(No Model.)

C. H. SMITH.

RIVETING MACHINE.

No. 548,668. Patented Oct. 29, 1895.

Fig. 1.

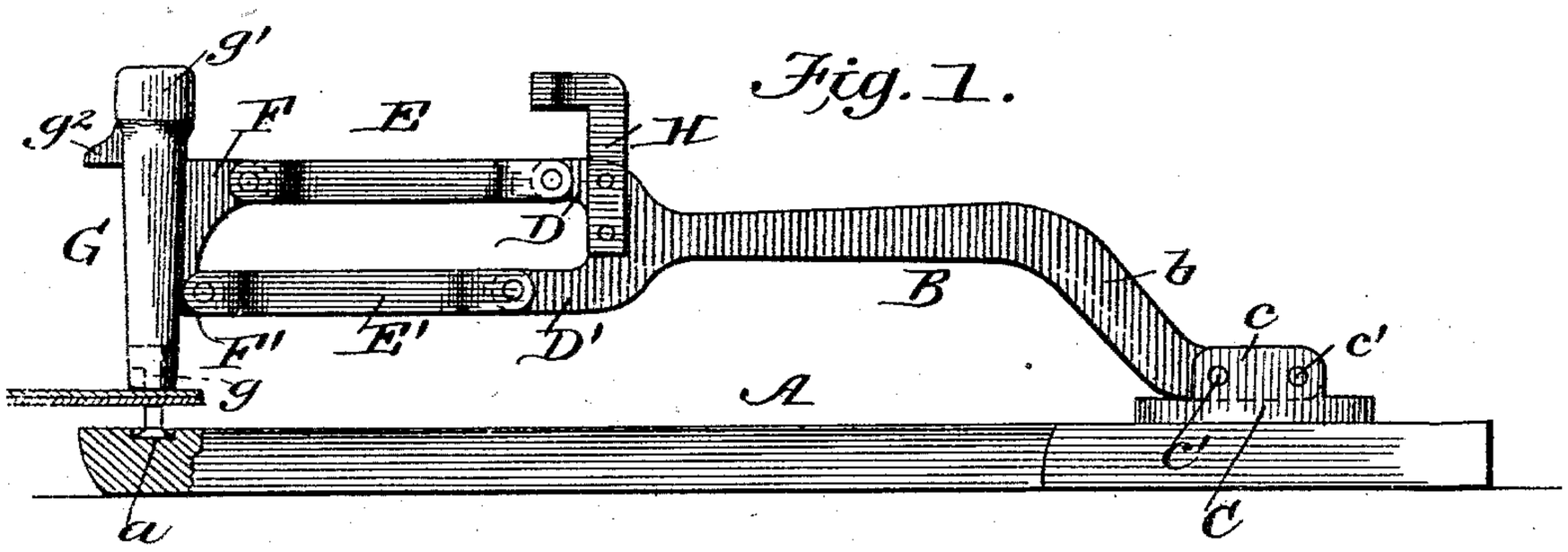


Fig. 2.

