

(No Model.)

W. R. WEBSTER.

RIVETING MACHINE.

No. 300,174.

Patented June 10, 1884.

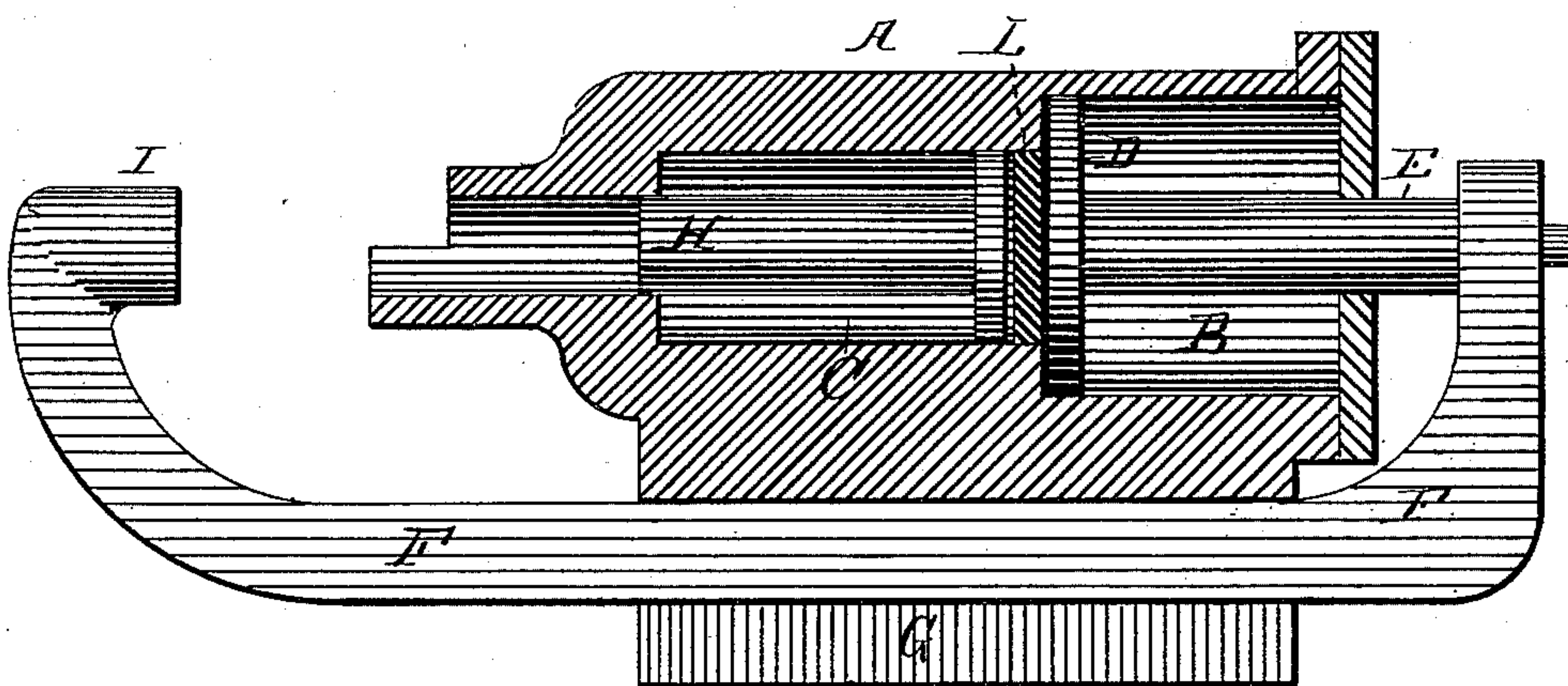


Fig. 1.

