been only a short time before elevated to the dignity of Patriarch of Jerusalem, became on the 29th of August, 1261, Pope Urban IV., the known friend of Campanus. He would naturally receive one of the first copies. Indeed, there is evidence that it was hastily given to him; for the geometrical figures are not drawn all the way through the MS., notwithstanding its being an exceptionally handsome MS., for such a work. It seems, then, that the book must have been published, say, within a year of August, 1260.

If this inference be admitted, we have in the commentary of Campanus, considering its respectable strength, occasionally its remarkable strength, additional evidence of the promising beginning of science which was made in the thirteenth century until all that sort of thing was swept away before the flood of scholasticism; while in its lapses into utter absurdity, though they are but rare, we meet with another characteristic which is marked in Petrus Peregrinus, in Roger Bacon, and in other scientific students of that period.

C. S. PEIRCE.

P. S. I notice that Moritz Cantor (II., 100) will have it that Urban reigned until 1281. Considering what a difference it would have made for the history of Sicily, for our friend Roger Bacon, and for some famous works of literature, if he had, the slip is, perhaps, worth notice.

When I can have the privilege of examining the MS. again and of consulting a library, I think I can strengthen my proof of the date of the work.

## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE following is the list of those who have been elected members of the American Association for the Advancement of Science and have completed their membership from January 1 to April 30, 1901. The list

includes the names of twenty-six former members and fellows, who have since January 1st been restored to the list by payment of arrearages for more than two years.

Adams, C. C., University of Chicago, Chicago, Ill. Adams, Frederick C., Teacher of Science, Classical High School, Providence, R. I.

Alderson, Victor C., Dean of the Technical College, Armour Institute of Technology, Chicago, Ill.

Alexander, Chas. Anderson, M.E., 10 Vine St., Batavia, N. Y.

Alleman, Gellart, Ph.D., Instructor in Chemistry, Washington University, St. Louis, Mo.

Alpers, Wm. C., 45 West 31st St., New York City. Ames, Oakes, Assistant Director of the Botanic Gár-

den of Harvard University, North Easton, Mass. Appleton, John Howard, Professor of Chemistry, Brown University, Providence, R. I.

Ashmead, Wm. H., Department of Insects, U. S. National Museum, Washington, D. C.

Backeland, Leo, M.D., 'Snug Rock,' North Broadway, Yonkers, N. Y.

Baerecke, John F., Ph.D., M.D., Professor of Biology, Stetson University, DeLand, Fla.

Bagby, J. H. C., Dept. Physical Science, Hampden-Sidney College, Hampden-Sidney, Va.

Baker, James H., President of the University of Colorado, Boulder, Colo.

Ball, Elmer Darwin, Assistant Professor of Zoology, Agricultural College, Fort Collins, Colo.

Ball, Miss Helen Augusta, 43 Laurel St., Worcester, Mass.

Bancroft, Frank Watts, Ph.D., Instructor in Physiology, University of California, Berkeley, Cal.

Bancroft, Wilder Dwight, Instructor in Chemistry, Cornell University, Ithaca, N. Y.

Bardeen, Charles Russell, Anatomical Laboratory, Wolfe and Monument Sts., Baltimore, Md.

Barr, Charles Elisha, Professor of Biology, Albion College, Albion, Mich.

Bauder, Arthur Russell, Instructor in Physics, Boardman High School, New Haven, Conn.

Beach, Miss Alice M., 932 W. Illinois St., Urbana,

Beach, Charles Coffing, M.D., 54 Woodland St., 'Hartford, Conn.

Beede, Joshua William, Atchison County High School, Effingham, Kans.

Beers, M. H., 410 Broadway, New York City.

Bentley, Wray Annin, Instructor in Metallurgy, Columbia University, New York City.

Bergström, John Andrew, Ph.D., Associate Professor of Psychology and Pedagogy, Indiana University, Bloomington, Ind.

- Berkey, Charles Peter, Ph.D., Instructor in Mineralogy, University of Minnesota, Minneapolis, Minn.
- Berry, Edward W., News Building, Passaic, N. J.
- Biggs, Charles, 13 Astor Place, New York City.
- Billings, Miss E., 279 Madison Avenue, New York City.
- Billings, Miss Laura, 279 Madison Avenue, New York City.
- Bishop, L. B., M.D., 77 Whitney Avenue, New Haven, Conn.
- Black, Newton Henry, Master of Science in Roxbury Latin School, Boston, Mass.
- Blake, Joseph A., M.D., 601 Madison Avenue, New York City.
- Blakeslee, Olin Safford, Wesleyan University, Middletown, Conn.
- Blasdale, Walter Charles, Ph.D., Instructor in Chemistry, University of California, Berkeley, Cal.
- Boas, Emil L., 37 Broadway, New York City.
- Boas, Dr. Franz, Am. Mus. Nat. History, Central Park, New York City.
- Bolton, Thaddeus L., Ph.D., Dept. Philosophy, University of Nebraska, Lincoln, Nebr.
- Boon, John Daniel, Professor of Physics, Chemistry and Geology, Granbury College, Granbury, Texas.
- Bouton, Charles Leonard, Instructor in Mathematics, Harvard University, Cambridge, Mass.
- Bowlus, E. Lingan, Professor of Biology, Mt. Union College, Alliance, Ohio.
- Brackett, C. F., Princeton University, N. J.
- Bradley, Walter Parke, Ph.D., Professor of Chemistry, Wesleyan University, Middletown, Conn.
- Brewer, Charles Edward, Professor of Chemistry, Wake Forest College, Wake Forest, N. C.
- Brewster, George Richard, Newburgh, N. Y.
- Brooks, Morgan, Professor of Electrical Engineering, University of Nebraska, Lincoln, Nebr.
- Brown, Amos Peaslee, Ph.D., Assistant Professor of Geology and Mineralogy, University of Pennsylvania, Philadelphia, Pa.
- Brown, Stewardson, Germantown, Pa.
- Brown, W. L., 42 West 72d St., New York City.
- Bruner, Henry Lane, Ph.D., Professor of Biology, Butler College, Indianapolis, Ind.
- Bruner, Lawrence, Professor of Entomology, University of Nebraska, Lincoln, Nebr.
- Buist, John Robinson, M.D., City Board of Health, Nashville, Tenn.
- Bullard, Warren Gardner, Ph.D., Instructor in Mathematics, Syracuse University, Syracuse, N. Y.
- Bunker, Henry A., M.D., 158 Sixth Avenue, Brooklyn, N. Y.

