

(No Model.)

L. STUCK.

FOOT REST.

No. 360,487.

Patented Apr. 5, 1887.

Fig. 2.

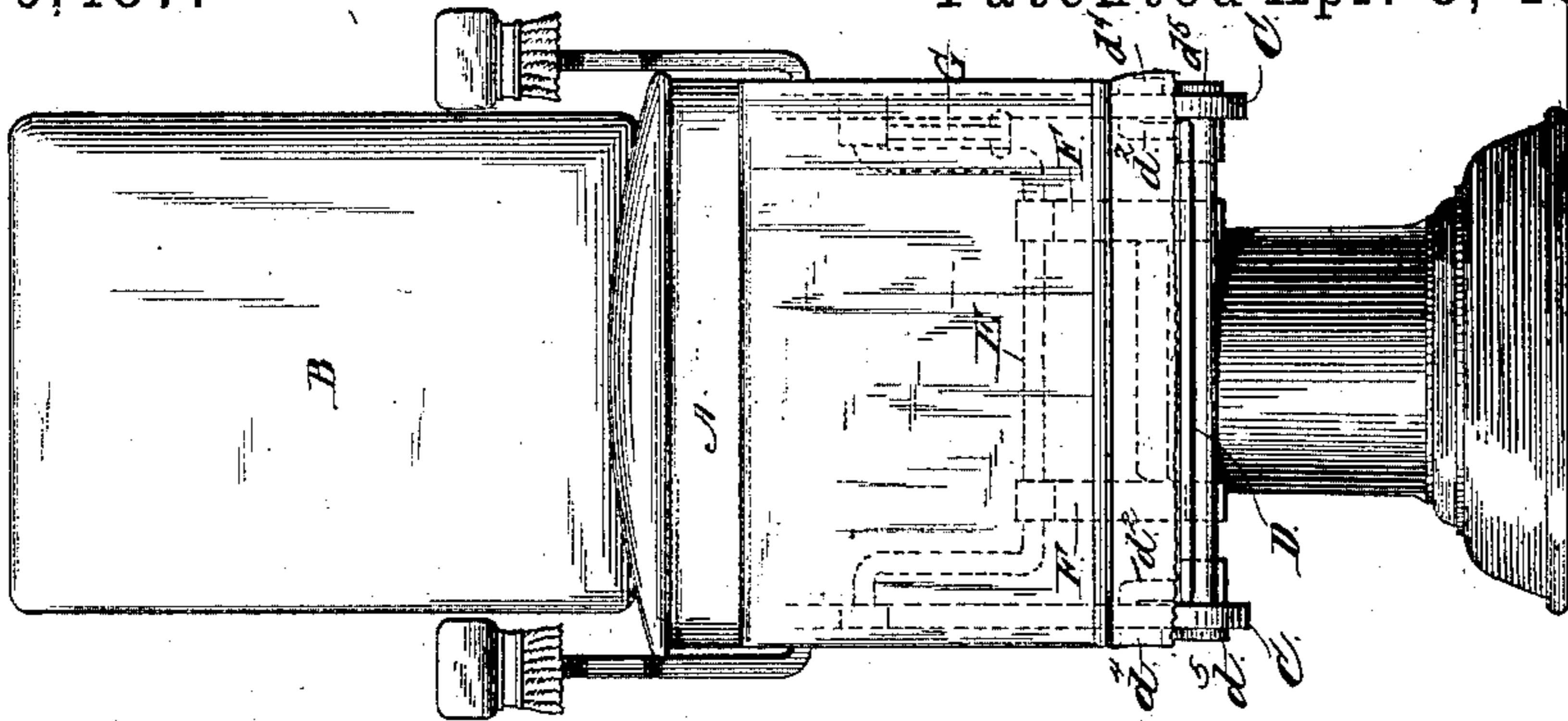


Fig. 3.

