

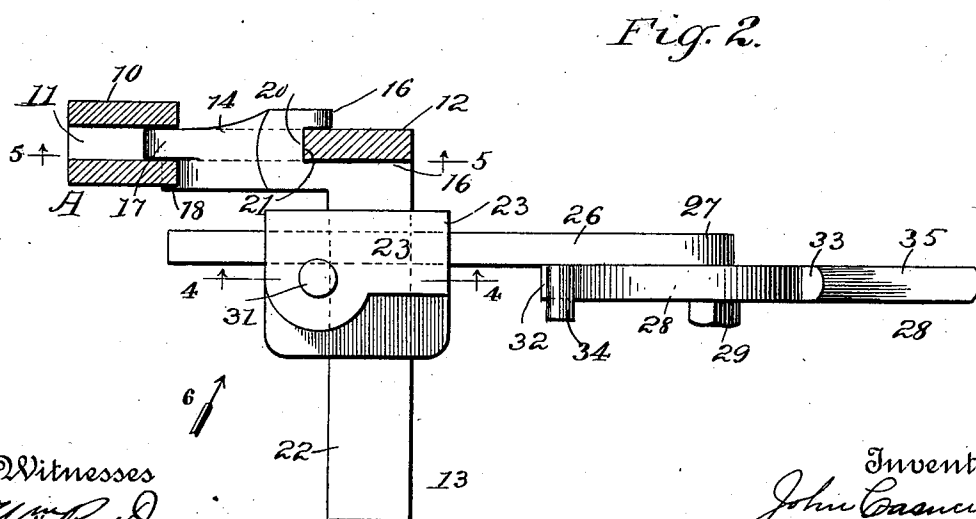
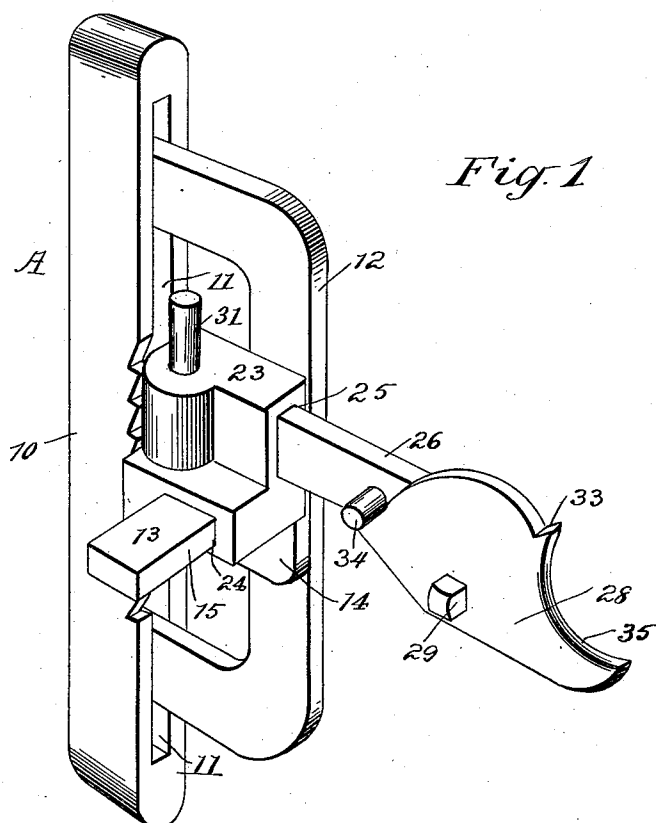
(No Model.)

3 Sheets—Sheet 1.

J. CASNER.
TREEFUES FOR GLASSBLOWERS.

No. 509,195.

Patented Nov. 21, 1893.



