

44768A

Some Recent and Readable Books in
GENERAL SCIENCE
Compiled by
Marion E. Sparks, Librarian
Chemistry Library
University of Illinois, July 1920.

2

BOTANY

Group 1. General

- 581.6
S&7p Sargent, F. L.
Plants and their uses. 1913. Holt. \$2.00
This has the advantage of being American, but is less com-
prehensive in some respects, while striving to be useful.
- 580
T37b Thoday, D.
Botany; a textbook for senior students. 1915. \$1.50
University Press, Cambridge, England.
Good descriptive text, not too full of technical terms.
Book of convenient size, good-sized type, and satisfactory
binding.
580.
W856s Woodhead, T. W.
The study of plants. 1915. Oxford, Clarendon press \$2.50
Another English book, similar to the ones by Coulter, but
not so technical. Seems intended for reading.

Group 2. Economic.

- 634
D74c Douglass, Benjamin W.
Orchard and garden. 1918. Federal Pub. Co. \$3.00
Includes trees and shrubs, has colored pictures and photo-
graphs. Likely to be attractive, apparently.
- 581.6
G29m Georgia, Ada (Cornell)
A manual of weeds...U. S. and Canada...and control...1914
Macmillan, 2d printing, 1916 \$3.00
Condensed, but some readable descriptions, with directions
for methods of control as well as identification. Best
on its topic.
- 634
H76f Hood, G. W. (University of Nebraska)
Farm horticulture. 1919. Lea and Febiger. \$2.50
Prepared especially for those interested in home or commer-
cial horticulture. Discusses plants, with some trees
and shrubs, value, care, and diseases.

OAI p.v. 45.No 2

(2)

581 Robbins, W. W.
R53b Botany of crop plants. 1917. Blakiston. \$2.00
Written for use by freshmen in Colorado Agricultural Coll.
Less elaborate than Sargent in Group I. Specializes on
important cultivated crops.

Group 3. Wild flowers.

581.9711 Brown, Stewardson
B61 Alpine flora of the Canadian Rocky Mountains. 1907.
Putnams. \$2.50
Reproductions of photographs and watercolor drawings.
Serves as a manual for identification with some descriptive
matter.

581.973 Keeler, H. L.
K24c Our early wild flowers. 1915. Scribner. \$1.35
Illustrated partly in colors; herbaceous plants blooming in
early spring in the northern states.

581.973 Keeler, H. L.
K24W The wayside flowers of summer...July and August. 1917.
Scribner. Illus. in colors. \$1.50
Covers limited range of plants and territory. Pleasing.

581.97 Mathews, F. S.
M42f2 Field book of American wild flowers. New ed. 1912.
Putnams. \$2.50
Well illustrated, and quite complete.

581.973 Peterson, M. G.
P44h How to know wild fruits. 1914. Macmillan. \$1.50
Includes only U. S. forms.

The two works by Keeler, with that of Peterson, will include
nearly all the season, for the amateur botanist.

Older books are by Clute on Ferns - Parsons on Ferns - Keeler
on Trees and Shrubs.

(3)

Group 4. Trees

- 582 Blakeslee, A. F. and Jarvis, D. D.
Trees in winter. 1913. Macmillan. \$2.50
This is almost an identification manual, but has some sections upon planting and care, with pictures valuable for the purpose of identification chiefly.
- 582 Huntington, A. O.
H921st Studies of trees in winter. 1910. Estes, Boston. \$2.50
A smaller book, weighs less, has a style of treatment better adapted for general reading. Winter landscape as affected by and composed of trees is emphasized.
- 581.6 Record, S. J.
R241 Identification of the economic woods of the U. S...
Ed. 1. 1912. Wiley \$1.50
Useful to prospective users of woods, as, for building.
Considers structural and other of physical properties.

This might be interesting read in connection with
- 691.1 Wagner, J. B.
W123 Seasoning of wood. 1917. (Listed under Chemistry: Applications)

CHEMISTRY

Group 1. General.

