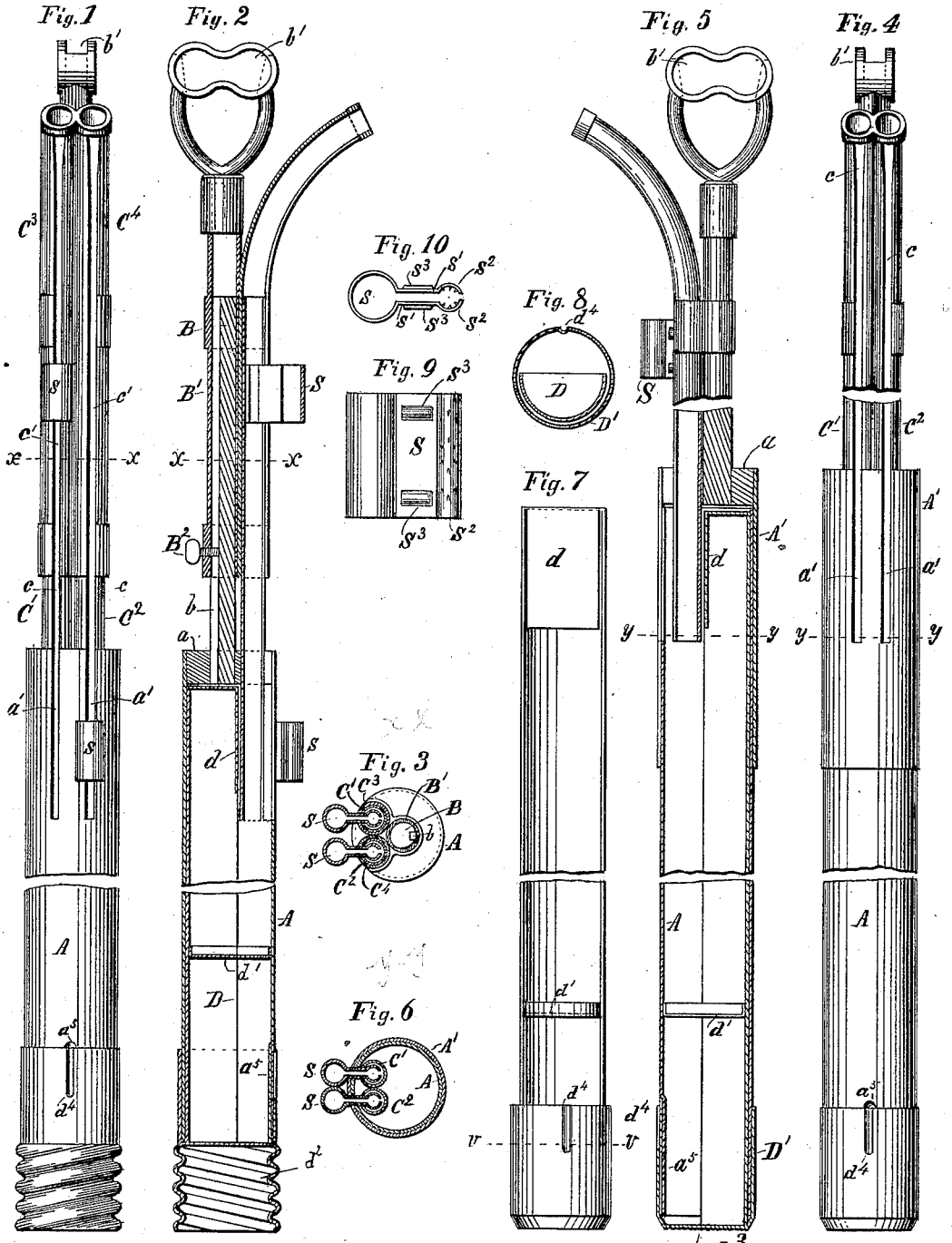
(No Model.)

W. F. FOLMER.

IGNITING TORCH.

No. 423,235. Patented Mar. 11, 1890.



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UNITED STATES PATENT OFFICE.

WILLIAM F. FOLMER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO WALTER E. SCHWING, OF SAME PLACE.

IGNITING-TORCH.

SPECIFICATION forming part of Letters Patent No. 423,235, dated March 11, 1890.

Application filed July 30, 1889. Serial No. 319,227. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. FOLMER, of New York, in the county and State of New York, have invented a certain new and useful Improvement in Igniting-Torches, of which the following is a specification.

This improvement relates to torches for igniting gas and other illuminating apparatus.

I will describe an igniting-torch embodying my improvement, and then point out the novel feature in the claims.

