

STEAM HEATING

A Manual of Practical Data

Compiled by

THE GENERAL ENGINEERING COMMITTEE
OF
WARREN WEBSTER & COMPANY

~~THE ATMOSPHERIC STEAM HEATING CO. (1907) LD.
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FOREWORD

THE subject of Heating and Ventilation has been covered broadly in many handbooks that are available for reference, but there has been a demand also for a book of information confined exclusively to Steam Heating and covering that field in all necessary detail.

Steam Heating is therefore the one topic of this volume and the editors have aimed to cover the subject with comprehensive data, arranged in such convenient and useful form as will best meet the needs of technical men in the engineering and contracting fields.

The information given is authentic, being based upon actual practice and largely upon the experience of Warren Webster & Company, who, as pioneers, have specialized for more than thirty years in the effective use of steam for all heating purposes. Many of the designs and methods originated by this firm are now the recognized service standards.

Special articles and helpful suggestions have been contributed by John A. Serrell, by the General Engineering Committee, and by John B. Dobson, Ralph T. Coe, William Roebuck, Russell G. Brown, Harry E. Gerrish, Howard H. Fielding, George A. Eagan, E. K. Lanning and other members of the Webster organization.

"Steam Heating" offers the best thought of this organization, and as part of Webster Service, it is intended to be of real value throughout the profession. The observance of good judgment and painstaking care in following its teachings will do much toward obtaining creditable and satisfactory results.

If further explanations, additional information or helpful co-operation are desired, the Engineers and Service Men in the branch offices of Warren Webster & Company throughout the country are always available for consultation and assistance.

CAMDEN, NEW JERSEY
JANUARY 1, 1922

WARREN WEBSTER & COMPANY

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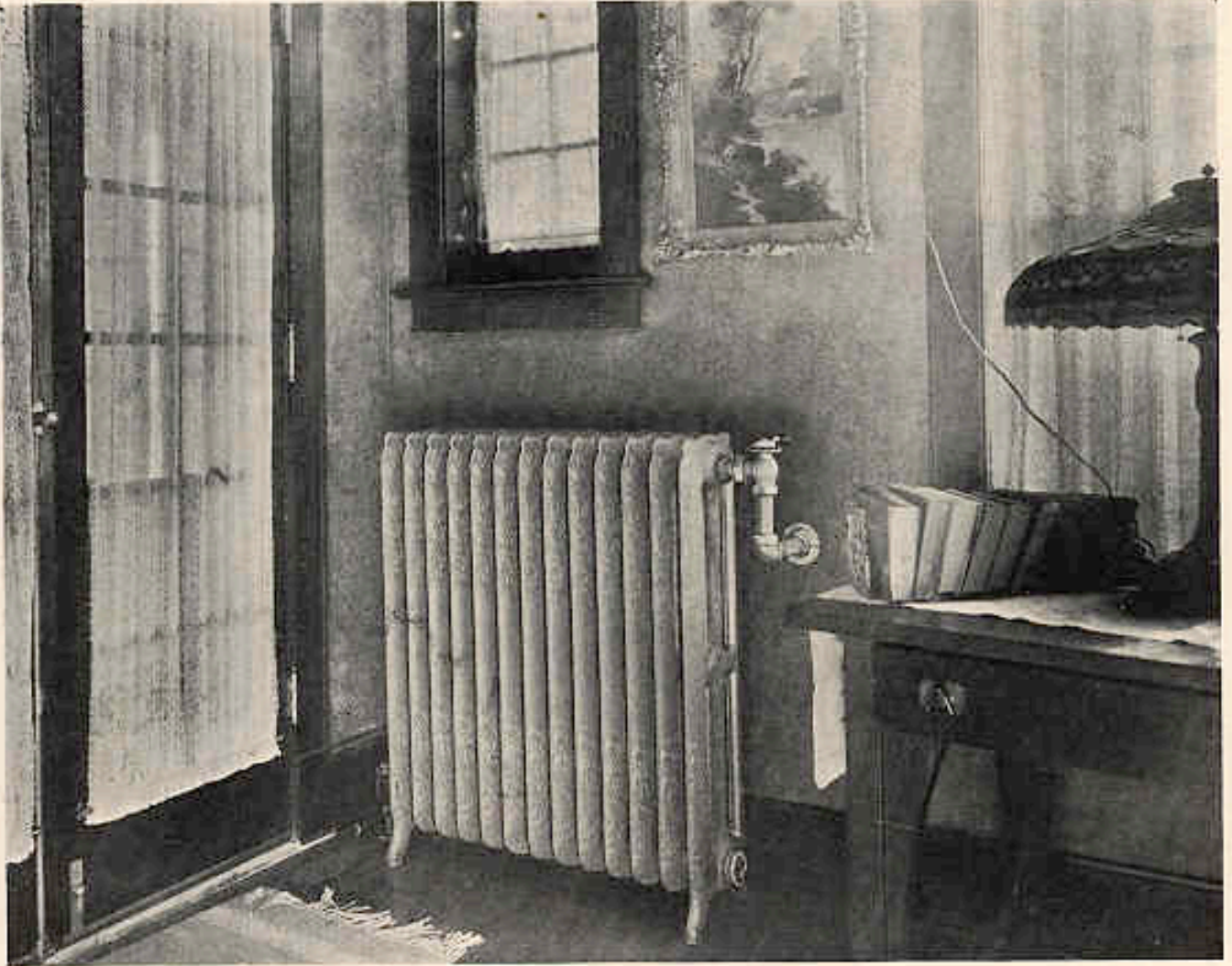


