

19th century

textbook illustrations

The Preparation and Properties of Oxygen

After first describing the preparation of oxygen by heating KClO_3 and MnO_2 , as shown in the illustration, Steele proceeds to comment on its oxidizing properties.

"God has no idlers in His world. Each atom has its use. There is not an extra particle in the universe. The mission of oxygen, so destructive in its action, is therefore essential, that every waste substance may be collected and returned to the common stock, for use in nature's laboratory. In performing this general task, its uses are most important and necessary. It sweetens water, it keeps the avenues of the body open and unclogged, it preserves the air wholesome. It becomes, in a word, the universal scavenger of nature. Every dark cellar of the city, every recess of the body, every nook and cranny of creation, finds it waiting; and the instant an atom is exposed, the oxygen seizes upon it. A leaf falls, and its destruction forthwith commences. A tiny twig, far out at the end of the limb, dies, and the O immediately begins its removal. A pile of decaying vegetables, a heap of rubbish, the dead body of an animal, a fallen tree, the houses we build for our shelter, even the monuments erected above our final resting-place, are all gnawed upon by what we call the 'insatiate tooth of time.' It



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is only the constant corrosion of this destructive agent—oxygen."

Literature Cited

Steele, J. D., "A Popular Chemistry," American Book Co., New York, 1887, p. 13 and pp. 21-22.