

(No Model.)

W. O. BERRY.
FOOT VISE FOR ANVILS.

No. 507,061.

Patented Oct. 17, 1893.

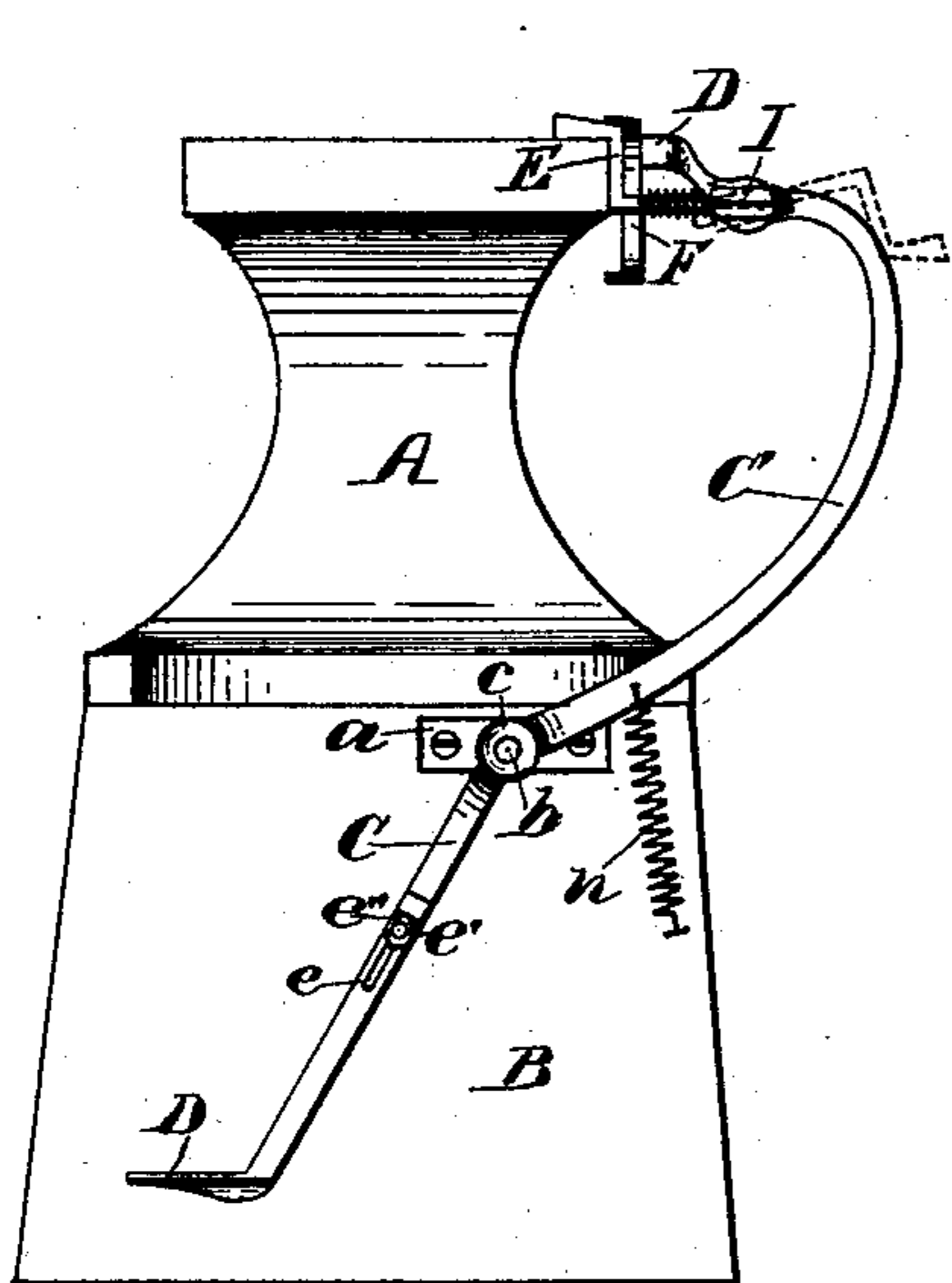


Fig. 1.

