

No. 694,443.

Patented Mar. 4, 1902.

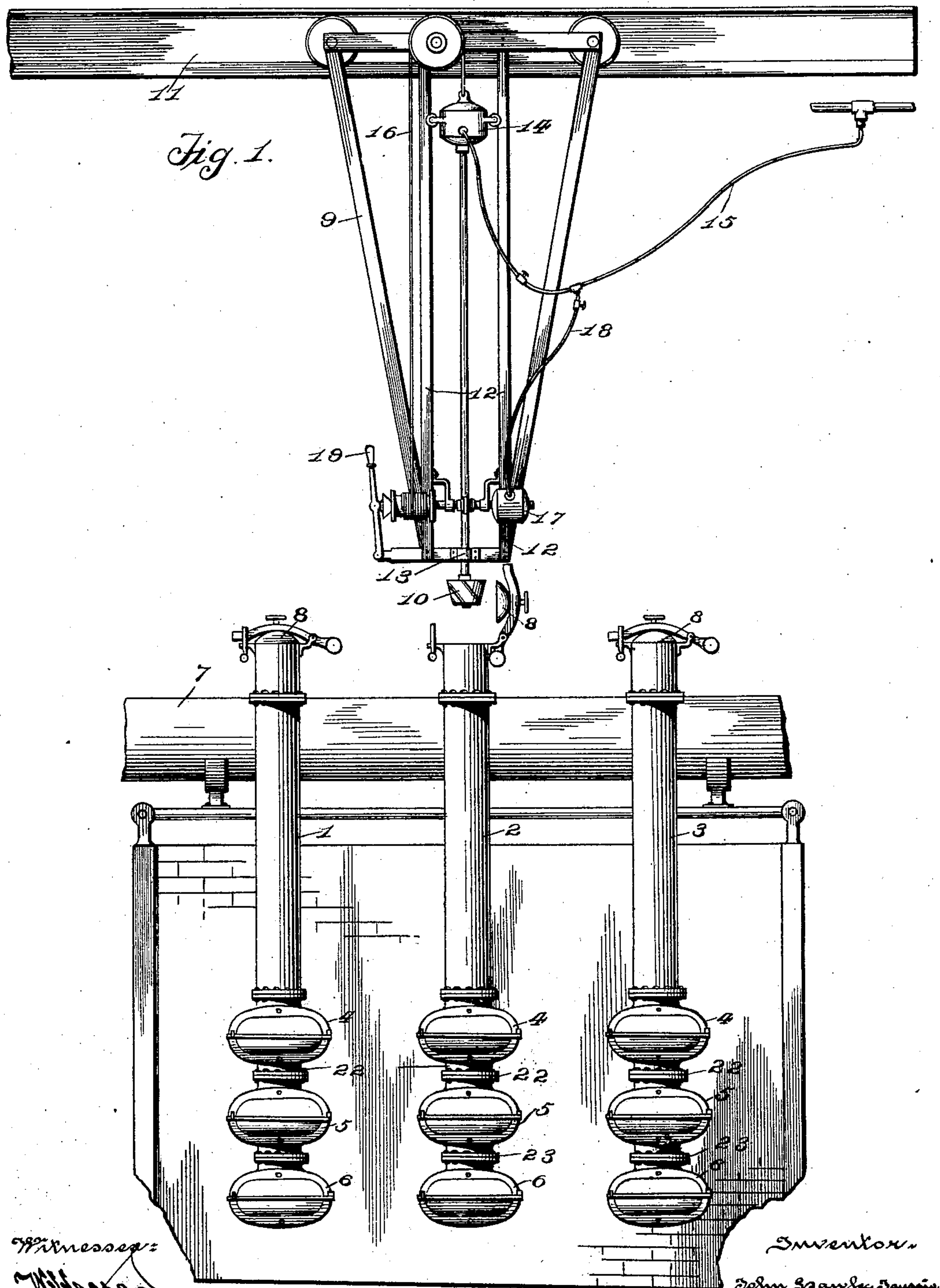
J. H. TAUSSIG.

APPARATUS FOR CLEANING STAND PIPES OF GAS RETORTS.

(Application filed Jan. 24, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

*Wm. H. ...*  
*Jack B. Richmond*

Inventor:

*John Stanley Taussig*  
By  
*Augustus S. Stoughton*  
Attorney.

