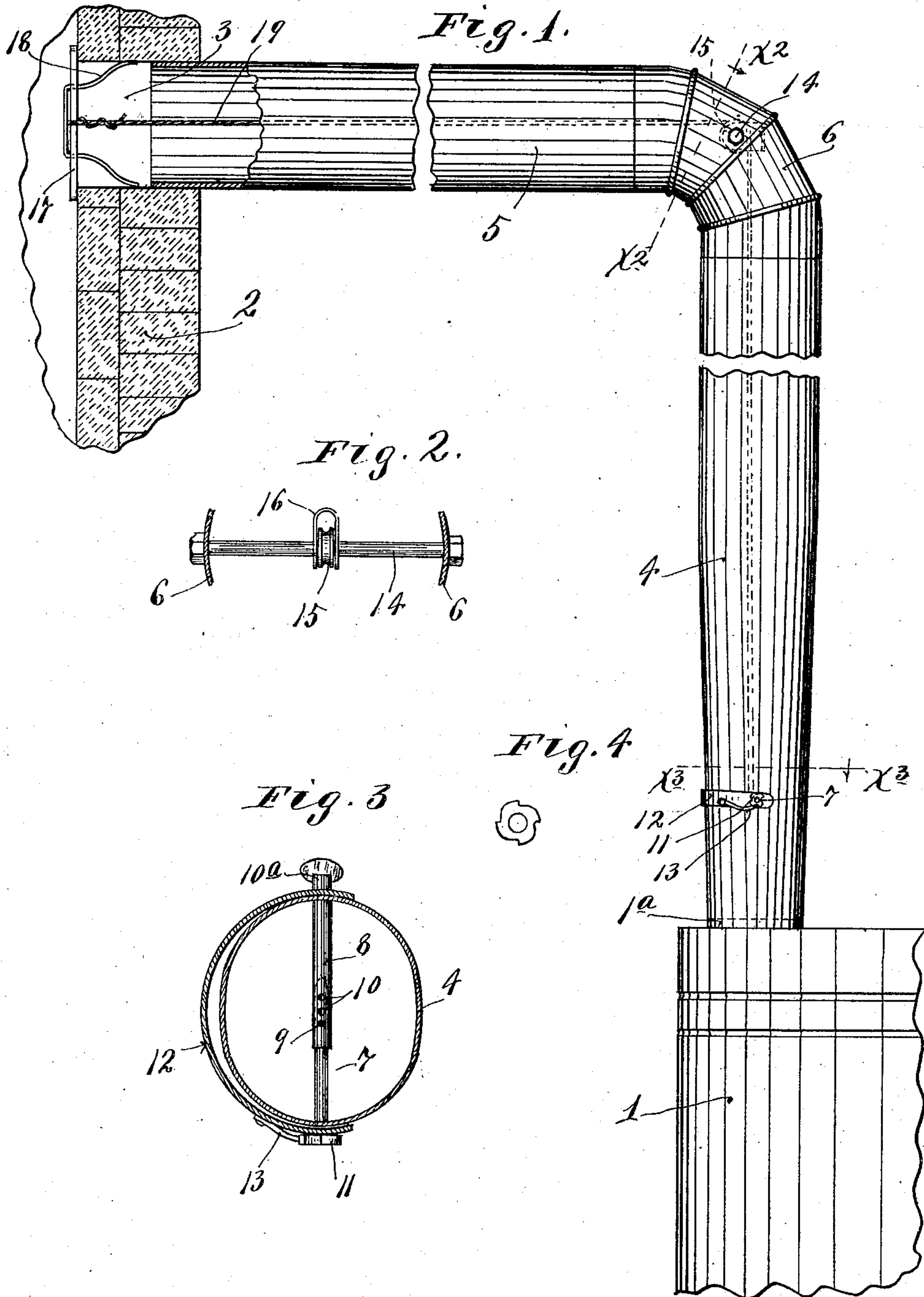


No. 891,480.

PATENTED JUNE 23, 1908.

A. W. HOYER.
STOVEPIPE LOCKING DEVICE.
APPLICATION FILED DEC. 14, 1907.



Witnesses.
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UNITED STATES PATENT OFFICE.

ALFRED W. HOYER, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-HALF TO PETER HOYER, OF CENTERVILLE, SOUTH DAKOTA.

STOVEPIPE-LOCKING DEVICE.

No. 891,480.

Specification of Letters Patent.

Patented June 23, 1908

Application filed December 14, 1907. Serial No. 406,445.

To all whom it may concern:

Be it known that I, ALFRED W. HOYER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Stovepipe-Locking Devices; 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.

My invention has for its object to provide a simple and efficient device in the nature of a lock connection for securing together the sections of a stove pipe and for securing the stove pipe to a chimney.

To the above ends the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view, chiefly in side elevation, but with some parts sectioned and with some parts broken away, illustrating my improved stove pipe locking device applied in working position. Fig. 2 is a section taken approximately on the line $x^2 x^2$ of Fig. 1, some parts being broken away. Fig. 3 is a horizontal section taken on the line $x^3 x^3$ of Fig. 1; and Fig. 4 is a detail in elevation, showing a ratchet wheel which is applied to one end of a windlass shaft constituting part of the lock device.