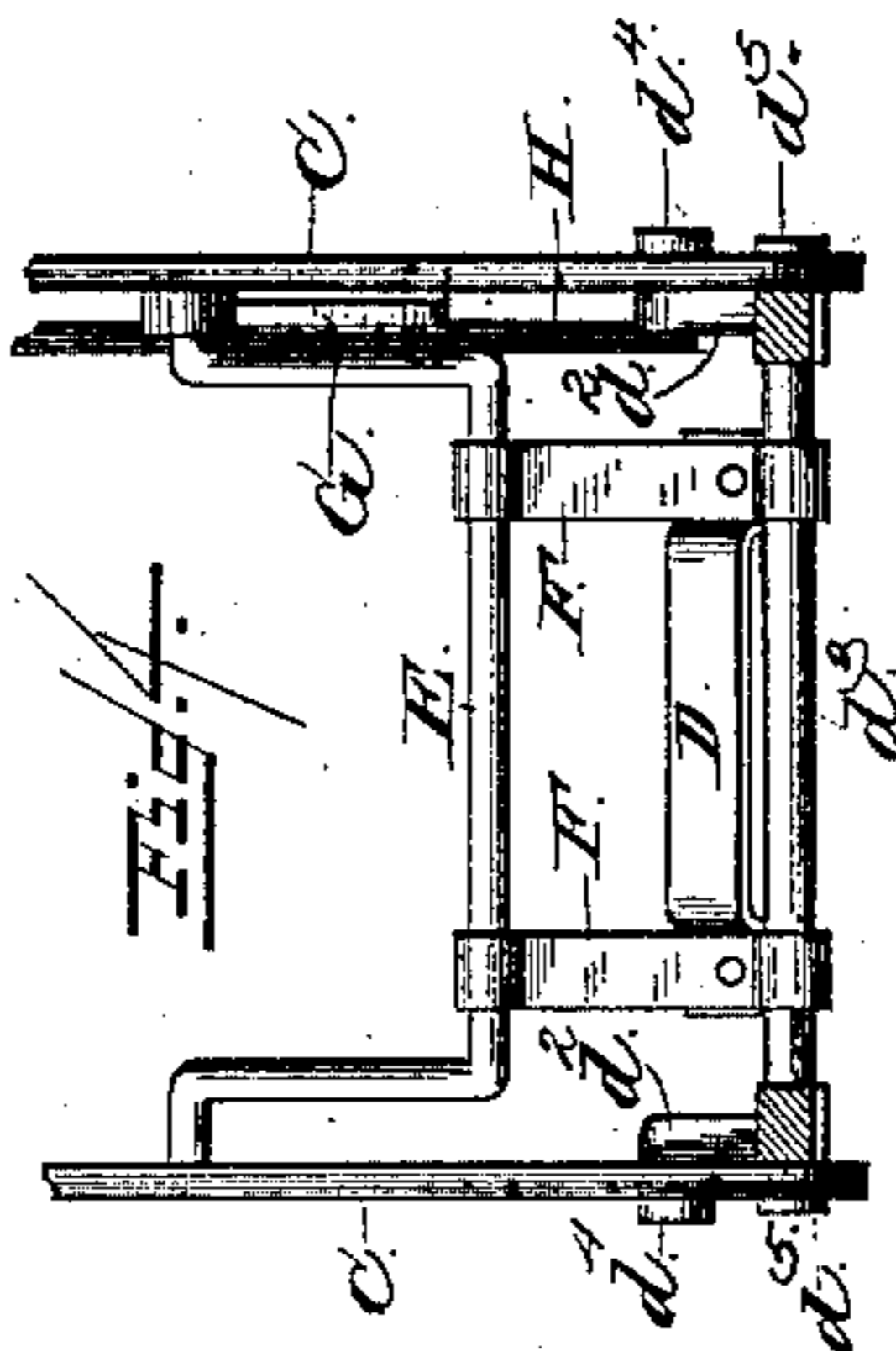
