown.
Smith, Charles Morton,	Chesham, N. H.
Smith, George Seeley, B.S. (St. Johns Coll.) 1891,	Portland, Me.
Spencer, George Albert,	Ipswich.
Starr, Frederick Ratchford,	Boston.
Stevens, Charles Benjamin, A.B. (Amherst Coll.)	
1887,	Worcester.
Thayer, Eugene, A.B. (Amherst Coll.) 1889,	Boston.
Toomey, John Peter,	E. Boston.
Wheeler, Charles Douglass, A.B. (Williams	
Coll.) 1888,	Worcester.
White, Verdeil Oberon, A.B. (Bowdoin Coll.)	
1889,	E. Dixfield, Me.
Wilder, Raymond Sargent, A.B. 1889,	No. Cambridge.
Young, Charles Oscar, A.B. (Augustana Coll.)	
1888,	Lindsborg, Kans.

SECOND CLASS.

Ash, John Henry, No. Weymouth. Barnes, Francis Henry, A.B. (Holy Cross Coll.) Fitchburg. Cambridge. Barney, George Lawrence, A.B. 1890, Bennett, Frederick Sherwin, Brighton. Bicknell, William Horace, No. Weymouth. Billings, William Chester, Springfield. Boyd, Wendell Charles, Linneus, Me. Boynton, Edwin Dana, Harrington, Me. Bragg, Frank Adelbert, Agawam. Bullard, Stephen Eliot, Boston. Burnham, Elmond Arthur, A.B. (Tufts Coll.) 1889, Cambridge. Carleton, Dudley, Norwich, Conn. Carleton, Ralph, Norwich, Conn. Carr, Frank Fletcher, A.B. (Williams Coll.) Concord. 1890, Carroll, Edward Francis, Rumford, R. I. Carter, Theron Harlow, A.M. (Brown Univ.) 1888, Boston. Chapman, Lorenzo, Amherst, N. S. Cody, Edmond Francis, Taunton. Cogswell, William, Jr., A.B. (Dartmouth Coll.) Salem. 1890, Cook, Frank Clarendon, Boston. Coolidge, John Nelson, A.B. (Amherst Coll.) Leicester. 1889, Cotton, Frederic Jay, A.B. 1890, Newport, R. I. Coues, William Pearce, Cambridge. Courtney, Joseph William, A.B. 1890, E. Cambridge. Craig, Francis, A.B. (Manhattan Coll.) 1889, Providence, R. I. Cutler, James Tucker, A.B. (Williams Coll.) 1890, Dorchester. Daly, Richard Francis, Boston. Darling, Eugene Abraham, A.B. 1890, Troy, N.Y. Davenport, Charles Albert, A.B. 1890, Watertown. DeCoster, Harry Wilson, PH.G. (Mass. Coll. Pharmacy), 1890, Lynn.York Village, Me. Dennett, John, Jr., Donahue, William Francis, A.B. (Holy Cross Coll.) 1889, Worcester. Donnelly, John Bernard, A.B. (Holy Cross Coll.), 1890, W. Fitchburg.

Coll.) 1890,

Donovan, William Edward,	Lawrence.
Drown, Edward Payson, A.B. (Amher	st Coll.)
1889,	Keene, N. H.
Duel, Arthur Baldwin,	Granville, N. Y.
Erb, Theodore Charles,	Boston.
Ewald, Carl Adolf, A.B. 1888,	Newton, N. J.
Fairbanks, Arthur Willard,	W. Roxbury.
Farenholt, Ammen,	Malden.
Farrington, Leander Morton,	Portsmouth, N. H.
Flynn, Harry Sherman,	Woodstock, Conn.
Frost, N Alford,	Derry, N. H.
Fuller, Frederick Henry,	Rockland.
Gage, Edward Franklin, A.B. (Amherst C	foll.) 1888, Boston.
Groll, Edward Wright,	Roxbury.
Hall, Herbert James,	Manchester, N. H.
Hamilton, Edward Sylvester, A.B. (He	oly Cross
Coll.) 1888,	Holliston.
Hammond, Philip,	${\it Haverhill}.$
Haskell, Harry Hill, A.B. 1890,	Auburndale.
Henshaw, George Bridges, A.B. 1890,	Cambridge.
Higbee, Frank Oscar, B.S. (Carleton Co	
Hill, Edmund Emerson,	Candia, N. H.
Hill, George Hillard,	Worcester.
Houghton, Henry Lincoln, B.s. (Worces	ster Poly-
tech. Inst.) 1889,	Worcester.
Jenks, Harrison Darling, A.B. 1890,	Warsaw, N. Y.
Johnson, Orville Edson, Ph.B. (Wesleye	an Univ.)
1889,	Winthrop.
Jones, Claude Perry,	Boston.
Jones, William Marks, A.B. 1890,	Nevoton.
Judge, Albert Augustine, A.B. (Holy Cre	oss Coll.)
1888,	Roxbury.
Keenan, Herbert John,	Boston.
Kelley, Dennis Michael, A.B. (Boston Co	ll.) 1890, Stoughton.
Kennard, Harry Delano,	E. Somerville.
Leary, Timothy, Jr.	Waltham.
Lindström, Alfred Herman,	Lowell.
Lord, Sidney Archer,	Boston.
Lovewell, Henry Plummer, A.B. (Brown	
1889,	Providence, R. I.
Lyons, Joseph Benédict,	Charlestown.
McCullough, Edward Aloysius, A.B. (A	
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Bangor, Me.

McKenzie, John Robert,	Cambridge.
McLeod, Percy DeMille,	Boston.
MacNichol, George Pope,	Calais, Me.
Mansfield, Henry Kimball,	Salem.
Moffitt, Herbert Charles, s.B. (Univ. of Cali-	
fornia) 1889,	Oakland, Cal.
Morse, Almon Gardner, A.B. 1890,	Boston.
Murphy, Charles Oscar,	Taunton.
Page, Albert Kidder,	Boston.
Page, Calvin Gates, A.B. 1890,	Boston.
Pearl, Frederic Warren, A.B. (Williams Coll.)	
1890,	Bradford.
Piper, Frank, Ph.G. (Mass. Coll. Pharmacy)	
1889,	Charlestown, N. H.
Reardon, Timothy Joseph,	Charlestown.
Richardson, Mark Wyman, A.B. 1889,	Boston.
Roberts, James Stanton,	W. Lebanon, Me.
Robinson, Gilman Parker,	Boston.
Robinson, William Henry,	Charlestown.
Ronayne, David Patrick, A.B. (Holy Cross Coll.)	
1889,	Worcester.
Rourke, Joseph Edward, A.B. 1890,	Dorchester.
Russell, Simon James, A.B. (Holy Cross Coll.)	
1890,	Springfield.
Sargent, Ara Nathaniel, A.B. 1890,	Salem.
Saunders, Ambrose Courtis, A.B. 1889,	Cambridge.
Shaw, Albert Joel,	Boston.
Shaw, Arthur John,	Boston.
Smith, Arthur Vincent, A.B. (Bowdoin Coll.)	
1890,	Middleborough.
Smith, Harry Winfield, A.B. (Tufts Coll.) 1890,	· ·
Sprague, John Lovell, Jr.	Providence, R. I.
Starbird, Edward Perley,	Dorchester.
Steese, Edwin Sturtevant,	Brookline.
Stone, James Savage, A.B. 1889,	Newton.
Sweet, Charles Frederick,	Central Falls, R. I.
Swett, Percy Walter,	Boston.
Thompson, Harry John,	Rutland, Vt.
Tirrell, Vincent Meader,	So. Weymouth.
Treanor, John Peter,	Boston.
Varnum, Francis Joseph, A.B. (Holy Cross Coll.)	
1889,	Boston.
Warren, Hobert Endicott,	Cambridge.
	J. H. J. G.

Waterman, Jerome Hilton,

Watts, Henry Fowler Ransford,

Waughop, Philip Rexford, A.B. 1890,

Weir, Edward Andrew,

West, George Leon, A.B. 1890,

Wheate Arthur Fitts,

Wheeler, Alfred Augustus,

White, Charles James, A.B. 1890,

Yost, Francis Oliver,

Buffalo, N.Y.

Boston.

Fort Steilacoom, Wash.

Harrison, Neb. Roslindale.

Manchester, N. H.

Leominster. Boston.

Boston.

Mansfield. Fall River.

Boston.

Boston.

Lynn.

Cambridge.

FIRST CLASS.

Abbe, Frederick Randolph, A.B. (Amherst Coll.)

1891, Boston.

Penacook, N. H. Adams, Charles Sumner,

Allen, William Howard, A.B. 1891,

Almy, Arthur Pickering,

Baldwin, Herman Trost, A.B. 1891,

Bannon, Bernard James, Barney, Charles Norton,

Batchelder, William Burdette,

Bateman, Frank Elliot, A.B. (Tufts Coll.) 1887, Charlestown.

Beals, Arthur Loring, A.B. (Brown Univ.) 1891, Brockton.

Bottomley, John Taylor, A.B. (Holy Cross Coll.)

1889, Lee.

Boyle, Alfred John,

Boston. Salmon Falls, N. H. Brown, Harry Albertus,

Brown, Milton Douglas,

Burden, Ernest Druscella,

Burnham, Elisha Bennet,

Rockville, Conn. Byrnes, Thomas James, Cahill, John Thomas, A.B. (Noly Cross Coll.) 1890, Lawrence.

Calder, Augustus Woodbury, A.B. (Brown Univ.)

1891, Camfill, Robert Emmet,

Carden, Charles James, Chadwick, Henry Dexter,

Chapin, Alva Le Roy,

Chicoine, Isidore Hermanigilde,

Chute, Arthur Lambert,

Codman, Ernest Amory, A.B. 1891,

Collin, Carl Oscar Louis, Costello, Frederick Aloysius, Providence, R. I.

Ruthville, Va.

Malden.

Essex.

Forest Hills. Lawrence. Waltham.

Oneida, N.Y.

Lynn.

Eau Claire, Wis.

Boston. Boston. Dorchester.

Cowan, John Rice, A.B. (Centre Coll.) 1890,	Danville, Ky.
Cruikshank, Herbert Wyche,	Talladega, Ala.
Cunningham, Benjamin Frazier, Ph.B. (Tufts	i allaaega, ma.
Coll.) 1891,	Gloucester.
Cushing, Harvey Williams, A.B. (Yale Univ.) 1891	
Daley, Robert Nicholas, Jr., A.B. (Boston Coll.)	
1891,	So. Boston.
Daly, William Joseph,	Dorchester.
Daniels, Roy Adelbert,	Malden.
Darling, Charles Balfour, A.B. 1891,	Woburn.
Deane, William Brecke, A.B. (Brown Univ.) 1889	
Deans, Herbert Clair,	Boston.
Dennis, James Henry,	Worcester.
Denny, Francis Parkman, A.B. 1891,	Brookline.
Desmond, Clarence Francis,	Worcester.
Dewis, John William,	Boston.
Dodsworth, Charles Oliver,	Boston.
Dolliver, George Carroll, PH.B. (Tufts Coll.) 1891	
Donoghue, Francis Dennis,	Georgetown.
Doogue, William Aloysius,	Boston.
Dowling, John Joseph,	Boston.
Drew, Fred, A.B. (Bowdoin Coll.) 1891,	Alfred, Me.
Drohan, James Henry,	Brockton.
Dudley, Augustus William, A.B. 1891,	Presque Isle, Me.
Edes, Richard Edward, A.B. (Johns Hopkins	
Univ.) 1889,	Jamaica Plain.
Egan, John Joseph, A.B. (Boston Coll.) 1891,	Peabody.
Ela, Paul Francis, A.B. (Wesleyan Univ.) 1884,	
A.м. (Ibid.) 1888,	Cambridgeport.
Farnham, John Marshall Willoughby, A.B. (Am-	
herst Coll.) 1891,	Newton Centre.
Fontaine, Henri Theophile,	Suncook, N. H.
Frame, Joseph,	Boston.
French, Towneley Thorndike,	Boston.
Furber, Edwin Edgerton,	Bridgewater, Vt.
Giblin, James John,	Boston.
Gilchrist, Charles Robert,	Boston.
Gilchrist, Robert Watson,	Boston.
Goodhue, Ralph Fessenden,	Bangor, Me.
Grant, William Herbert,	Central Falls, R. I.
Gross, Edward Blake,	Provincetown.
Gunckel, Joseph Sutphin,	Dayton, O.
Gunther, Elsner Christian, A.B. 1889,	New York, N. Y.

TT ' T 1 C ' 1 1 1	70. /
Haines, Frank Smithwick,	Boston.
Hall, James Frank,	Lowell.
Harkins, Cornelius Patrick,	Newtonville.
Harriman, Frank Whitman,	Framingham.
Harris, William Lincoln, s.B. (Mass. Inst. of	
Tech.) 1888,	No. Wilmington.
Hastings, John Mason, A.B (Bowdoin Coll.))
1891,	Bangor, Me.
Heffern, Patrick William,	Boston.
Hilton, Weston Morton, A.B. (Bowdoin Coll.	
1891,	Damariscotta, Me.
Hodgkins, Chester Lyman,	Roxbury.
Holmes, Edgar Miller,	Middletown, Conn.
Hunt, Daniel Lawrence, A.B. 1891,	Roxbury.
Ide, Clarence Edward,	Providence, R. I.
Ingoldsby, Joseph Emanual,	Boston.
Jamieson, Henry Verner,	Melrose.
Jewett, Walter Kendall, A.B. (Brown Univ.	.)
1891,	Fitchburg.
Johnson, Grahame Dove,	And over.
Joslin, Elliott Proctor, A.B. (Yale Univ.) 1890	,
PH.B. (Yale S. S.) 1891,	Boston.
Kendall, Thomas Lewis,	Brockton.
Kilroy, Francis Henry, A.B. (Holy Cross Coll	
1891,	Fall River.
King, Melaim Le Noir, A.B. (Mt. Allison Coll.	.)
1891,	Tyron, P. E. Island.
Lake, Charles Norton, PH.C. (Univ. of Mich.	
1884,	Boston.
McAdams, James Philip, A.B. 1891,	Somerville.
McCormick, John Francis,	Jamaica Plain.
McGrath, John Edward,	Natick.
McKoan, John William,	Worcester.
McManus, John Joseph,	Rutland, Vt.
MacPherson, George Sturtevant, A.B. 1890,	E. Boston.
McSweeney, Daniel Justin, A.B. (Boston Coll.	
1889,	Boston.
Madden, William Daniel, A.B. (Mt. St. Mary	
Coll.) 1891,	Boston.
Magurn, Francis Thomas Louis,	Charlestown.
Marsh, Arthur White,	Leicester.
Maskell, Leonard Joseph, A.B. (Holy Cross Coll	Newton.
1891,	11 EW1071.

Mason, Alan Gregory, A.B. 1886,	Boston.					
Mehegan, Daniel Joseph,	Taunton.					
Meigs, Return Jonathan,	Lowell.					
Mercer, William James, A.B. (Holy Cross Coll.	.)					
1891,	Pitts field.					
Metcalf, Ben Hicks,	Meadville, Pa.					
Miller, Lester Colwell,	Rockport, Me.					
Mix, Charles Louis, A.M. 1891,	Chicago,Ill.					
Morgan, William Edward,	Boston.					
Moriarty, James Liguori,	Norwich, Conn.					
Morse, Frank Leander,	Marlboro'.					
Norton, Harry Lovett, A.B. 1891,	Allston.					
O'Hare, Patrick Francis,	Valley Falls, R. I.					
O'Keefe, Gerald Joseph,	Charlestown.					
O'Sullivan, John Joseph,	Lawrence.					
Packard, George Henry,	E. Boston.					
Painter, Charles Fairbank, A.B. (Johns Hopkin	ıs					
Univ.) 1891,	Great Barrington					
Phillips, Walter Lewis,	Olneyville, R. I.					
Pierce, Appleton Howe,	Leominster.					
Plummer, Frank Wentworth, A.B. (Dartmout	th					
Coll.) 1891,	Some rville.					
Poore, John Robinson,	E. Somerville.					
Potter, Nathaniel Bowditch, A.B. 1890,	Cambridge.					
Price, Walter Herbert,	Boston.					
Procter, Percy Clement,	Gloucester.					
Procter, Thomas Walter, PH.G. (Mass. Col	<i>!!.</i>					
Pharmacy) 1877,	Newton.					
Putnam, Charles Russell Lowell, A.B. 1891,	Cambridge.					
Putnam, Willard Abram,	New Salem.					
Quinn, James Ambrose,	So. Boston.					
Reddy, Joseph Warren,	So. Boston.					
Rittler, William Ferdinand, A.B. (Johns Hopkis	ns					
<i>Univ.</i>) 1891,	Baltimore, Md.					
Roberts, Henry Ambrose, A.B. (Dartmouth Coll	•)					
1890,	Wakefield, N. H.					
Robey, William Henry,	Dorchester.					
Sargent, George Bancroft,	Lawrence.					
Savage, John James,	Lowell.					
Saville, Sumner Carruth, A.B. 1891,	Cambridge.					
Shapleigh, Alfred Lindsay,	Allston.					
Shattuck, Albert Milo,	Groton.					
Shaw, Frederick King,	Charlestown.					

Sherwood, Walter,	Boston.
Shores, Harvey Towle, s.B. (Mass. Agricultur	cal
Coll.) 1891,	W. Bridgewater.
Singer, William Frederic,	Carthage, N. Y.
Smith, Frank Conger,	Yankton, So. Dak
Smith, Frank Simpson,	Boston.
Smith, Fred Stephens,	No. Andover.
Smith, Leonan Jason,	Boston.
Smith, Thomas Burke, A.B. (Trinity Coll	.)
1891,	Hartford, Conn.
Smithwick, Marsena Parker, A.B. (Bowdon	in
Coll.) 1888, A.M. (Ibid.) 1891,	New Castle, Me.
Sosnowski, Philip,	Boston.
Spear, Walter May,	Rockland, Me.
Stanton, Thomas Leo,	Boston.
Stevens, Henry Burt,	Norwich, Conn.
Stiles, Herbert Kendall, A.B. (Amherst Coll	
1891,	Newtonville.
Sullivan, Daniel Aloysius,	Newton.
Sullivan, George Henry,	E. Boston.
Sullivan, James Stephen, A.B. (Holy Cross Cole	<i>l</i> .)
1889,	Worcester.
Swan, Charles Louis, A.B. 1891,	Stoughton.
Talbott, Bertell Laroy,	Milford, N. H.
Tenney, William Northend,	Georgetown.
Thomas, George Henry,	E. Boston.
Thorndike, Townsend William,	Boston.
Tukey, Frank Martain, A.B. (Bowdoin Coll.	.)
1891,	New Castle, Me.
Underwood, Francis Andrew, A.B. (Holy Cro.	SS
Coll.) 1891,	Worcester.
Webber, Stephen Elvaro, A.B. (Colby Univ	.)
1886, A.M. (Ibid.) 1889,	Chesterville, Me.
Weller, Francis Joseph, A.B. (Boston Coll.	
1888,	So. Boston.
Wheaton, James Lucas, Jr., PH.B. (Brown Univ	.)
1891,	Pawtucket, R. I.
White, Franklin Warren, s.B. (Mass. Inst.	of
Tech.) 1890,	Boston.
Williams, David Gardner, Jr.	Boston.
Williams, Edward Denison, PH.B. (Univ. of Vt.)
1890,	Peacham, Vt.
Williams, Edward Russell,	Boston.