- Burt, Edward Angus, Ph.D., Professor of Natural History, Middlebury College, Middlebury, Vt.
- Butler, Frank Edward, A.M., Th.G., President of Grayson College, Whitewright, Texas.
- Butterfield, Arthur Dexter, Assistant Professor of Mathematics, University of Vermont, Burlington, Vt.
- Cain, William, Professor of Mathematics, University of North Carolina, Chapel Hill, N. C.
- Calder, George, 105 East 22d St., New York City.
- Campbell, Douglas H., Stanford University, Cal.
- Campbell, William Wallace, Director of Lick Observatory, Mt. Hamilton, Cal.
- Carey, E. P., Professor of Chemistry, Physics and Geology, University of the Pacific, College Park, Cal.
- Carroll, James, M.D., U. S. A., Washington, D. C. Carroll, James J., Waco, Texas.
- Carter, Henry C., 475 West 143d St., New York City. Caswell, W. H., M.D., 201 West 55th St., New York City.
- Cathcart, Miss J. R., The Barnard, 71st St. and Central Park, New York City.
- Cattell, H. W., M.D., 3709 Spruce St., Philadelphia, Pa.
- Chamberlain, Charles Joseph, Dept. of Botany, University of Chicago, Chicago, Ill.
- Chamberlain, W. E., M.D., 111 Water Street, New York City.
- Chambers, Frank R., 569 Broadway, New York City.
  Chandler, Elwyn Francis, Instructor in Mathematics,
  University of North Dakota, University P. O.,
  N. Dak.
- Channing, Walter, M.D., Brookline, Mass.
- Chesman, T. M., M.D., Garrison-on-Hudson, N. Y. Chester, Wayland Morgan, Associate Professor of Biology, Colgate University, Hamilton, N. Y.
- Child, Charles Manning, Instructor in Zoology, University of Chicago, Chicago, Ill.
- Chisholm, Hugh J., 813 Fifth Avenue, New York City.
  Chisolm, George E., 19 Liberty Street, New York
  City.
- Chittenden, Russell H., Director of Sheffield Scientific School of Yale University, New Haven, Conn.
- Church, E. D., Jr., 63 Wall Street, New York City. Church, Royal Tyler, Turin, Lewis County, N. Y.
- Clark, Edmund, 105 Beech St., Flushing, L. I., New York.
- Clark, Gaylord Parsons, Professor of Physiology, Syracuse University, Syracuse, N. Y.
- Clark, Herbert A., Professor of Physics and Chemistry, High School, Kansas City, Kansas.
- Clark, Hubert Lyman, Ph.D., Professor of Biology, Olivet College, Olivet, Mich.

- Clarke, James Frederick, M.D., Fairfield, Iowa. Clarke, Samuel Fessenden, Williamstown, Mass.
- Cockerell, T. D. A., Professor of Biology, Agricultural College, East Las Vegas, New Mexico.
- Cockran, Hon. W. Bourke, 31 Nassau St., New York City.
- Coffin, C. A., 44 Broad St., New York City.
- Collett, Samuel Williamson, Professor of Science, High School, Xenia, Ohio.
- Collier, Price, Tuxedo Park, N. Y.
- Conklin, E. G., Professor of Biology, University of Pennsylvania, Philadelphia, Pa.
- Coulter, John M., University of Chicago, Chicago,
- Cook, James B., Randolph Building, Memphis, Tenn. Corter, William Harrison, Professor of Mathematics, Stone Mountain, Ga.
- Craig, Wallace, 624 Howes St., Ft. Collins, Colo.
- Crane, James M., Board of Education, Newburgh, N. Y.
- Cranford, J. P., Wakefield, New York City.
- Crocker, Francis B., Professor of Electrical Engineering, Columbia University, New York City.
- Cryer, Matthew H., M.D., 1420 Chestnut St., Philadelphia, Pa.
- Curtis, Charles B., 9 East 54th St., New York City.
  Cushing, John J., 1001 Union Trust Bldg., Cincinnati, Ohio.
- Cushman, Allerton Seward, Ph.D., Instructor in Chemistry, Bryn Mawr College, Bryn Mawr, Pa.
- Cushny, Arthur R., Professor of Materia Medica and Therapeutics, University of Michigan, Ann Arbor, Mich.
- Cutler, Colman Ward, M.D., 36 East 33d St., New York City.
- Cutter, W. D., College of Physicians and Surgeons, New York City.
- Daniel, John, Professor of Physics, Vanderbilt University, Nashville, Tenn.
- Davis, George S., Detroit, Mich.
- Davis, Herman S., International Latitude Station, Gaithersburg, Md.
- Davis, N. S., Jr., 291 Huron St., Chicago, Ill.
- Dawson, Percy Millard, M.D., Johns Hopkins Medical School, Baltimore, Md.
- Day, William Scofield, Tutor in Physics, Columbia University, New York City.
- Delafond, E., Ingenieur Chimiste, San Juan, Porto Rico.
- Dennis, David Worth, Professor of Biology, Earlham College, Richmond, Indiana.
- Devereux, W. B., 99 John St., New York City.
- Dexter, Franklin, M.D., Associate Professor of Anatomy, Harvard Medical School, Boston, Mass.

