

W. B. WINGATE.
FLUE PLUGGER.
APPLICATION FILED APR. 22, 1908.

900,337.

Patented Oct. 6, 1908.

Fig. 1-

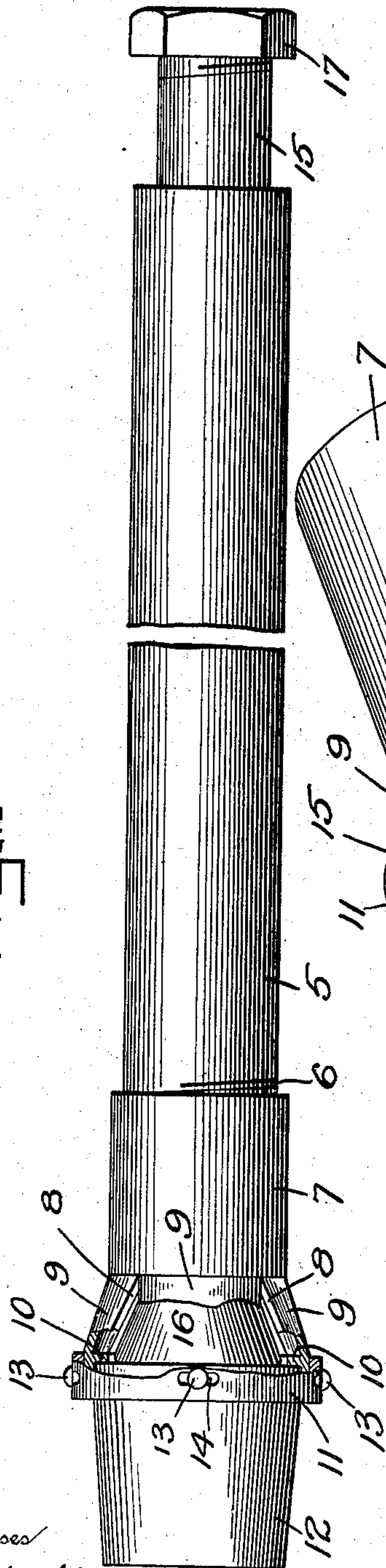


Fig. 2-

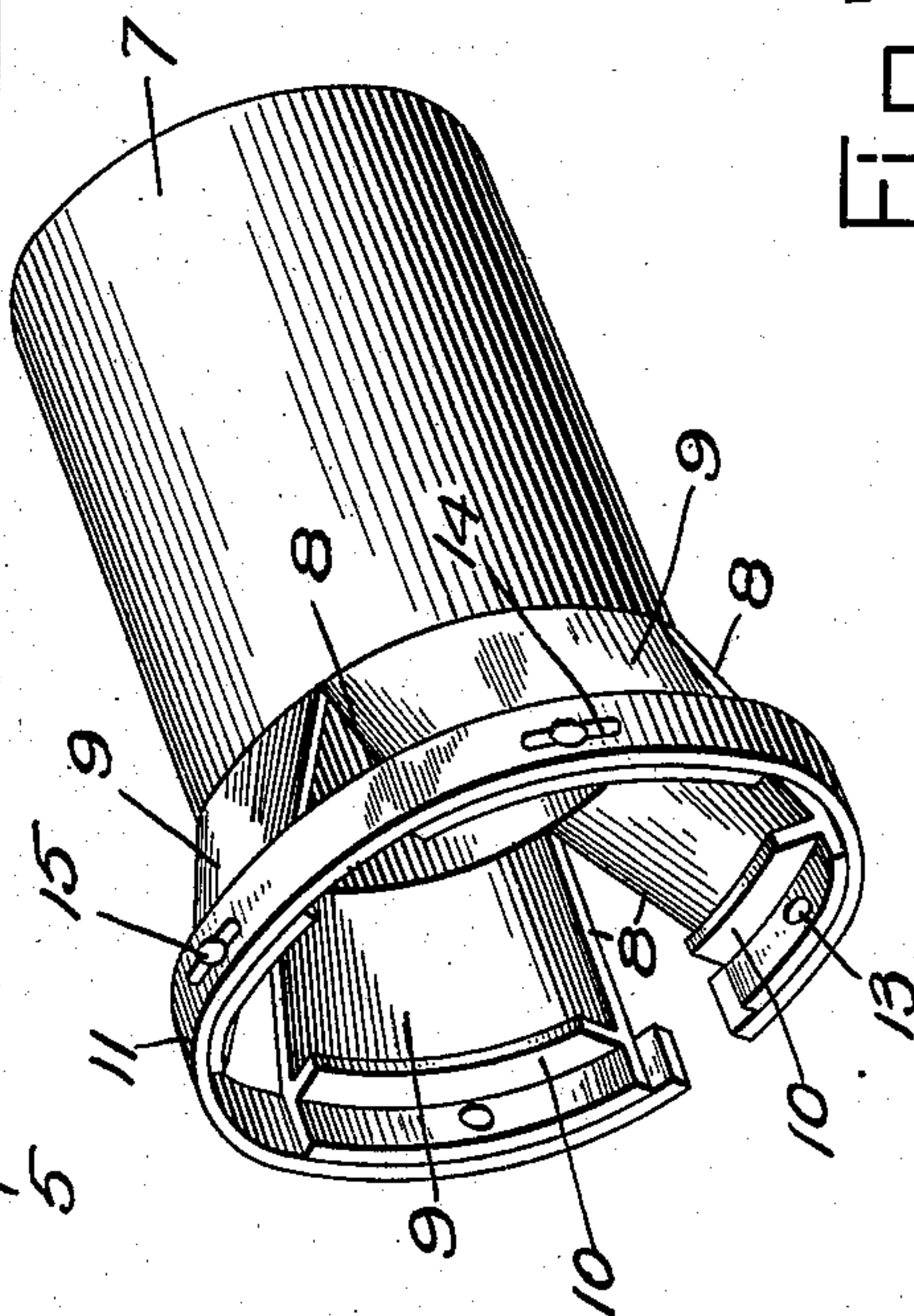
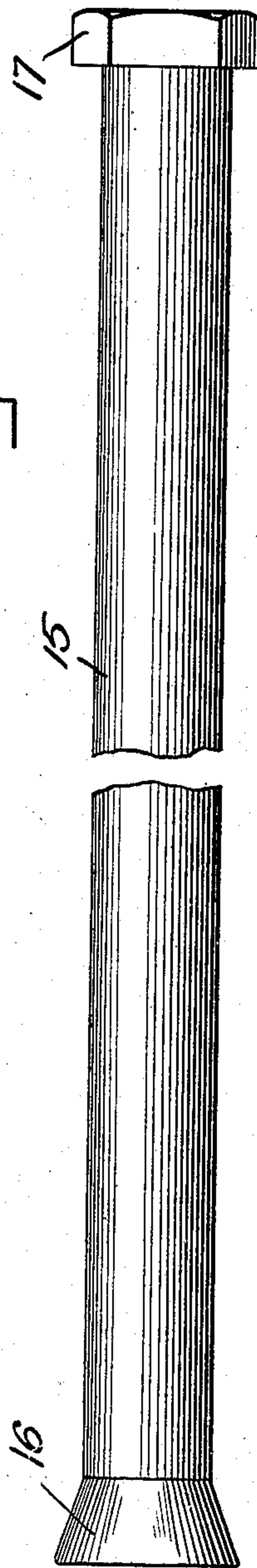


Fig. 3-



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM B. WINGATE, OF CALLAHAN, FLORIDA.

FLUE-PLUGGER.

No. 900,337.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM B. WINGATE, a citizen of the United States, residing at Callahan, in the county of Nassau and State of Florida, have invented a new and useful Flue-Plugger; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices for plugging the flues or tubes of steam boilers and the like for the purpose of temporarily repairing the same in the event of rupture or leakage of a flue; and it has for its object to provide a simple and efficient device whereby plugs of various sizes may be held while being presented to the end of the flue or tube that is to be plugged, said device being also equipped with a driving rod whereby the plug may be driven into position in the end of the flue.