Williams, Frank Percival,	E. Weymouth.
Wilson, Fred Newhall,	Boston.
Wright, Charles Sias, A.B. (Bowdoin	Coll.)
1891,	Portland, Me.
Wylie, Eugene Cushman,	Chelsea.
Young, Jonathan Frank, Jr.	Boston.

SUMMARY.

In Courses fo	\mathbf{R}	Gı	RA	DU	ΑΊ	ES	,	18	91	- 9	2 ((to	I)e	3.	1)	٠	•	11
FOURTH CLASS	•	•			•		•		•	•	•	•	٠	•	٠				34
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THE MEDICAL SCHOOL.

REQUIREMENTS FOR ADMISSION.

All candidates for admission, except those who have passed an examination for admission to Harvard College, must present a degree in Letters, Science, or Medicine, from a recognized college or scientific school, or pass an examination in the following subjects:—

- 1. English. Every candidate will be required to write, legibly and correctly, an original English composition of not less than two hundred words, and also to write English prose from dictation.
 - 2. LATIN. The translation of easy Latin prose.
- 3. Physics. A competent knowledge of Physics (such as may be obtained from Gage's Elements of Physics).
- 4. ELECTIVE SUBJECT. Each candidate must pass an examination in any one of the following subjects: French, German, the Elements of Algebra or of Plane Geometry, Botany.

Whenever the candidate shall give evidence of having passed a satisfactory examination in any of the above requirements either at Harvard College or at the Lawrence Scientific School, a subsequent examination in such subject or subjects will not be demanded for his admission to the Medical School.

Candidates, who pass in two of the four subjects, will be admitted conditionally; but, until these conditions are made up, no student will be permitted to take part in any exercises of the third class, or present himself for examination in the subjects of that class.

The examinations will be held at the Medical School and conducted in writing; specimens of the papers used will be found in the Catalogue to be obtained of the Dean. In judging the work of the candidate, the spelling, grammar, and construction will be considered.

The examinations for admission are held on the Thursday following the last Wednesday in June, and on the Monday preceding the last Wednesday in September, beginning at 10 A.M.

In 1892 the examinations for admission will Also be held at the following places, beginning at 8 A.M. on Thursday, June 30:—

In Quincy, in the rooms of the Adams Academy; in Andover, in the rooms of the Phillips Academy; in Groton, in the rooms of the Groton

School; in Southborough, in the rooms of St. Mark's School; in Worcester, in Curtis Hall, the Young Men's Christian Association building, Elm Street; in Exeter, N. H., in the rooms of Phillips Exeter Academy; in Concord, N. H., in the rooms of St. Paul's School; in New York, N. Y., in the lecture-room of the Young Men's Christian Association, Twenty-third Street, corner of Fourth Avenue; in Albany, N. Y., in the rooms of the Young Men's Christian Association; in Buffalo, N. Y., in the High School building, corner of Court and Franklin Streets; in Philadelphia, Pa., in the rooms of the Academy of Natural Sciences, S. W. corner of Nineteenth and Race Streets; in Washington, D. C.; in Cleveland, O., in the Central High School building; in Cincinnati, O., in the rooms of the Law School, College Building, Walnut Street; in Chicago, Ill., in the rooms of the Chicago Athenacum, VanBuren Street; in St. Louis, Mo., in the Central High School building, corner of Olive and Fifteenth Streets; in Minneapolis, Minn., in the lecture-room of the Public Library building; Denver, Col., in the rooms of the Denver High School (District No. 1), corner of Nineteenth and Stout Streets; in San Francisco, Cal., in the rooms of the Boys' High School, on Sutter Street, between Gough and Octavia Streets; in Portland, Oregon; in some convenient city in Europe, to be announced later; and in Tokyo, Japan.

DIVISION OF STUDIES.

FOUR YEARS' COURSE.

For the First Year. — Anatomy, Physiology, General Chemistry,* and Medical Chemistry during the second half-year.

For the Second Year. — Practical and Topographical Anatomy, Medical Chemistry during the first half-year, Pathological Anatomy, Clinical Medicine, Surgery, Clinical Surgery, Therapeutics, and Diseases of Children.

For the Third Year. — Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery, and Clinical Surgery; and, as elective studies, Ophthalmology, Otology, Dermatology, Diseases of the Nervous System, Diseases of Children, Mental Diseases, Gynæcology, and Legal Medicine.

For the Fourth Year.—Ophthalmology, Otology, Dermatology, Laryngology, Mental Diseases, Diseases of the Nervous System, Gynæcology, Diseases of Children, Obstetrics, Clinical and Operative Obstetrics, Clinical Medicine, Clinical and Operative Surgery, Legal Medicine, Orthopedic Surgery, Genito-urinary Diseases, Hygiene, Vaccination, Bacteriology, Ovarian Tumors, Clinical Microscopy, and the Preparation of Food for Infants and Invalids.

THREE YEARS' COURSE.

For the First Year. — Anatomy, Physiology, General Chemistry,* and Medical Chemistry during the second half-year.

For the Second Year. — Practical and Topographical Anatomy, Medical Chemistry during the first half-year, Pathological Anatomy, Clinical Medicine, Clinical Surgery, Therapeutics, and Diseases of Children.

For the Third Year. — Obstetrics, Clinical and Operative Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery, Clinical Surgery, Ophthalmology, Dermatology, Syphilis, Otology, Laryngology, Mental Diseases, Diseases of the Nervous System, Gynæcology, Diseases of Children, Legal Medicine, Bacteriology.

METHODS OF INSTRUCTION.

The following methods of instruction are adopted in the several departments:—

Anatomy. — Lectures; various practical exercises, including abundant dissection, under the direction of the Demonstrator; recitations and demonstrations.

Histology and Embryology.—Lectures and laboratory work. Every student is recommended to purchase a microscope, but microscopes are provided for those whose means do not enable them to buy one, for the sum of \$3 for each term. Accommodations are furnished for those students who wish to pursue special or advanced courses. Special facilities are offered for original investigators.

Physiology. — Lectures, recitations, conferences, and practical demonstrations in the Laboratory. To students of the second, third, and fourth classes, opportunities are given for original investigations in the Laboratory.

Chemistry is taught mainly by practical work in the Laboratory, the student having his own desk and apparatus. Descriptive Chemistry and qualitative analysis are taught during the first year. Besides the labora-

* Any student who shall have previously passed an examination in General Chemistry (including qualitative analysis) in the Undergraduate department or Scientific School of Harvard University, may pursue the study of Medical Chemistry during his first year. The Summer Courses in qualitative analysis at Harvard College or at the Medical School will be accepted as the equivalent of the course in qualitative analysis given during the first year, provided a certificate of satisfactory examination be furnished. This privilege will be granted to students from other colleges and scientific schools who have received instruction in general chemistry equivalent in character and amount to that of the first year, on passing a satisfactory examination at the September examination, provided that satisfactory evidence of such previous study be sent to the Dean of the Faculty one month before the date of this examination.

tory-work, there is a lecture and a recitation every week. In the second half of the first year and the first half of the second year Medical Chemistry is taught by lectures, recitations, and exercises in the Laboratory.

Pathology and Pathological Anatomy are taught by lectures, recitations, and practical instruction in pathological histology. During the past year the Sears' Building, the gift of Dr. Henry F. Sears, having been finished, has been used for the instruction in this department. basement is fitted up for the care of animals and for the storage of The first story contains the bacteriological laboratories. On the second floor are the rooms for the officers of instruction and for special students in pathological anatomy and histology. story is the class-room for recitations and demonstrations, and for instruction in pathological histology. An adjoining room is especially constructed for photography. These laboratories open directly into the physiologial laboratory which, in turn, is immediately connected with that for chemistry; all the appliances of each laboratory are thus available to the students in any one of them with the least possible loss of time. The collection of the Warren Anatomical Museum is used to illustrate the lectures, and morbid specimens in a fresh state are shown at the recitations, where the student is called upon to describe the appearances. Students are also invited in turn to make an autopsy. The instruction in pathological histology, including the diagnosis of tumors, is continued throughout the year. Each student, provided with a microscope, the necessary instruments and reagents, prepares the various objects and submits them for explanation and The formation of small classes for special work and the individual pursuit of original investigations are encouraged.

The school possesses a large number of microscopes for the use of those students whose means will not permit the purchase of an instrument.

Therapeutics and Materia Medica.—Therapeutics and Materia Medica are taught by lectures and recitations with exhibition of medicines and pharmaceutical processes. Besides the large and complete cabinet of materia medica in the Museum, a collection of officinal drugs and chemicals, and of all the important preparations is placed where it can be seen by the students at any time.

The Theory and Practice of Medicine. — Lectures, recitations, and hospital visits.

Clinical Medicine. — Daily instruction is given in this department by clinical lectures, hospital visits, and other exercises. Students are furnished with cases for personal examination, and are called upon to report them before the class, where they are criticised. These examinations are held both in the wards and in the amphitheatre. Another exercise, known as the clinical conference, affords an opportunity for more thorough pre-

paration of cases, more time being allowed for their study. The full written report of a case is read by the student who has examined it. It is afterwards criticised by the class, by the Professor of Clinical Medicine, and other teachers in the School. In addition to this, a regular course of supplementary instruction is given in Auscultation and Percussion, and in Laryngoscopy, which affords students an abundant opportunity for acquiring a thoroughly practical knowledge of these methods of exploration.

Surgery. — Lectures and recitations. There are also courses on Surgical Anatomy, Minor Surgery, Orthopedic Surgery, Surgical Histology, Bandaging, and Operative Surgery. In the last, students of the third and fourth classes are supplied with material for repeating the usual surgical operations.

Clinical Surgery. — Instruction in Clinical Surgery is given at the Massachusetts General Hospital and City Hospital, each week throughout the year, as follows:—

One clinical conference, one clinical lecture, eight visits in the hospital wards, and two public operating days.

The surgical clinical conference is an exercise at which a student of the third class presents an elaborate and carefully prepared paper on a surgical case in the hospital wards, which has been assigned him. This paper he is obliged to read in the amphitheatre of the Hospital before the whole class, and defend it from their criticism. At the close of the exercise the Professor of Clinical Surgery gives a résumé of the case and his opinions upon it. The students of the second class attend these exercises preparatory to their active participation in them in their third year.

The second class is divided into small sections, and daily clinics are given to them in the out-patient department of the Massachusetts General Hospital and the City Hospital, in which the students are brought into personal contact with the patients, have practical exercises in the application of bandages and apparatus, and see a large number of cases of minor surgery.

The clinical lecture is given either over surgical cases brought into the amphitheatre and illustrated by explorations or operations, or at the bedside in the wards illustrating the dressing of wounds, the treatment of fractures, and the progress of cases from entrance to discharge from the Hospital. Every candidate for a degree is required to report a case in clinical surgery.

Obstetrics. — Lectures, recitations and conferences. Students are required to take charge of least six cases of obstetrics. A course on operative obstetrics, with practical illustrations on the cadaver, is given during the second half-year.

Diseases of Women. — Lectures and practical instruction at the different dispensaries in the education of the touch. In these institutions every facility is given the student to become familiar with the different forms of

uterine disease. A course in operative gynaecology extending throughout the year at the Free Hospital for Women is open to students of the third and fourth classes. To students of the fourth class cases are assigned for personal examination; these cases are reported in full at the clinical conference, and are made the subject of discussion by members of the class and the instructor. These students are also called upon to assist at the operations in the operative course. There is also a course in operative gynaecology upon the cadaver, at which each student of the fourth class is expected to perform the ordinary gynaecological operations with his own hands.

Diseases of Children. — The instruction in this subject consists of a systematic course of lectures beginning in the latter half of the second year and extending through the entire third year.

The second-year lectures comprise a careful study of infant-feeding and the development of the normal infant and child, and are intended to be preparatory to the study of the diseased conditions, which are taught in the third year.

The teaching in the third year consists of lectures and the direct examination of cases. The amount of material at the disposal of the students in this department is very large, as it comprises the cases which are treated at the Boston Dispensary, Children's Hospital, and City Hospital. The special wards for Diphtheria and Scarlet Fever lately opened at the City Hospital offer unusual advantages for the study of these diseases, and are always at the disposal of Assistant Professor Rotch for the benefit of the students. The instruction in the third year also includes eight clinical conferences and the visiting in their homes, in the Dispensary Districts, of such rare and interesting cases as are not usually seen in the hospitals.

At the end of the third year there are eight exercises devoted entirely to the review of the whole subject as taught in the second and third years, so that the student is not only prepared for his third-year examination, but also for entering upon the more extended clinical teaching of his fourth year. The intention of the teaching in the fourth year is to have the student see a large number of cases, and to follow them carefully in their treatment from the beginning to the end of the disease.

Ophthalmology. — A complete course is delivered upon the diseases of the eye, including clinical instruction and the use of the ophthalmoscope.

Dermatology is taught by lectures and clinical illustrations. The special out-patient department at the Massachusetts General Hospital furnishes ample opportunities for illustration.

Syphilis. — Lectures and clinical instruction.

Otology. — Lectures and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary, and at the Boston City Hospital.

Laryngology. — Lectures and demonstrations.

Diseases of the Nervous System. — Lectures and demonstrations.

Legal Medicine. — Lectures, recitations, and demonstrations.

Embryology and Histology. — Lectures.

Hygiene. — Lectures and demonstrations.

Bacteriology. — Lectures and practical work in the laboratory.

TEXT-BOOKS.

The following works are recommended as text-books, and for collateral reading and consultation:—

ANATOMY.

Text-Books. — Gray (11th edition). Quain (9th edition). Wilson. Holden's Landmarks. Dwight's Frozen sections of a Child. Treves' Applied Anatomy.

Collateral Reading. — Harrison Allen's Anatomy. Tillaux, Anatomie topographique. Dwight's Anatomy of the Head. Holden's Osteology. Humphrey's Human Skeleton. Morris, on the Joints. Weisse's Practical Human Anatomy. McClellan's Regional Anatomy.

HISTOLOGY AND EMBRYOLOGY.

Text-books. — Stöhr's Lehrbuch der Histologie, or Stirling's Practical Histology.

Collateral Reading. — Quain's Anatomy (10th edition). Lee's microscopist's Vade-mecum, Schiefferdecker and Kossel's Gewebelehre. O. Hertwig's Entwickelungsgeschichte (3d edition). Foster and Balfours' Embryology.

Physiology.

Text-Books. — Foster's Text-book of Physiology. Martin, The Human Body. Kirke's Handbook of Physiology.

Collateral Reading. — Fick, Compendium der Physiologie. Halliburton's Text-book of Chemical Physiology and Pathology. McGregor-Robertson's Elements of Physiological Physics. Landois' Manual of Human Physiology. Stirling's Practical Physiology.

GENERAL CHEMISTRY.

Text-Books. — Witthaus' Medical Student's Manual of Chemistry.

Collateral Reading. — Miller's, Roscoe and Schorlemmer's, or Fownes' Chemistry. Douglass and Prescott's, or Fresenius' Qualitative Analysis.

MEDICAL CHEMISTRY.

Text-Books. — Tyson, Practical Examination of Urine. Wharton and Stillé's Medical Jurisprudence, Vol. II., on Poisons, 4th edition.

Collateral Reading. — Ultzmann and Hoffmann's Atlas der Harnsedimente. Roberts' Urinary and Renal Diseases. Neubauer and Vogel, Analysis of the Urine. Hoppe-Seyler, Physiologische Chemie. Taylor on Poisons. Wormley's Micro-Chemistry of Poisons.

THERAPEUTICS AND MATERIA MEDICA.

Text-Books. — Mann's Prescription Writing. United States Dispensatory. Hare's Practical Therapeutics.

Collateral Reading. — H. C. Wood's Therapeutics. Bartholow's Therapeutics. Brunton's Pharmacology, Therapeutics, and Materia Medica. Edes' Materia Medica and Therapeutics.

PATHOLOGY AND PATHOLOGICAL ANATOMY.

Text - Books. — Ziegler's Pathological Anatomy and Pathogenesis. Orth's Compend of Diagnosis in Pathological Anatomy.

Collateral Reading. — Friedlaender's Use of the Microscope in Clinical and Pathological Examinations. Cohnheim's Lectures on General Pathology.

OBSTETRICS.

Text-Books. — Lusk's Manual of Midwifery.

Collateral Reading. — Schroeder's Manual of Midwifery. Cazeaux's Midwifery. Winckel's Diseases of Childbed. Schauta's Grundriss der operativen Geburtshilfe. Kucher's Puerperal Convalescence.

THEORY AND PRACTICE.

Text-Books. — Strümpell's Text-Book of Medicine.

Collateral Reading. — Pepper's System of Practical Medicine by American authors. Flint's Practice of Medicine. Cutler and Garland's Percussion Outlines.

CLINICAL MEDICINE.

Text Books. — Strümpell's Text-Book of Medicine. Flint's Practice of Medicine. DaCosta's Medical Diagnosis. Flint's Manual of Percussion and Auscultation.

Collateral Reading. — Pepper's System of Practical Medicine by American Authors. Fagge's Practice of Medicine. Gowers' Diseases of the Nervous System. Cutler and Garland's Percussion Outlines.

SURGERY.

Bryant's Practice of Surgery. Billroth's Surgical Patholology. Smith's Operative Surgery.

Holmes's System of Surgery. The International Encyclopedia of Surgery. Van Buren and Keyes's Genito-urinary Organs and Syphilis. Guérin, Éléments de Chirurgie Opératoire.

GYNAECOLOGY.

Text-Books. — Thomas, on the Diseases of Women. Fifth Edition.

Collateral Reading. — Emmet's Principles and Practice of Gynaecology.

Klob's Pathological Anatomy of the Female Sexual Organs. Savage, The Surgery, Surgical Pathology, and Surgical Anatomy of the Female Pelvic Organs. Davenport, on the Diseases of Women.

OPHTHALMOLOGY.

Text-Books. — Williams, Berry and Noyes, Nettleship, Loring, on the Ophthalmoscope. Landolt, on Refraction and Accommodation.

OTOLOGY.

Text-Books. - Barr, Roosa, Burnett.

Collateral Reading. — Politzer, Diseases of the Ear. Schwartze, Chirurgische Krankheiten des Ohres.

DERMATOLOGY.

Collateral Reading. — Duhring, Hyde, Robinson, Crocker, Kaposi, Behrend, v. Ziemssen.

LEGAL MEDICINE.

