

*A Text-Book of Physiology.* By M. FOSTER, M.D. Sixth Edition, Revised. Part IV. (comprising the remainder of Book III., The Senses and Some Special Muscular Mechanisms, and Book IV., The Tissues and Mechanisms of Reproduction). New York, Macmillan & Co. 1891.

WITHOUT doubt Foster's "Text-Book of Physiology" must be accorded the foremost place among the works upon this subject, which have been published in the English language. It embodies the results of the most recent researches in this department of biological science, and is not only comprehensive, up to date, and accurate, but is admirably arranged and most convenient as an encyclopædic work of reference upon all that relates to the subject.

A large portion of the present volume is devoted to the senses, including sight, auditory sensations, olfactory sensations, gustatory sensations, cutaneous sensations, the muscular sense, and tactile perceptions and judgments. Each of these subjects is treated in a masterly manner, the anatomical elements concerned in each special sense being minutely described, and the facts and theories relating to the perception of various sensations being fully detailed.

Chapter VII., "On Some Special Muscular Mechanisms," contains three sections: one devoted to the voice, one to speech, and one to walking.

Book IV., which concludes the volume and the work, gives a

very satisfactory account of "the tissues and mechanisms of reproduction."

*Diphtheria, Its Natural History and Prevention.* By R. THORNE THORNE, Assistant Medical Officer to Her Majesty's Local Government Board. London and New York, Macmillan & Co. 1891.

THIS is a valuable résumé of what is known at the present day with reference to the etiology and prevention of diphtheria. The volume abounds in interesting details relating to the prevalence of the disease in England and Wales, and gives numerous facts showing the not infrequent transmission of the disease by contaminated milk and its probable transmission by cats, which have been proved to be subject to the disease as a result of experimental inoculations in the trachea with bits of diphtheritic membrane, or cultures of the Klebs-Löffler diphtheria bacillus.

According to Thorne there has been a progressive increase in the mortality from diphtheria in England and Wales during the past twenty years, and this progressive increase has coincided in time with steady improvement in regard to such sanitary circumstances as water-supply, sewerage, and drainage; and also with a continuous diminution in the death-rate from the group of zymotic diseases and from typhoid fever.

The diphtheria mortality remains, as heretofore, greater in the sparsely-peopled districts, but there is a marked increase in its prevalence in large towns and cities.

#### Publications Received at Editor's Office.

- BENOTIRE, CAPT. CHARLES. Life Histories of American Birds. Washington, Government. 4°. Paper. 413 p. Ill.
- CHADWICK, FRENCH E. Temperament, Disease and Health. New York, G. P. Putnam's Sons. 8°. 85 p. 75 cts.
- DALL, WILLIAM H. Instructions for Collecting Mollusks. Washington, Government. 8°. Paper. 56 p.
- MOOREHEAD, WARREN K. Primitive Man in Ohio. New York, G. P. Putnam's Sons. 8°. 262 p. \$3.
- PHILOSOPHICAL SOCIETY OF WASHINGTON. Bulletin 1888-91. Washington, The Society. 8°. 652 p.
- RIDGWAY, ROBERT. The Humming Birds. Washington, Government. 8°. Paper. 381 p.
- RILEY, C. F. Directions for Collecting and Preserving Insects. Washington, Government. 8°. Paper. 147 p.
- UNIVERSITY OF MINNESOTA. Quarterly Bulletin. Vol. I., No. 1. 4°. Paper. 32 p.

#### Reading Matter Notices.

Ripans Tabules: best liver tonic.  
Ripans Tabules cure jaundice.

### Societas Entomologica.

International Entomological Society, Zurich-Hottingen, Switzerland.  
Annual fee, ten francs.

The Journal of the Society appears twice a month, and consists entirely of original articles on entomology, with a department for advertisements. All members may use this department free of cost for advertisements relating to entomology.

The Society consists of about 450 members in all countries of the world.

The new volume began April 1, 1892. The numbers already issued will be sent to new members.

