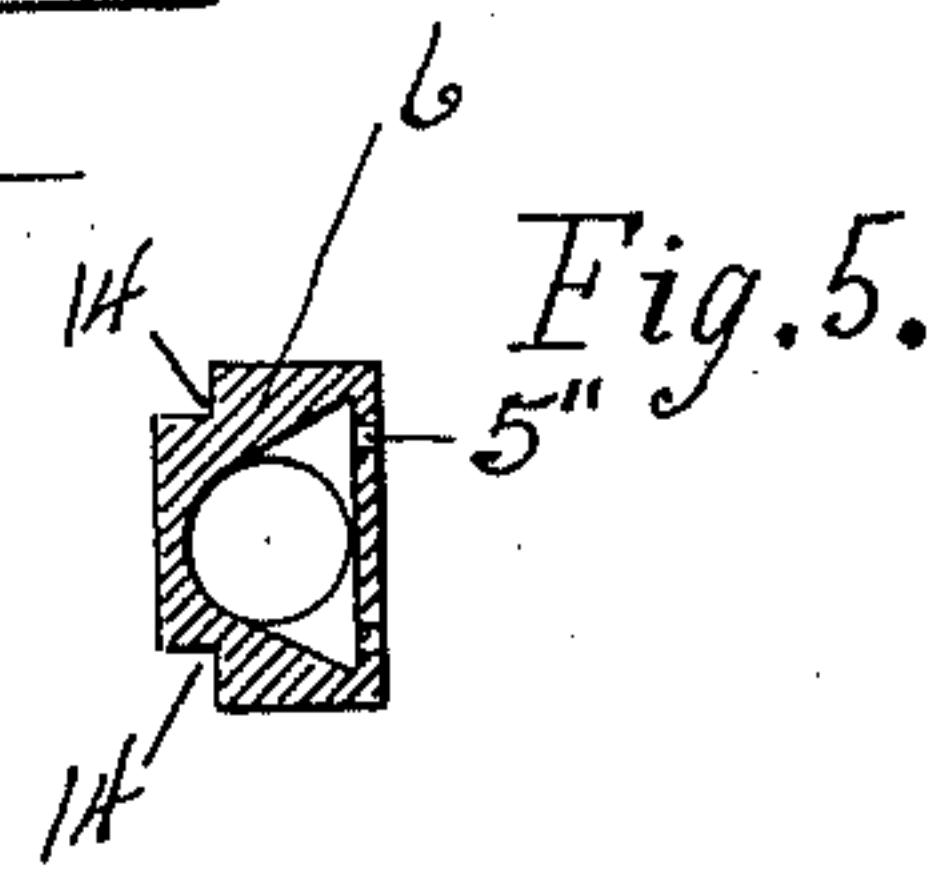