Text-Books. — Taylor's Manual of Medical Jurisprudence.

Collateral Reading. — Ogston, Reese, Hofmann, Woodman and Tidy.

INSTRUCTION FOR 1891-92 TO STUDENTS OF THE THREE YEARS' COURSE.

Anatomy.

Descriptive Anatomy. Four times a week. Professor Dwight.

Practical Anatomy, with Exercises in Dissection. Eight hours daily from October 15th till May. Demonstrations and Recitations. Drs. MIXTER, CONANT, and MUNRO.

Topographical and Advanced Anatomy. Once a week. Professor Dwight. Topographical and Applied Anatomy. Three times a week from November till May. Assistant Professor M. H. RICHARDSON.

Histology and Embryology.

Laboratory Exercises in Histology. Three times a week during first half-year. Twice a week during second half-year. Assistant Professor C. S. Minot, and Dr. Quincy.

Histology. — Lectures. Once a week during the first half-year. Assistant Professor C. S. Minot. Embryology. Eight lectures during the second half-year. Assistant Professor C. S. Minot.

Physiology.

Systematic and Experimental Physiology. Four times a week. Professor Bowditch.

Laboratory Exercises in Experimental Physiology. Three times a week. Dr. J. C. CARDWELL.

Chemistry.

Descriptive and Analytical Chemistry. Twice a week, with an additional weekly exercise during the first ten weeks. Professor Hills.

Medical and Toxicological Chemistry. Twice a week. Professor Wood. Practical Exercises in the Laboratory in Analytical and Medical Chemistry. Daily. Professors Wood and Hills, and Drs. Worcester and Wentworth.

Hygiene.

Lectures and Demonstrations. Once a week during the second halfyear. Dr. Harrington.

Therapeutics and Materia Medica.

Lectures and Recitations. Twice a week. Dr. HARRINGTON.

Pathology and Pathological Anatomy.

General Pathology and Pathological Anatomy. Twice a week. Professor

Special Pathological Anatomy, with Demonstrations. Twice a week. Professor Fitz.

Laboratory Exercises in Pathological Histology. Twice a week. Drs. Whitney, Sears and Mallory.

Practical Instruction in Performing Autopsies. Throughout the year. Professor Fitz and Dr. Mallory.

Surgery.

Surgery. Once a week for three months; twice a week for five months. Professor Cheever.

Surgery and Surgical Pathology. Twice a week till January. Professor J. C. Warren.

Application of Bandages and Apparatus. Laboratory exercises to the class in sections during first half-year. Dr. Burrell.

Clinical Surgery.

Lectures. Once a week till January. Professor Cheever. Once a week from October till March. Professor Porter. Once a week from March till June. Professor J. C. Warren.

CLINICAL SURGERY. — THIRD CLASS.

Clinical Surgery Conference. Once a week, from October till May. Professor Porter.

Clinical visits, in sections of half the class, once a week throughout the year, at the Massachusetts General Hospital, by Professors Porter and J. C. Warren, Assistant Professor M. H. Richardson, and Drs. Beach, Homans, and Cabot. — At the Boston City Hospital, by Professor Cheever and Drs. Gay, Bolles, Bradford, Post, and Gavin.

CLINICAL SURGERY. — SECOND CLASS.

In small sections daily in the Out Patient Departments of the Massachusetts General Hospital, by Drs. J. W. Elliot and F. B. Harrington. — At Boston City Hospital, by Drs. G. H. Monks, H. L. Burrell, F. S. Watson.

Clinical visits, in sections of half the class, once a week throughout the year, at the Massachusetts General Hospital and Boston City Hospital.

OPERATIVE SURGERY.

Operations are performed before the students one day each week throughout the year in the Amphitheatres at the Massachusetts General Hospital and Boston City Hospital.

Operative Surgery and Surgical Anatomy. Exercises illustrated upon the cadaver twice a week in March and April. Professor Porter.

Operative Surgery, Fifteen practical exercises by the students of the Third Class, under the direction of Professor Porter, assisted by Drs. Mixter, Conant, Monks, Elliot, Harrington, Burrell, Watson, and Scudder.

The Surgical Cases at the Eye and Ear Infirmary and at the Boston Dispensary are shown by the surgeons in charge.

Ophthalmology.

Ophthalmology. Twice a week. Professor Wadsworth.

Dermatology.

Diseases of the Skin. Once a week. Professor WHITE. Clinical Dermatology. Once a week. Professor WHITE.

Syphilis.

Practical Diagnosis and Treatment of Syphilis. Once a week for a half-year. Dr. Post.

Otology.

Otology. Twice a week, October, November, and December. Professors Blake and Green.

Clinical Otology. Once a week in January, February, and March. Professors Blake and Green.

Theory and Practice of Physic.

Lectures. Twice a week. Professor ——. Recitations. Twice a week. Dr. Cutler.

Clinical Medicine.

Four times a week. Professor Shattuck, and Dr. Vickery. Twice a week. Assistant Professor Mason.

Clinical Conference. Once a week. Professor Shattuck, Assistant Professor Mason, and Drs. Garland, and Vickery.

Practical Instruction in Auscultation and Percussion. Six times a week during the first half-year. Drs. Garland, Gannett, and Withington.

Practical Diagnosis and Treatment of Diseases of the Nervous System.

Once a week. Dr. Putnam. Once a week. Dr. Walton.

Mental Diseases. Once a week. Dr. FISHER.

Medical visits are made at the Massachusetts General Hospital by Professors Fitz, W. L. Richardson, and Shattuck, and Dr. Cutler. — At the City Hospital, by Assistant Professors Rotch and Mason, and Drs. J. G. Blake and Forster. — At the Danvers, South Boston, and Somerville Asylums for the Insane. — The Medical Cases at the Boston Dispensary are shown by the physicians in charge.

Laryngoscopy and Rhinoscopy.

Practical Diagnosis and Treatment. Six times a week, first half-year. Professor Knight and Dr. Hooper.

Diseases of Children.

Practical Diagnosis and Treatment. Twice a week. Assistant Professor Rotch.

Paediatrics. Once a week, March and April. Assistant Professor Rotch.

Clinical Conference. Once a week. Assistant Professor Rotch and Drs. Buckingham and Sherman.

Legal Medicine.

Twice a week during the first half-year. Professor Draper.

Obstetrics.

Theory and Practice of Obstetrics. Twice a week. Professor Wm. L. Richardson. Recitations. Once a week. Dr. C. M. Green.

Operative Obstetrics. Twelve practical exercises. Dr. C. M. Green.

Practical Instruction in Clinical Obstetrics. Throughout the year. Drs. C. M. Green, Reynolds and Townsend.

Obstetrical Conference. Once a week after January 1st. Professor Wm. L. Richardson and Drs. C. M. Green, Reynolds, and Townsend.

Gynaecology.

Twice a week. Professor Baker. Two clinics each week during the second half-year. Professor Baker. Two clinics each week during the first half-year. Dr. Davenport.

Bacteriology.

Six lectures in first half-year. Dr. Ernst.

Practical Laboratory Work. Four afternoons a week for eight weeks. Dr. Ernst.

INSTRUCTION FOR 1891-92 TO STUDENTS OF THE FOURTH YEAR.

Clinical Medicine.

Once a week for one month. Professor Fitz. Once a week for six months. Dr. Garland. Once a week for seven months. Dr. Gannett. Once a week for three months. Dr. Vickery.

Diseases of Children.

Twice a week at Children's Hospital for three months and special clinical exercises. Assistant Professor Rotch.

Diseases of the Nervous System.

Once a week for four months. Dr. Walton. Once a week for four months. Dr. Knapp.

Mental Diseases.

Twice a week for four months. Dr. Fisher. Once a week for three months. Dr. Cowles.

Surgery.

Clinical Surgery. Twice a week for two months. Dr. GAY. Twice a week for three months. Dr. Burrell.

Operative Surgery. Practical Exercises. Professor Porter, Assistant Professor M. H. RICHARDSON, and Drs. MIXTER and Monks.

Orthopedic Surgery. Twice a week for two months. Dr. Bradford.

Ovarian Tumors.

Once a week for two months. Dr. Homans.

Obstetrics.

Clinical Obstetrics. Twice a week for four months. Professor Wm. L. Richardson.

Operative Obstetrics. Practical Exercises. Dr. C. M. Green.

Gynaecology.

Twice a week for eight months. Professor Baker. Twice a week for three months. Dr. Davenport. Twice a week for eight months. Dr. Strong.

Operative Gynaecology. Practical Exercises. Professor Baker.

Dermatology.

Twice a week for eight months. Professor WHITE.

Syphilis.

Twice a week for four months. Dr. Greenough.

Ophthalmology.

Twice a week for eight months. Professor Wadsworth.

Otology.

Three times a week for eight months. Professors C. J. Blake and J. O. Green.

Laryngology.

Three times a week for three months. Professor Knight.

Diseases of the Genito-Urinary Apparatus.

Once a week for four months. Dr. Cabot. Once a week for three months. Dr. Watson.

Legal Medicine.

Twice a week during the first half-year. Professor Draper. Demonstrations. Dr. Harris.

Hygiene.

Twice a week for two months. Dr. Durgin.

Pathological Anatomy.

Once a week for six months. Dr. WHITNEY.

Bacteriology.

Once a week for four months. Dr. Ernst.

Cookery.

Twice a week (two hours) for one month. Boston Cooking School.

CLINICAL ADVANTAGES.

The Medical Department of the University is established in Boston, in order to secure those advantages for Clinical Instruction and for the study of Practical Anatomy which are found only in large cities.

There are Hospital visits or operations daily.

The Massachusetts General Hospital. — During the past year, 3381 patients were treated in the wards, and 22,545 in the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, and Ophthalmology.

The City Hospital. — During the past year, 6853 cases were treated in its wards, and 12,983 in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, 800 street accidents are yearly treated. Surgical operations are performed in the amphitheatre. Diseases of the eye, the ear, and the skin are largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons twice a week.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital. — More than five hundred patients are annually confined in the Hospital. In the out-patient department, attendance during confinement is also furnished to several hundred women at their homes.

The Boston Dispensary. — 42,116 patients were treated at this Public Charity during the past year. A new building has lately been erected at a cost of \$50,000, where students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of medicine and surgery.

The Massachusetts Charitable Eye and Ear Infirmary. — The thirteen thousand patients annually treated at this institution present every variety of disease of the ear and eye, and supply a large number of operations.

The Marine Hospital at Chelsea receives from the shipping of the port a large number of patients, who furnish examples of the diseases of foreign countries and of distant parts of the United States. Many cases of venereal disease, in its various forms, are treated annually.

The Free Hospital for Women. — In the wards of this institution, which is devoted exclusively to the diseases peculiar to women, abundant opportunity is offered to study the severer forms of uterine disease, and to witness operations which are performed twice a week throughout the year. In the out-patient department, where over 5000 patients are annually treated, every advantage is given the student to observe the less serious forms of disease and witness a large amount of minor gynaecological surgery.

Students are also permitted to visit the Children's Hospital and the Carney Hospital on application to the physicians on duty.

There are twenty-five appointments annually for Internes in the various hospitals, and as many more for Assistants in the out-patient departments. Appointments for the Massachusetts General and City Hospitals are for the term of eighteen months, for the Boston Lying-in Hospital for four months, and for the Free Hospital for Women for nine months.

EXAMINATIONS.

The regular examinations are conducted in writing and orally, and are held at the end of each year in June, and a week before the opening of the School in September (with a few exceptions), on the studies of the preceding year.* They are held in the following order:—

At the End of the First Year. — Anatomy, Physiology, General Chemistry.†

^{*} The June examination is for those only who are members of the School at the time, and for those entitled to apply for the degree.

[†] See foot-note on page 316.

End of Second Year. — Anatomy, Medical Chemistry,* Pathology and Pathological Anatomy, Therapeutics, and Materia Medica.

End of Third Year. — Obstetrics,† Theory and Practice of Medicine, Clinical Medicine, Surgery,† Clinical Surgery; and, in addition, each candidate will be required to take examinations, amounting to two (2) hours, and chosen from the following list of elective studies, at the commencement of the year; the choice thus made is to be final. One two-hour course or two one-hour courses are to be taken, as follows:—

Ophthalmology (1 hr.), Otology (1 hr.), Dermatology (2 hrs.), Diseases of Nervous System (2 hrs.), Diseases of Children (2 hrs.), Mental Diseases (1 hr.), Gynaecology (2 hrs.), Legal Medicine* (1 hr.), Bacteriology (1 hr.).

End of Fourth Year. — Each candidate must pass examinations amounting to ten (10) hours, chosen from the following list of studies, the choice to be made at the commencement of the year and to be regarded as final:—

Ophthalmology (2 hrs.), Dermatology (2 hrs.), Otology (2 hrs.), Laryngology (1 hr.), Gynaecology (2 hrs.), Diseases of Children ‡ (2 hrs.), Diseases of Nervous System (2 hrs.), Mental Diseases (1 hr.), Clinical Obstetrics (2 hrs.), Operative Obstetrics (1 hr.), Operative Surgery (1 hr.), Legal Medicine* (1 hr.), Hygiene (1 hr.), Bacteriology (1 hr.).

In addition to the above examinations each student is required to present a satisfactory report of the analysis of a solution containing inorganic substances, and of a specimen of urine, to examine and report upon a clinical case in Medicine and Surgery, and to take charge of and report upon six cases in Obstetrics; each student must also have dissected the three parts of the body to the satisfaction of the Demonstrator, and no student shall be admitted to the examination on Anatomy at the end of the first year who has not so dissected two parts, nor to that at the end of the second year who has not so dissected three parts, unless excused by the Professor of Anatomy.

The above courses are entirely distinct from third-year courses of the same title; and in addition there will be given clinical and laboratory courses in Orthopaedic Surgery, Genito-urinary Diseases, Syphilis, Ovarian Tumors, Clinical Microscopy, Preparation of Food for Infants and Invalids; in these courses no examination is required.

House-officers in the Massachusetts General Hospital, Boston City Hospital, Carney Hospital, McLean Asylum, Boston Lunatic Hospital, Massa-

^{*} The examinations in these subjects will be held at the end of the first half-year.

[†] The examinations in Obstetrics and Surgery may be passed at the end of the fourth year if preferred.

[†] The examination in these subjects will be held at the end of the first half-year.

chusetts Charitable Eye and Ear Infirmary, Boston Children's Hospital, Cambridge Hospital, and Free Hospital for Women may obtain the fourth-year degree by entering the fourth class, passing an examination in the electives amounting to five (5) hours, and presenting a certificate of satisfactory performance of duty in the Hospital for a period equivalent to the School year, and an acceptable thesis or clinical report based upon observations made during their service. On account of the shorter services in the Lying-In Hospital and Adams Nervine Asylum internes of these institutions will be required to pass an aggregate of seven (7) hours examination and present a certificate and thesis as above.

Medical students who desire to devote their fourth year of study mainly to advanced work in any of the laboratories of the School may obtain the fourth-year degree upon passing examinations in the elective studies aggregating five (5) hours, and presenting an acceptable thesis based on the laboratory work actually done.

Students attending the four years' course may be examined at the end of the third or fourth year, as preferred, in Clinical Medicine, Clinical Surgery, and Obstetrics. The examinations of the first two years are common to both groups of students. The final examinations at the close of the three years' course are in the following subjects: Therapeutics, Obstetrics, Surgery and Clinical Surgery, Theory and Practice, and Clinical Medicine, with electives as described on the previous page.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty. Those who fail in any subject may again present themselves in that subject at the next regular examination.

All students are required to notify the Secretary in writing of their intention to present themselves for examination, either in June or September, one month before such examination is to be held.

The regular examinations for the year 1891-92 will begin June 1 and September 26.

DIVISION OF STUDENTS.

Students are divided into four classes, according to their time of study and proficiency, and during their last year will receive largely increased opportunities of instruction in the special branches mentioned. Students following the three years' course are classified as heretofore, and the instruction in the special branches is of the same character as that which has been given for several years. Students who began their professional studies elsewhere may be admitted to advanced standing; but all persons who apply for admission to the advanced classes must pass an examination in the branches already pursued by the class to which they seek admission, and furnish (from a recognized Medical School) a satisfactory

certificate of time spent in medical studies. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, in addition to a majority of those of the second year, or of the fourth class, until he has passed all of the examinations of the first and second, in addition to a majority of those of the third year.

In order that the time of study shall count as a full year, students of all classes must present themselves within the first week of the School year and register their names with the Secretary.

Students who do not intend to offer themselves for a degree will, however, be received for any portion of the course.

Any student may obtain a certificate of his period of connection with the School.

LIBRARIES.

The students have access, free of charge, to the books belonging to the library of the School and to the libraries of the several departments.

The College Library at Cambridge is open to the students of the Medical School.

The Boston Public Library, which contains a large collection of medical books, is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Treasurer's office, or deposited with the Treasurer the sum of fifty dollars, may also use this library.

REQUIREMENTS FOR THE DEGREE.

Every candidate must be twenty-one years of age, and of good moral character; must give evidence of having studied medicine three or four full years; have spent at least one continuous year at this School; and have passed the required examinations.

After the beginning of the Academic year 1892-93, the required course of study will be a graded course covering four years

The degree of Doctor of Medicine cum laude will be given to candidates who have pursued a complete four years' course, and obtained an average of seventy-five per cent* upon all the examinations above stated. A certificate of attendance on the studies of the fourth year will be given to such graduates as have attended the course, and have passed a satisfactory examination in the studies of the same.

The presentation of a thesis is not a requirement for graduation, but candidates for the degree of M.D. may present a voluntary thesis. If of

^{*} In computing averages all examinations will be reduced to a basis of three hours.

eonspieuous merit, it will receive honorable mention; if also of a suitable character, it may be read at the University Commencement exercises. Theses must be completed and delivered to the Dean on or before the first day of June.

The degree of Master of Arts is open to graduates of the School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Students who have taken the four years' course, and have passed the examinations "with high credit," may obtain the degree of Master of Arts by presenting their applications to the Faculty on or before the first of June in the year of their final examinations.

ANATOMICAL PRIZE.

Professor C. B. Porter offers a prize of fifty dollars, open to all students, and graduates of not more than five years' standing, except teachers of anatomy, for the best dissection deserving the award illustrative of surgical anatomy, the specimen to be presented to the Museum.

OTOLOGY PRIZE.

For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, in alternate years, the sum of twenty-five dollars, open to third-year students.

PECUNIARY AID.

Four yearly Scholarships, of the value of \$200 each, have been established by the Faculty, and are open to meritorious students who have been at the School for at least one year. The two Barringer Scholarships, of the value of \$300 and \$200 respectively, will be awarded to deserving students, preferably those of the fourth class. The David Williams Cheever Scholarship, of the value of \$200, will be awarded to a student of the first year. Only those needing assistance are expected to apply; and of such, those holding the highest rank will have the preference. Holders of Scholarships may be required to render assistance in laboratory courses to an amount not exceeding four hours per week.