- Dimock, Mrs. Henry F., 25 East 60th St., New York City.
- Dodge, Chas. Richards, U. S. Department of Agriculture, Washington, D.C.
- Dodman, Alfred C., Jr., 235 West 108th St., New York City.
- Dowell, Philip, Ph.D., Professor of Natural Science, Muhlenberg College, Allentown, Pa.
- Downs, Edgar Selah, Assistant in Physics, Yale University, New Haven, Conn.
- Droppers, Garrett, President of the State University, Vermillion, S. Dak.
- Duane, William, Ph.D., Professor of Physics, State University, Boulder, Colo.
- DuBois, Wm. E. B., Professor of Economics and History, Atlanta University, Atlanta, Ga.
- Duke, Frank Williamson, Professor of Mathematics, Hollins Institute, Hollins, Va.
- Dunstan, A. St. C., Professor of Electrical Engineering, Polytechnic Institute, Auburn, Ala.
- Duval, Edmund P. R., Austin, Texas.
- Dwight, Thomas, M.D., Harvard Medical School, Boston, Mass.
- Eckles, C. H., Instructor in Dairy Bacteriology, Iowa State College, Ames, Iowa.
- Ehrenfeld, Frederick, Ph.D., Instructor in Geology, University of Pennsylvania, Philadelphia, Pa.
- Eiesland, John, Ph.D., Professor of Mathematics, Thiel College, Greenville, Pa.
- Elliott, George T., M.D., 36 E. 35th St., New York City.
- Ellis, H. Bert, M.D., 243-246 Bradbury Block, Los Angeles, Cal.
- Enders, Howard Edwin, Professor of Biology, Lebanon Valley College, Annville, Pa.
- English, William Thompson, M.D., Professor of Physical Diagnosis, Western University of Pennsylvania, Pittsburg, Pa.
- Eno, A. F., 32 Fifth Avenue, New York City.
- Epper, Rev. Frowin, O.S.B., Mt. Angel, Oregon.
- Esmond, Darwin W., Newburgh, N. Y.
- Faile, Thomas H., 45 South St., New York City.
- Falk, Gustav, 24 East 81st St., New York City.
- Farrand, Livingston, Columbia University, New York City.
- Faught, John B., Professor of Mathematics, Northern State Normal School, Marquette, Mich.
- Fay, L. G., Naval Office, 20 Exchange Place, New York City.
- Findlay, Merlin C., Professor of Biology, Park College, Parkville, Mo.
- Fisher, Irving, Professor of Political Economy, Yale University, New Haven, Conn.

- Fisher, Robert Jones, 614 F St., N. W., Washington, D. C.
- Fisk, Herbert F., Principal of the Academy, Northwestern University, Evanston, Ill.
- Fiske, Thomas S., Columbia University, New York City.
- Fleming, Dudley D., 249 Washington St., Jersey City, N. J.
- Fletcher, Andrew, 339 West 77th St., New York City.
  Flint, Austin, M.D., LL.D., Professor of Physiology,
  Cornell University Medical College, New York
  City.
- Foote, Warren M., Credit Lyonnais, Dept. d'Etranger, B'd. des Italiens, Paris, France.
- Foster, Lafayette Lumpkin, President of the Agricultural and Mechanical College of Texas, College Station, Texas.
- Foster, William, Newburgh, N. Y.
- Fraenkel, Joseph, M.D., 46 East 75th St., New York City.
- Frankland, Frederick W., 346 Broadway, New York City.
- Freeborn, George C., M.D., 215 West 70th St., New York City.
- Freedman, William Horatio, Professor of Electrical Engineering, University of Vermont, Burlington, Vt.
- Freeman, Charles, Ph.D., Director of Clark Chemical Laboratory, Westminster College, New Wilmington, Pa.
- Freer, Paul C., Ann Arbor, Mich.
- Freley, Jasper Warren, Wells College, Aurora, N. Y. Frost. William Dodge, Instructor in Bacteriology, University of Wisconsin, Madison, Wis.
- Fuller, George W., 220 Broadway, New York City.
- Fuller, Myron L., Assistant Geologist, U. S. Geological Survey, Washington, D. C.
- Fulton, Weston Miller, Instructor in Meteorology, University of Tennessee, Knoxville, Tenn.
- Gager, C. Stuart, Professor of Biologic Science, New York State Normal College, Albany, N. Y.
- Garrett, Hon. John W., 11 South Street, Baltimore, Md.
- Gates, Fanny Cook, Instructor in Physics, Woman's College, Baltimore, Maryland.
- Geisler, Joseph F., New York Mercantile Exchange, New York City.
- Genthe, Karl Wilhelm, Instructor in Zoology, University of Michigan, Ann Arbor, Mich.
- Gifford, John Clayton, Assistant Professor of Forestry, New York State College of Forestry, Ithaca, N. Y.
- Gillette, C. P., Professor of Zoology, Agricultural College, Fort Collins, Colo.
- Gleason, W. Stanton, M.D., Newburgh, N. Y.