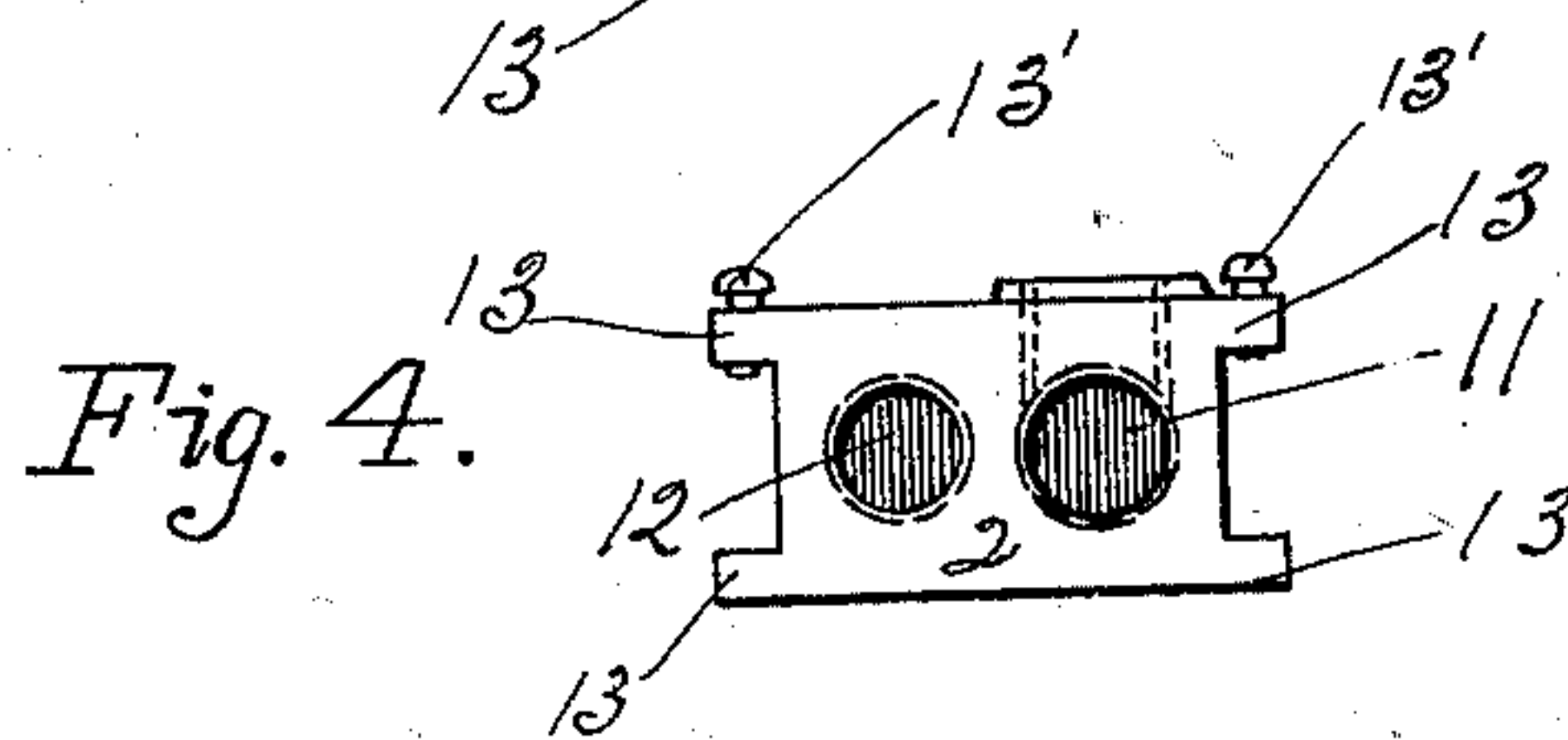
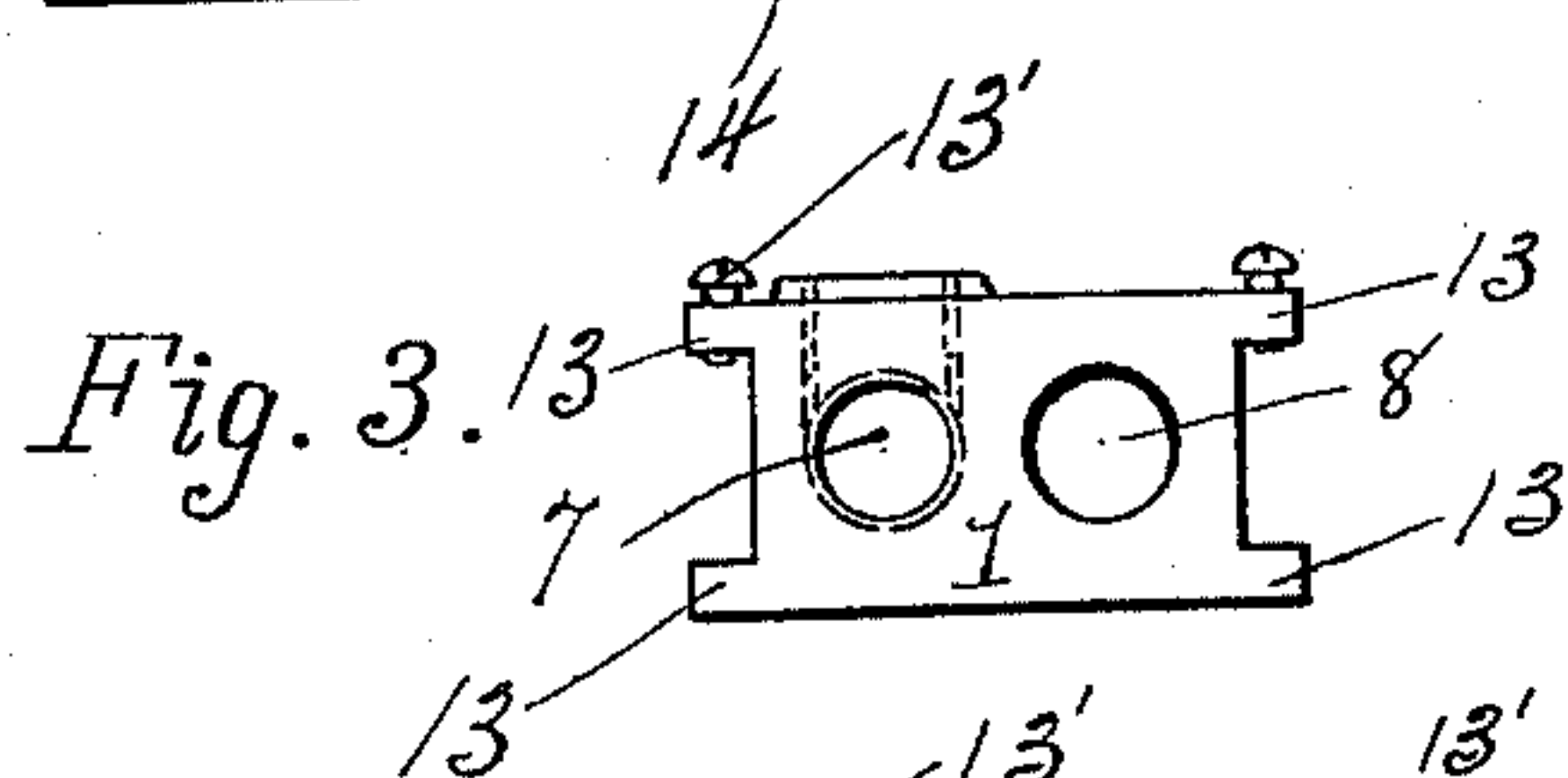
