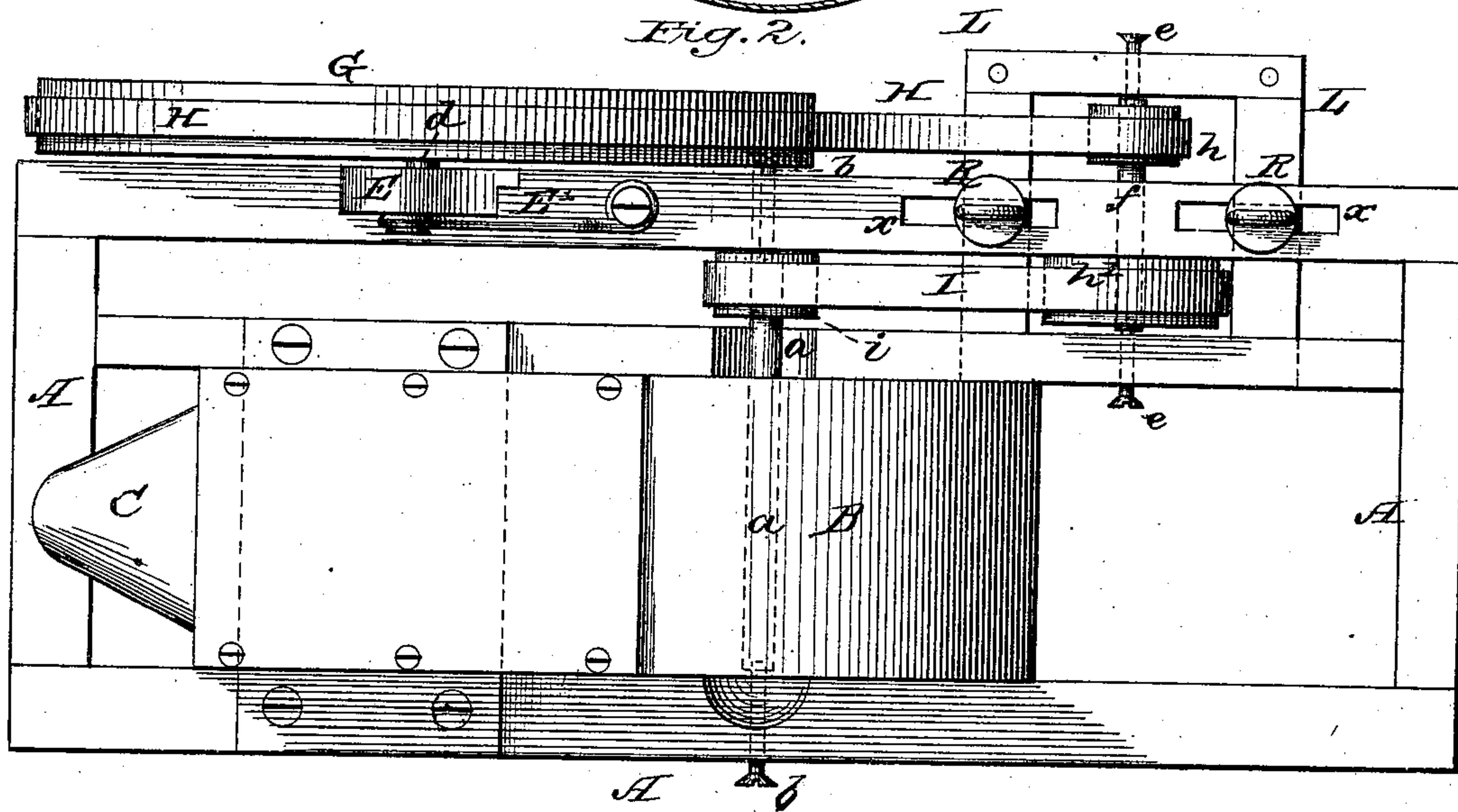
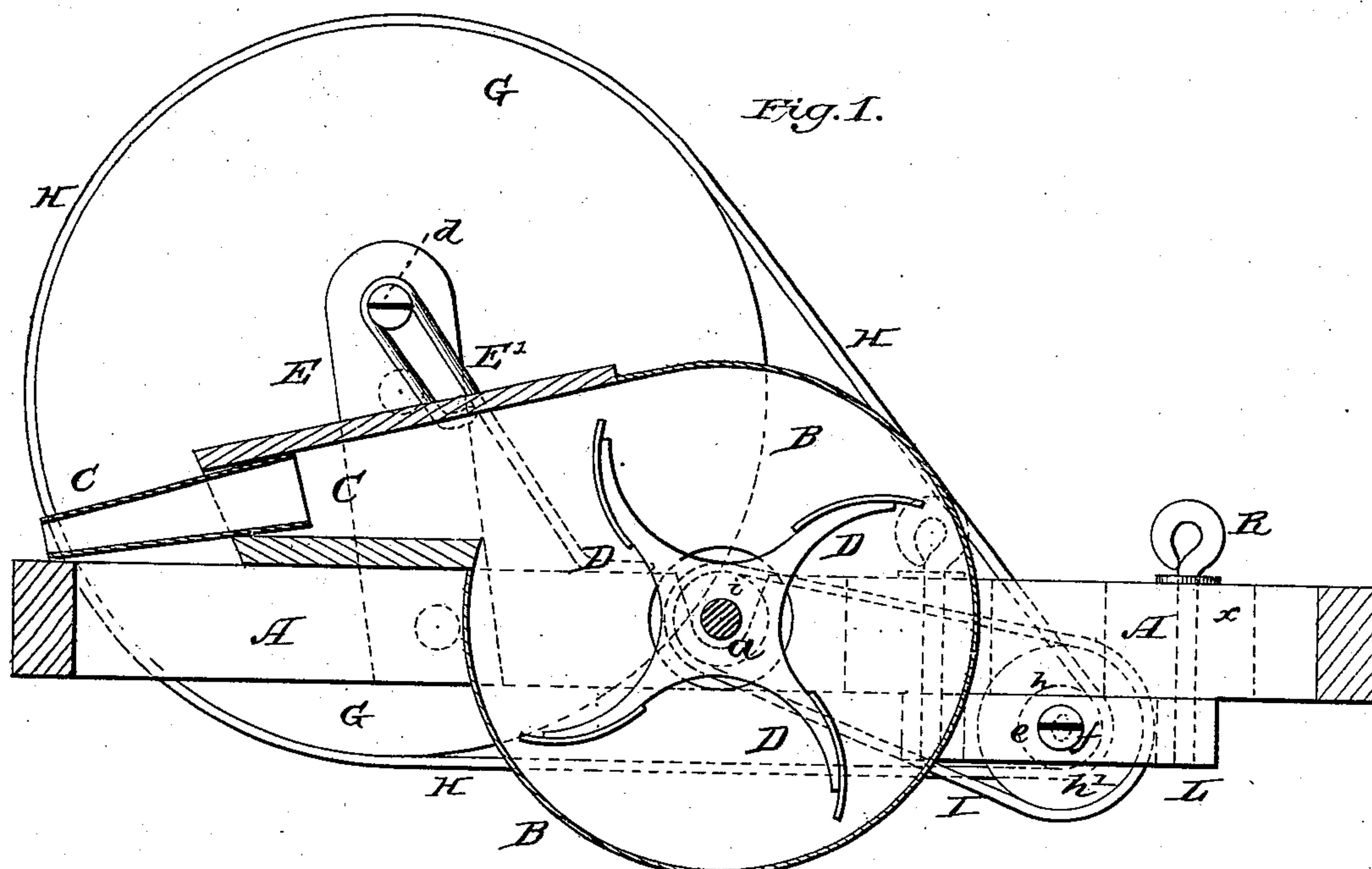