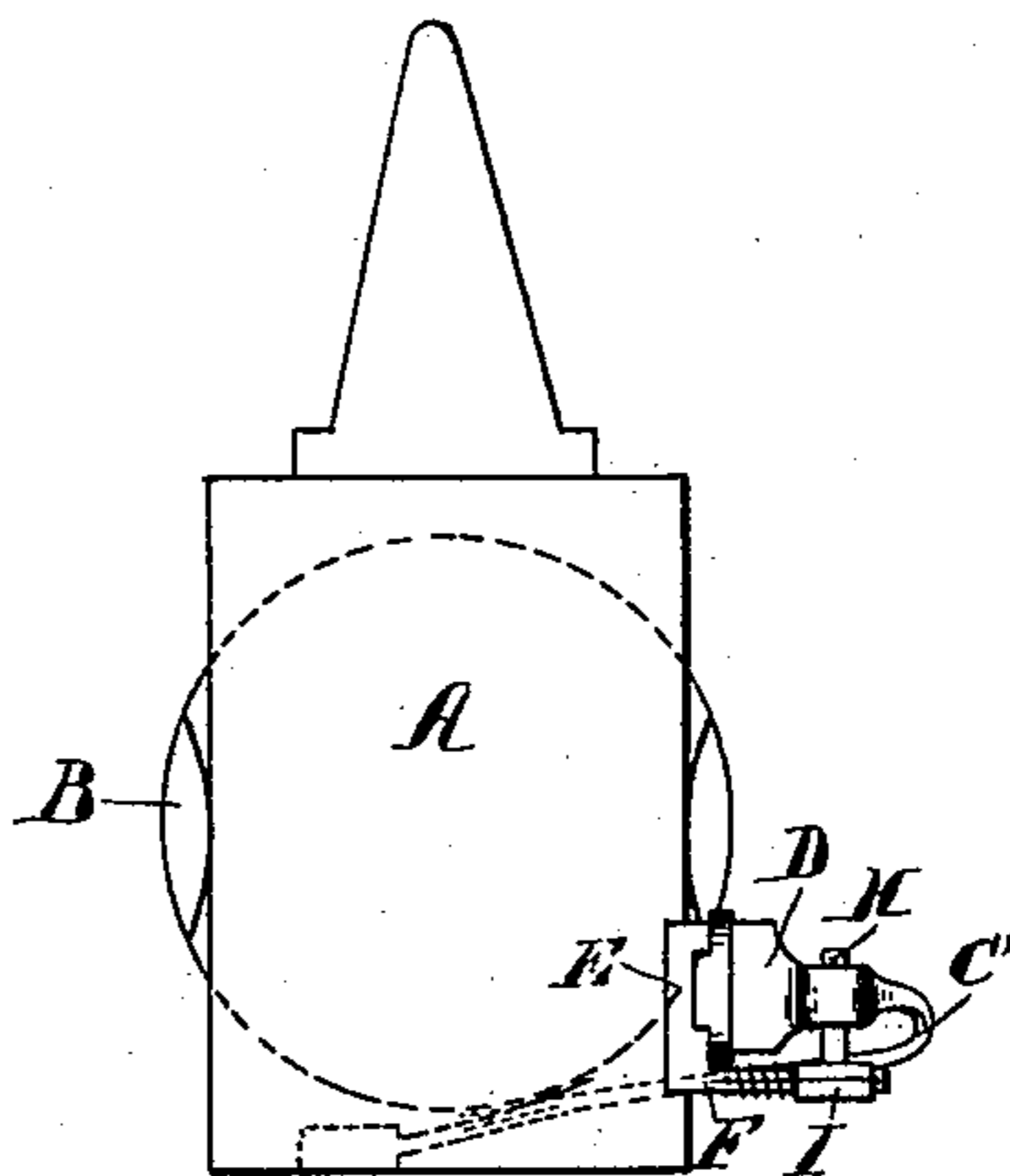


Fig. 2.

