No. 734,844. PATENTED JULY 28, 1903.

W. W. FYFE.

APPARATUS FOR PRODUCING AND DEPOSITING FUMES FROM ORES.

APPLICATION FILED JAN. 21, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

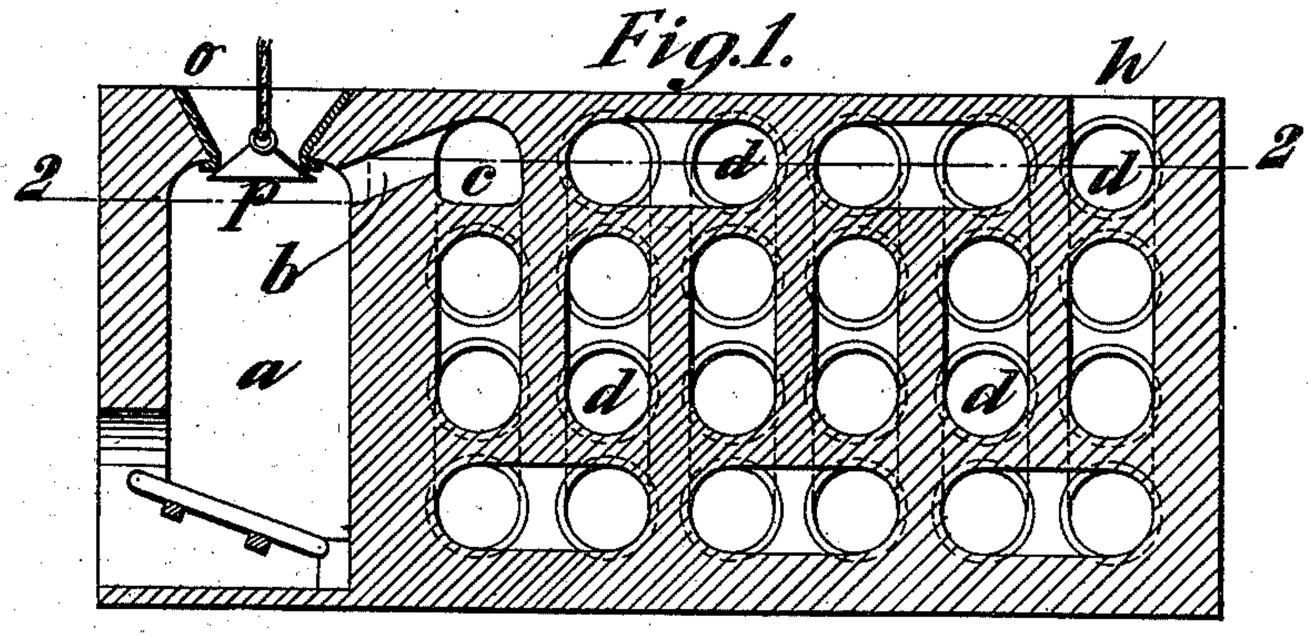
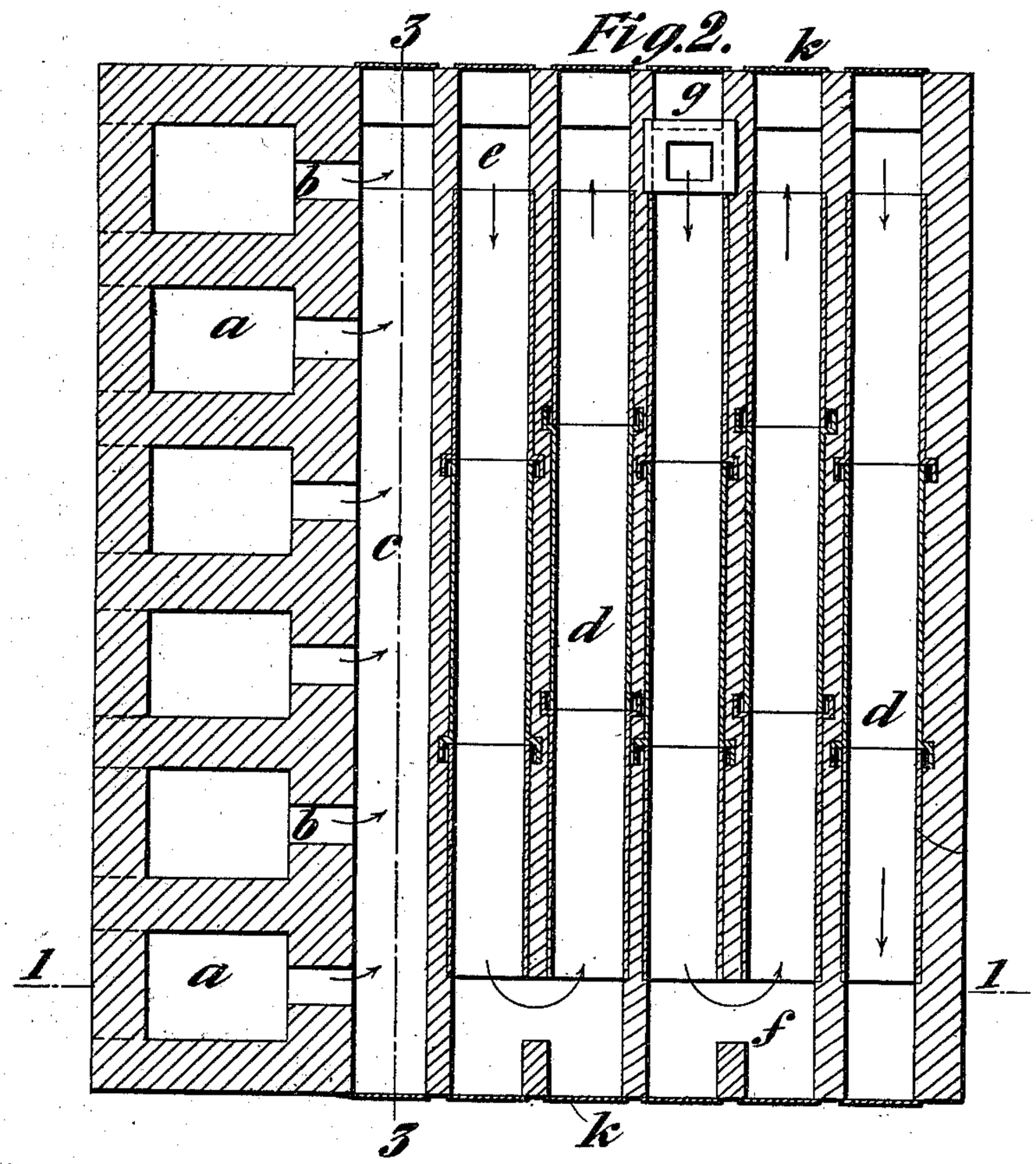


