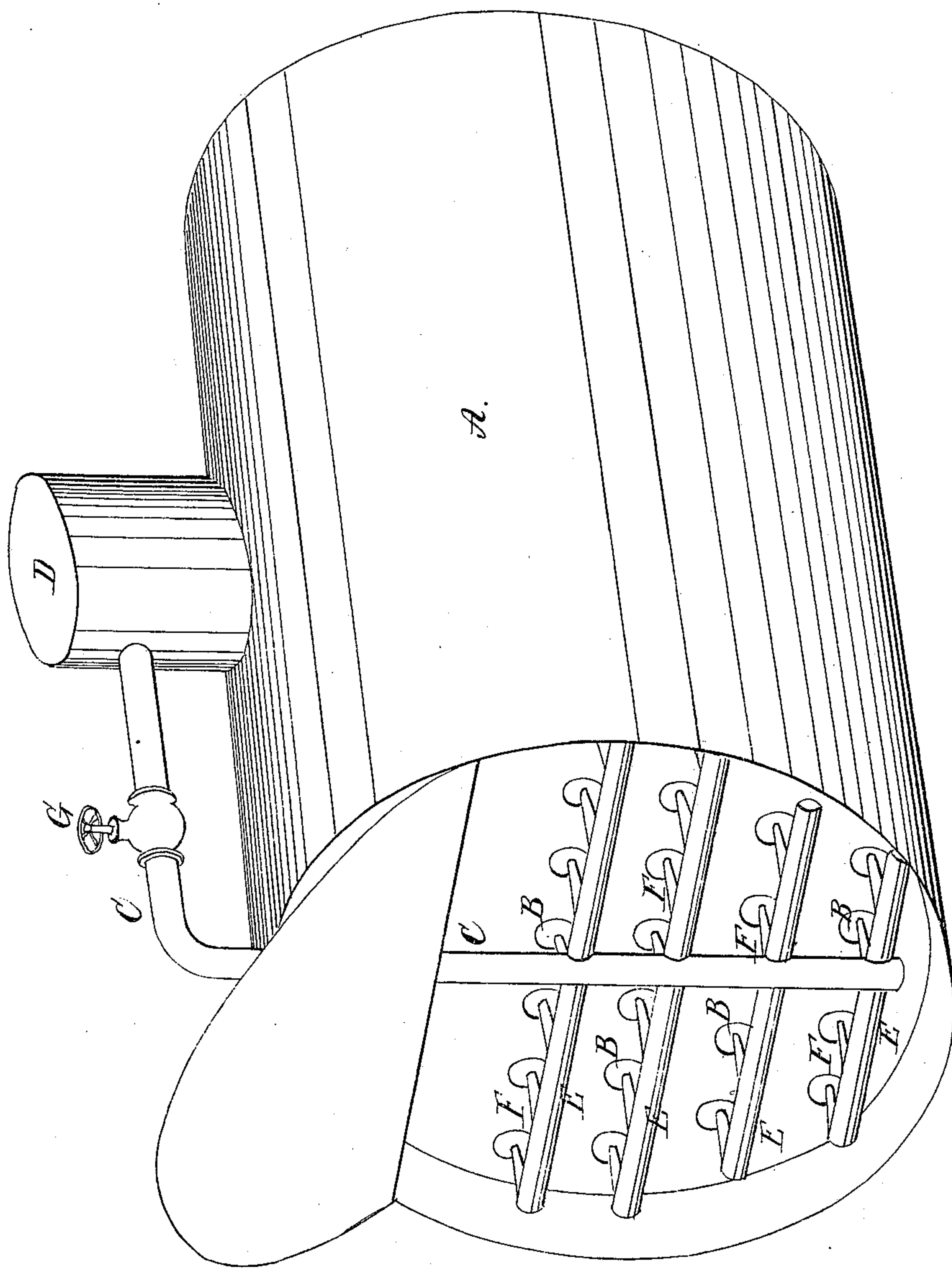


J. E. Regan.

Boiler Flue Cleaner.

Nº 96,617.

Patented Nov. 9, 1869.



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United States Patent Office.

JOHN E. REGAN, OF CHICAGO, ILLINOIS.

Letters Patent No. 96,617, dated November 9, 1869.

BOILER-TUBE CLEANER.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOHN E. REGAN, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful Improvement in Cleaning Steam-Boiler Flues; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains, to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which the figure is a perspective view of a steam-boiler or generator, showing my improved flue-cleaner applied thereto.

My invention has for its object, to clean the flues of steam-boilers, by the direct action of steam; and to this end,

It consists, first, in cleaning two or more flues, simultaneously, by discharging steam, taken directly from the boiler, into one end of each flue.

It consists, secondly, in the construction of a frame-work of tubes, communicating with the steam-space of the boiler, by means of a suitable connecting-pipe, and so arranged at one end of the boiler as to discharge a volume of steam directly into the end of each flue, the connecting-pipe being provided with a stop-cock, by which the steam is let on or shut off.

In the accompanying drawings—

A is a steam-boiler or generator, of the usual construction, and

B are the flues.

C is a pipe, extending from the dome D, vertically across one end of the boiler, as shown.

It is provided, near its lower end, or upon that portion extending across the end of the boiler, with a series of parallel tubes, E, arranged at right angles to said pipe, and each carrying a series of short nozzles, F, whose discharge-ends are arranged directly opposite the entrance to the tubes B. If found necessary or preferable, the ends of the nozzles may enter the ends of the flues slightly.

By this arrangement, a frame-work of tubes is formed upon the pipe C, and communicating with said pipe.

When it is desired to clean the flues, the stop-cock G, in the pipe C, is turned, and the steam admitted from the boiler to the frame-work of tubes, and discharged into the flues B, through the nozzles F.

It is apparent, that even under ordinary pressure, the steam will be forced through the flues with sufficient power to thoroughly cleanse them of foul matter and deposits.

By my arrangement, all the flues of a steam-boiler or generator can be cleaned simultaneously, with the utmost ease and expedition, and at any moment, while steam remains in the boiler.

The frame-work of tubes may be held in place by passing the tube C through the outer shell of the boiler, or it may be secured to the end of such shell, by any suitable means.

My improvement is applicable to all classes of steam-boilers, is simple in construction, and avoids the expense attending the construction and use of the cumbersome metallic scrapers usually employed for cleaning boiler-flues.

Having thus described my invention,

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

1. Cleaning two or more flues of a steam-boiler or generator simultaneously, by discharging steam, directly from the boiler, into one end of the flues, by the means set forth, substantially as herein shown and described.

2. The frame-work of tubes, consisting of the parallel pipes E, nozzles F, and pipe C, in combination with a steam-boiler or generator and its flues B, substantially as herein shown and described.

The above specification signed by me, this 23d day of August, 1869.

JOHN E. REGAN.

Witnesses:

JOHN A. SILENCE,
A. BERNSTEIN.