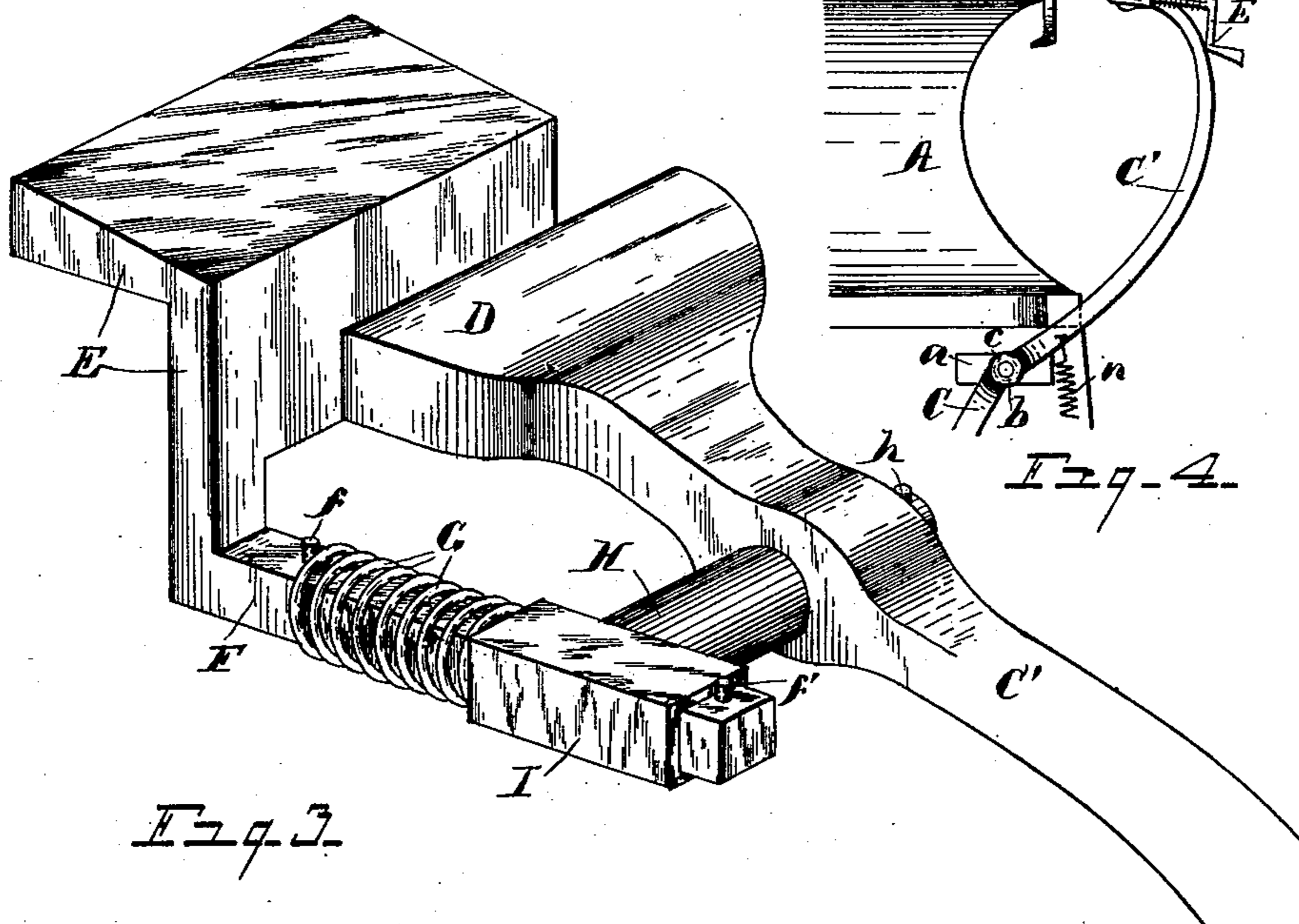


Fig. 3.

