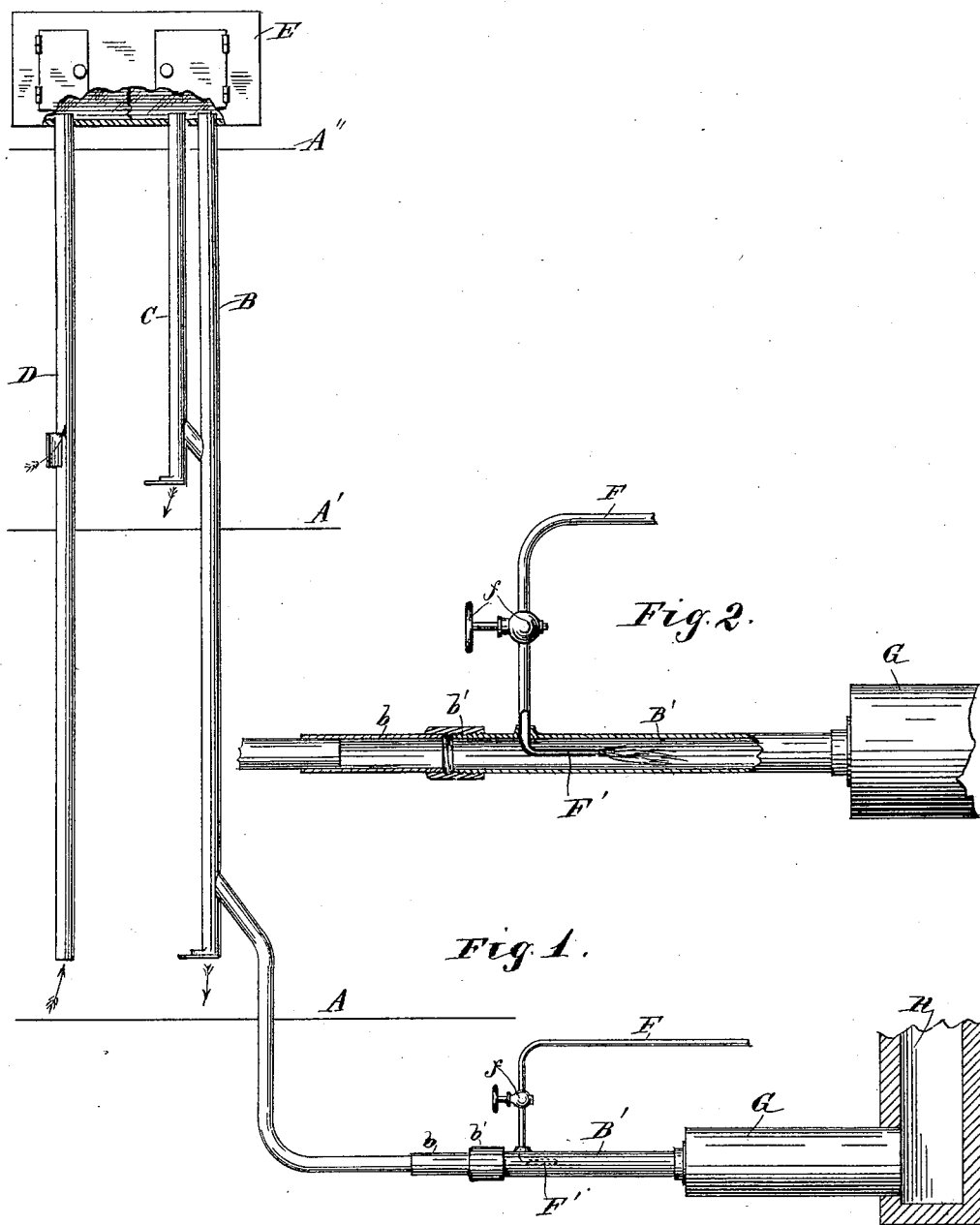


(No Model.)

D. HUNTER.
PNEUMATIC DISPATCH TUBE.

No. 461,612.

Patented Oct. 20, 1891.



Witnesses.

A. W. Oboah.

E. F. Elnore.

Inventor.

David Hunter

By his Attorney.

Gas. P. Williamson

UNITED STATES PATENT OFFICE.

DAVID HUNTER, OF MINNEAPOLIS, MINNESOTA.

PNEUMATIC DISPATCH-TUBE.

SPECIFICATION forming part of Letters Patent No. 461,612, dated October 20, 1891.

Application filed May 7, 1891. Serial No. 391,969. (No model.)

To all whom it may concern:

Be it known that I, DAVID HUNTER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Pneumatic Dispatch-Tubes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to pneumatic dispatch-tubes, and comprises certain novel devices and combinations of devices, which will hereinafter fully appear, and be particularly pointed out in the claim.

I have illustrated the application of my invention in the accompanying drawings, therein like letters referring to like parts throughout.

Figure 1 is a side elevation of a system of dispatch-tubes equipped with my improvement; and Fig. 2 is an enlarged view of the discharge end of the pneumatic tube, some parts being broken away.

A A' A'' represent the floor-levels of a building.

B, B', C, D, and E represent a system of pneumatic tubes, of the ordinary and well-known construction.

F is a steam-supply pipe in communication with a source of steam which enters the pneumatic tube at some convenient point, and has its discharge-nozzle F' located in the discharge-section B' of the tube. The steam-pipe is provided with a hand-valve f.

G is the expansion-chamber, attached to the end of the section B' of the pneumatic tube and terminating in the chimney or stack H.

The operation is evident. The movement of the steam from the nozzle F' through the discharge-section B', the expansion-chamber G, and the chimney H will produce a partial

vacuum in the other parts of the pneumatic tubes behind the nozzle F'. It will be noted that the steam-nozzle F' is an ordinary jet-nozzle, requiring little or no special fitting and enabling the production of the vacuum by the use of very little steam. By my plan, where steam plants are employed in the building, as is very generally the case, especially in newspaper printing-offices and similar establishments, practically no additional space is required beyond that occupied by the pneumatic tube, and the amount of steam consumed to effect and keep up the vacuum is scarcely appreciable on the boiler. By actual usage I have demonstrated the efficiency and economy of this invention.

The discharge-section B' is preferably connected with the main tube B by a union b, telescoping on the section B and connected with the end of section B' by a screw-threaded joint b'. This affords a convenient means for connecting and disconnecting the discharge-section and steam-pipe and expansion-chamber from the main pipe, and also affords a means of adapting the discharge-section to different locations or positions of the main pipe with reference to the chimney or stack.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

In a pneumatic dispatch system, the combination, with the two fixed sections of the draft-tube, of the removable connecting section or union b, telescoping on one of the fixed sections and having a screw-threaded engagement with the other, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID HUNTER.

Witnesses:

JAS. F. WILLIAMSON,
E. F. ELMORE.