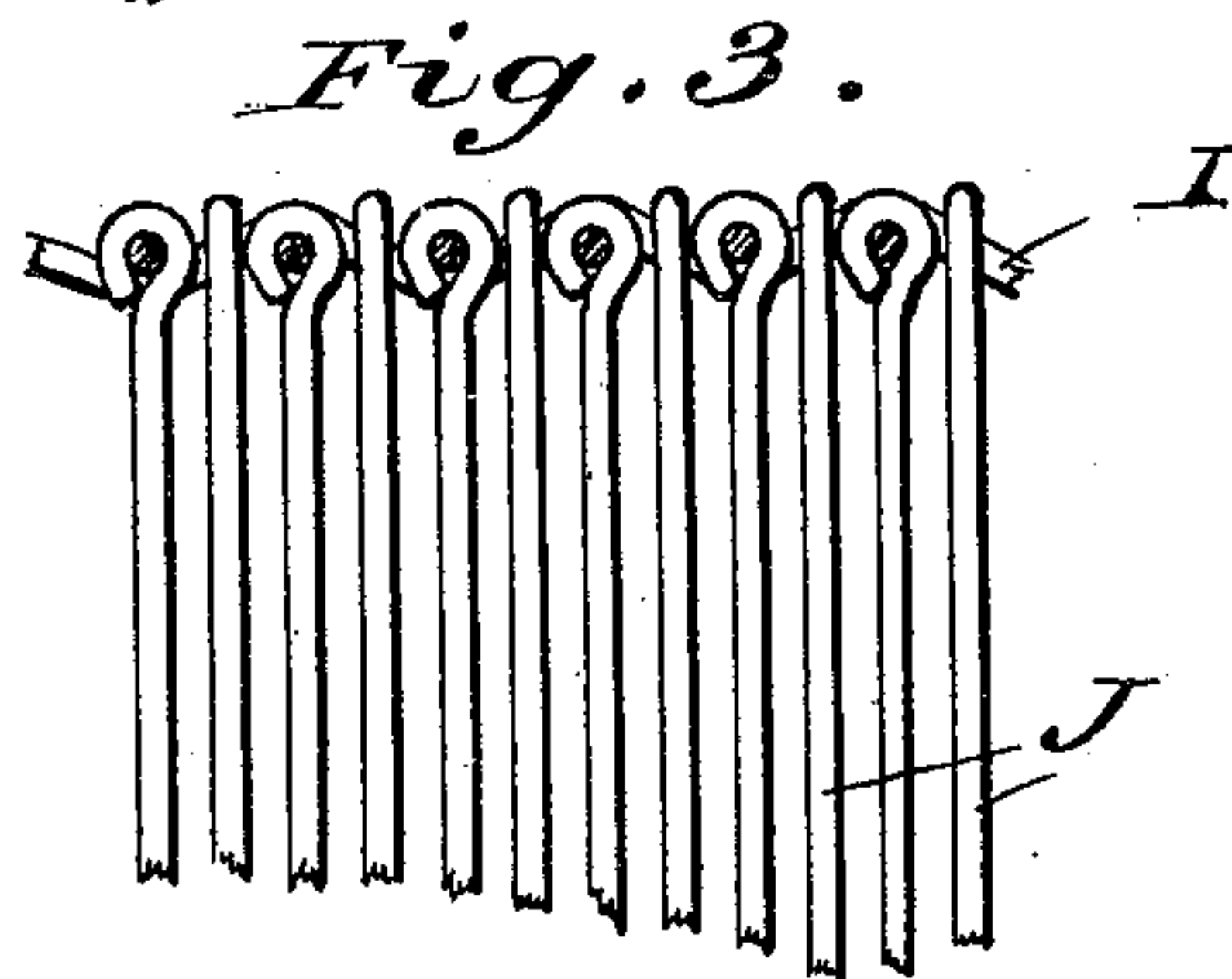
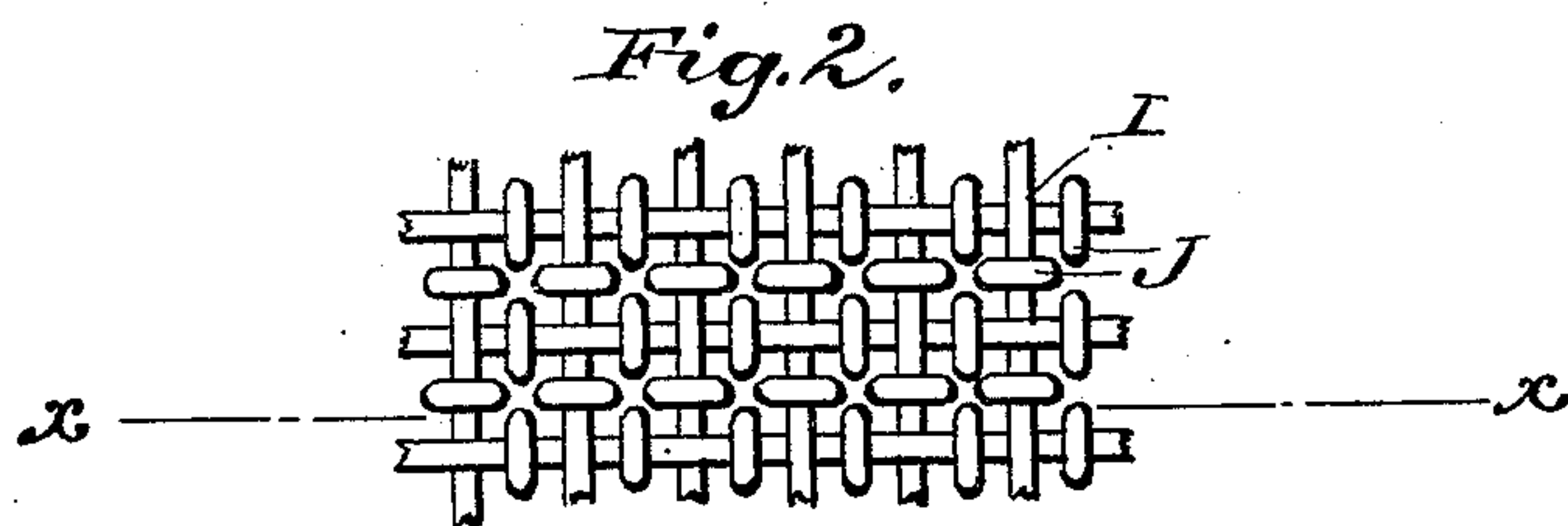
