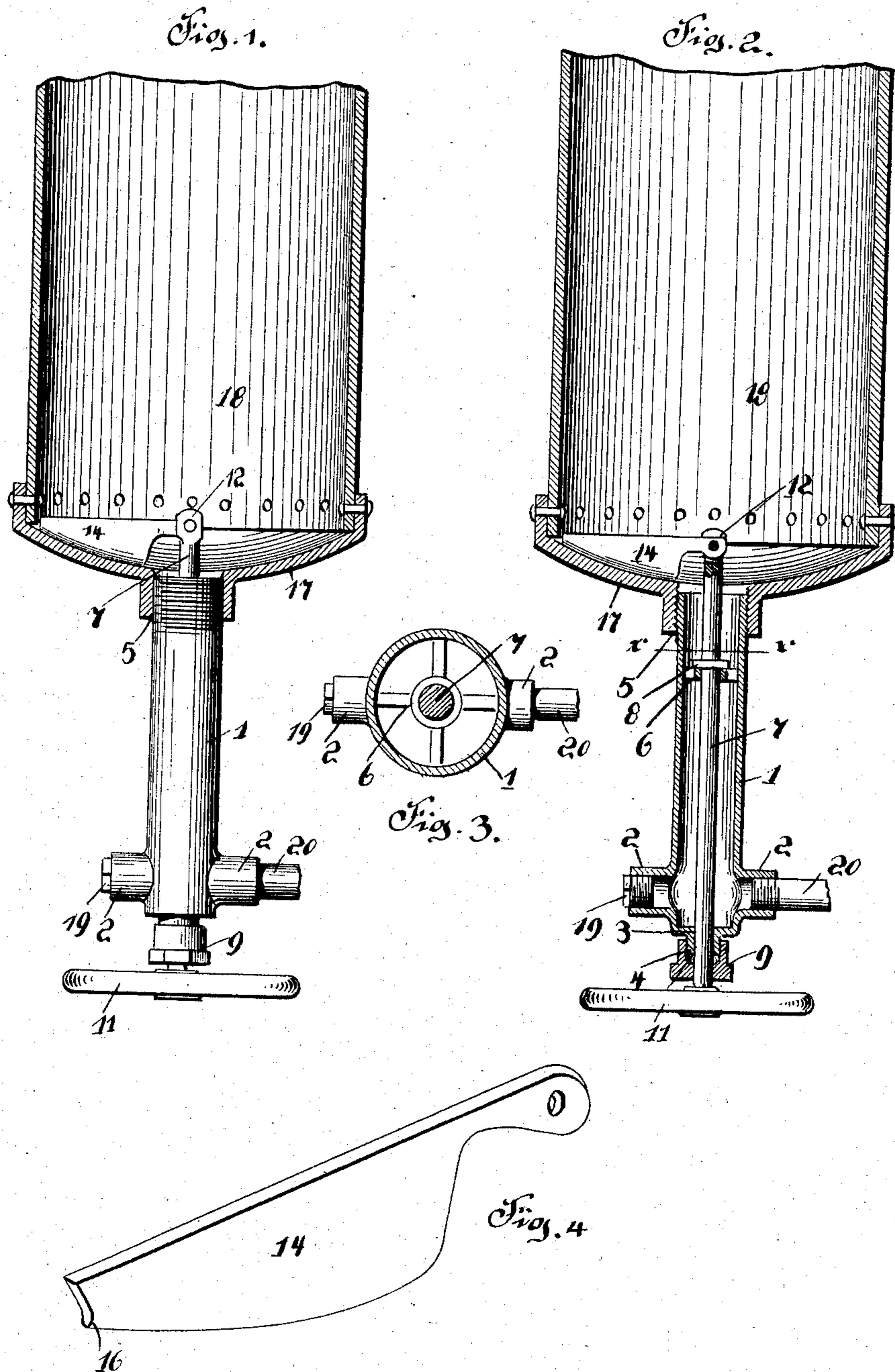


No. 865,270.

PATENTED SEPT. 3, 1907.

J. W. RIETZKE.
BOILER CLEANER.

APPLICATION FILED MAY 3, 1906.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN W. RIETZKE, OF EAST LIVERPOOL, OHIO.

BOILER-CLEANER.

