

O. C. BORGES.
DETACHABLE BOILER FLUE.
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973,471.

Patented Oct. 25, 1910.

Fig. 1

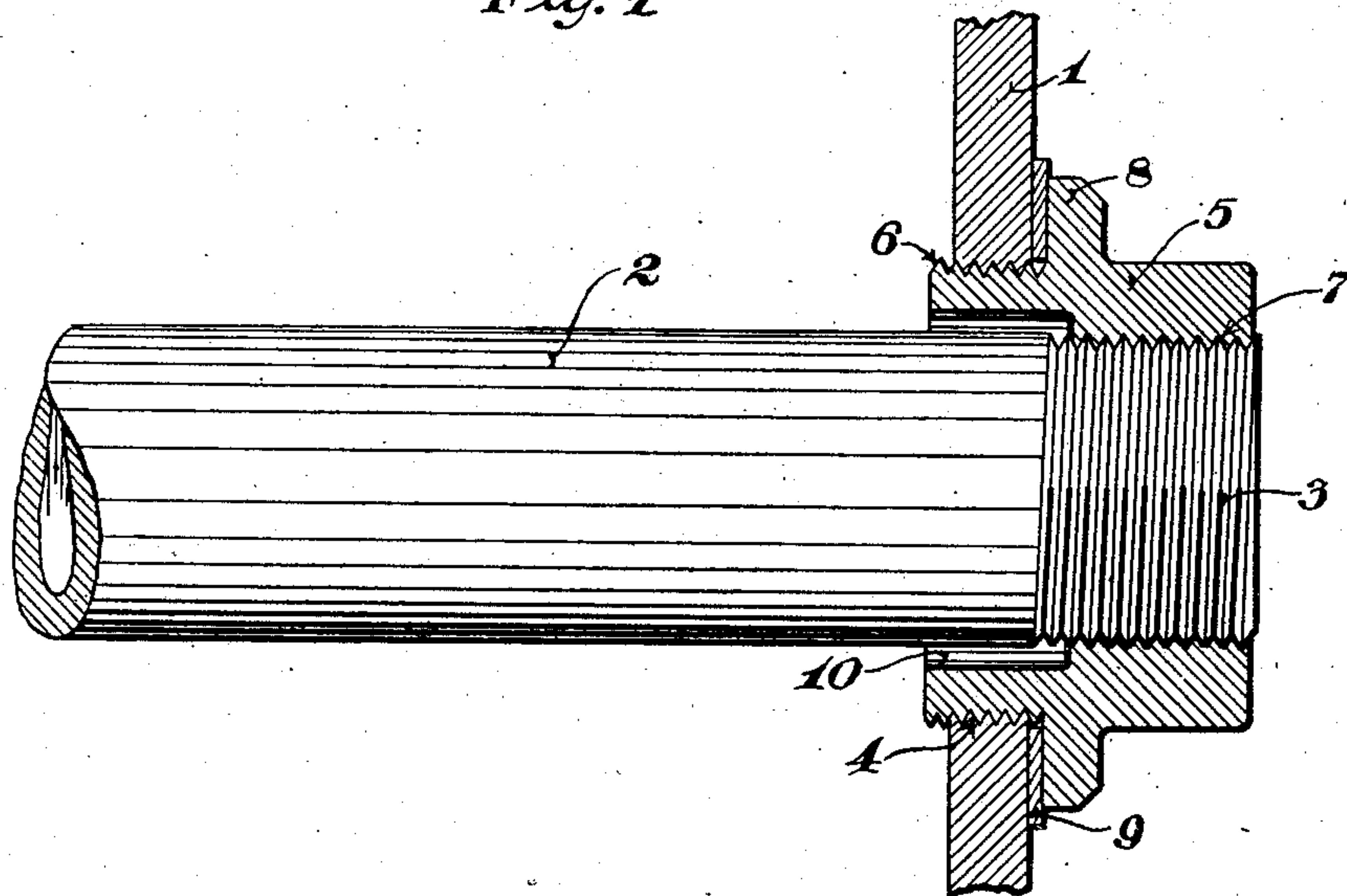
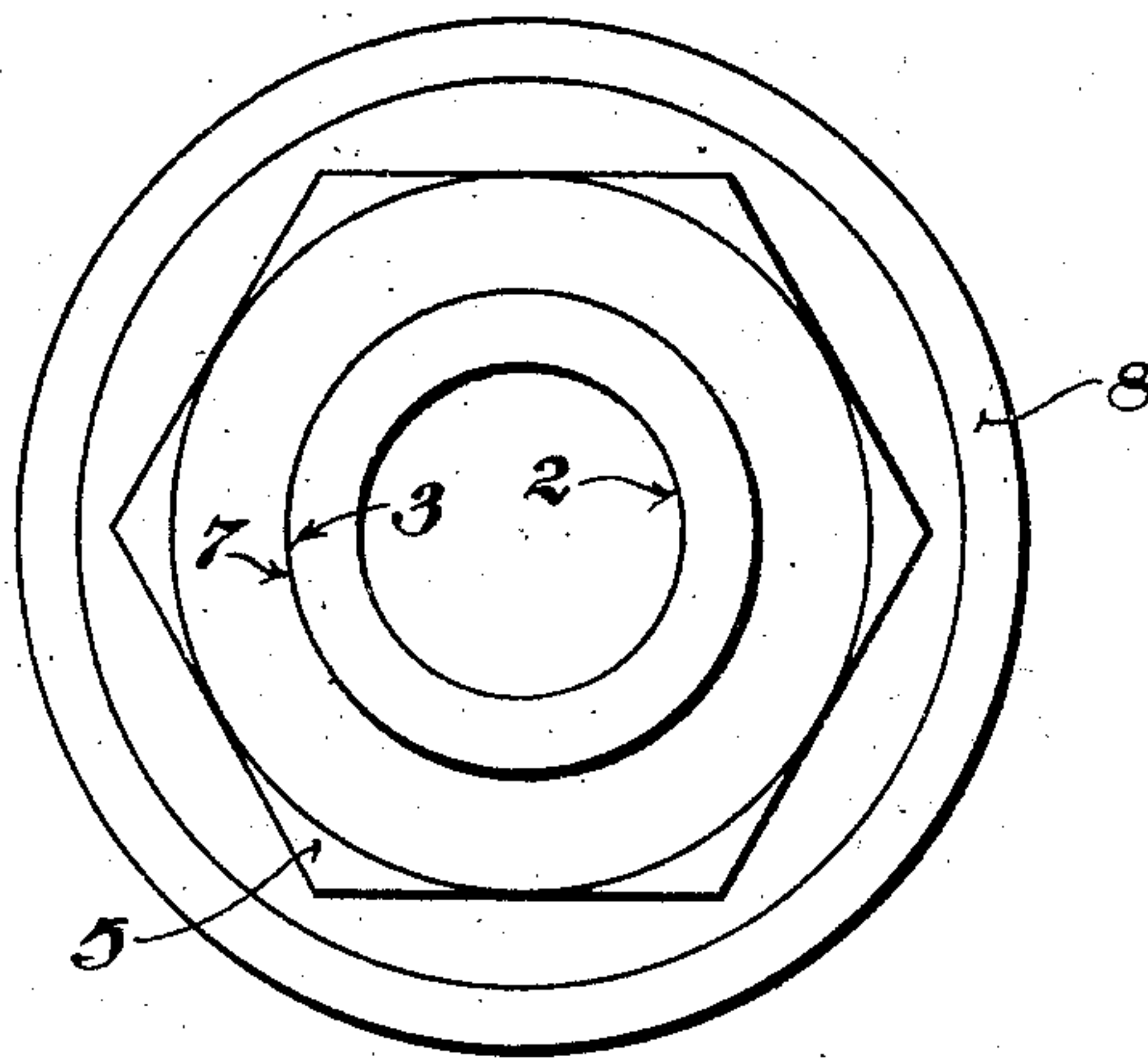


