

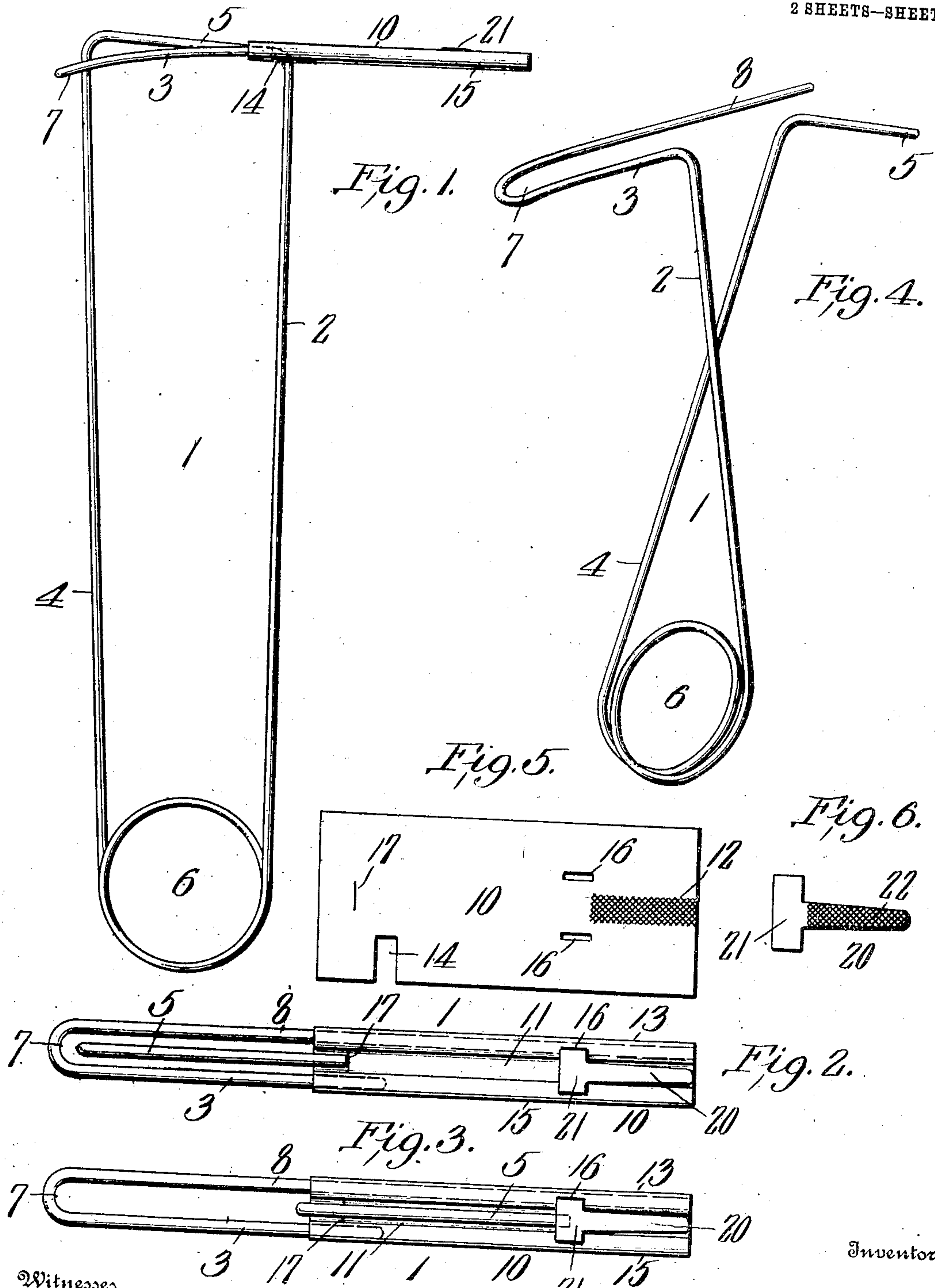
No. 875,348.

PATENTED DEC. 31, 1907.

