

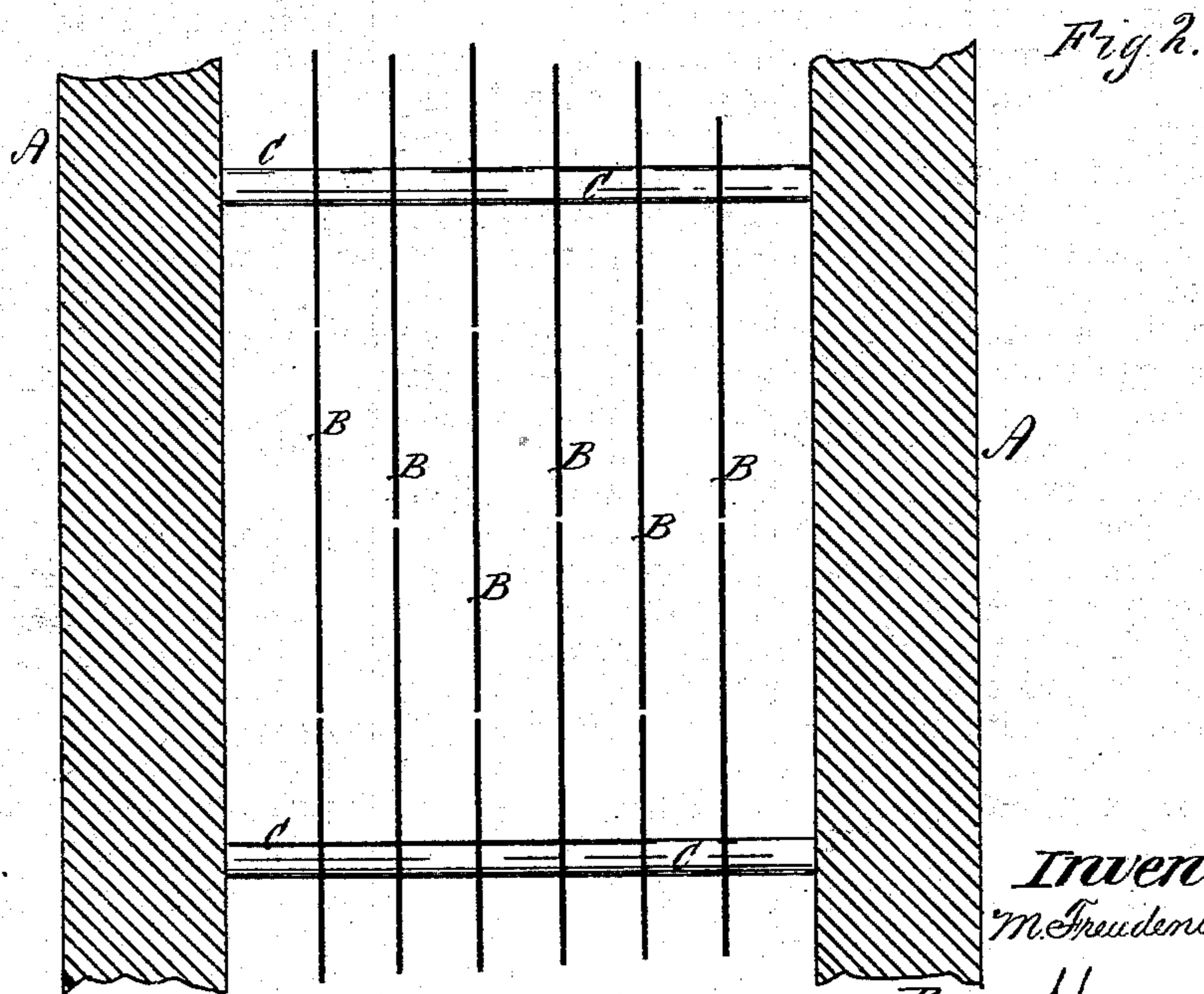
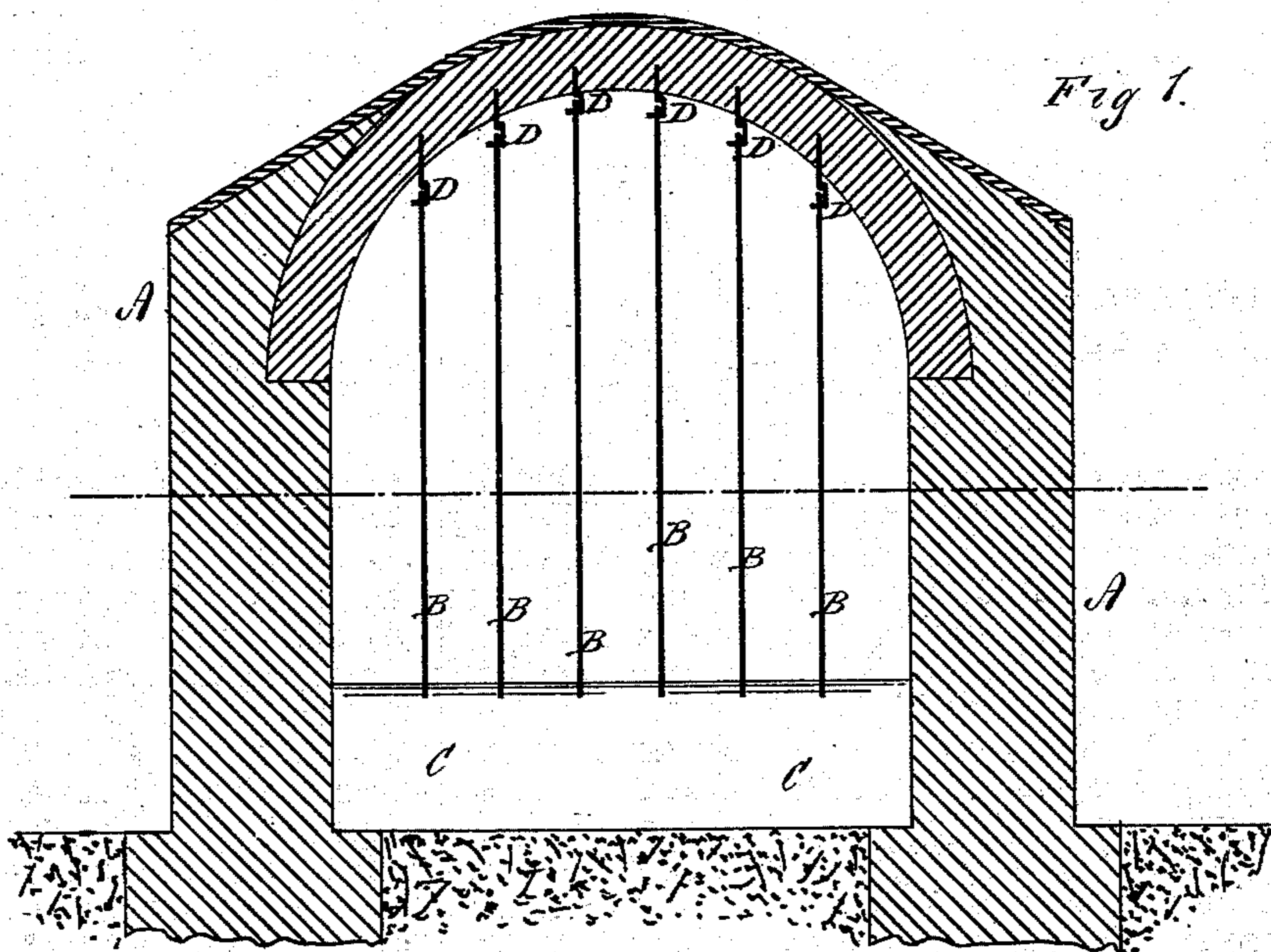
(No Model.)

