

Let 1 = one side of oblong.

$x$  = other side of oblong.

Since  $(x - 1)^2 < 0$

$$x^2(2x) + 1 < 0$$

$$x^2 + 1 < 2x$$

$$x^2 + 2x + 1 > 4x \therefore x + 1 > 2 \sqrt{x}$$

$$\therefore 2(x + 1) > 4 \sqrt{x}$$

But  $4 \sqrt{x}$  = perimeter of square field

$2(x + 1)$  = " " oblong

Hence perimeter of square is less than perimeter of oblong of the same area.

#### SPECIAL CASE

Area of ten acres = 1,600 rods

Side of square = 40 rods.

Perimeter of square = 160 rods.

Let one side of oblong = 20 rods.

Let the other side of oblong = 80 rods.

Perimeter of oblong =  $(80 + 20) 2 = 200$  rods.

Hence perimeter of square is less than perimeter of oblong of the same area.

H. GRAY, Milton.

To these Arithmetical, Geometrical and Algebraic demonstrations might be added the logical or metaphysical one, that as the figure in question is changed from a square to an oblong, two of the parallel sides are made to approach each other. Let the process be continued until they are infinitely near each other, and it is evident that in order to enclose the same space they must be infinitely prolonged, and of course at any intermediate degree of nearness the prolongation will be proportional.

Ed

Several other answers have been received for which we have not room.

### Contemporary Opinion.

We have received copies of THE SCHOOL JOURNAL and *The Educational Weekly*, both published at Toronto. They are both ably edited, the former by Prof. Wells, and the latter by J. E. Bryant, M.A., a well known writer on educational subjects. These weeklies should be in the hands of every school teacher in the country, and we wish them abundant success.—*Haldimand Advocate*.

Educational journalism is making rapid progress in Toronto. Last week we drew attention to an entirely new venture; now we are pleased to welcome THE CANADA SCHOOL JOURNAL in a new form. Hitherto published as a monthly by Mr. Gage, it has bloomed into an attractive weekly—weh got-up and printed on good paper, its various departments full of matters interesting to the important section of the community to whom the JOURNAL specially appeals.—*The Week*.

The educational world in Ontario is not likely, we apprehend, to suffer from the lack of press organs whose mission it is to speak for the teaching profession. There are now in the field, in this Province, two weeklies, THE SCHOOL JOURNAL and *The Educational Weekly*, and two monthlies, *The Canada Educational Monthly* and *The School Supplement*. Of these the oldest is the CANADA SCHOOL JOURNAL, formerly a monthly, but quite recently changed to a weekly under the same name. The nearest in age to the SCHOOL JOURNAL is the *Canada Educational Monthly* now in its seventh year. The more recent ventures are the *School Supplement*, a monthly started last year, and the *Educational Weekly* the first number of which has just been published. It may be interesting to our readers to know that THE SCHOOL JOURNAL is edited by Professor Wells, late of Woodstock Baptist College, the *School Supplement* by Mr. Eaton, late of Pickering College, and the *Educational Weekly* by Mr. Bryant, a well known Whitley man, and late Principal of Galt Collegiate Institute. The *Canada Educational Monthly* since the departure of Mr. G. Mercer Adam, its founder, has been edited by our former town-man, Mr. G. H. Robinson. Mr. Robinson we hear has just resigned the editorship of the *Monthly* to devote his whole time and energies to the new enumeration weekly *The Presbyterian Review*. It has not transpired who is to be his successor in the editorial chair of *The Monthly*. All these school journals are ably edited and are indispensable to the teaching profession. The general reader, too, will find very much in them that is interesting and profitable.—*Whitley Chronicle*.

### All Sorts.

"But," said the serenaded man, "I must go out and make a speech. Something must be done to stop the playin' of that band."—*Exchange*.

A large and interesting association of United States bank cashiers could be formed in Canada, and an appropriate evening song for their meetings would be, "Do they miss me at Home?"—*Middleton Transcript*.

When Patti was in San Francisco, she was described as the greatest diva on earth. Whereupon, a professional sent her a challenge to swim any distance she might name for a silver cup! Here is an argument against phonetic spelling.—*Keynote*.

All books are divisible into two classes, the books of the hour and the books of all time. There are good books for the hour, and good books for all time; bad books for the hour, and bad ones for all time.—*N. E. School Journal*.

Mark Lemon, late editor of *Punch*, as described by Mr. Edmund Yates: "He was made for the part. Corpulent, jovial, bright-eyed, with a hearty laugh and an air of bonhomie he rolled through life the outward impersonation of jollity and good temper."

Every man in his own life has follies enough—in the performance of his own duties deficiencies enough—in his fortunes evils enough—without minding other people's business.

### Literary Review.

COLLOQUIAL EXERCISES AND SELECT GERMAN GRAMMAR by Wm. Deutsch Ginn, Heath, & Co., 261 pp. The main idea of this book is the principle that grammar should be postponed till some knowledge of speech is obtained. One hundred short stories come first, then fairy tales, history, novels, next twelve standard poems, collections of names of objects, common verbs and adjectives, short phrases, idiomatic expressions follow lastly copious English notes and a vocabulary of the entire book.

WESTWORTH & HILL'S EXERCISE MANUALS, No. III GEOMETRY. Ginn, Heath & Co., 225 pp. Those who have seen only the Arithmetic and algebra manual, will not be prepared for the completeness of the present treatise. It is far more than a mere exercise manual and folds the leading principles of modern geometry. It is simply an invaluable book to every teacher of mathematics.

ALCOHOLIC PHYSIOLOGY with special reference to the use of Alcoholic Drinks and Narcotics, by J. D. Steele Ph.D.; Barnes Co., New York, 270 pp. An exceedingly practical book in every way, just the sort of book that is needed in our public schools. If this book were read in every family once a year it would prevent much misery and disease.

A MANUAL OF GYMNASTIC EXERCISES, by Dr. Edward Hitchcock, Prof. of Physical Education in Amherst College Massachusetts, Ginn, Heath, & Co., Boston, 57 pp paper. This handy little manual furnishes a series of exercises suitable for the light gymnastics required in our schools. It also contains a series of simple military movements for a class in a hall or out of doors. The dumb-bell exercises are valuable.

A HANDBOOK OF LATIN SYNONYMS, based on Meissner's "Kurzgefasst Lateinische Synonymik," by Prof. Edgar S. Shumway A.M., 53 pp. Ginn, Heath & Co. This terse little manual contains about 1200 words. It is precisely suited to the wants of high school students.

STORIES FOR YOUNG CHILDREN, by E. A. Turner, 87 pp. Ginn, Heath & Co. A neat little sequel to the second primer. Teachers will find it a handy book for black-board stories.

SOPHOCLES' ANTIKONE, on the basis of Wolff's Edition. By Martin L. D. Oge Prof. of Greek, Michigan University. Ginn, Heath & Co., 1884. Beautifully printed in large type, notes on the same page, rhythmic scheme, critical appendix of different readings.

CHOICE READINGS, by R. J. Fulton and T. C. Trueblood, 702 pp. Ginn, Heath & Co. The moment this book is opened one sees that it is well adapted to supply suitable readings for Friday afternoons. Teachers will find in this book a true friend which they cannot afford to do without.

OUTLINES OF METAPHYSIC, Hermann Lotze, translated and edited by Geo. F. Ladd, Professor of Philosophy, Yale College. Ginn, Heath & Co., 159 pp. These outlines cover the entire ground of Lotze's mature teaching at Göttingen and Berlin, as given in his latest lectures recorded in the notes of his hearers and revised by Professor Rehuisch.