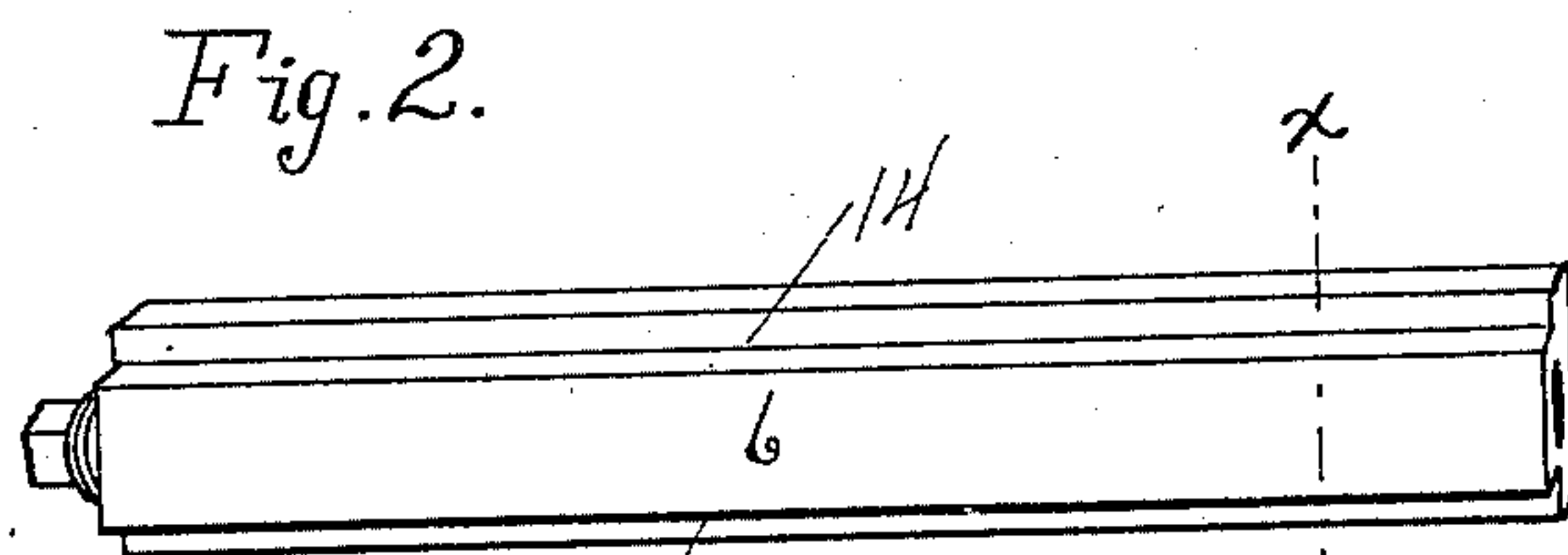
