# ANNUAL CATALOGUE

OF THE

# MARYLAND COLLEGE OF PHARMACY.

INCORPORATED 1841.



SESSION OF 1891-92.

BALTIMORE:
PRESS OF ISAAC FRIEDENWALD CO.
1891.

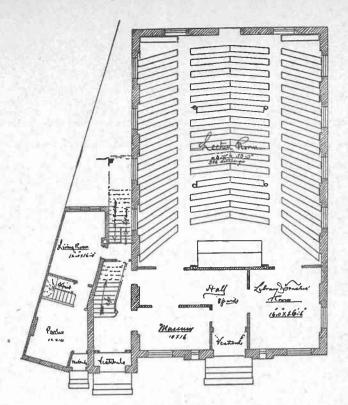


DIAGRAM OF FIRST FLOOR.

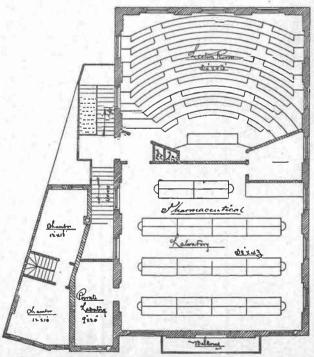


DIAGRAM OF SECOND FLOOR

#### DESCRIPTION

OF THE NEW COLLEGE BUILDINGS-AISQUITH STREET, NEAR FAVETTE.

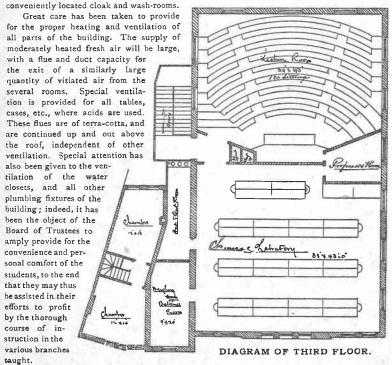
The main building is 45x85 feet, three stories in height. On the north side is the tower, and the staircase ascending to the second and third stories. Adjoining this is the Janitor's dwelling, a very next and substantial seven-room house. The cellar is of concrete and cement, extending under the entire building, in which are located the heating and ventilating apparatus, bins for fuel, and rooms for storage.

The building is built in the most careful manner, with the best materials of their several kinds. Facing the outer walk with the best sand bricks, laid with a cut joint in black mortar. The base to the main floor is of Woodstock granite, with Cheat River stone and terra-cotta used as trimming above this line. The principal entrance to the first floor is in the centre of the main building, overwhich is a balcony 4x20 feet. The main floor may also be reached by a wide doorway entering through the tower, by which is also reached the stairway 5 feet wide leading up to the second and third stories.

Located on the first floor is a large Lecture Hall, 43x63 feet, with a seating capacity of 412 students. To the right of the main entrance is located the Library and Trustees' Room; to the left, the Museum and apartment devoted to the Professor of Materia Medica, whose class occupies the main hall.

On the second floor is a Lecture Hall, 34x43 feet, with a seating capacity of about 200 students, devoted to the use of the class in Pharmacy. On the same floor is the Pharmaceutical Laboratory, 48x43 feet, with ample accommodation for about 100 students in the practical study of that branch. The various smaller rooms on this floor, in the tower, and over the stairway, are used as cloak and hat rooms, wash rooms, etc.

The third floor is occupied by the Professor of Chemistry, and is, like the second floor, divided principally into Lecture Hall and Laboratory, with the same capacity as the second floor. On this floor, and connecting with the Analytical and Chemical Laboratory, is the weighing-room and private laboratory of the professor. Also in the tower and over stairway, as on floor below, are



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General Quiz Instructor:
PROF. DAVID M. R. CULBRETH.

Assistant in Chemical Laboratory: WILLIAM SCHERER, Ph. G.

# CALENDAR OF SESSION 1891-92.

### 1891.

September 17th, at 9 A. M.—Fall examination for admission to Senior Class. September 22d, at 9 A. M.—First examination for Matriculation.

October 1st, at 3 P. M .- College Course opens.

October 5th, at 3 P. M .- Winter Course in Analytical Chemistry begins.

October 13th, at 8.45 P. M.-First Quiz Instructions for Seniors.

October 7th, at 9 A. M.—The Short and Long Courses in Practical Pharmacy begin.

October 14th, at 2.30 P. M.—First lecture in Practical Botany.

October 8th, at 8.45 P. M .- First Quiz Instructions for Juniors.

October 20th, at 9 A. M.—Second examination for Matriculation.

November 27th.—Short Course in Practical Pharmacy closes.

December 2d, at 2.30 P. M.—First lecture in Microscopy.

December 23d.—Last lecture before Christmas vacation.

#### 1892.

January 4th.-Lectures resumed.

January 5th.—Time expires for Presentation of Thesis.

January 18th and 20th, at 3 P. M.—Examination in Analytical Chemistry.
(Winter Course closes.)

January 27th and 29th, at 3 P. M.—Examination in Pharmaceutical Manipulations.

February 3d, at 3 P. M.—Spring Course in Analytical Chemistry begins.

March 1st.—Time expires for Presentation of Letters, Graduation Fee, etc.

March 9th, at 9 A. M.-Junior examination in Chemistry.

March 10th, at 9 A. M .- Junior examination in Materia Medica and Botany

March 11th, at 9 A. M .- Junior examination in Pharmacy.

March 14th, at 9 A. M.—Senior examination in Chemistry.

March 16th, at 9 A. M.—Senior examination in Pharmacy.

March 18th, at 9 A. M.—Senior examination in Materia Medica and Pharmacognosy.

March 21st, at 9 A. M.—The Board examination for Graduates.

April 1st, at 3 P. M.—First trip in the country with Practical Botany Class.

May 23d and 25th, 3 P. M.—Examination in Analytical Chemistry. (Spring Course.)

May 31st.—College closes.

# COMMITTEES FOR 1891.

ON UNOFFICINAL FORMULÆ. JOHN W. GEIGER, Chairman, W. M. Fouch, CHARLES C. HABLISTON, CHARLES H. WARE. GUSTAVE WOLTERECK. ANNUAL COMMENCEMENT. FRANCIS H. COPPER, Chairman, JOHN H. FRAMES, J. WEBB FOSTER, JR., F. A. HARRISON, J. FRED'K HEMPEL. REVISION OF PHARMACOPŒIA. WM. SILVER THOMPSON, Chairman, CHARLES CASPARI, JAMES P. FRAMES, Louis Schulze, A. W. McGlannan. LABORATORIES AND CHEMICAL APPARATUS. A. J. CORNING, Chairman, JOHN M. WIESEL, WILLIAM SIMON, RICHARD WILLIS. HERMAN NORDMANN, LIBRARY. D. M. R. CULBRETH, Chairman, HENRY MAISCH, J. FULLER FRAMES, M. S. KAHN, J. CHAS. SMITH. ORIGINAL PAPERS AND QUERIES. CHARLES SCHMIDT, Chairman, J. W. WESTCOTT, JOHN H. HANCOCK, A. J. McGlannan. C. Louis Dohme, DECEASED MEMBERS. JOHN F. HANCOCK, Chairman, S. N. APPLERY, ROBERT LAUTENBACH, W. A. SITES, GEO. B. SEAL. PUBLISHING COMMITTEE. SAMUEL MANSFIELD, Chairman, WM. CASPARI, J. B. THOMAS, MANES E. FULD. THEODRIC SMITH, AUDITING COMMITTEE. HENRY A. ELLIOTT, COLUMBUS V. EMICH. N. HYNSON JENNINGS, FINANCE COMMITTEE. WILLIAM SIMON. HENRY A. ELLIOTT,

# BALTIMORE.

#### ITS ADVANTAGES.

Baltimore is the seventh city in population of the country, and is at the head or second as a business and educational centre. Its elevation above and proximity to the sea give almost unequalled hygienic advantages, which, together with its superior drainage system, render the yearly health record phenomenally good. The climate, owing to its pleasant location, being midway between the extremes of North and South, is the most genial in winter and by no means oppressive in summer. The moral tone is high, and the religious sentiments strong. Immorality does not rear its brazen front with impunity; nor does the law by its inaction encourage vice or embolden its votaries. Young men from abroad desiring to master their profession seldom forget their home influences, and without exception leave our city with nobler and ofttimes more Christian characters.

Our city, in addition, offers to all who may desire, opportunities for culture in every branch of art and science. She is the seat of a number of the most noted institutions in this country, endowed by philanthropic citizens. Among them we mention the world-renowned Johns Hopkins University; the Peabody Institute, embracing one of the largest public libraries, a conservatory of music and an art gallery; the Enoch Pratt Free Library, with its imposing central building and its five branches in different parts of the city.

Students of Pharmacy can obtain tickets to the course of public lectures delivered at the Johns Hopkins University during each winter free of charge, by applying at the office in the University buildings. Tickets to a course of thirty lectures at the Peabody Institute on history, art, the natural sciences, etc., may be obtained at a merely nominal cost. At the Medical Schools of this city, students can make arrangements for courses in Anatomy, Physiology, Hygiene, etc. The Maryland Institute Schools of Art and Design is an excellent place for securing instruction in drawing, sketching, painting, etc. Besides these it will be found to be very improving to attend any of our many private educational institutions, business colleges, or private instruction, which can be engaged in all departments of learning, so that knowledge may be gained on subjects where weakness is felt, yet which may be essential for a good and successful business pharmacist.

Students who having had sufficient practical experience and not desiring to be in stores, yet aiming to lay a good foundation for their future career, cannot place too great an estimate upon such surroundings of literature, science and art.

# MARYLAND COLLEGE OF PHARMACY.

#### HISTORICAL.

Founding.—From the earliest days of the present century, Pharmacy, both as an art and science, seemed to have had, notably in this country, new life infused into it. Quite naturally, along with the rest, our city shared in this advance movement. In most places the business shaped itself after the English custom, modified by the prevailing superstitions of the Indians; but we here in Baltimore received our first impressions in higher pharmacy from France and from the French refugees.

The interest which that country took in the American Revolution seemed to stimulate young pharmacists to risk their fortunes upon our soil. From among these and the Acadian exiles Baltimore was furnished with several reputable apothecaries. In 1791, many persons fleeing from the massacre of Santo Domingo took refuge in our city, thus swelling its population to about fifteen thousand. Among these came one progressive pharmacist of rare ability and knowledge, in the character of Monsieur Edme. Ducatel. This man can well be said to be the father of higher pharmacy in this city. His store was located at No. 26 W. Baltimore St., north side, third door west of Harrison St. Here was conducted, until the early thirties, one of the largest, and by far the most scientific, retail drug-houses that Baltimore had ever known. From his store and under his tutelage came into the business such worthy lights as J. M. Laroque, Elias Durand, John Milhau, George W. Andrews and Thomas G. Mackenzie. These in turn soon established stores on their own account, so that by 1840 we could boast of a line of earnest and bright workers, all having the one object in view—to elevate and develop the possibilities of our vocation.

Up to this period the compounding of prescriptions was, for the most part, in the hands of the physicians, such work being frequently relegated to their more or less inexperienced students of medicine, who were then regarded as indispensable attachés to the doctor's office. Thus far the pharmacist was more a vendor of crude drugs—galenical preparations as were, at that time, in the trade, numerous quack nostrums, and a variety of other commodities in no sense

pharmaceutical, such as glass, paints, oils, dye-stuffs, etc. The number of medical agents were being continually augmented; a multiplicity of new chemicals were gaining popular favor, all of which made greater demand upon the physician's capacities and the druggist's knowledge and time. The former, as a class, were becoming well jaded in their effort to act in the dual capacity of prescriber and compounder, and had determined if possible to have relief from its responsibilities; while the latter, throughout our city, felt themselves per se unable to do justice to the new conditions of original investigation and manipulation. In addition to all this, pharmacal laboratories and factories on the large scale were in their infancy, so that metallic salts and other preparations had either to be manufactured by the apothecary or his reputation suffer. Times, therefore, seemed propitious for an acknowledgment and acceptance that the practice of medicine and that of pharmacy did not belong to and could not be satisfactorily followed by the one and same individual, and it was also ripe for more thoroughly educated and better trained pharmacists and assistants. The great step forward then was to elevate pharmacy in our midst, and towards this object, it must be said in all praise, that the medical profession, in the beginning, worked with the druggists heart and hand. It was from the start recognized by all concerned that the greatest lever towards effecting this purpose would be the establishing of an institution where could be properly taught the practice and science of our calling.