- 540
E38e Hendrick, Elwood
Everyman's chemistry; the chemist's point of view and his recent work, told for the layman. 1917. Harper. \$2.00
This uses many chemical terms, but seems that it would be intelligible. It is amusing also, while the science is correct.
- 540
F49o Findlay, Alex
Chemistry in the service of man. 1916. Longmans \$2.00
By an English author, in a serious manner, but it tries to make the subject plain and interesting.
- 540
S1 Slosson, E. E.
Creative chemistry. 1930. Van Nostrand. \$2.50
An American work, perhaps better than Findlay. Tells of the future of the science rather than past achievements.
- 540.9
T45c Tilden, Sir. W. A.
Chemical discovery and invention in the twentieth century. Illus. 1916. Routledge, London. \$3.00
Good description of the work done recently and the advantages offered for its study in various places.
- Group 2. History.
- 540.9
L95h Lowry, T. M.
Historical introduction to chemistry. 1915. Longmans. \$3.00
Gives good accounts with illustrations of, usually, the apparatus used in making some of the discoveries most important for the development of modern chemistry.
- 540.9
M78h Moore, F. J.
History of chemistry. 1919. McGraw-Hill. \$2.50
Condensed, but fairly comprehensive, takes up individuals particularly.
- 540.9
E81h2 Brown, J. C.
History of chemistry. Ed. 3. 1920. Blakiston. \$6.00
Very good, and traces development of science from earliest time. Discusses individuals and periods. Well illustrated.

(5)

Group 3. Applications: general.

- 514
B293m
Baskerville, Charles. ed.
Municipal chemistry; a series of thirty lectures by experts on the application of the principles of chemistry to the city...1911. McGraw-Hill. \$5.00
Includes such topics as food, water-supply, fuel etc. Excellent.
- 540
D91s
Duncan, R. K.
Some chemical problems of today. 1911. Harper. \$3.00
Partly on the constitution of matter, and partly on how science, and chemistry in particular, can be of use to the individual, and the State.
- 560
D91c
Duncan, R. K.
The chemistry of commerce; a simple interpretation of some new chemistry in its relation to modern industry. 1907. Harper. \$2.00
Chapters on some important applications of chemistry
- 560
D63e
Rogers, Allen. ed.
Elements of industrial chemistry; an abridgment...by forty eminent specialists. 117 illus. 1916. Van Nostrand.
This is more technical and so less likely to be popular with the very general reader. Of interest to one who had some specific technical information.

Group 4. Applications: Special.

(a) Food

- 513.2
M13n
McCollum, E. V.
The newer knowledge of nutrition; the use of food for the preservation of vitality and health. 1918. Macmillan \$1.50
This gives with the minimum of scientific terms, the new ideas and theories, that are the topic of many less reliable articles.
- 543.1
D17p
Olsen, J. C.
Pure foods, their adulteration, nutritive value, and cost. Ginn & Co. Illus. 1911. \$1.25
Based on popular lectures, so readable, being not full of laboratory material and theory.

- 612.39 Sherman, H. C.
Sh5c Chemistry of food and nutrition. Ed.2, rev. 1918.
Macmillan \$3.00
Much more technical, but could be read if one had special
interest in the subject matter.
- (b) Industrial
- 667.2 Findlay, Alex
F49t The treasures of coal tar. 1917. Van Nostrand. \$2.00
This is the best at present of the non-technical works.
- 667.6 Friend, J. N.
F91i An introduction to the chemistry of paints. 1910.
Longmans. \$1.50
"Outcome of series of lectures delivered to a class of
practical painters and decorators", most of whom, the
author adds, had no knowledge of chemistry.
- 668.7 Gardner, W. M.
G17b The British coal-tar industry; its origin, development
and decline. 1915. Lippincott. \$3.00
A rather bulky work, made up of 32 papers published from
1868 to 1915, covering the industry in Great Britain;
the first twenty are just as applicable to the U. S.,
while most of the rest present valuable information.
- 669.5 Smith, E. A.
Sm5z The zinc industry. 1918. Longmans. \$3.00
One of the new English series. Monographs on industrial
chemistry, edited by Sir Edward Thorpe. Some of them
have a considerable amount of nontechnical material,
and would be desirable for a public library. Those on
a local industry might be used.
- 667.6 Smith, J. C.
Sm6m2 The manufacture of paint; a practical handbook for
paint manufacturers, merchants, and painters. Ed.2.
1915. Van Nostrand. \$3.50
English, good type and paper; sample of special book.
- 669.1 Spring, LaV. W.
Sp8n Non-technical chats on iron and steel and their appli-
cation to modern industry. 1917. Stokes. \$2.50
American, excellent illustrations, well calculated to be
read.