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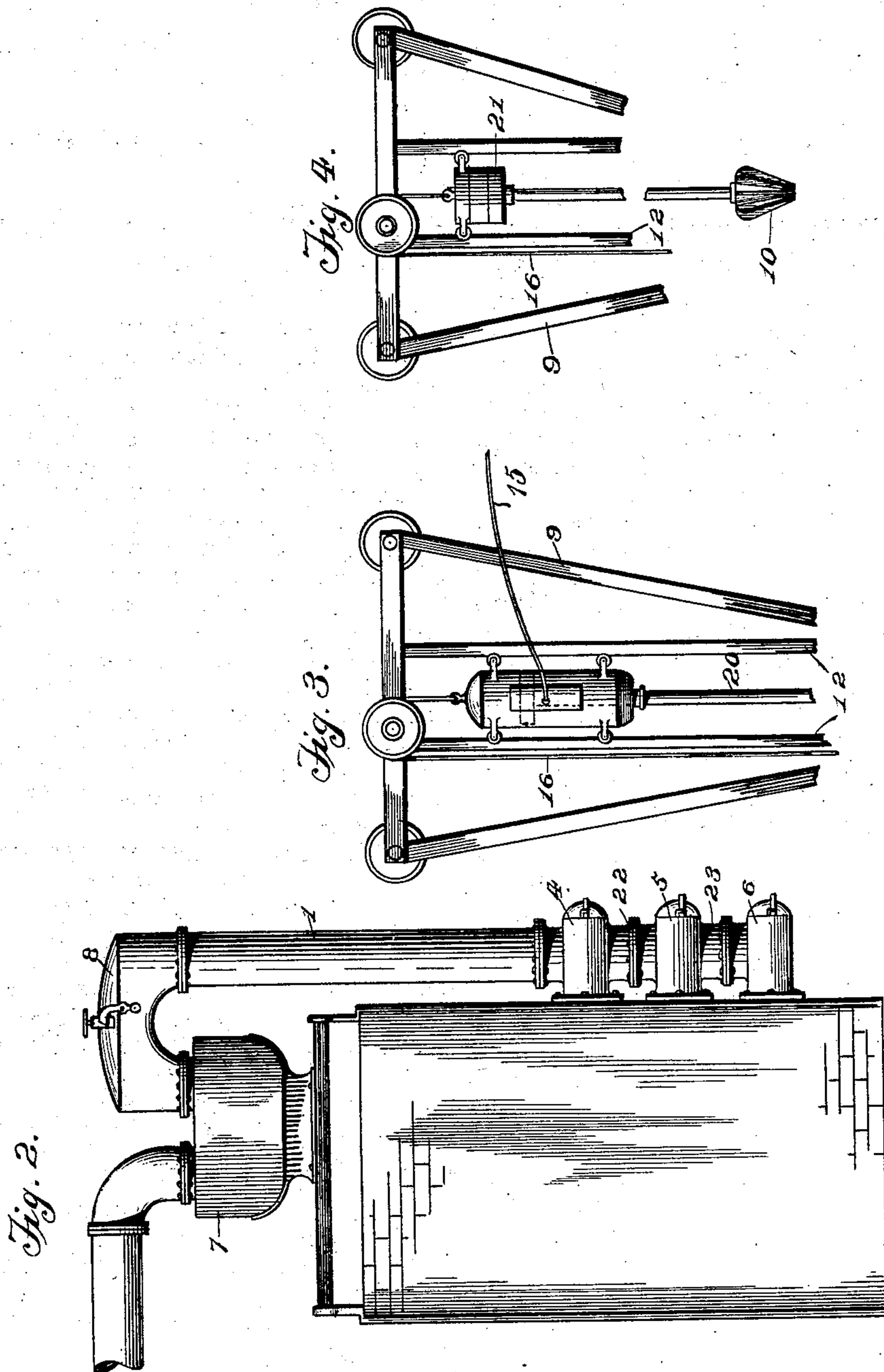
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Witnesses:  
*W. H. Nelson*  
*Jack Richmond*

Inventor  
*John Sawley Taussig.*  
By *Augustus S. Strong*  
Attorney.



# UNITED STATES PATENT OFFICE.

JOHN HAWLEY TAUSSIG, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
THE UNITED GAS IMPROVEMENT COMPANY, OF PHILADELPHIA, PENN-  
SYLVANIA, A CORPORATION OF PENNSYLVANIA.

## APPARATUS FOR CLEANING STAND-PIPES OF GAS-RETORTS.

SPECIFICATION forming part of Letters Patent No. 694,443, dated March 4, 1902.

Application filed January 24, 1901. Serial No. 44,598. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN HAWLEY TAUSSIG, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Cleaning the Stand-Pipes of Gas-Retorts, of which the following is a specification.

The stand-pipes which lead from the mouth-  
pieces of gas-retorts to the water-sealed gas-  
main are peculiarly liable to become inter-  
nally stopped up or clogged. The result of  
this is that gas from the retort cannot reach  
the main and is therefore forced to escape  
either by the mouthpiece or by any opening  
that may exist in the retort, and, in any  
event, it is lost. To keep these stand-pipes  
free is a very laborious operation and one  
often imperfectly performed under the pres-  
ent practice, which is to manually force a  
cleaner or "bull," as it is sometimes called,  
through them, and when they become stopped  
up it is an exceedingly difficult operation to  
clear them. Under normal conditions the  
time allowed for cleaning these stand-pipes  
is necessarily short, because in order to avoid  
interference with the production of gas it is  
necessary to accomplish it while the coke is  
being withdrawn and a fresh charge inserted.

The principal object of the present inven-  
tion is to overcome these defects and disad-  
vantageous features and to provide means  
by which the stand-pipes may be kept free  
and clean and by which they can be rapidly  
freed if they should become clogged.