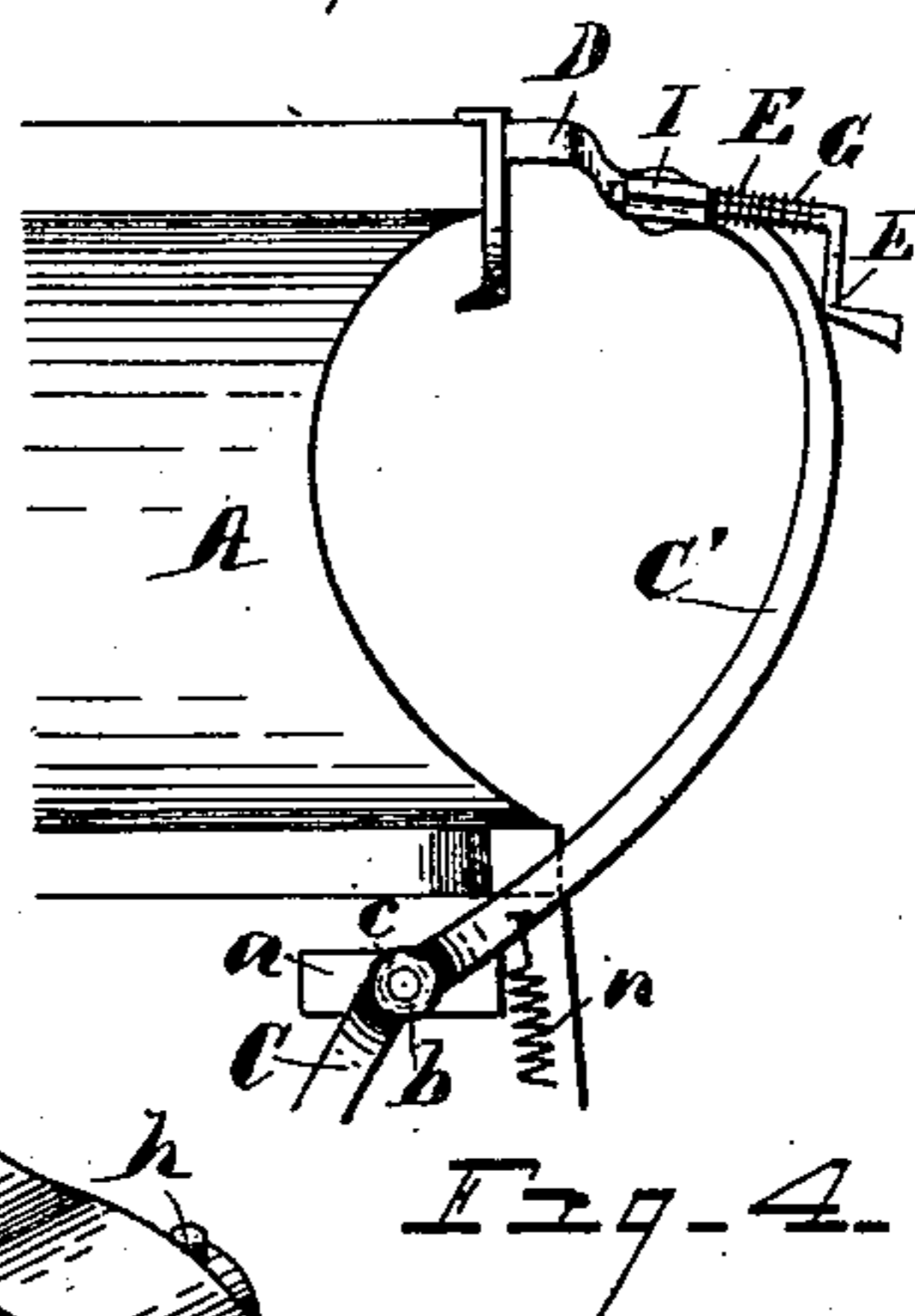


Fig. 4.

WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM O. BERRY, OF CARO, MICHIGAN, ASSIGNOR OF ONE-HALF TO
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FOOT-VISE FOR ANVILS.

SPECIFICATION forming part of Letters Patent No. 507,061, dated October 17, 1893.

Application filed March 30, 1893. Serial No. 468,401. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. BERRY, a citizen of the United States, residing at Caro, in the county of Tuscola, State of Michigan, have invented certain new and useful Improvements in Foot-Vises for Anvils; and I do 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 letters of reference marked thereon, which form a part of this specification.

The invention relates to new and useful improvements in foot vises for anvils, and it consists in a certain construction and arrangement of parts as hereinafter fully set forth, the essential features being pointed out particularly in the claims.

The object of the invention is to provide a simple and effectual foot vise for use in connection with a blacksmith's anvil, by means of which horse-shoes and similar articles may be securely held in contact with the anvil while being treated, and especially to hold the shoe in position during the operation of forming the calks thereon, the construction and operation of the device being such as not to encumber upon or detract from the utility of the anvil in its ordinary capacity.

