No. 843,152. PATENTED FEB. 5, 1907.

C. KROESCHELL.

BOILER CONSTRUCTION.

APPLICATION FILED JAN. 29, 1906.

Fig. 1.

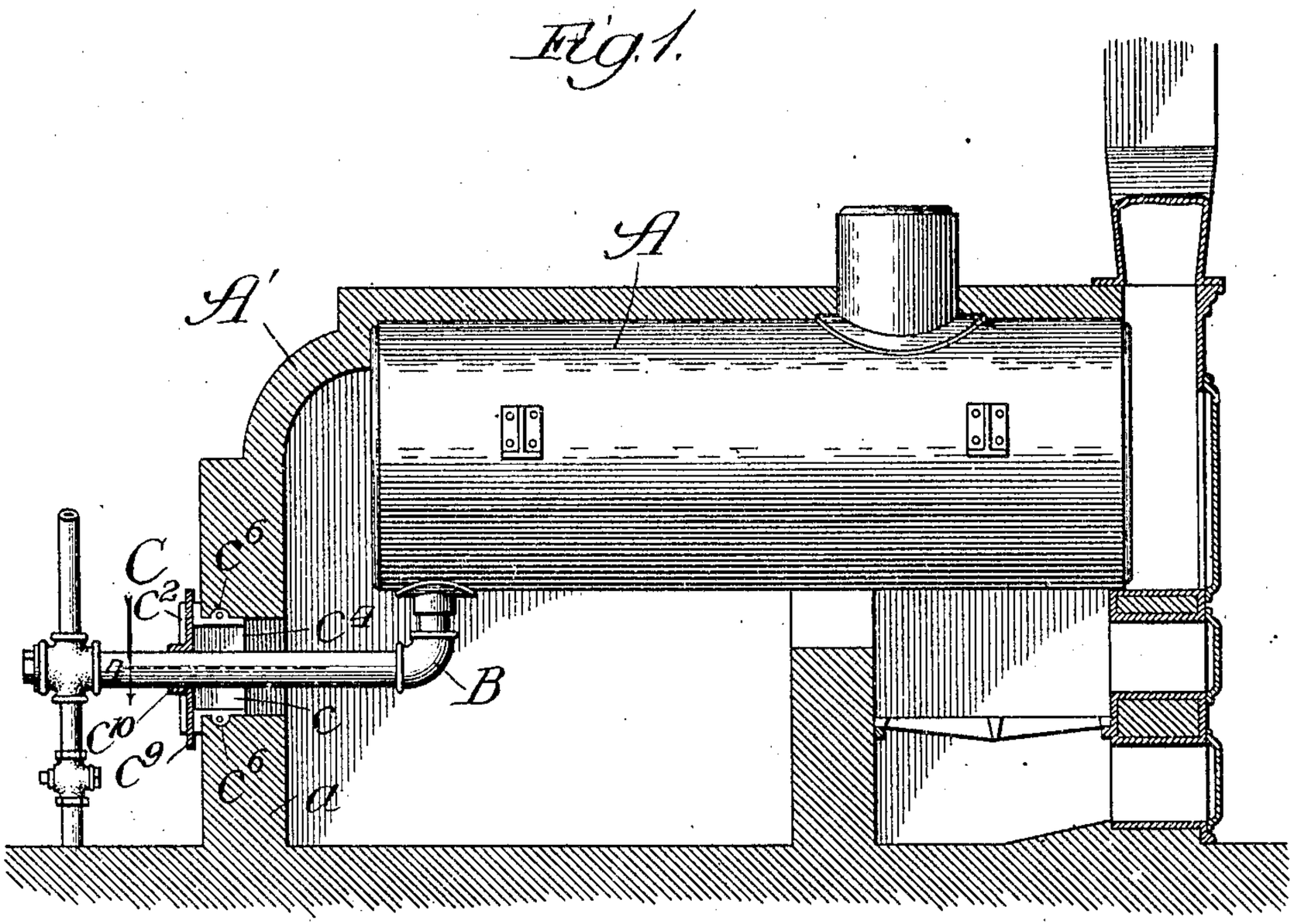


Fig. 2.