(7)

691.1
W13s

Wagner, J. B.

Seasoning of wood; a treatise on the natural and artificial processes employed in the preparation of lumber for manufacture with detailed explanations of its uses, characteristics and properties. 1917.
Van Nostrand. \$3.00.

Group 5. Reference books.

540.3
C42c

Chemical Catalog Company

The condensed chemical dictionary; a reference volume for all requiring quick access to a large amount of essential data regarding chemicals, and other substances used in manufacturing and laboratory work. Ed. 1
1919. Chemical Catalog Co., N. Y. \$5.00

540.3
D249

Darling, E. R.

Inorganic chemical synonyms and other chemical data.
1918. Van Nostrand, \$1.00.

608
H77c

Hopkins, N. M.

The outlook for research and invention...problems awaiting solution. 1919. Van Nostrand. N. Y. \$2.00

660
H77s

Hopkins, A. A. ed.

The Scientific American cyclopedia of formulas...15,000 formulas. 1919. Munn and Co., N. Y. \$5.00
This gives methods, receipts, formulas for almost everything of any chemical character, from invisible ink to antidotes for poisons, and how to put down eggs in water-glass.

GEOLOGY

Group 1. General & historical.

- 551 (Various authors)
Ev64 The evolution of the earth and its inhabitants. Illus.
1918. Yale Univ. Press. \$2.50
Lectures before Sigma Xi; fairly technical, but readable.
- 550 Gregory, J. W.
G86g Geology of today; a popular introduction in simple language.
1915. Seeley, Service & Co., London. \$1.50
An English work, well illustrated with material of present
interest emphasized, as earthquakes, illustrations from
the California one. Bulky, light in avoirdupois, really
readable.
- 550 Lake, Philip, and Rastall, R. H.
L14t A textbook of geology. 1910. Arnold, London. \$4.00
More technical than Gregory; would be of interest to any
reader who had a little previous knowledge.
- 550.97 Miller, William J. (Professor of geology, Smith College)
M An introduction to historical geology with special ref-
erence to North America. 1920. Van Nostrand, N. Y. \$2.00
Not seen, but sounds good; 238 illus., maps, etc.
- 550.97 Salisbury, R. D. ed.
- Sa3o Outlines of geologic history with especial reference to
North America. 1912. Univ. of Chicago Press \$1.50
Good, but perhaps not as desirable as Miller.
- 550.9 Woodward, H. B.
W87h History of geology. 1911. Putnams. \$1.50
Very English in style, chiefly about individuals, who are
not all very well known, nor very interesting.

Group 2. Local, Special.

- 917.7 Chambers, Julius
C35m The Mississippi River and its wonderful valley. 1910.
Putnams. \$8.00
Call number at Natural History Library - 551.4
(77)
Type of the "special locality, much illustrated". Useful
in its own 'home'.

- 17.74
25d Reed, Earl H.
The dune country. 1916. Lane. \$2.50
Well illustrated, descriptive of the sand dune region
around the south end of Lake Michigan. Includes biology.
- 557
N811w7 Willard, D. E.
The story of the prairies, or the landscape geology of
North Dakota. Ed.7. 1915. Rand, McNally. \$2.25
Applies particularly there, but would be of interest in
any prairie state. Has been used in Chautauqua course.
- Group 3. U. S. in General.
- 551.31
G82 Green, Wm. S.
Among the Selkirk Glaciers (Canadian Rickies). 1890.
Macmillan \$2.50
Almost no illustrations, discussion of distant places by
a author to whom they are new. Semi-scientific.
- 570.9744
T66s Townsend, C. W.
Sand dunes and salt marshes. 1911. Page. \$2.00
Similar to Reed, covering parts of the Massachusetts
Coast. Geology and biology, and illustrations.
- The four by Van Dyke, written primarily for artists,
present clear, vivid word-pictures of the changing
scenery, with explanation and suggestion sufficient to
make up for lack of illustrations. Of a size convenient
to handle, with good-sized type. U. S. is scene.
- 917.8
v28 Van Dyke, John Charles
The desert...1901. Scribners. \$1.25
- 551.43
V28m -----
The mountains. 1916. Scribners. \$1.25
- 570.4
V28n -----
Nature for its own sake. Ed. 5. 1908. Scribner. \$1.25
- 814
V288 -----
The opal sea. 1906. Scribners. \$1.25

Group 4. Special subdivisions, or applications,
more technical.