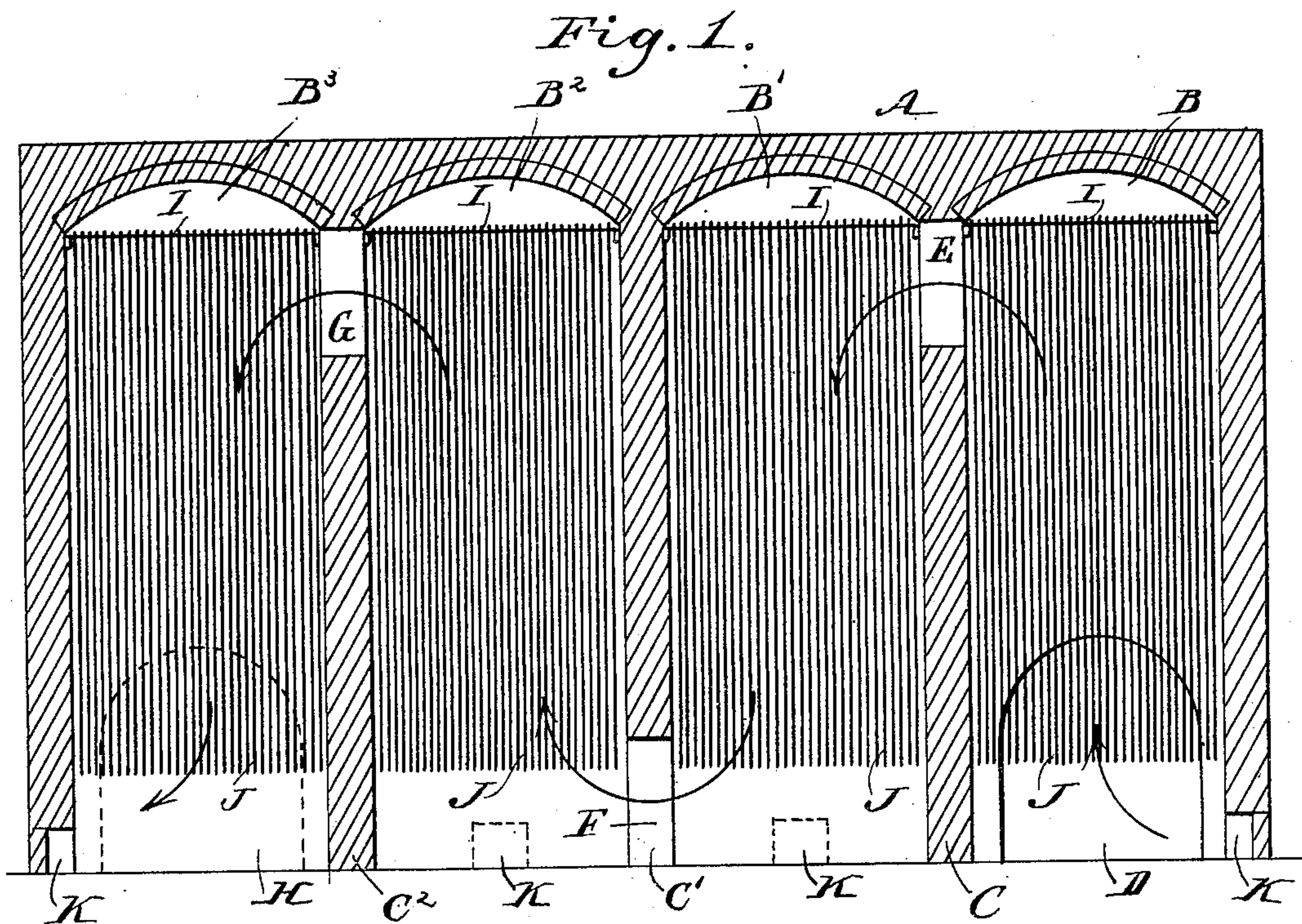