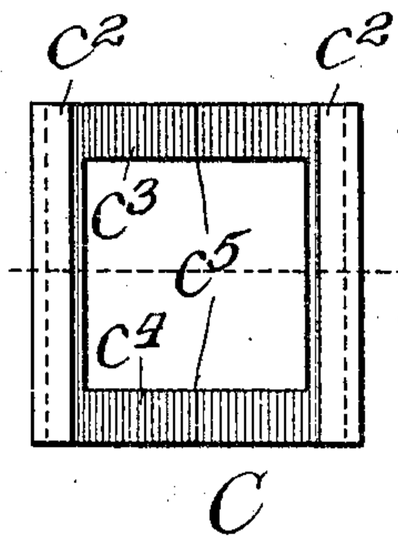


Fig. 3

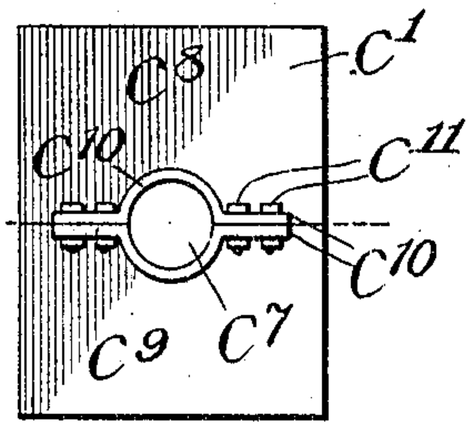
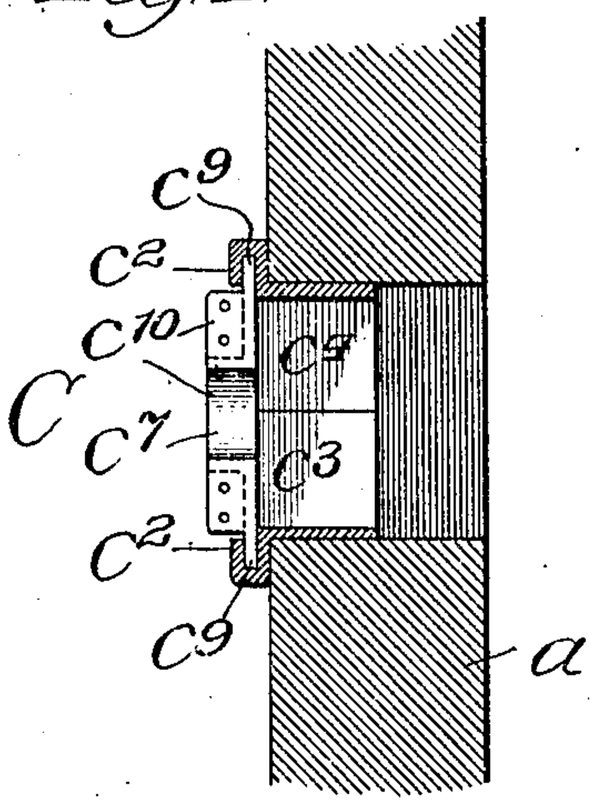


Fig. 4.



Witnesses:
Chas. E. Gaylord,
John Endere.

Inventor:
Charles Kroeschell,
By Dyrenforth, Dyrenforth & Lee,
Attys.

UNITED STATES PATENT OFFICE.

CHARLES KROESCHELL, OF CHICAGO, ILLINOIS.

BOILER CONSTRUCTION.

No. 843,152. Specification of Letters Patent. Patented Feb. 5, 1907.

Application filed January 29, 1906. Serial No. 298,384.

To all whom it may concern:

Be it known that I, CHARLES KROESCHELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Boiler Construction, of which the following is a specification.

My invention relates particularly to boiler installation; and my primary object is to provide a safety connection between a pipe leading from the boiler and the masonry wall through which the pipe extends, whereby breakage of the pipe connections, due to the settling of the boiler, may be obviated.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a vertical sectional view of a boiler equipped with my improvement; Fig. 2, an outer end elevational view of a frame set into a wall of the boiler and constituting a portion of my invention; Fig. 3, an elevational view of a shiftable self-adjusting plate connected with said frame, and Fig. 4 a broken section taken as indicated at line 4 of Fig. 1.

In the construction illustrated, A represents a boiler inclosed in a casing A′, of masonry; B, a pipe connected with the lower rear portion of the boiler and which may serve as a blow-off pipe and also as an injection-pipe, and C a self-adjusting slip-joint connection between the pipe B and the rear wall *a* of the chamber containing the boiler.

The device C comprises a shell or frame *c* of rectangular form and a slide *c′* vertically movable in guides c^2, with which the outer end of the shell *c* is provided. The shell *c* comprises two sections c^3 c^4, which are connected together at a longitudinal central vertical plane c^5 by means of lugs c^6. The outer end of the shell is flanged, as shown in Figs. 1 and 4, the flange fitting against the outer surface of the wall *a*. The shiftable plate *c′* is provided with a central opening c^7, which fits more or less snugly upon the horizontal portion of the pipe B. The plate comprises an upper section c^8 and a lower section c^9, the meeting plane of which is at the axis of the opening c^7. The sections are provided with flanges c^{10}, connected by bolts c^{11}.

The shell *c*, which may otherwise be termed an "open-ended box," is securely embedded in the masonary of the wall and affords a passage through which the pipe B normally extends centrally with sufficient space above and below the pipe to permit relative movement of the pipe with relation to the wall. If the boiler settles with relation to the wall or the wall settles with relation to the boiler, the plate *c′* will move within the guides c^2, thereby preventing breakage. At the same time a close connection between the pipe and the wall is maintained under all conditions. The sectional construction of the parts enables them to be applied after the boiler is installed, and where it is desired to apply the device to a boiler already in use a sufficiently large opening to receive the shell is provided, after which the space between the shell and the wall may be filled in with cement.

The preferred construction is described in detail for clearness of understanding only.

What I regard as new, and desire to secure by Letters Patent, is—

1. The combination of a boiler, a pipe connected therewith, a chamber-wall through which said pipe extends, a guide connected with said wall, and a plate having a perforation fitting upon said pipe, said plate movable in said guide, for the purpose set forth.

2. The combination of a boiler, a pipe connected therewith, a chamber-wall provided with an opening, a thimble inserted in said opening and equipped at its outer end with a guide, and a plate having a perforation receiving said pipe, said plate movable in said guide, for the purpose set forth.

3. The combination of a boiler, a pipe connected therewith, a chamber-wall having a perforation through which said pipe extends, a sectionally-constructed thimble inserted in said perforation and equipped at one end with a guide, and a plate fitted upon said pipe and movable in said guide, for the purpose set forth.

CHARLES KROESCHELL.

In presence of—
J. H. LANDES,
M. S. MACKENZIE.