

(No Model.)

J. E. ROEDER.

BELLOWS.

No. 246,418.

Patented Aug. 30, 1881.

Fig. 1.

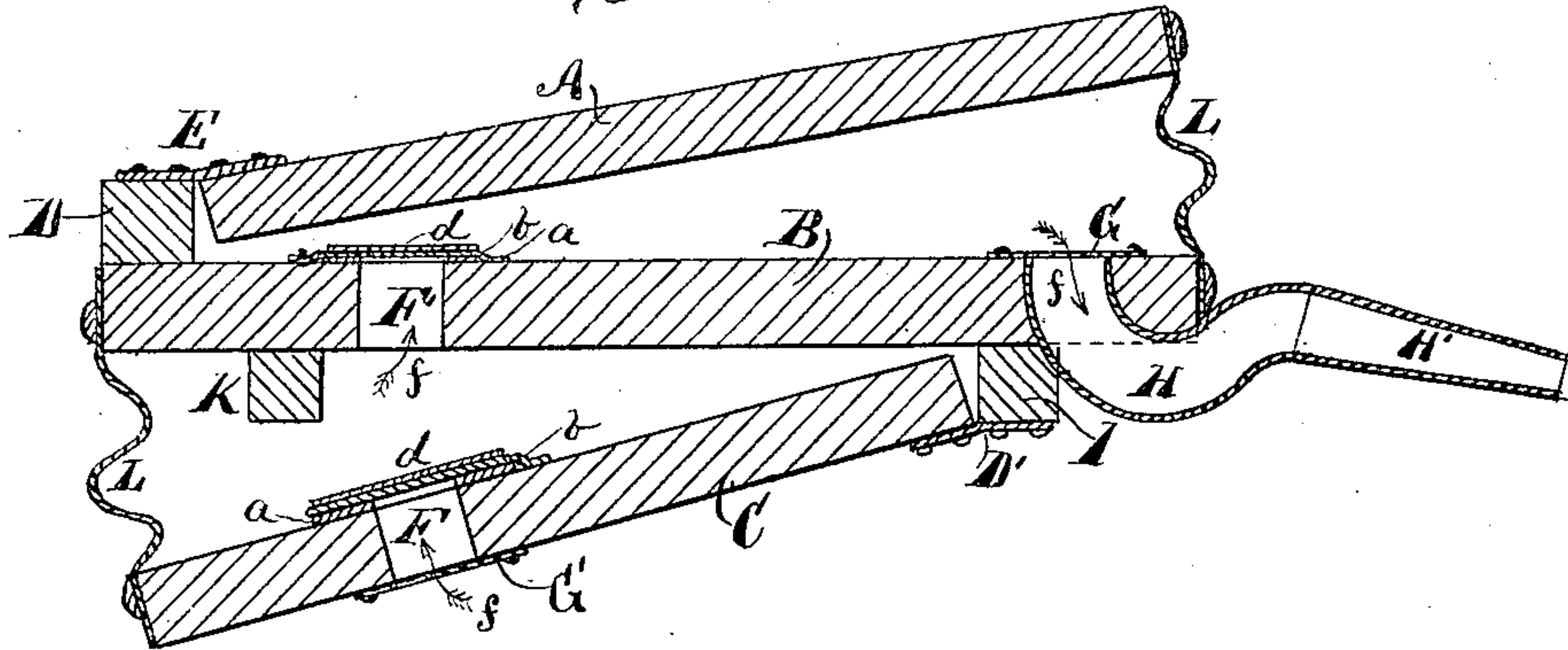


Fig. 2.