Organization.—It was to this end that on June 8, 1840, three prominent physicians, representing the Maryland Medical and Chirurgical Faculty, viz. Wm. E. A. Aikin, Wm. Riley and Samuel Baker, at the house of the latter, met the following representative pharmacists: Messrs. Thos. G. Mackenzie, Geo. W. Andrews, David Stewart, Robert H. Coleman, H. B. Atkinson, John Hill, Jonathan Chapman and J. W. W. Gordon. This meeting was presided over by Dr. Baker. It was both interesting as well as important, from the fact that it appointed a committee of five apothecaries to report subsequently the best plans for a College of Pharmacy in the city of Baltimore. On July 6, 1840, a general meeting was called of the regularly educated apothecaries in Maryland, in order that all might have an opportunity to express their views in reference to the project. Upon this occasion a committee was appointed to draft a constitution and by-laws, the report of which was received July 20, 1840, and from that date the Maryland College of Pharmacy has been in existence. Thus far there was but one thing needed to make it a legalized institution, and that was to have it incorporated by the Legislature. The memorial was presented before that honorable body by Messrs. Benjamin Rush Roberts and Robert H. Coleman, was passed January 27, 1841, and signed by the then Governor, Hon. William Grason.

The incorporators, seventeen in number, immediately organized and established a course of instruction in Chemistry, Pharmacy and Materia Medica. It was decided that lectures, for a while at least, should be delivered by the various willing members of the College in regular rotation. Seven having thus consented, entered upon their duties the first week in November, 1841. It was thus conducted until the close of the session 1843 and 1844, when it was considered best to have distinctive professors for each department. In consequence of this, the first chair filled was that of the "Theory and Practice of Pharmacy," to which Dr. David Stewart was elected, April 24, 1844. Dr. William E. A. Aikin, of the University of Maryland, was the lecturer on Chemistry, and Dr. William S. Reese on Materia Medica. These prosecuted their work vigorously until 1848, when, owing to lack of interest, death of some members and change of business of others (of the seventeen originators seven had sought other occupation and four had died, leaving but six who were active), they were compelled to suspend lectures. During these few years the College had graduated a number of our most prominent pharmacists, to whose efforts in resuscitating and reorganizing it in 1856 much is due.

Reorganization.—It was in the early part of this year that considerable interest in the institution was revived, so far that a committee of apothecaries waited upon the President of the then quiescent College, Mr. George W. Andrews, asking him to call a meeting of the old organization, to which were also to be invited all pharmacists throughout the city. This meeting was to consider the advisability of re-establishing the Maryland College of Pharmacy. It was held Feb. 25, 1856, cor. Lexington and Eutaw Sts., and was attended by thirty-one druggists. The old constitution and by-laws were revised, a code of ethics adopted, new officers installed, and a corps of professors elected. From that day forth she has suffered no interruption. It will thus be seen that the Maryland College of Pharmacy, like all institutions maintained by individual effort and means, has seen her days of trial, but through

all she has borne herself onward and upward. Her motto has always been quality, not quantity, in her alumni. She has constantly added facilities for imparting instruction as advance demanded, and the result has been a steady progress in the prosperity of the school, both in the number of students and in material ability. She was not only the first institution of her kind to establish a professorship of Pharmacy, and thereby denominate to that scientific branch an individuality of its own, but also was the leader in making the course in Analytical Chemistry obligatory. Besides that, she has always aimed to elevate pharmaceutical education, and, with no sense of rivalry, has ever advanced and aided, by co-working with sister institutions, the professional part of the healing art. Only a few years ago the same course of lectures was given to both Juniors and Seniors; now the departments are separate, so that twice the matter is gone over and taught as was done formerly. Besides that, all Juniors must pass a successful examination before admission can be gained to the Senior Class. All Juniors, to matriculate, must pass an entrance examination. Practical Pharmacy has been made to have two courses, one short, compulsory, and one long, optional. Microscopy, Practical Botany and General Quizzes have been introduced as demanded necessities. These, though not all, show conclusively that she has kept pace and watched with a keen eye all professional interests. We are all thankful that she is now on a firmer foundation and in a more healthy condition than ever before. Having this year just celebrated, with appropriate public ceremonies, her semi-centennial or fiftieth anniversary, she now enters the second era of her first century, strongly fortified and under auspices most favorable in kind-Within the fifty years of her existence she has had the following Presidents, ten in number:

Thomas G. Mackenzie, July 20, 1840, to July 20, 1842. Benjamin Rush Roberts, July 20, 1842, to Sept. 24, 1844. George W. Andrews, Sept. 24, 1844, to July 13, 1871. J. Brown Baxley, July 13, 1871, to Jan. 11, 1872. J. Faris Moore, Jan. 11, 1872, to July 10, 1873. John F. Hancock, July 10, 1873, to July 8, 1875. Joseph Roberts, July 8, 1875, to Jan. 31, 1888. Edwin Eareckson, Feb. 16, 1888, to July 17, 1890. William S. Thompson, July 17, 1890, to Jan. 15, 1891. Louis Dohme, Jan. 15, 1891

Professorships.—For the first three sessions these duties were divided, in alternation, between seven of the College members, but in 1844 it was thought best to elect regular professors to the three chairs, which has ever thus been continued in turn upon the following gentlemen:

### Pharmacy.

David Stewart, April 24, 1844, to April 28, 1846. Israel J. Grahame, June 5, 1856, to Feb. 23, 1860. L. Phillips, April 10, 1860, to March 14, 1861. J. Faris Moore, March 21, 1861, to March 8, 1879. Charles Caspari, Jr., March 8, 1879

### Chemistry.

Wm. E. A. Aikin (Lecturer), 1844–1846.
Lewis H. Steiner, June 5, 1856, to June 12, 1861.
Alfred M. Mayer, Aug. 22, 1861, to Sept. 1, 1864.
Lewis H. Steiner, Oct. 6, 1864, to Sept. 11, 1865.
John C. Carter, Sept. 11, 1865, to June 1, 1866.
Thomas Helsby, June 1, 1866, to Sept. 18, 1868.
M. J. DeRosset, Sept. 18, 1868, to April 1, 1873.
William Simon, April 1, 1873

### Materia Medica and Botany.

David Stewart and Wm. S. Reese (Lecturers), 1844–1846. Charles Frick, June 5, 1856, to April 7, 1858. Frank Donaldson, April 7, 1856, to Sept. 3, 1863. J. R. Winslow, Sept. 7, 1863, to Feb. 15, 1866. Claude Baxley, June 1, 1866, to March 8, 1879. J. Faris Moore, March 8, 1879, to Feb. 1, 1888. David M. R. Culbreth, Feb. 16, 1888 ————

#### THE COLLEGE BUILDINGS.

Until 1876 the College occupied halls rented for her purposes. It was in the early part of that year she purchased one of the city grammar schools, and, after having radical yet suitable changes made during the summer, she was enabled that fall to remove to and occupy it as her commodious home. As classes began to increase, needed facilities to multiply, and new apparatus to be procured, gradually the fact was plain that other provisions had to be made for her accommodation in space. The Trustees at once decided to erect such buildings as would not only in every feature be perfect

and complete, but in all details to be second to none in this country. The Trustees, with the Professors, visited the foremost and most recently built laboratories of both pharmaceutical and academic colleges. With this, together with their knowledge of similar foreign institutions, they had the nucleus for planning the finest of buildings. The services of one of the best architects of our city were secured, who, in conjunction with one of the largest builders, oversaw the well-digested plans daily nearing completion. It is not boasting when we affirm it to be the most modern Pharmaceutical College of the land, and it is not egotism to say that the College is proud of herself and the very many advantages she now offers to the student of Pharmacy, which heretofore have been truly impossible. Adjoining the main building is that of the Janitor, and this is of great advantage, as it affords constant attendance and supervision over the College.

#### CHEMICAL AND PHARMACEUTICAL LABORATORIES.

The Pharmaceutical Laboratory and Lecture Room occupy the entire second floor, 45 x 85 feet. The Chemical Laboratory and Lecture Room occupy the entire third floor, 45 x 85 feet. These new laboratories have been planned after the most approved of this and of foreign countries. They are completely fitted up with the most modern scientific appliances, and are well stocked with all necessary apparatus, models, materials and specimens. The commodious lecture-rooms, with work, scale and store-rooms attached, are provided with every convenience for exhibiting a complete series of experiments on General Chemistry and Practical Pharmacy. The large working-rooms assigned to Analytical Chemistry and Practical Pharmacy will each accommodate one hundred students, and are furnished with the most modern work-tables, gas and water apparatus. In fact, all the proper laboratory fixtures, all requisite appliances, chemicals, minerals, materials for analysis are kept constantly supplied by home and foreign purchase. As the progress of science may demand, all additions in every line will be supplied, so that time will not be lost nor money spared in increasing the perfection of the present unsurpassed facilities.

# LIBRARY.

While the College has always had a representative collection of books, yet it never has, until this year, been in a position to offer the students and pharmacists the very best advantages in the land. The Alumni determined not to allow the College's fiftieth anniversary to pass without showing some favorable recognition of the event; consequently had handsome cases built, filled them with valuable books, and presented thus a new library to their Alma Mater as a semicentennial gift. While these books are for general use, they are not to be taken outside of the Library room. Certain afternoons are set aside during each week when free access and consultation can be had under the guidance of the Librarian.

Besides books there are many leading periodicals, both home and foreign, from which the students have an opportunity of keeping well posted in the progressive portion of their profession. While it is the purpose of the College to expend yearly a certain amount in the purchase of new books, there are many older works which can not be bought, but which she very much desires. Many of these are in the hands of the various members, and if any one at any time feels disposed towards turning them to the best account, the College would most gratefully receive and preserve them.

#### THE MUSEUM.

The College has a good collection of Materia Medica, Botanical, Chemical and Pharmaceutical specimens. These are interesting, from the fact that many of them are rare and have been collected from noted provinces with great care. All these are labeled and preserved in suitable glass-door cases, in a room adapted for the purpose. The botanical herbarium, consisting of pressed plants arranged and classified according to natural order, is comparatively new, but under the guidance of the professor of that department, assisted by the students, great additions will be made every year.

#### LOCATION.

The College buildings are located on Aisquith St., two doors north of Fayette St. They are easily reached from all parts of the city. Passenger railway cars pass the doors and connect with the various lines throughout the city.

# ANNOUNCEMENT.

#### CHANGE IN THE LENGTH OF TERM.

On May 16, 1889, the Board of Trustees decided to extend the term of instruction to cover a period of SIX MONTHS, the change taking effect at the beginning of the College year 1889–90.

The exact date of beginning and ending of lectures can be seen from the Calendar.

#### PRELIMINARY EXAMINATION.

No student will be admitted to the regular course for graduation at the Maryland College of Pharmacy who does not pass a preliminary examination in the ordinary branches of an English education taught in grammar schools, or must furnish in its stead a certificate of having passed an examination equivalent to that required for admission into the high schools of this city.

The preliminary examination will be conducted by the Board of Examiners at the Hall of the College, Aisquith Street, on Tuesday, September 22d, beginning at 9 o'clock A. M., and, for the accommodation of those who are not able to attend on that day, a second examination will be held on Tuesday, October 20th, at 9 A. M.

As the requirement by Colleges of Pharmacy of a preliminary examination for matriculation has become general, pharmacists should in the future inquire into the intellectual attainments of those whom they wish to engage as apprentices, and should point out to them the importance of their having received sufficient education. Any special student may become a regular student and be eligible for examination and diploma when he shall have met the requirements noted above, as also those for graduation. (See page 34.)

#### COURSE OF INSTRUCTION.

The regular course of instruction at this College is graded. A full course extends over a period of two sessions, of *six* months each. It is divided into a *Junior Course* and a *Senior Course*. By this arrangement the professors are enabled to extend their lectures over a larger field in their respective departments, and likewise to teach the elementary part of the studies to the first year, or junior, students,

and the more advanced portions to the second year, or senior, students.

#### CURRICULUM.

The curriculum is divided into compulsory and optional studies.

Compulsory embraces Pharmacy, Short Course Practical Pharmacy, General Chemistry, Practical and Analytical Chemistry, Materia Medica, Botany and Pharmacognosy.

**Optional** embraces Long Course Practical Pharmacy, Microscopy, Practical Botany and Quiz Instruction.

The session of 1891-92 will open on Thursday, October 1st, and the lectures will be delivered as shown by the Roster, 2d page of cover.

Students are specially requested to be in attendance from the opening of the course.