In the accompanying drawings, Figure 1 is a side view of a torch embodying my improvement, a part being broken away to economize space. Fig. 2 is a longitudinal section of the same. Fig. 3 is a horizontal section through the dotted lines *x x*, Figs. 1 and 2, looking downwardly. Fig. 4 is a side view of a torch of slightly-modified form embodying the improvement. Fig. 5 is a longitudinal section of this torch. Fig. 6 is a transverse section taken at the plane of the dotted line *y y*, Figs. 4 and 5. Fig. 7 is a side view or elevation of a drawer or slide which may be used in either form of torch illustrated in the drawings. Fig. 8 is a transverse section taken at the plane of the dotted line *v v*, Fig. 7. Fig. 9 is a side elevation of a slide for moving tapers which are used in the torches illustrated. Fig. 10 is an end view of the slide.

Similar letters of reference designate corresponding parts in all the figures.

Referring first to Figs. 1, 2, 3, 7, 8, 9, and 10, A designates the stock or body of the torch. It may advantageously be made of sheet metal and of cylindric form. At the upper end it is shown as having a thick head *a*, which may advantageously be made of metal or wood and secured in place by solder or otherwise. From the stock or body A extends a stem B, which may be made in cylindric form of metal. It is shown as inserted in the head *a* of the stock or body. It may be secured by being driven in friction-tight or in any other suitable manner. I have shown the stem B as solid, but as having a longitudinal groove *b* at one side. This stem has combined with it a telescopic or sliding section B′, made of tubular form and preferably of metal to fit the main stem. The telescopic or sliding section may be adjusted into different positions lengthwise of the main stem B and secured in place when adjusted by means of a clamping-screw B^2, fitted in a tapped hole provided in it and extending into the groove *b*. The upper end of the telescopic or sliding section B′ is provided with a wrench, key, or pair of jaws *b′*, which may engage with a hand-piece of the cock in a gas-fixture and serve as a means for turning the latter to let on or shut off the gas.

C′ C^2 designate two small tubes extending through the head *a* into the stock or body close to one portion or side of the wall of the latter. They may be driven into the head *a* friction-tight or secured in any other suitable manner. At that part which is adjacent to one portion or side of the wall of the stock or body these tubes C′ C^2 are provided with longitudinal slots *c*, and the stock or body is provided with longitudinal slots *a′*, opposite and in line with the slots *c* of the tubes C′ C^2.

The tubes C′ C^2 and the stock or body are provided with slots, as described, because in the present example of my improvement the torch is intended for use with wax tapers, and these slots are to accommodate slides S, which are used for adjusting the tapers and extend through the parts wherein the tapers move so that they may be manipulated from the outside of the torch.

There are combined with the tubes C′ C^2 telescopic or sliding tubes C^3 C^4. These are provided with longitudinal slots *c′*, which coincide with the slots *c* of the tubes C′ C^2, so that the slides S may move from the tubes C′ C^2 into the tubes C^3 C^4, and vice versa, in adjusting the tapers. It will be observed that the slots *c′* flare or widen at the upper ends of the tubes. I have shown the tubes C^3 C^4 as secured together, so as to be adjustable in unison; but they may be made separate for independent adjustment. It is preferable, however, that they shall be both united to the telescopic or sliding section B′ of the stem B of the torch, because then they may be secured in position after adjustment by the screw B^2.

It will be readily understood that by providing the stem B of the torch with the telescopic or sliding section, and providing the tubes for the igniting devices with telescopic

or sliding sections, I provide for elongating or shortening the torch.

There is one slide S for the tube C′ and its telescopic or sliding tube C^3, and another similar slide for the tube C^2 and its telescopic or sliding tube C^4. Each of these slides may be made of a strip of sheet metal, bent at the middle into the form of a cylinder *s*, two parallel side portions *s′* beyond the cylindric portions *s*, and two semi-cylindric or curved jaws s^2 at its extremities. The parallel portions *s′* are intended to work in the slides of the tubes C′ C^2 C^3 C^4, the jaws s^2 are intended to grasp the tapers within these tubes, and the cylindrical portions *s* are intended to serve as a hand-piece outside the tubes. The jaws are preferably provided on the inner surfaces with prongs or points to enable them the better to engage with the tapers. The portions *s′*, which work within the slides, are provided with bosses s^3, which bear against the edges of the slides to reduce friction. These slides are so formed as that their opposite portions have a tendency to swing apart for the purpose of spreading the jaws. Therefore, when the slides are moved up into the upper portion of the tubes and their parts *s′* enter the flared or widened portions of the slots, their jaws will be spread apart so as to facilitate the removal and insertion of tapers.