- Glenn, L. C., Ph.D., Professor of Geology, Vanderbilt University, Nashville, Tenn.
- Gordon, Reginald, Columbia University, New York City.
- Gouldy, Miss Jennie A., Newburgh, N. Y.
- Graham, R. D., 35 Wall St., New York City.
- Green, Horace, 80 E. Washington Sq., New York City.
- Greene, Charles Wilson, Ph.D., Professor of Physiology, State University of Missouri, Columbia, Mo.
- Gregory, Herbert E., Yale University, New Haven, Conn.
- Griffith, C. J., Instructor in Dairying, Agricultural College, Fort Collins, Colo.
- Griffith, Herbert Eugene, Professor of Chemistry, Knox College, Galesburg, Ill.
- Griffith, John Howell, Professor of Mathematics and Civil Engineering, Clarkson School of Technology, Potsdam, N. Y.
- Griffith, W. W., Instructor in Physics, State University, Columbia, Missouri.
- Griswold, Clifford S., Head of Dept. of Physics, Groton School, Groton, Mass.
- Grover, Frederick Orville, Professor of Botany, Oberlin College, Oberlin, Ohio.
- Hague, James D., 18 Wall St., New York City.
- Hall, Edwin Bradford, Wellsville, N. Y.
- Halley, Robert Burns, Professor of Physics and Chemistry, Sam Houston Normal Institute, Huntsville, Texas.
- Halstead, Charles H., Board of Park Commissioners, Newburgh, N. Y.
- Hasslacher, Jacob, 100 William St., New York City. Hard, Jas. M. B., Orizaba, Mexico.
- Hastings, Edwin George, Assistant Bacteriologist, College of Agriculture, University of Wisconsin, Madison, Wis.
- Hatcher, John Bell, Carnegie Museum, Pittsburg, Pa.
- Havemeyer, John C., Yonkers, N. Y.
- Havemeyer, W. F., 32 Nassau St., New York City.
- Hazard, R. G., Peace Dale, R. I.
- Heald, Fred. DeForest, Ph.D., Professor of Biology, Parsons College, Fairfield, Iowa.
- Hedgeock, George Grant, University of Nebraska, Lincoln, Nebr.
- Heller, Napoleon B., Professor of Mathematics and Astronomy, Fort Worth University, Fort Worth, Texas.
- Henderson, William Edward, Ph.D., Ohio State University, Columbus, O.
- Hering, Daniel Webster, Professor of Physics, New York University, University Heights, New York City.

- Herrick, Glenn W., Professor of Biology, A. & M. College, Agricultural College P. O., Miss.
- Herter, Christian A., M.D., 819 Madison Avenue, New York City.
- Hewett, Edgar L., President New Mexico Normal University, East Las Vegas, N. M.
- Hodge, Frederick Humbert, Professor of Mathematics, Bethel College, Russellville, Ky.
- Holmes, Miss Mary S., 1331 N. Twelfth St., Philadelphia, Pa.
- Hopkins, George B., 25 West 48th St., New York City.
- Hornung, Christian, Professor of Mathematics and Astronomy, Heidelberg University, Tiffin, Ohio.
- Howard, Orson, M.D., Professor of Biology, University of Utah, Salt Lake City, Utah.
- Howard, S. Francis, Professor of Chemistry, Mass. Agric. College, Amherst, Mass.
- Howe, Henry M., Columbia University, New York City
- Howe, Herbert Alonzo, Director of the Chamberlin Observatory, University of Denver, University Park. Colo.
- Howe, J. Morgan, M.D., 12 West 46th St., New York City.
- Howell, John W., Ballantine Parkway, Newark, N. J.
  Howell, William H., Ph.D., M.D., Professor of
  Physiology, Johns Hopkins University, Baltimore, Md.
- Hower, Harry Sloan, Instructor in Physics, Case School of Applied Science, Cleveland, Ohio.
- Howerth, Ira Woods, Instructor in Sociology, University of Chicago, Chicago, Ill.
- Hoyt, Alfred M., 934 Fifth Avenue, New York City. Huber, G. Carl, M.D., Junior Professor of Anatomy and Director of Histological Laboratory, University of Michigan, Ann Arbor, Michigan.
- Hull, Gordon Ferrie, Professor of Physics, Dartmouth College, Hanover, N. H.
- Hun, Henry, M.D., Professor of Diseases of the Nervous System, Albany Medical College, Albany, N. Y.
- Hunter, Samuel John, Associate Professor of Entomology, University of Kansas, Lawrence, Kansas.
- Hyde, Miss Edith E., U. S. National Museum, Washington, D.C.
- Iorns, Martin J., Professor of Science, Fort Worth University, Fort Worth, Texas.
- Jacobs, Henry Barton, M.D., Instructor in Medicine,
  Johns Hopkins Medical School, Baltimore, Md.
  Jarvis, Samuel M., 1 West 72nd St., New York City.
  Jesup, James R., 555 Fifth Avenue, New York City.
  Johns, Carl, Instructor in Biology, Bethany College,
  Lindsborg, Kans.

