

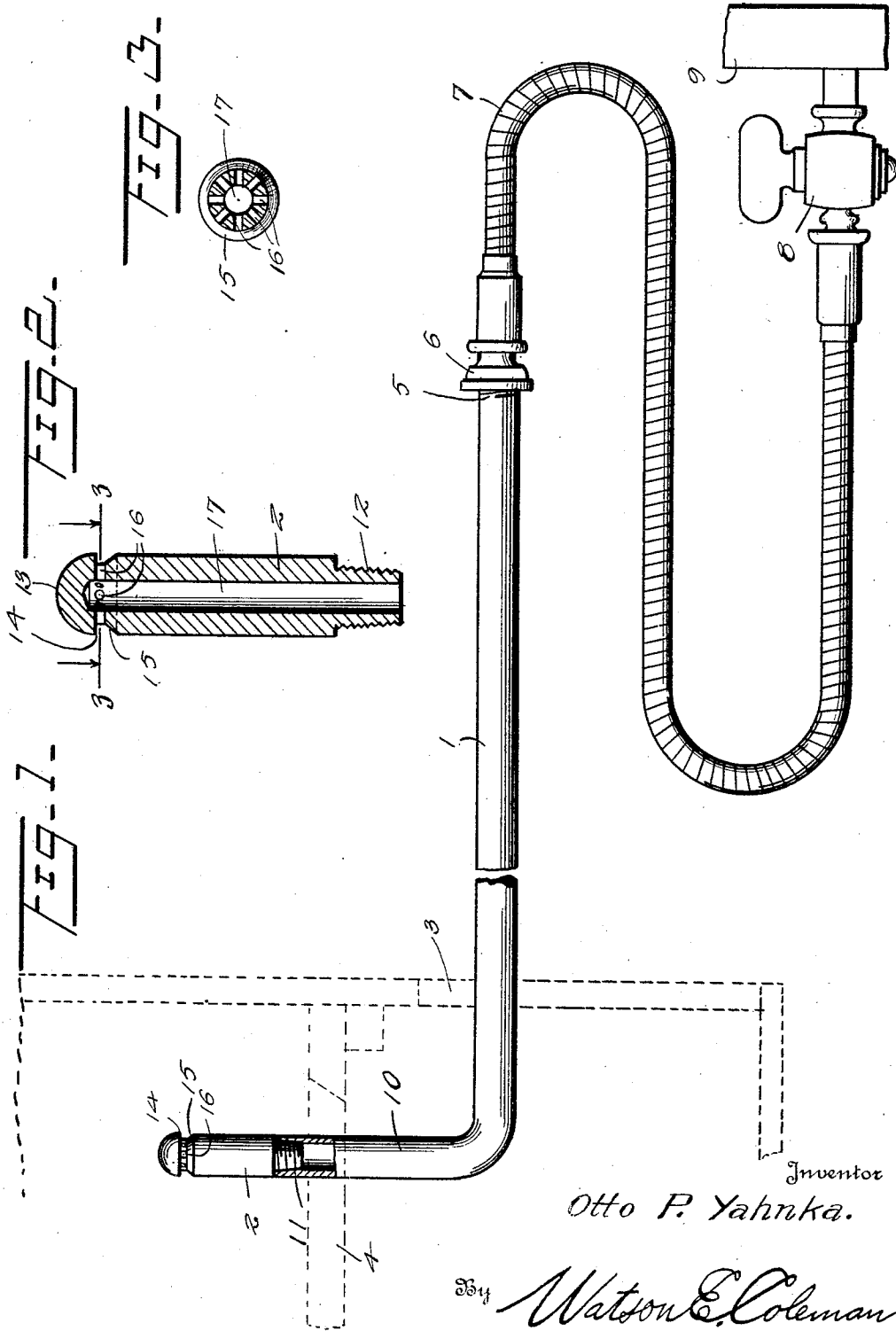
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BURNER TIP FOR IGNITING DEVICES

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BURNER TIP FOR IGNITING DEVICES

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This invention relates to improvements in lighting devices for furnaces and pertains particularly to an improved type of tip for use in association with such devices.