Witnesses
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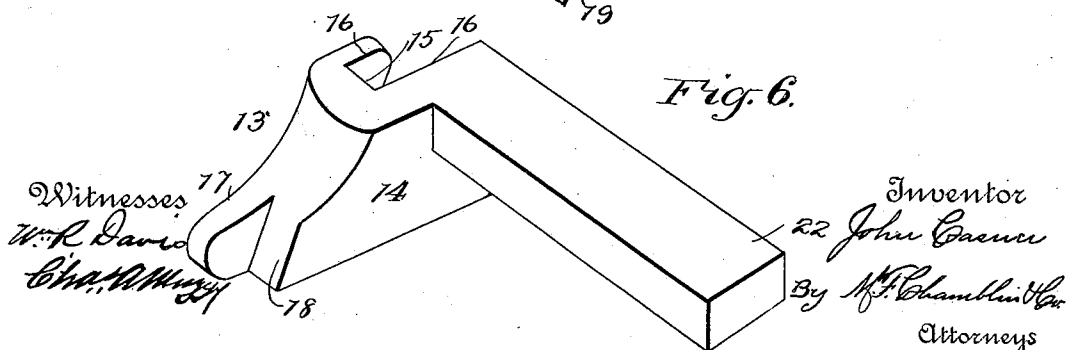
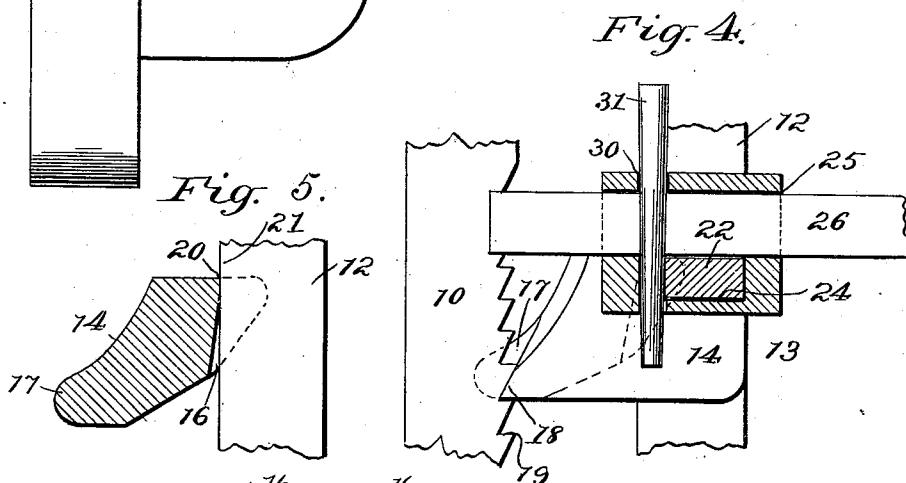
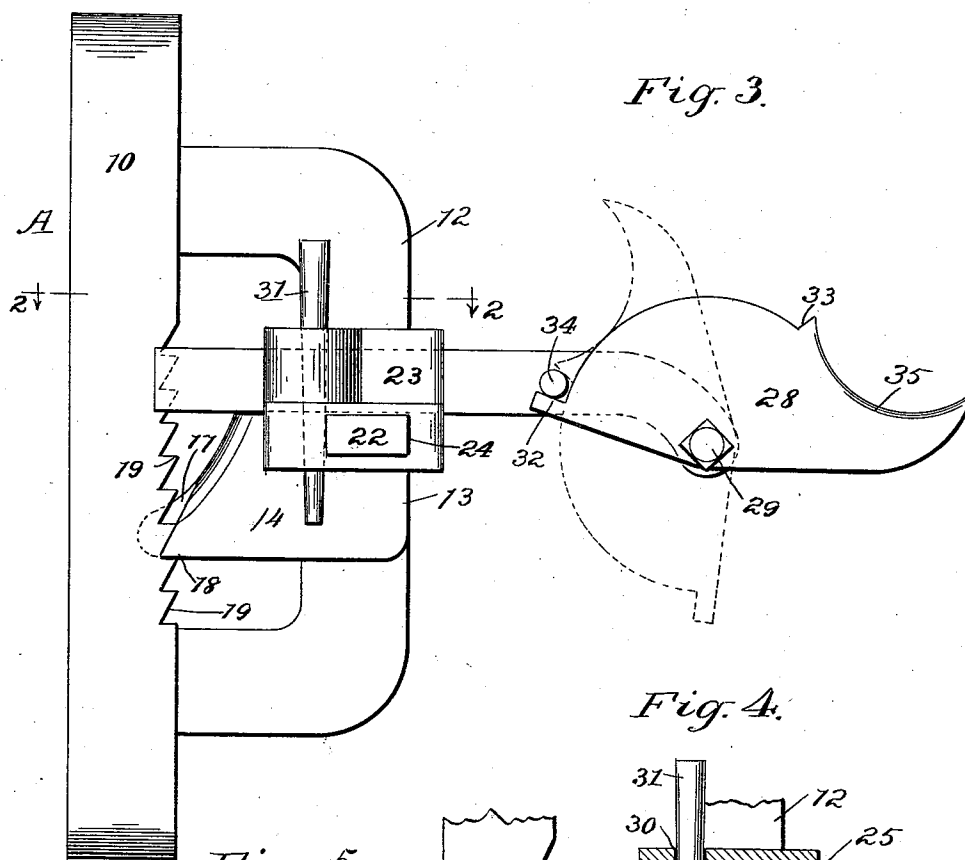
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3 Sheets—Sheet 2.