- Johnson, Frank Edgar, 747 Warburton Avenue, Yonkers, N. Y.
- Johnstone, William Bard, Assistant in Physics, Columbia University. New York City.
- Johonnott, Edwin Sheldon, Ph.D., Rose Polytechnic Institute, Terre Haute, Ind.
- Jones, Charles C., M.D., Galveston, Texas.
- Jones, Lynds, M.Sc., Instructor in Zoology, Oberlin College, Oberlin, Ohio.
- Jones, Philip Mills, M.D., Mills Building, San Francisco, Cal.
- Jones, W. R. T., 1 East 39th St., New York City.
- Jordan, Edwin Oakes, Ph.D., University of Chicago, Chicago, Ill.
- Kahl, Paul Hugo Isidor, Curator of Entomological Museum, State University, Lawrence, Kansas.
- Kaufmann, Paul, M.D., Professor of Bacteriology, Pathology and Hygiene, State University, Columbia, Mo.
- Kean, Mrs. Hamilton Fish, 25 East 37th St., New York City.
- Kellogg, Vernon Lyman, Professor of Entomology, Stanford University, California.
- Kennedy, Frank Lowell, Instructor in Lawrence Scientific School, Harvard University, Cambridge, Mass.
- Kepner, Harry V., Instructor in Chemistry, Denver Manual Training High School, Denver, Colo.
- Kern, Josiah Quincy, Ph.D., 507 6th St., N. W. Washington, D. C.
- Keyser, Cassius Jackson, Instructor in Mathematics, Columbia University, New York City.
- Kimball, Arthur Lalanne, Professor of Physics, Amherst College, Amherst, Mass.
- King, Cyrus A., Ph.D., Instructor in Botany, University of Indiana, Bloomington, Ind.
- Kinney, Charles Noyes, Professor of Chemistry, Drake University, Des Moines, Iowa.
- Kirk, Elliott W., Teacher of Science in High School, Veedersburg, Ind.
- Kirschmann, A., Ph.D., Toronto University, Toronto, Canada.
- Krause, Otto H., Prospect Ave., Hackensack, N. J.
- Landis, W. W., Dickinson College, Carlisle, Pa.
- Landon, Francis C., Staatsburg-on-Hudson, N. Y.
- Lane, Alfred C., State Geologist, Lansing, Mich.
- Langsdorf, Alexander Suss, Instructor in Physics and Electrical Engineering, Washington University, St. Louis, Mo.
- Lanneau, John Francis, Professor of Applied Mathematics and Astronomy, Wake Forest College, Wake Forest, N. C.
- Lauman, George Nieman, Instructor in Horticulture, Cornell University, Ithaca, N. Y.

Lawrence, James W., Professor of Mechanical Engineering, Agricultural College, Fort Collins, Colo.

Leach, Miss Mary F., 74 Pitcher St., Detroit, Mich.
Leaming, Edward, 437 West 59th St., New York City.
Leathers, W. S., Professor of Biology, University of Mississippi, University P. O., Miss.

Lee, Waldemar, Passaic, N. J.

Leeds, Morris E., 3221 North 17th St., Philadelphia, Pa.

Le Grand, Leroy, M.D., Graham, Texas.

Le Rossignol, James Edward, Ph.D., Professor of Economics, University of Denver, University Park, Colo.

Leslie, Miss Augusta, Newburgh, N. Y.

Lichthardt, G., Jr., 18th and MSts., Sacramento, Cal. Lillie, Frank R., Assistant Professor of Zoology, University of Chicago, Chicago, Ill.

Ling, Charles Joseph, Instructor in Physics, Denver Manual Training High School, Denver, Colo.

Linn, Alvin Frank, Professor of Chemistry, Wittenberg College, Springfield, Ohio.

Little, C. A., Analyst at Lorain Steel Works, Elyria, Ohio.

Little, Henry P., Superintendent of Union Schools, Momence, Ill.

Long, William Henry, Jr., A.M., 2101 San Gabriel St., Austin, Texas.

Loomis, Frederick B., Ph.D., Assistant in Zoology, Amherst College, Amherst, Mass.

Lough, J. E., Professor of Psychology, State Normal School, Oshkosh, Wisconsin.

Lowber, Rev. James William, Ph.D., 113 East 18th St., Austin, Texas.

McAlpin, C. W., 11 East 90th St., New York City. McKinney, Thomas Emory, Professor of Mathematics and Astronomy, Marietta College, Marietta, Ohio.

McLanahan, George William, 1601 21st St., N. W., Washington, D. C.

McMahon, D. J., M.D., 239 East 21st St., New York City.

McNulty, John J., 17 Lexington Avenue, New York City.

Mangan, Daniel C., M.D., 95 Park Avenue, Brooklyn, N. Y.

Mark, Edward Laurens, Director Zoological Laboratory, Harvard University, Cambridge, Mass.

Marston, Edwin S., 291 Clinton Ave., Brooklyn, N. Y.

Martin, W. R. H., 56 West 33d St., New York City. Matas, Rudolph, M.D., Professor of Surgery, Tulane University, New Orleans, La.

Mercer, William Fairfield, Ph.D., Professor of Biology, Ohio University, Athens, Ohio.

Merrill, Payson, 111 Broadway, New York City.

Merrill, Joseph Francis, Ph.D., Professor of Physics and Electrical Engineering, University of Utah, Salt Lake City, Utah.

Metcalf, Maynard M., Professor of Zoology, The Woman's College, Baltimore, Md.

Metcalf, Wilmot V., Professor of Chemistry and Physics, Carleton College, Northfield, Minn.

Metcalfe, Captain Henry, 143 Liberty St., New York City.

Mezes, Sidney Edward, Professor of Philosophy, University of Texas, Austin, Texas.

Millar, John M., Escanaba, Mich.

Miller, Edmund H., Columbia University, New York City.

Miller, Ephraim, Professor of Mathematics and Astronomy, State University, Lawrence, Kansas.

Miller, George N., M.D., 811 Madison Ave., New York City.

Miller, John Craig, M.D., Professor of Natural Science, Lincoln University, Chester Co., Pa.

Miller, Miss Louise Klein, 631 Grand Ave., Dayton, Ohio

Miller, Pleasant T., Temple, Bell County, Texas.

Mills, James, Ontario Agricultural College, Guelph, Ontario.

Mills, Samuel C., Newburgh, N. Y.

Mitchell, Edward, 44 Wall St., New York City.

Mitchell, Henry Bedinger, Tutor in Mathematics, Columbia University, New York City.