5 The primary object of the present invention is to provide a gas burner tip which, mounted upon the end of a pipe arm, is designed to be inserted into the ash box of a furnace and through the grate, which is so
10 formed that ashes or other matter cannot reach and clog up the gas outlet apertures.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accom-
15 panying drawing forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawing but may be changed or modified so long
20 as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claim.

In the drawing:

25 Figure 1 is a view partly in elevation and partly in section of a furnace lighter showing the burner tip embodying the present invention.

30 Figure 2 is a vertical sectional view through the burner tip per se.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2.

Referring more particularly to the drawing, wherein like numerals of reference indicate corresponding parts throughout the
35 several views, there is shown a rigid pipe 1 which constitutes a supporting arm for the burner tip 2 so that the latter may be inserted into a furnace ash pit, through a door
40 opening 3, to position the tip through the grate of the furnace which is shown in dotted lines and indicated by the numeral 4. This pipe arm 1 is threaded at one end, as
45 indicated at 5, to receive a coupling 6 over which one end of a flexible gas hose 7 may be engaged, the other end of this hose being connected with a valved outlet tip 8 of a gas
50 pipe 9 which may be located adjacent the furnace in connection with which the lighting device is to be used.

The end of the pipe 1, opposite the coupling 6, has a right angularly turned portion 10 which is interiorly threaded at the end, as indicated at 11.

The tip 2 is in the form of an elongated
55 body with a reduced threaded extension 12, which is designed to be threadably engaged with the threads 11 of the angled portion of the pipe arm 1. The body of the tip has
60 a passage formed therein from the end on which the reduced portion 12 is formed to a point adjacent the opposite end, the opposite end being closed and in the form of a round head 13. Adjacent the round head 13
65 of the tip there is formed a circumferential recess 14, the lower edge or shoulder of which is cut away or beveled from the bottom of the recess downwardly and outwardly, as indicated at 15, so that the upper part
70 of the recess has a shoulder which is at right angles to the base thereof and to the side of the tip, while the lower portion has an obliquely directed shoulder.

It will thus be seen that with the recess
75 formed in this manner ashes and other material cannot readily collect in the recess.

The body of the tip has formed there-
through a plurality of radially directed pas-
80 sages 16 which lead from the bore 17 outwardly through the bottom of the recess 14, as illustrated.

In the use of the present device gas is al-
lowed to flow through the pipe handle 1 to
the tip 2 and through the passages 16 where
85 it is ignited, and the tip is then extended through the door of the furnace ash box and inserted upward through grates into center of fuel until fuel is ignited. The tip is held in place by weight of pipe handle. It
90 will be seen that the outlet apertures 16 of the tip are well protected so that they cannot become clogged with dust or ashes and, by forming the lower side of the recess 14 with the inclined wall or shoulder 15, no dirt
95 can accumulate in the recess.

Having thus described the invention, what is claimed is:

A burner tip for a device including a tube having an interiorly threaded end, comprising
100 an elongated body of cylindrical cross

section and having a passage extending longitudinally therein from one end and terminating in close proximity to the other end, the body at the said other end being substantially semi-spherical and having a surrounding groove or channel therein, the top wall of the channel extending in a plane at right angles to the longitudinal axis of the body, and further substantially passing through the radial center of the semi-spherical end, the wall of the body having a plurality of radial passages therethrough from the bottom of said channel into the said longitudinal passage, said channel having its lower corner cut away from a point adjacent the bottom thereof outwardly to form an outwardly sloping shoulder, and the opposite end of the body from the rounded end being reduced and exteriorly threaded for engagement in the threaded end of said tube.

In testimony whereof I hereunto affix my signature.

OTTO P. YAHNKA.