

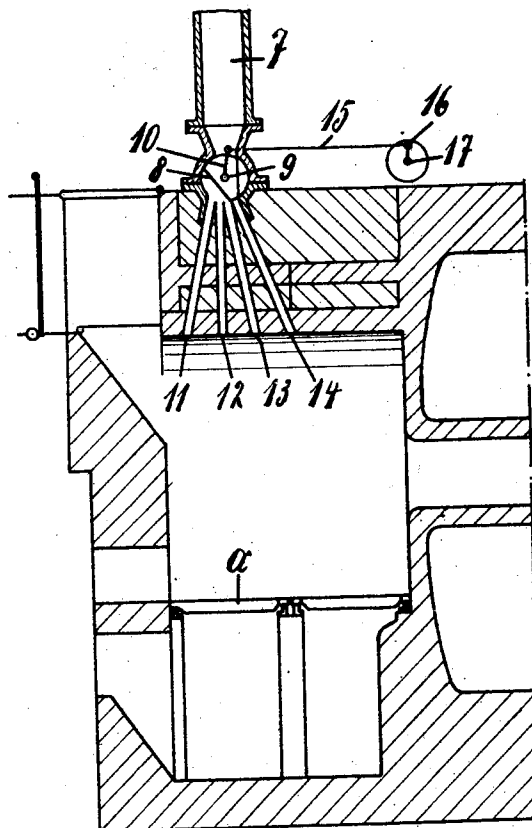
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APPARATUS FOR CHARGING FIREPLACES WITH HIGHLY INFLAMMABLE LOOSE FUEL

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APPARATUS FOR CHARGING FIREPLACES WITH HIGHLY-INFLAMMABLE LOOSE FUEL.

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My invention relates to improvements in apparatus for charging fireplaces with highly inflammable loose fuel such as saw dust, wood shavings, and the like, and the object of the improvements is to provide an apparatus by means of which the fuel is uniformly distributed on the grate. With this object in view my invention consists in supplying the fuel to the fire place through a passage divided into branches passing through the top wall of the fire place and equipping the said passage at the point where it is divided into branches with a distributing member such as a rockable gate supplying the fuel in regular succession to the individual branches. In an apparatus of this type a light and easily movable gate may be provided which can be operated by gravity of the fuel falling through the passage. I have found that when thus supplying the fuel a uniform combustion is insured, the fuel being burnt when falling from the branch passages or being uniformly distributed on the grate.

For the purpose of explaining the invention one embodiment thereof is shown in the accompanying drawing by way of illustration.

The drawing is a sectional elevation of a fire place and the fuel supplying apparatus taken longitudinally through the fire place.

In the example shown in the drawing, a fire place *b* having a grate *a* and a top *c*, is provided with a fuel supply apparatus consisting of a vertical pipe 7 which is divided into four branch passages 11, 12, 13 and 14 passing through the top wall of the fire place, and provided with a rockable gate 8. The gate 8 is made with two side walls forming a downwardly tapering passage and its inlet end is always in unobstructed communication with the passage 7, and the area of its discharge corresponds to the area of the branches 11, 12, 13 and 14.

The loose fuel such as wood shavings or saw dust is supplied to the pipe 7 from a work shop, or other suitable source, by means of air draught or other means, and it flows uniformly downwardly through the

pipe 7. According to the position of the gate 8 the main part of the fuel is directed through either one of the passages 11, 12, 13 or 14 and is discharged therefrom to the front part, the median part, or the rear part of the grate *a*. As the fuel fall freely through the pipe 7 it is uniformly distributed.

Any preferred means may be provided for imparting to and from movement to the gate. To show what may be done the gate 8 is mounted on a spindle 9 which carries an arm 10 connected by a link 15 with a crank 16 secured to a rotary shaft 17.

While in describing the invention reference has been made to a particular example embodying the same I wish it to be understood that my invention is not limited to the constructions shown in the drawings.

I claim:

A furnace having a fire box defined by two walls including a top wall, a grate of substantial area in the fire box, a distributing valve structure above said top wall, said structure including a casing and a single distributing valve mounted for oscillation therein, the casing having at the top a port of substantial area for admission of fuel in communication with a fuel supply conduit, and the casing also having at the bottom a series of adjacent distinct distribution ports, the valve being of tubular downwardly tapering interior form and designed to afford selective communication between said inlet port and a single one of said distribution ports when selectively positioned, passages extending through said top wall on lines radiating substantially from the center of oscillation of said valve and entering the top of the fire box at spaced points and directed to afford distribution of fuel over substantially the entire grate area, and means external to said valve casing for selectively positioning the valve thus to afford distribution of the fuel through the several passages over the entire grate.

In testimony whereof I hereunto affix my signature.

ERNST SIMON.