Fig. 6-2. Connections to a direct hot-water type radiator showing modulation supply valve and thermostatically actuated return trap

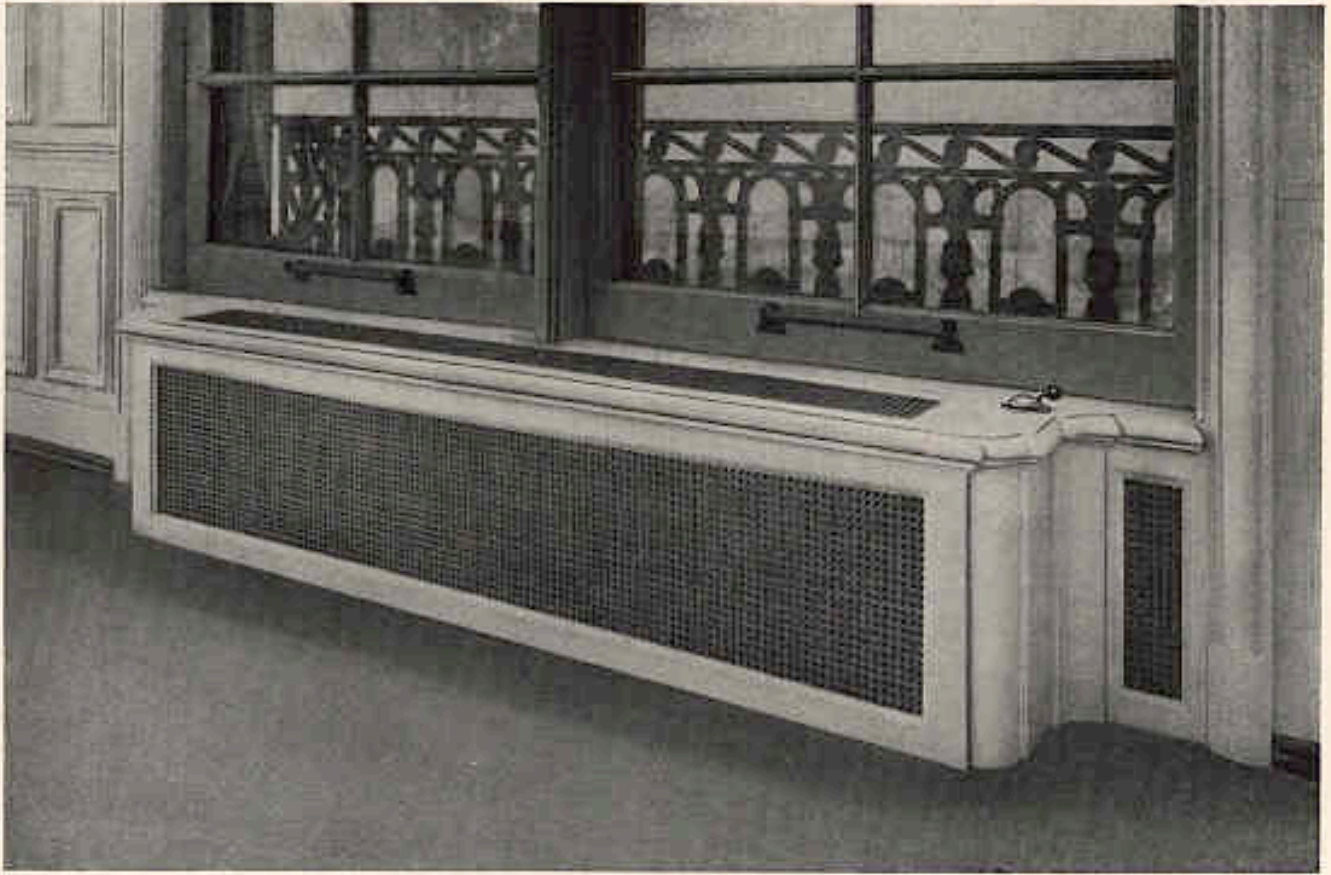


Fig. 6-14. An enclosed radiator having grilles or screens on front and top of enclosure. The modulation supply valve control is shown on top of enclosure