Mitchell, James, Newburgh, N. Y.

Mitchell, Roland G., 141 Water St., New York City.

Montgomery, Edmund, M.D., Hemstead, Texas.

Montgomery, James H., Meadville, Penna.

Moody, William Albion, Professor of Mathematics, Bowdoin College, Brunswick, Maine.

Moore, Ernest Carroll, Ph.D., Instructor in Philosophy, University of California, Berkeley, Cal.

Morgan, H. A., Professor of Zoology and Entomology, State University, Baton Rouge, La.

Morse, Albert P., Zoology, Wellesley, Mass.

Mottier, David M., Ph.D., Professor of Botany, University of Indiana, Bloomington, Ind.

Moulton, Forest Ray, Ph.D., Instructor in Celestial Mechanics, University of Chicago, Chicago, Ill.

Mt. Carmel Scientific Society, Mt. Carmel, Ill.

Nason, Frank L., West Haven, Conn.

Nelson, Aven, Professor of Biology, University of Wyoming, Laramie, Wyoming.

Nesmith, John W., 1100 Colfax Ave. E., Denver, Colo.

Notestein, F. M., Professor of Mathematics and Physics, Alma College, Alma, Mich.

Nylander, Olof O., Box 165, Caribou, Aroostock County, Maine.

- Obrig, Adolph, 'The Dakota,' 1 West 72nd St., New York City.
- Oestlund, Oscar W., Entomologist, State University, Minneapolis, Minn.
- Oglevee, Christopher S., Instructor in Biology, Lincoln University, Lincoln, Ill.
- Osborn, Frederick A., Professor of Physics, Olivet College, Olivet, Mich.
- Osborn, Mrs. W. H., 32 Park Ave., New York City. Osborne, Frank Russell, Professor of Physics, John B. Stetson University, DeLand, Fla.
- Osborne, George Abbott, Professor of Mathematics, Mass. Inst. of Technology, Boston, Mass.
- Osburn, Raymond Carroll, Professor of Zoology, Fargo College, Fargo, N. Dak.
- Owen, Charles Lorin, Field Columbian Museum, Chicago, Ill.
- Owen, Miss Juliette A., 306 North 9th St., St. Joseph, Mo.
- Owen, Miss Mary Alicia, 306 North 9th St., St. Joseph. Mo.
- Owens, William Gundy, Professor of Chemistry and Physics, Bucknell University, Lewisburg, Pa.
- Paddock, Wendell, Professor of Botany and Horticulture, Agricultural College, Fort Collins, Colo.
- Painter, Charles Fairbank, M.D., 372 Mulboro, St., Boston, Mass.
- Pammel, L. H., Iowa Agricultural College, Ames, Ia. Parker, George Howard, Assistant Professor of Zoology, Harvard University, Cambridge, Mass.
- Parker, J. B., M.D., U. S. N., Washington, D. C. Parmelee, H. P., 594 Cherry St., Grand Rapids, Mich. Parsons, Mrs. Edwin, 326 West 90th St., New York
- Paton, Stewart, M.D., 213 West Monument St., Baltimore, Md.
- Peabody, George Foster, 28 Monroe Place, Brooklyn, N. Y.
- Pell, Alfred, 15 East 35th St., New York City.
- Piel, G., 148 Riverside Drive, New York City.
- Piersol, George A., Professor of Anatomy, University of Pennsylvania, Philadelphia, Pa.
- Pilcher, James Evelyn, Ph.D., Professor of Sociology and Economics, Dickinson College, Carlisle, Pa.
- Pinchot, J. W., 1615 Rhode Island Ave., Washington, D. C.
- Plant, Albert, 28 East 76th St., New York City.
- Plowman, Amon Benton, Professor of Physics, Ohio Wesleyan University, Delaware, Ohio.
- Pollock, Horatio M., Ph.D., N. Y. State Civil Service Commission, Albany, N. Y.
- Porter, W. Townsend, M.D., Assistant Professor of Physiology, Harvard Medical School, Boston, Mass.

- Powel, Colonel de Veaux, 29 Broadway, New York City.
- Prentiss, Daniel Webster, M.D., 1101 14th St., N.W., Washington, D. C.
- Price, Robert Henderson, Professor of Horticulture and Mycology, A. & M. College, College Station, Texas.
- Puffer, Wm. L., Assistant Professor of Electrical Engineering, Mass. Institute of Technology, Boston, Mass.
- Purdue, Albert Homer, Professor of Geology, University of Arkansas, Fayetteville, Ark.
- Ramsey, Rolla Roy, Instructor in Physics, Indiana University, Bloomington, Ind.
- Raymer, George Sharp, E.M., Instructor in Mining, Harvard University, Cambridge, Mass.
- Raymond, Wm. G., Rensselaer Polytechnic Institute, Troy, N. Y.
- Reid, Hon. Whitelaw, 451 Madison Avenue, New York City.
- Rice, Martin Everett, Assistant Professor of Physics and Electrical Engineering, University of Kansas, Lawrence, Kansas.
- Richardson, Alonzo Blair, M.D., Superintendent of Government Hospital for Insane, Washington, D. C.
- Richardson, Major Charles A., Canandaigua, N. Y. Ricker, N. Clifford, Dean of the College of Engineering, University of Illinois, Urbana, Ill.
- Riggs, Robert Baird, Ph.D., Professor of Chemistry, Trinity College, Hartford, Conn.
- Riker, Samuel, 27 East 69th St., New York City.
- Ritter, William Emerson, Associate Professor of Zoology, University of California, Berkeley, Cal.
- Robb, J. Hampden, 23 Park Ave., New York City. Roberts, Rev. Wm. C., D.D., LL.D., President of Centre College, Danville, Ky.
- Robinson, Charles Dwight, Newburgh, N. Y.
- Rogers, Edward L., 4 East 74th St., New York City. Root, Hon. Elihu, Secretary of War, Washington, D. C.
- Rothschild, Jacob, Hotel Majestic, New York City. Roy, Arthur J., C.E., First Assistant at Dudley Observatory, Albany, N. Y.
- Runyon, William Henry, Teacher of Science, Lyons Township High School, La Grange, Ill.
- Russak, Frank, 19 East 65th St., New York City.
- Russell, James E., Dean of Teachers College, West 120th St., New York City.
- Sackett, Robert L., C.E., Professor of Applied Mathematics and Astronomy, Earlham College, Richmond, Indiana.
- Sager, Fred. Anson, Assistant Professor of Physics, University of Illinois, Urbana, Ill.