For information address Mr. FRITZ RUHL, President of the Societas Entomologica, Zurich-Hottingen, Switzerland.

### SCIENCE CLUBBING RATES.

10% DISCOUNT.

We will allow the above discount to any subscriber to *Science* who will send us an order for periodicals exceeding \$10, counting each at its full price.

N. D. C. HODGES, 874 Broadway, N. Y.

#### Exchanges.

[Free of charge to all, if of satisfactory character. Address N. D. C. Hodges, 874 Broadway, New York.]

Taxidermist going out of business has quantity of finely mounted specimens of North American birds, mammals and reptiles and skins of birds for sale, including a full local collection of bird skins, showing some great variations of species; also quantity of skulls with horns of deer and mountain sheep, and mounted heads of same. Will give good exchange for Hawk Eye camera with outfit. Apply quickly to J. R. Thurston, 265 Yonge St., Toronto, Canada.

For exchange.—A fine thirteen-keyed flute in leather covered case, for a photograph camera suitable for making lantern slides. Flute cost \$27, and is nearly new. U. O. COX, Mankato, Minn.

To exchange; Experiment Station bulletins and reports for bulletins and reports not in my file. I will send list of what I have for exchange. P. H. ROLFS, Lake City, Florida.

Finished specimens of all colors of Vermont marble for fine fossils or crystals. Will be given only for valuable specimens because of the cost of polishing. GEO. W. PERRY, State Geologist, Rutland, Vt.

For exchange.—Three copies of "American State Papers Bearing on Sunday Legislation," 1891, \$2.50, new and unused, for "The Sabbath," by Harmon Kingsbury, 1840; "The Sabbath," by A. A. Phelps, 1842; "History of the Institution of the Sabbath Day, Its Uses and Abuses," by W. L. Fisher, 1859; "Humorous Phases of the Law," by Irving Browne; or other works amounting to value of books exchanged, on the question of government's relation to religion, personal liberty, etc. For particulars, I will send "American State Papers," and buy other books on the subject. WILLIAM AD- DISON BLAKELY, Chicago, Ill.

For Sale or Exchange for books a complete private chemical laboratory outfit. Includes large Becker balance (200g. to 1-10mg.), platinum dishes and crucibles, agate motors, glass-blowing apparatus, etc. For sale in part or whole. Also complete file of *Silliman's Journal*, 1862-1885 (62-71 bound); Smithsonian Reports, 1854-1883; U. S. Coast Survey, 1854-1869. Full particulars to enquirers. F. GARDINER, JR., Pomfret, Conn.

Wanted, in exchange for the following works, any standard works on Surgery and on Diseases of Children: Wilson's "American Ornithology," 3 vols.; Coues' "Birds of the Northwest" and "Birds of the Colorado Valley," 2 vols.; Minot's "Land and Game Birds of New England"; Samuel's "Our Northern and Eastern Birds;" all the Reports on the Birds of the Pacific R. R. Survey, bound in 2 vols., Morocco; and a complete set of the Reports of the Arkansas Geological Survey. Please give editions and dates in corresponding. R. ELLSWORTH CALL, High School, Des Moines, Iowa.

To exchange Wright's "Ice Age in North America" and "Elements of Geology" (Copyright 1882) for "Darwinism," by A. R. Wallace, "Origin of Species," by Darwin, "Descent of Man," by Darwin, "Man's Place in Nature," Huxley, "Mental Evolution in Animals," by Romanes, "Pre-Adamites," by Winchell. No books wanted except latest editions, and books in good condition. C. S. Brown, Jr., Vanderbilt University, Nashville, Tenn.

#### Wants.

Any person seeking a position for which he is qualified by his scientific attainments, or any person seeking some one to fill a position of this character, be it that of a teacher of science, chemist, draughtsman, or what not, may have the "Want" inserted under this head FREE OF COST, if he satisfies the publisher of the suitable character of his application. Any person seeking information on any scientific question, the address of any scientific man, or who can in any way use this column for a purpose consonant with the nature of the paper, is cordially invited to do so.