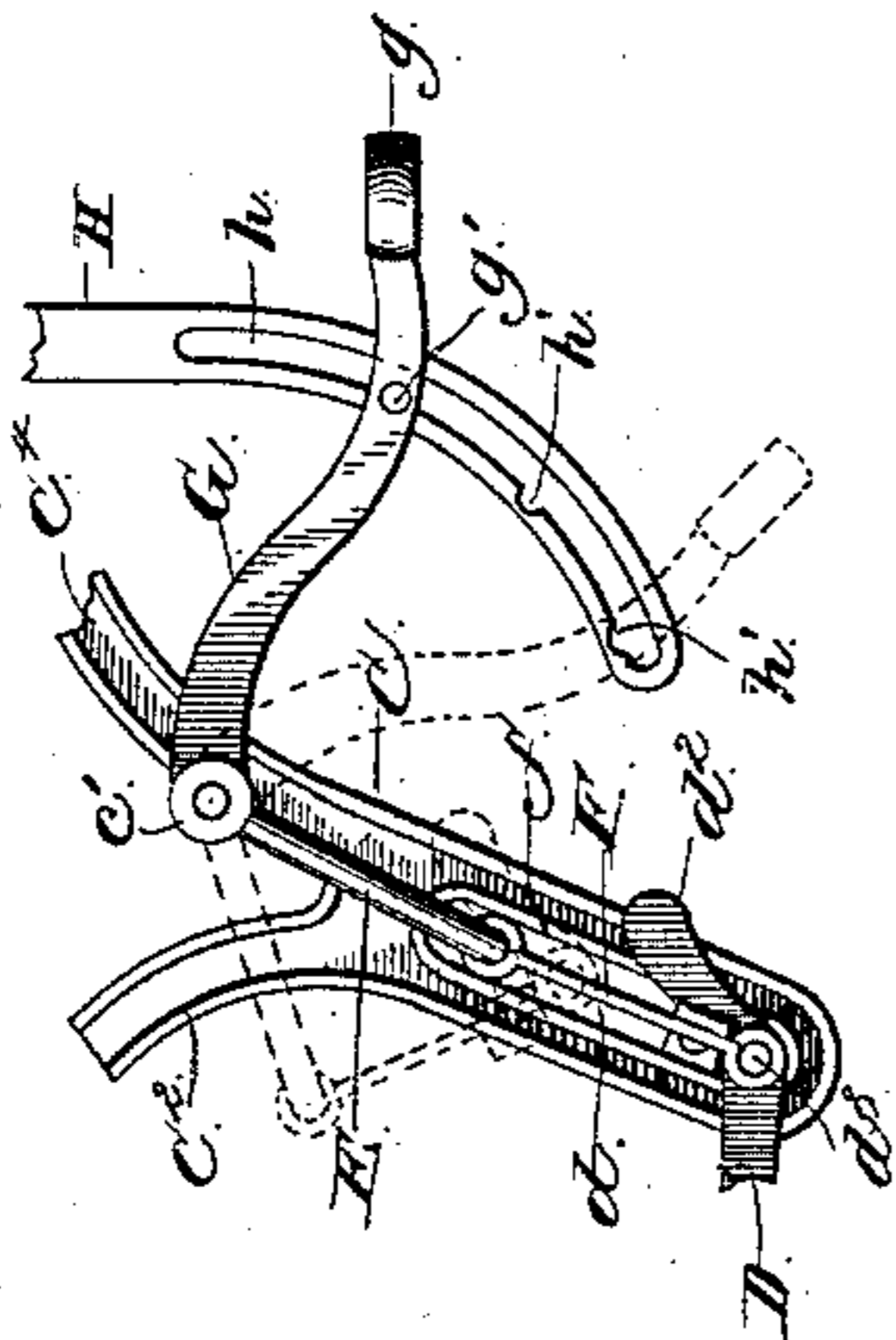
