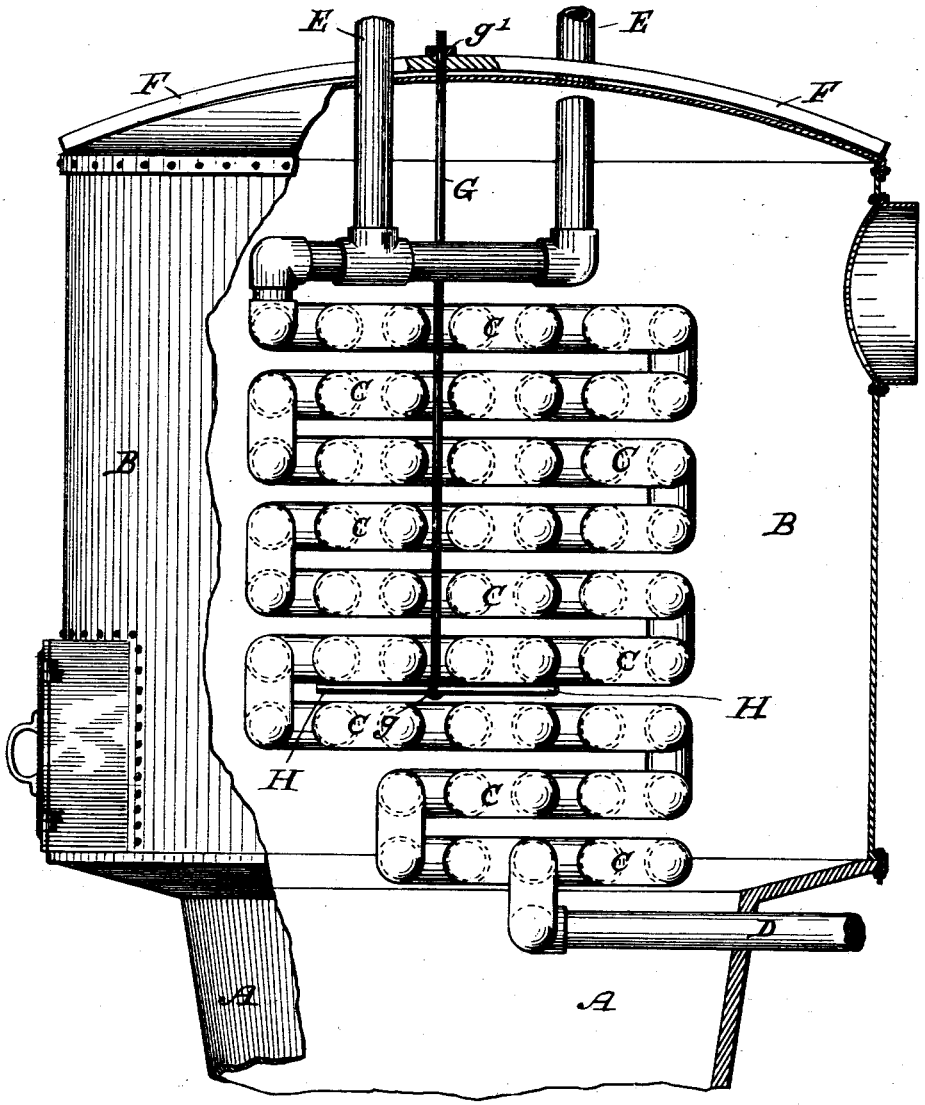
(No Model.)

L. JACKMAN.

HEATING FURNACE.

No. 525,763. Patented Sept. 11, 1894.



Witnesses
W. B. Howe
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UNITED STATES PATENT OFFICE.

LYMAN JACKMAN, OF CONCORD, NEW HAMPSHIRE, ASSIGNOR OF ONE-HALF TO CHARLES L. JACKMAN, OF SAME PLACE.

HEATING-FURNACE.

SPECIFICATION forming part of Letters Patent No. 525,763, dated September 11, 1894.

Application filed December 13, 1890. Serial No. 374,643. (No model.)

To all whom it may concern:

Be it known that I, LYMAN JACKMAN, a citizen of the United States, residing at Concord, in the county of Merrimac and State of New Hampshire, have invented certain new and useful Improvements in Heating-Furnaces, of which the following is a specification.

This invention relates to hot water coils of heating furnaces, and their supports.

The object of my invention is to provide means whereby a water-coil may be applied to an ordinary hot air furnace and may be readily removed therefrom in accordance with requirements; and also to provide a hanger for said coil which will enable vertical adjustment thereof to facilitate the coupling and uncoupling of the supply and return water tubes.

The invention will be readily understood by reference to the following specification and claim and to the accompanying drawing forming a part thereof, in which the dome and a portion of the fire pot of a furnace are illustrated in broken elevation, while the hot water coil is shown in elevation.

In all furnaces having a plain cylindrical radiating dome there is ample room for a pipe-coil which could supply hot water to radiators throughout a building, but the difficulty has been that the radiating domes of furnaces are too thin, (especially the crown of said domes) to support a pipe coil.

By aid of my improvements pipe coils may be attached to the interior of any hot air furnace of the character illustrated in my drawing, whether old or new.

In the drawing A, illustrates a portion of fire-pot; B, the radiating dome, and C, a pipe coil composed of tiers of horizontal pipes.

The inlet pipe D passes horizontally through the side wall of fire-pot at a point sufficiently low to be wholly surrounded by by the fire, and runs thence upward through the fire and is connected with the lower tier of the pipe-coil, which, at the back part of the fire-pot, extends low enough to be in contact with or rest upon the top of the fire.

The radiator conducting pipes pass upward through the crown of the dome B, as seen at E—E.

Upon the top of the crown of dome I place a stiff iron arch piece F, and this is perforated for the reception of the threaded end of an eye bolt G.

A rod H, is passed between two of the lower tiers of the pipe-coil, and through the eye *g*, of said eye bolt G, which is placed vertically within said coil C, passing upward through the crown of the dome B, and the perforation in the arch bar G, where its threaded end is provided with a nut *g'*. The arch bar is strong enough to sustain the weight of the hot water coil, thus relieving the crown of dome.

The eye bolt G, and rod H, possess several advantages over other mechanism which might be employed for supporting the coil, among which may be mentioned their simplicity and their adaptability for readily adjusting the coil higher or lower as may be required which is very convenient when connecting the horizontal inlet pipe D with the coil.

Having described my improvements, what I claim as new is—

A combined hot air and steam heating furnace, consisting of a fire pot, a suitable casing therefor having an auxiliary arch beam at its top, a vertical eye-bolt having a threaded upper end passed through an opening in said arch, a rod passed through the eye in the lower end of the bolt and supporting an independent system of pipes, inlet and outlet pipes passing through the casing, and a nut turned onto the upper protruding end of the eye-bolt and forming means for vertically adjusting the said bolt and coils carried thereby, to allow of coupling of the inlet and outlet pipes.

In testimony whereof I affix my signature in presence of two witnesses.

LYMAN JACKMAN.

Witnesses:
J. B. THURSTON,
J. E. FERNALD.