

**AN ELEMENTARY TREATISE ON
GEOMETRY, SIMPLIFIED FOR BEGINNERS
NOT VERSED IN ALGEBRA,
PART I, CONTAINING PLANE GEOMETRY,
WITH ITS APPLICATION TO THE
SOLUTION OF PROBLEMS**

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An Elementary Treatise on Geometry, Simplified for Beginners Not Versed in Algebra, Part I,
Containing Plane Geometry, with Its Application to the Solution of Problems by Francis J.
Grund

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FRANCIS J. GRUND

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PLANE GEOMETRY,

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BY FRANCIS J. GRUND.

New Edition, stereotyped.

BOSTON:
CARTER, HENDEE & CO.
1884.

DISTRICT OF MASSACHUSETTS, TO WIT:

District Clerk's Office.

Be it remembered, that on the fourth day of December, A. D. 1830, in the fifty-fifth year of the Independence of the United States of America, FRANCIS J. GRUND, of the said district, has deposited in this office the title of a book, the right whereof he claims as author, in the words following, to wit:

AN ELEMENTARY TREATISE ON GEOMETRY, simplified for Beginners not versed in Algebra. Part I, containing Plane Geometry, with its Application to the Solution of Problems. By Francis J. Grund. Second Edition.

In conformity to the act of the Congress of the United States, entitled, "An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned;" and also to an act, entitled, "An act supplementary to an act, entitled, 'An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies during the times therein mentioned;'" and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints."

JNO. W. DAVIS,

Clerk of the District of Massachusetts.

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RECOMMENDATIONS.

From John Farrar, Professor of Mathematics and Natural Philosophy at Harvard University.

Mr. Grund's *Elementary Treatise on Geometry* contains much useful matter, not generally to be found in English works of this description. There is considerable novelty, also, in the style and arrangement. The subject appears to be developed in a manner well suited to the younger class of learners, and to such an extent, and with such illustrations, as renders it a valuable introduction to the more extended works on Geometry.

JOHN FARRAR.

FEBRUARY 18th, 1830.

From G. B. Emerson, Principal of the English Classical School, Boston.

Mr. Grund's *Geometry* unites, in an unusual degree, strictness of demonstration with clearness and simplicity. It is thus very well suited to form habits of exact reasoning in young beginners, and to give them favorable impressions of the science. I have adopted it as a text book in my own school.

GEO. B. EMERSON.

FEBRUARY 18th, 1830.

From E. Bailey, Principal of the Young Ladies' High School, Boston.

DEAR SIR—From the specimens of your work on Geometry which I have seen, and especially from the sheets I have used in my school since it went to the press, I have formed a high opinion of its merits. The general plan of the work appears to be very judicious, and you have executed it with great ability. Simplicity has been carefully studied, yet not at the expense of rigid demonstration. In this respect, it seems admirably fitted for the use of common schools. Believing your work cal-

RECOMMENDATIONS.

culated and destined to do much good, in a department of science which has been too long neglected, I hope it may soon become generally known.
Very respectfully, yours, &c.

E. BAILEY.

FEBRUARY 17th, 1830.

From F. P. Leverett, Principal of the Latin School, Boston.

DECEMBER 7th, 1830.

DEAR SIR—I have looked with much satisfaction over the sheets of the second edition of your 'First Lessons in Plane Geometry.' It is a more simple and intelligible treatise on Geometry than any other with which I am acquainted, and seems to me well adapted to the understandings of young scholars.

I am, dear sir, respectfully yours,

F. P. LEVERETT.

From William B. Fowle, Principal of the Monitorial School, Boston.

BOSTON, FEBRUARY 17th, 1830.

MR. GRUND—DEAR SIR—I have examined every page of your 'First Lessons in Plane Geometry.' Its reception every where augurs well for the success of your book, which is an extension and practical application of Francœur's. It has fulfilled my wishes, and I shall immediately introduce it into my school.

Yours, very respectfully,

WILLIAM B. FOWLE.

From Walter R. Johnson, Principal of the Philadelphia High School.

PHILADELPHIA, NOV. 27th, 1830.

DEAR SIR—The First Lessons in Plane Geometry, with a perusal of which I have been favored, appears to me eminently calculated to lay the foundation of a clear and comprehensive knowledge of the demonstrative parts of that important science.

As it has obviously been the result of actual experience in teaching, it commends itself to the attention of the profession, by the assurance that it is really adapted to the comprehension and attainments of those for whom it was designed. Permit me to express the hope that it may meet its full share of that encouragement which works in this department are beginning to receive in every part of our country.

I remain, dear sir, very respectfully yours,

WALTER R. JOHNSON.

PREFACE.

POPULAR EDUCATION, and the increased study of Mathematics, as the proper foundation of all useful knowledge, seem to call especially for Elementary Treatises on Geometry, as has been evinced in the favorable reception of the first edition of this work within a few months of the date of its publication. A few changes have been made in the present edition, which, it is hoped, will contribute to the usefulness of the work as a book for elementary instruction.

The author acknowledges with pleasure the valuable aid he has received from some of the most experienced and distinguished instructors; and is, in this respect, particularly indebted to the kindness of Messrs. E. BAILEY, GEORGE B. EMERSON, and Miss ELIZABETH P. PEABODY, of Boston, at whose suggestion several demonstrations have been simplified, in order to adapt the work to the capacity of early beginners.

As regards the use of it in schools and seminaries, the teacher will find sufficient directions in the remarks inserted in the body of the work.

The Problems, of which the third and fourth parts are principally selected from those of MEYER HIRSCH, form a section by themselves, in order to be more easily referred to.

The teacher may, according to his own judgment, use as many of them at the end of each section, as may be solved by the principles the pupils have become acquainted with.

Boston, *September 30, 1830.*

PREFACE TO THE STEREOTYPE EDITION.

The present ^Xstereotype edition differs from the previous ones only in the typographical arrangement, to meet the view of the publishers, whose intention it is to reduce its price, in order to bring it within the reach of common schools throughout the Union.

F. J. G.

Boston, *March 27, 1832.*

*W. B. Brown & Co. (over
S. W. W.)
1. 1/2 N. W. Cor. of ...*

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