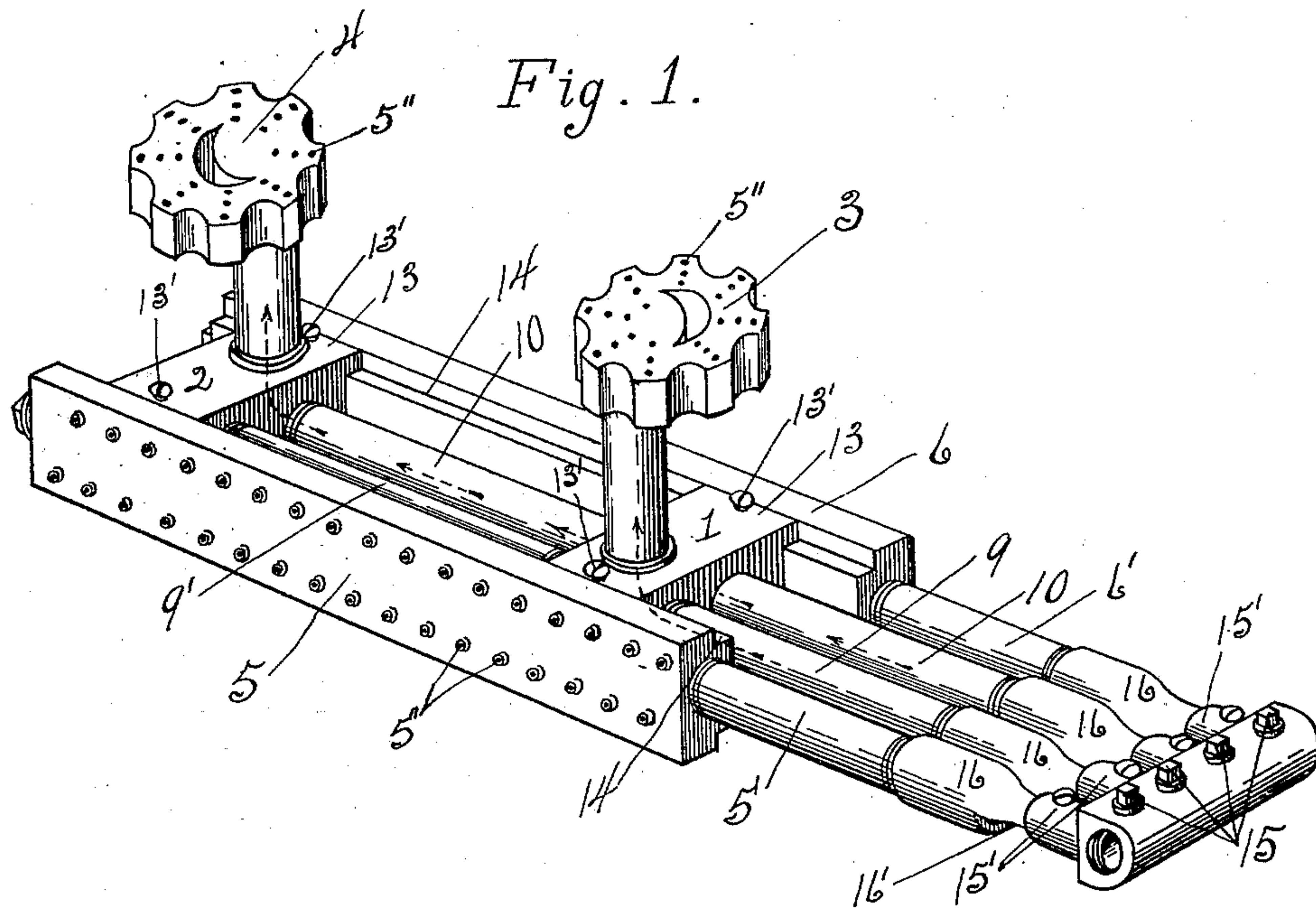