The numeral 1 indicates a portion of a stove, such as a sheet iron heater, and the numeral 2 indicates a chimney having the usual pipe flue 3.

The numeral 4 indicates the vertical portion, the numeral 5 the horizontal portion, and the numeral 6 the elbow portion of the stove pipe that leads from the flanged smoke-outlet passage 1^a of the stove 1 into the chimney flue 3. The elbow 6 is shown as a jointed elbow and it will, of course, be understood that the vertical and horizontal portions 4 and 5, respectively, each may be made up of any desired number of pipe sections or joints of standard or any suitable construction.

Rotatively mounted in and extended diametrically through the lower part of the vertical portion 4 of the stove pipe is a windlass shaft made up of sections 7 and 8, the former

of which telescopes into the inner end of the latter. The shaft sections 7 and 8 are adapted to be held in different longitudinal adjustments by a cotter or key 9 passed through one or the other of several perforations 10 formed in the said shaft sections. At its outer end the shaft section 8 is provided with a flattened head or finger-piece 10^a, and, at its outer end the shaft section 7 is provided with a ratchet wheel 11. An approximately semi-circular bail 12 of light metal embraces the lower portion of the stove pipe, and the shaft sections 7 and 8 are loosely passed through the ends thereof. A small lock dog 13 pivoted to one side of the yoke 12 coöperates with the ratchet wheel 11 to lock the sectional shaft 7—8 against backward rotary movement. The bail 12 is, by the stove pipe sections to which it is connected, held against other than very slight oscillatory movement.

Extended transversely through one of the joints of the pipe elbow 6 is a bolt 14, on the central portion of which is loosely journaled a guide sheave 15. Secured to the bolt 14 and embracing the sheave 15 is a guide loop 16, best shown in Fig. 2.

An anchor bar or rod 17 is held against one of the walls of the chimney 2 in a position extending diametrically across the pipe flue 3, as shown in Fig. 1. This anchor bar 17 is provided with spring legs 18 that frictionally engage the flue 3 and serve to hold the said anchor bar in position, even when the latter is not otherwise held in position. A wire or small metal cable 19 is attached at one end to the central portion of the anchor bar 17, is passed over the guide sheave 15 on the bolt 14, and its lower end is connected to the sectional windlass shaft, the same, as shown being directly attached to the cotter or split key 9. This cable or wire 19 is thus extended axially or centrally through the vertical and horizontal portions of the stove pipe. By rotation of the sectional windlass shaft the lower end of the cable may be wound thereon and the said cable thus put under tension, so that it will tightly draw together and hold together not only the sections of the vertical and horizontal portions of the stove pipe, but also the elbow. Furthermore, the upper portion of the pipe is securely locked to the chimney flue and the entire stove pipe is, by the central pull or drawing action from the cable, made very rigid and self-sustaining, so that even a long

horizontally extended pipe made up of a multiplicity of sections will sustain itself in position without requiring overhead supports or hangers. As is evident, the ratchet wheel 11 and cooperating lock dogs 18 serve to lock the windlass in a position to hold the cable 19 under any desired tension.

Usually the flanged outlet passage of a stove is oblong so that the lower end of the lower stove pipe section must be flattened more or less for application thereto. Hence, the longitudinally adjustable windlass shaft which permits such flattening or transverse elongation of the lower end of the stove pipe. The device described is simple, is of small cost, is efficient for the purposes had in view and may be very easily applied to any stove pipe. Its application practically eliminates danger of fire from sparks escaping at open or leaky joints.

What I claim is:

1. The combination with a stove pipe having portions extended at an angle to each other and connected by an elbow, of a cable or wire extending axially through the legs of said pipe, a guide therefor applied within and supported by said elbow, means for anchoring said wire or cable at the discharge end of said pipe, and a windlass connected to the other end of said wire or cable and extending through the lower end portion of said pipe, substantially as described.

2. A device for locking together the sections of a stove pipe, comprising an anchor bar adapted for application to a chimney flue, a bolt adapted to be passed transversely through a stove pipe elbow and having a guide sheave at its central portion, a

windlass shaft made up of two sections adapted for application to one of the stove pipe sections, one section of said shaft having a finger-piece and the other a ratchet wheel, a yoke in which said windlass shaft is journaled, a lock pawl applied to said yoke and cooperating with said ratchet wheel, and a cable or wire which when applied is connected to said anchor bar at one end and to said windlass shaft at its other end, and at its intermediate portion is passed over said guide sheave, substantially as described.

3. The combination with a chimney and a stove pipe, the latter having vertical and horizontal portions and an elbow, of an anchor bar having spring legs for engagement with a chimney flue, a bolt passed transversely through the pipe elbow and having a centrally located guide sheave, a yoke embracing the lower portion of one of the vertical pipe sections, a telescopically adjustable two part windlass shaft journaled in said yoke and in the embraced pipe section, one of the said shaft sections having a finger-piece and the other a ratchet wheel, a lock dog applied to said yoke and engageable with said ratchet wheel, and a wire or cable attached at one end to said anchor bar, passed over said guide sheave and connected at its other end to said windlass shaft, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED W. HOYER.

Witnesses:

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