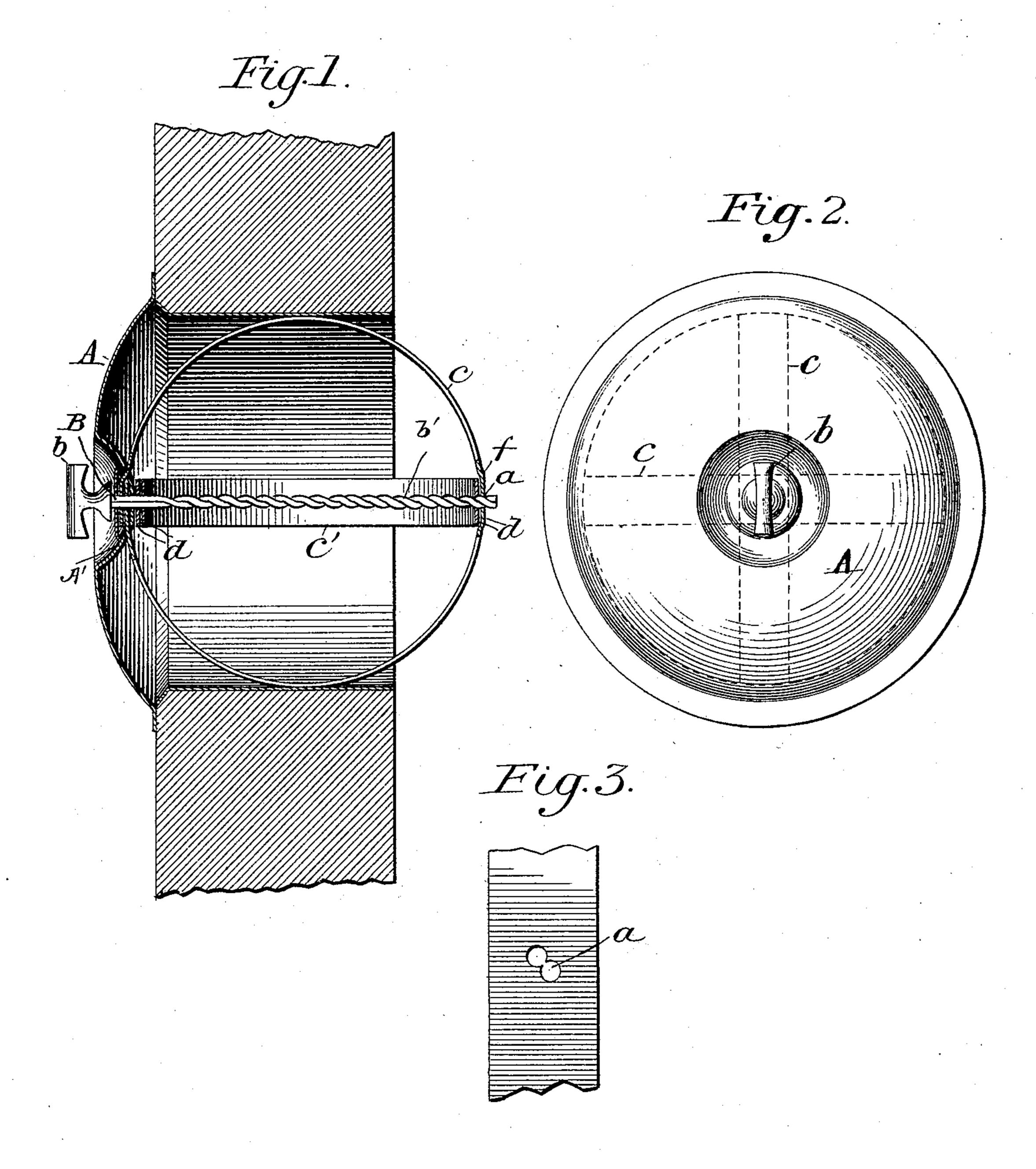
## G. A. HIGGINS. FLUE STOP.

(Application filed June 8, 1898.)

(No Model.)



Witnesses: Ott Charles U. Colbum Thomas Clark

Treventor. George Allen Higgin.

## United States Patent Office.

## GEORGE ALLEN HIGGINS, OF GALESBURG, ILLINOIS.

## FLUE-STOP.

SPECIFICATION forming part of Letters Patent No. 620,129, dated February 28, 1899.