To these and other ends hereinafter set  
forth the invention consists of the improve-  
ments hereinafter described and claimed.

The nature, characteristic features, and  
scope of the invention will be more fully un-  
derstood from the following description, taken  
in connection with the accompanying draw-  
ings, forming part hereof, and in which—

Figure 1 is a front elevational view illus-  
trating mechanism and apparatus embodying  
features of my invention. Fig. 2 is a side  
view illustrating the mouthpieces of the re-  
torts and also stand-pipe connections embody-

ing features of the invention, and Figs. 3 and  
4 are front views illustrating means embody-  
ing modifications of the invention.

In the drawings, 1, 2, and 3 designate stand-  
pipes which lead from the mouthpieces 4, 5,  
and 6 of the retorts to the gas-main 7, which  
conducts the gas to the scrubbers and other  
appropriate apparatus, which is not illus-  
trated. At the bridge-pipes or upper parts  
of the stand-pipes they are provided with  
suitable covers 8, that can be opened, so as to  
afford access to their interiors. Above the  
stand-pipes and in line with them is arranged  
a guide 9, which serves to properly direct  
the cleaner 10 through the open upper ends  
of the stand-pipes and downward through  
them, and this cleaner serves to keep them  
free and also to free them if they should be-  
come stopped up.

11 indicates a track or ways along which  
the guide may be propelled or caused to  
travel, so as to bring it in position for clean-  
ing any one of the stand-pipes 1, 2, and 3.  
The number of stand-pipes, of course, is im-  
material and in large gas-works they are very  
numerous. The guide 9 is equipped with ways  
12, which, together with a suitable bearing 13,  
serve to afford the shank of the cleaner 10 a  
range of up-and-down motion in a vertical  
direction. The cleaner may be rotated in  
its passage through the stand-pipes, or it may  
be forced through under the influence of a  
series of intermittent progressive strokes,  
such as might be described as hammering,  
or it may be simply forced through.

In Fig. 1, 14 indicates a motor—for example,  
a pneumatic motor—for imparting rotation to  
the cleaner 10.

15 is a supply for the motor 14, and the lat-  
ter is shown as equipped with wheels or rollers  
coöperating with the guides 12.

16 is a cord or chain passing over a suitable  
pulley and adapted to be wound upon or un-  
wound from a drum, which in its turn may be  
actuated by a motor 17, supplied by a branch  
feed 18.

19 is a controlling-handle for causing the  
cord 16 to be wound or unwound, as desired,



and it is shown as connected with a friction-clutch.

The supplies 15 and 18 are shown as provided with valves, so that by properly manipulating the clutch and valves it is possible to feed the cleaner through any one of the stand-pipes with a rotary motion, it being of course understood that the guide is shifted on its track into proper position over the stand-pipe which it is desired to clean.

As shown in Fig. 3, the motor 14 is replaced by a piston 20, which is adapted to reciprocate the cleaner and its shank and in that way give it an intermittent back-and-forth motion in its descent through the stand-pipe.

As shown in Fig. 4, use is made of a properly-weighted head 21, which serves to force the cleaner through the stand-pipe.

Obviously the cleaner can be worked in respect to its guide manually. Should the stand-pipes be somewhat curved, the shank of the cleaner may be flexible, so as to permit it to conform to such curvature. To avoid the presence of curved stand-pipes, I have devised an arrangement (illustrated in Fig. 2) in which the mouthpieces 4, 5, and 6 of the retorts that are arranged in vertical alinement are connected by straight sections of stand-pipe 22 and 23, which are arranged in alinement with the usual stand-pipe 1, that leads upward from the bank or group of retorts.

It will be obvious to those skilled in the art to which the invention appertains that modifications may be made in details without departing from the spirit thereof. Hence I do not limit myself to the precise construction and arrangement of parts hereinabove set

forth, and illustrated in the accompanying drawings; but,

Having thus described the nature and objects of the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cleaner for gas apparatus comprising a horizontal track arranged above and parallel with the row of stand-pipes of the apparatus, a swinging guide depending from the track, a cleaner movable vertically in the guide, and means for actuating the cleaner, substantially as described.

2. A cleaner for gas apparatus comprising a pendent guide arranged over the top of the stand-pipe, and a cleaner movable up and down in the guide to enter the top of the stand-pipe, substantially as described.

3. A cleaner for gas apparatus comprising a pendent guide arranged over the top of the stand-pipe, a cleaner movable up and down in the guide to enter the top of the stand-pipe, and means for shifting the cleaner up and down in respect to the guide, substantially as described.

4. A cleaner for gas apparatus comprising a pendent guide arranged over the top of the stand-pipe, a cleaner movable up and down in the guide to enter the top of the stand-pipe, means for shifting the cleaner up and down in respect to the guide, and devices for rotating the cleaner, substantially as described.

In testimony whereof I have hereunto signed my name.

JOHN HAWLEY TAUSSIG.

In presence of—

W. J. JACKSON,

JAS. A. RICHMOND.