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Witnesses

Wm. B. Davis

Li + HCl

Inventor _____

22 John Casner

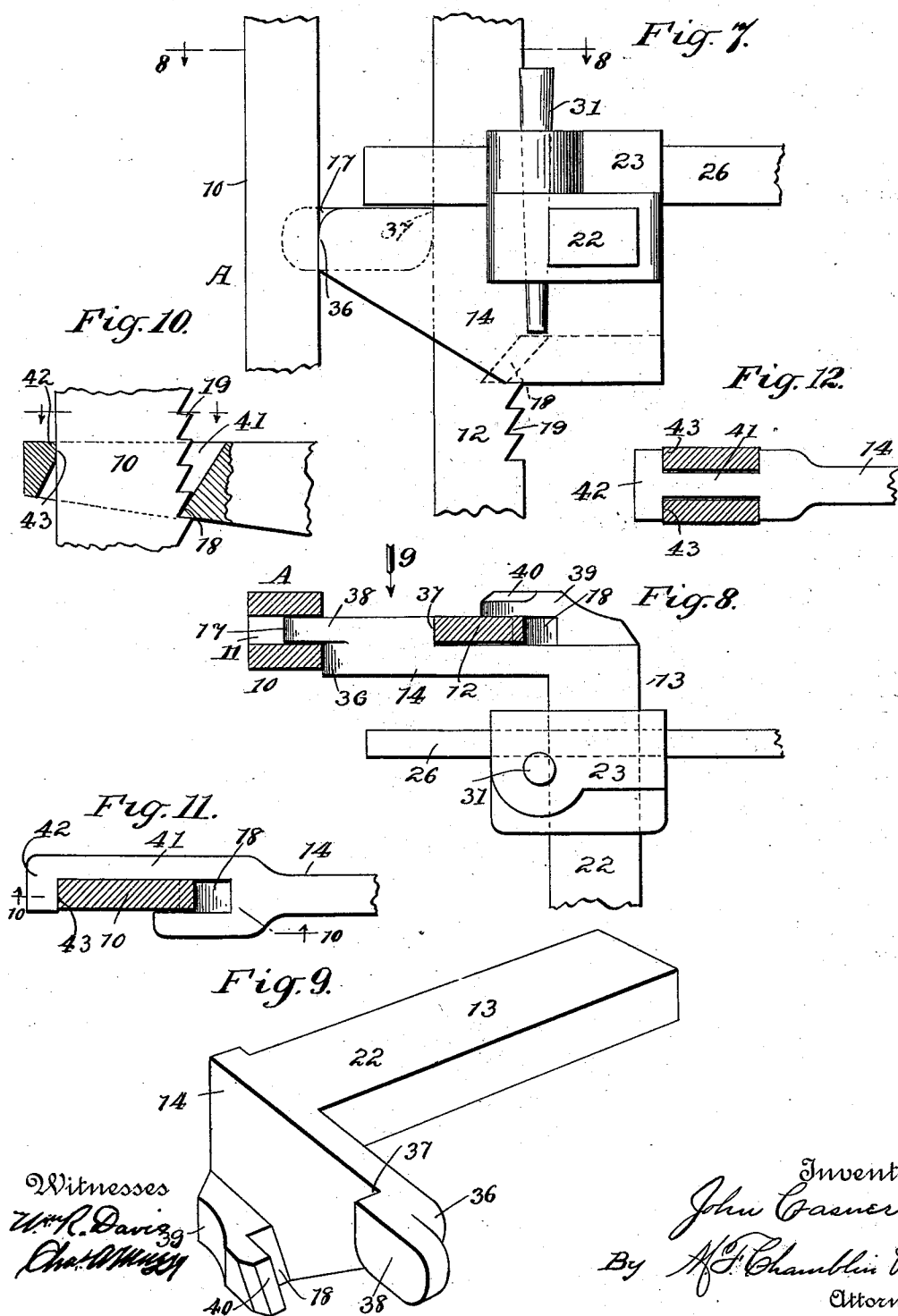
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UNITED STATES PATENT OFFICE.