C. C. HARTLEY.
GAS LIGHTER.

APPLICATION FILED NOV. 12, 1906

2 SHEETS—SHEET 1.



Witnesses

O. W. Holmes
Aloysius M. Carthy

Inventor

By Charles C. Hartley
William W. Deane
his Attorney

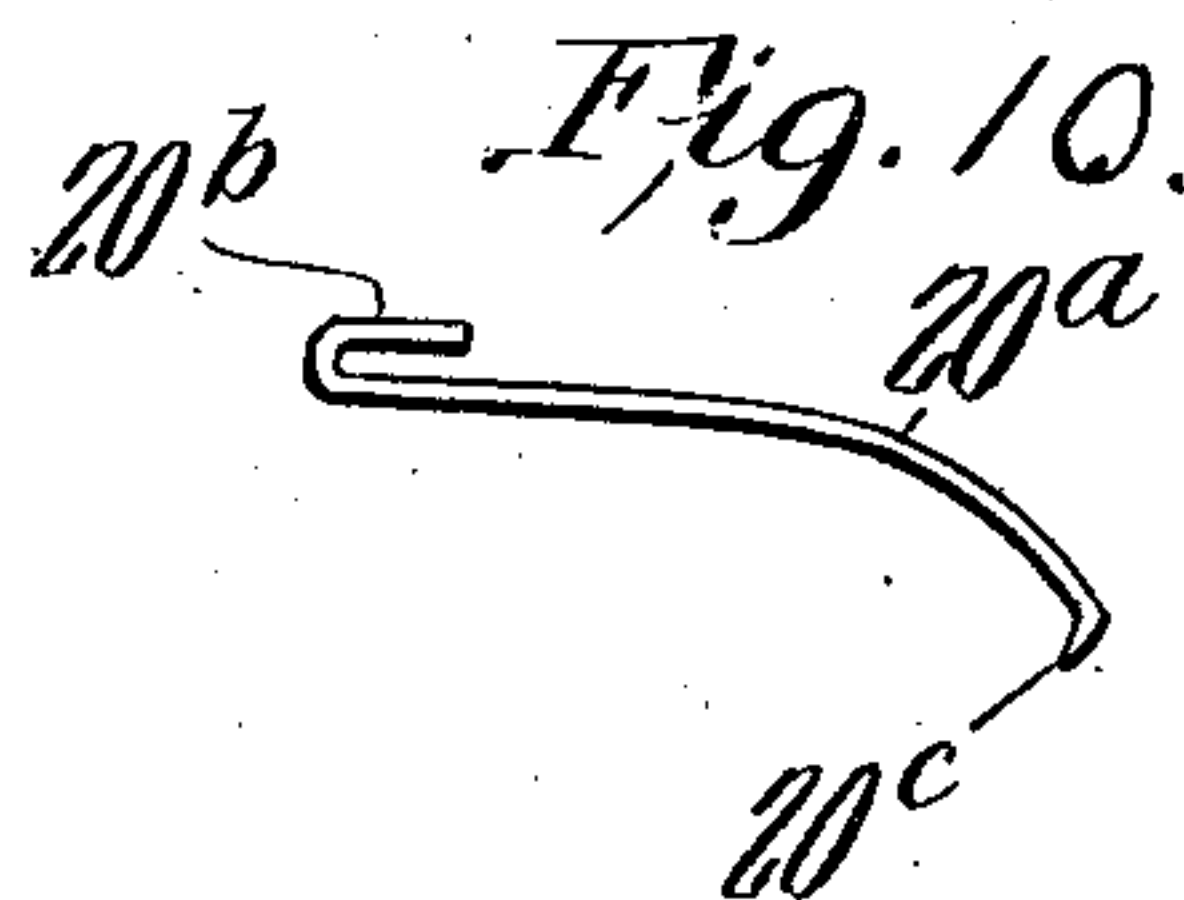
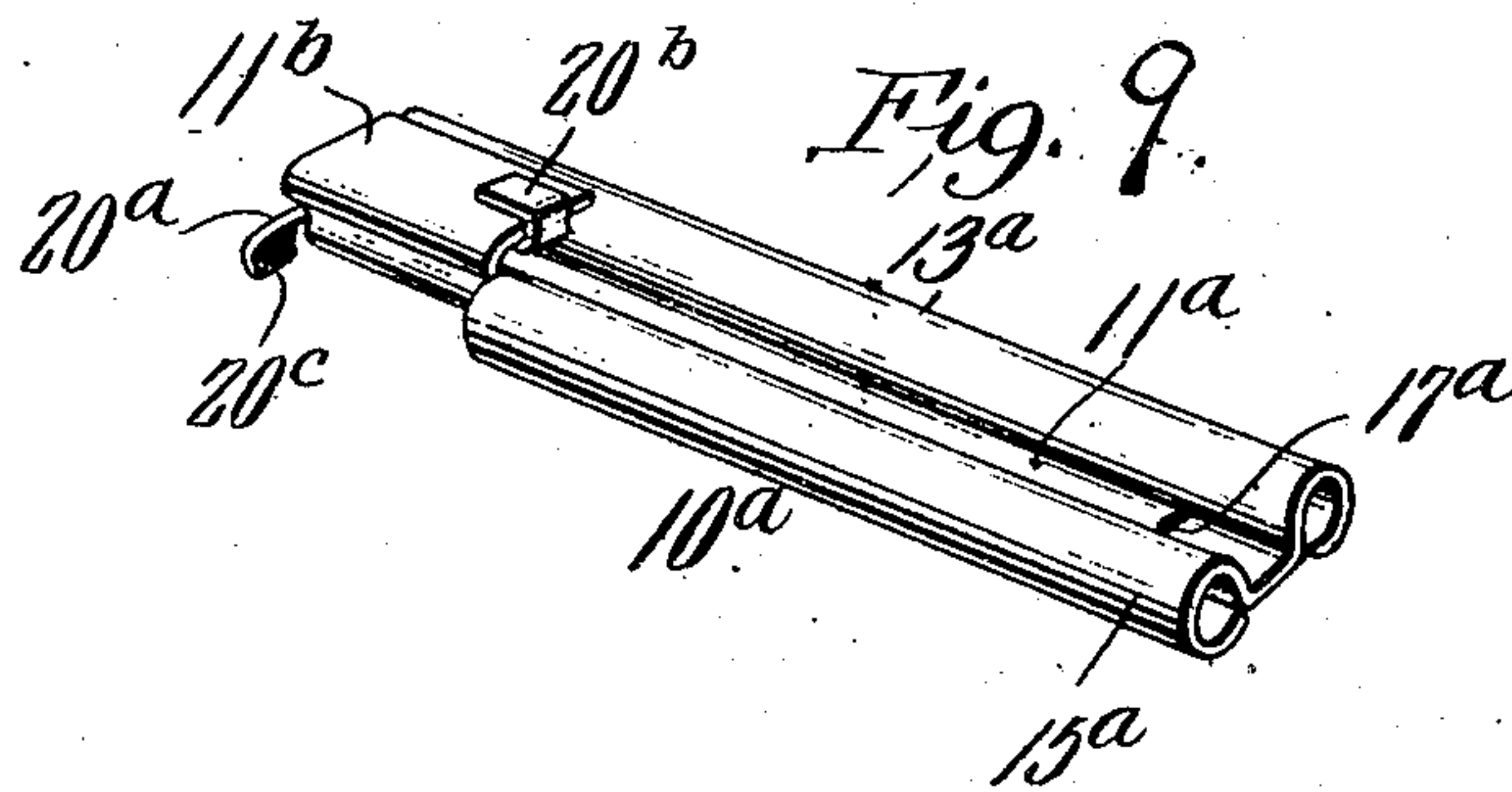
