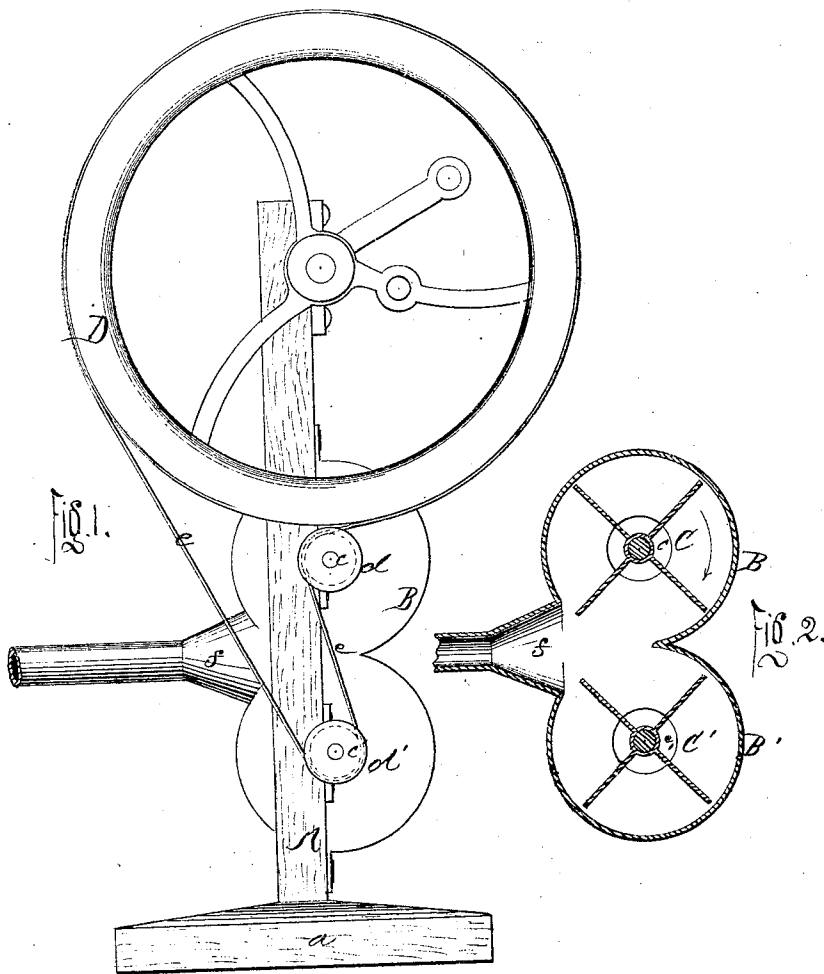


*J. G. Tschellin,*

*Fan Blower.*

*No. 102626.*

*Patented May 3. 1870.*



Witnesses:

*Victor Hagmann*  
*Jacob F. Henry*

Inventor:

*John George Tschellin*

# United States Patent Office.

JOHN GEORGE TSCHULIN, OF BALTIMORE, MARYLAND.

Letters Patent No. 102,626, dated May 3, 1870.

## IMPROVEMENT IN BLOWERS FOR BLACKSMITHS' FORGES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOHN GEORGE TSCHULIN, in the city and county of Baltimore and State of Maryland, have invented a new and useful Improvement in Bellows for Blacksmiths, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, so as to enable others not skilled in the art to which my invention appertains to fully understand and use the same, reference being had to the accompanying drawings making part of this specification, and in which—

Figure 1 is a front elevation of my improved blower; and

Figure 2 is a section thereof.

My invention belongs to that class of fans or bellows which are used to promote the rapid combustion of fuel placed in front of the fire, and the air is forced in; and

It consists in the peculiar construction of the device so as to operate in a very easy manner and with a very little power, and create a strong and efficient blast.

Like letters, in the two figures, represent like parts.

In the drawing—

A represents a frame with a suitable base, *a*, which supports the entire apparatus.

This frame consists of a single board with a space cut out sufficiently large to receive the casing or casings B, which contain the upper and lower fans C C'.

These casings are secured to frame by means of screws, or their equivalents, so as to allow the same to be taken off, should occasion require it.

The shafts of the fans C C' are journaled in bearings *c c* and *c' c'* respectively, which bearings are secured to the frame, as shown in the drawings.

To one end of each shaft of the fans is mounted a grooved pulley, *d d'*.

Near the upper end of the frame is journaled, in bearings similar to those already referred to, a shaft, having at one end a large wheel, D, and at the other end a crank, through which power is applied to the wheel D, and which communicates the same through the medium of a belt to the fans C C'.

If preferred, a treadle may be substituted for the crank.

It will be observed that the belt *e* traverses over the wheel D and the pulleys *d d'* in such a manner to cause the fans C C' to revolve in opposite directions, the advantage of which is fully demonstrated hereafter.

The casings B B' are provided with the usual side openings for the admittance of air from without.

Between the lower and upper fans a space is formed, which communicates with the funnel-shaped outlet *f*.

The operation of my device is as follows:

Power is applied to the large wheel D, which, by the connection already described, imparts motion to the fans C C', causing them to revolve in opposite directions; thus, the fan C, carrying the air downward, and the fan C' carrying it upward into the space between the two fans; here the air unites and is forced with sufficient power through the outlet *f*, creating an immense powerful blast, as practical use has proven it.

The herein-described device is in working order in an establishment in Baltimore, Maryland, where it has proven very satisfactory.

Very little power is required to operate the device, which produces a blast containing immense power and force; besides, the device is very simple in construction, occupying but very little space, and is carried readily from one place to another.

Having thus described my invention,

What I claim as new herein, and desire to secure by Letters Patent, is—

In combination of the fans C C', situated in the casing or casings B B', the working apparatus, consisting of the wheel D, band *e*, and pulleys *d d'*, all arranged and operating substantially as and for the purpose described.

JOHN GEORGE TSCHULIN.

Witnesses:

SIGMUND JUNGER,  
JOHN FRIST.