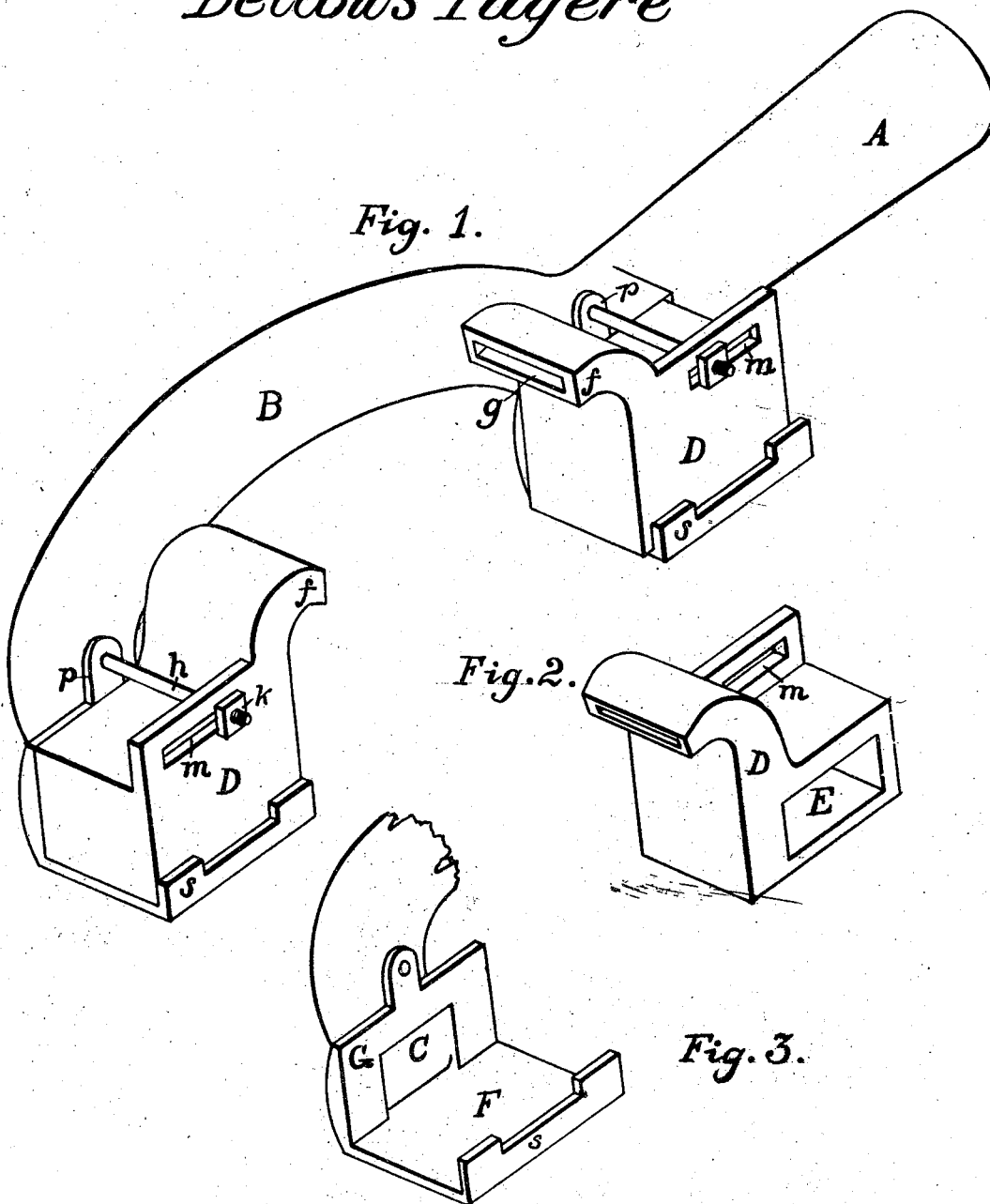


No. 4,854. *M. McKay.*

*Patented Nov. 14 1846.*

# *Bellows Tuyere*



# UNITED STATES PATENT OFFICE.

MELVIN McKAY, OF LYONS, NEW YORK.

TWYER.

Specification of Letters Patent No. 4,854, dated November 14, 1846.

*To all whom it may concern:*

Be it known that I, MELVIN McKAY, of Lyons, in the county of Wayne and State of New York, have invented a new and Improved Bellows-Twyer; and I do hereby declare the following to be a full and exact description of its construction and operation, reference being had to the accompanying drawings, making a part of this specification.

The nature of my invention consists in combining discharge nozzles with the bellows tube in such a manner that their position can be varied and adjusted to suit the dimensions of the fire required upon the forge.

In the accompanying drawings Figure 1, is a perspective view of my improved twyer, complete; Fig. 2, is a perspective elevation of one of the nozzle boxes D, detached; and Fig. 3, is a perspective elevation of a broken section of the twyer pipe, with the nozzle box detached from it.

B, is a tube curved into a semicircular form, constituting a part of my improved adjustable twyer.

A, is a straight tube extending from one end of the curved tube and connecting the same with the bellows. At each extremity of the curved tube B, there are apertures C, C, into the same, surrounded by the vertical flanches G, G, cast with the tube.

To the lower edge of the flanches G, G, there are cast the plates F, F, projecting at right angles from the face of the flanches.

s, s, are ledges rising from the outer edges of the plates F, F. The nozzle boxes D, D, are placed on the plates F, F, the lateral opening E, in the nozzle boxes being placed opposite, and communicating, with the apertures C, C, at the extremities of the curved

tube B. The nozzle boxes are accurately fitted to the plates F, F, between the flanches G, G, and the ledges s, s, so as to slide freely to the right or to the left. They are secured in any desired position by the screw bolts h, h, one end of which are secured in the ears or projections p, p, rising from the upper edge of the flanches G, G, and their opposite ends pass through the slots m, m, in the projecting front side of the nozzle boxes D, D.

k, k, are nuts on the screw bolts h, h, for securing the nozzle boxes firmly in any desired position. The nozzle boxes can each be moved on the plate F, the length of the slots m, m; consequently, can be brought double that distance nearer to each other, or removed the same distance from each other, as necessity may require.

f, f, are curved necks or nozzles rising from the boxes D, D, through which the air is discharged from the bellows to the fire, (placed between the nozzles) through the apertures g, g.

The ends of the nozzles f, f, are bent downward, so as to discharge the jets of air at an angle of forty five degrees (more or less).

What I claim as my invention and desire to secure by Letters Patent, is—

Combining the nozzle boxes D, D, with the curved air tube B, in such a manner that their position can be so adjusted as to bring their discharge apertures g, g, nearer to, or remove them farther from each other, thus adapting them to fires of different magnitudes, and of a greater or less degree of intensity, substantially as herein set forth.

MELVIN McKAY.

Witnesses:

CHAS. O. HOFFMAN,  
HUGH JAMESON.