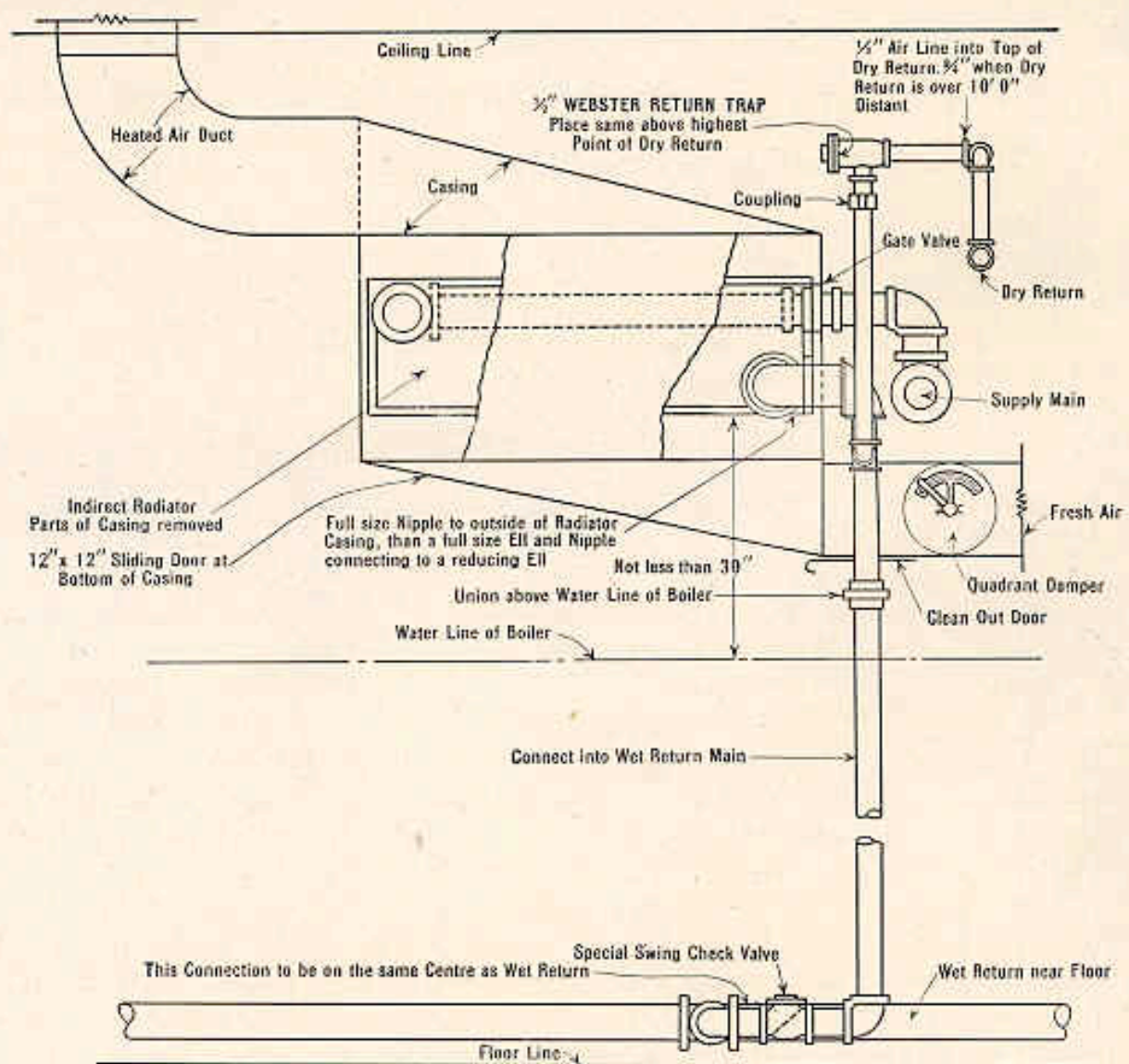


Fig. 6-16. Connections to an indirect radiator

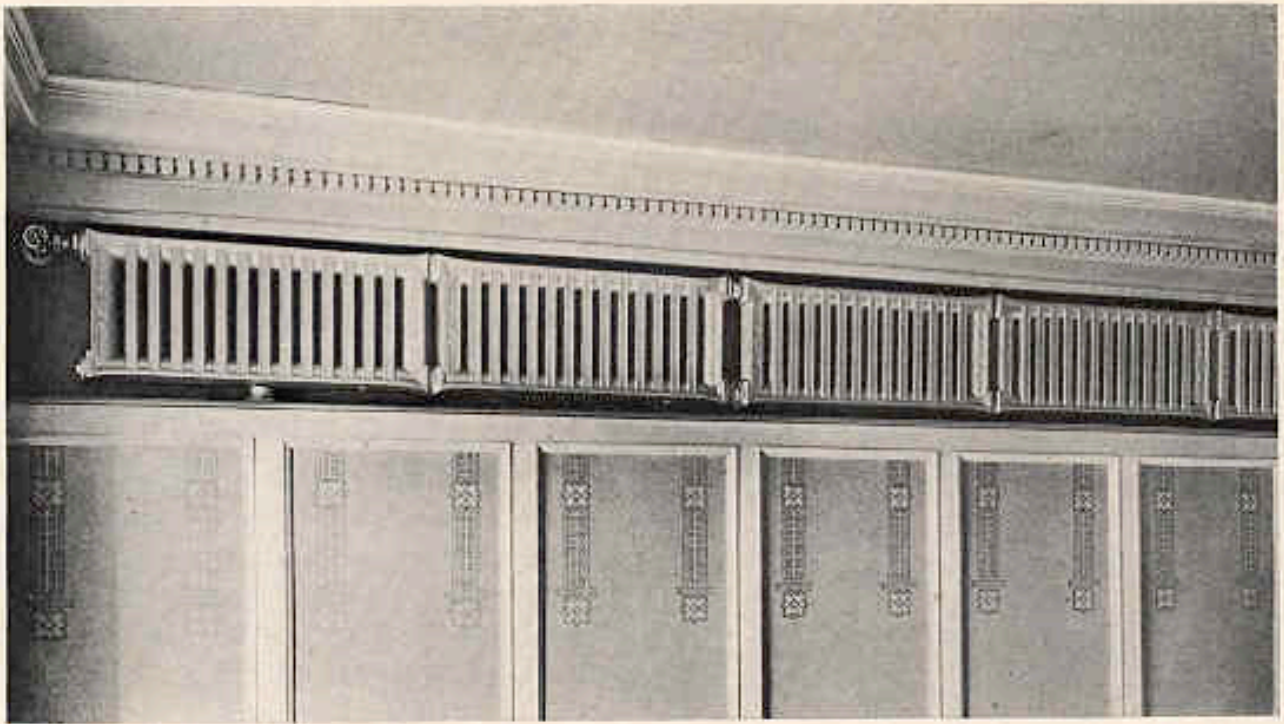


Fig. 10-2: Arrangement of cast-iron wall radiation in cove of ceiling in a grill room. This can also be employed in barber shops and other basement rooms where a modulation system is installed and it is necessary to keep the radiators well above the boiler water line.