W. H. RANKIN.  
Blower for Blacksmith-Forges.

No. 207,775.

Patented Sept. 3, 1878.



Witnesses:  
John A. Dean.  
Frank H. Duff.

Inventor:  
William H. Rankin

Per C. H. Watson & Co Attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM H. RANKIN, OF MONTICELLO, ARKANSAS.

## IMPROVEMENT IN BLOWERS FOR BLACKSMITHS' FORGES.

Specification forming part of Letters Patent No. **207,775**, dated September 3, 1878; application filed May 29, 1878.

*To all whom it may concern:*

Be it known that I, WILLIAM H. RANKIN, of Monticello, in the county of Drew and State of Arkansas, have invented certain new and useful Improvements in Blowers for Blacksmiths' Forges; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 nature of my invention consists in the construction and arrangement of a blower for blacksmiths' forges, as will be hereinafter more fully set forth.

In the annexed drawing, to which reference is made, and which fully illustrates my invention, Figure 1 is a central vertical section, and Fig. 2 is a plan view, of my invention.

A represents a frame, of suitable construction, to be attached to the forge. In this frame is secured the fan-case B, which is formed with a contracted mouth or throat, C, as shown.

Within the case B is the fan D, constructed in any suitable manner and secured on a shaft, *a*, which shaft is centered and hung upon two adjusting-screws, *b b*.

On the frame A is a standard, E, with brace E', which are made adjustable, so as to be set in proper position. Upon a stud, *d*, projecting from the standard E, is placed a pulley-wheel, G, to which the power is to be applied. This pulley-wheel G is by a belt, H, connected with a pulley, *h*, on a shaft, *f*, and another

pulley, *h'*, on the same shaft *f*, communicates, by a belt, I, with a pulley, *i*, on the fan-shaft *a*, which thus receives a rapid rotary motion.

The shaft *f* is centered and hung upon two adjusting-screws, *e e*, in a separate frame, L, and this frame is connected to the main frame by screws R R, which pass through elongated slots *x x* in the main frame, so that the frame L can be adjusted as required to give the belts H and I their proper tension.

By this arrangement of devices the rotating parts will run very easy, and by the machine an increased blast may be obtained for blacksmiths' forges.

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

1. The adjustable frame L, connected to the main frame A, as described, and carrying the shaft *f*, having pulleys *h h'*, and the shaft hung upon centering-screws, substantially as herein set forth.

2. The combination of the main frame A, having slots *x x*, the adjustable standard B, and adjustable frame L, the pulley-wheel G, belts H I, shaft *f*, with pulleys *h h'*, the fan-case B, and shaft *a* with fan D and pulley *i*, all constructed substantially as and for the purposes herein set forth.

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

WILLIAM H. RANKIN.

Witnesses:

J. N. SLEMONS,

W. C. HOWELL.