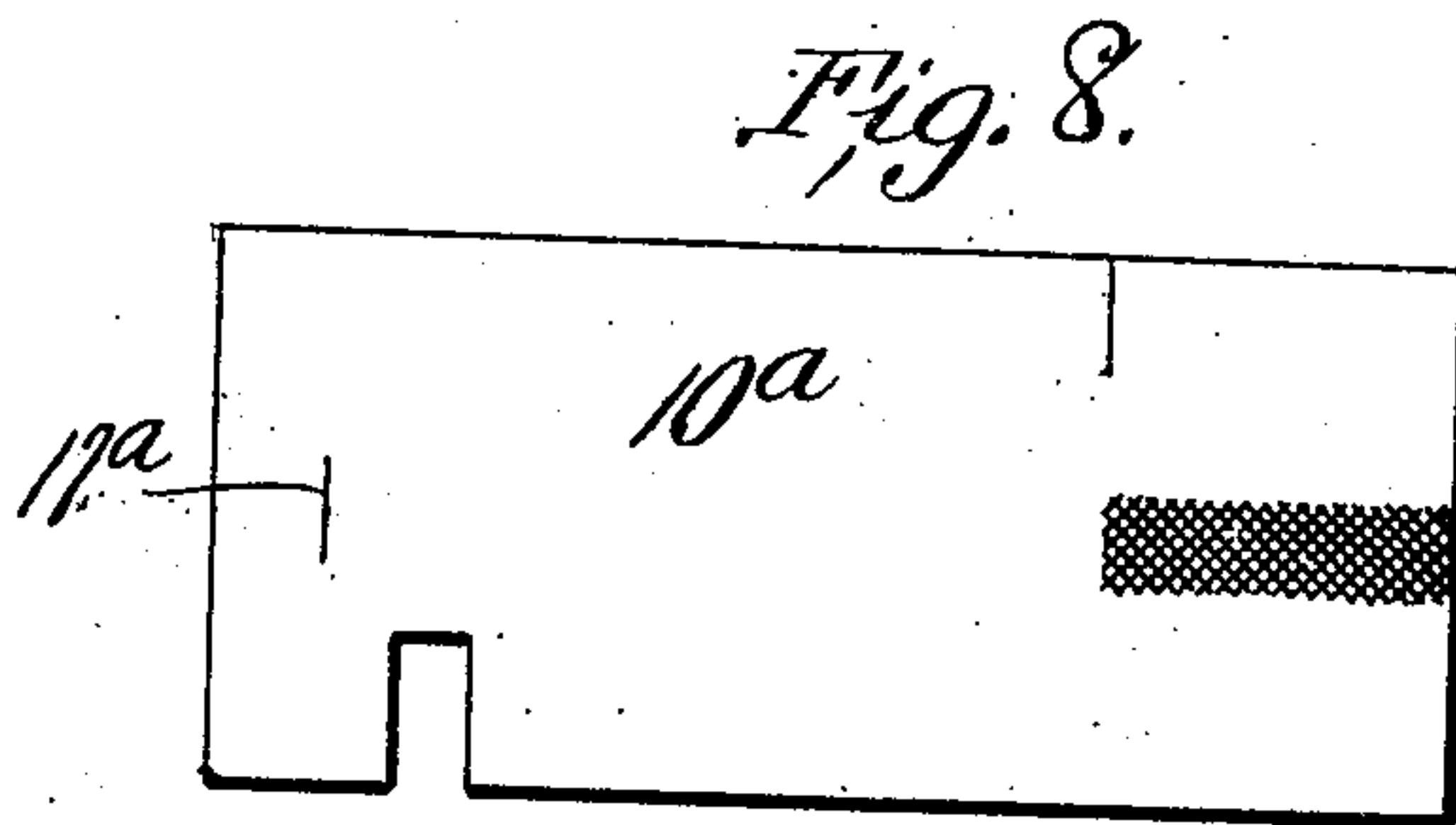
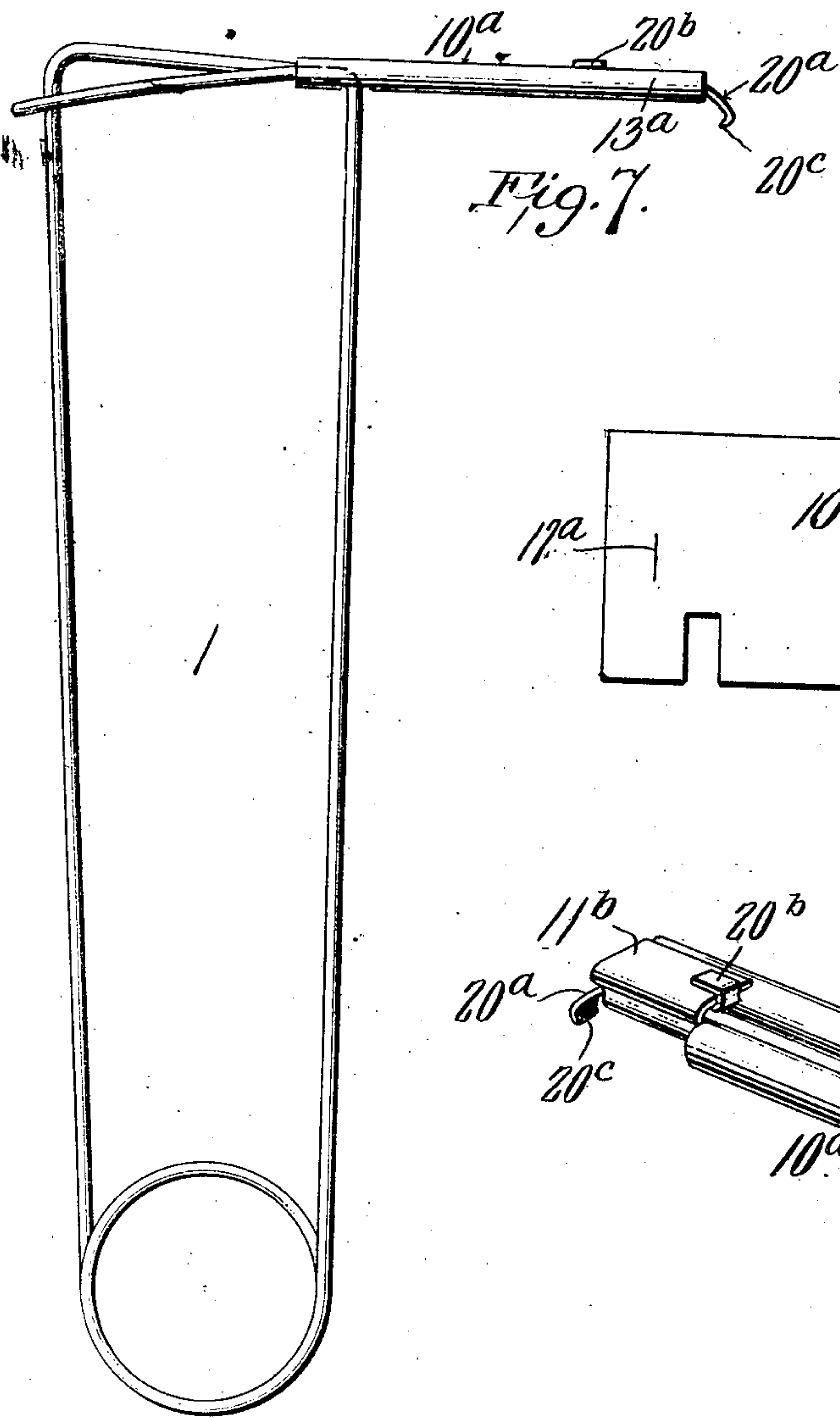
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2 SHEETS—SHEET 2.