No. 748,066.

PATENTED DEC. 29, 1903.

W. E. GUESE.
ADJUSTABLE GAS BURNER.
APPLICATION FILED JUNE 29, 1903.

NO MODEL.



WITNESSES:

David C. Walter
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INVENTOR.

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UNITED STATES PATENT OFFICE.

WILLIAM E. GUESE, OF TOLEDO, OHIO, ASSIGNOR OF ONE-HALF TO GEORGE A. FOX, OF TOLEDO, OHIO.

ADJUSTABLE GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 748,066, dated December 29, 1903.

Application filed June 29, 1903. Serial No. 163,584. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. GUESE, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Adjustable Gas-Burners; 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to the class of gas-burners commonly employed in steel ranges for cooking or heating purposes and adapted for the consumption of either natural or artificial gas, and has for its object to provide an apparatus having a series of lid and side burners that are so constructed and connected as to enable them to be readily adjusted with relation to each other to adapt them to conform to the size of the stove in which they are to be placed or to be disconnected and used either as a two, three, or four way burner apparatus.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a perspective view of my improved burner. Fig. 2 is a rear perspective view of one of the side burners thereof. Figs. 3 and 4 are vertical elevations of the front and rear transverse pieces of my invention, respectively; and Fig. 5 is a transverse vertical section taken on the dotted line $x-x$ in Fig. 2.

Referring to the drawings, 1 and 2 represent the front and rear transverse pieces of my invention, adapted to support the usual lid-burners 3 and 4, which are eccentrically mounted thereon, as shown, to enable them to be properly adjusted with relation to the lids of a stove and to engage at their outer ends with the side or water-front and oven burners 5 and 6, each of said burners being provided with a series of apertures or escape-openings 5'', through which the gas is discharged to the atmosphere.

The front piece 1 is provided with the trans-

verse openings 7 and 8, adapted to receive the pipes 9 and 10, leading to the burners 3 and 4, respectively, the said opening 7 having a vertically-disposed bore, as shown by dotted lines in Fig. 3, to establish communication between the conduit 9 and burner 3. The rear transverse piece 2 is provided with a substantially right-angled bore 11, which has its edges threaded to engage the end of the conduit 10 and the vertical pipe supporting the burner 4 and with the threaded socket 12, in which the pipe 9' is threaded, the other end thereof being threaded to the opening 7 in the piece 1.

To adapt the elongated burners 5 and 6 to be adjustably engaged by the transverse pieces 1 and 2 and at the same time be held rigid with relation to said pieces when properly adjusted, I provide the upper and lower outer edges of the pieces 1 and 2 with the flanges 13, said flanges being adapted to seat in the longitudinally-disposed L-shaped grooves 14, provided on the corresponding inner edges of the burners 5 and 6, and be held in proper adjustment thereto by means of the binding-screws 13'. The burners 5 and 6 are fed by the conduits 5' and 6', which, together with the conduits 9 and 10, connect at their outer ends with the valves 15. The air-induction ports of my invention are provided in the caps 16 adjacent to the valves 15, as shown at 16', said caps being threaded to the ends of said conduits and connected to the nipples 15' of the valves 15.