Fig. 2.



WITNESSES

H. N. Corwin

G. B. Blaming

INVENTOR

W. W. Fyfe

by Baldwin & Bynes

his attys.

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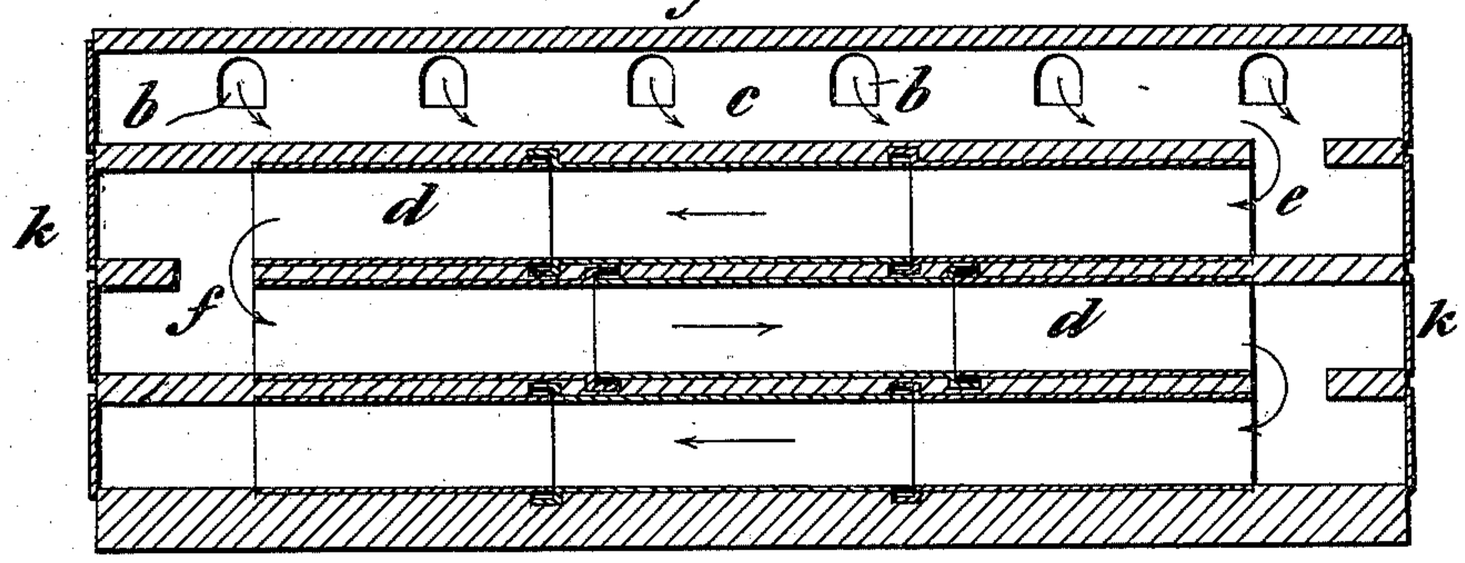
APPLICATION FILED JAN. 21, 1902.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.