#### PHARMACY.

#### PROFESSOR CASPARI.

Junior Course.-A part of each Tuesday afternoon during the session will be devoted to the delivery of the lectures in this department to the Junior Class. (See Roster, 2d page of cover.) The course will comprise a comparative review of the pharmacopœias, and of the weights and measures in authoritative use by pharmacists in the United States, Great Britain, Germany and France. The principles of specific gravity will be elucidated and illustrated by practical applications demonstrating its usefulness in pharmacy. The various manipulations to which crude drugs are subjected during the process of preparation for dispensing and administration will be treated of at length. These include the various methods of pulverization, solution, separation, etc. Extemporaneous Pharmacy will be given full consideration further on in the course, and the most recent improvements in apparatus and methods of working will be exhibited to the class. In this, the Junior Course, such pharmaceutical preparations will be studied in the production of which no chemical processes are resorted to-e.g., abstracts, fluid and solid extracts, tinctures, syrups, etc.

Senior Course.—The lectures on Pharmacy to the Senior Class will be delivered on each Tuesday afternoon during the session. (See Roster.) They will be devoted principally to Pharmaceutical Chemistry. The leading features and offices of

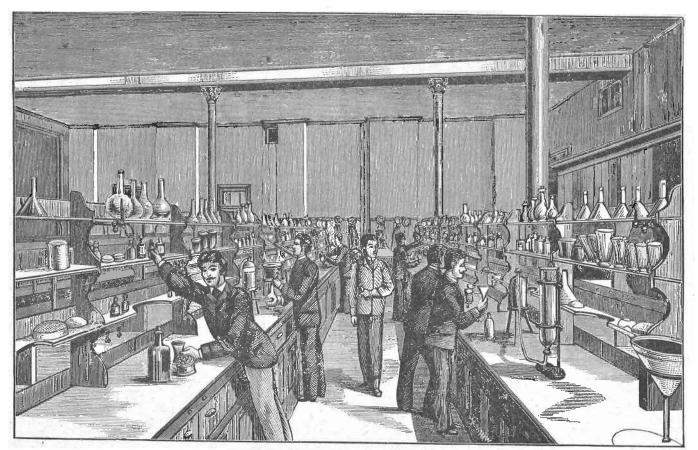
Pharmacy as lectured on in the Junior Class will be carefully reviewed during a few hours at the opening of the course, in order to bring them again to the attention of the student. The subsequent lectures on Pharmaceutical Chemistry will embrace a study of chemicals from the mineral, the vegetable and the animal kingdoms, to the extent of their pharmaceutical interest, their consideration from a purely chemical standpoint being left to the department of Chemistry. In the lectures on the mineral preparations, the mineral acids, the salts, and other combinations of the alkalies, alkaline earths, earths and heavy metals will be included. preparation of all important Pharmaceutical Chemicals will be exhibited, with accompanying explanations and application of the various tests of purity. All the more important medicinal chemicals derived from the vegetable kingdom will be studied in their proper order, special attention being given to those officinal in the United States Pharmacopæia. The concluding lectures will be devoted to the consideration of those medicinal agents which are products of the animal economy.

#### LABORATORY COURSE IN PHARMACEUTICAL MANIPU-LATIONS

PROFESSOR CASPARI, DIRECTOR.

The Pharmaceutical Laboratory was established to supply a need occasioned by the departure of many pharmacists from the proper practice of producing their own pharmaceutical preparations, and instead, relying, in some instances exclusively, on the wholesale manufacturer for a supply. Thus many apprentices are deprived of the opportunity in the shop to become skillful in the various pharmaceutical operations, and possessed of the important and necessary qualification, self-confidence.

This College, to supply, at least to some degree, a remedy for this growing evil, here offers a place for practice under the guidance of a competent instructor. The laboratory has a capacity for the instruction of about one hundred students at one time, and in its equipment and arrangement great pains were taken to make it complete. Each table is supplied with gas and water, and each has connected with it a closet with lock and key, for the safe-keeping of apparatus and finished and unfinished preparations. Each student assumes personal charge of the table and closet assigned him, and thus secures his labors against outside interference during the intervals between the hours spent in the laboratory.



PHARMACEUTICAL LABORATORY.

Heretofore this course has occupied two afternoons per week for four months, and has been optional. On May 8th, 1886, the Board of Trustees decided to establish a Short Course of two days per week, Wednesdays and Fridays, during the months of October and November; this to be devoted to Dispensing and Extemporaneous Pharmacy, to be obligatory as a requisite for graduation. This course is also open to medical students. At the same time they established a Long Course of two days per week during the months of October, November, December and January, to include the Short Course up to December, and thereafter to continue on with Manufacturing Pharmacy. This not to be compulsory.

At the coming session (1891–92) the Short and Long Courses will begin together, Wednesday, October 7th, at 9 A.M. On November 27th, 1891, the Short Course closes. The Long Course continues till January 22d, 1892.

The Short Course of instruction will include thorough instruction in the various manipulations of the dispensing department, including the preparation of pills, emulsions, complex mixtures, suppositories, lozenges, ointments, plasters, etc.; also the correct reading and writing of prescriptions, and the translation of same from one system of weights and measures to another. Practice in the use of specific gravity bottles and hydrometers, as well as the preparation and use of the volumetric test solutions of the Pharmacopæia.

The Long Course of instruction, in addition to the above, will include preparation of abstracts, fluid and solid extracts, syrups, ointments, oleo-resins, the various iron and other chemical solutions, oleates, granulated effervescent salts, and such other chemicals as the competent apothecary can make with pecuniary advantage to himself.

The value of such courses of instruction must be apparent to all, and the final examinations thus far have given evidence of good results therefrom. Attendance upon the Long Course is optional, yet a rigid examination in both courses of Practical Pharmacy must, however, be successfully passed by each candidate for graduation before he shall be entitled to receive his diploma. It is therefore strongly urged that all members of the Graduating Class avail themselves of the opportunity offered in the laboratory of becoming skilled in the various manipulations necessary to perform successfully their duties as pharmacists.

Apparatus and material will be furnished without extra cost to students. Broken or injured articles must, however, be replaced by them.

#### SPECIAL LABORATORY COURSE.

It is in contemplation to establish a special class in advanced pharmaceutical work, provided the number of applicants for same will justify the undertaking. The course will include pharmaceutical assaying, examination of medicinal chemicals, urinary analysis, etc., etc. The days and hours of work, as well as other arrangements, will be made known upon application to the director in charge after August 1, 1891.

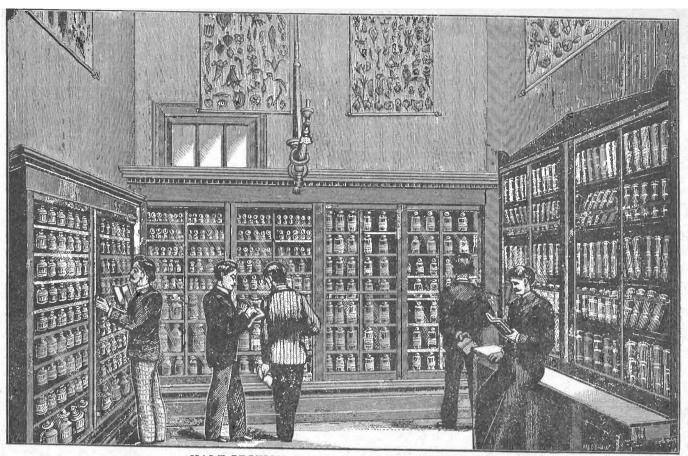
#### BOTANY AND MATERIA MEDICA.

PROFESSOR CULBRETH.

Junior Course.—There is no question as to the very close relationship existing between these two subjects. In order to understand thoroughly and to comprehend intelligently the true nature of pharmacopœal vegetable drugs, it is essential that the student at least have a general idea how such remedial agents germinate, assimilate and mature into useful medicines. For such potent reasons, two-thirds of the first session will be devoted to Structural, Microscopic, Physiological and Systematic Botany. The great object sought is to thoroughly acquaint the student with the minutiæ of these several botanic departments, so that each and every one can afterward independently pursue the study intelligently and with a degree of perfect self-reliance. It has been found that unless one is conversant with Plant Analysis, Botany will be a difficult and an uninteresting study. It is, therefore, to correct such apprehensions that much stress is placed in particular upon classification. These lectures will be illustrated by fresh as well as dry specimens, also by plates and diagrams designed expressly for the College.

The geographical distribution of plants in general will be considered, with special reference to those of medical interest. How active constituents are formed during plant life, and the natural classification of the entire vegetable kingdom, will receive due attention. The latter portion (one-third) of the session will begin with the explanation and definition of the various therapeutical terms employed in text-books for describing the medicinal properties of drugs, and will be followed in natural sequence with the simplest and most easily grouped, while the more difficult and active substances will be reserved for the second year.

Senior Course.—Will be entirely devoted to Materia Medica and Pharmacognosy. The botanical and



HALF SECTION OF MATERIA MEDICA MUSEUM.

commercial history, physical properties and characteristics, important constituents and therapeutic uses of each drug, together with the officinal preparations and their doses, will be fully presented to the class. The College is in possession of three distinct sets of drugs: First, known as the "Students' Collection." These are in cases, with glass fronts, securely fastened to the lecture-room walls. students have free access at all hours, so that by close and continuous contact much knowledge is intuitively absorbed which otherwise would not be. Second, "College Collection." Inasmuch as many of these are rare specimens, and could not well be replaced, they are simply used to lecture from. Third, "Reserved Collection." This has been made from time to time for Pharmacognosy work, and consists of specimens in considerable quantities, both crude and commercial, of every U. S. P. (1880) drug belonging to vegetable and animal kingdoms. From these all specific characteristics are studied by contact, and the distinctive features between the good and inferior quality pointed out.

Pharmacognosy.—To the chair of Materia Medica has been added Pharmacognosy. The detection of adulterations or inert substances with commercial drugs of the vegetable kingdom will be the great object sought.

All graduates have to pass an oral examination in this branch. This consists in naming at sight with complete description of about forty specimens of natural and foreign drugs, including the detection of many admixtures liable to be therein present.

All specimens exhibited and handled in connection with these lectures are a part of the College cabinet and must receive careful treatment. Students will be given time whenever desired and at the close of each lecture to examine them. Each specimen is enclosed in a suitable vessel, usually of glass, properly labeled with botanical source, natural order and habitat. The collections have been obtained at the cost of great pains and labor, and it will be expected of each student that he exercise the greatest care with them. Should any student wilfully injure or abstract them from their containers he will be peremptorily expelled from the College.

#### CHEMISTRY AND TOXICOLOGY.

PROFESSOR SIMON.

Modern society requires professional men more and more to know precisely and critically what they profess to know. In sympathy

commercial history, physical properties and characteristics, important constituents and therapeutic uses of each drug, together with the officinal preparations and their doses, will be fully presented to the class. The College is in possession of three distinct sets of drugs: First, known as the "Students' Collection." These are in cases, with glass fronts, securely fastened to the lecture-room walls. students have free access at all hours, so that by close and continuous contact much knowledge is intuitively absorbed which otherwise would not be. Second, "College Collection." Inasmuch as many of these are rare specimens, and could not well be replaced, they are simply used to lecture from. Third, "Reserved Collection." This has been made from time to time for Pharmacognosy work, and consists of specimens in considerable quantities, both crude and commercial, of every U. S. P. (1880) drug belonging to vegetable and animal kingdoms. From these all specific characteristics are studied by contact, and the distinctive features between the good and inferior quality pointed out.

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#### CHEMISTRY AND TOXICOLOGY.

PROFESSOR SIMON.

Modern society requires professional men more and more to know precisely and critically what they profess to know. In sympathy with this demand, the College provides a complete course in Chemistry, that science out of which is born a greater part of our exact knowledge of Pharmacy.

We are indebted to chemistry for what we know of the nature and constitution of nearly every substance with which the pharmacist is surrounded and has to deal with. It is therefore but natural that chemistry occupies a prominent position in the rank of the various sciences taught at our College.

All lectures in this department are amply illustrated by experiments, and no efforts are spared to render the course thoroughly instructive, the main object being to present the science as a whole, and at the same time to point out those facts which bear a special relation to pharmacy.

Junior Course.—The lectures in this course will be delivered every Tuesday afternoon during the session. (See Roster.) Several lectures at the beginning of the course will be devoted to a brief study of Physics, in which the constitution and fundamental properties of matter, the phenomena of electricity and heat, and their application and service in Pharmaceutical and General Chemistry will be treated of. A few succeeding lectures will be devoted to the teaching of the modern theories and the principles and laws of Chemistry. The remainder of the course will constitute a study of the non-metallic elements and their various compounds, with special reference to those of interest to the pharmacist.