The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is payable every other year to one or more meritorious students needing assistance.

Bullard Fellowships.—Three Fellowships have been established in the Medical School by Mr. William S. Bullard, to be known as the George Cheyne Shattuck Memorial Fellowship, the John Ware Memorial Fellowship, the Charles Eliot Ware Memorial Fellowship. The income, amounting to \$250 each, from any one or all of these Fellowships may be paid to any student or member of the medical profession who shall be selected by the Faculty of the Medical School to make such original investigations in Medical Science, as in their opinion will be most useful to the profession and the community.

FEES AND EXPENSES.

For matriculation, five dollars; for a year, two hundred dollars, (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, one hundred and twenty dollars; for graduation, thirty dollars. During the first two years there are the following additional expenses: Two dollars for each of the three parts required for dissection; and four dollars per year for chemical material, in addition to the charge for breakage of glass apparatus. Of students who do not pay in advance, a bond for \$300, executed by two sufficient bondsmen, one of whom must be a citizen of the United States, is required. A copy of such bond will be sent, on application to the Secretary of the Faculty, and all students are recommended to deposit such a bond. To students depositing bonds, term-bills will be presented one week before the end of the first term, to be paid within two weeks; and also one week or more before Commencement, to be paid on or before the beginning of the next academic year. Such students will be held responsible for the payment of fees until they have notified the Dean of their intention to withdraw from the School, and have subsequently received their bond from the Treasurer.* Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Faculty, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction — this remission to date from the reception by the Dean of a written notice of the student's withdrawal from the School. No degree can be conferred till all dues to the School are discharged. The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. The janitor of the Medical School will always have a list of boarding-houses in the vicinity of the School building, varying in their rates of charges from five to ten dollars a week.

^{*} The Treasurer's office is at 50 State St., Boston.

Fourth-Year Fees. — The fee for the full year to all students who have paid for three full eourses in the School, and who are entitled to be classified in the Catalogue as fourth-year students, shall be one hundred dollars. For other students, including graduates of other schools, the fee shall be two hundred dollars. For Internes in Hospitals, who are entitled to apply for the degree, the fee shall be thirty dollars for the entire year. For students engaged in special advanced work in the laboratories the fee shall be one hundred dollars.

COURSES OF STUDY FOR GRADUATES.

The Faculty has arranged a greatly enlarged and improved plan of instruction for graduates, embracing nearly all the branches of practical and scientific medicine. It is designed to supply those opportunities for clinical and laboratory study which have hitherto been sought in Europe by young graduates and practitioners.

The new and extensive laboratories of the School are inferior to none in America, and the clinical advantages afforded by the hospitals of Boston furnish abundant material for all purposes of instruction. The following are the principal institutions:—

Massachusetts General Hospital,
Boston City Hospital,
Boston Dispensary,
Massachusetts Eye and Ear Infirmary,
Free Hospital for Women,

Boston Lying-in Hospital, The Children's Hospital, McLean Asylum for the Insane, Boston Lunatie Hospital, The Carney Hospital.

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, and students are admitted to all of them under their immediate supervision.

Instruction in the graduate courses is entirely distinct from that of the undergraduate department of the School; but students of the former will be admitted also to all the regular lectures (not clinical) of the latter without extra charge during their connection with the School.

Instruction will be conducted in small classes and under the personal direction of the heads of departments. The courses will be mostly of eight weeks' duration, and the practitioner will be able during a brief residence to take one or several of them. Those desiring to study a specialty may pursue long, continuous courses in any single branch at reduced rates.

Instruction will be given throughout the academic year, October to June.

A certificate of attendance will be furnished when desired.

FEES.

The fees for the separate courses in the several departments vary with the courses.

Fee	for	two	months'	attendance	upon	all	the	courses,	\$100.
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66	66	atten	dance th	roughout					
		th	e academ	ic year	66		66	"	200.

An extra fee is required for the use of material in laboratory, dissecting and operative courses. Matriculation, \$5.

All fees are payable in advance to the Treasurer of the University, 50 State Street, Boston.

LIST OF COURSES.

Anatomy. — The following courses are offered: —

- 1. The Anatomy of the Joints, illustrated by preparations, frozen sections, and the live model.
- 2. The Anatomy of the Central Nervous System, including Cerebral Localization and the Course of Fibres. Illustrated by preparations, models, plates, and diagrams.
- 3. Applied Anatomy demonstrated on the cadaver, including Surface Anatomy.
 - 4. A Dissection Course.

Histology and Embryology. — The following courses are offered:—

- 1. A course on Human Embryology.
- 2. Normal Histology.
- 3. Histological Technique.

Physiology. — Opportunities for carrying on original investigations in the Physiological Laboratory, which is well provided with apparatus for original research, including recording instruments of various sorts, induction coils, interrupters, galvanometers, constant temperature apparatus, photographic outfit, artificial respiration apparatus, etc.

Medical Chemistry. — Practical instruction in the Chemical Laboratory, in physiological chemistry, in the analysis of the urine and other animal fluids in health and disease, and of poisons; examination of blood-stains and other objects connected with medico-legal investigations, with the application of the microscope to these processes. Instruction in General Analysis will also be given if desired.

Pathological Anatomy. — The courses in Pathological Anatomy will consist of —

- (1) Demonstrations of Morbid Material, and Practice in the Method of Post-mortem Examinations.
 - (2) Exercises in Pathological Histology.
 - (3) Instruction in Clinical Microscopy.
 - (4) Laboratory Opportunities for Special Investigations.

Each course will last eight weeks, and instruction will be continuous throughout the academic year from October to June.

Clinical Medicine. — Instruction in Clinical Medicine will consist of 8 courses of from 8 to 24 exercises, which will be fully illustrated by cases in the wards of the Massachusetts General and Boston City Hospitals, and at the Boston Dispensary.

Surgery. — Eleven courses, including Minor, Clinical, Genito-urinary, and Orthopaedic Surgery, are offered at the Massachusetts General, Boston City, and Children's Hospitals.

Obstetrics. — Clinical instruction in Obstetrics will be given in the wards of the Boston Lying-in Hospital on two mornings of the week during the months of November and December, February and March, and April and May. Special attention will be given to the management of convalescence after confinement, and opportunity will be given to witness labor cases and operations in the Hospital. Each course will last two months.

An abundance of out-patient cases of Obstetrics will be furnished.

Practical instruction in Operative Obstetrics on the cadaver will be given at the Medical School, consisting of ten daily exercises.

Dermatology. — Instruction in Diseases of the Skin will be given at the Skin Department of the Massachusetts General Hospital. Over two thousand cases are treated at this clinic yearly, which come from the New England States generally and the British provinces, and present many examples of the rare forms of cutaneous affections.

Each course will last eight weeks, and instruction will be continuous throughout the academic year, from October to June inclusive. Graduates will have opportunity for the closest examination of patients. They may also attend the systematic course of lectures on Dermatology. A large collection of Baretta's models of skin disease is open to their inspection in the Museum of the School.

Otology. — The instruction in this department will be given at the Massachusetts Charitable Eye and Ear Infirmary and at the Boston City Hospital. Each course of eight weeks' duration will include, in addition to the exhibition and explanation of cases, practical instruction in examination and diagnosis, and a systematic review of the anatomy, physiology and diseases of the ear.

The Infirmary, 176 Charles Street, offers unusual facilities for the study of ear diseases in its very large clinic, more than three thousand aural cases being treated annually. It is fully provided with receiving, operating, and lecture rooms, severe cases and those requiring serious operations being provided with beds in the house and skilled nursing.

At the City Hospital, Harrison Avenue, many of the most important operations on the ear are performed, and in addition its general and contagious wards of more than four hundred beds afford unusual opportunities for studying the aural complications of general diseases, more especially of the exanthæmata, as large numbers of cases of typhoid fever, diphtheria, scarlet fever, and measles are received here every year. The courses will consist of twenty-four exercises of one hour or more each.

Gynaecology. — Instruction in Diseases of Women will be given at the Free Hospital for Women and the Boston Dispensary. The wards of the first-named Hospital afford opportunities for the study of the severer forms of uterine disease, while the Out-Patient Department of both institutions supplies abundant material for the education of the touch, and the diagnosis and treatment of all minor gynaecological diseases. There will be eight courses of from 12 to 24 exercises.

Graduates may also attend the course of lectures at the Medical School. Provided six or more graduates desire an operative course, in which they may take part in the performance of the various gynaecological operations upon the cadaver, as well as acquire greater familiarity with the instruments used in minor Gynaecology, such instruction will be given from 7 till 9 P.M. each evening during the last two weeks of each of the previous courses.

Laryngology and Rhinology. — Instruction in Diseases of the Throat and Nose will be given in two courses from January to April. Each course will last six weeks.

Each course will consist of a demonstration of the structure of the larynx and nasal passages, and practical instruction in the use of the laryngoscope and rhinoscope, and in the diagnosis and treatment of affections of the throat and nose. Both Hospitals afford excellent material.

Neurology. — Courses of from 12 to 24 lectures each will be given on Diseases of the Nervous System, at the Out-Patient Department of the Massachusetts General Hospital. The material afforded by this clinic, which receives patients from all over New England, is ample; the Department is well provided with means for the investigation of cases; the courses will be abundantly illustrated by diagrams and microscopic preparations as well as by the exhibition of patients, and will include instruction in the use of electricity in diagnosis and treatment.

Mental Diseases. — Instruction in Mental Diseases will be given at the McLean Asylum for the Insane during February and March. The daily average number of patients is 169.

Diseases of Children. — Instruction in Diseases of Children will be given at the City Hospital, Children's Hospital, Infant Hospital and West End Nursery, Boston Dispensary (Children's Room), throughout the year.

The material which can be made use of in this course is very large in amount, comprising not only the more common forms of disease met with by the physician in his every-day practice, but also the rare forms.

The new wards at the City Hospital, built especially for the reception of cases of scarlet fever and diphtheria, offer exceptional advantages for studying the diagnosis and treatment of these diseases.

Legal Medicine. — Instruction in Legal Medicine will be given at the City Hospital. Each course will last eight weeks, and instruction will be continuous throughout the academic year from October to June.

Hygiene. — Practical instruction will be given in the Laboratory at the Medical School in the analysis of air, water, soils, and of articles of food and drink for adulterations. Opportunities will also be afforded for special work. Attention will also be given to the sanitary inspection of houses, public buildings, and premises of offensive trades, and to the investigation of ventilation, plumbing, etc.

Bacteriology. — The courses in Bacteriology will consist of instruction in the methods of research, together with opportunities for original investigation. The means of illustration and facilities for work are those of a well-equipped laboratory.

Those pursuing these courses may elect the studies to which they will give their attention, and allot the time they will devote to each. They will be exempt, unless at their option, from examinations, and may obtain a certificate of attendance on the courses pursued. On payment of the full fee for the year, they will have the privilege of attending any of the other exercises of the Medical School, the use of its laboratories and library, and all other rights accorded by the University.

Graduates of other medical schools may obtain the degree of M.D. at this University, after a year's study in the graduates' course. The required examinations are those of the three years' course, and may be passed at such times as may be agreed upon by the examiners and the graduate student.

For further information and fuil description of the courses for graduates, address Dr. H. P. Bowditch, *Dean*, Harvard Medical School, Boylston Street, Boston, Mass.

SUMMER COURSES.

During the summer of 1892 courses in many branches of practical and scientific medicine will be given by some of the teachers of the School. These courses will be clinical in character and will be given at the Hospitals and Dispensaries by the physicians and surgeons on duty. Practical instruction will also be given in several of the Laboratories at the School by the instructors in charge.

A detailed list of the Summer Courses will soon be announced. For further information address Dr. H. P. Bowditch, *Dean*, Harvard Medical School, Boylston Street, Boston, Mass.

BOYLSTON MEDICAL PRIZES.

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These prizes, open to public competition, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

No prize was awarded at the annual meeting of 1891.

For 1892 two prizes are offered: -

- 1. A prize of two hundred dollars for the best dissertation on *The results of Original Work in Anatomy*, *Physiology*, or *Pathology*. The subject to be chosen by the writer.
- 2. A prize of one hundred dollars for the best dissertation on The Aetiology of Hospital Gangrene.

Dissertations on these subjects must be sent post-paid to W. F. Whitney, M.D., Harvard Medical School, Boston, Mass., on or before Wednesday, April 2, 1892.

For 1893 two prizes are offered:—

- 1. A prize of two hundred dollars for the best dissertation on *The results of Original Work in Anatomy*, *Physiology or Pathology*. The subject to be chosen by the writer.
- 2. A prize of two hundred dollars for the best dissertation on Clinical and Experimental Investigations of Uraemia with reference to the Formation and Retention of Special Poisons, which are not ordinary constituents of the urine.

Dissertations on these subjects must be sent to the same address as above on or before Wednesday, April 3, 1893.

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device and must be accompanied by a sealed packet bearing the same sentence or device and containing within the author's name and residence. Any clew by which the authorship of a dissertation is made known to the committee will debar such dissertation from competition.

Dissertations must be written in a distinct and plain hand, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

- 1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
- 2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: Robert T. Edes, M.D., President, Samuel G. Webber, M.D., H. P. Bowditch, M.D., Frank W. Draper, M.D., J. Collins Warren, M.D., Edward S. Wood, M.D., William F. Whitney, M.D., Secretary, F. H. Williams, M.D.

The address of the Secretary is WILLIAM F. WHITNEY, M.D., Harvard Medical School, Boston, Mass.

DEGREES.

On Commencement Day, June 24, 1891, degrees were conferred as follows: -

M.D. and A.M.

John Bapst Blake, A.B. 1887. William Allen Brooks, Jr., A.B. 1887. James Willard Dudley, A.B. 1887. Silas Arnold Houghton, A.B. 1887. John Henry Huddleston, A.B. 1886. James Marsh Jackson, A.B. 1887.

Henry Fuller Curtis, A.B. (Colby

Arthur Carlton Jelly, A.B. 1881. Augustus Lothrop, A.B. Howard 1887. John Lovett Morse, A.B. 1887. Charles Augustus Pratt, A.B. 1886. Thomas Johns Robinson, A.B. 1887.

M.D. (Four years' course.)

Herbert Eugene Knowlton. William Ellsworth McPherson. Lewis Marshall Walker.

Univ.) 1887. Warren Parker Grimes.

Everett M Bowker.

M.D.

Richard Gilbert Ayer. John Washburn Bartol, A.B. 1887. Fred Raymond Bowman, A.B. (Colby Univ.) 1887. Horace Elwood Bragdon. John Edward Butler. Sidney Avery Clark, A.B. (Amherst Coll.) 1888. Lawrence Henry Goodwin Collier.

Arthur Irving Connell, A.B. (Brown Univ.) 1887, A.M. (Ibid.) 1890.

Frederick Shurtleff Coolidge, A.B. 1887.

Eugene Anthony Crockett.

John Benedict Curtis, Jr., A.B. (Boston Coll.) 1887.

Frederick Augustus Davis, B.S. (Mass. Agric. Coll.) 1887.

Henry Vincent Donovan. Edwin Welles Dwight.

William Edward Faulkner, A.B. 1887.

(Three years' course.)

George Wells Fitz.

Edmund Randolph Peaslee Fourtin.

Donald Allen Fraser.

Daniel Hunt Fuller, A.B. (Brown Univ.) 1886, A.M. (Ibid.) 1889.

James Philip Goray.

Charles Henry Gray.

Lyman Asa Jones, A.B. (Lawrence Univ.) 1886, A.M. (Ibid.) 1889.

Willey Lyon Kingsley, A.B. (Yale *Univ.*) 1886.

Augustus Smith Knight, A.B. 1887.

John Coakley McCarthy.

Michael Peter Mahoney.

Henry Cowles Miller, A.B. 1886. George Patrick Morris, A.B. 1883.

Jesse Everett Mowry.

Charles Danforth Nelson.

Maurice Wellesley Pearson.

David Thomas Percy, Jr.

Jay Perkins.

Alfred Charles Post.

Frederic Stocker Raddin, A.B. (King's Coll.) 1888.

Michael Edward Scannell.

Joseph Senay.

William Joseph Sheehan, A.B. (Boston Coll.) 1888.

James Edwin Simpson.

John Richard Slattery, A.B. (Georgetown Coll.) 1885.

Will Howard Swan.

Edward Wyllys Taylor, A.B. 1888.

Edward Aloysius Tracy.

George Herman Tuttle, A.B. 1887.

Edward Roswell Utley.

Maurice Anson Walker, M.D. (Univ.

of Denver) 1889.

Arthur Howard Wentworth.

Willard Francis Whitmarsh, A.B.

(Amherst Coll.) 1887.

Kenelm Winslow, B.A.S. 1883, M.D.v. 1886.

The following tabular view illustrates the distribution of studies throughout the year.

1891-92, FROM OCTOBER 1 TO JUNE 24. First Class.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9	Anatomy, L. Prof. Dwight, Lect. Room C.	Histol. Asst.Prof. C. S. Mi- not & Dr.	Anatomy, L. Prof. Dwight, Lcct.Room C.		*Anatomy, R. Drs. Conaut & Munro, Lect. Room C & D.	† Histology L. †Embryol. L. Asst. Prof. C. S. Minot, Lect. Room B.
10	§ Physiol. L. or Conf. Prof. Bow- ditch, Lect.Room A.	Quincy. Laborat.	*Practical Physiol. Physiol. Laborat.	Histol. Asst.Prof. C. S. Mi-		Physiol. R. Prof. Bowditch, Lect. Room A.
11	$\begin{cases} \ddagger \text{Histol.} \\ \text{Asst.Prof.} \\ \text{C. S. Mi-} \end{cases}$	Physiol. L. Prof. Bow- ditch, Lect. Room A.	Dr. Card-well.	not & Dr. Quincy. Laborat.	Physiol. L. Prof. Bow- ditch, Lect.Room A.	Chemis. R. or L. Prof. Hills, Lect. Room A Jast 5 w.
12	not & Dr. Quincy, Laborat.	Anatomy L. Prof. Dwight, Lect.Room C.	Prof. Hills,	Chemistry, L. Prof. Hills, Leet.Room A.	†Hygiene, L. Dr. Harring- ton, Lect.Room E.	*Pract. Physiol. Physiol. Lab. Dr. Cardwell.
2	Laboratory. † Chemis., L. Prof. Wood, Lect.Room A.	Laboratory.	Laboratory. †Chemis., L. Prof. Wood, Lect.Room A.	*Practical Physiol. Physiol. Laborat. Dr. Cardwell.	Laboratory.	
3	Laboratory.	Laboratory.	Laboratory.		Laboratory.	
4		Laboratory.	Laboratory.		Laboratory.	
5	Pract. Anat. Asst. Prof. M. H. Richard- son, Lect. Room D.		Pract. Anat. Asst. Prof. M. H. Richard- son, Lect. Room D.		Pract. Anat. Asst. Prof. M. H. Richardson, Lect. Room D.	