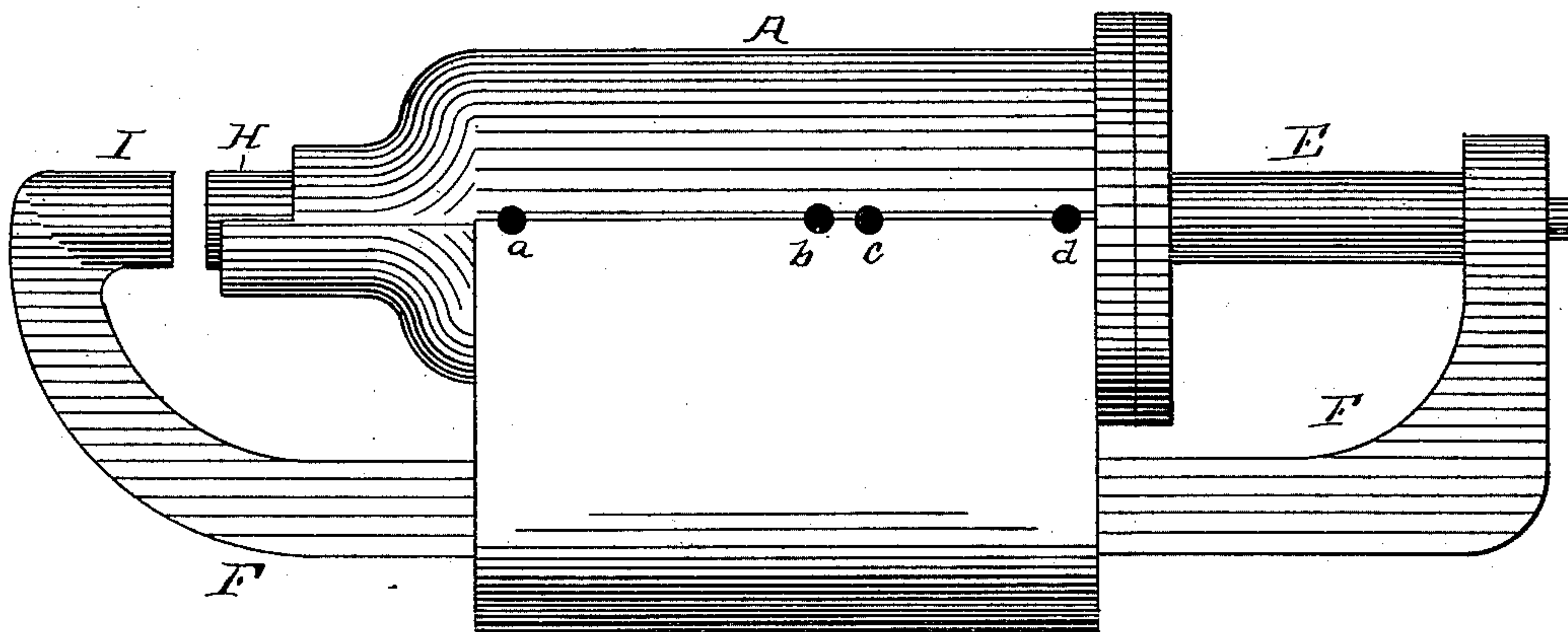
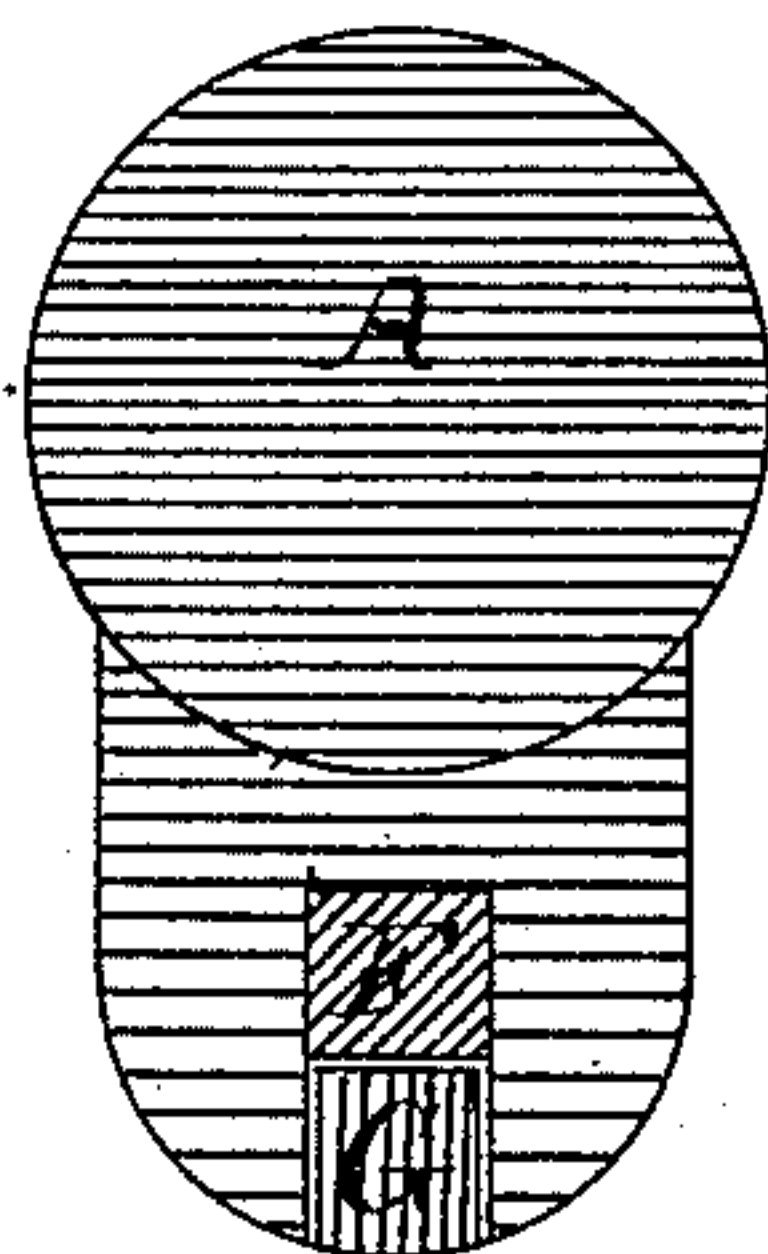