WITNESSES

A. M. Corwin

G. B. Blanning

INVENTOR

W. W. Fyffe

by Baldwin & Hymes

his attys.

No. 734,844. Patented July 28, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM W. FYFE, OF WOOD GREEN, ENGLAND.

APPARATUS FOR PRODUCING AND DEPOSITING FUMES FROM ORES.

SPECIFICATION forming part of Letters Patent No. 734,844, dated July 28, 1903.

Application filed January 21, 1902. Serial No. 90,720. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WALKER FYFE, a citizen of England, residing at 13 Stanley Villas, Westberry avenue, Wood Green, in the county of Middlesex, England, have invented certain new and useful Improvements in Apparatus for Producing and Depositing Fumes from Ores, (for which I have applied for a patent in Great Britain, dated June 27, 1901, No. 13,115,) of which the following is a specification.

My invention relates to apparatus consisting of furnaces for producing fumes from ores and flues for deposit of those fumes, as I shall describe, referring to the accompanying drawings.

Figure 1 is a transverse section on the line 1 1 of Fig. 2, which is a sectional plan on the line 2 2 of Fig. 1, of a set of furnaces and flues according to my invention; and Fig. 3 is a longitudinal section on the line 3 3 of Fig. 2.

I arrange side by side in a row a number of furnaces *a*, in which ores are roasted, producing fumes which are discharged by outlets *b*, which may be provided with dampers, into a flue *c*. In the same structure with the furnaces *a* and the flue *c* are built in brickwork, concrete, or other suitable material a number of pipes *d*, preferably of earthenware, constituting flues, which open at both ends into chambers *e* and *f*, in which are formed communications from each flue to the one above or below it or to the one or the other side of it. In these chambers valves or dampers, such as that shown at *g*, may be provided, so that the fumes from the flue *c* may be directed in a zigzag course through a greater or less number of the flues to a final opening *h*.

Each chamber *f* is closed by a door *k*, which is hinged to a frame *l*, which is built into the structure and has a projecting rib *m*. The door itself has in its inner face a recess holding a strip of asbestos felt or other suitable packing material facing the rib *m*, so that when the door is closed and pressed home by turning a fly-nut on an eye-bolt *n* the rib *m* makes, with the packing, a tight joint, preventing escape of fumes from the flues.

Each furnace has a feeding-hopper *o*, which is built into the structure and is provided with a conical lid *p*.

The fumes which are deposited in the flues *d* can be raked out when desired on opening the doors *k*.

Having thus described the nature of this invention and the best means I know of carrying the same into practical effect, I claim—

Apparatus for producing and depositing fumes from ores comprising in one structure a set of furnaces, flues communicating therewith and with each other, passages at each end of the said flues provided with division and baffle walls, and doors and dampers or valves in the said passages, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WM. W. FYFE.

Witnesses:

OLIVER IMRAY,

GERALD R. SMITH.