Operation of the steam inlet valves of such radiators can, if necessary, be facilitated by the use of extension stems or chain attachments

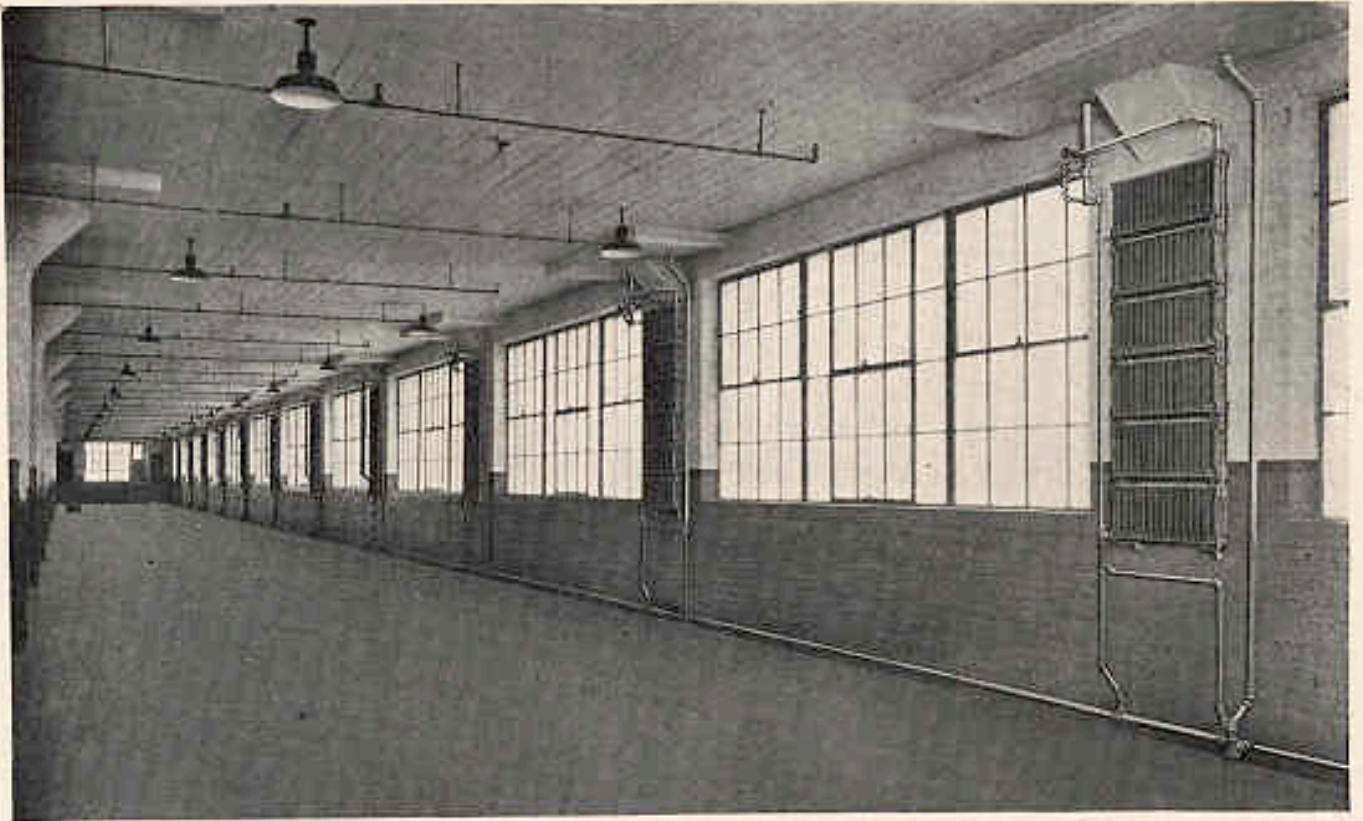
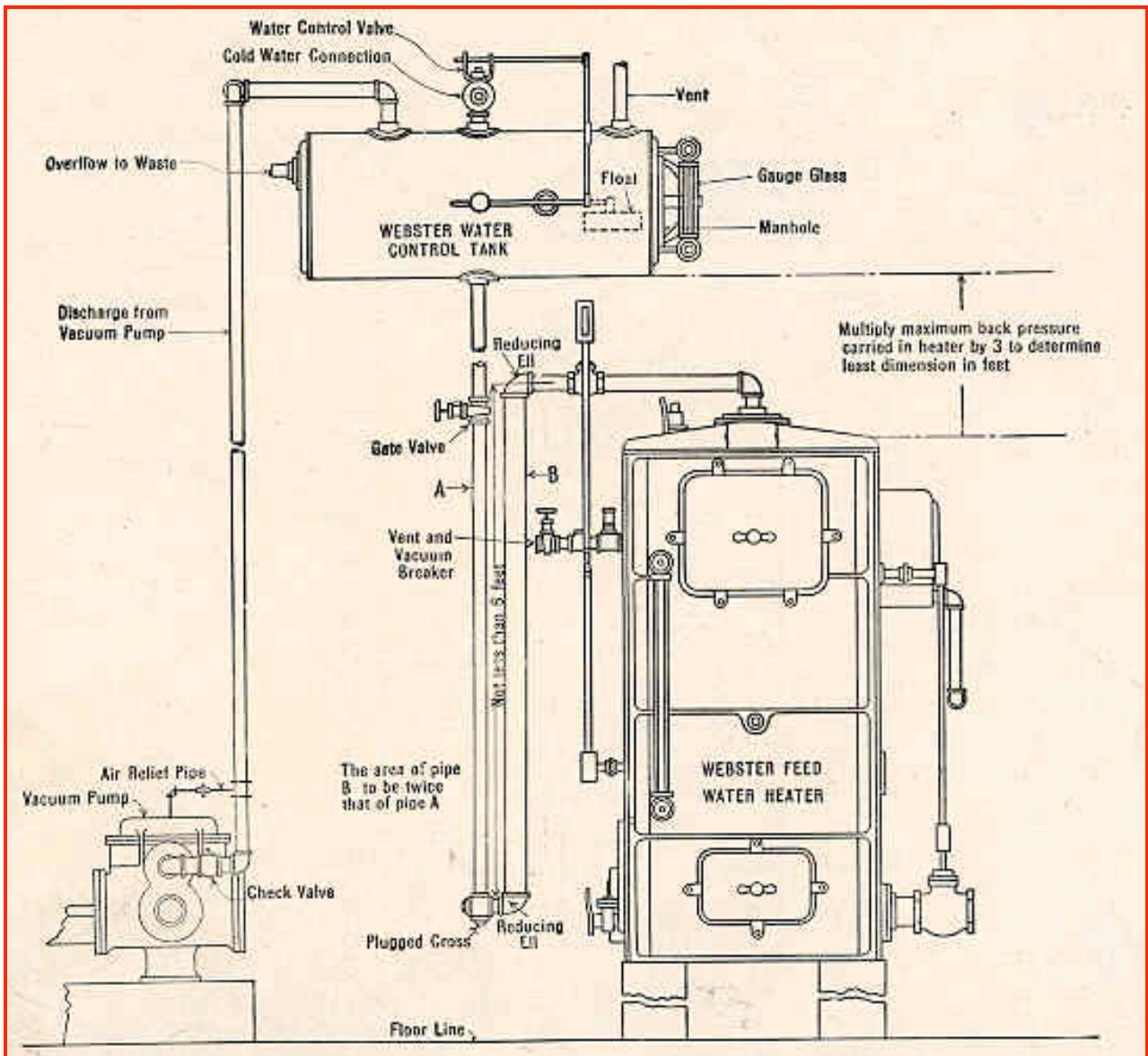