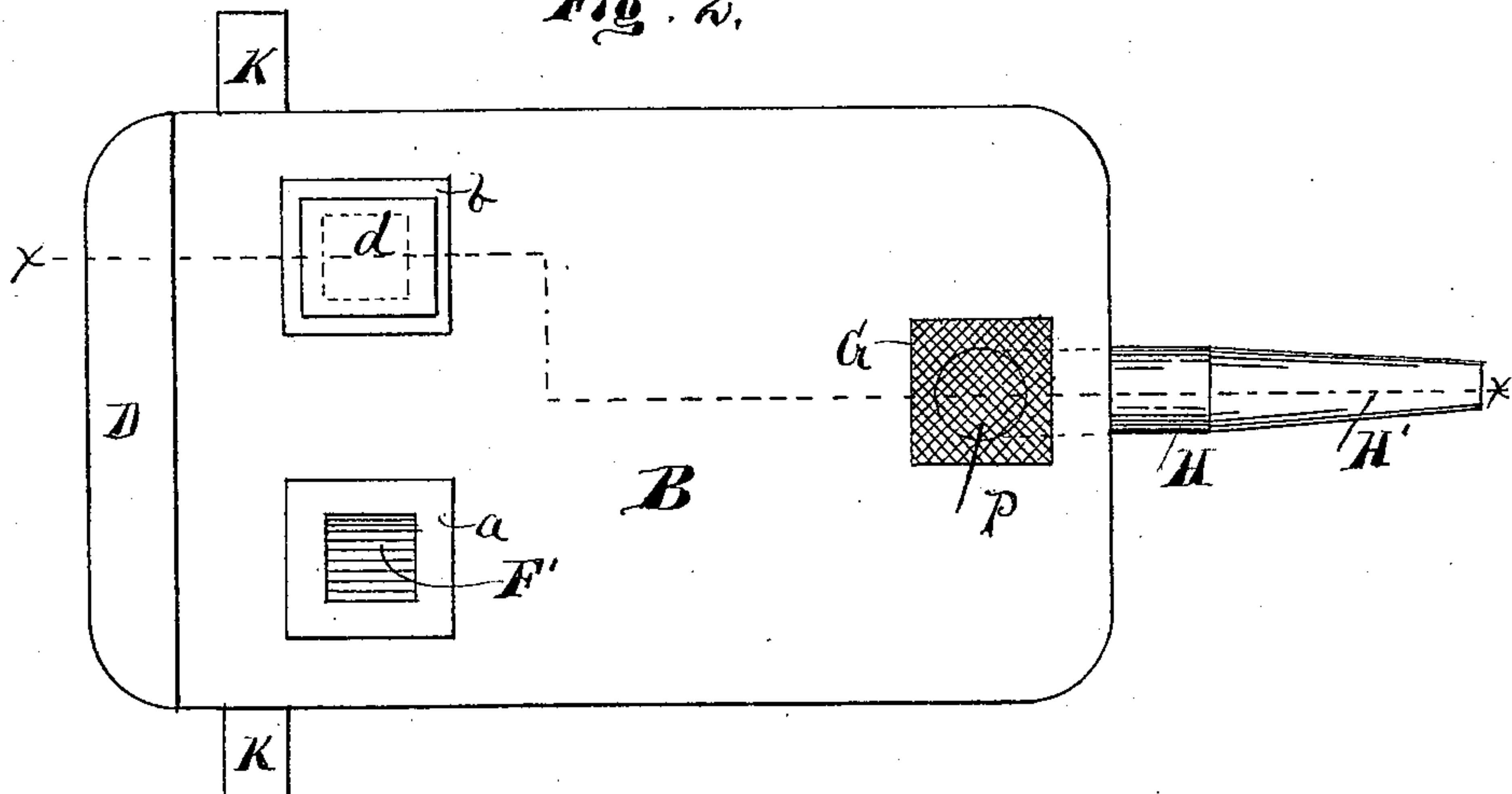


Fig. 3.



WITNESSES;

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BELLOWS.

SPECIFICATION forming part of Letters Patent No. 246,418, dated August 30, 1881.

Application filed June 7, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHANNES E. ROEDER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Blacksmiths' Bellows, of which the following is a specification.

