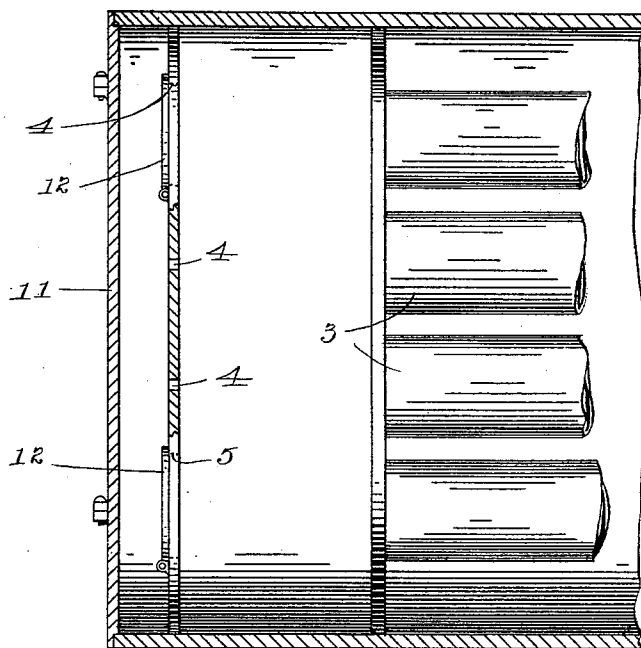
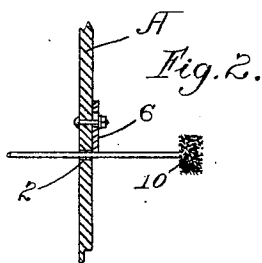
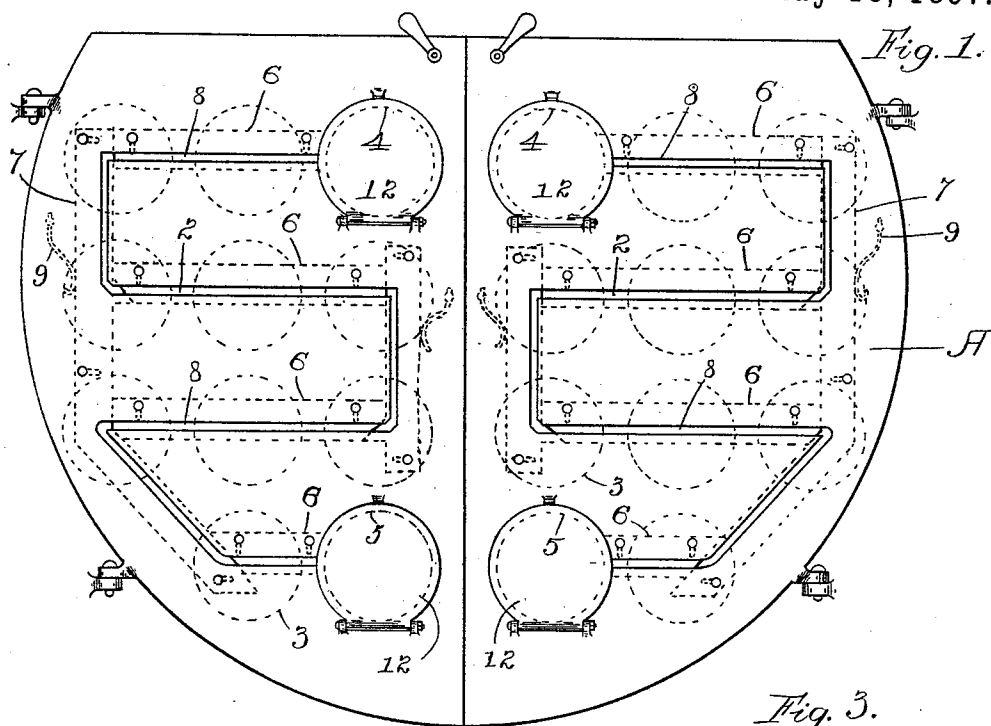


(No Model)

V. KLINGLER.
BOILER FLUE FRONT.

No. 582,747.