Senior Course.—The lectures in this course will be delivered on each Thursday afternoon during the session. (See Roster.) At the beginning of the course a few lectures will be devoted to advanced Theoretical Chemistry, for the comprehension of which the student will have been prepared in the Junior Class during the previous session. These lectures will also comprise a general review of the studies pursued in the Junior Class. Then will follow a study of those metallic elements and their combinations which are of special importance to the pharmacist. The remaining and greater portion of the course will be devoted to the study of the Chemistry of the Carbon Compounds, or Organic Chemistry. This will form the main feature of the Senior Course, and will include a study of the alcohols, ethers, organic acids, fats, carbohydrates, alkaloids, etc. The general features and constitution of the various groups will first be pointed out, and subsequently the important

members of each will be studied separately. The formation in nature and manufacture by artificial means will be given due attention. Thus, by a gradual advance, the study of Organic Chemistry is simplified, and the student enabled to acquire at least a fair knowledge of this, at the present day, so highly developed branch of chemistry.

Throughout the course stress will be laid on the study of poisons, the methods employed for their detection, and their proper antidotes; also on the dangers arising from chemical incompatibilities, with which the student is so often confronted in extemporaneous compounding.

#### PRACTICAL AND ANALYTICAL CHEMISTRY.

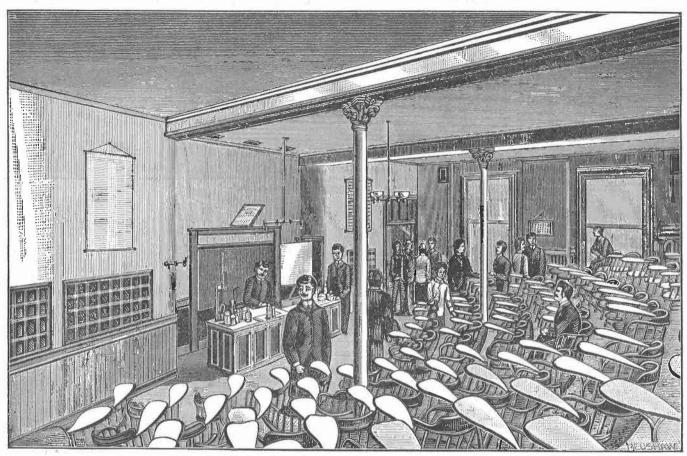
PROFESSOR SIMON, DIRECTOR.

Chemistry is mainly an experimental science, resting on a foundation of facts which can be readily verified by practical demonstrations. Whilst many such demonstrations are given during the lectures, yet it is of the greatest importance that the student familiarize himself with the various modes of chemical operations, that he apply the knowledge acquired during the lectures to a practical test, and demonstrate for himself the truth and accuracy of the assertions.

The value of such a practical training in chemical manipulations cannot be overestimated, and the means of obtaining it are afforded to the student in the well-equipped chemical laboratory. Here a systematic course in chemical operations and in qualitative analysis is pursued, special attention being given to the recognition of officinal chemical preparations and the detection of possible impurities in the commercial articles.

The great value and necessity of a knowledge of Analytical Chemistry to every prudent and intelligent pharmacist must be conceded. The Board of Trustees of this College several years ago included this study in the regular curriculum, and made the attendance upon at least one course of analytical instruction a requirement for graduation. (See "Requisites for Graduation," page 34.)

In order to accommodate those students who may desire to leave the city after lecture season, and to give those Junior students who desire to take an extra course in Analytical or General Chemistry an opportunity of doing so, the Chemical Laboratory Course will be held both in Winter and Spring—the Winter Course beginning October 5, 1891, and ending January 20, 1892; Spring Course beginning February 3, 1892, and ending May 25, 1892. The ex-



CHEMICAL LECTURE HALL.

aminations in this branch will be held at the conclusion of each course, and, if successful, will be final.

Students in this department will be supplied, without extra charge, with most chemicals and reagents needed, as also with all apparatus, excepting those which are generally used up during a session.

#### LABORATORY COURSE IN CHEMISTRY.

PROFESSOR WILLIAM SIMON.

Aside from the regular course in Analytical Chemistry, there will be given laboratory instructions, both to beginners and advanced students, in the various branches of General and Analytical Chemistry.

As there is always a number of students who prefer to devote their whole time to scientific work during their years of study, instead of attending to duties in a drug-store, these students will now have the opportunity of making excellent use of their time by working in the laboratory.

Beginners in Chemistry will here be made familiar with chemical operations generally, by working out simple processes of combination or decomposition, by repeating for themselves the experiments seen, or applying the various tests to the different substances spoken of during the previous lecture.

The advanced student will have the opportunity of familiarizing himself with gravimetric or volumetric determinations, with analysis of organic substances, with toxicological methods, with the manufacture of chemicals, or with any other kind of chemical operations.

Such laboratory courses may be attended by others than pharmaceutical students, and special arrangements regarding hours of working, length of course, etc., will be made with applicants.

#### MICROSCOPY AND PRACTICAL BOTANY.

PROFESSOR CULBRETH.

This department is divided into two courses. Neither is obligatory, yet both are of so much interest and importance to the progressive pharmacist that the College strongly advises all students who possibly can, to accept their unquestioned advantages.

Instruction in either of these courses will not be given to classes of less than ten (10) in number. They are open to both Junior and Senior students, and the subject-matter is so arranged and presented as to aid and facilitate the allied College studies. Good work has characterized this department, and its students have in their business

interests turned their knowledge therein gained to great profit and usefulness.

I. Microscopy.—The Microscopical Laboratory is fitted up with the newest and most modern apparatus, and can conveniently accommodate from fifteen to twenty. While students can use the microscopes belonging to the College, it is far preferable that each individual have his own instrument. The College recommends no special kind or make, simply suggests that any will answer perfectly well for the work that has an 1-4 or 1-5 objective. Separate tables, with locked desk, are assigned to each student, and every one can conduct his investigations entirely as pleasure directs. Although lectures are only one hour each week, students are allowed all the extra time they may wish in the laboratory to make themselves proficient in the subjects taught. Lectures begin on the first Wednesday in December (2d), and continue till the end of the session. The course will consist in teaching the most approved methods of microscopical manipulations and investigations, including the preparing and mounting of different classes of objects, Drawing with Camera Lucida, Urinary Analyses, Section Cutting, Double Staining, Dry and Wet Mounts, Detection of Adulterations, Finishing Slides, etc. The great object is to familiarize the student perfectly with the microscope. It is well known that without this instrument the study of the real structure of vegetable organisms cannot be pursued; also equally difficult would it be to gain an understanding of the physiological life of plants without its use. Practically, its usefulness cannot be overestimated in serving to detect in the plant cell the minutest quantities of cellulose, lignin, starch, inulin, cane and grape sugar, gums, resins and oils.

Class will meet on Wednesday afternoon, from 2.30 to 3.30 o'clock, beginning December 2d, 1891.

II. Practical Botany.—This course is intended to perfectly familiarize the student with the natural appearance of indigenous medical plants. One lecture each week will be delivered during October, November and December upon Structural Botany. Fresh specimens of typical characteristics will, when practicable, be brought before the class, and these, together with drawings, blackboard sketchings and herbarium specimens, render the course interesting and impressive. Plant analysis is then taken up, into which the students enter with their whole heart

and soul. By spring they are prepared to classify almost any plant presented to them. During the months of April and May weekly excursions into the country will be made for the purpose of collecting, studying and pressing medical plants. These will be under the individual direction of the Professor.

The peculiar geographical position of Maryland, lying as it does between the northern and southern belts of States, and the surface elevation varying from the sea level to an altitude of 3500 feet, gives it a variety of flora unsurpassed in facilities for the study of Practical Botany. The great and increasing demand for this branch of Materia Medica, so important to the pharmacist, has induced the College to add this chair to the curriculum.

The lectures to this class will be delivered every Wednesday afternoon during the months above named, from 2.30 to 3.30 o'clock, beginning October 14th, 1891. Friday afternoons, from 3 to 7 o'clock, weekly, will be used during the two spring months for the Field Botany work. Tickets for these courses to be procured of the Treasurer at the opening of the session.

### QUIZ INSTRUCTION—JUNIOR AND SENIOR.

PROFESSOR CULBRETH, INSTRUCTOR.

The proper standing of all educational institutions is judged by the quantity and quality taught in each and every branch. This College, ever mindful of that fact, while not sacrificing the thoroughness in the least, has always persisted in condensing and crowding into all the regular lectures as much matter as each hour and a half would possibly allow. In order to gain more time, so as to include the teaching of many new methods and appliances that are being made by the rapid advance in scientific studies, the Board of Trustees, in justice to the students, several years ago felt compelled to either increase the number of recitation hours in every branch, or relieve each chair of the accustomed half-hour reviews which, by precedent, had followed each lecture. After wise and well-digested deliberations the latter plan was considered by far the more feasible and acceptable. This elimination of the "reviews" from the regular professors enables them not only to embody much new material, but to treat the more intricate and searching subjects with proper consideration. Naturally, the scope in every line being broadened, the entire College course became necessarily more difficult and harder to master, so that ofttimes the students were ill-prepared to pass successfully the final examinations. Indeed, so many failures occurred that the College determined to establish a needed necessity, a general and independent "Quiz" for the Senior Class, and at the same time elected to take charge of same, one of the professors. The success with which this class has already met is truly remarkable. It has far exceeded in every way the most sanguine expectations of its strongest and most hopeful advocates. The students seem to recognize its great advantages, and, with few exceptions, become not only its members, but diligent workers. The College record shows that no student has ever failed to graduate who attended faithfully the "Quiz," and, furthermore, that in no year has less than five-sixths, and in some every one of the prize medals were won by its members. These facts alone are the highest possible testimonials of its work, worth and merits. The "Quiz" has not only shown a prominence in these points, but has undoubtedly contributed very materially towards elevating the general status of each graduating class.

Seeing the unmistakable good it had done for the Seniors, the Board of Trustees, at a meeting several years ago, thought the best possible thing they could do was to establish a separate "Quiz" for the Juniors. Such a large percentage, sometimes one-half, of this class has heretofore been accustomed to fail in passing the entrance examination to the Senior Class, and it has been found that this Junior "Quiz" has in the greatest possible measure remedied this hitherto existing evil. It also has been observed to be the means of instilling harder study and better conception of the various subjects, coming as it does a week after the regular lectures and rehearsing minutely their details.

The Senior Quiz embraces the entire course as taught in this College, including as much as is practical of the Junior work. This is made necessary, from the fact that the graduating examinations are taken not alone from the last, but at random from both years' studies. This Quiz will meet every Tuesday evening during the session, from 8½ to 9½ o'clock. First meeting will take place in the Pharmaceutical Lecture Hall, Tuesday, October 13, 1891.

The Junior Quiz will include a thorough review of all the lectures delivered to that class by the various professors. This Quiz will meet every Thursday evening during the session, from 8\frac{3}{4} to 9\frac{3}{4} o'clock, in the Pharmaceutical Lecture Hall. The

first meeting will take place Thursday, October 8, 1891. In each Quiz systematic questions are asked, problems worked and blackboard exercises demanded of the students. Practical methods are always insisted upon where theory might have tended to confuse. Tickets for both classes to be procured of the Treasurer at the beginning of the session.

#### SPECIAL STUDENTS.

The laboratories and lecture courses of this College are open to others than candidates for graduation in Pharmacy. Students desiring to prepare themselves for teaching Chemistry, Botany or any of the other branches taught at this College, may avail themselves of the facilities offered for a thorough instruction in these branches.

There is a growing demand on the part of railroad corporations and large manufacturing industries for salaried chemists to test the quality of materials purchased or of products manufactured. Young men wishing to prepare themselves for work of this kind will find excellent advantages in our Chemical Laboratory and in our lecture courses on Botany and Chemistry. After matriculating, arrangements can be made with the Director in charge as to fees, etc.

Any special student may, upon payment of Ten Dollars (\$10), be entitled to an examination, and if found proficient in his special branch, a Certificate of Proficiency will be granted him.