To this end my invention consists in the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an end view of an anvil having my improved device applied thereto. Fig. 2 is a top plan of Fig. 1. Fig. 3 is a detail in perspective of the vise jaws. Fig. 4 is an end elevation of portions of the anvil and vise, showing one of the jaws swung out of engagement with the anvil.

Referring to the letters of reference, A is an ordinary anvil, and B the supporting block thereof, to the face of which the plate *a*, having the stem *b*, thereon, is secured in suitable manner.

C is a lever pivoted at *c* upon the stem *b* and carrying upon its upper end the upwardly curved arm *C'* which terminates in the enlarged head or jaw D. The lower end of the lever C is provided with the pedal *d* hav-

ing a slotted arm *e* adjustably secured to said lever by means of the bolt *e'* which passes through said parts and is confined by the lock-nut *e''*, as will be readily understood.

E is a right angled auxiliary jaw adapted to engage with and bear against the vertical and horizontal faces of the anvil on one side thereof, see Fig. 1. The upper face of the jaw E is slightly inclined toward its vertical face, and projecting at right angles from the vertical face of said jaw at one end thereof, is the square stem F, and encircling said stem and bearing against the pin *f*, is the coiled spring G. Its opposite end bears against the rectangular head I of the T-bolt H, through which the square stem E passes freely, and is held from displacement therewith by means of the pin *f'*. The stem of the T-bolt H is journaled to rotate in the arm *C'* and is secured therein by means of the pin *h*, see Fig. 3. By this construction the jaw E may be swung over the jaw D when desirous of bringing it into or out of engagement with the anvil, as shown in Figs. 1 and 4. The square stem F passing through the head I of the T-bolt H retains the jaw E in parallel line with the jaw D, and by the pressure of the coiled spring G the jaws are forced apart, as shown in Fig. 3, and in their normal position are held out of engagement with the anvil by the coiled spring *n* which is secured to the arm *C'* and to the supporting block B.

In the formation of the calks on a horse-shoe, it is desirable, for obvious reasons, to give the toe calk an outward inclination from the body of the shoe, while the heel calks are formed at right angle thereto, and which in my improved device is accomplished by placing the ends or heel of the shoe between the jaw D and the vertical face of the anvil, as shown in Fig. 2, and by applying pressure to the pedal, the shoe is firmly held in position while the calks are turned down upon the face of the anvil at right angle to the shoe. To form the toe calk, the jaw E is swung into position, as shown in Figs. 1 and 2, and is held in contact with the anvil by the coiled spring G, the body of the shoe is held against the vertical face of said jaw, by the jaw D, and the calk is turned down against the inclined face of

the jaw E, whereby it is caused to stand at an angle with the shoe. The pressure on the pedal being relieved, the jaws are forced apart by the spring G, and the shoe discharged therefrom, when the jaw E may be swung back, as shown in Fig. 4, and when the pedal is entirely relieved of pressure, the coiled spring *n* withdraws the jaws from the anvil and out of the way of the operator.

10 Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device for the purpose set forth, the combination with the pivoted foot lever carrying a jaw on the upper end thereof, the auxiliary jaw having a right angle arm pivotally coupled to said lever, said arm being also adapted to slide or reciprocate in said coupling to permit the face of said jaws to be brought together or retracted.

2. In a device for the purpose specified, in combination, the lever pivoted on the anvil, the jaw formed on the upper end of said lever, the pedal adjustably secured to said lever, the auxiliary jaw having a rearwardly

extending arm, the T-bolt journaled in said lever and receiving said arm through the cross head thereof, and the coiled spring encircling said arm and bearing against the cross-head of said bolt, as and for the purposes specified. 30

3. In a device for the purposes specified, in combination with the anvil, the upwardly curved lever pivoted thereon, the spring connected to said lever and to the anvil, the jaw formed on the curved end of said lever, the pedal adjustably secured to said lever, the auxiliary jaw having the right angled faces adapted to engage the anvil, and having also an inclined upper face, and a rearwardly extending arm carrying a coiled spring thereon, the T-bolt journaled in said lever and receiving said arm and engaging said spring, substantially as specified. 40

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

WILLIAM O. BERRY.

Witnesses:

WILLIAM WARNER,
WALTER T. YORK.