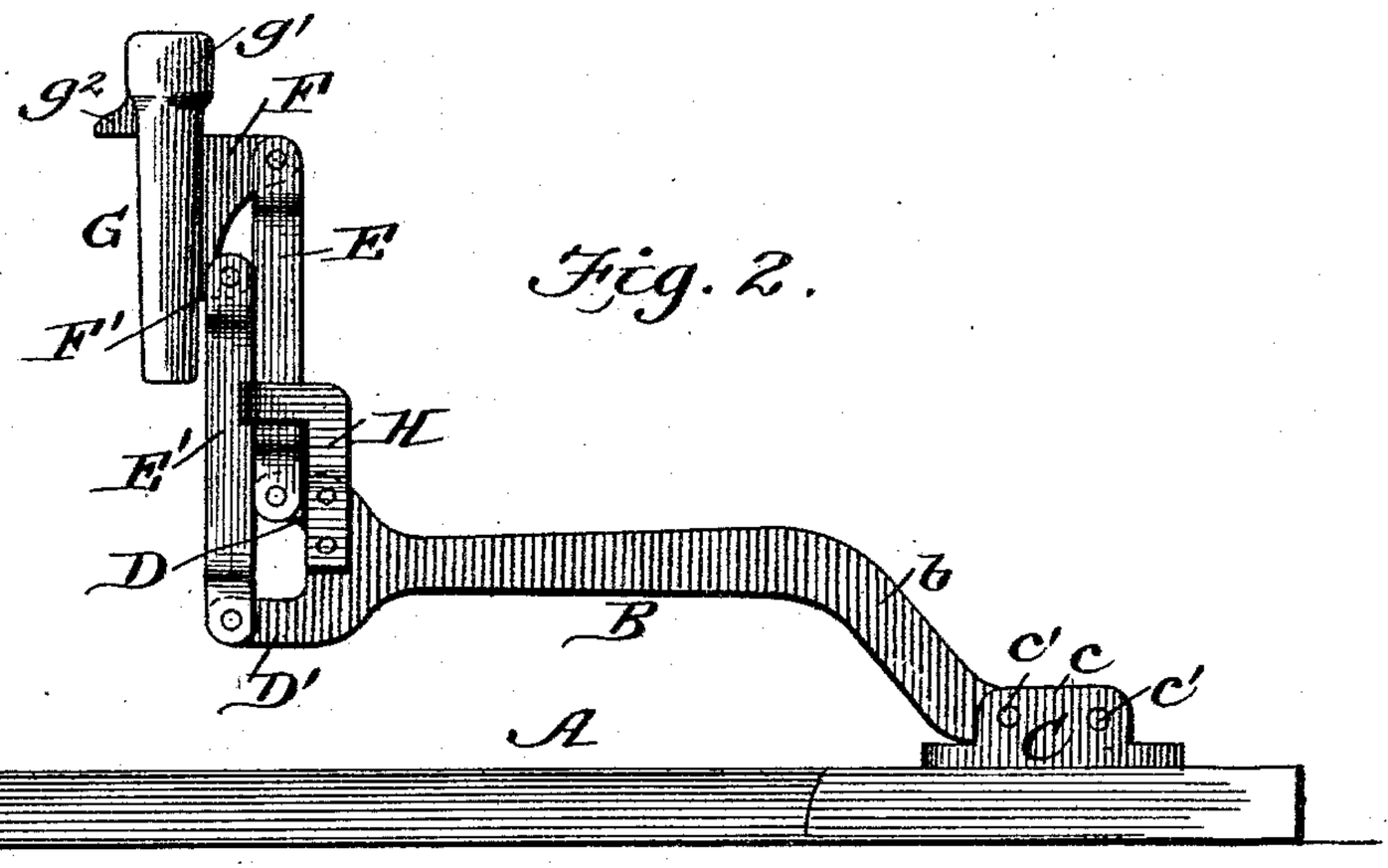


Fig. 3.

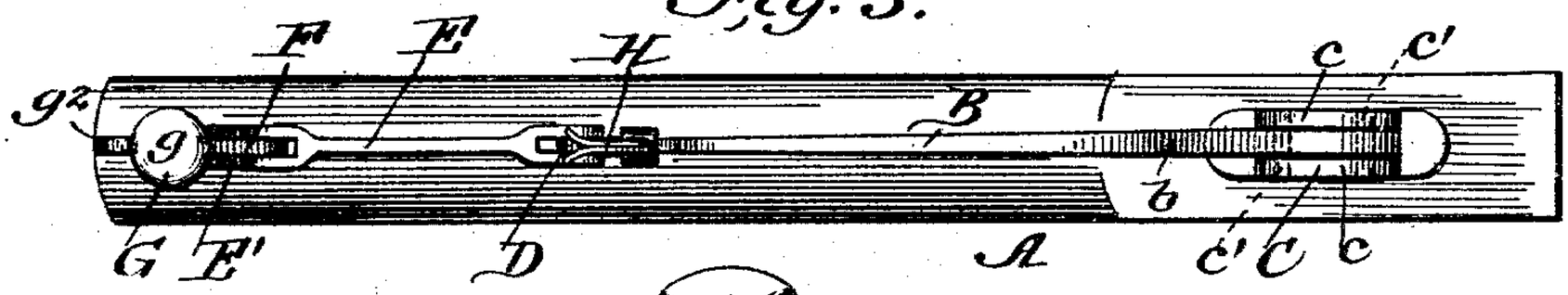
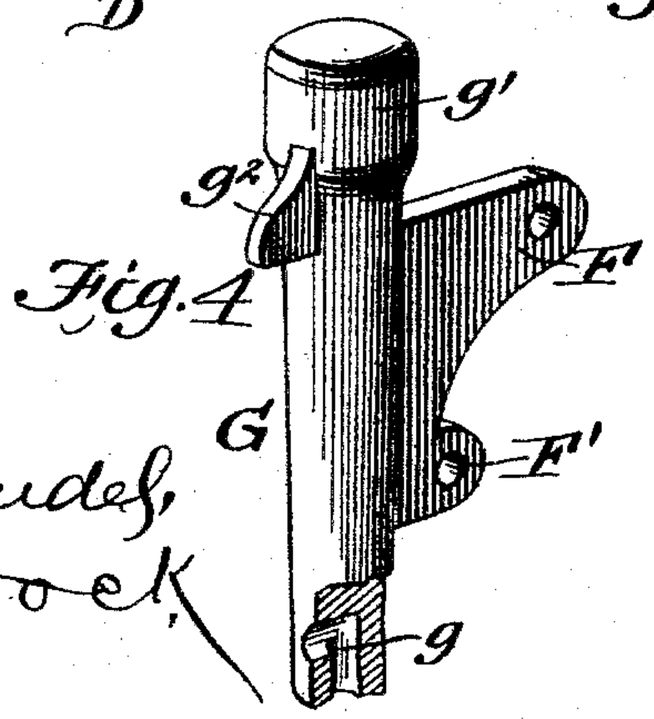