#### PARTIAL JUNIOR AND SENIOR EXAMINATIONS.

Owing to the desire on the part of many students for the past few sessions to extend their studies beyond the prescribed number of years, the College, in order to stimulate such ambition and thereby increase scholarship and not cramming, allows all who have attended a full course of lectures in any one department to present themselves at the annual examination in that branch. This will be final to those who pass successfully. (Sixty per cent. of correct answers being required to each branch.) By this arrangement students are enabled to take out tickets for only one class, if they prefer, and devote their whole time and talent to that alone. It is thought this will have a tendency to specialize each year's work, so that in the end the generalization of knowledge will even be at a higher standard. Many who are employed in stores and have limited time for study may, by this arrangement, having their College course extended over three, four or six years, become proficient gradually, without losing appre-

ciably much time from duty. This applies to both Junior and Senior

Although two years is the regular required minimum attendance to the College lectures—one to the Junior and one to the Senior Course—nevertheless six years is the maximum—three in each. Students who consecutively for three years apply for examination in either Junior or Senior Course, and are each year unsuccessful, will be barred from further recognition by the College. The Trustees think it wise for those who should be so unfortunate as to fail, after taking each class three years, to enter upon some other vocation where less talent is required, and they have drawn this restriction so that unnecessary time by such students may not be lost.

#### ANNUAL EXAMINATIONS.

The Board Preliminary Examination.—The first examination of applicants for matriculation at the coming session will be held on Tuesday, September 22, 1891, beginning at 9 A. M.; and the second, which is held for the accommodation of those who may have been unable to be present at the first, will take place on Tuesday, October 20, 1891, beginning at 9 A. M. (See "Preliminary Examinations," page 16.)

The Professors' Junior Examinations.—The fall examinations of Junior Students for admission to the Senior Class will take place on Thursday, September 17, at 9 A. M. All Junior students who may have failed at, or who neglected to attend, the spring examinations, at this or any other College of Pharmacy, and who wish to enter the Senior Class at this College at the coming session, and such who may come to this College from another Pharmaceutical School at which no Junior Examination is required, must present themselves for such examination on the above date. Students arriving from other Colleges of Pharmacy, where they may have passed the Junior Examination successfully, must present a certificate to that effect, signed by the proper officers of said institution. No student failing in scholarship can enter the Senior Class until all deficiencies are made up. Failure at the fall Junior Examination necessitates attendance upon another course of Junior lectures. The student may then again present himself at the regular spring examinations at the close of the session. All Junior Students desiring to attend the fall examination must notify the Secretary to that effect by September 14, 1891.

The Junior Examinations at the close of the next session will take place as follows:

Chemistry.—Wednesday, March 9, 1892, from 9 A. M. to 2 P. M. Materia Medica and Botany.—Thursday, March 10, 1892, from 9 A. M. to 2 P. M.

Pharmacy.—Friday, March 11, 1892, from 9 A. M. to 2 P. M.

These examinations are compulsory, and are held to ascertain the student's fitness to enter upon the studies pursued in the Senior Class.

The "Junior Prize" is awarded the most successful Junior student, and Honorable Mention will be made of the five next best in succession.

Senior Examinations.—I. The Professors' Examination for Candidates for Graduation will take place as follows:

Chemistry.—Monday, March 14, 1892, from 9 A. M. to 2 P. M. Pharmacy.—Wednesday, March 16, 1892, from 9 A. M. to 2 P. M.

Materia Medica and Pharmacognosy.—Friday, March 18, 1892, from 9 A. M. to 2 P. M.

II. The Board Examinations for Graduation.—Monday, March 21, 1892, from 9 A. M. to 2 P. M.

#### EXPLANATIONS.

Analytical Chemistry Examinations are held at the close of each course in this study, and, if successful, will be final. Failure at this examination necessitates attendance upon another course and a final successful examination.

Practical Pharmacy Examinations, to be held at the close of the Long Course, will include a practical exhibition at the College laboratory, in the various manipulations in daily pursuit in the laboratories and at the prescription counters of the shops; also a presentation, on or before the day of examination, of a line of preparations made by the student himself, positively without another person's aid. Text-books may be used for reference.

Materia Medica and Pharmacognosy Examination will include recognition and description of drugs and determination of their quality.

The Board of Examiners' Examination is distinct from that by the professors, and will be written and practical. It will embrace the entire course at the College, together with questions on practical and theoretical subjects with which every pharmacist can justly be expected to be familiar.

Examinations for Graduation are held at the close of the regular lecture term, but once in each year. Candidates who fail to appear at the appointed time, and those who may not be successful at these examinations, can present themselves again for examination only at the next annual examination for graduation, when they will be required to present another original Thesis, and to comply with all other requirements for graduation. The Graduation Fee is returned to those who fail at the examination.

# REQUISITES FOR GRADUATION.

The diploma of this College is granted only after all requirements herein mentioned have been complied with, and when the candidate shall have attained the age of twenty-one years. (See also "Certificate of Proficiency," page 35.)

- 1. The candidate must be possessed of a good moral character.
- 2. He must have had a practical experience of at least four years in the retail apothecary business.

The time actually spent in practical instructions in the Chemical and Pharmaceutical Laboratories of this College will be considered part of the time of apprenticeship required for graduation.

- 3. He must have attended two full courses of lectures, either both at this College or one at another College of Pharmacy, and the last in all instances at this College.
- 4. He must have attended one Short Course in Practical Pharmacy at this College.
- 5. He must have attended at least one course of instruction in Analytical Chemistry in this College.
- 6. He must have passed successfully an examination in Analytical Chemistry, Pharmaceutical Manipulations and Pharmacognosy; also a written examination in Chemistry, Pharmacy and Materia Medica, and an additional written and practical examination by the Board of Examiners. The percentage of correct answers required is FIFTY per cent. in each branch, and SIXTY per cent. of the whole number of questions propounded.
- 7. He must present to the Treasurer of the College, on or before January 5th of the year of his prospective graduation, a Thesis, which must be an original essay on some subject pertaining to Pharmacy, or to the sciences associated therewith, investigated by the student himself; and must not consist of a mere composition, partly or wholly taken from some writing or publication. The subject of the Thesis must be submitted for approval to the professor from whose branch of study it may have been chosen.

8. On or before March 1st, the candidate MUST present the graduation fee, and a letter from his employer or employers testifying to the length of his apprenticeship; also a letter from parents or some authorized person certifying to his age.

#### COMMENCEMENT.

The commencement exercises take place annually, about the middle of April. The entire expense of this is borne by the College, and under its direct charge and direction complete preparations are made and executed. It was the custom in past years for the students to have major representation in the Commencement Council, but the growing tendency was towards so much dissatisfaction that the College has been compelled to assume control of all arrangements in the future.

#### RENEWAL LECTURE TICKETS.

Students who intend taking lectures on any one branch for more than one year, will have to purchase "Renewal Lecture Tickets," at one-half the original price. This aims simply to strengthen the calibre of each class, as the extra charge for additional attention will stimulate students to make the best of their present time, and not to procrastinate in idleness, in the vain delusion of there being plenty of time in the future to take the classes over at no extra expense.

#### PROFESSIONAL DEGREE.

The degree conferred at graduation is that of Graduate in Pharmacy (Ph. G.).

# HONORARY DEGREES.

DEGREE OF MASTER IN PHARMACY (M. P.).

May be conferred on such graduates as have continued in the practice of Pharmacy at least three years after graduating, and who shall have given evidences of advancement in the sciences of our profession, such as the Board of Trustees may deem requisite.

# DEGREE OF DOCTOR OF PHARMACY (PH. D.).

This College may confer this degree upon such graduates as have continued in the practice of Pharmacy for at least ten years after graduation, and who, by superior scientific attainments and services rendered their profession, shall have gained an honorable reputation among their fellow-pharmacists, the medical profession, and the public in general.

#### CERTIFICATE OF PROFICIENCY.

Any student who has had three years and six months' actual experience in the apothecary business, or one who has not attained the age of twenty-one years, may apply for final examination at the expiration of the collegiate courses. Should the examination prove successful, he shall receive a *Certificate of Proficiency*, signed by the Board of Trustees. At the expiration of his term of apprenticeship, and upon attaining his majority, he shall be entitled to receive his diploma upon surrender of the certificate.

## EMPLOYMENT.

The druggists of our city are very painstaking in finding and giving positions to the students of pharmacy from abroad. The College has a register of those seeking employment, as it has also of the druggists desiring assistants. This is in the hands of the Treasurer, and is open for the inspection of all. While little apprehension is felt but what every one can find agreeable clerkships, at the same time, in the contingency of a failure, all should come prepared to sustain themselves for a short while. Judging the future by the past, it is safe to say that no one with moderate knowledge and capacity will fail to secure places.

#### BOARD.

While the expenses of living in Baltimore are far less than in many cities, at the same time they, of course, can vary according to the habits and desires of the students. Board can be obtained from \$3.00 and upwards per week.

### WHOLESALE DRUGGISTS.

Persons in the wholesale drug business may attend the lectures, and upon complying with all the requisites for graduation (other than the four years' apprenticeship in the retail drug business) shall receive a Certificate of Proficiency in Chemistry and Materia Medica, signed by the officers of the College.

### COLLEGE PRIZES.

Appropriate College Prizes, rating according to merit, will be presented at each annual commencement to the three successful candidates for graduation who acquit themselves most creditably at the examination. A suitable premium will also be awarded at each annual commencement to the most proficient member of the Junior Class.

### PRACTICAL PHARMACY PRIZE.

In order to give greater stimulus to this the most important branch of our profession, an appropriate prize will be presented to that member of the Graduating Class who shall have taken both courses and at the final competitive examination proved himself the most familiar and perfected in the manipulatory art.

All work in every preparation made by each student will have its bearing and ratio, so that this, together with the final examination, will be the strict basis for the Board of Examiners to determine, judiciously and justly, the most accomplished and successful prize student.

#### ANALYTICAL CHEMISTRY PRIZE.

This, known as the Simon Medal, is presented at each annual commencement to that member of the Graduating Class who may have proved himself most proficient in Analytical Chemistry. It is offered by Professor William Simon, with the approval of the Board of Trustees.

### THE ALUMNI PRIZE.

This prize, consisting of a Gold Medal, is offered annually by the Alumni Association for the purpose of stimulating the students of the Maryland College of Pharmacy to greater efforts in original independent scientific investigations of subjects of interest to the profession of Pharmacy. The prize will be awarded only for such an original dissertation presented as a requisite for graduation as may in the opinion of the Prize Committee of the Alumni Association deserve such a distinction. The Association hopes that the members of each graduating class will make a special effort in the direction indicated above to insure the awarding of the prize. (See also page 45.)

### COLLEGE AND PHARMACEUTICAL MEETINGS.

These are held in the College Hall at 9½ o'clock A. M., on the third Thursday of each month. These meetings are either Business or Pharmaceutical (Scientific). They serve to promote business confidence among our druggists, to extend social feelings, and they aid in giving familiarity to scientific and professional portions of Pharmacy and allied sciences. Objects of interest are exhibited, and always pleasant and beneficial discussions result. All students and graduates have the wish of the College to attend as many meetings as possible.

### TEXT-BOOKS.

Remmington's Practice of Pharmacy; Parrish's Pharmacy; United States Dispensatory; Stillé and Maisch's National Dispensatory; United States Pharmacopæia; Gray's New Lessons and Manual of Botany; Simon's Chemistry; Attfield's Chemistry.

### BOOKS OF REFERENCE.

Maisch's Manual of Organic Materia Medica; Bently's Manual of Botany; Fluckiger and Hanbury's Pharmacographia; Proctor's Lectures on Practical Pharmacy; Remsen's Organic and Theoretical Chemistry; Fowne's Chemistry; Hofman and Power's Analytical Chemistry; Gray's Systematic and Structural Botany; Bastin's Botany; Kellerman's Botany, and Kellerman's Plant Analysis; Canfield's Urinary Analysis.

## COLLEGE FEES FOR REGULAR COURSE.

	Trial -	\$5 00
		12 00
*		12 CO
- (6)		12 00
÷		20 00
	(4)	10 00
2		20 00
	-	10 00
		5-00
		5.00
F:		15 00

"RENEWAL LECTURE TICKETS," ONE-HALF THE ORIGINAL PRICE.

The Matriculation Ticket is to be paid for only for the first course: at this College; but it is required for every course, in order to keep the register correct, and should be obtained on or before October 1.

The Lecture Tickets must be taken out at the opening of the session. Students applying for Senior Course Tickets who have attended their first course in some other college must show proof of having passed successfully the Junior Examination.

Seats will be assigned to the students in the order in which they secure their tickets.

The Matriculation Tickets and the tickets for either course may be procured of

SAMUEL MANSFIELD, Treasurer,
No. 1001 West Baltimore Street,
BALTIMORE, MD.