^{*} In sections.

Beginning October 2 and continuing for one week, there will be a lecture in Chemistry for the first class at 2 P.M. each day.

A. = McLean Insane Asylum; C. = Boston City Hospital; Ch. = Children's Hospital; Cl. = Clinic; D. = Boston Dispensary; E. = Eye and Ear Infirmary; L. = Lecture; Ly. = Boston Lying-in Hospital; M. = Massachusetts General Hospital; O.P.Cl. = Out Patient Clinic; R. = Recitation; S. = Samaritan Home; S.B. = So. Boston Insane Asylum; W. = Free Hospital for Women.

These abbreviations refer to the following as well as to the above tables.

[#] In the first half-year.

[†] In the second half-year.

[§] At 11 in second half-year.

Second Class.

	l Mary tree	Total	1 \\/	Th	E. I. I.	. 6
	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8	†Bandaging. Dr. Burrell, No. Grove St.	†Bandaging. Dr. Burrell, No. Grove St.	†Bandaging. Dr. Burrell, No. Grove St.	†Bandaging. Dr. Burrell, No. Grove St.	†Bandaging. Dr. Burrell, No. Grove St.	†Bandaging, Dr. Burrell. N. Grove St.
9	Clin. Med. Prof. Shat- tuck, M. G. H.	Clin. Med. Asst. Prof. Mason, B. C. H.	Clin. Med. Prof. Shat- tuck, M. G. H.	Clin. Med. Dr. Vickery, M. G. H.	Clin. Med. Asst. Prof. Mason, B. C. II.	Clin. Med. Prof. Shat- tuck, M. G. H.
10	††Surg. Clin. M. G. H. and B. C. II. †Laryngo'py. Prof. Knight, M. G. H.	††Surg. Clin. M. G. H. and B. C. H. ‡Laryngo'y. Dr. Hooper, M. G. H.	††Surg. Clin. M. G. H. and B. C. H. ‡ Laryngo'py. Prof. Knight, M. G. H. Laboratory. Dr. Wood.	††Surg. Clin. M. G. H. and B. C. H. †Laryngo'y. Dr. Hooper, M. G. H. Laboratory. Dr. Wood.	††Surg. Clin. M. G. H. and B. C. II. ‡Laryngo'py. Prof. Knight, M. G. II.	¶Surg.Visit. B. C. H. Oct.1-May1. ‡Laryng'y. Dr. Hooper, M. G. H.
11	*Auscultation Drs. Garland, Gannett, & Withington, M. G. H., Bost. Disp., & B. C. H.	*Auscultation	*Auscultation Cl.Conf.Child. Asst. Prof. Rotch & Drs. Buckingham & Sherman, Mar. & Apr. No. Grove St.	*Auscultation	*Auscultation B. C. H. Operations.	*Auscult. M. G. II. Operations.
12	Clin. Sur. after Oct. Profs. Porter & Warren. M. G. H.	**Surg. Visit. M. G. II. Paediatrics. Asst. Prof. Rotch, Mar. & Apr. Lect. Room B.	Surg. Conf. Prof. Porter, M. G. H. after Oct.	Adv. Anat. L. Prof. Dwight, Lect. Room C.	Pathology, L. Prof. Fitz, Lect. Room C.	Museum.
2	Chemistry, L. Prof. Wood, Lect. Room A.	Path. Histol. Drs Whit-	Chem.L. or R. Prof. Wood, Lect.RoomA.	†Bact'y. 6 L. Dr. Ernst, Lect.RoomB.	Path. Ilistol. Drs Whit-	·
3	Pathology. R. & Dem. Prof. Fitz, Laboratory.	ncy, Sears & Mallory Laborat.	Pathology, L. Prof. Fitz, Lect.Room C.	Pathology. Dem. & R. Prof. Fitz, Laboratory.	ncy, Sears & Mallory Laborat.	
4	Therapcut's. Dr. Harrington. Lect.RoomE.	Theo. & Pr.R. Dr. Cutler, Lect. Room E.	Therapeut's. Dr. Harrington. Lect.Room E.	Theo.& Pr. R. Dr. Cutler, Lcct.Room E.	Clin. Conf. Profs. Shat- tuck and Mason, and Drs. Garland and Vickery, Lect. Room C.	
5	Pract. Anat. Asst. Prof. M. II. Richard- son, Lect. Room D.		Pract. Anat. Asst. Prof. M. H. Richard- son, Lect. RoomD.		Pract. Anat. Asst. Prof. M. H. Richard- son, Lect.Room D.	

^{*} Till February in sections.
† In first half-year.
‡ Till January in sections.
§ Examination in February.

^{||} In second half-year in sections.
|| Each half of the class on alternate weeks till Feb.
| ** In sections of half the class till March.
| In sections.

Third Class.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
	- Wionday.	————			Clin. Med.	
9	Clin. Med. Prof. Shattuck. IMed. Visit. Asst. Prof. Mason.	Clin. Med. Asst. Prof. Mason, B. C. H.	Clin. Med. Prof. Shat- tuck, M. G. H.	Clin. Med. Dr. Vickery, M. G. H.	Asst. Prof. Mason. Clin. Otol. Jan.—Mar. Prof. Blake. Prof. Green.	Clin. Med. Prof. Shat- tuck, • M. G. H.
10	Ophthalmol. Prof. Wadsworth, B. C. II. Surg. Visit.	Gynaecol. Cl. Boston Disp.	Cl. Dermatology. Prof. White, M. G. H.	Dis. of Nerv. System. Dr. Putnam, M. G. H.	Ophthatmol. Prof. Wadsworth, Surg. Visit. Gynaecol. Cl. Boston Disp. till April.	
11	OctMay B. C. H. 10-11.30.	Surg.Cl. OctMay B. C. H. 10-11.30.	Discases of Children. Asst. Prof. Rotch. No. Grove St.	Med. Visit. M. G. II. Prof. Shattuck, Nov.—Mar. Cl.E. & E.Inf. Jan. Feb. Mar. Profs. Blake and Green.	Operations. Child. Dis. Asst. Prof. Rotch. Lect. Room B. Oct. & Mar.—June, Disp. Nov. — Mar.	Operations. M. G. H.
12	Surg. Cl. M. G. H. after Oct. Profs. Porter and Warren.	Surg. Anat. L. Mar. & Apr. Prof. Porter, Lect. Room D.	Surg. Conf. Prof. Porter. after Oct. M. G. H.	¶ Surg. Cl. M. G. H. Profs. Porter and Warren.	‡ Syphilis. Dr. Post, Oct. Lect.Room B. Nov.—Feb. Boston Disp. Surg.Anat. L. Mar. & Apr. Prof. Porter, Lect.RoomD.	Museum.
2	Gynaecol. L. Prof. Baker, Lect. Room B. **Practical Bacteriology. Dr. Ernst.	**Practical Bacteriology. Dr. Ernst. Surg. Land- marks. Dr. Monks. Feb.	*Legal Mcd. \$Prof.Draper, Lect.Room E. Surg. Land- marks. Dr. Monks. Feb.	**Practical Bacteriology. Dr. Ernst. Surg. Land- marks. Dr. Monks. Feb.	* Legal Med. Prof. Draper, Lect. Room E. Surg. Land- marks. Dr. Monks. Feb.	**Practical Bacteriol. Dr. Ernst.
3	Th. & Pr. L. Lect. Room E.	† Mental Dis. Dr. Fisher, Lect.Room A.	Obstetrics, L. Prof. Richardson, Lect. Room B.	Theo.& Prac. L. Lect.Room E.	Obstetrics, L. Prof. Richard- son,	Ment. Dis. Clinic. Dr. Fisher.
4	Surgery, L. Prof. Warren. Lect.Room C.	Dermatology, L. Prof. White, Lect.Room B.	Prof. Warren till Jan.	Surgery, L. Prof. Warren. Lect.Room C.	Clinical Conf. Profs. Shat- tuck and Mason, and Drs. Garland and Vickery.	-
5	Otol. L., Oct., Nov., Dec., Prof. Blake. Pract. Anat. Asst. Prof. M. H. Richardson. Obstet. Conf. Dr. Green, after Jan. 1.	Obstetrics, R. Dr. Green, Lect.Room E.	M. H. Rich-	Otol. L., Oct., Nov., Dec., Lect.Room B	Pract. Anat. Asst. Prof. M. H. Richardson. Lect.Room D.	

^{*} During first half year.
† During second half-year.
‡ Until March 1.
§ Examination in February.

^{||} For half the class.
| Tach half of the class on alternate weeks.
| ** In sections.

Fourth Class.

			Fou	rtn Class.			
	Saturday.	Prof. Green, Ear Diseases (4) Eye & Ear Inf. Prof. Fitz, Medical Visit (12) M. G. H.	Dr. Davenport, Women's Dis. (5) Dispensary.				
	Friday.		Prof. White, Skin Diseases (15) M. G. H.	Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp.			Dr. Strong, Women's Dis. Free Hospital.
ř.	Thursday.	Prof. Green, Ear Diseases (4) Eye & Ear Inf. Prof. Fitz, Medical Visit (12) M. G. H.	Asst. Prof. Rotch and Dr. Buckingham, Child. Dis. (c) Children's Hosp. and Dispensary.			Prof. Baker, Women's Dis. (16) Free Hospital.	P
OCTOBER.	Wednesday.		Dr. Davenport, Women's Dis. (5) Dispensary.	Ophthalmol. Prof. Wadsworth, B. C. H.		Prof. Draper, Legal Med. (c) College.	
	Tuesday.	Prof. Green, Ear Discases (4) Eye & Ear Inf.	Prof. White, Skin Diseases (15) M. G. 1I.	Ophthalmol. Prof. Wadsworth, M. G. H.	Dr. Cabot, Genito-Urinary Diseases (c) M. G. H.	Prof. Baker, Women's Dis. (6) Free Hospital.	Dr. Strong, Women's Dis. Free Hospital.
	Monday.		Asst. Prof. Rotch and Dr. Buckingham, Child. Dis. (c) Children's Hosp. and Dispensary.	Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp.		Prof. Draper, Legal Med. (e) B. C. H.	
		6	10	11	12	ಣ	4

Note. — The time at which each exercise begins is shown in the margin at the left of each page; the time of its ending is subject to the instructor's convenience.

Prof. Green, Asst. Prof. Rotel Asst. Prof. Rotel, Brof. Green, Asst. Prof. Rotel, Brof. Green, Asst. Prof. Rotel Asst. Prof. Rotel Asst. Prof. Rotel Brof. Grinnelt, Clin. Charles, Bros. Asst. Prof. Rotel Brof. Grinnelt, Clin. Obstet. (6) A. G. H. B. C. B. B. C. H. B. C. B. B. C. H. B. C. B. B. B. C. B. B. C. B. B. B. C. B. B. B. C. B. B. B. C. B.		Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Asst. Prof. Roteh Dr. Backingham, Child. Dis. (15) Child. Dis. (16) Child. Dis. (16) Child. Dis. (15) And Dispensary. Prof. White, and Dispensary. Children's Hosp. Children's Hosp. And Dispensary. Children's Hosp. And Dispensary. Children's Hosp. Ast. Prof. Roteh Asst. Prof. White, Children's Hosp. Children's Hosp. Children's Hosp. And Dispensary. Children's Hosp. Children's Hosp. And Dispensary. Children's Hosp. And Dispensary. Children's Hosp. Children's Hosp. And Dispensary. Children's Hosp. And Children's Hosp. Children's Hosp. Children's Hosp. And Children's Hosp. Children's H	6		Prof. Green, Ear Diseases (4) Eye & Ear Inf. Dr. Gannett, Medical Clinic (c) M. G. H.		Prof. Green, Ear Diseases (4) Eye & Ear. Inf.		Prof. Green, Ear Diseases (4) Eye & Ear Inf.
Prof. Richardson, Clin. Obetchalmol. Clin. Obstet. (6) Lying-in Hosp. Lying-in Hosp. Dr. Cabot, Genito-Urinary Dr. Cabot, Genito-Urinary Dr. Cabot, Baker, College. B. C. H. Prof. Wadsworth, B. C. H. Dr. Cabot, Genito-Urinary Dr. Whitney, Baker, College. B. C. H. Prof. Bradford, College. Dr. Bradford, Dr. Strong, Children's Hosp. Children's Hosp. Children's Hosp. Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp. Lying-in Hosp. Clin. Obstet. (6) Lying-in Hosp. Lying-in Hosp. Lying-in Hosp. Lying-in Hosp. Dr. Cabot, Genito-Urinary, Br. C. H. Dr. Women's Dis, (6) Free Hospital. Children's Hosp. Children's Hosp. Prof. Bradford, College. Children's Hosp. Children's Hosp. Children's Hosp. Children's Hosp.	10	Asst. Prof. Roteh and Dr. Buckingham, Child. Dis. (c) Children's Hosp. and Dispensary.	Prof. White, Skin Dis. (15) M. G. H.	Dr. Davenport, Womcn's Dis. (5) Dispensary.	Asst. Prof. Rotch and Dr. Buckingham, Child. Dis. (c) Children's Hosp. and Dispensary.	Prof. White, Skin Diseases (15) M. G. H.	Dr. Davenport, Women's Dis. (5) Dispensary.
Prof. Draper, Legal Med. (c) B. C. H. Dr. Whitney, B. C. H. Prof. Baker, Women's Dis. (6) Free Hospital. Dr. Bradford, Orthopedic Surgery (c) Children's Hosp. Children's Hosp.	Ħ	Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp.	Ophthalmol. Prof. Wadsworth, M. G. H.	Ophthalmol. Prof. Wadsworth, B. C. H.		Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp.	Dr. Watson, Genito-Urinary Discases (6) Dispensary.
Prof. Draper, Legal Med. (c) B. C. H. Prof. Baker, Women's Dis. (6) Prof. Draper, Women's Dis. (6) Free Hospital. Dr. Bradford, Orthopedic Surgery (c) Surgery (c) Surgery (c) Free Hospital. Children's Hosp.	12		Dr. Cabot, Genito-Urinary Diseases (c) M. G. H.		*		
Dr. Bradford, Orthopedic Surgery (c) Surgery (c) Children's Hosp.	8	Prof. Draper, Legal Med. (c) B. C. H.		Dr. Whitney, Pathol. Anat. (e) College.		Dr. Cowles, Mental Dis. (6) McLean Asylum.	
Dr. Bradford, Orthopedic Surgery (c) Surgery (c) Children's Hosp. Children's Hosp.	က		Prof. Baker, Women's Dis. (6) Frec Hospital.	Prof. Draper, Legal Med. (c) College.	Prof. Baker, Women's Dis. (16) Frec Hospital.		
	4	Dr. Bradford, Orthopedic Surgery (c) Children's Hosp.	Dr. Strong, Women's Disp. Free Hospital.	Dr. Bradford, Orthopedic Surgery (c) Children's Hosp.	-	Dr. Strong, Women's Dis. Free Hospital.	

The numbers in parentheses indicate the maximum number of students who will be admitted to the several exercises; the membership of the sections is determined by the instructors. At the exercises marked (c) the whole class may attend together.

DECEMBER.

Friday. Saturday.	Prof. Green, Ear Diseases (4) Eye & Ear Inf.	Prof. White, Skin Diseases (15) Women's Dis. (5) Dispensary.	Dr. Watson, Genito-Urinary Diseases (6) Dispensary.		Dr. Cowles, Mental Dis. (6) McLean Asylum.		Dr. Strong, Women's Dis. Free Hospital.
Thursday.	Prof. Green, Ear Discases (4) Eye & Ear Inf.	Asst. Prof. Roteh and Dr. Buckingham, Child. Dis. (e) Children's Hosp. and Dispensary.				Prof. Baker, Women's Dis. (16) Free Hospital.	
Wednesday.		Dr. Davenport, Women's Dis. (5) Dispensary. Dr. Burrell, Surg. Clinic (10) City Hospital.	Ophthalmol. Prof. Wadsworth, B. C. H.		Dr. Whitney, Pathol. Anat. (c) College.	Prof. Draper, Legal Med. (c) College.	Dr. Bradford, Orthopedic Surgery (c) Children's Hosp.
Tuesday.	Prof. Green, Ear Diseases (4) Eye & Ear Inf. Dr. Gannett, Medical Clinic (c) M. G. H.	Prof. White, Skin Diseases (15) M. G. H.	Ophthalmol. Prof. Wadsworth, M. G. H.	Dr. Cabot, Genito-Urinary Diseases (c) M. G. H.		Prof. Baker, Women's Dis. (6) Free Hospital.	Dr. Strong, Women's Dis. Free Hospital.
Monday.		Asst. Prof. Rotch and Dr. Buckingham, Child. Dis. (c) Children's Hosp. and Dispensary:			Prof. Draper, Legal Med. (c) B. C. H.		Dr. Bradford, Orthopedic Surgery (c) Children's Hosp.
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Saturday,	Prof. Green, Ear Diseases (4) Eye & Ear Inf.	Dr. Swift, Women's Dis. (3) Dispensary.	Dr. Watson, Genito-Urinary Discases (6) Dispensary.				
Friday.		Prof. Knight, Dis. of Throat (8) M. G. H. Prof. White, Skin Diseases (15) M. G. H.	Prof. Warren, Surgical Visit (c) M. G. H. Dr. Greenough, Syphilis (6) Dispensary.		Dr. Cowles, Mental Dis. (6) McLean Asylum.		Dr. Strong, Women's Dis. Free Hospital.
Thursday,	Prof. Green, Ear Diseases (4) Eye & Ear Inf.					Prof. Baker, Women's Dis. (16) Free Hospital.	
Wednesday.		Prof. Knight, Dis. of Throat (8) M. G. H. Dr. Swift, Women's Dis. (3) Dispensary. Dr. Burrell, Surgical Clin. (10) City Hospital.	Ophthalmol. Prof. Wadsworth, B. C. H.		Dr. Whitney, Pathol. Anat. (e) College.	Dr. Ernst, Bacteriology (e) College.	Dr. Homans, Ovar. Tumors (c) College.
Tuesday.	Prof. Green, Ear Diseases (4) Eye & Ear Inf. Dr. Gannett, Medical Clinic (c) M. G. H.	Prof. White, Skin Diseases (15) M. G. H.	Ophthalmol. Prof. Wadsworth, M. G. H. Dr. Hooper, Operations on Nose and Naso-Pharynx.	Dr. Cabot, Genito-Urinary Diseases (c) M. G. H.		College. Prof. Baker, Women's Dis. (6) Free Hospital.	Dr. Strong, Women's Dis. Free Hospital.
Monday.		Prof. Knight, Dis. of Throat (8) M. G. H. Dr. Burrell, Surg. Clinic (10) City Hospital.	Dr. Greenough, Syphilis (6) Dispensary.		Prof. Draper, Legal Med. (c) B. C. H.		
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FEBRUARY.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9		Prof. Blake, Ear Diseases (4) Eye & Ear Inf.		Prof. Blake, Ear Diseases (4) Eye & Ear Inf.		Prof. Blake, Ear Diseases (4) Eye & Ear Inf.
10	Prof. Knight, Dis. of Throat (8) M. G. H. Dr. Burrell, Surg. Clinic (10) City Hospital.	Prof. White, Skin Diseases (15) M. G. H.	Prof. Knight, Dis. of Throat (8) M. G. H. Dr. Swift, Dis. of Women (3) Dispensary. Dr. Burrell, Surg. Clinie (10) City Hospital.	Dr. Walton, Nervous Dis. (6) M. G. H.	Prof. Knight, Dis. of Throat (8) M. G. H. Prof. White, Skin Discases (15) M. G. H.	Dr. Walton, Nervous Dis. (6) M. G. H. Dr. Swift, Dis. of Women (3) Dispensary.
11	Dr. Greenough, Syphilis (6) Dispensary.	Dr. Gannett, Cardiac Dis. (c) M. G. H. Dr. Hooper, Operations on Nose	Ophthalmol. Prof. Wadsworth, B. C. II.	Ophthalmol. Prof. Wadsworth, M. G. H.	Prof. Warren, Surgical Visit (c) M. G. H. Dr. Greenough, Syphilis (6) Dispensary.	
15	Dr. Knapp, Nervous Dis. (c) City Hospital.		Dr. Knapp, Nervous Dis. (c) City Hospital.			
83			Dr. Whitney, Pathol. Anat. (c) College.			
က	Dr. Durgin, Ilygiene (c) College.	Dr. Fisher, Mental Dis. (c) College. Prof. Baker, Women's Dis. (6) Free Hospital.	Dr. Ernst, Bacteriology (c) College.	Prof. Baker, Women's Dis. (16) Free Hospital.	Dr. Durgin, Hygiene (c) College.	Dr. Fisher, Mental Dis. (c) Bost. Lun. Hosp.
4		Dr. Strong, Women's Dis. Free Hospital.	Dr. Homans, Ovar. Tunnors (c) College.		Dr. Strong, Women's Dis. Free Hospital.	
Ĭ.	Dr. C. M. Green, Operative Obstetrics (c) College.*	Dr. C. M. Green, Operative Obstetrics (c) College.*	Dr. C. M. Green, Operative Obstetrics (c) College.*	Dr. C. M. Green, Operative Obstetrics (c) College.*	Dr. C. M. Green, Operative Obstetrics (c) College.*	Dr. C. M. Green, Operative Obstetrics (c) College.*

MARCH.