A JOHNS HOPKINS graduate (1892) desires a position as instructor in mathematics and physics. Address A. B. TURNER, Johns Hopkins University, Baltimore, Md.

WANTED.—A collection of postage stamps; one made previous to 1870 preferred. Also old and curious stamps on original letters, and old entire U. S. stamped envelopes. Will pay cash or give in exchange first-class fossils, including fine crinoids. WM. F. E. GURLEY, Danville, Ill.

WANTED.—To purchase laboratory outfit; balances, evaporating dishes, burettes, etc., wanted immediately for cash. C. E. SPIERS, 23 Murray street, New York. P. O. Box 1741.

WANTED.—The services of a wide-awake young man as correspondent, in a large manufacturing optical business; one preferred who has a thorough knowledge of microscopy and some knowledge of photography. Address by letter, stating age and references. Optical, care of Science, 874 Broadway, New York.

WANTED.—We want any and all of the following, providing we can trade other books and magazines or buy them cheap for cash: Academy, London, vol. 1 to 23, 35, Jan. and Feb., '89; Age of Steel, vol. 1 to 66; American Antiquarian, vol. 1, 2; American Architect, vol. 1 to 6, 9; American Art Review, vol. 3; American Field, vol. 1 to 21; American Geologist, vol. 1 to 6; American Machinist, vol. 1 to 4; Art Amateur, vol. 1 to 7, Oct., '4; Art Interchange, vol. 1 to 9; Art Union, vol. 1 to 4, Jan., '44, July, '45; Bibliotheca Sacra, vol. 1 to 46; Godey's Lady's Book, vol. 1 to 20; New Englander, vol. 11; Zoologist, Series 1 and 1, Series 3 vol. 1 to 14; Allen Armendale (a novel). Raymer's "Old Book" Store, 243 4th Ave. S., Minneapolis, Minn.

WANTED.—By a young man, a Swarthmore College junior, a position as principal of a public high school in one of the Gulf States, or as instructor in botany, physiology, and geology in an academy or normal school. Address B., care of Librarian, Swarthmore College, Penn.

WANTED.—To act as correspondent for one or two daily or weekly papers. Have worked on paper for about two years. Would like a position on editorial staff of humorous paper. Address GEO. C. MASON, 14 Elm St., Hartford, Conn.

TRANSLATOR wanted to read German architectural works at sight (no writing). One familiar with technical terms desired. Address "A.," Box 149, New York Post Office.

*Spraying Crops; Why, When, and How.* By CLARENCE M. WEED. Illustrated. New York, Rural Publishing Company. 110p.

The author of this little book, formerly connected with the Ohio Agricultural Experiment Station, is now at the New Hampshire Station in the capacity of Entomologist. He has given in a condensed form an account of many insect and fungous foes of various fruits, trees, and vegetables. The information in regard to the former is much fuller than in regard to the latter, which is naturally to be expected from an entomologist. Quite full histories are given of the codling moth, the curculio, the canker worm, and the tent caterpillar. The only fungous disease treated with any degree of fulness is downy mildew or brown rot of grapes. The formulæ for the principal fungicides and insecticides are given, together with instructions how to combine the two. The few pages devoted to spraying are scarcely adequate to give a beginner an idea of what to do or how to go to work to do it; and in this respect the book is incomplete. Among the plants whose insect and fungous enemies are discussed we find the apple, peach, pear, plum, cherry, strawberry, currant, gooseberry, grape, rasp-

berry, rose, potato, cabbage, and others. Some of the worst fungous diseases are not mentioned, such as oat and wheat smut, apple rust, peach yellows, pear and apple blight, etc. It cannot, however, be expected that in so small a book everything could be mentioned and described. It is, too, not improbable, that as these diseases cannot be prevented by spraying, that they are omitted intentionally. On the whole the book is one which will prove useful to the general fruit grower. JOSEPH F. JAMES.

