## EDUCATIONAL REVIEW.

## THE QUESTION BOX.

On page 214 of the March issue it was stated that the answer to Example 4, Examination Paper No. 45, Academic Arithmetic, should be 144 trees. It has since been brought to our notice that the result given in the book may be obtained by placing the trees as follows:

The first five rows, with the end trees 5 feet from the fence, allowing 12 trees to a row.

Tree one of row six is placed so as to be 10 feet from trees 1 and 2 of row five, thus forming an equilateral triangle with them. Row seven so that trees 1 and 2 will again be 10 feet from tree one of row six. The rest of the field is filled in the same way alternating the trees. These rows will be  $\sqrt{10^2-5^2}=8.66$  feet apart.

In this way we shall have nine rows of 12 trees and 4 rows of 11 trees, or 152 trees.

It is our opinion however, that the practical and teaching value of such a problem is not commensurate with the time which must be spent in its solution.

[Other correspondents agree with our contributor in this opinion. We thank those readers who have written us and sent solutions of the problem.-Editor.]

L. R.-1. The notes on Alexander Selkirk are given on another page.

2. In the sentence "What should (or would) we do without railways," is the meaning, "What would be our wish or determination," or, "What course would be likely or possible? The second meaning is the obvious one, and "What should we do?" is correct.

3. 'In the sentence "Men must work" the idea is not of future time. It = Men are under the necessity of working. The tense of the verb is present.

A. T. C.-There is no important difference between (1) "We arrived safe" and (2) "We arrived safely." 1=We were safe when we arrived. 2=We performed the action of arriving, in safety. It is the condition of the person who arrives, and not the manner of performing the action, that is emphasized, so perhaps the use of the adjective is more logical.

M. E. M.-Asks for the particular analysis of the sentence,

1. I thought of a mound in sweet Auburn. (a) I.....subject

junct)

(b) thought.....predicate

- (d) in sweet Auburn. Extension of predicate, (prepositional phrase, attributive adjunct to c.)
  - or
- (a) I.....subject
- thought of.....predicate **(b)**
- (=recollected)
- a mound.....direct object (c) (d) in sweet Auburn. Enlargement of object.

Grammarians differ as to what are sometimes called prepositional verbs. Nesfield says:

"An intransitive verb can be made transitive by having a preposition added to it, provided that the verb may be used in the passive voice." e. g. A mound in sweet Auburn was thought of.

Mason strongly objects to this view, and says, "The Direct Object of a verb is not indicated by prepositions. A substantive preceded by a preposition always constitutes either an attributive adjunct or an adverbial adjunct.

. . . When it denotes the relation of an attribute or action of a thing to some other thing we get an adverbial adjunct. This statement is not invalidated by the remarkable freedom of English in the use of the Passive Voice."

M. E. M. 2.— THE SCALES OF MAIS.

The scale of a map is the relation between the map and the actual surface it represents. Thus an ordinary sized map of England in a school atlas has a scale of perhaps 40 miles to an inch. That is to say, a linear inch on the map represents 40 linear miles of country, and a square inch on the map represents 1600 square miles of country. In atlases the scale of each map is usually shown by a line divided in such a way as to show how long a line on the map represents 10, 20, 50 or 100 miles of country.

Most children find it an interesting task to measure distances on a map. The length of a river or an irregular coastline is best measured by using a bit of thread or soft twine which can be made to follow the windings and curves. A straight line is best measured with a piece of paper. Measurements made on a map of a large area such as a continent will be less accurate than those made on a map of a country or province, because the distortion caused by trying to represent a curved surface by a flat map is naturally more serious when big areas are represented. This distortion varies very much on different kinds of maps. No measurements should ever be made on a Mercator Map of the world, (the rectangular form of map (c) of a mound......Extension of predicate, (preposiusually employed to show the British Empire) tional phrase, adverbial adbecause here the distortion is so great that the

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