- 551.57
C57 Clayden, A. W.
Cloud studies. 1905. Murray, London. \$3.50

For meteorologist and artist chiefly, but many beautiful illustrations, and an agreeable manner of presentation.

- 51.5
11p
McAdie, Alex
The principles of aerography. 1917. Rand, McNally \$3.00
Well illustrated, not too technical, approximately recent.
- 50
44e2
Ries, H., and Watson, T. L.
Engineering geology. Ed. 2, enl. 1915. Wiley. \$4.00
Special stress on phases most useful.
- 50
p93
Spurr, Jos. E.
Geology applied to mining. Ed. 1907. McGraw-Hill \$2.00
Calculated for reader who has little geological information.
- 53.8
119t
Wade, Frank B.
A textbook of precious stones for jewelers and the gem-
loving public. 1918. Putnams. \$1.75
Gives both technical chemical and geological statements in
fairly non-technical language. No illustrations. Some
trade information.
- Works by Israel C. Russell, published in 1894, 1895, 1897,
1910, upon respectively, Rivers, Lakes, Glaciers, Vol-
canoes, of North America, present adequate, fairly
readable, descriptive material, upon their topics.
Published by Ginn. each \$2.00
The Glaciers, and Volcanoes, are particularly attractive
in manner, and all are illustrated.

(11)

PHYSICS

Group 1. General

530
Am3c Ames, Joseph S.
The constitution of matter. 1913. Houghton,
Mifflin & Co. \$1.50
Gives the accepted modern ideas, briefly and clearly.
May be supplemented by

Harrow, Benjamin
From Newton to Einstein; changing conceptions of the
universe. 1920. Van Nostrand, N. Y. \$1.00
Just published, not seen. Several popular presentations
of the new ideas particularly on relativity, are
available.

540
L56s Letts, E. A.
Some fundamental problems in chemistry, old and new.
1914. Van Nostrand, N. Y. \$2.50
Discusses in an intelligible manner, the atomic
theory, and the problem of radioactivity, from a
physico-chemical viewpoint.

509
L61i Libby, Walter
An introduction to the history of science. 1912.
Houghton, Mifflin & Co. \$1.50
This general work has special value for physics,
considering this as a basis for other sciences.

Group 2. More technical

530.1
Comstock, D. F. and Troland, L. T.
The nature and matter of electricity; an outline of
modern views. 1917. Van Nostrand, N. Y. \$2.50
This is more comprehensive as well as a trifle more
technical.

530
85g Franklin, Wm. S. and MacNutt, B.
General physics. Ed. 1. 1916. McGraw-Hill. \$3.00
This is a textbook for college use, but by judicious
skipping, seems likely to prove readable.

57.56
5a Gibson, C. R.
The autobiography of an electron. 1911. Seeley & Co.,
London. \$1.50

Each chapter is summarized in non-technical language, a page for each. This English work is in strong contrast Millikan.

537.56 Millikan, R. A.
M62e The electron; its isolation and measurement and some of its properties. 1917. Univ. of Chicago Press. \$1.50
Modern, small size, somewhat technical. Has some material more recent than Gibson, of value.

509 Sedgwick and Tyler
Se2 History of science. 1917. Macmillan \$2.50.
Emphasizes growth of mathematics and astronomy, with some material upon the other sciences, particularly physics. Good, if the reader wants more than Libby (above) gives.

Group 3 . Elementary

530 Butler, A. M.
B97h Household physics. 1914. Whitcomb and Bacon \$2.00

Brechner, C. H.
Household physics. 1919. Allyn. \$1.40
Not seen.

These two were written for use in classes in schools, but omitting the directions for experiments, give a fair idea of the science in general.

(13)
ZOOLOGY

Group 1. General.