Patented May 18, 1897.



Witnesses:

H. C. Ziegler
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per: *V. A. Merwin*
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UNITED STATES PATENT OFFICE.

VICTOR KLINGLER, OF SLAYTON, MINNESOTA.

BOILER-FLUE FRONT.

SPECIFICATION forming part of Letters Patent No. 582,747, dated May 18, 1897.

Application filed March 1, 1897. Serial No. 625,501. (No model.)

To all whom it may concern:

Be it known that I, VICTOR KLINGLER, of Slayton, Murray county, Minnesota, have invented certain Improvements in Boiler-Flue Fronts or Doors, of which the following is a specification.

My invention relates to improvements in steam-boiler-flue fronts or doors, its object being to provide an improved construction of the same which will allow all of the flues to be cleaned without opening the door.

To this end my invention consists in forming the flue front or door with a slot or slots following the centers of the flues of the boiler. This slot serves as a guide for the handle of the flue-cleaner, an enlarged opening being generally formed at the beginning and end of the slot to allow of the insertion and removal of the cleaner. I may also, if desired, cover the inside or outside of the slot by slides adapted to be moved aside by the cleaner as the same is carried around to clean the flues.

My invention further consists of the features of construction hereinafter more particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a front view of the flue-door fitted with my invention. Fig. 2 is a vertical partial section of the same, showing the cleaner in place in the slot; and Fig. 3 is a vertical section through the flue-door, showing an additional door taking the place of the slides illustrated in Fig. 1.

In the drawings, A represents the flue-door of the boiler, and 2 the slot following the centers of the boiler-flues 3, enlarged openings 4 and 5 being formed at opposite ends of the slot, large enough to admit of the instrument used for cleaning the flues, these openings being each covered by a hinged flap 12. The slot 2 is ordinarily covered on the inside or outside of the flue-door by the horizontal slides 6 and similar vertical slides 7, each having slotted connection 8 with the flue-door. As will be evident, the slides 6 are held in covering position by reason of their weight, and the vertical slides 7 will be held in similar position by the springs 9.

When it is desired to clean the flues, the cleaner B is inserted through the opening 4 50 and the corresponding flue cleaned. It is then pulled out of the flue and carried underneath the end of the first horizontal slide 6, lifting said slide and allowing the rod or cleaner to be carried into the slot. The cleaner 55 is then carried along the slot, the remaining slides being similarly shoved aside, and the other flues of the boiler cleaned, the cleaner being removed through the opening 5. The slides are thus successively moved away from 60 the slot as the cleaner is carried around to clean the flues, the horizontal slides dropping back into covering position by reason of their weight and the vertical slides by the action of the springs 9. In some cases the same con- 65 struction may be used, dispensing with the enlarged openings 4 and 5. When this is done, the brush 10 of the cleaner is removed from the rod and the rod inserted through the slot, the brush then being again secured to 70 the rod and the flues cleaned, as above described. I may also in some cases dispense entirely with the slides and use instead an additional flue-door 11, which can be opened when the flues are being cleaned. The idea 75 of the invention in these different modifications, however, as is evident, is the same—i. e., a flue-door formed with a slot following the centers of the flues, whereby the flues may be cleaned by the ordinary cleaner without opening the door. 80

While I have shown a double flue-door, of course a single door may be employed, the positions of the terminal openings for the slot changed, or other minor modifications be made 85 in the construction.

I claim—

1. The combination with a flue-boiler, of the front or door formed with a slot following the centers of the flues, substantially as 90 described.

2. The combination with a flue-boiler, of the front or door therefor formed with a slot following the centers of the flues, and the means for covering said slots. 95

3. The combination with a flue-boiler, of

the front or door therefor formed with a slot following the centers of the flues, and serving as a guide for the flue-cleaner, and the slides normally covering said slots, and adapted to be moved aside by said cleaner.

5 4. The combination with a flue-boiler, of the front or door therefor formed with a slot following the centers of the flues, the slides

normally covering said slots, and the slot-and-pivot connection between said slides and door.

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

VICTOR KLINGLER.

Witnesses:

THOS. E. SHIRLEY,
AUG. RIESNER.