No. 865,270.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed May 3, 1906. Serial No. 314,989.

To all whom it may concern:

Be it known that I, JOHN W. RIETZKE, a citizen of the United States of America, residing at East Liverpool, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Boiler-Cleaners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to certain new and useful improvements in boiler cleaners, and the invention relates more particularly to a novel form of scraper adapted to be used in connection with boilers employed for heating water.

The primary object of this invention is to provide a simple and inexpensive scraper for boilers, which will remove the incrustation from the bottom of the boiler, together with any foreign matter that may accumulate in the bottom of the boiler.

Another object of this invention is the provision of novel means in connection with a boiler for simultaneously scraping the bottom of a boiler and removing the detritus which is held in solution within the boiler.

A further object of this invention is to provide a cleaner for boilers which can be easily and quickly attached to a boiler and operated without necessitating any changes in the construction of boilers at present used.

With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be hereinafter more fully described and claimed, and referring to the drawing accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a side elevation of my improved cleaner, illustrating the same applied to a boiler, Fig. 2 is a vertical sectional view of the cleaner, Fig. 3 is an enlarged detail horizontal sectional view taken on the line $x-x$ of Fig. 2, Fig. 4 is a perspective view of a scraper or blade used in connection with the cleaner.

The device is particularly designed and adapted for use in connection with "range boilers", that is, that type of vertical boiler connected to a range or heating stove and used generally in residences for storing a quantity of heated water for domestic purposes. These boilers are generally of a vertical type, and have

a concave bottom or lower end, and my invention relates to a device especially constructed for removing any sediment that may collect or settle on the concave bottom of the boiler.

To put my invention into practice, I construct my improved cleaner or scraper of a tubular body portion 1, the lower end of which is provided with diametrically opposed interiorly screw threaded nipples 2, 2, while the extreme end of the body portion 1 is provided with a central opening 3 surrounded by a depending flange 4. The upper end of the tubular portion 1 is threaded as at 5, and is provided with a spider 6, the object of which will be presently described.

Mounted within the tubular body portion 1 is an upwardly extending rod 7 carrying a collar 8 by which the rod is supported upon the spider 6. The lower end of the rod passes through the opening 3 and the flange 4 and is surrounded by a stuffing box gland 9, which retains packing around the rod 7 upon the flange 4. The rod 7 is provided with a wheel or handle 11, whereby the same can be easily rotated at any desired time.

The upper end of the rod 7 is bifurcated as at 12 and provided with a pivoted detachable blade or scraper 14, said blade or scraper being placed in a vertical position to enter the boiler 18, when the cleaner is being attached to a boiler. The edge of the scraper 14 is rounded and curved, as at 16, to conform to the curvature of the bottom 17 of the boiler 18 in which it is mounted.

In one of the nipples 2 is mounted a plug 19, while the opposite nipple is provided with a drain pipe 20, through which the contents of the boiler 18 can be removed. By removing the plug 19, a hose may be attached to the extra nipple 2 for flushing the tube 1 and drain pipe 20.

The sediment of water or any other foreign matter that may lodge in the boiler 18 is prevented from becoming incrustated upon the bottom 17 of the boiler by revolving the rod 7, which through the medium of the scraper or blade 14, removes any scale or incrustation and permits of them descending in the tubular body portion 1 to the drain pipe 20. In providing the rounded, curved edge 16 upon the blade or scraper, I prevent the blade or scraper from injuring the bottom 17 of the boiler 18.

I do not care to confine myself to the type of boiler in connection with which my improved cleaner or scraper is used, or to the size, proportion and minor de-

tails of construction, as such changes, as are permissible by the appended claims may be resorted to without departing from the spirit and scope of the invention.

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

10 The combination with a vertical boiler having a concave bottom provided with a central opening, of a tubular body connected at one end with said bottom through said opening and provided near its outer end with a pair of nipples, a drain pipe connected to one of said nipples, a rod extending through the body, a spider within the body through

which said rod passes and from which the rod is suspended, a scraper pivoted to the upper end of said rod and conforming to the concave bottom of the boiler, and a wheel on the lower end of said rod, substantially as described. 15

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

JOHN W. RIETZKE.

Witnesses:

MAUDE RIETZKE,
THOS. H. STEPHENS.