Fig. 10-3. Cast-iron wall radiation in garage. The radiation is placed at some distance from the floor level to avoid being damaged by cars and to prevent injury to tires from heat



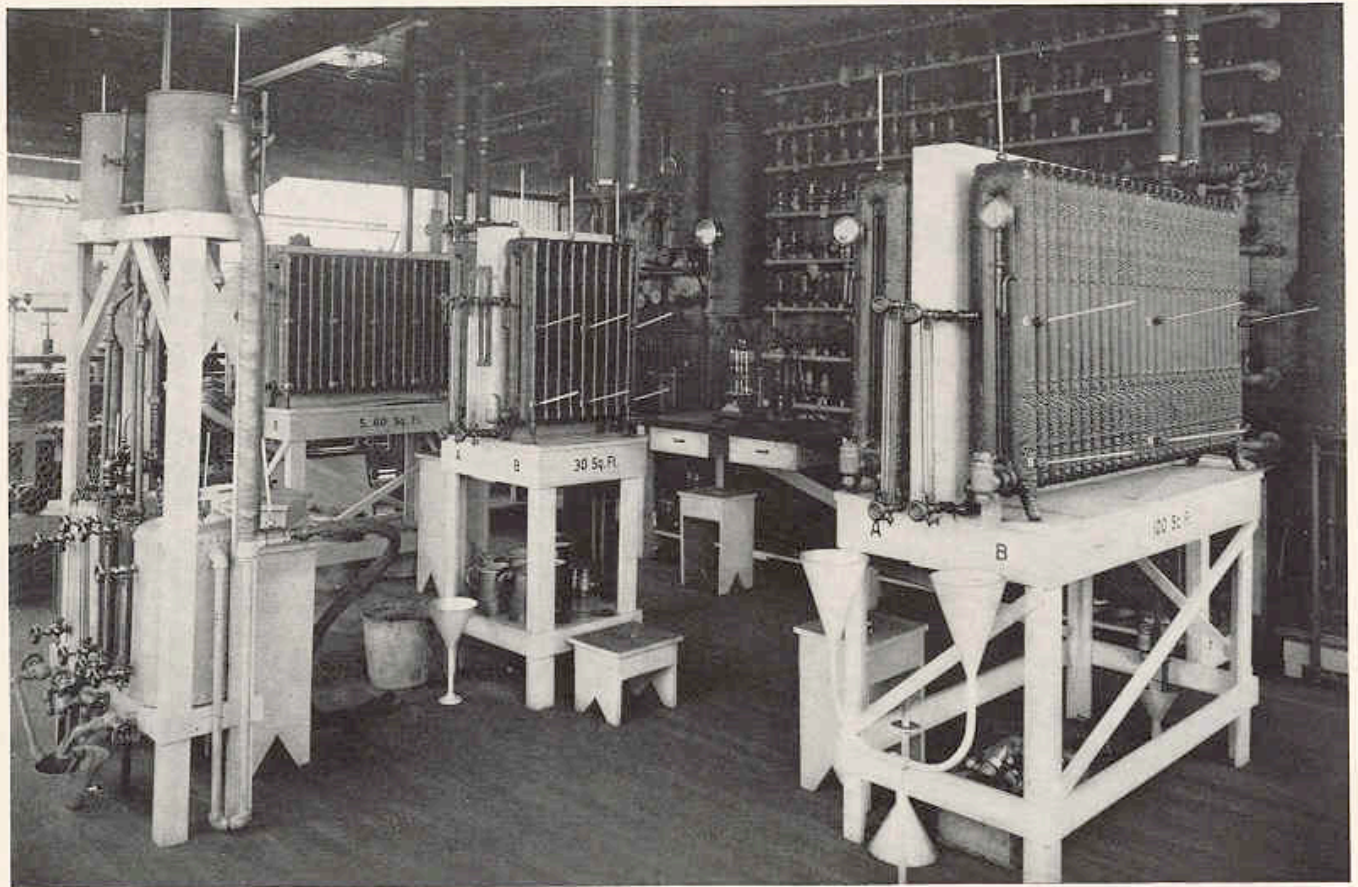


Fig. 14-1. Apparatus for testing in the Mechanical Laboratory of Warren Webster & Co.