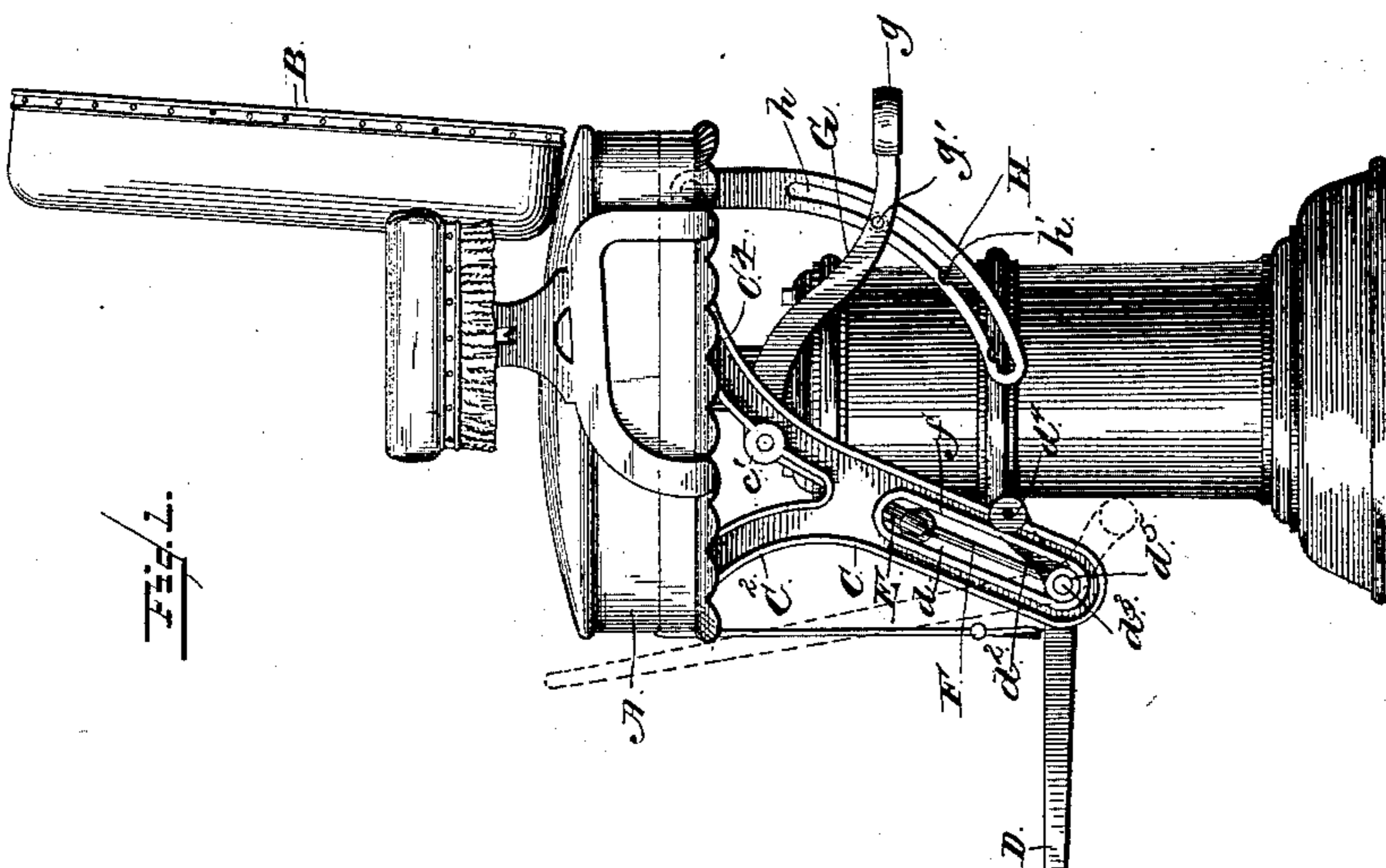