Application filed June 8, 1898. Serial No. 682,964. (No model.)

To all whom it may concern:

Be it known that I, George Allen Higgins, of the city of Galesburg, county of Knox, and State of Illinois, have invented certain new and useful Improvements in Flue-Stops; and I do hereby declare that the following is a clear, full, and exact description of the same.

The invention relates to improvements in

to flue-stops.

The object of the present invention is to improve the construction of flue-stops and to provide a simple, strong, and durable one adapted to be readily constructed of sheet metal and wire and capable of having its parts quickly assembled and adjusted to fit a flue.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed

out in the claims hereto appended.

In the drawings, Figure 1 is a sectional view showing a flue-stop constructed in accordance with this invention and shown applied to a flue. Fig. 2 is a front elevation of the flue-stop. Fig. 3 is a detail view of one of the resilient hooks or rings, showing the opening for engaging the worm or screw.

Like letters of reference designate corresponding parts in all the figures of the draw-

ings.

A designates a concavo-convex circular cap adapted to cover a flue, as illustrated in Fig. 35 1 of the accompanying drawings, and provided at its periphery with a flat portion or flange to fit against the wall or surface surrounding the flue, and it is provided with a central concavo-convex depression A' extend-40 ing inward and forming an outer recess. The depressed central portion of the cap A is provided with a central hole or perforation, through which passes a rod B, provided at its outer end with a head or handle b and having 45 a screw or worm b', preferably formed by twisting a pair of wires, as shown. This rod, which is journaled on the cap, is adapted to be rotated to manipulate a pair of resilient hoops or rings c and c', arranged at right an-50 gles to each other and provided at their rear point of crossing with openings a, receiving the rear end of the rod and engaging the

worm similar to a nut, whereby when the rod is rotated the rear portions of the hoops or rings will be moved inward or outward to en- 55 gage them with and disengage them from the walls of the flue-opening, as will be readily understood. The hoop or band c, which is arranged outside of the other hoop or ring, is provided with an outward depression or bend 60 f, forming a seat to receive the hoop or band c'. The terminals of the hoops or rings are overlapped and connected by the rod B, which passes through registering perforations of the overlapped ends of the metal. The ends of 65 the inner hoop or ring c' are arranged on the inner face of the cap A at the central depressed portion thereof, and the terminals of the outer ring or band extend through opposite slots A<sup>2</sup> of the cap and are aranged on 70 the exterior of the same beneath the head b. One of the terminals of each hoop or ring is bent or offset to provide a recess to receive the other, as clearly illustrated in Fig. 1 of the accompanying drawings.

The invention has the following advantages: The device, which is simple and comparatively inexpensive, may be readily constructed of sheet metal and wire, and it is strong and durable and adapted to be readily 80 applied to a flue. The hoops or rings, which are constructed of strips of sheet metal, have their overlapping ends secured to the inner and outer faces of the cap by the rod, which is provided with the worm. The rod is adapted 85 to be readily rotated to expand and contract the hoops or rings, which are arranged at

right angles to each other.

Changes in the form, proportion, and the minor details of construction may be resorted 90 to without departing from the spirit and scope or sacrificing any of the advantages of the invention.

What is claimed is—

1. A device of the class described comprising a cap provided with opposite slots, the hoops or rings arranged at right angles to each other and consisting of strips of metal having overlapped ends arranged on the inner and outer faces of the cap, the ends of one of the 100 hoops or rings being passed through the said slots, and a rod extending through the cap and the hoops or rings, and securing the overlapped terminals of the latter to the cap, and

having a worm or screw engaging the hoops or rings at the back thereof, substantially as described.

2. A device of the class described comprising a concavo-convex cap having a central depressed portion A' provided with opposite slots, the hoops or rings arranged at right angles to each other and constructed of strips of metal having overlapped ends arranged on to the inner and outer faces of the depressed portion of the cap and provided at their points of

crossing with bends forming recesses or seats, one of the hoops or rings having its terminals passed through the said slots, and a rod extending through the cap and the overlapped 15 terminals of the hoops or bands and adjustably connected with the back of the latter, substantially as described.

GEORGE ALLEN HIGGINS.

Witnesses:

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