Inventor

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Aloysius M. McCarthy

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By William W. Deane
his Attorney

UNITED STATES PATENT OFFICE.

CHARLES C. HARTLEY, OF MATTOON, ILLINOIS.

GAS-LIGHTER.

No. 875,348.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed November 12, 1906. Serial No. 343,027.

To all whom it may concern:

Be it known that I, CHARLES C. HARTLEY, citizen of the United States, residing at Mattoon, in the county of Coles and State of Illinois, have invented certain new and useful Improvements in Gas-Lighters, of which the following is a specification.

My invention relates to gas lighters; and it has for its object to provide a simple and efficient device through the medium of which the key of a high gas fixture may be conveniently turned, and a match may be held in close proximity to the gas burner and ignited, and this while the device is held in one hand and without undue reaching on the part of the user.

The invention will be fully understood from the following description and claims when the same are considered in connection with the accompanying drawings, forming part of this specification, in which:

Figure 1 is a side elevation of the device constituting the present and preferred embodiment of my invention, as the same appears when its plunger is set in its retracted position. Fig. 2 is an enlarged top plan view of the same. Fig. 3 is a view similar to Fig. 2 but showing the plunger in the position it assumes when it is released and impelled forward by its spring. Fig. 4 is a detail perspective view of the body of the device. Fig. 5 is a plan view of the sheet-metal blank from which the match support is formed. Fig. 6 is an inverted plan view of the match holder and igniter, removed. Fig. 7 is a side elevation of a device comprising a modified match support and a modified match holder and igniter. Fig. 8 is a plan view of the sheet-metal blank from which the modified match support is formed. Fig. 9 is a view showing said support as it appears precedent to being secured on the body of the device. Fig. 10 is a detail view of the modified match holder and igniter, removed.