Fig. 4



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHRISTIAN H. SMITH, OF LONDON, OHIO.

RIVETING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 548,668, dated October 29, 1895.

Application filed August 10, 1895. Serial No. 558,932. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN H. SMITH, of London, in the county of Madison and State of Ohio, have invented an Improved Riveting-Machine, of which the following is a specification.

This invention is an improved riveting machine or punch, the object being to provide a cheap and simple contrivance for tinners and sheet-metal workers whereby accuracy and rapidity of work is accomplished.

Heretofore in riveting metal work, such as stovepipes and the like, great difficulty has been experienced in properly centering the punch over the rivet before the same is forced through the sheet metal. My invention obviates this objection; and it consists in the peculiar construction and combination of the various parts, as will be more fully described hereinafter, and pointed out in the claim.

In the drawings forming a part of this specification, Figure 1 shows my improved device attached to a mandrel employed by a tinner or sheet-metal worker, such view showing the punch in operative position. Fig. 2 is a similar view showing the punch raised to an inoperative position. Fig. 3 is a top plan view, and Fig. 4 is a detail view of the rivet-punch.

In carrying out my invention I generally attach the same to the inner or rear end of an ordinary mandrel A. My improved attachment comprises a fixed arm B, which normally rests in a horizontal position a short distance above the mandrel, and at its rear end is bent downwardly, as at *b*, and rests between the ears *c* of a block C, and passing through said end and ears are the pins or bolts *c'*, which securely hold the arm B within the block. The forward end of the arm B is bifurcated or forked, as shown, the outer member D being somewhat shorter than the lower member D'. Pivotally connected to the said members D and D' are the parallel link members E and E', which links are pivotally connected at their forward ends to the lugs F and F', formed integral with the rivet-punch G, said punch having a recess *g* at its lower end and head *g'* at the upper end, and the lug or nose g^2 upon the forward side near the upper end. The mandrel A has a similar recess *a* near the forward end, which is adapted to receive the head of the rivet and hold said rivet in an upright position, and when the punch is lowered, as shown in Fig. 1, said punch, with its recessed end, will rest directly over the rivet located in the recesses in the mandrel.

The sheet metal to be riveted is of course placed between the rivet and punch before said punch is lowered, and by giving a sharp blow on the head of the punch the riveting act can be quickly accomplished and no time will be lost in centering the punch over the rivet, as the link-arms act as a gage and properly guide the punch directly over the rivet. After the riveting operation has been accomplished the punch can be raised by giving a sharp tap or blow upon the forwardly-projecting nose of the punch, and in order to hold the punch in an elevated position while arranging the rivet and sheet metal I provide the spring-arms H, which are attached to each side of the arm B just in rear of the fork, said arms being so shaped as to normally rest in contact with each other, and at their forward ends are spread slightly apart in order to permit the upper link E to readily pass therebetween; and after said link has been passed between said spring-arms the force of the spring will be sufficient to hold the said link in such a position, and thus maintain the punch in an elevated position.

I have shown the spring-arms H as right-angled in shape, but any other form could be used, provided the clamping-jaws thereof project sufficiently forward to permit the link to be passed therebetween.

Whenever it is desired to use the mandrel without my improved riveting punch or gage, another device can be attached by removing the bolts D and withdrawing the end of the arm B from the block C.

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

The combination with the mandrel, of a block arranged thereon, having parallel ears, the arm having its rear end secured in said block, the forward end of said arm being bifurcated, a link pivotally connected to each member of the forward end, and punch, having lugs upon its rear side to which the links

are pivotally connected, a nose upon its forward side, and the spring actuated clamping arms attached to the link carrying arm, to the rear of the bifurcation, said spring arms being adapted to receive one of the links to hold the punch in an elevated position, substantially as shown and described.

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

CHRISTIAN H. SMITH.

Witnesses:
M. S. MURRAY,
ROSE MURRAY.