D. C. HEATH & Co. have in press, and will soon issue "Elements of Plane and Spherical Trigonometry" and "A Treatise on Plane and Spherical Trigonometry," by Edward A. Bowser, Professor of Mathematics and Engineering in Rutgers College. The former is a brief course in the elements of trigonometry, particular attention being given to the numerical solution of plane and spherical triangles. It is prepared especially for high schools and academies. The latter is for more advanced work and covers the entire course in higher institutions. The books abound in numerous and practical examples, the aim being to make the subject as interesting and attractive as possible to the student.

# Horsford's Acid Phosphate,

Recommended and prescribed  
by physicians of all schools

FOR

DYSPEPSIA, NERVOUSNESS,  
EXHAUSTION,

and all diseases arising from im-  
perfect digestion and derange-  
ments of the nervous system.

It aids digestion, and is a  
brain and nerve food.

Descriptive pamphlet free.

Rumford Chemical Works, Providence R. I.,

**Beware of Substitutes and Imitations.**

## ESTERBROOK'S STEEL PENS.

OF SUPERIOR AND STANDARD QUALITY.

Leading Nos.: 048, 14, 130, 135, 239, 333

For Sale by all Stationers.

THE ESTERBROOK STEEL PEN CO.,

Works: Camden, N. J. 26 John St., New York.

## PATENTS

For INVENTORS. 40-page BOOK FREE. Address  
W. T. Fitzgerald, Attorney at Law, Washington, D.C.

## ARTIFICIAL LIMBS WITH RUBBER FEET AND HANDS.

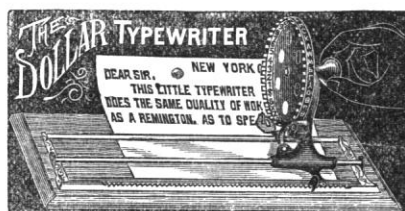
Durable in Construction. Natural in Action.  
Noiseless in Movement.

And the MOST COMFORTABLE for the wearer. It is not unusual to see a farmer working in the fields with an artificial leg, or a brakeman applying his brake on a fast running train, or an engineer with hand on the throttle, or a fireman, carpenter, mason, miner, in fact, men of every vocation at labor in the full capacity of their employment, wearing one or two artificial legs with rubber feet, performing as much as men in possession of all their natural members, earning the same wages, in fact, experiencing little or no inconvenience.



Over 12,000 artificial limbs of the Marks' patent in daily use. Established over 30 years. Indorsed and purchased by the United States and many foreign governments. By our formula applicants can supply us with all the data necessary to secure a fit while they remain at home. One half of the legs and arms furnished by us are made from measurements and profiles without our seeing the wearers. Fit always guaranteed. A treatise of 450 pages with 256 illustrations and a formula for measuring, sent free. Address

A. A. MARKS, 701 Broadway, N. Y.



A perfect and practical Type Writing machine for only ONE DOLLAR. Exactly like cut; regular Remington type; does the same quality of work; takes a fool's cap sheet. Complete with paper holder, automatic feed, perfect type wheel & inking roll; uses copying ink. Size 3 1/2 x 9 inches; weight, 12 oz. Satisfaction guaranteed; Circulars free; AGENTS WANTED. Sent by express for \$1.00; by mail, 15c. extra for postage. R. H. INGERSOLL & Bro. 65 Cortlandt St. N. Y. City.

**MINERALS.** Cabinet Specimens, Collections, and Minerals, material by the pound, for mineralogists, collectors, colleges, schools, and chemists. Send for 100-page catalogue, paper bound, 15 cents; cloth bound, 25 cents; supplement, 2 cents. GEO. L. ENGLISH & Co., Mineralogists, 738 & 735 B'way, N. Y.

## THE WEEKLY BULLETIN OF NEWSPAPER AND PERIODICAL LITERATURE.

Catalogues and Classifies Each Week  
**THE PRINCIPAL CONTENTS OF  
THE PERIODICAL PRESS.**

That huge mass of material heretofore inaccessible to the eager student is now rendered available. Special attention is invited to the Bulletin's

## INDEX OF TECHNICAL LITERATURE

Send for a free sample copy and learn how

The Bulletin Supplies  
The Articles Catalogued.

