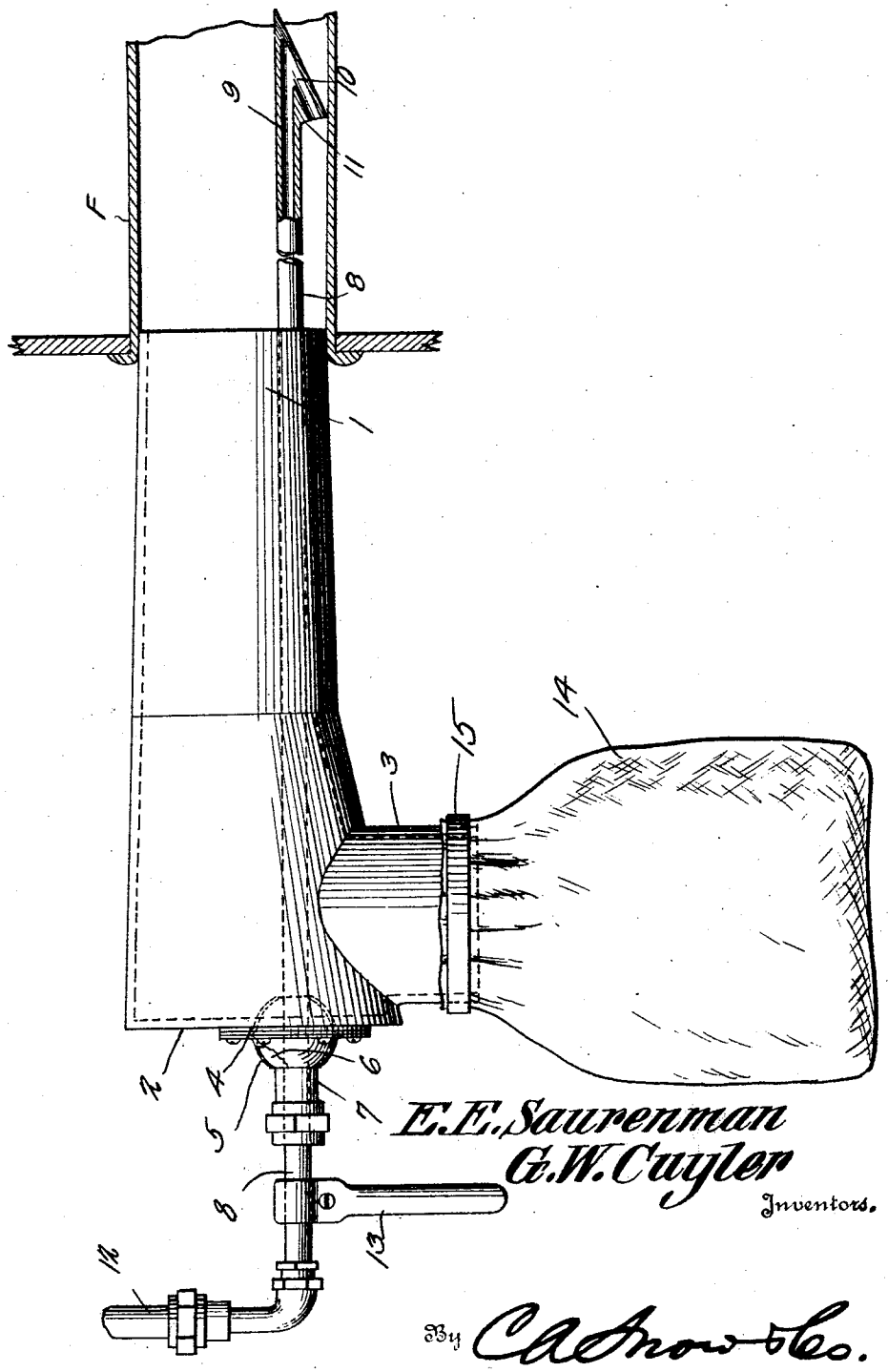
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E. E. SAURENMAN ET AL

FLUE CLEANER

Filed July 1, 1921



E. E. Saurenman
G. W. Cuyler
Inventors.

By C. A. Snow & Co.
Attorneys.