The stock or body A has fitted to it a drawer or slide D. This is made in the shape of a semicylinder or trough, and may be moved longitudinally within the stock or body from the lower end of the latter, it having a hand-piece D′ outside of the stock or body. It is accommodated in the stock or body in a different plane from the plane of the tubes C′ C^2, being behind the same where it laps over them. In the present instance the hand-piece is made in the form of a cylinder, which is free to slide onto the lower end of the stock or body. At the upper end the drawer or slide is closed at the front by a strip *d*, extending downwardly from the top.

I have shown the drawer as provided with a partition *d′*, dividing it into two compartments. The lower may serve as a match-receptacle, and the upper as a holder for tapers.

I have shown an internally-screw-threaded socket d^2 at the lower end of the hand-piece D′. This enables the stock or body to be secured onto a stick or staff of any kind which is provided with an external screw-thread.

Turning now to the torch represented in Figs. 4, 5, and 6 it will be seen that the stem B has no telescopic or sliding section and that the tubes C′ C^2 have not telescopic or sliding tubes C^3 C^4 combined with them, but extend up adjacent to the wrench or key of the torch. It will be seen that their slots *c* flare at the upper ends. In this example of the improvement the stock or body is made of two sections—a main section A and a telescopic or sliding section A′. The head *a* is secured in the telescopic or sliding section A′, and the stem B and tubes C′ C^2 are as in the other example of the improvement secured in this sliding head. Consequently the torch may be elongated or shortened by moving one section of the stock or body relatively to the other. When adjusted, friction may serve to maintain the parts in the new relation; or a clamping-screw or other device may be employed to do this.

Except in respect to the parts heretofore described, the torch illustrated in Figs. 4 and 5 may correspond with that first described. In Figs. 4 and 5 I have shown the hand-piece D′ destitute of the socket d^2, but provided on the end with a roughened surface d^3 for igniting matches.

In each example of the improvement the drawer may be secured in place in the stock or body by friction or otherwise. In the present instance I have shown the hand-piece as provided with an inwardly-pressed or indented longitudinal rib d^4 engaging with a corresponding groove a^5 in the stock or body. These parts will indicate the position in which the drawer is to be inserted and aid in securing it in place.

The drawer when made of sheet metal will have resilient sides, and these sides are intended to fit tightly within the stock or body.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an igniting-torch, the combination of a stock or body, a telescopic or adjustable stem-section, and a telescopic or adjustable tube for the igniting material, substantially as specified.

2. In an igniting-torch, the combination of a stock or body, a telescopic or adjustable stem-section provided with a wrench or key, and a telescopic or adjustable tube for the igniting material, said tube being secured to the said stem, substantially as specified.

3. In an igniting-torch, the combination of a stock or body, a stem secured to the same and having a telescopic or sliding section provided with a wrench or key, a tube secured to said stock or body for the igniting material, and a telescopic or sliding tube fitting the latter, said telescopic or sliding tube being secured to the telescopic or sliding section of the stem, substantially as specified.

4. In an igniting-torch, the combination of a tube provided with a longitudinal slot, a stock or body provided with a corresponding longitudinal slot, and a telescopic or sliding tube fitted to the tube first named and having a corresponding longitudinal slot, substantially as specified.

5. In an igniting-torch, the combination, with a common stock or body forming a handle, of two tubes for igniting material, communicating with the stock or body, and a stem opposite the two tubes and supporting the same, substantially as specified.

6. In an igniting-torch, the combination of a hollow stock or body and a drawer having

resilient sides fitted within said stock or body and adjustable through one end of the latter, substantially as specified.

7. In an igniting-torch, the combination of a hollow stock or body and a drawer open at the front and having at the top a strip d, substantially as specified.

8. In an igniting-torch, the combination of a hollow stock or body and a drawer open at the front and having a hand-piece constructed to slide over the outside of the end of the stock or body and engaging closely therewith, substantially as specified.

9. In an igniting-torch, the combination of a hollow stock or body provided at the lower end with a longitudinal groove and a drawer having a hand-piece constructed to fit outside the lower end of the stock or body, and provided with a longitudinal rib for engaging with a longitudinal groove of the stock or body, substantially as specified.

10. In an igniting-torch, the combination of a stock or body and a drawer fitted thereto and provided with a socket d^2, substantially as specified.

11. In an igniting-torch, the combination of a tube for a taper and a slide S, provided with bosses s^3, substantially as specified.

12. In an igniting-torch, the combination of a tube for accommodating a taper and having a longitudinal slot wider at one end than the other and a slide having portions working through the slot and provided with bosses s^2 and jaws, substantially as specified.

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