This was thoroughly washed with water and recrystallized from methyl alcohol.

Calc. for $C_{14}H_{19}O_3N$: C, 67.9; H, 6.6. Found: C, 67.9; H, 6.9.

The unsaturated nitro compound crystalizes in long, yellow needles and melts at 53–54°. It is readily soluble in the common organic solvents. Its solution in acetone instantly reduces permanganate, and benzaldehyde is a primary oxidation product, showing that the double linkage is next to the phenyl group.

5-Bromobenzyl-3-tertiarybutyl Isoxazole, $C_6H_5CHBrC(=N)-CH=C(-O)-C(CH_3)_3$.—When hydrogen bromide was passed into a solution of the unsaturated nitro compound, the color of the solution rapidly changed from yellow to red owing to separation of free bromine. The solution was saturated at 0°, allowed to stand for several hours in an ice chest and then poured into ice water. This precipitated an oil which solidified when rubbed. The solid was washed with sodium hydrogen sulfite until colorless, and purified by recrystallization from methyl alcohol.

Calc. for $C_{14}H_{16}ONBr$; C, 57.1; H, 5.4. Found: C, 56.8; H, 5.6.

The isoxazole derivative crystallizes in needles and melts at 77–78°. It is quite stable, being recovered unchanged after having been heated to 150° for 8 hours. The bromine is readily replaced with hydrogen. Thus 0.5 g. of the substance and one g. of zinc dust were heated in acetic acid on a steam bath for half an hour. The solution was filtered into ice water, and the precipitated solid recrystallized from methyl alcohol. It was bromine free, melted at 50°, and the melting point remained the same when it was mixed with a specimen of the lower melting isoxazole which had been obtained by the action of hydroxylamine upon the diketone.

CAMBRIDGE, MASS.

NOTE.

Correction.—In the review of "Chemistry in Old Philadelphia,"[1] line 20, read: Hare's oxy-hydrogen blow pipe and some of Woodhouse's and some of Hare's other contributions. F. B. DAINS.

NEW BOOKS.

Intermediate Text-Book of Chemistry. 1st edition. By ALEXANDER SMITH, Head of Department of Chemistry, Columbia University. The Century Co., New York, 1919. vi + 520 pp. 115 figs. 14 × 21 cm. $2.25.

This is a new member of the successful series of Smith texts, now four in number. Together they carry out the best traditions of chemical in-

[1] THIS JOURNAL, 41, 1315 (1919).

struction in this country, as did the Remsen series of the preceding generation, and are as nearly standard as any author may expect to reach. The "Intermediate Text-Book" seems adapted to the diversified students in colleges and in technical and normal schools who do not require an elaborate chemical training. After an inviting and masterly introduction dealing with chemical processes in every-day life the author takes up the subject matter in the usually accepted order, enriching the treatment with the essentials of physical chemistry, clearly presented and properly emphasized. Chemical arithmetic could hardly be better handled than here. Review questions follow each chapter.

There are slight departures from judicious text-book writing in the controversial paragraph on the history of oxygen (p. 28) and in selecting Lomonossov and Mayow for two of the three full-page portraits. The author is inclined to amplify the list of definitions (*e. g.*, constituent, dilute solution, concentrated solution). His statement that "There are no laws in nature" (p. 23) will meet with wide disapproval, for there are several rules of behavior in nature which to all but skeptical philosophers are so certain and constant as to be equivalent to decrees imposed by a controlling authority. Something seems to be omitted in approaching the concept of ions (p. 168); the introduction of the term is abrupt. The electron theory is handled very conservatively and the recent general acknowledgment of the reality of molecules has not led the author to modify his treatment of the atomic and molecular theories. The descriptive chemistry is brought up to the end of 1918; we read that "helium is now being used to fill balloons." The type is clear; textual errors are few; the index is a compromise in length between English and American customs.

HERMON C. COOPER.

Introduction to Organic Chemistry. 2nd edition. By JOHN TAPPAN STODDARD, Professor of Chemistry in Smith College. P. Blakiston's Son and Co., Philadelphia, 1918. xi + 423 pp. 13 × 18 cm. $1.50 net.

The preface to the second edition of the text states that "The favorable reception accorded the text has encouraged me to take advantage of this year's reprinting to make a number of corrections and changes that have been suggested during the four years since it appeared."

The changes made are not extensive but add to the value of the text. They consist in minor additions to such subjects as "General Methods for the Formation of Paraffins," "Grignard's Synthesis" and "Artificial Rubber." Some new compounds are introduced such as antipyrene and salvarsan. Additions of from one to two pages have been made in the discussion of each of the following subjects: Natural Fats and Oils, Uric Acid and the Purine Bases, and Proteins. There is also added a two-page table on "Ionization Constants of Some Organic Acids and Bases."

It is unfortunate that the publisher did not renumber the pages. Such

figures as 160*a*, 160*b*, do not leave a good impression on the mind, suggesting additions of the patch work variety which is not warranted in the case of the text.

The author has succeeded in bringing into relatively small compass as extended a discussion of the subject of organic chemistry as can be thoroughly digested by students in the time ordinarily allotted to the introductory course in this subject. Of course, there is always a danger that in the attempt to concentrate one may overdo the thing and devitalize the subject. It is never fair, however, to expect too much of a text-book; the teacher must be taken into account.

There is certainly much to be said in favor of limiting the ground covered in the introductory course as Professor Stoddard has done. Pope might have been writing of the domain of organic chemistry when he penned the line,

"A mighty maze but not without a plan."

If we are not on our guard our students will comprehend that it is a "mighty maze" indeed, but fail to get "the plan." WM. MCPHERSON.