Patented June 23, 1925. 1,543,191

UNITED STATES PATENT OFFICE.

EDWARD EARL SAURENMAN AND GEORGE WASHINGTON CUYLER, OF HERINGTON, KANSAS, ASSIGNORS OF ONE-SIXTH TO BLUFORD JOHNSON AND ONE-SIXTH TO STEVE CARR, BOTH OF HERINGTON, KANSAS.

FLUE CLEANER.

Application filed July 1, 1921. Serial No. 481,988.

To all whom it may concern:

Be it known that we, EDWARD E. SAURENMAN and GEORGE W. CUYLER, citizens of the United States, residing at Herington, in the county of Dickinson, State of Kansas, have invented a new and useful Flue Cleaner, of which the following is a specification.

This invention relates to a dustless cleaner for locomotive flues and the like, one of its objects being to provide a device of this character which can be inserted readily into a flue and will expel the dust therefrom into a receiver or collector.

Heretofore it has been difficult to obtain persons willing to clean flues because of the heavy dust produced and the fact that the workmen become thoroughly soiled.

One of the objects of the present invention is to eliminate the dust and to enable a flue to be cleaned without the objectionable features heretofore present.

Another object is to provide a cleaning device which is simple, durable and compact in construction and can easily be placed in or removed from position.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that, within the scope of what is claimed, changes in the precise embodiment of the invention shown can be made without departing from the spirit of the invention.

In the accompanying drawing, which is a view partly in side elevation and partly in section, the preferred form of the invention has been shown.

Referring to the drawing by characters of reference 1 designates a tapered sleeve closed at one end, as indicated at 2 while extending from the bottom of the sleeve adjacent said end is an outlet extension 3. That portion of the bottom of the sleeve adjacent the extension is inclined downwardly so as to deflect or guide material to the extension.

Mounted in the closed end 2 of the sleeve is a socket member 4 having a retaining cap or ring 5 secured thereto and mounted to turn and rock within this socket member is a ball 6 carried by a tubular stem 7. A pipe 8 is slidably mounted in the stem and is adapted to move therewith, this pipe being extended longitudinally through the sleeve 1 and a suitable distance beyond the open end thereof. The passage 9 formed within the pipe is provided with a return portion 10 within the free end of the pipe 8, this return portion opening through a shoulder 11. The pipe 8 is adapted to be coupled to a blast pipe 12 and has a handle 13 connected to it whereby the pipe can be rotated and swung within the sleeve 1.

A bag 14 is adapted to be fastened around the extension 3 by a ring 15 or any other suitable means.

In using the device the projecting end of the pipe 8 is inserted longitudinally into the flue F of a locomotive and this pipe is sufficiently long to support its discharge or nozzle end beyond the return bends of the superheater while the sleeve 1 is tightly wedged in one end of the flue. An air blast is then directed into the pipe 8 and causes a jet to be discharged backwardly within the flue through the portion 10 of the passage. Thus soot contained within the flue will be blown backwardly into the sleeve 1 and thence into the bag or receiver 14. By means of the handle 13 the pipe 8 can be rotated and rocked to cause the air jet to travel in different directions and also on different portions of the flue.

Obviously by providing a structure such as described a flue can be quickly cleaned without scattering dust and without soiling the operator.

What is claimed is:—

A tool for separately cleaning the flues of a boiler, including a tapered sleeve open at its small end and closed at its large end, said sleeve being insertible into one end of a flue, an outlet extension adjacent the closed end of the sleeve for engagement by a container, a pipe extending longitudinally of and beyond both ends of the sleeve and mounted to swing and slide relative to the sleeve, a nozzle at that end of the pipe projecting beyond the open end of the sleeve,

said nozzle having a passage provided with a return portion for delivering a jet against the wall of the tube into which the sleeve is inserted to blow the contents of the tube into the sleeve, and a handle upon the pipe for sliding and rotating the same relative to the sleeve.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

EDWARD EARL SAURENMAN.
GEORGE WASHINGTON CUYLER.

Witnesses:
H. C. BRADSHAW,
F. B. NEEDHAM.