### IMPORTANT NOTICE.

The rules and conditions stated in this Prospectus will govern all students of this College until the next succeeding issue of the College Prospectus, after which time students will be governed by the conditions stated in the latter.

## GRADUATES OF THE MARYLAND COLLEGE OF PHARMACY.

## ANNOUNCED APRIL 17, 1891.

Bradenbaugh, Thomas F.—CuprumPennsylvan	nia.
Councell, Rhodes H.—Opium	
Chapin, E. Hovey-Iodine CompoundsNew York.	
Dickinson, Charles J.—Glycerin	
Foley, M. Bernard—Emulsions	nia.
Gilbert, J. Newton—Zinc; Precipitate CarbonateMaryland.	
Hyde, Harry Clemm-Aluminum	
Hillstrom, John E.—StrychniaTennessee.	
Hall, Joseph B. E.—Liniment of Ammonia	
Hammer, Howell I.—Officinal Syrups	
Hauser, John C.—Iodine	
Hulshoff, Wm.—Phosphoric Acid	
Jerrentrupp, Wm. H.—Opium	
Kasten, Charles F.—Erythroxylon Coca	
Lloyd, Francis J.—Digitalis	
Luck, William M.—Magnesium	
Link, Louis—Liniment of AmmoniaSouth Caro	lina.
Morgan, Charles-Percolation and Maceration	
Millard, David R.—Oleum Gossypii SeminisNorth Caro	lina.
Plitt, Charles C.—Honey bee Products	
Potterfield, Geo. C.—Cuprum	
Reinhardt, Otto M.—Syr. Yerba Santa, AromMaryland.	
Schneider, Alexander—Cotton Plant and its productsTennessee.	
Sullivan, John P.—Pilulæ	
Smith, Percy G.—Cream Tartar, from drug stores and grocers, Maryland.	
Sprinkle, Onyx C.—Physostigma Ven	
Fodd, James C.—Plumbum CompoundsTennessee.	
Wells, John S.—FerrumMaryland.	
Westhoff, W. Adelbert—Fld. Extract Wild CherryGermany.	
White, Edward H.—Incompatibilities	

## PRIZES FROM THE COLLEGE TO THE GRADUATING CLASS.

First Prize.—Gold Medal. Charles C. Plitt, Maryland.

Second Prize.—Gold Medal.
CHARLES J. DICKINSON, MARYLAND.

Third Prize.—Gold Medal.
Thos. F. Bradenbaugh, Pennsylvania.

Semi-Gentennial Prize.—Gold Medal.

JAMES C. TODD, TENNESSEE.

Simon Analytical Prize.—Gold Medal. CHARLES C. PLITT, MARYLAND.

Practical Pharmacy Prize.—Gold Medal. HARRY C. HYDE, MARYLAND.

Honorable Mention in Pharmaceutical Laboratory.

CHARLES C. PLITT, CHARLES F. KASTEN,

CHARLES F. KASTEN DAVID L. MILLER, GEORGE A. VAN LEAR, Wm. B. VAN LEAR, Thos. F. BRADENBAUGH.

College Prize to Junior Class.—Gold Medal.
HARRY L. LEEKE, MARYLAND.

Junior Students entitled to Honorable Mention.

EDWARD HOFFMEISTER, GEO. A. VAN LEAR,
JOHN E. SEEBOLD, W. L. RICHARDSON,
JOHN L. BANNER.

## STUDENTS, SESSION 1890-91.

## SENIORS.

NAME.	STATE.		PRECEPTOR.
ABENDSCHEIN, GEO. M		F. F.	
BRADENBAUGH, THOS. F			
BLADES, GEO. C	Marvland	. Ino. F	. Manger.
BARNES, GEO. S	South Carolina.	Harri	son & Hembel.
Beckley, J. H			
CHAPIN, E. HOVEY	New York	. H. P.	Mead. N. Y.
Councell, R. H	Marvland	. T. W.	White.
DICKINSON, C. JEROME	.Marvland	W. B.	Dickinson.
FOLEY, M. BERNARD			
GILBERT, J. NEWTON	.Maryland	. T. B.	Baxley & Son.
HAMMER, HOWELL INSKIP		. Foster	& Stauff.
HULSHOFF, WILLIAM			
HALL, J. B. E	.Maryland	.E. H.	Dryden.
Hauser, John C	.Maryland	A. R.	Milby.
Hyde, Harry C	Maryland	.J. P. I	Frames & Son.
HILLSTROM, JOHN	Tennessee	.N. H.	Jennings & Co.
Kasten, Chas. F			
KLEPPER, J. F. C			
Kelly, John J			
Luck, William M			
LLOYD, FRANCIS J			
LINK, LOUIS			
Morgan, Charles			
MILLARD, D. ROCKWELL	.North Carolina	.Jno. A	. Davis.
Mullikin, Rollins			
MILLS, CHAS. H			
Neu, Harry A PLITT, CHARLES C			
PIPPIN, W. M			
Potterfield, Geo. C			
REINHARD, LOUIS M	Maryland	Roinha	ed for Co
Remsburg, John J			
Rudy, Walter R			
REINHARDT, OTTO M			
Smith, Percy G	.Maryland	A. W.	M' Glannan.
Schneider, Alexander	.Tennessee	N. Hyn	son Tennings & Co.
SENNHENN, WM	.Maryland	F. W.	Schulte.
SULLIVAN, JOHN P	.Maryland	N. Hyn	son Jennings & Co.
SCHMETZER, J. G. C	.South Carolina	E. H	Kellers, S. C.
Sprinkle, O. C	.Virginia		
TODD, JAMES C	.Tennessee	R. T.	Petrold.
WHITE, EDWARD H			
WATERS, WASHINGTON, JR			
Wells, John S			
WINEBERG, DAVID			
Westhoff, W. Adelbert	.Germany	L. senj	1 0 CO.

## JUNIORS.

NAME,	STATE. PRECEPTOR.
ALLEN, JAMES R	Maryland T. L. Richardson.
BLAIR, ROCHELL KENT	.North Carolina D. M. R. Culbreth.
BOERNER, FREDK. J	.Maryland G. A. Frames & Son.
	. Pennsylvania Dale, Hart & Co., Pa.
	. Maryland Moore & Copper.
	. Maryland Gilpin, Langdon & Co.
BENSON, CHARLES MORRIS	
BANNER, JOHN L	. North Carolina W. S. Taylor, N. C.
BROADBELT, JOHN E	.Maryland
BAGLEY, EUGENE	.Texas E. W. Thompson, Texas.
BURBAKER, CHARLES M	. Maryland J. Edwin Hengst.
CHEARS, H. R	.South Carolina
CALLIGHAN, MENOTTI	.Ohio W. A. Long, Ohio.
CALDWELL, SAML. B	. Pennsylvania Croft & Conlyn.
COBLENTZ, Jos. D	
CHELF, RUSSELL E	.Virginia
CAWLEY, WILLIAM D	
	. South Carolina. D. M. R. Culbreth.
DICKINSON, JAMES M	.Virginia
ELLIOTT, JOHN W	. South Carolina A. E. Schmidt.
	Louisiana
Esslinger, Edward, Jr	
EDMONDS, IRLAND	. Virginia Geo. B. Seal.
Evans, W. Ashton	
Fisher, E. D	. Virginia W. F. Fisher, Va.
GRAUEL, CHARLES E	.MarylandF. Graucl.
HEATHER, DAVID WALLACE	.Maryland Hayward Bros.
	. Alabama
HOFFMEISTER, EDWARD	. Maryland Wm. Caspari.
Hummelbaugh, E. H	. Pennsylvania Ino. H. Hancock.
Hughes, Wm. Payton	
HEARD, JOHN M	.Texas W. S. Tucker, Texas.
IRWIN, JOHN P	.Maryland G. F. Smith.
Johnston, Felix S	. West Virginia J. W. Johnston, W. Va.
	.VirginiaN. Hynson Jennings.
KILNER, ALBERT E	
	.Maryland Thomas & Thompson.
King, John Joseph	MarylandS. N. Appleby.
	Maryland Jas. P. Frames & Son.
LINDEMANN, EMIL	
LEFFLER, WILLIAM	.MarylandJno. C. Krantz.
LAUTENBACH, ROBERT, JR	Maryland Robt. Lautenbach.
MILLER, DANIEL L	PennsylvaniaF. Forthman, Pa.
	Maryland Chas. W. De Frehn.
	Maryland A. W. McGlannan.
	South Carolina, Laroque Drug Co.
MEYERS, CHARLES	
MILLER, SIDNEY H	
MCAVOY, M. Jos	Maryland Wm. F. Thiede, Jr.
McGraw, E. J	Maryland Geo. H. Schone.

NAME.	STATE.	PRECEPTOR.
OTTO, WILLIAM A		
O'Hanlon, E. W	North Carolina B F	Sedherry N. C.
OTT, GEO. FRANCIS	Maryland A P	Betts
PORTNER, R. AUGUSTUS		
PENSEL, WILLIAM		
QUANDT, EDWARD		
REINDOLLAR, H. A.	Maryland R. K	Robinson & Co.
RICHARDSON, W. L	North Carolina J. W	Sternart.
REID, H. HERBERT	Alabama A. I.	Gosman.
Russell, John A		
STEVENS, CHARLES		
SEYMOUR, WM. S		
SIMMONS, WM. C		
SCOTT, WALTER		
SAXTON, MOSES		
STARLING, J. FRANK		
SURRATT, JOHN H		
SAHM, BERNARD C		
SEEBOLD, JOHN E		
SHAFFER, HENRY P	MarylandWm.	E. Turner.
SCHMIDT, HENRY	Maryland Ino.	I. Lauer.
STAFFORD, JAMES R		
SAPPINGTON, REGINALD P	Maryland R. Sa	eppington.
STUTT, JOHN H		
SMITH, FRANK S	North Carolina T. C.	Smith, A. C.
SMITH, GEORGE G	Maryland R. Le	autenbach.
SCHMIDT, FRED'K H	Maryland M. W	7. Donavin.
THIEME, GUSTAV C		
VAN LEAR, GEORGE A	Virginia W. B	. Taliaferro.
Vogel, Chas. William		
VAN LEAR, WILLIAM B		
WESTPHAL, HENRY	Maryland Jno.	G. Beck.
Wickham, Wm. H'y		
WILDSMITH, THOS. H		
WELLS, C. MILTON		
WYER, HENRY H., JR		
WAGNER, FRANK E		
Weber, C. J		
WOLF, CHARLES		
YARNOLD, EDWIN	EnglandRoe &	Smith.
Zepp, Joseph D	Maryland	hroeder.
92	PCIAI	

## SPECIAL.

TICKNER, WILLIAM E......Maryland.

## ALUMNI ASSOCIATION

OF THE

## Maryland College of Pharmacy.

This Association was formed in 1871 and reorganized in 1890. Its objects are the promotion of an earnest interest in the Alma Mater of its members, the cultivation of a feeling of brotherhood and friendly fellowship among the graduates of the Maryland College of Pharmacy, and the stimulation of the graduates and students of this institution to the attainment of more advanced scholarships.

*Membership*.—Every graduate of this College of good moral character is eligible to membership, and may make application through the Corresponding Secretary or through any member of the Association.

Dues and Certificate.—Each applicant, upon his election, is required to pay to the Treasurer one dollar as entrance fee and one dollar dues for the current fiscal year, upon the payment of which he will receive the Certificate of Membership of the Association. This is of elegant lithographic design, and forms an appropriate companion to the College diploma. The annual dues are one dollar, payable on or before the first day of April.

Meetings.—The Association holds meetings at the College Hall on the second Monday of the months of October, December and February, and an annual meeting on the day preceding the Annual Commencement of the Maryland College of Pharmacy, usually in the early part of April.

The meetings are for social entertainment and scientific discussions, and all graduates and students of the College are always cordially invited to be present.

## ALUMNI PRIZE.

This Association offers a prize, consisting of a Gold Medal, to be awarded to the member of the Graduating Class who may present as his thesis such an original dissertation as in the opinion of the Prize Committee of this Association shall be deemed worthy of the distinction. The prize will thus not be awarded merely for presenting the best thesis in the class, but it is hoped that each year will produce the man and the work deserving the honor.

For further announcement regarding this prize see page 37.

# OFFICERS OF THE ALUMNI ASSOCIATION FOR 1891-92.

President:

JOSEPH BLUM, M. D., '83.

Vice-Presidents:

JOHN H. HANCOCK, '70, FREDERICK W. SULTAN, '84, JAMES A. HARDISON, '90.

