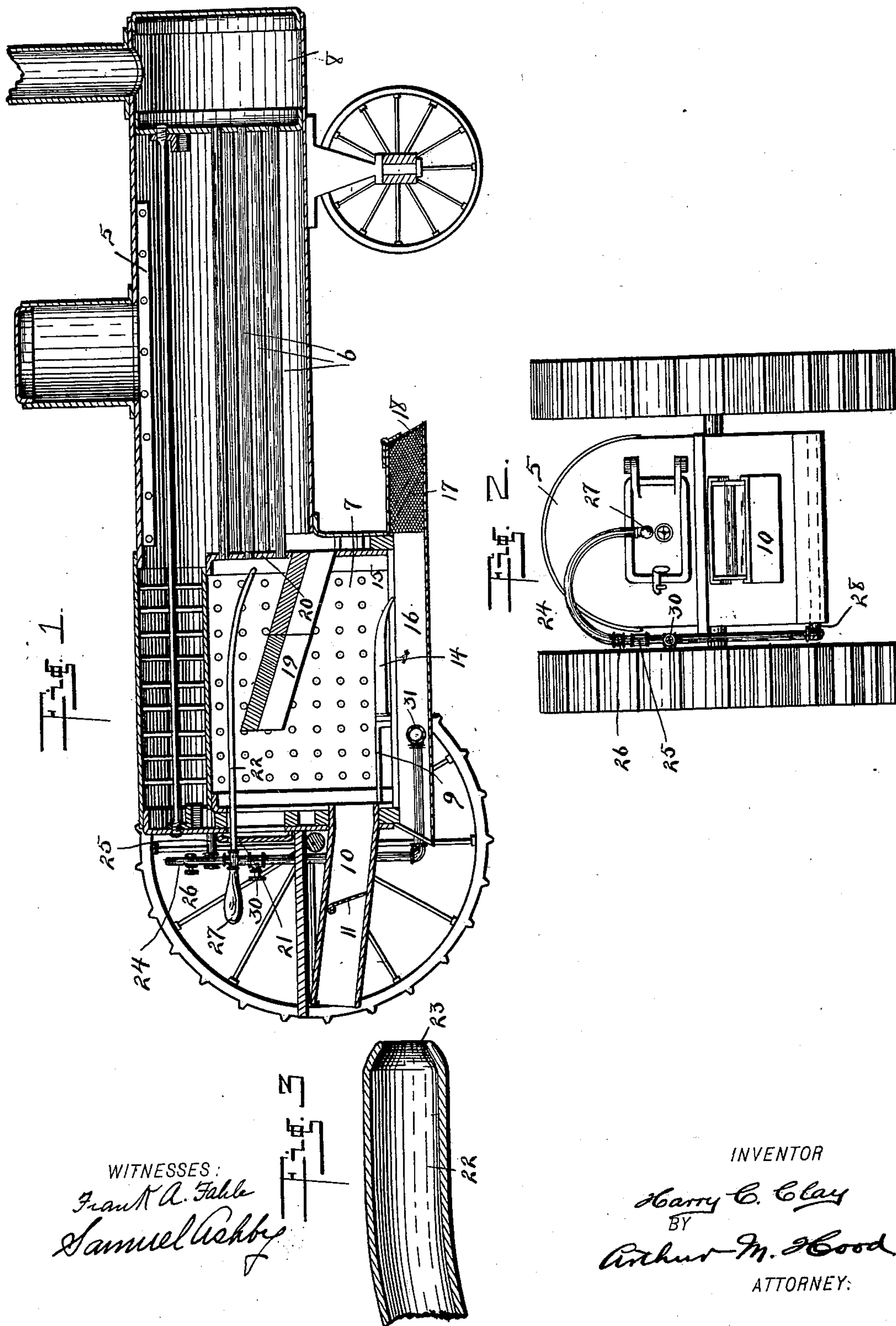


No. 626,669.

Patented June 13, 1899.

H. C. CLAY.
STRAW BURNING FURNACE.
(Application filed Nov. 14, 1898.)

(No Model.)



WITNESSES:

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HARRY C. CLAY, OF COLUMBUS, INDIANA, ASSIGNOR TO THE REEVES & COMPANY, OF SAME PLACE.

STRAW-BURNING FURNACE.

SPECIFICATION forming part of Letters Patent No. 626,669, dated June 13, 1899.

Application filed November 14, 1898. Serial No. 696,362. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. CLAY, a citizen of the United States, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented a new and useful Straw-Burning Furnace, of which the following is a specification.

My invention relates to an improvement in straw-burning furnaces.

The object of my invention is to provide means for easily and quickly clearing the accumulation of ash away from the inner ends of the flues.

The accompanying drawings illustrate my invention.

Figure 1 is a central vertical section of a boiler embodying my invention. Fig. 2 is an end elevation thereof. Fig. 3 is a detail of the discharge end of the flue-clearing pipe.

In the drawings, 5 indicates a steam-boiler provided with flues 6, which start from the fire-box 7 and run through the boiler to the smoke-chamber 8 in the usual manner. Mounted in the fire-box above the grate is the usual fire-arch 19, which projects rearward and upward from the flue-plate 20. Formed through the front wall of the fire-box above the fire-arch is an opening 21, through which is passed a pipe 22, the inner end of which is slightly throttled, as at 23, the said inner end coming close to the flue-plate 20. Pipe 22 is intended to remain continually in the fire-box and at its outer end is connected by means of any suitable flexible joint 24 with a steam-supply pipe 25. A valve 26 is mounted in the pipe 25 in position to control the passage of steam into the pipe 22. For convenience in handling the pipe 22 it is provided at its outer end with a suitable handle 27.

In operation, in order to remove the ash from the ends of the flues, the operator opens valve 26, thus allowing steam to pass through the pipe 22. The operator then grasps handle 27 and swings the inner end of the pipe around about until the steam has been forced

against every portion of the flue-plate and the ends of the flues, thus blowing all of the ash away and quickly clearing the entrances of the flues. The pipe 22, lying, as it does, continually within the fire-box, becomes very hot, so that when steam is allowed to pass therethrough it becomes superheated and thoroughly dried before it comes into contact with the accumulation of ash in the mouths of the flues. The blast being perfectly dry there is no possibility of the ash forming into lumps which would be difficult to remove.

I claim as my invention—

1. In a straw-burning furnace, a steam-pipe arranged so as to normally remain in the fire-box subject for a considerable length to the heat of the furnace and having its discharge end near the flue-plate, and suitable steam connections with said pipe whereby it may be swung so as to direct steam toward any portion of the flue-plate.

2. In a straw-burning furnace, provided with a fire-arch 19, of a steam-pipe arranged so as to normally remain in the fire-box above the fire-arch so as to be subject for a considerable length to the heat of the furnace and having its discharge end in position to direct steam against the flue-plate, and flexible connections with said pipe whereby the steam may be directed toward all portions of the flue-plate.

3. In a straw-burning furnace, a steam-pipe arranged so as to normally remain in the fire-box subject for a considerable length to the heat of the furnace and having a contracted discharge end in position to direct steam toward the flue-plate, flexible steam connections with said pipe and means by which said pipe may be swung so as to direct steam toward all portions of the flue-plate.

HARRY C. CLAY.

Witnesses:

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