Fig. 2.

Fig. 3.



WITNESSES:

Theodore Bergner.
Louis Kuebler.

INVENTOR

William R. Webster
by his attorney
Chas. A. Rutter.

UNITED STATES PATENT OFFICE.

WILLIAM R. WEBSTER, OF ATHENS, PENNSYLVANIA.

RIVETING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 300,174, dated June 10, 1884.

Application filed September 11, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. WEBSTER, a citizen of the United States, and a resident of Athens, Bradford county, Pennsylvania, have invented a new and useful Improvement in Steam or Pneumatic Riveting-Machines, of which the following is a specification.

The object of my invention is to provide a compact, effective, and inexpensive riveter for use on bridges and other similar work where the ordinary riveters, owing to their size and weight, cannot be well used.

In the accompanying drawings, forming part of this specification, and in which similar letters of reference indicate like parts throughout the several views, Figure 1 represents a vertical central section, and Fig. 2 a side elevation, of my invention; and Fig. 3, an end view of the cylinders.

As will be seen from the drawings, my riveting-machine is furnished with two cylinders, B and C, which are both bored out of one piece of metal, A. The cylinder C is furnished with a piston, H, the piston-rod itself forming the hammer; or, if preferred, the head of the hammer may be a separate piece of metal secured in any suitable manner to this piston-rod. In the drawings the piston-rod is represented as forming the hammer-head. The cylinder B is furnished with a piston, D, the piston-rod E being directly attached to an arm, F, which draws up and holds the rivet in place while the head is being formed. This arm F is preferably guided by passing through a slot or guide, G, in the casting A, and its shape may be varied to suit different kinds of work.

L is a plug or partition which operates the cylinders B and C.

a b c d are ports for the admission of steam or air to the cylinders B and C, which are opened and closed by means of any suitable

valves, which are not shown, their operation and construction being well known.

The air or steam may be conducted to the machine through any system of flexible pipes.

The operation of my device is as follows: The rivet being in its place in the plates to be riveted, the head I on the arm F is placed against the back of the rivet, and air or steam is introduced into the cylinder B, which drives the piston D and arm F up and holds the rivet up to the plates. The air or steam is now admitted to the cylinder C, and causes, through the piston H and piston-rod, a number of sharp blows to be given to the rivet, which forms the head. After the head of the rivet is formed, the air or steam is allowed to escape from the cylinder B, and the riveter may be removed from the work.

Having thus described my invention, I claim—

1. The herein-described riveting-machine, consisting of the cylinders B and C, having a common axis, and each furnished with a piston, the smaller piston acting as a hammer for forming the head of the rivet, and the larger one acting upon an arm, F, one end of which is fastened to the piston-rod E, and the other end of which is in front of the hammer end of the smaller piston H, and holds the rivet in place while being struck by piston H, substantially as set forth.

2. The combination, in a riveting-machine, of the cylinders B and C, piston-rod and piston-head H, piston-head D, piston-rod E, arm F, attached to piston-rod E and furnished with a head, I, and guide G, for guiding said arm F, all arranged and operating substantially as set forth.

WM. R. WEBSTER.

Witnesses:

N. C. HARRIS,
GEO. E. DAVIS.