M. FREUDENBERG.

FUME ARRESTER FOR CHIMNEY FLUES.

No. 276,386.

Patented Apr. 24, 1883.



Witnesses:

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UNITED STATES PATENT OFFICE.

MAX FREUDENBERG, OF EMS, GERMANY.

FUME-ARRESTER FOR CHIMNEY-FLUES.

SPECIFICATION forming part of Letters Patent No. 276,386, dated April 24, 1883.

Application filed May 29, 1882. (No model.) Patented in Germany August 26, 1881, No. 17,513; in England October 20, 1881, No. 4,590, and in Austria-Hungary March 12, 1882, No. 3,723 and No. 8,454.

To all whom it may concern:

Be it known that I, MAX FREUDENBERG, of Ems, a subject of the Emperor of Germany, and residing at Ems, Germany, have invented
5 new and useful Improvements in Fume-Arresters for Chimney-Flues, of which the following is a specification.

The object of my invention is to facilitate the depositing of particles of metal in the flues
10 of metallurgical works, through which flues the smoke or fumes containing the particles of metal to be deposited pass.

Reference is to be had to the accompanying drawings, forming part of this specification, in
15 which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a cross-sectional elevation of my improved flue. Fig. 2 is a sectional plan view of the same.

20 The amount of metallic particles or dust deposited on the walls or flue through which smoke or fumes containing these particles are conducted depends upon the superficial area of the walls or sides of the flue, and in order
25 to get a large deposit the superficial area of the walls of the flue must be increased as much as possible. To accomplish this I arrange thin sheets B, of metal, wire-netting, or fabric, in the flue A or in the smoke-chamber parallel
30 with the direction of the draft. These plates or longitudinal partitions are impended from the roof of the flue by means of hooks D or any othersuitable devices. The longitudinal plates or partitions do not extend down to the floor
35 of the flue, but only to the upper edges of transverse partitions C, which are about two

feet high and are located about ten feet apart. The longitudinal plates or partitions B must be as thin as possible, so as to occupy very little space, and so as not to interfere with the
40 draft. The metallic particles or dust contained in the fumes or smoke carried through the flue by the draft are deposited on the plates or partitions B. The partitions C form compartments into which the surplus of the metallic
45 particles deposited on the plates B drop to prevent them from being carried off by the draft or current of air. I have shown six plates in the flue; but the number may be increased or
50 decreased as the circumstances may require.

I am aware that shelf-partitions have been employed to extend alternately from opposite sides of the flue, but not quite across, for the purpose of retarding the current of the products of combustion; also, that bags of textile fabric have been used for a somewhat analogous purpose; but

What I claim is—

The combination, with the furnace-flue A, of the transverse partitions C, arranged above the
60 bottom, and the parallel plates B, the latter extending lengthwise of the flue from the top to the partition, as and for the purpose specified.

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

MAX FREUDENBERG.

Witnesses:

FRANZ HASSLACHER,
FRIEDRICH TAEGAR.