	Monday.	Tuesday,	Wednesday.	Thursday,	Friday.	Saturday.
6		Prof. Blake, Ear Diseases (4) Eye & Ear Inf.		Prof. Blake, Ear Diseases (4) Eye & Ear Inf.	Dr. Vigkery, Medical Clinic (6) M. G. H.	Prof. Blake, Ear Diseases (4) Eye & Ear Inf.
10	Prof. Knight, Dis. of Throat (8) M. G. H. Dr. Burrell, Surgical Clin. (10) City Hospital.	Prof. White, Skin Diseases (15) M. G. H.	Prof. Knight, Dis. of Throat (8) M. G. H. Dr. Burrell, Surgical Clin. (10) City Hospital.	Dr. Swift, Dis. of Women (3) Dispensary. Dr. Walton, Nervous Dis. (6) M. G. H.	Prof. Knight, Dis. of Throat (8) M. G. H. Prof. White, Skin Diseases (15) M. G. H.	Dr. Swift, Dis. of Women (3) Dispensary. Dr. Walton, Nervous Dis. (6) M. G. H.
11	Dr. Greenough, Syphilis (6) Dispensary.	Dr. Gannett, Cardiac Dis. (e) M. G. H. Dr. Hooper, Operations on Nose and Naso-Pharynx.	Ophthalmol. Prof. Wadsworth, B. C. H.	Ophthalmol. Prof. Wadsworth, M. G. H.	Dr. Greenough, Syphilis (6) Dispensary.	Dr. Garland, Medical Clinie (e) Dispensary.
12	Dr. Knapp, Nervous Dis. (e) City Hospital.		Dr. Knapp, Nervous Dis. (c) City Hospital.			
8			Dr. Whitney,. Pathol. Anat. (c) College.			
ಣ	Dr. Durgin, Hygiene (e) College.	Dr. Fisher, Mental Dis. (c) College. Prof. Baker, Women's Dis. (6) Free Hospital.	Dr. Ernst, Baeteriology (e) College.	Prof. Baker, Women's Dis. (16) Free Hospital.	Dr. Durgin, Hygiene (e) College.	Dr, Fisher. Mental Dis. (e) Bost. Lun. Hosp.
4		Dr. Strong, Women's Dis. (2) M. G. II.			Dr. Strong, Women's Dis. (2) M. G. H.	

APRIL

Saturday.	ry, ic (6) Ear Diseases (4) Eye & Ear Inf.	Surgical Clinic (6) City Hospital. Dr. Walton, Dr. Walton, Nervous Dis. (6) M. G. H.	lson, (6) Osp. Medical Clinic (c) Ugh, Dispensary.			Dr. Fisher, Mental Dis. (c) Bost. Lun. Hosp.	fis. Prof. Porter, op. Surgery (c) College.*	Er, Prof. Baker, I. (c) Op. Gynaecol. (c)
Friday.	Dr. Vickery, Medical Clinic (6) M. G. H.	Prof. White, Skin Diseases (15) M. G. H.	Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp. Dr. Greenough, Syphilis (6) Dispensary.			(Dr. Strong, Women's Dis. Free Hospital. Prof. Porter, Op. Surgery (c) College.*	Prof. Baker, Op. Gynaecol. (c)
Thursday.	Frof. Blake, Ear Diseases (4) Eye & Ear Inf.	Dr. Walton, Nervous Dis. (6) M. G. H.	Ophthalmol. Prof. Wadsworth, M. G. H.			Prof. Baker, Women's Dis. (16) Free Hospital.	Prof. Porter, Op. Surgery (e) College.*	Prof. Baker, Op. Gynaecol. (c)
Wednesday.		Dr. Watson, Surgical Clinic (6) City Hospital.	Ophthalmol. Prof. Wadsworth, B. C. H. Dr. Gay, Surgical Visit (10) City Hospital.	Dr. Knapp, Nervous Dis. (c) City Hospital.	Dr. Whitney, Pathol. Anat. (c) College.	Dr. Ernst, Bacteriology (c) College.	Prof. Porter, Op. Surgery (c) College.*	Prof. Baker, Op. Gynaecol. (c) College.*
Tuesday.	Prof. Blake, Ear Diseases (4) Eye & Ear Inf.	Prof. White, Skin Diseases (15) M. G. H.	Dr. Gannett, Cardiac Dis. (c) M. G. H.	Dr. Fisher,	College. Prof. Baker, Women's Die (6)	Free Hospital.	Dr. Strong, Women's Dis. Free Hospital. Prof. Porter, Op. Surgery (c) College.*	Prof. Baker, Op. Gynaecol. (c) College.*
Monday.			Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp. Dr. Gay, Surg. Visit (10) City Hospital. Dr. Greenough, Syphilis (6) Dispensary.	Dr. Knapp, Nervous Dis. (e) City Hospital.			Prof. Porter, Op. Surgery (e) College.*	Prof. Baker, Op. Gynaecol. (c) College.*
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	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
6		Prof. Blake, Ear Diseases (4) Eyc & Ear Inf.		Prof. Blake, Ear Diseases (4) Eye & Ear Inf.	Dr. Vickery, Medical Clinic (6) M. G. H.	Prof. Blake. Ear Discases (4) Eye & Ear Inf.
10		Prof. White, Skin Diseases (15) M. G. H.	Dr. Watson, Surgical Clinic (6) City Hospital.	Dr. Walton, Nervous Dis. (6) M. G. H.	Prof. White, Skin Diseases (15) M. G. H.	Dr. Watson, Surgical Clinic (6) City Hospital. Dr. Walton, Nervous Dis. (6) M. G. H.
п	Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp. Dr. Gay, Surgical Visit (10) City Hospital.	Dr. Gannett, Cardiac Dis. (c) M. G. H.	Ophthalmol. Prof. Wadsworth, B. C. H. Dr. Gay, Surgical Visit (10) City Hospital.	Ophthalmol. Prof. Wadsworth, M. G. H.	Prof. Richardson, Clin. Obstet. (6) Lying-in Hosp.	Dr. Garland, Medical Clinic (c) Dispensary.
12	Dr. Knapp, Nervous Dis. (c) City Hospital.		Dr. Knapp, Nervous Dis. (c) City Hospital.			
e		Dr. Fisher, Mental Dis. (c) College. Prof. Baker, Women's Dis. (6) Free Hospital.	Cooking School.	Prof. Baker, Women's Dis. (16) Free Hospital.	Cooking School.	Dr. Fisher, Mental Dis. (c) Bost. Lun. Hosp.
4		Dr. Strong, Women's Dis. (2) Free Hospital				

SUMMER COURSES.

During the summer of 1891, courses, chiefly clinical, were given by the instructors of the School to graduates and advanced students.

STUDENTS.

Aldrich, Albert C., M.D.

Allen, Clarence J., M.D.

Baldwin, William F., M.D.

Bradley, G. B., M.D.

Brough, David D., A.B. (Princeton Coll.) 1888,

Burr, Alexander, M.D.V.

Cabot, Richard C., A.B. 1889,

Clark, Leonard B., M.D.

Coffin, Mrs. J. E., M.D.

Courtney, Samuel E.

Cunningham, Joseph H.

Davis, Abel A.,

Davis, N. A., M.D.

Edmonds, Louis,

Egan, Peter R., M.D.

Elliott, Frederick W., M.D.

FitzSimmons, Philip M.

Flood, Everett, M.D.

Foss, George B.

Garceau, Edgar, M.D.

Gay, Warren F., A.B. 1890,

Hall, Henry P., M.D.

Hardon, Robert W.

Harlow, George A., A.B. (Amherst Coll.) 1889,

Holder, Oscar H., A.B. 1888,

Ilsley, Frederick R.

Keith, Frederick S.

Lancaster, S. R., M.D.

Libby, Jesse H.

Littlefield, Samuel H.

Loveland, John E., A.B. (Wesleyan Univ.) 1889,

McIntyre, James A., A.B. (Univ. of New Brunswick)

1880,

Macdonald, William H., A.B. (St. Francis Xavier

Coll.) 1888,

Somerville.

Peterboro', N. H.

Danvers.

Boston.

Providence, R. I.

Brighton.

Brookline.

Waverly.

Mt. Auburn.

W. Malden.

Somerville.

Brooklyn, N. Y.

Hanover, N. H.

Boston.

Boston.

Roxbury.

Boston.

Baldwinsville.

Roxbury.

Boston.

Boston.

Leominster.

Newton.

Augusta, Me.

Boston.

Chelsea.

Waltham.

Cambridge.

Charlestown.

Roxbury.

Middletown, Conn.

St. John, N. B.

Antigonishe, N. B.

SUMMER COURSES. - MEDICAL SCHOOL.

Mailhot, Louis L.

Mellus, Edward L., M.D.

Mitchell, Carleton,

Moran, Horace S., A.B. (Williams Coll.) 1889,

Mumford, James G., M.D.

Nickerson, Asa H., M.D.

Norton, Rupert,

Noyes, N. K., M.D.

O'Brien, Denis A., A.B. (Holy Cross Coll.) 1888,

O'Keefe, Michael W., M.D.

O'Leary, Joseph A., M.D.

Park, Francis E., M.D.

Perkins, Jay, M.D.

Phelps, John S., A.B. 1889,

Phillimore, Frederick G.

Phillips, James L.

Pitman, Arthur J., M.D.

Pope, F. G.

Rhindland, J. H.

Robinson, Gilman P.

Ruppel, Emil F.

Stevens, Charles B., A.B. (Amherst Coll.) 1887,

Sylvester, Stephen A., M.D.

Terry, Charles C., M.D.

Thayer, Eugene, A.B. (Amherst Coll.) 1889,

Tuttle, George H., M.D.

Walker, Lewis M., M.D.

Wheeler, Charles D., A.B. (Williams Coll.) 1888,

Whiting, G. W. W., M.D.

Wilder, Raymond S., A.B. 1890,

Wynne, Sidney Y.

Lincoln, R. I.

Worcester.

Boston.

Wakefield.

Boston.

Central Falls, R. I.

Cambridge.

Hanover, N. H.

Lewiston, Me.

E. Boston.

Wakefield.

Stoneham.

Penobscot, Me.

Lynn.

Boston.

Boston.

Barnstead Centre,

Waltham. [N. H.

Washington, D. C.

Boston.

Boston.

Worcester.

Newton Centre.

Fall River.

Boston.

Cambridge.

Boston.

Worcester.

So. Boston.

Cambridge.

Deerfield.

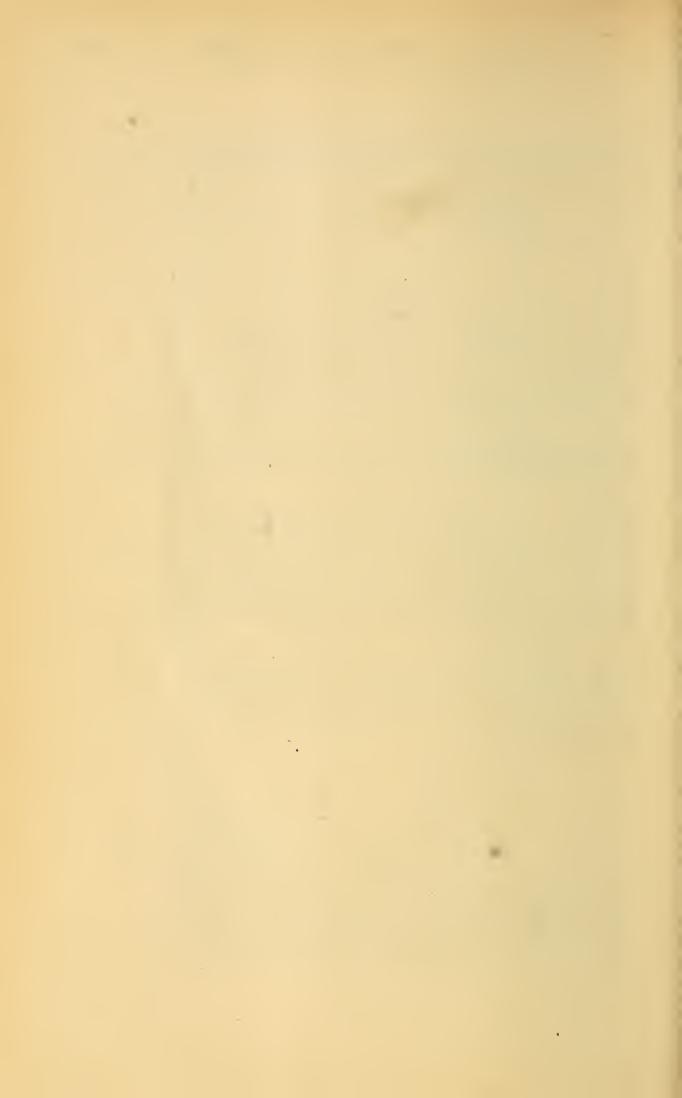
Similar courses will be given during the summer of 1892.

For particulars, address The Secretary, Harvard Medical School, Boston, Mass.

Subject.	Instructor.	Place.	Begins.	Ends.	Days.	Hour.	\$ Fees.
1. Clinical Medicine	Dr. Fitz	Mass. Gen. Hosp.	July 3	Aug. 14	Mo. We. Fr.	6	20.00
2. Climeal Medicine	Dr. Withington	City Hosp.	Sept. 8	Oct. 3	Tu. Th. Sat.	10	15.00
3. Physical Diagnosis	Dr. Garland	Mass. Gen. Hosp.3	July 1	July 31	Daily	9.30	20.00
4. Physical Diagnosis	Dr. Garland	Mass. Gen. Hosp.3	Aug. 1	Aug. 31	Daily	9.30	20.00
5. Nervous Diseases	Dr. Putnam	Mass. Gen. Hosp.	July 1	July 31	Mo. We. Fr.	10	20.00
6.1 Children's Diseases	Dr. Buckingham	Dr.Buckingham Children's Hosp.	June 12	Aug. 31	Mo. Th. Sat.	10.30	20.00
7.1 Children's Diseases	Dr. Sherman	Boston Dispensary	July 12	Sept. 30	Mo. Th. Sat.	10	20.00
8.1 Thoracic & Abdominal Diseases	ses Dr. Viekery	Mass. Gen. Hosp.	June 2	June 30	Tu. Th.	10	15.00
9.1 Anatomy of the Ear	Dr. Bryant	Medical School	July 3	July 31	Tu. Fr.	61	15.00
10. Diseases of the Ear	Dr. Blake	Eye and Ear Inf.	July 2	July 30	Tu. Th. Sat.	10	25.00
11.1 Clinical and Operative Surgery	y Dr. Riehardson	Mass. Gen. Hosp.	July 1	Aug. 12	Tu. We. Fr. Sat.	11	25.00
12.1 Clinical and Operative Surgery	y Dr. Richardson	Mass. Gen. Hosp.	Ang. 14	Sept. 30	Tu. We. Fr. Sat.	11	25.00
13. Clinical and Operative Surgery	y Dr. Post	City Hosp.	July 1	July 31	Mo. We. Fr.	10	20.00
14. Clinical and Operative Surgery	y Dr. Burrell	City Hosp.	Aug. 1	Aug. 29	Aug. 29 Tu. Th. Sat.	111	20.00
15. Clinical and Operative Surgery	y Dr. Burrell	City Hosp.	Sept. 1	Sept. 29	29 Tu. Th. Sat.	11	20.00
16.1 Orthopedic Surgery.	Dr. Bradford	Children's Hosp.	July 1	Aug. 31	Mo. We.	4	20.00
17. Clinical & Genito-urinary Surgery	ry Dr. Cabot	Mass. Gen. Hosp.	July 1	Aug. 15	Mo.We.Th.Sat.	11	25.00
18. Genito-urinary Surgery	Dr. Watson	City Hosp.	June 2	July 11	July 11 Tu. Th. Sat.	111	20.00

20.00	20.00	30.00	30.00	20.00	20.00	25.00	25.00	20.00	20.00	20.00	30.00	30.00	35.004	35.004	15.00
10	10			3.30	3.30	11	11	က	10	က			10	10	
July 1 July 31 Mo. We. Fr.	Mo. We. Fr.			Daily	Daily	Tu. Th.	Tu. Th.	Mo. Th. Fr.	Mo. Sat.	Mo. We. Fr.	Daily	Daily	Daily	Daily	
July 31	Aug. 31	July 31	Sept. 30	July 18 Daily	Aug. 15	July 21	Aug. 6	July 31	July 27	July 31	Aug. 14 Daily	July 15	July 25	July 25	Sept. 15
July 1	Aug. 3		Aug. 1	July 6	Aug. 3	1	July 23	July 2	1	July 1	July 1	June 2 July 15	June 15 July 25	June 15 July 25	June 152 Sept. 15
Mass. Gen. Hosp.	Mass. Gen. Hosp.			Medical School	Medical School	Women'sFree Hosp. July 2	Women'sFreeHosp. July 23	McLean Asylum	N.Grove St. Morgue June 1	Medical School	Medical School	Medical School	Medical School	Medical School	Medical School
Dr. Mixter	Dr. Mixter	Dr. Green Dr. Rcynolds	Dr. Townsend	Dr. Reynolds	Dr. Townsend	Dr. Strong	Dr. Strong	Dr. Cowles	Dr. Harris	Dr. Durgin	Dr. Harrington	Dr. Ernst	Dr. Hills	Dr. Hills	Dr. Sears
19. Minor Surgery	20. Minor Surgery	21.1 Obstetries	22.1 Obstetrics	23. Operative Obstetrics	24. Operative Obstetrics	25. Minor Surgical Gynecology	26. Minor Surgical Gynecology	27.1 Mental Diseases	28.1 Legal Medicine	29. Hygiene	30. Hygiene	31. Baeteriology	32. Urinary Examinations	33. Qualitative Analysis	34.1 Pathological Histology

² A course is of six weeks' duration, and the class can be joined at any time. 4 Five dollars will be refunded if no apparatus is broken. 3 Women's room. ¹ Class-membership limited.