My invention relates to improvements in bellows in which a stationary central partition provided with an inlet-valve and discharge-opening operates in conjunction with a lower leaf hinged at the front, and provided with inlet-valves and dirt-screen and an upper pressure-leaf hinged at the rear of the bellows; and the objects of my invention are, first, to provide a blacksmith's bellows with a large wind-space; second, to provide the valve-seats with woolen cloth or felt, and the valve with faces of woolen backed with pasteboard or other flexible substance; third, to provide the inlet and discharge openings of the bellows with screens for preventing the entrance or discharge of large particles of dirt, cinders, &c.; fourth, to provide the front end of the central partition with a curved or goose-necked discharge-pipe with an adjustable end or nozzle. These objects I accomplish by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section of the whole device, taken at the line *x x* of Fig. 2. Fig. 2 is a top view of the central partition with the pressure-leaf removed, and Fig. 3 is a perspective view of one of the woolen valves with pasteboard backing.

Similar letters refer to like parts in the several views.

B represents the central partition, which is stationary, and provided near one end with the valve-openings *F'*, and near its front end with a discharge-opening, *P*, in which is secured one end of the curved discharge-pipe *H H*.

Around the valve-opening *F'*, on the upper face of the partition *B*, is secured the valve-seat *a*, made of woolen cloth, and above the valve-seat *a* is the woolen-cloth valve *b*, backed with pasteboard *d*, or some other flexible substance capable of holding the woolen cloth in

position and preventing any back leakage of air from above.

The inlet-valve opening *F* in the wing *C* below is provided with valve-seats *a* and valves *b d* in the same manner and of the same material. The lower side of the valve-opening *F* is covered with fine gauze to prevent the inflow of large particles of dirt, and the outlet-port *P* is also covered with wire-gauze, to prevent cinders and dirt from entering the bellows.

The central partition, *B*, is provided with the cross-bar *K*, the ends of which extend beyond the sides of the bellows, to form a support for that end of the bellows.

The upper pressure-leaf, *A*, has its rear end hinged at *E* to the cross-cleat *D*, thus allowing the front end to rise and fall over the discharge-opening *P*.

The lower leaf, *C*, is hinged at *D'* to the front cleat, *I*, and the two leaves *C A* and center partition, *B*, are all inclosed in the leather case *L*, as shown.

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

1. The bellows-frame consisting of the central stationary partition, *B*, having inlet-valve opening *F'* and discharge-opening *P*, and its rear upper side provided with a cleat, *D*, and its lower front side provided with the cleat *I*, combined with the pressure-leaf *A*, hinged to the cleat *D* at *E*, and the lower leaf, *C*, hinged at *D'* to the cleat *I*, and provided with an inlet-valve, *F*, substantially as shown and described.

2. The valve-opening *F'*, combined with the woolen-cloth valve-seat *a*, the woolen-cloth valve *b*, and the pasteboard backing *d*, substantially as shown and described.

3. The central partition, *B*, with valve-opening *F* and discharge-opening *P* into the nozzle *H*, said discharge-opening being covered with wire-gauze *G*, substantially as specified.

4. The valve consisting of the woolen-cloth face *b*, backed with pasteboard *d*, substantially as specified.

5. A blacksmith's bellows consisting of the stationary partition *B*, with inlet-valve composed of woolen-cloth seat *a* and woolen-cloth

valve *b*, with pasteboard backing *d*, the out-
let-port *P*, with curved nozzle *H H'*, the press-
ure-wing *A*, hinged at *E* to the rear cleat, *D*,
the lower wing, *C*, hinged at *D'* to the front
5 cleat, *I*, and provided with woolen valve and
seat, and the leather case *L*, all substantially
as shown and described.

In testimony whereof I have signed my name
to this specification in the presence of two
subscribing witnesses.

JOHANNES E. ROEDER.

Witnesses:

GEORGE H. RENNETT,
E. O. FRINK.