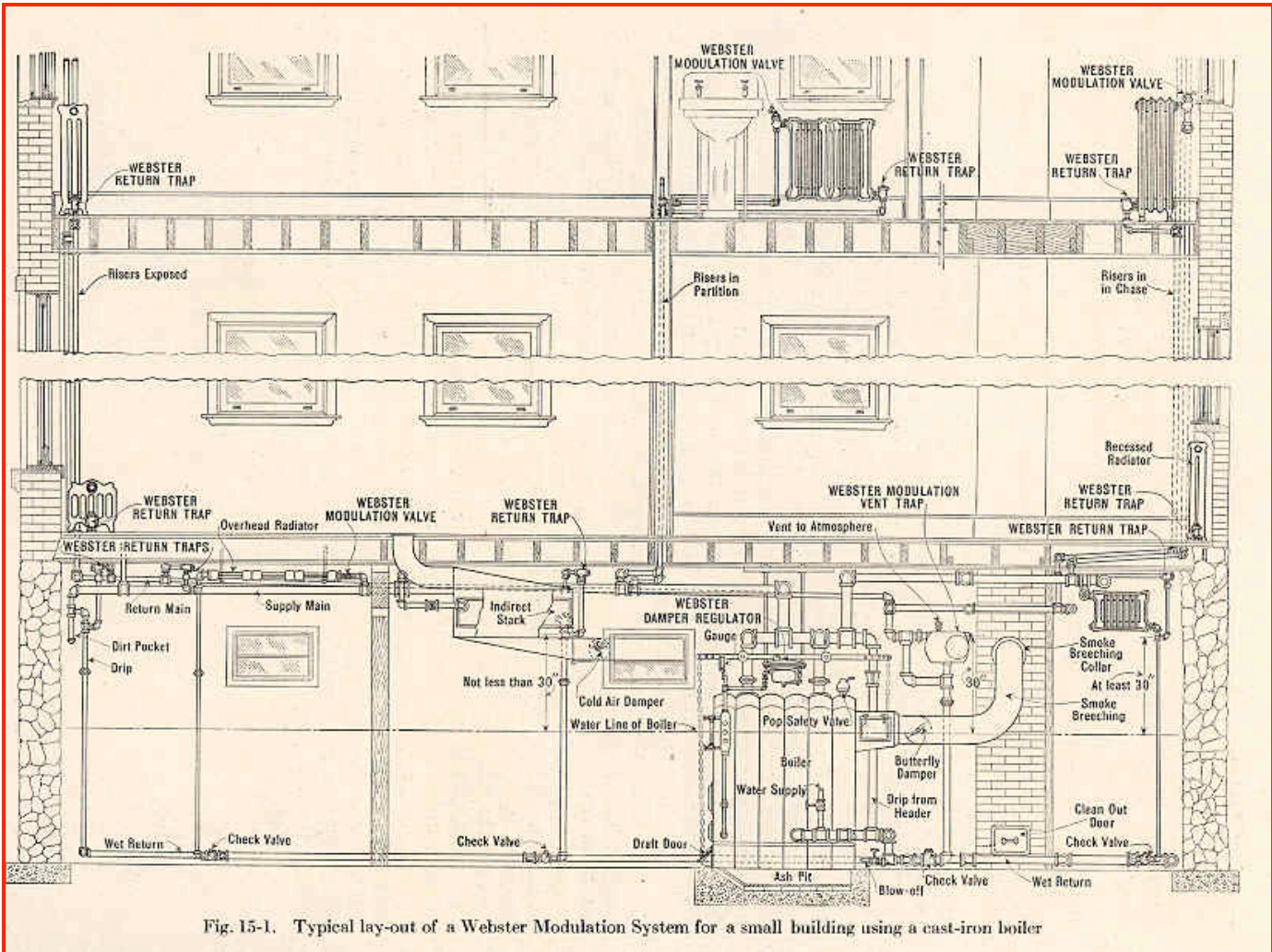


Fig. 15-1. Typical lay-out of a Webster Modulation System for a small building using a cast-iron boiler