EXAMINATION PAPERS

(Annual Examination, 1891.)

First Year's Studies.

ANATOMY. -- Professor Dwight.

- 1. Describe the last dorsal vertebra.
- 2. Describe the first rib.
- 3. The origin, course and end of the vertebral artery.
- 4. The origin, course, branches and anastomoses of the external circumflex artery of the thigh.
 - 5. The nerve supply of the skin of the thumb and fingers.
 - 6. The nerve supply of the skin of the toes.
 - 7. Describe a Malpighian body of the kidney.
 - 8. Describe the choroid of the eye.
 - 9. Give the shape of the lateral ventricles of the brain.
- 10. What is to be seen with the microscope in the mucous membrane of the duodenum?
 - 11. The minute structure of a lymphatic gland.
- 12. Give the course of the pneumogastric nerve from the skull and name the organs it supplies.

PHYSIOLOGY. — Professor Bowditch.

[Number the answers to the questions without copying the questions themselves. Do not number the pages of the book. Answer the questions in order, writing on each page in succession.]

- 1. How does the application of heat as in cooking affect the digestibility of meat?
 - 2. What is the value of gelatine as food?
 - 3. What is the function of the pancreas?
 - 4. What is the function of haemoglobin?
- 5. Describe the resemblance and the difference between a muscle and a steam engine regarded as machines for performing mechanical work.
- 6. How does an examination of the excretions show the amount of nitrogenous and non-nitrogenous food undergoing decomposition in the body?
- 7. Why does moisture in the air make both hot and cold weather more disagreeable?
 - 8. What is meant by the "specific energy" of nerves? Give examples.
 - 9. What is the function of the 3d pair of cranial nerves?

- 10. How does the muscular sense aid the other senses? Give examples.
- 11. What is the origin of animal fat?
- 12. What is the function of the membrana tympani?

GENERAL CHEMISTRY. — Professor Hills.

[Answer the questions in order, writing on each page in succession.]

- 1. Define quantivalence. Give examples of univalent, bivalent, trivalent, and quadrivalent atoms.
- 2. Represent by equations the changes which take place when the following substances are mixed, in solution: (a) Na₂C O₃ and H Cl; (b) Ba Cl₂ and H₂S O₄; (c) Ag N O₃ and Na Cl; (d) H₂C₂O₄ (oxalic acid) and N H₄O H; (e) H₂C₂O₄ and Ca Cl₂. Underline all insoluble substances formed.
- 3. From what are the following substances obtained: (a) oxygen; (b) phosphorus; (c) ammonium compounds; (d) oxalic acid; (e) salicylic acid?
- 4. The most important chemical property of (a) chlorine; (b) potassic chlorate; (c) nitrates; (d) phosphorus; (e) potassic permanganate?
 - 5. Carbon monoxide. Sources; properties?
 - 6. Describe the properties of iodine.
- 7. What is arseniuretted hydrogen? Under what conditions is it formed? Describe its properties.
- 8. How do ammonic hydrate, carbonate, and sulphide differ from other compounds of ammonium in physical properties and physiological action?
- 9. How does a ferrous salt differ from a ferric salt (in chemical composition)? How can you convert each into the other?
 - 10. Describe the properties of argentic nitrate.
- 11. What is fermentation? Difference between the *organized* and *soluble* ferments?
- 12. Solubility of uric acid, (a) in water; (b) in alkalies; (c) in acids? Relative solubility in water of uric acid, acid urates, and normal urates?
 - 13. What is the relation between benzoic acid and hippuric acid?
- 14. Occurrence of hydrocyanic acid in the vegetable kingdom? From what is the officinal acid obtained?
 - 15. What are compound ethers? How do phenols differ from alcohols?
- 16. Group reagents for the metals (in the order in which they are added in analysis), and the metals precipitated by each? Why must these reagents be added in the order given?
 - 17. What tests are employed in the preliminary examination of solids?
- 18. What acids may be indicated upon the addition of concentrated sulphuric acid to a solid substance?
- 19. Why should the metals be removed from a solution before testing for certain of the acids? What acids may be tested for in the original solution?
- 20. How do the sulphides of the arsenic group differ from those of the copper group?

MATERIA MEDICA. - Dr. HARRINGTON.

- 1. Opium. Mention any preparations suitable for treatment of children. Percentage of morphine in dry opium. Solubility of morphine in water. Composition of pulvis morphinae compositus. Dose of codeine. Write prescriptions for five preparations of opium.
- 2. Mention the comparative advantages of ether and chloroform. How prepare hydrated sesquioxide of iron for use as an antidote? Describe galla; how do the two varieties differ, and to what is the chief difference due? Mention six vegetable and six mineral astringents.
- 3. Give the officinal names of and the principal differences between the ehlorides of mercury. Name and describe the iodides of mercury. How administer the oleate of mercury, and in what amount? What is the composition of argenti nitras dilutus? Mention some of the incompatibilities of tartar emetic.
- 4. Write prescriptions for: (1) eopaiba, (2) eold eream, (3) syrup of tar, (4) a plaster, (5) Fowler's solution, (6) brandy, (7) white arsenic, (8) pumpkin seeds, (9) cod-liver oil, (10) twenty compound eathartic pills.
- 5. Composition and dose of: (1) pulvis jalapae compositus, (2) syrupus scillae eompositus, (3) infusum sennae compositus, (4) pulvis rhei compositus, (5) unguentum diaehylon.
- 6. Give the alcoholic strength of alcohol dilutum, brandy, and whiskey. What is vinum album fortius? What is sparteine and from what obtained? What is the active principle of digitalis? Dose of: tincture of strophanthus; caffeine; acetate of potassium. How administer nitrite of amyl?

7. Criticise the following prescriptions:

(1) R Apomorphinae hydroehloratis, Ziv. Sig. For immediate use as directed.

(2) R Magnesii sulphatis, Zj. Aquae destillatae, Zij. Mix.

Sig. Take at once.

(3) R Bismuthi subnitratis, Zijss.
Aquae eamphorae, Ziv. M.
Sig. One teaspoonful before meals.

(4) R Sodii salicylatis, 3 v.

Tincturae ferri chloridi, 3 vj.

Aquae q. s. ad, 3 iv.

Mix. Sig.

(5) & Extracti malti, \(\frac{7}{3} \) ij. Sig. Two teaspoonfuls thrice daily.

- 8. Dose and method of administration of citrate of iron and quinine. Describe ferrum reductum. Solubility (in water) of: acacia; tragacantha; salicylic acid; salicin. Dose of: liquor magnesii citratis; tincture of nux vomica; wine of ipecac.
- 9. Chloral. Solubility in water and in alcohol; dose; action of alkalies on.

What part (or parts) of the plant is belladonna? stramonium? hyoscyamus? Mention the active principles of these drugs. How is cocaineused? What is a massa? a charta?

10. Give brief descriptions of the following: bromide of potassium; carbonate of lithium; salicylic acid; carbolic acid; nitrite of amyl.

Second Year's Studies.

MEDICAL CHEMISTRY. — Professor Wood.

- 1. What is the normal quantity of urine? What conditions may cause an increase, habitually, or for a considerable period of time?
- 2. Properties of, and tests for, urea? How estimate the amount quantitatively?
 - 3. Tests for blood pigment?
- 4. What changes take place in the urine during the progress of a case of interstitial nephritis?
 - 5. What is the character of the urine in a case of cirrhosis of the liver?
- 6. What inferences may be drawn from urine having the following characteristics? Why?

Color = normal. Acid. Sp. Gr. = 1021. Considerable sediment.

Uph. = n. \dot{U} = n. Cl. = n. E. P. = n. Ind. = n. \dot{U} = +. Sf. = n. A. P. = -.

Alb. = trace. Bile and sugar absent.

Sediment = few blood globules; an excess of renal epithelial cells, some of which are fatty; considerable number of hyaline and granular casts, some of which have a few oil globules, and an occasional renal cell and blood globule adherent. The casts are mostly of small diameter.

Total amount of urine = 1275 cub. cent. " " urea = 27.438 grms. " " chlorine = 8.504 " = 1.976 " = 1.976 " = 1.912 "

- 7. Properties of, and tests for: morphine, strychnine, oxalic acid, cyanide of potassium?
 - 8. Symptoms of chronic lead poisoning?

PATHOLOGY AND PATHOLOGICAL ANATOMY. — Professor Fitz.

- 1. Distinguish between necrosis and malacia.
- 2. Explain phlegmonous inflammation.
- 3. Define dropsy and state how it originates.
- 4. State the method of origin of acute meningitis.
- 5. Describe the appearances and state the significance of a hydrencephalocele.
- 6. State the appearances indicative of a chronic interstitial myelitis and the regions of its occurrency.
- 7. Enumerate the causes of the presence of the heart in the right half of the chest.
- 8. State the causes and describe the appearances of a rupture of the heart.
- 9. Enumerate the results of bland embolism from the left side of the heart and from the veins of the extremities.

- 10. Discriminate between atelectasis and bronchiectasis and state their common characteristics.
- 11. State the conditions under which amœbæ coli may be found in the lung.
 - 12. Describe the condition of the lung to be expected in pneumothorax.
- 13. State the alterations of the spleen to be expected in malarial poisoning.
- 14. State where in the alimentary canal the corrosive ulcer is to be found.
 - 15. State the causes of an annular stricture of the intestine.
 - 16. Enumerate the extra-hepatic causes of an obstructive jaundice.
- 17. Describe the appearances of the liver suggestive of poisoning with arsenic.
- 18. State the causes of extensive hemorrhage in the paranephritic fat tissue.
- 19. Discriminate between the atrophied kidney of old age and that of chronic interstitial nephritis.
 - 20. State the appearances of an extreme degree of hydrosalpinx.

TOPOGRAPHICAL AND ADVANCED ANATOMY. Professor Dwight.

- 1. The boundaries and contents of the axilla and their relations.
- 2. Give the boundaries and contents of the posterior mediastinum and their relations.
- 3. Give the relations of the cavities of the head to each other and to the other contents of the thorax.
- 4. Describe the shape of the grey and white matter of the spinal cord and give the proportionate amount of each in sections in the dorsal region and in the cervical and lumbar enlargements.
- 5. What and where are the most important collections of nerve cells and bundles of fibres in the spinal cord?
- 6. Describe the peduncle of the cerebrum and the internal capsule, giving the relations of the bundles of fibres in them.
 - 7. Describe the male perinæum.
 - 8. Describe the region of the inguinal canal.

THERAPEUTICS. — Assistant Professor F. H. WILLIAMS.

Two hours.

- 1. In what ways may medicines be introduced into the system?
- 2. Action and uses of ammonia, ergot, caffeine.
- 3. Six cathartics; conditions to which they are adapted Prescriptions for each.
 - 4. Elimination and uses of alcohol. Opium uses and contra-indications.

- 5. Use of cold in fever, and precautions.
- 6. Four counter-irritants; directions for their use.

How may the urine be made alkaline?

How may the urine be made acid?

7. Comparative value and uses of three anaesthetics.

Third Year's Studies.

OBSTETRICS. — Professor W. L. RICHARDSON.

- 1. How is the true conjugate diameter of the superior strait of the pelvis calculated from the diagonal conjugate? How is the latter measurement obtained?
- 2. Nausea and vomiting of pregnancy. Treatment?
- 3. Threatened abortion at the end of the fifth month of pregnancy. Symptoms? Treatment?
- 4. Hydatiform mole. Diagnosis? Treatment?
- 5. Induction of premature labor. Describe in detail the method or methods in the order of your 'preference.
- 6. Forceps. Indications and contra indications for their use?
- 7. Internal concealed post partum hæmorrhage. Symptoms? Treatment?
- 8. A multipara has been in labor three hours. The os is half dilated. The membranes rupture. The right shoulder is found to be presenting. Enumerate the possible methods of treatment in the order of your choice.
- 9. A primipara has been in labor eighteen hours. The os is fully dilated. The membranes have ruptured. The patient is showing signs of exhaustion. The head is low down in the pelvis. The position, which was O. D. P., is now transverse. Discuss the case and give the treatment in detail.
 - 10. Give in detail the method of using antiseptics in obstetric practice.

SURGERY. - Professor Cheever.

I. Head. — Simple depressed fracture of skull.

a. Is it always proper to operate?

- b. What symptoms call for operation?c. If you operate, describe the method.
- d. What may follow in after life from such an injury, if you do not operate?
- e. Then what treatment is called for?

f. How successful is it?

- II. Suppuration.
 - a. What forms of bacteria cause suppuration?
 - b. When are they found?
 - c. Specify the most important measures to be taken to prevent suppuration in a wound.

III. Pott's fracture of the leg.

a. Describe it.

b. How do you treat it?

c. How long?

d. What difficulty may follow mal-position of the foot?

e. What may result in the ancle?

IV. Carbuncle.

a. Anatomical peculiarities and seat.

b. Treatment.

V. Foreign bodies in the trachea, or the esophagus.

a. Differential diagnosis.

b. Treatment of each.

VI. Necrosis and Caries.

a. Definition of each

b. Bacterial cause of each.

c. Treatment of each.

VII. Rheumatism (articular) and White Swelling.

a. Differential diagnosis.b. Possible results of each.

VIII. Tetanus.

a. Etiology.

b. Symptoms.

c. Treatment.

IX. Appendicitis.

a. Symptoms.

b. When do you operate?

c. When do you delay operation?

d. Possible results.

X. Rectum. — Fissure. Stricture. Piles.

a. Differential diagnosis.

b. Treatment of each.

CLINICAL SURGERY. — Professor Porter.

Case I. — Patient 65 years of age. Previously healthy, except for some slight attacks of what was called acute rheumatism. Has lived most of his life in a healthy location in Massachusetts. About three years ago his attention was attracted to his present troubles by a desire to pass his water more frequently than normal, and the act was painful, producing a scalding or burning sensation near what he thought was the entrance to the bladder.

Micturition increased in frequency both days and nights. Pain grew more intense, and seemed to be more in the end of the penis. The stream was at times free and uninterrupted and then was sudden stoppage, and at other times an inability to start the stream although the desire was present and imperative. Jolting from any cause produces pain in the end of penis.

While in bed the patient is comfortable, but the moment he rises he feels the pain in the end of the penis. Urine high colored. In the morning sometimes there is a dirty yellowish sediment which sticks to the bottom of the vessel. Urine alkaline. Sp. gr. 1023. Albumen large

trace. Sed. pus free and in clumps. Bladder epithelium. Much triple phosphates, some normal blood.

What is the main trouble?

What the treatment?

What the prognosis?

Case II. — What are the symptoms of appendicitis? giving their most common sequence.

What are the conditions which necessitate operative interference?

What are the dangers without operation?

Case III. — Name some of the causes of compound fracture of the tibia.

What are the symptoms? What are the dangers? What is the treatment?

THEORY AND PRACTICE. -- Professor F. MINOT.

(Answer the questions in their numerical order.)

- 1. Give an account of movable kidney, including diagnosis and prognosis.
 - 2. What are the causes and the treatment of peritonitis?
- 3. Give an account of hydatid tumor of the liver, with diagnosis and treatment.
 - 4. Give the symptoms, diagnosis and treatment of diabetic coma.
 - 5. What are the symptoms and the diagnosis of cancer of the liver?
 - 6. Describe chlorosis; give the diagnosis, prognosis and treament.
 - 7. What are the symptoms and the treatment of mitral insufficiency?
 - 8. Give the symptoms, diagnosis and prognosis of aortic insufficiency.

.CLINICAL MEDICINE. — Professor SHATTUCK.

[Give the differential diagnosis, the prognosis, and the treatment of as many of these cases as the time will allow, discussing them in the order in which they are arranged, Assume that symptoms not mentioned are wanting; but as omissions, intentional or not may occur, state them if essential. Success will depend more upon the quality than upon the quantity of the work. The intelligent discussion of the cases will have more weight than a hasty and inconclusive though correct diagnosis.]

Case I. — Patient 55 years old; rather fat; subject to frequent attacks of winter cough, with asthmatic tendency. For seven years past the heart had been noticeably weak and irregular. Pulse 80; first sound valvular. Apex beat an inch and a half directly below left nipple: no murmurs. No previous rheumatism. Several years ago there was sudden and complete loss of memory, the same questions being repeated as soon as answered. The expression was at the time rather vacant; the pupils were equal and responded to light; there was no motor paralysis. The amnesia lasted all day, disappearing the following morning. The pulse remained 50 for two days. The patient had been previously very anaemic, and had had much fatigue and anxiety, with digestive disturbance. The urine always remained normal. In the following years there were occasional attacks of transient numbness in the left arm and leg, and sometimes faint turns with pallor and irregular, feeble pulse. Headache

was a frequent symptom; dyspnoca on exertion, impaired appetite, and insomnia were constant. There was no apparent loss of flesh. In 1887, life was endangered for two weeks by oedema of both lungs, supervening on an attack of bronchitis. In the subsequent years the condition improved somewhat, so that the patient could walk half a mile or more and was able to attend to considerable business. Last autumn he had several attacks of bronchitis, and, finally, an attack of complete hemiplegia resulted fatally in 24 hours without recovery of consciousness. Respiration was of the Cheyne-Stokes type, and later stertorous.

Diagnosis and treatment?