JOHN CASNER, OF FINDLAY, OHIO.

TREEFUE FOR GLASS-BLOWERS.

SPECIFICATION forming part of Letters Patent No. 509,195, dated November 21, 1893.

Application filed March 25, 1893. Serial No. 467,562. (No model.)

To all whom it may concern:

Be it known that I, JOHN CASNER, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented certain new and useful Improvements in Treefues for Glass-Blowers; 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 relates to improvements in treefues, and has for its object to provide a set or rest for glassblowers' tubes when placed within the furnace for heating the glass to be blown.

Further objects of my invention are to provide a device which is simple and durable in construction; which may be readily adjusted in the required direction; and which has no bolts or screws to secure the parts when in the proper position.

The invention consists preferably of a frame having a slotted upright with a serrated or ratchet tooth surface upon the forward face thereof and a guide-bar secured to and extending outwardly therefrom, of a set-bar adapted to engage the guide-bar and the slotted upright, an adjustable block upon the set-bar, and a rest pivotally secured to a bar, the said bar being adjustable within the adjustable block.

My invention further consists in the novel construction and combination of the several parts as will be more fully set forth in the accompanying description and then pointed out in the claims.

Reference being had to the accompanying drawings and the letters and figures of reference marked thereon, Figure 1 is a perspective view of my invention. Fig. 2 is a sectional plan view on the line 2—2 of Fig. 3. Fig. 3 is a front elevation of the device. Fig. 4 is a vertical section on the line 4—4 of Fig. 2 showing the pin for locking the rest-bar, block, and set-bar together. Fig. 5 is a sectional view on the line 5—5 of Fig. 2 showing the portion of the set-bar which engages the guide-bar and the slot in the upright. Fig. 6 is a perspective view of the set-bar looking

in the direction of arrow 6 of Fig. 2. Fig. 7 is a fragmentary portion of a modified form of my invention in which the serrated surface is upon the guide-bar, the set-bar being of a construction suitable to this change. Fig. 8 is a section on the line 8—8 of Fig. 7. Fig. 9 is a perspective view in the direction of the arrow 9 of Fig. 8. Fig. 10 is a fragmentary sectional view of a modified form on the line 10—10 of Fig. 11. Fig. 11 is a sectional plan view on the line 11—11 of Fig. 10. Fig. 12 is a sectional plan view of a modified form of my invention.

Referring to the drawings A is a frame located at a proper distance from the glass furnace and having an upright 10 provided with a slot 11 which slot serves as a guide for the end of the set-bar to be explained hereinafter. Secured to the upright within the slot 11 is an outwardly-extending U-shaped guide-bar 12 upon which slides the set-bar 13. The set-bar 13 has the head 14, the said head having the groove 15, the sides 16 of which bear against the sides of the guide-bar 12. The end 17 of the head of the set-bar enters the slot 11 of the upright, which together with the sides 16 of the groove serves as a guide for the set-bar while adjusting the same. The head is further provided with a V-shaped tooth 18 which engages the saw-like teeth or notches 19 of the upright 10. The said V-shaped tooth 18 when engaging the serrations of the upright 10 forms a pivot and a bearing surface for the head of the set-bar. The inner edge 20 of the groove 15 bears against the inner edge 21 of the guide-bar 12, the said edge 20 tapering somewhat to allow the set-bar to be tilted so that it may be readily adjusted. The V-shaped tooth of the head and the inner edge of the groove 15 together with the guides serve to securely lock the set-bar in the desired position when a pressure is brought to bear upon the set-bar. Extending outwardly from the head of the set-bar is the bar 22, preferably rectangular, upon which is slidably held the block 23, the said block having the slot 24 by means of which the block slides upon the bar 22. The block is further provided with a slot 25 extending transversely

of the slot 24 and located just above the latter. Slidingly held within the slot 25 is a rest-bar 26 having its outer end 27 bent downward and having pivotally connected thereto the rest 28 by means of the bolt 29.

The means for securing the block 23 to the set-bar and the rest-bar to the block is most clearly shown in Figs. 2 and 4. The block is provided with an aperture 30 into which is adapted to fit the tapering pin 31. The aperture is located to the side of both of the slots and intersects said slots to a slight degree, so that when the pin 31 is forced downward it has a wedge-like action upon the sliding parts thus securely binding them together.