FRANCIS H. COPPER, '81, Treasurer, 214 West Lexington Street.

ROBERT LAUTENBACH, M. D., '62, Recording Secretary.

THOMAS L. RICHARDSON, '84, Corresponding Secretary.

For further information regarding the Alumni Association, address

Thomas L. Richardson, Corresponding Secretary,

Cor. Huntingdon Avenue and Oak Street,

Baltimore, Md.

## GRADUATES' ROLL.

1842.

\*Cochran, Fred. A., Md. Sharp, Alpheus P., Va. Thompson, Wm. Silver, Del.

1844.

Rodgers, Samuel, Md.

1847.

\*Moore, J. Faris, Del. Read, John W., Md. \*Steinhofer, Christian, Germany.

Dohme, Louis, Md. \*O'Brien, J. C., Md. Russell, E. Walton, N. H. Weatherby, J. E., N. J.

1858.

\*Chandler, Wm. T., Pa. \*Hebb, Thos. A., Md. Powell, Samuel F., Md.

\*Blickhahn, Geo. H., Mo. Medinger, Edward G., Md.

Bolton, John H., Md. Conrad, J. S., Va. \*Dohme, Gustavus C., Md. \*Fairbank, Samuel, Md. Hancock, John F., Md. Jefferson, J. B. H., Md.

1861.

\*Benzinger, John S., Md. Enos, Troville H. K., Va. \*Nagle, John G., Md. Sears, Charles C., Md.

1862.

Cunningham, G. W., Md Dohme, Chas. E., Md. Ewell, Geo. S. R. Lautenbach, Robt., Md. Pacetti, T. A., Fla. Sohl, John, Md.

1863.

Horn, Louis, Md.
Nelson, Geo. W. H.
Reay, Henry S., Pa.
Rommel, Alexander, Md.
McDaniel, J. E., Md.

1864.

\*Brandau, Geo. A., Md. Skinner, Jos. G., Md. Smith, B. F.

1864.

Sprecker, Henry F. Zwanzger, J. L., Md.

1865.

Joyce, W. Austin.
Koechling, Julius, Md.
McCormick, H.
Nice, L. H., Md.
\*Petzold, L., Md.
Stevenson. Jas. S., Md.
\*Suding, H. A., Md.

1866.

Dannettel, Geo. F., Md. \*Kaufman, L. J., Md. Webb, John A., Md.

1867.

Beck, Chas. R. R., Va. Cole, J. Thomas. Fahlen, Julius, Tenn. Keller, W. L., Md.

1868.

\*Bellerman, Chas. F\*, Md.
Belt, Sami. J., Md.
\*Greensfelder, S. B\*, Md.
Hosmer, Horace A., Md.
\*Pape, Geo. W., Md.
\*Severson, Melville, Md.
Worthington, J. M., Md.
Kleinschmidt, A. A., Md.

1869.

\*Bode, S. W., Md. Caspari, Chas., Jr., Md. Dodson, M. J., Md. Fraatz, Frederick, Md. Sinz, Emile, Md. Worthington, E. T., Md.

1870.

Becker, Louis, Md.
Bradekamp, Charles, Md.
Hancock, J. H., Va.
Livingston, E. C., Md.
Lotz, W. H., Md.
McGlannan, A. W., Md.
Woods, Franklin D., Md.

1871.

1871.

Baumgarten, John, Md.
Blaney, Frank M., Md.
Compton, T. B., W. Va.
Hanna, Henry W., Md.
Lautenbach, Ferd., Md.
Piquett, John P., Md.
\*Smith, Edward A., Md.
\*Steigelman, Jno. L., Md.
Thompson, Albert E., Md.

Doeller, Charles H., Md. Hassencamp, F., Jr., Md.

1872.

L'Engle, Henry A., Fla. Purcell, Nicholas S., Va. Roehle, Louis C., Md. Test, Wesley W., Tenn. Thomas, Charles T., Ohio. Thomas, John B., Jr., Md.

\*Benzinger, John M., Md. Cronhardt, John C., Md. Habliston, Chas. C., Md. Livingston, John H., Fla. \*Marshall, John R., N. C. Nordmann, H., Md. Petz, Andrew, Jr., Md. Shermer, John T., Md.

\*Beckenbaugh, T. L., Md. Clarke. Daniel J., Md. Eliau, Emanuel W., Md. Hassenbalg, Ernest, Md. \*Hofman, Oscar, Md. \*Hofman, Oscar, Md. \*Etong, A. B., Ohio. McComas, Edwd. M., Md. Roehle, Charles F., Md. \*Schiller, Wm. C., Md. Schooffeld, D. E., Md. Smith, Charles G., Md. Thompson, Wm. P., Md.

1875.

1875.

Ayd, John, Md.
Beck, Charles, Md.
Bersick, Geo. M., Md.
Davy, Dennis, England.
Huck, John G., Md.
Jackson, Vincent R., Md.
McCauley, Wm. F., Md.
Roy, Alpheus H. G., Md.
Sandrock, W. C., Md.
Schroeder, J. Henry, Md.
Snyder, A. McK., Md.
Stephens, Albert L., Va.
Swentzell, Walter T., Md.
Wiesel, John M., Md.

1876.

Baxley, J. Brown, Jr. Md.
Brooke, John H., Md.
Damm, Henry O., Md.
Damm, Wm. G., Md.
\*Dietrich, Henry, Md.
Dorsey, Frank, Md.
Gore, Millard S., Pa.
Hurd, Wm. G., Md.
\*Jones, Edward, Md.
\*Jones, Edward, Md.
Kornmann, Henry, Md.
Lappe, Martin, Md.

\*Deceased.

#### 1876.

Meikle, Frank A., Md. Michael, Jacob C., Md. Stauff, John, Md. \*Wallis, Frank L., Md. Winder, Richard B., Va. Zimmer, Frank A., W. Va.

#### 1877.

Alvarez, Frank, Cuba.
Baughman, John H., Md.
Bergman, W. H., D. C.
Brude, Wm., Md.
Feick, Charles, Md.
Hayes, Thos. H., Ga.
Hengst, John E., Md.
Hynson, Hy. Parr, Md.
Oherndorf, David, Md.
Reese, Thomas, Va.
Webster, Chas. R., Md.

#### 1878.

Arnold, Henry, Md.
Bellerman, John H., Md.
Cherry, Wm. W., Md.
Fisher, E. Baldwin, Va.
Geoghegan, John R., Md.
Herr, Michael, Pa.
\*Hughes, Alex. S., Md.
Hughes, Wm. M., Va.
Hurd, George M., Ala.
Huntley, J. Mason, Va.
Jones, J. Paul, Md.
Kemp, Jos. M., Md.
McComas, E. Wilmer, Md.
Riley, Charles H., Md.
Schariff, C. R., Md.
Schultze, Hugo F., Md.
Schultze, Hugo F., Md.
Schultze, Hugo F., Md.
Willington, John H., Md.
Willington, John H., Md.
Willington, John H., Md.
Wilght, Clinton H., Md.
\*Yates, Geo. M., Va.

### 1879.

Bardwell, Chas. E., Mass. Culbreth, D. M. R., Del-Fout, Henry M., Va. Hill, Justin L., Pa. Janney, O. Edward, Va. Koons, Wm. H., Pa. Locke, Thos. E., Va. Lombard, Vincent P., Md. Maas, George, Md. Mehrtres, J. K., S. C. Nordmann, F. R., Md. Routson, Chas. W., Md. Routson, Chas. W., Md. Schone, George H., Md. Stuart, Wm. A., Md. \*Sutton, George W., Pa. Waldschmidt, Chas., Ill. Weiher, Charles L., N. Y. Weilepp, Adolph, Md. Willis, John B., Texas, Winsinger, Henry, Md. Wolf, Louis, Md.

## 1880,

Ayd, Joseph, Md. Bussler, Royal H., Pa. Frames, John H., Md. Hein, Ernest T., Md.

#### 1880.

Herr, John, Md.
Lee, Charles Hill, La.
Lowe; Zebulon, Md.
Reese, Algernon B., VaSchmidt, Charles, Md.
Stough, Frank B., Ohio.
Wolf, M. J., Md.
Woltereck, Gustave, Md.
Thiede, Wm. F., Md.

Anderson, J. Frisby, Md.
Caspari, Wm., Jr., Md.
Coe, B. Nadal, Va.
Copper, Francis H., Md.
Dickinson, W. B., Md.
Foster, J. Webb, Md.
Hepborn, James T., Md.
Kabernagle, Edw. H., Md.
Kahn, Moses, Md.
\*Lauer, John J., Md.
Luck, Robert, Md.
Maguire, E. S., Md.
Meyer, Chas. H., Md.
Moore, Clarence F., Md.
Petzold, Robert T., Md.
Scheidt, R. P. C., Md.
Scheidt, R. P. C., Md.
Smith, Walter N., DelStrauss, Geo. A., Md.
Walter, Victor T., Tenn.
Weibking, Louis H., Md.

#### 1882

Bachrach, Samuel, Va.
Back, John G., Md.
Blackstone, Thos. W., Va.
Frames, J. Fuller, Md.
\*Friese, Wm. P., Md.
Haugh, Chas. S., W. Va.
Kach, August, Md.
Kroh, William, Md.
Lindeman, Gustave, Md.
Mallette, J. Gordon, Ga.
McKinney, Robt. S., Md.
Schultze, Anthony H., Md.
Schultze, Anthony H., Md.
Silver, Howard C., W. Va.
Smith, J. Charles, Pa.
Wich, Conrad, Md.

1883.
Atkison, E. H., Del.
Baist, Louis, Germany.
Becker, Henry, Md.
Benton, Luther B., Md.
Benton, Luther B., Md.
Beits, A. Parran, Md.
Bickers, Alston H., Va.
Blum, Joseph, Md.
Boyd, Guy H., Pa.
Campbeli, Wm. L., Md.
Dailey, Wm. F., Miss.
Daily, Martin A., Md.
Elliott, Chas. H., Md.
Fink, Wm, C., Md.
Fink, Wm, C., Md.
Gable, S. M., Pa.
Hursey, Thos. D., W. Va.
\*Kelley, J. B., Va.
Krauss, Wm., Tenn.
Lautenbach, Emile, Md.
Maisch, Henry, Md.
Maisch, Henry, Md.
Remsburg, Chas. D., Md.
Rolph, Noble C., Md.

#### 1883.

Schmidt, A. Edwin, Md. Sites, W. A., Md. Smith, G. E. M., Md. Thompson, Geo. A., Md. Tumbleson, A. M., Md. Valentini, J. J., Md. Wissler, Chas. H., Md. Wissler, Chas. H., Md.

#### 1884

1884.

Bellerman, Louis, Md.
Bernstein, E. J., Md.
Bernstein, E. J., Md.
Brown, Reinhard L., Ohio.
Buschman, Chas., Md.
Davis, Chas. E., Pa.
Davis, John A., N. C.
Downey, Wm., D. C.
Dunham, Wm. L., Pa.
Eppley, J. K., Md.
Forrest, Chas. W., Md.
Groome, John C., Pa.
\*Hatheway, H. H., Ohio.
Hennick, John M., Md.
Kolb, George, Md.
Kornmann, Louis F., Md.
Metzger, Charles, Md.
Moyer, Elmer E., Pa.
Orear, Wm. B., Md.
Richardson, Thos. L., Md.
Sappington, P. L., Md.
Schultze, Louis, Md.
Shaw, Thos. K., Md.
Shipley, Chas., Md.
Struart, Geo. H., Md.
Sultzhacher, Wm. F., O.
Taliaferro, W. B., Va.
Treherne, J. Curtis, Va.
Woodcock, J. H., N. C.

Boze, Walter H., Md.
Bourke, Jas. W., Md.
Bradley, E. T., Texas.
Brickman, A. O., Jr., Md.
\*Brown, Wilbur, Md.
Clagett, Honore M., Md.
Corbin, L. C., Va.
Dickinson, Harvey J., Md.
\*Drought, A. M., Md.
Ebert, Fred. C., Md.
Esterbrook, L. K., Ill.
Glacken, Raymon M., Md.
Hempel, J. Fred., Jr., Md.
Kinnear, Wm. A., Md.
Laciar, Albert J., Pa.
Lang, Nicholas T., Md.
Lankford, E. E., Md.
Linsmeier, Jos. C., Md.
Little, L. D., Ohio.
McKeeby, W. Coe, N. J.
Mullikin, Howard, Md.
Reindollar, Louis, Md.
Roe, Edward J., Pa.
Seewald, Wm., Md.
Slack, Henry R., Jr., Ga.
Smith, R. E. L., Va.
Strouse, Hy. F., Md.
Vogel, Henry F., Md.
Vogel, Henry F., Md.
Weilings, Davies, Md.
Wolfe, Geo. Herbert, Md.