Address **THE WEEKLY BULLETIN,**  
5 Somerset Street, - - Boston, Mass.

## LITERARY OUTFIT FREE.

Any one sending us \$1.00 at once and mentioning "Science" will receive a copy of "Historical Sketches and Events in the Colonization of America," by G. B. Hall. A square 8vo. book (6 1/2 x 9 inches), 223 pages, illustrated. This is a regular \$2.00 book and a bargain at that price. \$2.00  
200 Private Library Labels; they should be used by all who own books. 50  
"The Library," a 10-page book containing a brief list of most important standard and miscellaneous books in every department of literature. Intended for those who are about forming a library. Hints about what books to read and how to buy them. 50  
1 year's subscription to the "Literary Light," a monthly magazine of Ancient, Mediaeval and Modern Literature. 1 00

\$4.00 actual value for \$1.00. Sample copy of "Literary Light," 10 cents (postal card won't do).

Address, **Literary Light,**  
243 4th Ave. S. Minneapolis, Minn.



## QUERY.

Can any reader of *Science* cite a case of lightning stroke in which the dissipation of a small conductor (one-sixteenth of an inch in diameter, say,) has failed to protect between two horizontal planes passing through its upper and lower ends respectively? Plenty of cases have been found which show that when the conductor is dissipated the building is not injured to the extent explained (for many of these see volumes of Philosophical Transactions at the time when lightning was attracting the attention of the Royal Society), but not an exception is yet known, although this query has been published far and wide among electricians.

First inserted June 19. No response to date.

**N. D. C. HODGES,**  
874 BROADWAY, NEW YORK.

### A TEMPORARY BINDER

for *Science* is now ready, and will be mailed postpaid on receipt of 75 cents.



This binder is strong, durable and elegant, has gilt side-title, and allows the opening of the pages perfectly flat. Any number can be taken out or replaced without disturbing the others, and the papers are not mutilated for subsequent permanent binding. Filed in this binder, *Science* is always convenient for reference.

**N. D. C. HODGES, Publisher,**  
874 Broadway, New York.

### THE RADIOMETER.

By DANIEL S. TROY.

This contains a discussion of the reasons for their action and of the phenomena presented in Crookes' tubes.

**Price, postpaid, 50 cents.**

**N. D. C. HODGES, 874 Broadway, N. Y.**

### AUTHORS AND PUBLISHERS.

Material arranged and compiled for all kinds of works, excepting fiction. Statistics a specialty. Indexing and cataloguing. Address G. E. BIVER, 825 N. 16th Street, Philadelphia.

## TO THE READERS OF SCIENCE.

### PUBLISHER'S ANNOUNCEMENT.

Titles of Some Articles Published in *Science* since  
Jan. 1, 1892.