I have found that by forming the chambers of the elongated burners 5 and 6 with diverging or triangularly-shaped walls and providing the discharge-openings 5'' thereof through one of said walls in adjacent position to the angles formed by the meeting walls of the triangle, as shown in Fig. 5, the discharge of gas therefrom and consequent combustion when lighted will be more even throughout the length of the burners. In other forms of elongated burners the force of the gas is greatly diminished by the time it has traversed to the farther ends of the burners, thereby causing the discharge to be strongest at the ends adjacent to the mixing-chambers thereof.

In the placing and adjusting of my burner

within a stove the transverse pieces 1 and 2, with the lid-burners 3 and 4 thereon, are placed the desired distance apart to bring said burners in vertical alinement with the
 5 lids of the stove and the connecting or strengthening pipe 9', of proper length, threaded within the bores 7 and 12 of said pieces. The water-front and oven burners 5 and 6 are then secured to the outer flanged
 10 ends of the pieces 1 and 2 by means of the binding-screws 13' and the pipes or conduits 5' and 6' and 9 and 10, leading thereto and to the burners 3 and 4, respectively, cut in proper lengths and threaded at one end to
 15 their respective burners and at their other ends to the caps 16, secured to the valves 15, as shown in Fig. 1.

It is obvious that such changes in the form, proportion, and minor details of construction
 20 of the parts as fairly fall within the scope of my invention may be made without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described my invention, what
 25 I claim as new, and desire to secure by Letters Patent, is—

1. An apparatus of the class described having a series of lid-burners and one or more elongated burners, discharge-openings in said
 30 burners, and diverging walls in the chambers of said elongated burners leading to the discharge-openings therein, substantially as described.

2. An apparatus of the class described having parallel transverse braces 1 and 2, elongated burners adjustably secured to the ends of said braces, and valve-controlled conduits communicating with said burners, substantially as described.

3. An apparatus of the class described having a series of parallel transverse pieces, lid-burners supported by said pieces, elongated side burners removably secured to the ends of said pieces, and valve-controlled conduits
 45 communicating with said burners, substantially as described.

4. An apparatus of the class described having the cored transverse pieces 1 and 2, a lid-burner eccentrically mounted above each of
 50 said pieces, elongated side burners removably

secured to the ends of said pieces, and valve-controlled conduits communicating with said lid-burners through the cored portions of said pieces and with said side burners, substantially as described.

5. An apparatus of the class described having transverse pieces 1 and 2, side burners separated by said pieces and adjustably engaged by the ends thereof, lid-burners supported by said pieces, and valve-controlled
 60 conduits leading to said burners, substantially as described.

6. An apparatus of the class described having separated elongated side burners provided with grooved edges, transverse pieces
 65 provided with flanged ends adapted to engage the grooves of said burners, means for retaining said burners rigid or permitting their adjustment with relation to said pieces, lid-burners supported by said pieces, and
 70 valve-controlled conduits provided with air-induction ports communicating with said burners, substantially as described.

7. An apparatus of the class described having separated elongated burners provided
 75 with grooved edges, transverse pieces provided with flanged ends adapted to engage the grooves of said burners and cored to receive and support conduits, means for retaining said burners rigid or permitting their
 80 adjustment with relation to or removal from said pieces, lid-burners supported by said pieces, and valve-controlled conduits having air-induction means communicating with said burners, substantially as described.

8. An apparatus of the class described having transverse pieces 1 and 2, elongated burners separated by said pieces and provided with triangularly-shaped chambers, lid-burners supported by said pieces, and valve-controlled
 90 conduits leading to said burners, substantially as described.

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

WILLIAM E. GUESE.

Witnesses:

EMIL J. VAYDSANY,
 C. W. OWEN.