C. F. ADAMS.

Radiator for Stove Pipes.

No. 232,429. Patented Sept. 21, 1880.

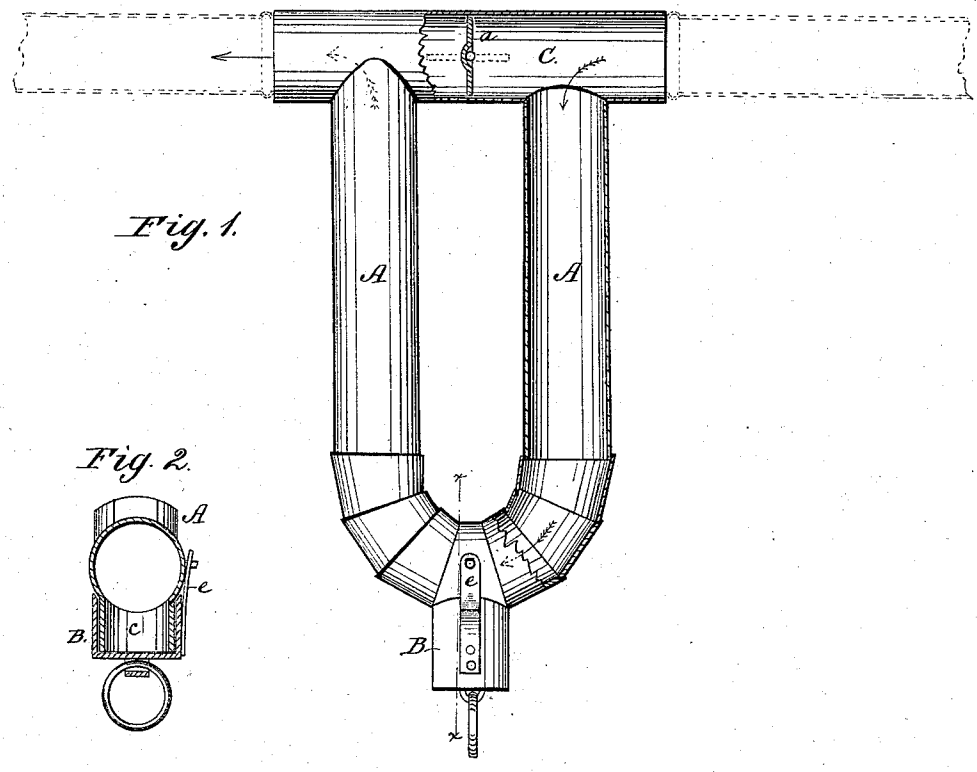


Fig. 1.

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CHESTER F. ADAMS, OF TOLEDO, OHIO.

RADIATOR FOR STOVE-PIPES.

SPECIFICATION forming part of Letters Patent No. 232,429, dated September 21, 1880.

Application filed February 7, 1880.

To all whom it may concern:

Be it known that I, CHESTER F. ADAMS, of Toledo, in the county of Lucas and State of Ohio, have invented a new and Improved Radiator Attachment for Stove-Pipes; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in the class of radiators which are connected with or form attachments of chimneys and flues, and are so constructed that the current of volatile products of combustion may be diverted through them at will for the purpose of bringing such products in contact with a larger conducting and radiating surface, and thereby utilizing the heat more completely.

My improved radiator is constructed of sheet-metal tubes or pipes which are pendent from a horizontal pipe-length, forming a continuation or part of the pipe leading from a stove or furnace.

The lower portion of the radiator is constructed with special reference to the collection and removal of soot.

The details of construction and arrangement of parts are as hereinafter described, reference being had to the accompanying drawings, in which—

Figure 1 is a side view, with part broken out, of my preferred form of radiator. Fig. 2 is a section on line *x x*, Fig. 1.

The radiator consists of the pendent U-shaped tube A, having the detachable soot-receptacle B and the tube or pipe length C, the two being permanently united, thus forming one integral device adapted for sale and use as an entirety.

The horizontal part C forms, when in use, a continuation of an ordinary stove-pipe, as indicated in dotted lines, and is necessarily provided with a damper, *a*, whose adjustment controls the direction of the flow of the products of combustion. As shown in the drawings, the damper is so placed as to divert the same into the U-shaped radiator A instead of allowing them to take the shorter and more direct route, and consequently the heat will be extracted, radiated, and thereby utilized so far as practicable.

At the bottom of the curved portion of the radiator is a circular flange, *c*, surrounding an opening, *d*, through which soot may be extracted. The cup or soot-receptacle B fits tightly on said flange, and is secured by a spring-catch, *e*. The relation of such opening *d* to the curvature of the legs of the radiator A is such as to permit the latter to be easily cleaned by means of a swab or poker inserted through the opening.

The radiator is simple in construction, inexpensive, and may be readily attached to an ordinary stove-pipe, to which it will form a highly useful and economical appendage, enabling the draft and amount of radiated heat to be readily controlled at will. It constitutes a merchantable device, which may be sold independently of stoves or stove-pipes in stove and tin shops.

What I claim is—

1. The improved radiator consisting of the horizontal pipe C, having the centrally-located damper *a*, and adapted for coupling with an ordinary stove-pipe at each end, as shown, and the pendent curved pipes A, having soot-receptacle B, all as shown and described.

2. The combination, with the radiator having the U-shaped pendent pipe, which is provided with bottom opening, *d*, and circular flange *e*, as specified, of the detachable cap B and its spring-catch, as shown and described.

CHESTER F. ADAMS.

Witnesses:

F. E. JAMES,

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