

QUESTION DEPARTMENT.

A. K. B.—1. What is a mineral rod? 2. How does it point out the presence of minerals?

1. A superstition of the nineteenth century. 2. By accident or the conscious direction of the manipulator.

"ASTRONOMER."—Supposing a mass, say one pound of meteoric iron, should fall towards the earth with the average meteoric velocity, say of 30 miles per second; how would you calculate the heat produced by its impact?

Velocity equals 158,400 feet per second, equal to that acquired by a body falling from rest 392,040,000 feet if g always = 32. This energy converted into heat at Joule's equivalent (772 foot-pounds equal to heat which would raise one pound of water one degree Fah. in temperature) would be sufficient to heat one pound of water over 507,000 degrees Fah. But the specific heat of iron is about one-tenth of water. The mass of iron would then be raised about 5,000,000° Fah. in temperature. 3,000° is about the temperature of molten iron.

M. B.—Please name the author and comment on the thought of the following passage:

"Yet I doubt not through the ages one increasing purpose runs,
And the thoughts of men are widened with the process of the suns."

The passage is from Tennyson's "Locksley Hall." The poet seems to have in view the desire of the human mind for a broader culture, a development of what is good and noble in man's nature; and this "increasing purpose" in the higher conception that prevails of the Christian religion, as shown in the great missionary undertakings, the organization of humane societies, the tendency towards the settlement of disputes between nations without resort to the sword, the spread of scientific knowledge in its broadest sense—thus are the thoughts of men widened.

J. C.—Where will I get a good work on entomology? What author is considered best? and what is the cost of the work?

"Packard's Guide to the Study of Insects" is probably the best and most complete work for our students. Its price is \$2.50.

R. S., Lutes Mountain, N. B.—Is the enclosed rock a fossil?

It appears to be a fossil of carboniferous age. It is probably a portion of the trunk of a tree which was buried in a sandstone formation, and therefore not so completely preserved as to form as if it were imbedded in clay. The dark color is due to carbonaceous matter, and portions of its surface are covered with a dense crop of minute hexagonal crystal of silica, which cut glass with great ease.

BOOK REVIEWS.

ELEMENTARY CLASSICS, MacMillan & Co., London and New York. CÆSAR, HELVETIAN WAR, AND GALLIC WAR, Book VII. OVID, STORIES FROM THE METAMORPHOSES. LATIN ACCIDENCE AND EXERCISES. VIRGIL'S ÆNEID, Books VI. and IX. ARRIAN SELECTIONS. XENOPHON'S ANABASIS, Book I.

It cannot be denied that much has been done to smooth the path of beginners in the study of the Latin language. Grammars, introductory readers, and translated editions of the classics generally read in school or college, have been issued from the press both in England and America in great abundance. There is scarcely a difficulty in text, construction or matter that is not explained, or, at any rate, towards the understanding of which contributions are not offered. Geographical references and historical allusions are fully illustrated, and maps and plans of great merit accompany the remarks and impress them upon the mind as no other mode of presentation could possibly do. Truly, O boys, your fortune is pleasanter than that of your predecessors of thirty or forty years ago! But whether the results of the present system will be commensurate with the assistance which has been so generously extended, and the efforts made to render the study attractive and useful, is a question which, by some of us, is difficult to answer in the affirmative.

There is no desire on our part to undervalue the scholarship evidently possessed by the editors of these or other editions of Latin authors, but what we have our doubts about is the wisdom of putting such books in the hands of boys to aid them in their home studies. The average boy only thinks of the translation, and when he has got the sense of the passage he is perfectly satisfied. He does not trouble himself about or make an effort to remember the grammatical or other remarks which accompany the translation; he has got all he wants, and there the matter rests. But the mental discipline, secured by the habitual and strenuous struggle with difficulties and the confidence in one's powers acquired by a mastery of them, he misses entirely. The proximity of the key to the difficulty is a temptation too powerful to be resisted, and before he has fairly grappled with it, and while only conscious of its stubborn and obstinate character, he consults the notes and the obstacle to his progress is removed. Every teacher knows that difficulties surmounted in this way do not permanently promote the advancement of the student, and that facility in translation and an accurate acquaintance with the Latin language are not thus obtained.

And again: We do not consider that annotated editions of the classics in the hands of boys are of any assistance to good teachers, but place them at a decided disadvantage. Every hard construction, every peculiar word, reading or allusion is commented upon. The editor has anticipated almost every remark which the teacher could make in the progress of the lesson, and has, without producing any permanent impression, deprived the observation of the teacher of the interest which arises from novelty, and that concentration of attention so indispensable in the student. And thus it not unfrequently happens that the teacher loses