

project are an ideal place to teach techniques, conservation and biological principles.

Such a procedure followed over a period of years will build a systematic teaching museum more valuable to the students than purchased materials. There is always the personal association, geographical locations, people and places involved in a large collection.

WILLIS W. COLLINS,
Idabel Junior-Senior High School,
Idabel, Oklahoma

RIP VAN WINKLE SCIENCE

Among recent articles, one which arouses the most intense interest and at the same time the most mingled feelings in this reader, is by Mr. Raymond F. Forbes, and appears in the May 1937 issue of *School Science and Mathematics*.

Mr. Forbes states that the school subject most worth while to him is the one which taught him how to think. This enabled him to solve many sorts of problems in his business. That course is the most valuable for anybody who can master it, as the ability to solve personal, business, or professional problems is the great thing. Every life is full of problems, if of little else.

Such a testimonial is most gratifying to a school teacher. In spite of the everlasting and widespread criticism of formal schooling, namely, that it crams facts, facts, facts, and more facts, and gives no training in the all-important ability to think, it seems that at least one pupil got the worth while thing out of the system.

Mr. Forbes describes the method of thinking, the steps taken in solving problems, the application to life. In his own words he describes in considerable

detail: the definition of the problem, the search for indication, the formulation of alternatives, the adoption of a hypothesis, the deduction, the proof, and the application;—clearly he describes the scientific method.

This also is very gratifying to a teacher of natural science, whose subject matter field predisposes him to agree with the proposition that the main if not the sole goal of education is or should be, the inculcation of "that attitude of mind, that habit of thought, which we call scientific."¹

And now comes the jolt. The course which gives Mr. Forbes these inestimable values is not a course in science! It is the old cut-and-dried college entrance course in *plane geometry* with its carefully selected and predigested battery of artificial "originals." A comparative study of science and geometry texts shows that Mr. Forbes' experience indicates a general and not an exceptional condition. Plane geometry texts give practice in scientific method; science texts do not! A little further study discloses a text for English that portrays the scientific method far better than any science text of which I am aware!²

I suppose that others must attempt to teach scientific method since science teachers will not do so. But what a condition of affairs! Are science teachers natural-born Rip Van Winkles, or do laboratory smells deaden "the higher mental processes"?³

PHILIP B. SHARPE,
Greenwich High School,
Greenwich, N. Y.

¹ *How We Think*, by John Dewey, p. iii, Heath, 1910.

² *Using English*, Book Two, by L. B. Cook, Part One, Harcourt, Brace and Co., 1935.

³ *Education as Cultivation of the Higher Mental Processes*, by Charles H. Judd, Macmillan, 1936.