Aboriginal North American Tea.  
Actinism.  
Agriculture, Experimental, Status of.  
Amenhotep, King, the tomb of.  
Anatomy, The Teaching of, to Advanced Medical Students.  
Anthropology, Current Notes on.  
Architectural Exhibition in Brooklyn.  
Arsenical Poisoning from Domestic Fabrics.  
Artesian Wells in Iowa.  
Astronomical Notes.  
Bacteria, Some Uses of.  
Botanical Laboratory, A.  
Brain, A Few Characteristics of the Avian.  
Bythoscopidae and Cereopidae.  
Canada, Royal Society of.  
Celts, The Question of the.  
Chalicotherium, The Ancestry of.  
Chemical Laboratory of the Case School of Applied Science.  
Children, Growth of.  
Collection of Objects Used in Worship.  
Cornell, The Change at.  
Deaf, Higher Education of the.  
Diphtheria, Tox-Albumin.  
Electrical Engineer, The Technical Education of.  
Eskimo Throwing Sticks.  
Etymology of two Iroquoian Compound Stems.  
Eye-Habits.  
Eyes, Relations of the Motor Muscles of, to Certain Facial Expressions.  
Family Traits, Persistency of.  
Fishes, The Distribution of.  
Fossils, Notice of New Gigantic.  
Four-fold Space, Possibility of a Realization of.  
Gems, Artificial, Detection of.  
Glacial Phenomena in Northeastern New York.  
Grasses, Homoptera Injurious to.  
Great Lakes, Origin of the Basins of.  
"Healing, Divine."  
Hemipterus Mouth, Structure of the.  
Hofmann, August Wilhelm von.  
Hypnotism among the Lower Animals.  
Hypnotism, Traumatic.  
Indian occupation of New York.  
Infant's Movements.  
Influenza, Latest Details Concerning the Germs of.  
Insects in Popular Dread in New Mexico.  
Inventions in Foreign Countries, How to Protect.  
Inventors and Manufacturers, the American Association of.  
Iowa Academy of Sciences.  
Jargon, The Chinook.  
Jassidae, Notes on Local.  
Keller, Helen.  
Klamath Nation, Linguistics.  
Laboratory Training, Aims of.  
Lewis H. Carvill, Work on the Glacial Phenomena.  
Lightning, The New Method of Protecting Buildings from.  
Lissajou's Curves, Simple Apparatus for the Production of.  
Maize Plant, Observations on the Growth and Chemical Composition of.  
Maya Codices, a Key to the Mystery of.  
Medicine, Preparation for the Study of.  
Mineral Discoveries, Some Recent, in the State of Washington.  
Museums, The Support of.  
Palenque Tablet, a Brief Study of.  
Patent Office Building, The.  
Physo Heterostrophia Lay, Notes on the Fertility of.  
Pocket Gopher, Attempted Extermination of.  
Polariscopes, Direct Reflecting.  
Psychological Laboratory in the University of Toronto.  
Psychological Training, The Need of.  
Psylla, the Pear-Tree.  
Rain-Making.  
Rivers, Evolution of the Loup, in Nebraska.  
Scientific Alliance, The.  
Sistrurus and Crotalophorus.  
Star Photography, Notes on.  
Star, The New, in Auriga.  
Storage of Storm-Waters on the Great Plains.  
Teaching of Science.  
Tiger, A New Sabre-Toothed, from Kansas.  
Timber Trees of West Virginia.  
Tracheae of Insects, Structure of.  
Vein-Formation, Valuable Experiments in.  
Weeds as Fertilizing Material.  
Will, a Recent Analysis of.  
Wind-Storms and Trees.  
Wines, The Sophisticated French.  
Zoology in the Public Schools of Washington, D. C.

Some of the Contributors to *Science* Since Jan. 1, 1892.

Aaron, Eugene M., Philadelphia, Pa.  
Allen, Harrison, Philadelphia, Pa.  
Baldwin, J. Mark, University of Toronto, Canada.  
Barnes, Charles Reid, Madison, Wis.

