

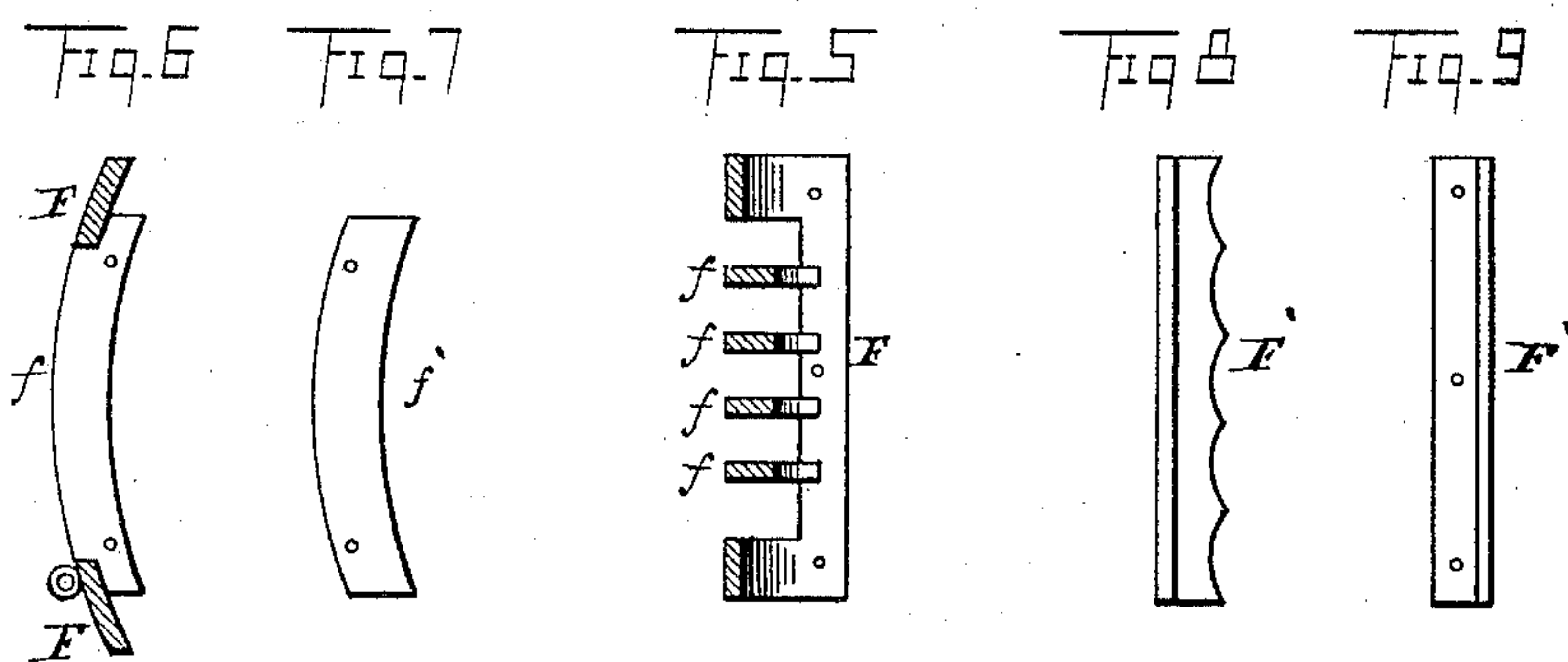
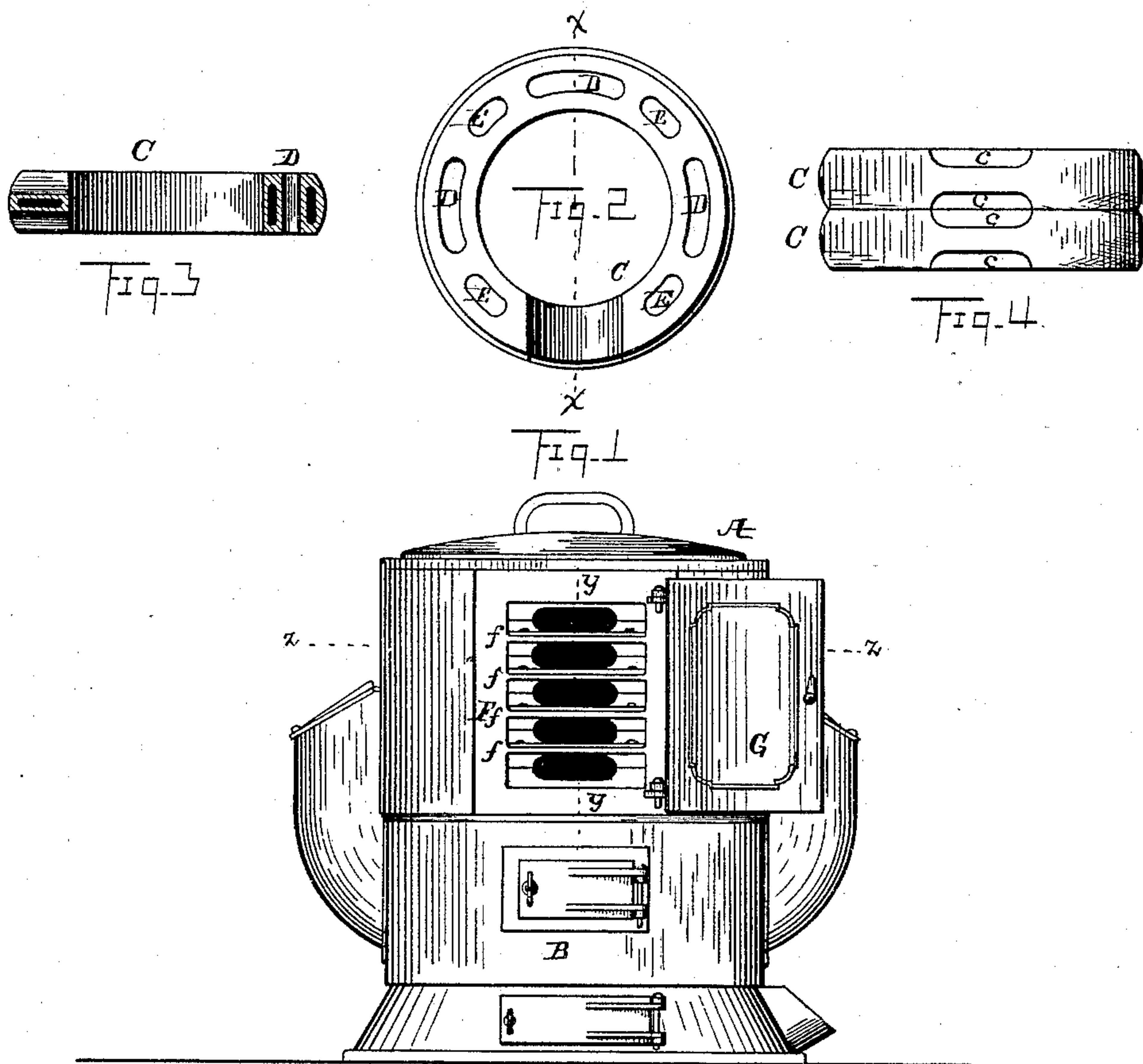
(No Model.)