Case. II. — An unmarried man of 27 comes of an healthy family and was always well till the advent of his present trouble. Four years ago he was clerk in a bank, working from nine to four. He then kept the books of an electric light station in the far West and at the same time studied electricity, working from eight or nine A.M. till eight or even eleven P.M.; eating largely, irregularly, hurriedly; using tobacco to excess. Before long he became superintendent of the station. About two and one half years ago he began to sleep poorly; then came uncomfortable sensations in his head and, especially after meals, inability to concentrate his thoughts. After a time he came East, felt better, returned to his work with gradual return of his symptoms. Early last fall he was so bad that he went to a Sanitarium, remaining six months. There he was put on a diet consisting almost exclusively of cereals, and he thinks himself that meat disagrees with him. At the Sanitarium he grow generally worse, though his stomach gave him less trouble. He now complains of mental and bodily weakness, of occipital headache, nervousness, insomnia, and of indigestion with discomfort in the region of the stomach and eructation of gas; also of cold extremities. He feels best when he wakes in the morning, worst about four hours after a meal, especially in the P.M. For some time he has used neither tca, coffec, or tobacco. He has lost about twenty lbs. Physical examination is negative except for a rather harsh skin, and swashing over the stomach extending below the level of the navel: a resonant area an inch below the navel when he lies down, becomes flat when he stands. The urine has a sp. gr. of 1025; is pale; very faintly acid; and deposits phosphates when boiled: sugar and albumen arc absent.

Diagnosis, prognosis, and treatment?

Case III. — The patient, 52 years, is of healthy parentage; and his previous history is excellent except for a severe illness of doubtful nature fifteen years ago followed by perfect recovery. Thirteen years ago he weighed 136, gaining gradually to 170; for the past year he has weighed 165. He is fond of fishing and shooting. Three years ago he gave up active business. Two years ago his urine is said to have been normal. One year ago, when he applied for life insurance, albumen was found in the urine. He complains of no symptoms except slight pain in the lumbar region, especially when driving and the carriage presses against his back. The appetite is good and he eats heartily. Physical examination is negative except for slight tenderness in the renal region.

Several examinations of the urine substantially agree. Quantity normal; sp. gr. 1028; acid; sugar absent; albumen a very slight trace. The sediment contains bladder epithelium, leucocytes, no marked excess of renal epithelium, much normal blood, a considerable number of hyaline and fine granular casts, some with considerable epithelium adherent, many

calcic oxalate and some uric acid crystals, mucus casts.

Diagnosis, prognosis, and treatment?

OPHTHALMOLOGY. -- Professor H. W. WILLIAMS.

[Students taking the third-year examination answer the first five questions.]

- 1. How may the cornea become diseased as a result of conjunctivitis?
- 2. In what circumstances is atropia useful, and when is it to be avoided, in eye affections?
- 3. What is the cause, and what the proper treatment, of ophthalmia neonatorum?
- 4. What conditions of mobility of the pupil are important evidences of local or general lesions?
- 5. What are the symptoms and treatment of acute glaucoma; and what its prognosis?
- 6. What morbid conditions of the ocular tissues may result from constitutional syphilis, congenital or acquired?
 - 7. What ophthalmoscopic appearances may indicate cerebral lesion?

DISEASES OF CHILDREN. — Assistant Professor Rotch.

- 1. State the proper temperature of an infant's bath at one month; also at the same age the normal pulse temperature, respirations, and fæcal discharges.
- 2. State the amount and number of feedings which should be given to the average artificially fed infant of two months.
- 3. State the analysis of a good human breast milk; also which of the constituents are most likely to vary and to what degree; also how you would endeavor to increase or decrease the different constituents of human breast milk where such changes were indicated.
- 4. Give the number of teeth and the order in which they usually appear in the first and second dentition.
- 5. Describe a case of chronic duodenal catarrh at 4 years, and give the prognosis and treatment.
- 6. The diagnosis of poliomyelitis anterior acuta (infantile paralysis) at six months.
- 7. How does the typhoid fever of the young child differ from that of adult life?
- 8. Give the differential diagnosis between the acute broncho-pneumonia and acute lobar pneumonia of children.
- 9. Give the treatment of eclampsia occurring in the prodromal stage of measles and scarlet fever.
 - 10. What rules should be followed in vaccinating infants?
- 11. What is the average weekly gain in weight of the breast fed infant during the first six months of life?
 - 12. Describe a case of tetanus neonatorum.

GYNAECOLOGY. - Professor BAKER.

1. A girl of 16 years of age, attending a normal school and obliged to overtax her strength to retain a fair standing in her class, finds herself suffering from dysmenorrhæa in an increasing degree from month to month; she also notices a steadily diminishing amount of flow.

What would be your advice in such a case as to the necessity for any

local examination?

(a) If such examination were not made, what would be your advice to her both as to her general health and for the symptom of dysmenorrhœa?

- (b) If such examination were made and a diagnosis of prolapse of the uterus in the first degree established, what would then be your advice as to treatment, both general and local?
- 2. What should you be able to determine by the bi-manual examination of a woman?
- 3. Describe the proper way of catheterizing the female bladder in order to avoid a subsequent attack of cystitis.
- 4. At what period of fœtal life does the fusion of Müller's ducts occur to form the genital tract, and what are some of the malformations resulting from failure in the proper development of these tubes?

BACTERIOLOGY. — Assistant Professor Ernst.

- 1. What are bacteria, and how classified from a medical point of view?
- 2. Different methods of sterilization what are the principles and how applied?
- 3. Describe the bacillus of tuberculosis—its method of growth and general characteristics.
- 4. What is the proper method of staining the bacillus of tuberculosis for diagnostic purposes?

Fourth Year's Studies.

GYNAECOLOGY. - Professor BAKER.

- 1. What are the boundaries of Douglas's pouch?
- 2. What are the possible results of gonorrhea in the female, and how are each of these to be met, in your treatment of such a case?
- 3. What would be your means of differentiation in a case of pregnancy at the second month from areolar hyperplasia of the uterus?
- 4. In performing the operation of vaginal cystotomy, how would you avoid the ureters?
- 5. Describe normal menstruation, and give the various pathological changes which may occur in this function; their principal causes, symptoms, and treatment.

DERMATOLOGY. - Professor WHITE.

- 1. Describe the principal lesions.
- 2. Diagnosis of psoriasis.
- 3. Treatment of acue.
- 4. Lupus erythematosus.
- 5. Points of resemblance between cutaneous syphilis, leprosy, and tuber-culosis.

OTOLOGY. - Professors Blake and J. O. Green.

- 1. Anatomy and Physiology of the Eustachian tube.
- 2. With what portion of the tympanum does the mastoid cavity directly communicate and what is the communicating opening called?
 - 3. What are the principal sources of blood supply of the tympanum?
- 4. If a vibrating tuning fork placed upon the forehead or vertex in the median line is heard better in the worse hearing ear, what is the inference to be drawn as to the location of the cause of the deafness, and why?
- 5. In case of facial paralysis consequent upon middle ear disease by what symptoms and where do you locate the lesion in the nerve?
 - 6. What are the possible complications of suppuration in the mastoid?
- 7. Describe the treatment of simple, uncomplicated acute purulent inflammation of the tympanum.
- 8. In what general diseases may we expect ear complications and what are those complications likely to be?

LARYNGOLOGY. — Professor Knight.

- 1. Diagnosis between acute follicular tonsillitis and diphtheria.
- 2. Diagnosis between tubercular and syphilitic ulcerations of the larynx. Treatment of each.
 - 3. Nervous supply of the larynx, sensitive and motor.

Effect of paralysis of one neunent nerve on the voice, and on the position of the corresponding vocal cord, as seen in the mirror.

- 4. Mention some of the causes of chronic nasal and post-nasal catarrh which can be removed by operation, and describe the operations.
 - 5. Symptoms of foreign body in the nose; method of removal.
- 6. What is the most common cause of mouth-breathing in children? Remedy?

DISEASES OF CHILDREN. — Assistant Professor Rotch.

- I. Give the differential diagnosis between varicella, measles, and scarlet fever according to their different stages. State also the chief organs which are affected in these diseases and the main indications for treatment.
 - II. Describe pneumonia as it occurs in children under two years.

III. Chorea — symptoms and treatment.

IV. Describe a case of chronic duodenal catarrh and give the prognosis and appropriate treatment.

DISEASES OF THE NERVOUS SYSTEM.

Drs. Putnam and Walton.

Answer four questions, and discuss one case.

- 1. Describe the different gaits produced by diseases of the nervous system, and explain their causes.
- 2. Explain the knee-jerk and show why and how it is altered in tubes dorsalis, multiple neuritis, infantile spinal paralysis, and cerebral haemorrhage.
 - 3. Symptoms of tubes dorsalis, in the order of their diagnostic importance.
 - 4. Reaction of degeneration and what it signifies.
- 5. Draw a diagram showing the important areas and fissures on the cerebral cortex.
 - 6. The treatment of epilepsy.
 - 7. Give the differential diagnosis, prognosis, and treatment:
- A young man of 28, unmarried, had always been well and vigorous until three weeks before he consulted a physician. He had had a venereal sore, without secondary symptoms, and there was some tuberculosis in the family. Three weeks before he sent for a physician he began to have numbness in the soles of the feet, which had slowly crept up the legs. There was no prickling but rather a feeling of compression. same time he began to have trouble in passing water, which increased so that three days ago a catheter had to be used, and its use has continued. He was able to walk a short distance up to three days ago; now he is confined to his bed and has no control of his legs or power to raise them from the bed. For a week he has had night-sweats. The tactile sensibility is diminished up to the umbilicus; the other forms of sensibility are fairly good. The legs are weak; the power to co-ordinate movements in them is much diminished. He cannot stand without support, and closing his eyes increases his difficulty in standing. The electrical reactions are nor-The plantar reflex is diminished; the abdominal and cremaster are The knee-jerks are lively, and in the left leg there is a tendency to ankle clenus. Other symptoms are absent.
- 8. A young man of 32, of good antecedents and previous history, began two years ago to suffer from headache, nausea, and vomiting. The following year he had stiffness and weakness of the hands, and a convulsion beginning in and involving the left arm. About the same time he had loss of power in the left arm, the weakness extending to the whole left side. The arm became stiff and the sensibility was diminished. Vision and memory failed, and his speech was slow. He was occasionally delirious. When seen he had double optic neuritis, left herniplegia and left hernianaesthesia, most marked in the arm, contracture of the arm, and exaggerated tendon reflexes, with clonus on the left side. Convulsions were observed limited to the left arm, but occasionally involving the face. Headache, vomiting, vertigo, and mental impairment persisted. Other symptoms were absent.

CLINICAL OBSTETRICS. — Professor W. L. RICHARDSON.

- 1. Mammary abscess. Etiology? Treatment?
- 2. A woman, who had a mammary abcess in both breasts after a previous confinement, is delivered of a still-born child. What treatment, if any, would you recommend for the breasts?
- 3. Puerperal eclampsia. Premonitory symptoms? Treatment of a threatening eclampsia in the middle of the eighth month?
 - 4. Puerperal septicæmia. Symptoms? Treatment?
- 5. Death of the fœtus in utero during the seventh month. Symptoms? Treatment?
- 6. A multipara, whose previous labors have always been easy, has been in labor six hours. The os is fully dilated. The membranes are unruptured. The head has passed through the superior strait. The position is O. L. A. The pains are good. No progress has been made for one hour. Treatment?
 - 7. A baby is born during the seventh month. Prognosis? Treatment?
- 8. State the various causes which may explain a sudden rise of temperature during the fifth day after confinement.

OPERATIVE SURGERY. - Professor Porter.

- 1. Rules for ligature of ulnar artery low.
- 2. Rules for ligature of ulnar artery high.
- 3. Rules for ligature of external iliac.
- 4. Rules for ligature of common carotid at point of election.
- 5. Rules for amputation at hip-joint by circular method.
- 6. Rules for amputation at wrist-joint.
- 7. Describe operation of circumcision.
- 8. Describe operation of excision of the knee-joint.
- 9. Describe operation of excision of the upper jaw.
- 10. Describe operation of amputation of the thumb at meta-carpo-carpal joint by transfixion.

LEGAL MEDICINE. - Professor DRAPER.

- 1. Describe the centre of ossification in the lower epiphysis of the femur, with reference to its use as evidence for determining fætal age.
- 2. Give your estimate of the efficacy of drugs for the induction of abortion.
- 3. Describe the appearance of fœtal lungs and the changes wrought in them by respiration.
- 4. Give some examples of death by syncope, with a general summary of the post-mortem appearances.

- 5. What measures would you take for the resuscitation of a person apparently drowned?
- 6. What microscopic characters distinguish the red blood-corpuscles of the human subject from those of birds?

BACTERIOLOGY. — Assistant Professor Ernst.

- 1. What are the methods of development of the bacteria?
- 2. What are essentials of nutrient media for the growth of bacteria?
- 3. What is essential in a microscope for bacteriological work, and why?
- 4. Describe method of staining and appearance under the microscope of the gonococcus.

ADMISSION EXAMINATION PAPERS.

LATIN.

TRANSLATE: --

Vexabantur incursionibus Veientium Romani. Tum Fabia gens senatum adit. Consul Fabius pro gente loquitur: "Vos alia bella curate: Fabios hostes Veientibus date: istud bellum privato sumptu gerere nobis in animo est." Ei gratiae ingentes actae sunt. Consul e curiâ egressus, comitante Fabiorum agmine, domum rediit. Manat totâ urbe rumor: Fabios ad coelum laudibus ferunt; Fabii posterâ die arma capiunt. Nunquam exercitus neque minor numero, neque clarior famâ et admiratione hominum, per urbem incessit. Ibant sex et trecenti milites, omnes patricii, omnes unius gentis. Ad Cremeram flumen perveniunt.

PHYSICS.

- 1. Disregarding the resistance of the air, what distance will a body fall from a state of rest in six seconds?
- 2. At 0° C, the volume of a certain body of gas is 500 cu. cm. under a constant pressure; what will be its volume if the temperature is raised to 30° C.?
- 3. What is the equivalent of 24° F. in the centigrade scale? What is absolute temperature?
 - 4. Define density and specific gravity, distinguishing between the two.
 - 5. Define cohesion, adhesion, chemical affinity.
 - 6. What is the peculiarity in the expansion of water?
 - 7. Explain the term critical angle.
 - 8. Describe some form of constant battery.

FRENCH.

I. Translate: —

Nous nous proposions, après quelques jours de repos à Naples, de reprendre la même vie avec le pêcheur toutes les fois que la mer le permettrait. Nous nous étions si bien accoutumés à la simplicité de nos costumes et à la nudité de la barque depuis trois mois que le lit, les meubles de nos chambres et nos habits de ville nous semblaient un luxe gênant et fastidieux. Nous comptions bien ne les reprendre que pour peu de jours. Mais le lendemain en allant chercher à la poste nos lettres arriérées, mon ami en trouva une de sa mère. Elle rappelait son fils sans retard en France, pour le mariage de sa sœur. Son beau-frère devait venir au-devant de lui jusqu'à Rome. D'après les dates, il devait déjà y être arrivé. Il n'y avait pas à atermoyer: il fallait partir.

J'aurais dû partir avec lui. Je ne sais quel attrait d'isolement et d'aventure me retenait. La vie du marin, la cabane du pêcheur, l'image de G——y étaient peut-être bien pour quelque chose, mais confusément. Le ver-

tige de la liberté, l'orgueil de me suffire à moi-même à trois eents lieues de mon pays, la passion du vague et de l'inconnu cette perspective aérienne

des jeunes imaginations, y étaient pour davantage.

Nous nous séparâmes avec un mâle attendrissement. Il me promit de venir me rejoindre aussitôt qu'il aurait satisfait à ses devoirs de fils et de frère. Il me prêta einquante louis pour eombler le vide que ees six mois avait fait dans ma bourse, et il partit.

II. Write a few lines in French descriptive of some familiar place or object.

GERMAN.

TRANSLATE: --

- 1. "Du bist ein wunderlieher Kerl," sprach der Königssohn; "aber wenn du mir dienen willst, so komm mit." Nun zogen sie weiter und sahen einen Mann stehen, der machte einen langen Hals und schaute sieh um und sehaute über alle Berge hinaus. Sprach der Königssohn: "Wonach siehst du so eifrig?" Da antwortete der Mann: "Ich habe so belle Augen, dass ich über alle Wälder und Felder, Thäler und Berge hinaus und durch die ganze Welt sehen kann." Der Königssohn sprach: "Willst du, so komm mit mir, denn so einer fehlte mir noch."
- 2. Aber die Strömung wurde stärker und stärker; der Zinnsoldat konnte sehon da, wo die Brücke aufhörte, den hellen Tag erblicken; allein er hörte auch einen brausenden Ton, der wohl einen tapferern Mann erschrecken könnte. Man denke nur: die Gasse mündete da, wo die Brücke endete, gerade in einen grossen Kanal ein; das würde für ihn eben so gefährlich sein, als für uns einen grossen Wasserfall hinunterzufahren. Nun war er sehon so nahe dabei, dass er nicht mehr anhalten konnte. Der Kahn fullr hinaus, der arme Zinnsoldat hielt sieh so steif wie er konnte; Niemand sollte ihm nachsagen, dass er mit den Augen blinke.

ALGEBRA.

- 1. Multiply $x^2 + xy + y^2$ by x y.
- 2. Divide $\frac{2b^2}{a^3+b^3}$ by $\frac{b}{a+b}$.
- 3. Find the values of x and y in $x^3 y^2 = 15$, and $x^2 + y = 23$.
- 4. The sum of two numbers is 250; the square root of the lesser equals one third of the square root of the greater; what are the numbers?
 - 5. Subtract $3ab a^3 7x$ from $5ab + 2a^3 + 2x$.
 - 6. Add $x = \frac{3 a^2}{2 b}$ and $y + \frac{a x}{3 c}$.
 - 7. Divide $25 a^{-2} b^3 x 15 a b x 5 a b^2 x$ by $5 a b^2 x$.
- 8. A farmer had a flock of sheep, and after selling a third of the whole and buying seventy new ones, he lost half of the lot and had 134 left. What was the number in the original flock?

GEOMETRY.

- 1. Define a circle; a parallelogram; a line; an obtuse angle; a rhombus.
- 2. Prove that the square of the hypothenuse of a right-angled triangle equals the sum of the squares of the other two sides.
- 3. Prove that if two parallel lines are cut by a third straight line the exterior interior angles are equal.
- 4. Show that if two angles of a triangle be equal, the sides opposite the equal angles are equal and the triangle is isosceles.
- 5. Show that the three bisectors of the angles of a triangle meet in a point.

BOTANY.

1. With how many species of wild flowers in your own neighborhood

are you familiar?

Mention the botanical names and families of two or three peculiar to that neighborhood and ten (10) which are widely distributed through the United States.

- 2. Mention and describe some of the important plants (not necessarily indigenous) in the following orders: Umbelliferae, Lauraceae, Liliaceae.
 - 3. Describe the parts of a flower and their uses.
 - 4. Describe the process of fertilization in plants.
 - (a) Phaenogamous,
- (b) Cryptogamous.