Referring by numerals to the said drawings and more particularly Figs. 1 to 6 thereof: 1 is the body of my novel device for turning a gas key and holding a match in close proximity to a gas burner and igniting the match subsequent to the turning of the key. The said body has an upright portion 2, a substantially horizontal portion 3 at the upper end thereof, shaped by preference to receive a gas key, and a resilient upright arm 4 connected with the upright portion 2 and terminating at its upper end in a forwardly

directed plunger 5. In the preferred embodiment of my invention, the body 1 is formed of a single piece of wire of suitable caliber, as shown; the upright portion 2 and arm 4 being joined at their lower ends through a spring coil 6, and the horizontal portion 3 on the upright portion 2 being provided with a loop 7 to receive a gas-key, and a forwardly extending arm 8 for a purpose which will presently appear.

10 is the match supporter of the device. The said match supporter is formed from the sheet-metal blank shown in Fig. 5, and is provided with a longitudinal-central channel 11, the forward portion of which is serrated or roughened, as indicated by 12; a longitudinal barrel 13 which receives and is soldered or otherwise fixed on the arm 8 of the substantially horizontal portion 3, a notch 14, Fig. 5, which receives the upper end of the upright portion 2, a longitudinal barrel 15 which receives and is soldered or otherwise fixed on the short side of the loop 7, slots 16, Fig. 5, designed to serve a purpose presently set forth, and an upturned lip or abutment 17, adapted to normally retain the plunger 5 in its retracted position.

20 is the match holder and igniter of the device. The said match holder and igniter is made of spring steel or other material suitable to the purpose of my invention and is provided with a rear T-head 21 and is also provided with a serrated or roughened portion 22 adapted to be opposed to the serrated or roughened portion 12 of the match supporter 10. The match holder and igniter is secured to the supporter 10 by passing the ends of its T-head 21 through the slots 16 in the supporter, and bending or otherwise securing said ends against the underside of the supporter.

In the practical use of my novel device, the plunger 5 of body 1 is retracted, and its forward end is placed against the abutment 17 of supporter 10 so as to hold it against forward movement. A match is then placed in the longitudinal-central channel or groove 11, with its head forward and its rear end immediately in advance of the lip or abutment 17. The lower portion of the body 1 of the device is now grasped in the hand and squeezed when, as will be readily apparent, the resilient portion 4 will spring inward, resulting in the plunger 5 being disengaged from the abutment 17 and then forced forward by the tendency of the upper end of

portion 4 to spring toward the upper end of the portion 2. When the plunger is thus impelled forward it will drive the match before it, and in passing between the opposed serrated portions of the supporter 10 and the holder and igniter 20, the head of the match will be ignited. It will also be noticed that the rear portion of the match stem will be securely held between the holder and igniter 20 and the supporter 10. The device is now manipulated so that the loop 7 receives a gas key, and then the lighted match is held adjacent to the gas burner so as to light the same.

It will be gathered from the foregoing that my novel device is reliable in practice, is susceptible of being repeatedly used, and is well adapted to withstand the usage to which such devices are ordinarily subjected.

In the modified structure of Figs. 7 to 10, the body 1 is identical with the body 1 shown in Figs. 1 to 6. The match supporter 10^a and the match-holder 20^a of the structure shown in Figs. 7 to 10 are specifically different from the corresponding elements 10 and 20 of Figs. 1 to 6.

By reference to Fig. 9, it will be seen that the match support or supporter 10^a is provided with a longitudinal-central channel or groove 11^a, a tubular portion 11^b arranged in front of and alined with the channel 11^a, an abutment 17^a in the rear portion of the channel 11^a, a longitudinal barrel 13^a receiving and soldered or otherwise fixed on the arm 8 of the body 1, and a comparatively short longitudinal barrel 15^a receiving and soldered or otherwise fixed on the short side of the loop 3 of the body. The match holder and igniter 20^a is a strip of resilient metal which has a loop 20^b receiving, and fixed on, the rear end of the tubular portion 11^b of the match supporter. It extends forward and downward through the said tubular portion 11^b and terminates at its forward end in a sharpened finger 20^c which normally rests in front of and below the supporter 10^a as best shown in Fig. 9.