- Sanford, Fernando, Professor of Physics, Stanford University, Cal.
- Sardeson, Frederick William, Ph.D., Instructor in Geology, University of Minnesota, Minneapolis, Minn.
- Satterlee, F. LeRoy, M.D., 8 West 18th St., New York City.
- Schiedt, Richard Conrad, Professor of Biology, Franklin and Marshall College, Lancaster, Pa.
- Schieffelin, Eugene, 865 Madison Ave., New York City. Schlichting, Emil, Analytical Chemist, 103 North Front St., Philadelphia, Pa.
- Schmitt, A. Emil, M.D., 310 East 57th St., New York City.
- Schwarz, E. A., U. S. Department of Agriculture, Washington, D. C.
- Seal, Alfred Newlin, Ph. D., Professor of Chemistry, Girard College, Philadelphia, Pa.
- Sedgwick, William Thompson, Massachusetts Institute of Technology, Boston, Mass.
- Seligman, Isaac M., 36 West 54th St., New York City. Seymour, Paul Henry, 215 East 61st St., Chicago, Ill. Shattuck, Samuel Walker, Professor of Mathematics,
- University of Illinois, Champaign, Ill.
- Sheldon, John Lewis, Botanist, Lincoln, Nebraska. Shelton, Edward M., Box 593, Seattle, Wash.
- Shiland, Andrew, Jr., 262 West 78th St., New York City.
- Shrader, John Clinton, M.D., LL.D., President Iowa State Board of Health, Iowa City, Iowa.
- Shute, D. K., M.D., 1101 13th St., N. W., Washington, D. C.
- Sickels, I., M.D., 17 Lexington Ave., New York City.
  Skeel, Frank D., M.D., 58 East 25th St., New York
  City.
- Slingerland, Mark Vernon, Assistant Professor of Economic Entomology, Cornell University, Ithaca. N. Y.
- Smith, Arthur George, Assistant Professor of Mathematics, State University of Iowa, Iowa City, Iowa.
- Smith, Eugene, C.E., 317 Washington St., Hoboken, N. J.
- Smith, Rev. J. Barry, S.J., Professor of Chemistry, Georgetown University, Washington, D. C.
- Smith, James Hervey, 217 North Central Ave., Chicago, Ill.
- Smith, Thomas A., Professor of Mathematics and Physics, Beloit College, Beloit, Wis.
- Smith, William Benjamin, Professor of Mathematics, Tulane University, New Orleans, La.
- Smith, Wm. Sidney Tangier, Ph.D., U. S. Geological Survey, Washington, D. C.
- Snelling, Charles Mercer, Junior Professor of Mathematics, University of Georgia, Athens, Ga.

- Sommerfield, William I., 32 West 13th St., New York City.
- Soper, George A., Ph.D., 29 Broadway, New York City.
- Spencer, John Campbell, M.D., Medical Department, University of California, San Francisco, Cal.
- Speyas, Clarence Livingston, Associate Professor of Chemistry, Rutgers College, New Brunswick, N. J.
- Stanton, Timothy W., Paleontologist, U. S. Geological Survey, Washington, D. C.
- Starks, Edwin Chapin, Curator and Instructor, Department of Zoology, Stanford University, Cal.
- Starr, M. Allen, M.D., 5 West 54th St., New York City.Steer, Justin, M.D., Medical Department, Washington University, St. Louis, Mo.
- Stephens, Henry Matthew, Professor of Biology, Dickinson College, Carlisle, Pa.
- Stevens, Frederick W., Physics, Lake Forest, Ill.
- Stillhamer, Arthur G., Physics, Bloomington, Ill.
- Stone, Isabelle, Ph.D., Instructor in Physics, Vassar College, Poughkeepsie, N. Y.
- Stump, James A., Instructor in Physics, Agricultural College, Fort Collins, Colo.
- Summers, Henry E., Professor of Zoology, Iowa State College, Ames, Iowa.
- Talmage, James Edward, Ph.D., Professor of Geology, University of Utah, Salt Lake City, Utah.
- Tandberg, John P., Instructor in Physics and Chemistry, St. Olaf College, Northfield, Minn.
- Tatlock, John, Jr., 32 Nassau St., New York City.
- Taylor, Alonzo Englebert, Professor of Pathology, University of California, Berkeley, Cal.
- Thaxter, Roland, Professor of Cryptogamic Botany, Harvard University, Cambridge, Mass.
- Thelberg, Elizabeth B., M.D., Professor of Physiology and Hygiene, Vassar College, Poughkeepsie, N. Y.
- Thom, Charles, Instructor in Botany, University of Missouri, Columbia, Mo.
- Thompson, James Edwin, 3224 Broadway, Galveston, Texas.
- Thompson, W. Gilman, M.D., 34 East 31st St., New York City.
- Thorne, Mrs. Phoebe Anna, 558 Madison Avenue, New York City.
- Tiffany, L. C., 27 East 72d St., New York City.
- Tilley, Charles Edward, Teacher of Physics and Chemistry in the Hope Street High School, Providence, R. I.
- Tilson, P. S., Associate Professor of Chemistry, A. & M. College, College Station, Texas.
- Tingle, J. Bishop, Assistant Professor of Chemistry, Lewis Institute, Chicago, Ill.

