with a blinding light. Similar energetic action takes place when the hot metal comes in contact with asbestos or with other reducible substances.

The attempts to prepare strontium were not very successful. It is quite probable that the furnace will have to be somewhat modified for this purpose and also for the isolation of barium.

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NOTES.

The Preparation of Oxygen.—The action of dilute sulphuric acid on potassium permanganate affords a satisfactory method of making oxygen in small quantities. The possibilities are well known, but do not appear to have been utilized to that end except in connection with hydrogen peroxide.

The operation consists in heating gently a mixture of potassium permanganate and an excess of dilute sulphuric acid, in a generating flask provided with safety and delivery tubes. As this mixture begins to give off oxygen freely at 50°, very little heat is needed. The evolution of gas is continuous and quiet and under easy control.

The amount of oxygen to be obtained by this reaction is approximately represented by the equation

$$2KMnO_4 + H_2SO_4 = K_2SO_4 + 2MnO_2 + H_2O + 3O.$$

Ten grams of potassium permanganate (treated with 40-50 cc. of 1:4 sulphuric acid) give somewhat more than a liter of oxygen.

Convenient and safe, this method may be used to advantage in making oxygen for experimental purposes in courses in general chemistry. R. B. RIGGS.

Note on the Effect of Combined Carbon in Iron on the Test for Tin.—A common test for tin depends on the reducing action of stannous chloride on mercuric chloride. If iron be used to reduce the tin, it should not contain any considerable amount of combined carbon, otherwise a counterfeit test may be obtained, no tin being present.

On making blank tests, it was found that, when the iron contained as much as 0.2 per cent. of combined carbon, its hydro-