Fig. 1.



Witnesses
M. E. Fowler
E. G. Siggers

Inventor
Levi Stuck
By his Attorneys
C. A. Howard & Co.

UNITED STATES PATENT OFFICE.

LEVI STUCK, OF HART, MICHIGAN, ASSIGNOR TO THE S. S. WHITE DENTAL MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA.

FOOT-REST.

SPECIFICATION forming part of Letters Patent No. 360,487, dated April 5, 1887.

Application filed September 4, 1886. Serial No. 212,720. (No model.)

To all whom it may concern:

Be it known that I, LEVI STUCK, a citizen of the United States, residing at Hart, in the county of Oceana and State of Michigan, have
5 invented new and useful Improvements in Foot Stools or Rests, of which the following is a specification.

My invention relates to foot-stools or foot-rests for dental or barbers' chairs, &c.; and the
10 object of my invention is to produce a foot-rest which shall be simple, durable, and easily adjusted.

To the above purpose my invention consists in certain peculiar and novel features of construction and arrangement of parts, as herein-
15 after described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in
20 which—

Figure 1 is a side elevation of a dental chair with my improved foot-stool applied thereto. Fig. 2 is a front elevation of the same, showing the improvement in dotted lines. Figs. 3 and
25 4 are detached views illustrating the foot-rest mechanism.

In the said drawings, A designates the chair-bottom, and B the chair-back, of an ordinary dental chair.

30 C C designate two brackets, bifurcated at their upper ends to form two arms, C² C⁴, the front arm, C², being secured to the under side of the chair-bottom near the front end, while the rear arm, C⁴, is secured near the rear end
35 of the chair-bottom. These brackets extend forward and downward from opposite under sides of the chair-bottom, causing the lower end of the brackets to come about on a line vertically with the front end of the bottom.
40 An elongated slot, *d*, extends upward from the lower end of said bracket nearly to the junction of the arms C² C⁴.

D designates the foot-rest, which is shown as being rectangular in form and provided
45 at its inner end with a cross-bar, *d*³. The inner ends of the side bars of the foot-rest frame are formed with upwardly-inclined extensions or cranks *d*², which extend beyond the cross-

bar *d*³, and carry rollers *d*¹ on the upper ends at the outer sides, said rollers working upon
50 the rear flanged edge, *f*, of the slots *d* in the brackets C. At the angle of union between the side pieces and cranks *d*² of the foot-rest, which is the cross-bar *d*³, are placed rollers *d*⁵,
55 which are mounted on the extended ends of said cross-bar *d*³, and work in the slots *d* of the brackets C. The relative location and action of the rollers *d*¹ *d*⁵ is such that the foot-rest will just about sustain itself at any point within its limits of movement upon brackets
60 C, whether weighted or not. The rollers *d*⁵ form what might be termed the "pivot" for the foot-rest, while the rollers *d*¹, being on the cranks *d*², come in contact with the brackets C at the flanged edge *f*, and hold the foot-rest,
65 so as to take the strain off the operating mechanism.

E designates a U-shaped rock-arm for raising and lowering the foot-rest. The cranked ends of this arm are pivoted in lugs *c*' on
70 bracket C, and the lower horizontal portion of said arm is connected by a pair of loosely-hung links, F, to the inner cross-bar, *d*³, of the foot-rest. One end of the rock-arm E has an extension-lever, G, which connects with one
75 of the cranked ends and projects rearward beneath the chair-bottom. This lever is formed at its outer end with an enlargement, *g*, for the operator's foot, and at an intermediate point with an inwardly-extending pin, *g*', for a pur-
80 pose to be presently described.

H designates a curved detent-arm, which extends downward and forward from the rear portion of the chair-bottom, and is pivoted at
85 its upper end thereto. A slot, *h*, extends nearly throughout the length of this arm, terminating at the lower end thereof, and the front margin or edge of said slot is formed with notches or rack-teeth *h*', which are engaged by
90 the pin *g*' of lever G, just referred to, thus holding said lever at any desired point of adjustment.

The operation of the above-described mechanism is as follows: In raising the foot-rest the operator places his foot upon the enlarge-
95 ment *g* of lever G, and with the toe presses

against pivoted detent-arm H, moving it forward, so that its notches or teeth h' shall disengage the pin g' of the lever. By slightly pressing upon the lever G its outer end is depressed, raising the horizontal part of rock-arm E through the links F, and raising the foot-rest D to any desired extent. The toe is now removed from detent-arm H, allowing it to swing backward and engage pin g' of lever G in one of its notches h' , and thus holding the lever against displacement. In lowering the foot-rest the operation is practically the same, excepting that the outer end of lever G is moved upward instead of downward. But little strain comes upon lever G and its connections, because, as previously stated, the relative positions of the rollers d^4 d^5 is such as to render the foot-rest practically self-sustaining upon the brackets C, whether said foot-rest be weighted or not. Consequently but little strain comes upon the operative connections of lever G, even when the foot-rest is being raised or lowered, and the entire mechanism is thus rendered very durable. The foot-rest may be turned up against the body of the chair when not in use, in order to economize space, as shown in dotted lines, Fig. 1.