- 590
G13z3 Galloway, T. W.
Zoology; a text book for universities, colleges, and normal schools. Ed. 3, rev. 1915. Blakiston. \$2.50
This is more readable than Hegner, or Hertwig (Kingsley's revision).
- 590
H78a2 Hornaday, W. T.
American natural history, 4 vol. 1914. Scribner. \$10.00
In some places would be considered too expensive for circulation, useful for reference.
- 590.9
L81m Locy, W. A.
Main currents of zoology. 1918. Holt. \$1.50
Mixture of history and biography, but gives an idea of the present leading ideas.

Group 2. Special phases.

- 581.988
B39t Beebe, W. and Hartley, G. I. and Howes, P. G.
Tropical wild life in British Guiana, vol. 1 1917
New York Zoological society. \$3.00
- 570.4
F11cEb Fabre, J. H.
Field, forest and farm. 1920. Century. \$1.50
French country as background, but somewhat general.
- 590.4
Sh21w Sharp, D. L.
Where rolls the Oregon. 1914. Houghton, Mifflin. \$1.50
Birds, cattle, life in general. Well written.
- 570
T38b Thomson, J. Arthur
The biology of the seasons. 1911. Holt. \$3.00
An English work chiefly on zoology, with excellent illustrations by an author of a philosophical turn of mind. Written for adults, while Fabre is designed rather for children.

Group 3. Insects.

- 595.7
H431 Herrick, G. W.
Insects injurious to the household. 1914. Macmillan
Reference chiefly, utilitarian in intent. \$2.00
- 595.7
K291 Kellogg, V. L.
Insect stories. Ed. 2, rev. 1908. Holt \$1.50
Written for St. Nicholas, in part. Would be liked by some adult readers.

(14)

- 595.7 Lutz, F. E.
L97f Field book of insects. 1918. Putnams. \$2.50
Pocket size, with some colored illustrations, but planned
as a help in identifying specimens in the open.
- 595.7 Ward, John J.
W27i Insect biographies with pen and camera. No date.
Stokes, N. Y. (?) \$3.00
Has illustrations from color-photographs, and microphoto-
graphs. Excellent large type, but not too bulky. Insects
are the ones found in England.
- 595.7 Washburn, F. L.
W291 Injurious insects and useful birds; successful control of
farm pests. 1918. Lippincott. \$2.50
Some colored illustrations. More readable than Herrick.

Group 4. Fish.

- 590.7 Eggeling, O. and Ehrenberg, F.
Eg3 The freshwater aquarium and its inhabitants. 1906.
Holt. \$2.00
Gives much information and some entertainment.
- 597 Meehan, W. E.
M47f Fish culture in ponds and other inland waters. 1913
Sturgis and Walton, N. Y. \$1.50
Gives practical directions and some discussion.

Group 5. Birds.

- 598.2 Baynes, E. H.
B34w Wild bird guests. 1915. Dutton. \$2.35
One of the most pleasing of the books on attracting birds.
- 598.2 Chapman, F. M.
O36ha Handbook of the birds of eastern North America. Rev. ed.
1913. Appleton. \$3.00
Probably the best for identifying birds. Would be readable
if a person had some interest in birds.

Older books on birds that seem to me better for
reading than some of the more recent "picture" books, are

- 598.2002 Parkhurst, H. E.
15 The birds' calendar. 1894. Scribners. \$2.00

(15)

598.2
Sh2r

Sharp, D. L.
Roof and meadow. 1904. Century. \$1.50

Torrey, B.
Birds in the bush, 1913. (1885) Houghton,
Mifflin. \$1.25
(and most of his others)

Miller, O. T.
Almost, or all, of her.

598.2
W41b3

Weed, C. M. and Dearborn, Ned
Birds in their relation to man; a manual of
economic ornithology for the U. S. and Canada.
Ed. 2, rev. 1916 \$2.25
Lippincott.
Seems well done, and has good illustrations.

Group 6. Mammals

599
8cc8h

Scott, W. B.
A history of land mammals in the western
hemisphere. 1913. Macmillan \$6.00

590.8
qN21

Stone, W. and Cram, W. E.
American animals; a popular guide to the
mammals of North America north of Mexico, with
intimate biographies of the more familiar
species. 1905. Doubleday. (Vol. 4
Doubleday's Nature Library) \$3.00
This has many plates in color and halftone, is too
bulky for convenient circulation.