Fig. 2



Witnesses

E. C. Skinkle

H. D. Kilgore

Inventor:

O. C. Borges

By his Attorneys:

Williamson Merchant

UNITED STATES PATENT OFFICE.

OLE C. BORGEN, OF SHARON, NORTH DAKOTA.

DETACHABLE BOILER-FLUE.

973,471.

Specification of Letters Patent.

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Application filed June 19, 1909. Serial No. 503,173.

To all whom it may concern:

Be it known that I, OLE C. BORGEN, a citizen of the United States, residing at Sharon, in the county of Steele and State of North Dakota, have invented certain new and useful Improvements in Detachable Boiler-Flues; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an improved detachable boiler flue, and to this end it consists of the novel devices and combinations of devices hereinafter described and defined in the claim.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view partly in plan and partly in vertical section showing a flue applied to a flue sheet in accordance with my invention; and Fig. 2 is an end elevation of the flue and coupling removed from the flue sheet.

The numeral 1 indicates the flue sheet and the numeral 2 the flue. The flue 1 is threaded at one end, as shown at 3, and the flue sheet 1 is provided with a threaded seat 4, through which the threaded end of the flue projects.

A coupling 5, having external threads 6 at its inner end, for engagement with the threaded seat 4 of the flue sheet 1, and having internal threads 7 at its outer end for engagement with the threaded end 3 of the flue 1, permits the coupling 5 to be screwed into the seat 4 of the flue sheet 1 and onto the threaded end 3 of the flue 2.

The coupling 5 is provided, at its external intermediate portion, with an annular flange 8, between which flange and the flue sheet 1 a pliable gasket or packing 9 is interposed

to insure a steam tight joint between the coupling 5 and the flue sheet 1. The outer end of the coupling 5 is formed angular, or like a nut, so that it may be readily turned by the use of a wrench. The bore of the coupling 5, at its inner end, is increased in diameter to form a chamber 10 between the flue 2 and the coupling 5, when the coupling 5 is screwed onto the flue 2 and into the seat 4 of the flue sheet 1.

By reference to Fig. 1, it will be noted that the chamber 10 extends from the rear toward the front of the coupling 5 a distance beyond the outside of the flue sheet 1, thus permitting the free circulation of water around the flue 2 beyond the outside of the flue sheet 1. The chamber 10 also prevents that portion of the coupling 5 between the flue sheet 1 and the flue 2 from binding, thus permitting the coupling 5 to be easily removed from its operative position.

What I claim is:

The combination with a flue sheet having a threaded seat, of a flue having a threaded end projecting through said flue sheet, a coupling having a projecting annular clamping flange and internal and external threads permitting said coupling to be screwed into said seat and onto the threaded end of said flue and the bore of said coupling being increased in diameter at its inner end to form a chamber around that portion of the flue which lies in the plane of the flue sheet, and a gasket clamped between said clamping flange and the adjacent face of the flue sheet, substantially as described.

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

OLE C. BORGEN.

Witnesses:

E. G. QUAMME,
C. G. LINNELL.