It will be observed that the cranks or cranked extensions d^2 extend from the foot-rest to a point in rear of a vertical line drawn through the pivot, and also above a horizontal line drawn through the same point, when the parts are in their proper position for use. This arrangement contributes materially to the holding or sustaining of the foot-rest in a horizontal position for use, so as to take the weight and strain off the adjusting and elevating means.

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

1. In combination with suitable brackets depending from the chair body or frame, a foot-rest frame provided with rollers which bear against opposing faces of the brackets, and the elevating and adjusting means for the foot-rest frame, said rollers coming in contact with the brackets when the foot-rest frame is in position, whereby the weight and strain of the foot-rest frame is taken off the elevating and adjusting means and applied to the brackets, as set forth.

2. The combination, with suitable guide-brackets, C, depending downward from the chair-body, of a foot-rest frame, D, supported adjustably upon said brackets, a rocking arm, E, connected to said foot-rest frame, and an extension-lever, G, upon said rock-arm for operating the latter, substantially as described.

3. The combination, with suitable guide-brackets, C, depending from the chair-body, and a foot-rest frame, D, supported adjustably upon said brackets, of a rock-arm, E, having suitable connections with the foot-rest frame, an operating-lever, G, for the rock-arm, and a swinging detent to engage and hold the operating-lever, substantially as specified.

4. In combination with the brackets C, arranged at a distance apart and having slots d , the foot-rest frame having its inner end fitted in the space between the brackets, the pivots of the foot-rest frame extending from each side of the latter and pivoted in and moving up and down in the slots, cranked extensions d^2 on each side of the foot-rest frame, which cranked extensions extend across the inner sides of the brackets and bear against the rear edge thereof, and elevating and supporting means for the foot-rest frame, as set forth.

5. In combination with the brackets C on the chair-body, having the slots d , the foot-rest pivoted in and moving up and down in the slots, elevating and adjusting means for the foot-rest frame, cranked extensions d^2 of the foot-rest, which cranked extensions are arranged in rear of the pivot of the latter and bear against the brackets C when the foot-rest is in position, and a roller on the cranked extension, as set forth.

6. In combination with the brackets C, having the slots d , the foot-rest pivoted in and working up and down in the slots, the cranks or cranked extensions d^2 , extending from the foot-rest to a point in rear of a vertical line drawn through the pivot thereof and also above a horizontal line drawn through the pivot, and elevating and adjusting means for the foot-rest, as set forth.

7. In combination with the brackets C, having slots d , the foot-rest pivoted in and working up and down in the slots d , the pivots of the foot-rest having rollers d^5 , cranks or cranked extensions d^2 on the foot-rest in rear of the pivots thereof, rollers d^4 on the cranks, said rollers d^4 bearing against the brackets C, and the elevating and adjusting means for the foot-rests, as set forth.

8. The combination, with the brackets C, depending from the chair-body, of the foot-rest frame supported adjustably upon said arms, the rock-arm E, pivoted upon brackets C, the links F, connecting said rock-arm with the foot-rest, the lever G, connecting with arm E and provided with pin g' , and the pivoted detent H, having slot h and serrations h' , substantially as and for the purpose set forth.

9. In combination with the foot-rest frame D, adjustably supported in position on the chair, the rock-arm E, connected with the foot-rest frame, the operating-lever G, for the rock-arm, and a swinging detent, H, to engage the lever G and hold it in its adjusted position, as set forth.

10. In combination with the guide-brackets C, the foot-rest frame adjustably supported on the brackets, the rock-arm E, pivoted at its cranked ends to the brackets, the links F, connecting the rock-arm to the foot-rest frame, a lever, G, connected to the cranked ends of rock-arm E, and a swinging detent to engage and hold the lever G in its adjustments, as set forth.

11. In combination with the foot-rest frame

adjustably supported in position on the chair,
the operating-lever G, intermediate connec-
tions between the lever and the foot-rest frame,
and a swinging detent, H, to engage the lever
5 and hold it in its adjusted positions, said de-
tent being operated by the foot of the opera-
tor when placed upon lever G, as set forth.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
presence of two witnesses.

LEVI STUCK.

Witnesses:

JUDSON D. WILLET,
W. H. SMITH.