- Titus, E., Jr., 10 East 70th St., New York City.Tower, Olin F., Ph.D., Instructor in Chemistry,Adelbert College, Cleveland, Ohio.
- Trask, Spencer, 27 Pine St., New York City.
- Trimble, Robert E., Assistant Meteorologist and Irrigation Engineer, Agricultural College, Fort Collins, Colo.
- Trowbridge, Charles Christopher, Tutor in Physics, Columbia University, New York City.
- Tucker, Richard Hawley, C.E., Astronomer, Lick Observatory, Mt. Hamilton, Cal.
- Tufts, Frank Leo, Tutor in Physics, Columbia University, New York City.
- Tuohy, John, Tulare, California.
- Turnbull, Thomas, Jr., M.D., Assistant Professor of Practice of Medicine, Allegheny University, Allegheny, Pa.
- Tyler, Ansel Augustus, Ph.D., Professor of Science in Bellevue College, Bellevue, Nebr.
- Vail, Miss Anna Murray, 29 Washington Sq., New York City.
- Van Amringe, John Howard, Professor of Mathematics, Columbia University, New York City.
- Vanderpoel, Frank, M.D., 153 Center St., Orange, N. J.
- Van Duyn, John, M.D., 318 James St., Syracuse, N. Y.
  Van Dyck, William Van Bergen, Instructor in Electricity, Rutgers College, New Brunswick, N. J.
  Van Gelder, Arthur P., Landing, N. J.
- Velsor, Joseph A., 105 McDonough St., Brooklyn, N. Y.
- Voris, Floyd Thomas, Professor of Natural Science, Buena Vista College, Storm Lake, Iowa.
- Votey, J. William, Professor of Civil Engineering, University of Vermont, Burlington, Vt.
- Wadman, W. E., 102 Lord Ave., Bayonne, N. J.
  Walker, John A., 260 Montgomery St., Jersey City,
  N. J.
- Walter, Miss Emma, 109 North 16th St., Philadelphia, Pa.
- Walter, W. J., 115 West 57th St., New York City. Ward, Willard Parker, Ph.D., Mining Engineer, 164 West 58th St., New York City.
- Watson, Elizabeth S., Weymouth, Mass.
- Webb, Howard Scott, Professor of Electrical Engineering, University of Maine, Orono, Maine.
- Webster, Albert Lowry, C.E., 112 East 40th St., New York City.
- Webster, Edgar H., Professor of Physical Science, Atlanta University, Atlanta, Ga.
- Welin, John E., Professor of Physics and Chemistry, Bethany College, Lindsborg, Kansas.
- Wells, Eliab Horatio, M.D., Professor of Natural Science, Baylor Female College, Belton, Texas.

- West, Háarlem E., Mining Engineer, Libby, Montapa.
- Westinghouse, George, Pittsburg, Pa.
- Weygant, Colonel Charles H., Newburgh, N. Y.
- Wheeler, Alvin Sawyer, Ph.D., Assistant Professor of Chemistry, University of North Carolina, Chapel Hill, N. C.
- Wheeler, Eben S., U. S. Engineer Office, Detroit, Mich.
- Wheeler, William Morton, Professor of Zoology, University of Texas, Austin, Texas.
- Whitaker, Milton C., Columbia University, New York City.
- White, Horace, 18 West 69th St., New York City.
- Wiechmann, F. G., M.D., 771 West End Ave., New York City.
- Wilbur, Ray Lyman, M.D., Assistant Professor of Physiology, Stanford University, Cal.
- Wilkinson, John G., Newburgh, N. Y.
- Wilkinson, Levi Washington, Professor of Industrial and Sugar Chemistry, Tulane University, New Orleans, La.
- Wilcox, Miss Mary Alice, Ph.D., Professor of Zoology, Wellesley College, Wellesley, Mass.
- Williams, Charles S., 166 Montgomery St., Newburgh, N. Y.
- Williams, Frank H., Greene, New York.
- Williams, Stephen Riggs, Professor of Biology, Miami University, Oxford, Ohio.
- Williamson, Edward Bruce, Zoology, Bluffton, Ind.
  Willetts, Joseph C., Skaneateles, Onondaga Co.,
  N. Y.
- Willis, Bailey, U. S. Geological Survey, Washington, D. C.
- Wilson, Mortimer, M.D., Port Huron, Mich.
- Wilson, Henry Van Peters, Professor of Biology, University of North Carolina, Chapel Hill, N. C.
- Winters, J. E., M.D., 25 West 37th St., New York City.
- Woods, Charles D., Professor of Agriculture, University of Maine, Orono, Maine.
- Woods, James Haughton, Ph.D., Instructor in Anthropology, Harvard University, Cambridge, Mass.
- Wright, Rev. C. B. B., Ph.D., 796 Astor St., Milwaukee, Wis.
- Wright, Walter Livingston, Jr., Professor of Mathematics, Lincoln University, Chester Co., Pa.
- Yates, J. A., Professor of Natural Science, Ottawa University, Ottawa, Kansas.
- Young, Stewart Woodford, Assistant Professor of Chemistry, Stanford University, Cal.
- Zeleny, John, Associate Professor of Physics, University of Minnesota, Minneapolis, Minn.