Further objects of the invention are to simplify and improve the construction and operation of this class of devices.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing—Figure 1 is a side elevation, partly in section of the improved flue plugging device. Fig. 2 is a perspective view showing the plug holding collar, detached. Fig. 3 is a detail side view of the driving rod removed from the tubular handle.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved flue plugging device comprises a tubular handle 5, which may consist of a piece of wrought iron pipe which may be of any suitable length and of any desired diameter. One end of the pipe 5 is externally threaded as shown at 6 for the reception of the collar 7, which is internally threaded to enable it to be fitted detachably

upon the pipe. The projecting forward end of the collar 7 is provided with a plurality of longitudinal slits 8 forming a plurality of tongues 9 which are bent outward from the axis of the collar and are provided near their forward extremities with shoulders 10 adapted to form a seat for the plug that is to be driven. A hoop or band 11 is mounted exteriorly upon the tongues 9 which are thereby connected and reinforced. 12 designates the plug which is made slightly tapering, and which is inserted between the tongues 9 of the holding collar, in such a manner as to abut upon the shoulders 10; inasmuch as plugs of different sizes are called for it is the intention to furnish with each tubular handle a plurality of holding collars adapted to hold plugs of different dimensions while being presented to the ends of the flues. It is preferred that the terminal ends of the hoop or band 11 be disconnected; that said hoop or band be made of steel or other resilient material; and that said hoop or band be loosely connected with the tongues 9 as by means of pins or rivets 13 extending from said tongues through slots 14 in the hoop or band; by this construction the resilient hoop will serve to compress the free ends of the tongues upon the plug, thus holding the latter very securely while being presented to the flue, and avoiding danger of dropping the plug into the fires of the furnace.

A driving rod 15 extends longitudinally through the tube 5 and through the holding collar, and the forward end of the said driving rod is formed with a bulging portion constituting a head 16 which occupies the expanded portion formed by the tongues 9 of the holding collar, and prevents the withdrawal of the driving rod rearwardly through the pipe. The rear end of the driving rod is threaded for the reception of a nut 17 engaging the rear end of the tubular handle, and thereby limiting the forward movement of the driving rod and preventing displacement of the latter in a forward direction.

The operation and advantages of this invention will be readily understood from the foregoing description taken in connection with the drawing hereto annexed by those skilled in the art to which it appertains.

When the device is properly assembled, the plug 12 is fitted in the holding collar, and the tubular member 5 may be utilized as a handle for presenting the plug to the end of the tube or flue that is to be plugged. The inner end

of the plug will be engaged by the head of the driving rod and, by striking the latter smartly with a hammer, the plug will be driven; the movement being limited by the
5 nut upon the driving rod. By removing said nut the driving rod may be detached, thus enabling the holding collar to be detached from the tubular handle for the substitution of one of different dimensions.

10 The general construction is simple and inexpensive, and the device will be found thoroughly useful for the purposes for which it is provided.

Having thus described the invention what
15 is claimed is—

1. In a flue plugging device, a tubular handle member exteriorly threaded at one end, a holding collar detachably engaging the threaded end of the handle member, said
20 holding collar being provided with, a plurality of plug holding tongues and a resilient

hoop or band encircling and connecting the same, and a driving rod extending longitudinally through the tubular handle member and the collar and having at one end a bulging
25 portion constituting a head and at its other end an adjustable nut.

2. In a plug holding device, of the character described, a holding collar having a plurality of longitudinal slots forming tongues
30 that are bent outward from the axis of the collar, said tongues being provided with shoulders forming a plug seat, in combination with a resilient hoop or band encircling the tongues and connected loosely therewith.
35

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM B. WINGATE.

Witnesses:

J. R. BRADDOCK,
L. L. JANES.