D. F. MORGAN.

CLEANING DOOR FOR BOILERS.

No. 397,561.

Patented Feb. 12, 1889.



Witnesses

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DOCTOR F. MORGAN, OF AKRON, OHIO.

CLEANING-DOOR FOR BOILERS.

SPECIFICATION forming part of Letters Patent No. 397,561, dated February 12, 1889.

Application filed August 20, 1888. Serial No. 283,177. (No model.)

To all whom it may concern:

Be it known that I, DOCTOR F. MORGAN, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a certain new and useful Improvement in Cleaning-Doors for Sectional Steam-Boilers, of which the following is a specification.

The object of my invention is to provide in sectional boilers having openings between the sections through which the interior may be cleaned a casing adapted by suitable partitions to meet said openings, and a door hinged thereto by which said openings may be simultaneously opened and closed.

My invention consists in the devices shown in the accompanying drawings, as hereinafter described and claimed.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is an elevation of a sectional boiler provided with my improved door and casing; Fig. 2, a plan of one of the boiler-sections; Fig. 3, a section of Fig. 2 at the line $x x$; Fig. 4, an elevation of two sections; Fig. 5, a vertical section of the door-casing at the line $y y$ of Fig. 1; Fig. 6, a horizontal section of the casing at the line $z z$ of Fig. 1; and Figs. 7, 8, and 9, details of the plates by which the casing is fitted to the sections.

The boiler A (shown in Fig. 1) is constructed above the fire-pot B of cast sections C. Each of these sections consists of a hollow ring provided with smoke-flues D and water-ports E, which register with corresponding flues and ports in adjoining sections.

At one side of each ring and opposite each other in its upper and lower faces are semi-elliptic depressions c , so arranged that when the sections are placed in position the depressions in each section will register with those in the contiguous section, and thereby

form an elliptical opening through which the inner faces of the sections may be reached and cleaned. Opposite to and inclosing these openings is a casing arranged to be attached to the boiler-jacket, and having horizontal partitions f , which register with the central lines of the sections.

The inner faces of the casing F and partitions f may be conformed to fit the sections C; but as these latter may differ somewhat in shape I prefer to so construct the casing and partitions that they will not come directly in contact with the sections, and provide separate adjustable plates or pieces $f' F'$, which are bolted to the partitions f and sides of the casing F, respectively, and fit against the sections C, and thereby close the spaces. Hinged to this casing is a door, G, which accurately fits the face of the casing and edges of the partitions and closes the openings between the sections.

I claim—

1. In a boiler of the class specified, the combination, with water-sections provided with depressions in contiguous faces, of a door-casing arranged to fit said sections and surround said depressions, having horizontal partitions which register with the sections, and a door to close said casing, all constructed substantially as shown, and for the purpose specified.

2. The combination, with the sections C and casing F, having partitions f , of the adjustable plates $f' F'$, for fitting the casing and partitions to the sections, substantially as shown and described.

In testimony that I claim the above I hereunto set my hand.

DOCTOR F. MORGAN.

Witnesses:

C. P. HUMPHREY,
IDA MEMMER.