\*Deceased.

†Certificate.

#### 1886.

1886.

Ammen, Charles, Va.
Binau, Anthony M., Md.
Bönd, J. Emory, Md.
Chapman, Chas. B., Md.
Chapman, Chas. B., Md.
Cheif, T. Wilber, Va.
Conway, Wm. A., D. C.
Cook, Charles C., Md.
Fouch, W. M., Pa.
\*Goodrich, William, Md.
Hines, C. L. B., W. Va.
Lapouraille, Alfred, Md.
Lenpard, Oscar F., Md.
\*McFee, John S., La.
Mills, Howard D., Md.
Morris, T. J. V., Md.
Morris, T. J. V., Md.
Morris, T. J. V., Md.
Ruth, Geo. M., Md.
Ruths, Geo. A., Md.
Scott, John M., N. C.
Shryer, Clarence R., Md.
Spetzler, Henry C., Md.
Stewart, W. H., Md.
Updegraff, Silas A., Pa.
Ware, Charles H., Md.

#### 1887.

Allee, Charles D., Del.
Arendt, Charles, Md.
Badgley, Claude M., N. Y.
Beckley, Geo. H., Va..
Binswanger, Morris, Md.
Blass, J. Henry, Md.
Dohme, Chas. L., Md.
Emmett, J. Henry, Md.
Dohme, Chas. L., Md.
Hambleton, H. S., Md.
Hohman, W. D., GermanyJones, Casper F. W. Va.
Kelly, H. E., Md.
Krantz, John C.. Md.
Krantz, John C.. Md.
Krantz, John C.. Md.
Mules, N. C., Md.
Mules, N. C., Md.
Mules, N. C., Md.
Murphy, H. G., N. C.
Owings, W. N., Md.
Poor, John L., Pa.
Quandt, A. A., Md.
Quandt, E. E., Md.
Reese, R. G., Va.
Schindel, Howard, Md.
Schmidt, Henry A., Md.
Shelton, Wm. C., Va.
Showman, Alfred, Md.
Smith, Martin H. Md.
Smith, Wm. Jay, Md.
Waite, Frank H., Md.
Whiteside, A. Fuller, Md.
Willett, G. Howard, Tenn.

### 1888.

Albertson, Thos. E., N. C. Atkinson, John M., S. C. Baxley, Henry M., Md. Blair, S. Oscar, N. C. Brack, Chas. E., Jr., Md. Brown, Jos. D., Md. Buschmann, Wm. G., Md. Charshee, Bennett W., Md.

#### 1888.

Daigger, And., Germany. Dalton, P. H., Jr., N. C. Dawson, William, Del. Dietz, Otto J., Md. Douglass, Hugene, Md. Dressel, Hy. G., Jr., Md. Fernsner, Louis G., Md. Forien- Wm. F., Md. George, Alfred, Md. Hauser, Paul C., Pa. Hill, Wm. J., N. C. Lankford, Geo. A., Md. Link, Joseph, S. C. Lippy, Geo. H., Md. Luck, Charles A., Md. Maschal, Chas. S., Pa. \*Modena, Jas. W., Va. Reik, Henry O., Del. Roeder, Saml. T., Md. Scherer, William, D. C. Sherman, Louis F., Md. Simmonds, S. J., Va. Stewart, J. W., Md. Sumwalt, Jas. B., Md. Trainor, Francis S., Md. Trainor, Francis S., Md. Trainor, Grown, A. L., Md. Walz, Jacob L., Va. Witherspoon, M. L., Md. Walz, Jacob L., Va. Witherspoon, W. I., S. C. Wolf, Henry G., Md.

#### 1889.

Allen, Edward H., S. C.
Anderson, Chas. C., Ga.
Benton, John M., Ga.
Bien, Fred, W., Md.
Boone, J. W. H., Del.
Bowers, F. W., La.
Brown, Wm. E., Md.
Chancellor, S. C., Va.
Cohen, W. M., N. C.
Cooling, B., Jr., Md.
Dickson, F. W., Md.
Dickson, F. W., Md.
Doster, Jas. T., S. C.
Dreiss, Louis, Texas.
Frames, W. W., Md.
Graham, John A., D. C.
Greene, Charles E., Tenn.
Hammerbacher, H., Md.
Houston, J. L., N. C.
Johnson, E. S., Va.
Kiesling, A. E., Texas.
Kirby, Frank J., Md.
Klingelhöfer, F. W., Md.
Klindeman, Henry F., Md.
McClure, F. R., Pa.
Moore, Jos. W., Md.
Munoz, E. A., Md.
Norris, Jno. C., Va.
Parkhurst, W. C., Md.
Penn, Harry B., W. Va.
Rearick, Geo. H., Pa.
Ricketts, L. S., Va.
Rintels, D. W., N. C.
Sasser, L. B., N. C.
Schanze, F. W., Md.
Schultze, Emil A., Md.
Schultze, Emil A., Md.
Schunann, Henry V., Tex.
Sedberry, C. D., N. C.
Seldner, Chas. S., Md.
Shannon, Edmon L., Md.
Shannon, Edmon L., Md.
Smith, Whiteford G., S. C.

#### 1889.

Van Devanter, R. L., Va. Veasey, John T., Md. Wager, J. A., Md. Waters, R. Frank, Md. Way, Wm. P., Md. Westcott, J. W., Ohio-White, Thomas N., Md. Wright, Wm. A., Va. Yost, J. Miles, Pa.

1890.

Amon, Frank, Md.
Beetem, Charles H., Pa.
Bobbitt, Fletcher A., N. C.
Carey, James, Md.
Conradi, Ludwig E., Md.
Clugston, John W., Pa.
Crater, Charles C., N. C.
Curran, Francis W., Md.
Delorme, Murrett F., S. C.
Dohme, William F., Md.
Donnet, John S., Scotland.
Early, Emmett E., Tenn.
Elliott, Marion L., Md.
Farrow, J. Harry, Md.
Foeller, August, Md.
Green, Thomas K., Md.
Hardison, James A., N. C.
Harris, Samuel Y., Md.
Kearfoot, Joseph G., Va.
Koldewey, Adolph H., Md.
Kearfoot, Joseph G., Va.
Koldewey, Adolph H., Md.
Morrison, Wm. B., Md.
Morrison, Wm. B., Md.
Morrison, Wm. E., Md.
O'Connell, Wm. L., N. C.
Oppenheimer, H. D., Md.
Rebien, Louis W., Md.
Robinson, Wm. K., Md.
Robinson, Wm. K., Md.
Sonnenburg, Charles E., Md.
Sultan, Edward J., Md.
Stewart, Eugene G., Ga.
Sloan, Alexander D., Md.
Scally, John H., Nd
Schlaar, W. F., N. Y.
Tarun, William, Jr., Md.
Walter, Milton R., Md.
Walter, Fred'k P., Md.
Williams, Alex. E., Md.
Williams, Samuel A., Ala.

Bradenbaugh, Thos. F., Pa. Chapin, E. Hovey, N. Y. Councell, Rhodes H., Md. Dickinson, Charles J. Md. Foley, M. Bernard, W. Va. Gilbert, J. Newton, Md. Hall, Joseph B. E., Md-Hammer, Howell I., Md. Hauser, John C., Md. Hillstrom, John E., Tenn. Hulshoff, Wm., Md. Hyde, Harry Clemm, Md. Jerrentrupp, Wm. H. Md. Kasten, Charles F., Md. Link, Louis, S. C. Lloyd, Francis J., Md. Luck, Wm. M., Md. Millard, David R., N. C. Morgan, Charles, Md. Plitt, Charles C., Md.

1891.

Potterfield, Geo. C., Md. Reinhardt, Otto M., Md. Schneider, Alexander, Tenn-Smith, Percy G., Md. 1891.

Sprinkle, Onyx C., Va. Sullivan, John P., Md. Todd, James C., Tenn, Wells, John S., Md.

1891.

Westhoff, W. A., Germany. White, Edward H., Md.

The foregoing is a revised list of the graduates of the College. By accident, the rolls of 1848 to 1856 were destroyed. Readers noticing inaccuracies or omissions in this list will confer a favor by informing the Treasurer of the College, and forwarding corrections.

Information of the decease of graduates of this College, of which the College has not yet been notified—for which reason the names of such graduates are not marked—will be thankfully received by the Treasurer, the writer stating, if possible, the date and place of the death of the graduate.

A copy of this circular will be mailed to any address upon application to

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THOMAS OPIE, M. D.,
Professor of Gynzcology and Dean of the Faculty.
THOMAS S. LATIMER, M. D.,
Professor of Principles and Practice of Medicine
and Clinical Medicine.
AARON FRIEDENWALD, M. D.,
Professor of Diseases of the Eye and Ear.
CHARLES F. BEVAN, M. D.,
Professor of Principles and Practice of Surgery
and Clinical Surgery.
WM. SIMON, Pr. D. M. D.

WM. SIMON, PH. D., M. D., Professor of Chemistry.

GEORGE H. ROHÉ, M. D., Professor of Materia Medica, Therapeutics, Hy-giene and Mental Diseases.

J. W. CHAMBERS, M. D., Professor of Anatomy and Clinical Surgery.

GEORGE J. PRESTON, M. D., Professor of Physiology and Clinical Diseases of the Nervous System.

Professor of Obstetrics.

R. B. WINDER, M. D., D. D. S., Professor of Principles and Practice of Dental Surgery as Applied to Medicine.

#### ADJUNCT FACULTY.

N. G. KEIRLE, A. M., M. D., Demonstrator of Pathology and Lecturer on Legal Medicine.

Medicine.

J. H. BRANHAM, M. D.,
Demonstrator of Anatomy and Lecturer on Regional Anatomy.

GEORGE THOMAS, A. M., M. D.,
Lecturer on Diseases of the Throat and Chest.

WILLIAM S. GARDNER, M. D.,
Lecturer on Obstetrics and Demonstrator of
Chemistry.

G. A. LIEBIG JR., PH. D., Lecturer on Medical Electricity. C. HAMPSON JONES, M. D. (M. B. Edin.), Demonstrator of Physiology, HENRY P. HYNSON, PH. G., Demonstrator of Pharmacy.

HARRY FRIEDEN WALD, A. B., M. D., Lecturer on Diseases of the Eye and Ear.

> J. K. LORD. A. B., M. D., Lecturer on Dermatology.

FRANK C. BRESSLER, M. D., Lecturer on the Diseases of Children.

LOUIS F. ANKRIM, M. D., FRANK C. BRESSLER, M. D., W. F. SMITH, A. B., M. D., R. G. DAVIS, M. D.,

Assistant Demonstrators of Anatomy-

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Bay View, the Almshouse of Baltimore, which contains 2500 beds, has been thrown open for the

New and anasomety equipped private rooms are successful and provided for such cases.

Bay View, the Almshouse of Baltimore, which contains 2500 beds, has been thrown open for the Clinical instruction of students of this school. Three Resident Physicians are annually appointed at this institution, each with a salary of \$500 and board—one from the Johns Hopkins University, one from the University of Maryland and one from the College of Physicians and Surgeons. Three Assistant Resident Physicians are similarly appointed.

The City Hospital Dispensary, organized over twenty years ago, has become widespread in its influence and adds largely for the clinical attractions of the school.

Trequent post-mortem examinations are made before the whole class and the medico-legal bearings of cases are fully discussed.

Attendance upon the demonstration in the Physiological, Chemical and Pathological Laboratories is required of every student.

The Anatomical rooms are spacious and airy, and dissecting material abundant.

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of the bulk material.

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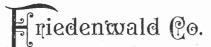
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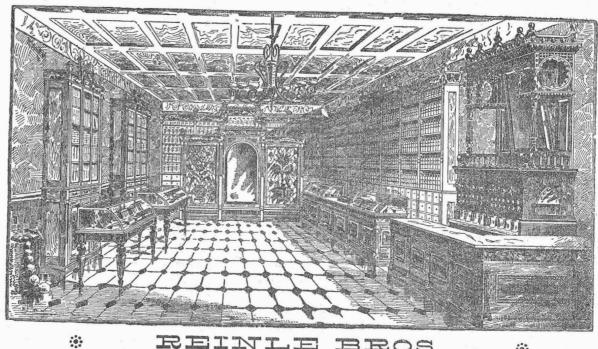
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