In the use of the modified embodiment of my invention, it will be seen that when a match is forced forward in the channel 11^a of supporter 10^a, its head will forcibly bring up against the sharpened finger 20^c of the match holder and igniter 20^a and be ignited by the same.

In the practice of my invention, it is obvious that various changes in the construction of the several parts may be made without involving departure from the scope of my invention as claimed.

Having described my invention, what I claim and desire to secure by Letters Patent, is:

1. A device of the character described comprising an upright member, a match support secured to said member and arranged at an angle thereto, an arm resiliently connected to

said member and having a plunger arranged to extend over said match support, and means on said match support for igniting a match and holding the same after ignition.

2. A device of the character described, comprising an upright member, a match support secured to said member and arranged at an angle thereto, an arm resiliently connected to said member and having a plunger arranged to extend over said match support, means carried by the match support for holding the plunger in a retracted position, and means on said match support for igniting a match and holding the same after ignition.

3. A device of the character described comprising an upright member, a match support secured to said member and arranged at an angle thereto, an arm resiliently connected to said member and having a plunger arranged to extend over said match support; said match support being provided at one end with a struck up portion to engage the forward end of said plunger to hold same retracted, and a device at the other end of said match holder for igniting a match and engaging the stem thereof after ignition.

4. In a device for the purpose described, the combination of a body comprising an upright portion and a resilient arm connected with the upright portion and provided with a plunger, means carried by the upright portion of the body for turning a gas key, means also carried by the upright portion of the body for supporting a match and normally holding the plunger in its retracted position, and means also carried by the upright portion of the body for igniting and holding a match.

5. In a device for the purpose described, the combination of a body comprising an upright portion having an integral loop for turning a gas key, and a resilient arm connected with the upright portion and provided with a plunger, means carried by the upright portion of the body for supporting a match and normally holding the plunger in its retracted position, and means also carried by the upright portion of the body for igniting and holding a match when the same is impelled by the plunger.

6. In a device for the purpose described, the combination of a body comprising an upright portion and a resilient arm connected with the upright portion the extremity of said arm being bent at an angle to form a plunger, means fixed with respect to the upright portion of the body for normally holding the plunger in its retracted position, and means also fixed with respect to said upright portion for igniting and holding a match when the same is impelled by the plunger.

7. In a device for the purpose described, the combination of a body comprising an upright portion having a loop at its upper end, an arm provided with a plunger, a coiled spring

joining the said upright portion and arm at the lower ends thereof, a match supporter fixed to the loop on the upright portion of the body and having means for normally holding the plunger in its retracted position and a match igniter and holder fixed to the match supporter and arranged to operate when a match is impelled by the plunger.

8. In a device for the purpose described, the combination of a body comprising an upright portion having a loop at its upper end, and a spring arm connected with the upright portion and carrying a plunger, a sheet metal match supporter having barrels receiving and fixed to the sides of the loop on the upright portion and also having an abutment for normally holding the plunger in its retracted position, and a match igniter and holder fixed to the supporter.

9. In a device for the purpose described, the combination of a body comprising an upright portion having a horizontal loop at its upper end, an arm carrying a plunger, and a coiled spring joining said portion and arm at the lower ends thereof, a sheet-metal match supporter having barrels receiving and fixed to the sides of the loop on the upright portion and also having an abutment for engaging the plunger, and a match igniter and holder connected to the match supporter.

10. A device for the purpose described, comprising a body formed of two resiliently connected members, the extremity of one

member being bent at an angle, to form a spring-actuated plunger, means carried by the other member for normally holding said plunger in its retracted position, and a match igniter and holder arranged to receive a match when the same is impelled forward by the plunger.

11. A device for the purpose described, comprising a body formed of two resiliently connected members, the extremity of one member being bent at an angle to form a loop for turning a gas key, the extremity of the other member being bent at an angle to form also a spring-actuated plunger, means for normally holding said plunger in its retracted position, and a match igniter and holder arranged to receive a match when the same is impelled forward by the plunger.

12. A device for the purpose described, comprising a spring-actuated member having an angular end forming a plunger, means for holding the plunger in its retracted position, and means for igniting and holding a match when the same is impelled by the plunger; the said device being arranged when squeezed in the hand to release the plunger from the means which holds it in its retracted position.

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

CHARLES C. HARTLEY.

Witnesses:

HARRY HOWELL,
WILLIAM BYERS.