the idea that chemistry laboratories are generally too small and crowded. Another disapproved of all chemistry fees, saying that they kept students out of the course.

Instead of showing, as had been hoped, a general uniformity in handling fees and breakage in high-school chemistry, this study shows rather a lack of system. It is plainly evident that this matter constitutes a real problem. Prevailing tendencies seem to favor the collection of breakage, by an advance deposit, for all apparatus needlessly broken by students. An additional laboratory fee is frequently charged, where other sources of income are limited, to provide necessary chemicals and equipment. Such a policy, wisely and honestly administered, should not discourage many students from taking chemistry but rather helps them to appreciate the real value of the training and instruction provided.

Literature Cited

(1) Cj. PAYNE and SMILEY, "Chemistry Laboratory Fees," J. CHEM. EDUC., 8, 133–9 (Jan., 1931).

(2) JENSEN, "High-School Science Survey of South Dakota." *ibid.*, 4, 897–904 (July, 1927)

Tells of Tests for **Dry** Cleaning Fluid. Dry cleaning fluid, to work properly, should be clear enough to read ordinary newsprint through $11\frac{1}{2}$ inches of it: should have a sweet odor; should he light in color and free from moisture, fatty acids, and alkali. These are some of a series of 11 tests for the use of dry cleaners to determine when their cleaning fluid is exhausted. At the Cincinnati meeting of the American Chemical Society Ralph A. Morgen and Frank Fair described these tests. In order to give satisfactory results, they stated, it is not necessary that the fluid he maintained at the same specifications as the original, hut it should he maintained at a sufficiently high quality to give goad cleaning.—*Science Service*

More Solid **Carbon** Dioxide Now Used than Any Other Form. More solid carbon dioxide, commonly known as "dry ice," is now used than the liquid form of the gas in which it was formerly marketed. D. H. Killefer, chemist of the Dry Ice Equipment Corp., New York City, told members of the American Chemical Society meeting recently at Cincinnati that nearly thirty thousand tons cl this former laboratory curiosity will be used during 1930. This is greater than the total amount of liquid carbon dioxide used in 1927, the latest year for which figures are available. It is used for refrigeration, because of its advantages over ice in being colder and in not melting, hut changing directly from the solid form into the gas.—*Science Service*

Scientific Riddle Seen in New Weak Solutions. A new riddle for scientists to solve may have been created by recent observations of Prof. Carl Oppenheimer of Berlin and Hermann Junker of Hamburg. These men have been working with extremely weak solutions of metal salts, of hormones, and some of the vitamins. The solutions are so weak that they cannot contain any molecules, as their concentration is one part in ten sextillions. Still these extremely weak solutions, which contain an unimaginably tiny amount of a metal salt or a physiological substance, are able to effect the rate of growth of tiny living organisms, the protozoa.—Science *Service*