The rest 28, previously referred to, is provided with the lugs 32 and 33, the said lugs adapted to bear against a pin 34 located upon the rest-bar 26, as shown in full and dotted lines in Fig. 3. Extending from the lug 33 to the end of the rest is the concaved edge 35, which when in a position as shown in full lines in Fig. 3, receives whatever may be placed thereon, the dotted lines indicating the position of the rest when not in use.

I wish it to be distinctly understood that I do not confine myself to the exact construction shown, as this may be varied without departing from the spirit of my invention.

In Figs. 7, 8, and 9 I have shown a modified form in which the saw-like teeth 19 are placed upon the outer edge of the guide-bar 12. The head of the set-bar 13 is varied accordingly having the rounded end 36 bearing against the face of the upright and the rounded end 37 of the projecting portion 38 adapted to bear against the inner edge of the guide-bar, the end 17 of the projecting portion 38 entering the slot 11 of the upright the same as in the preferred form. To the extreme lower end of the head 14 and upon the same face as that of 38 is the projection 39 having the V-shaped tooth 18 to engage the serrations of the guide-bar, also the extending end 40 bearing upon the side of the guide-bar and forming a guide for the set-bar.

In Figs. 10 and 11 the frame A consists simply of the upright 10 with the usual notched or serrated surface 19, which is adapted to engage the tooth 18 of the head of the set-bar. The end 41 of the head, extends sufficiently to allow for the projection 42 bearing upon the rear edge 43 of the upright 10. The head is further provided with the usual guide as an aid for adjusting the set-bar.

In Fig. 12 the construction shown is substantially the same as in Fig. 10, excepting the upright 10 of the frame A is constructed the same as in the preferred form. The end 41 in this case passes through the slot 11 of the upright while the projection 42 extends on each side of the end 41 bearing against the rear edge of 43 of the upright.

In operation to adjust the set-bar the head 14 is slightly tilted to disengage the V-shaped

tooth 18 from the serrations 19; the set-bar may then be raised to the required height, the end 17 and the groove 15 serving as guides therefor as previously explained. By bringing the head in a horizontal position the tooth will re-engage one of the serrations and by means of the guides and the bearing surface 20 of the groove, will firmly lock the set-bar to the upright and guide-bar. Should the block 23 need adjusting upon the set-bar or the rest-bar need adjusting within the block the pin 31 will readily admit of this. By loosening the pin the block and the rest-bar will be released, and by forcing the pin into the aperture the parts are securely held together by the binding action of the surface of the pin upon the respective parts.

Having thus fully described my invention, what I claim is—

1. The combination with a frame having a serrated or notched surface upon a portion thereof, of a set-bar comprising a head and an outwardly-extending bar secured thereto, the said head being provided with a tooth for engaging the serrations or notches of the frame and having guides and bearing surfaces to engage the frame, a block slidingly held upon the outwardly-extending bar and means for securing the block to said bar, substantially as described.

2. The combination with a frame, of a set-bar comprising a head and an outwardly-extending bar 22 secured to said head and means as described for securing the set-bar to the frame, a block slidingly held upon the bar 22, a rest-bar slidingly held within the block, of means as described for locking the rest-bar to the block and the block to the set-bar, substantially as described.

3. The combination with a frame comprising an upright and a guide-bar and having a slot and a serrated or notched surface upon the upright, of a set-bar comprising a head and an outwardly-extending bar, the said head having a tooth to engage the serrations of the upright, guides upon the head adapted to engage the guide-bar and the slot of the upright, bearing surfaces upon the head for engaging the frame, a block carrying a rest-bar slidingly held upon the outwardly-extending bar and means for securing the block to the bar substantially as described.

4. The combination with a set-bar and a frame and means for securing the set-bar to the frame, of a block having a slot engaging the bar of the set-bar and slidingly held upon said bar, a slot in the block adapted to receive a rest-bar, an aperture in the block, a pin adapted to fit into the aperture, the said pin having a wedge-like action against the side of the aperture of the block and the side of the bars for securing the block and bars together, substantially as described.

5. The combination with a rest-bar and a frame and means for securing the rest-bar to

the frame, of a rest pivotally connected to the rest-bar, the said rest having stops to engage the rest-bar to limit the movement of the rest, substantially as described.

5 6. The combination with a frame and a rest-bar and means as described for securing the rest-bar to the frame, of a rest, as 28, having lugs to engage a pin upon the rest-bar, a

concaved bearing surface upon the rest, substantially as described.

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

JOHN CASNER.

Witnesses:

ARTHUR H. JONES,
GEORGE BENGE.