Baur, G., Clark University, Worcester, Mass.  
Beal, W. J., Agricultural College, Mich.  
Beals, A. H., Milledgeville, Ga.  
Beauchamp, W. M., Baldwinsville, N.Y.  
Boas, Franz, Clark University, Worcester, Mass.  
Bolley, H. L., Fargo, N. Dak.  
Bostwick, Arthur E., Montclair, N.J.  
Bradley, Milton, Springfield, Mass.  
Brinton, D. G., Philadelphia, Pa.  
Call, E. Ellsworth, Des Moines, Ia.  
Chandler, H., Buffalo, N.Y.  
Comstock, Theo. B., Tucson, Arizona.  
Conn, H. W., Middletown, Conn.  
Cragin, F. W., Colorado Springs, Col.  
Davis, W. M., Harvard College, Cambridge, Mass.  
Dimmock, George, Canobie Lake, N.H.  
Farrington, E. H., Agricultural Station, Champaign, Ill.  
Ferree, Barr, New York City.  
Flexner, Simon, Johns Hopkins University, Baltimore, Md.  
Foshay, P. Max, Rochester, N.Y.  
Gallaudet, E. M., Kendall Green, Washington, D.C.  
Garman, S., Museum of Comp. Zool., Cambridge, Mass.  
Golden, Katherine E., Agricultural College, Lafayette, Ind.  
Hale, Edwin M., Chicago, Ill.  
Hale, George S., Boston, Mass.  
Hale, Horatio, Clinton, Ontario, Canada.  
Hall, T. Proctor, Clark University, Worcester, Mass.  
Halsted, Byron D., Rutgers College, New Brunswick, N.J.  
Haworth, Erasmus, Oskaloosa, Iowa.  
Hay, O. P., Irvington, Ind.  
Haynes, Henry W., Boston, Mass.  
Hazen, H. A., Weather Bureau, Washington, D.C.  
Hewitt, J. N. B., Bureau of Ethnology, Washington, D.C.  
Hicks, L. E., Lincoln, Neb.  
Hill, E. J., Chicago, Ill.  
Hill, Geo. A., Naval Observatory, Washington, D.C.  
Hitchcock, Romyn, Washington, D.C.  
Holmes, E. L., Chicago, Ill.  
Hotchkiss, Jed., Staunton, Va.  
Howe, Jas. Lewis, Louisville, Ky.  
Hubbard, Gardner G., Washington, D.C.  
Jackson, Dugald C., Madison, Wisconsin.  
James, Joseph F., Agricultural Dept., Washington, D.C.  
Johnson, Roger B., Miami University, Oxford, O.  
Kellerman, Mrs. W. A., Columbus, O.  
Kellicott, D. S., State University, Columbus, O.  
Kellogg, D. S., Plattsburgh, N.Y.  
Lintner, J. A., Albany, N. Y.  
Loeb, Morris, New York City.  
Mabery, Charles F., Cleveland, Ohio.  
Macloskie, G., Princeton, N.J.  
McCarthy, Gerald, Agricultural Station, Raleigh, N.C.  
MacDonald, Arthur, Washington, D.C.  
Marshall, D. T., Metuchen, N.J.  
Mason, O. T., Smithsonian Institution, Washington, D.C.  
Millsbaugh, Charles F., Morgantown, W. Va.  
Nichols, C. F., Boston, Mass.  
Nuttall, George H. F., Johns Hopkins University, Baltimore, Md.  
Oliver, J. E., Cornell University, Ithaca, N.Y.  
Osborn, Henry F., Columbia College, New York City.  
Osborn, Herbert, Agricultural College, Ames, Iowa.  
Pammel, L. H., Agricultural Station, Ames, Iowa.  
Pillsbury, J. H., Smith College, Northampton, Mass.  
Poteat, W. L., Wake Forest, N. C.  
Preble, Jr., W. P., New York City.  
Ruffner, W. H., Lexington, Va.  
Sanford, Edmund C., Clark University, Worcester, Mass.  
Schufeldt, R. W., Washington, D.C.  
Scripture, E. W., Clark University, Worcester, Mass.  
Slade, D. D., Museum Comp. Zool., Cambridge, Mass.  
Smith, John B., Rutgers College, New Brunswick, N.J.  
Southwick, Edmund B., New York City.  
Stevens, George T., New York City.  
Stevenson, S. Y., Philadelphia, Pa.  
Stone, G. H., Colorado Springs, Col.  
Thomas, Cyrus, Washington, D. C.  
Thurston, R. H., Cornell University, Ithaca, N.Y.  
Todd, J. E., Tabor, Iowa.  
True, Frederick W., National Museum, Washington, D.C.  
Turner, C. H., University of Cincinnati, Cincinnati, O.  
Wake, C., Staniland, Chicago, Ill.  
Ward, R. DeC., Harvard University, Cambridge, Mass.  
Ward, Stanley M., Scranton, Pa.  
Warder, Robert B., Howard University, Washington, D.C.  
Welch, Wm. H., Johns Hopkins University, Baltimore, Md.  
West, Gerald M., Clark University, Worcester, Mass.  
Whitman, C. O., Clark University, Worcester, Mass.  
Williams, Edward H., Lehigh University, Bethlehem, Pa.