(No Model.)

B. RÖSING.
FLUE DUST COLLECTOR.

No. 432,440.

Patented July 15, 1890.



WITNESSES:

John H. Deemer
C. Sedgwick

INVENTOR:

B. Rösing
BY *Munn & Co*
ATTORNEYS

UNITED STATES PATENT OFFICE.

BERNHARD RÖSING, OF FRIEDRICHSHÜTTE, NEAR TARNOWITZ, PRUSSIA,
GERMANY.

FLUE-DUST COLLECTOR.

SPECIFICATION forming part of Letters Patent No. 432,440, dated July 15, 1890.

Application filed February 5, 1890. Serial No. 339,293. (No model.)

To all whom it may concern:

Be it known that I, BERNHARD RÖSING, of Friedrichshütte, near Tarnowitz, Upper Silesia, Prussia, Germany, have invented a new and Improved Flue-Dust Collector, of which the following is a full, clear, and exact description.

The invention relates to fume or flue-dust collectors for chimney-flues of the category of the device shown and described in the United States Letters Patent No. 376,386, granted to Max Freudenberg April 24, 1883.

The object of the invention is to provide a new and improved flue-dust collector which is simple and durable in construction, and serves to collect the solid particles composing a large proportion of the escaping smoke or fumes of silver, lead, copper, or other metallurgical furnaces in distinction from the gaseous constituent of said smoke or fumes.

The invention consists of a system of separate and independent depending wires suspended at their upper ends in the customary flue-dust chambers, in line with the current of the fumes.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter more fully described, and then pointed out in the claims.

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

Figure 1 is a sectional side elevation of the improvement as applied. Fig. 2 is an enlarged plan view of the improvement, and Fig. 3 is a sectional side elevation of the same on the line *xx* of Fig. 2.

To demonstrate the nature and application of the invention I have chosen a flue-dust chamber of the simplest ordinary construction. As shown in the drawings, this flue-dust chamber A is provided with a series of compartments B, B', B², and B³, separated by transverse partitions C, C', and C², as is plainly shown in Fig. 1. Near the bottom of the chamber B is the inlet-opening D, through which enter the fumes from the furnaces. The fumes then pass upward and through an opening E in the upper end of the partition

C, pass into the next compartment B', in which the fumes pass downward and through an opening F in the lower end of the partition C' into the compartment B², and from the latter they pass through an opening G in the upper end of the partition C² to the last compartment B³, in which the fumes pass downward and escape through the outlet-opening H.

In each of the compartments B, B', B², and B³ is supported near the top a horizontally-extending wire-netting or perforated sheet I, from which are hung in close proximity to each other the wires J, extending loosely downward to within a short distance of the bottom of the said compartments B, B', B², and B³, as is plainly shown in Fig. 1. The netting I is arranged above the openings E and G, so as to utilize the greatest possible length of wire. The fumes enter through the inlet-opening D, and pass upward in line with the suspended wires J, thus coming in contact with the entire surface of the said wires, so that any metallic or solid particles in the fumes are separated from the gaseous portion of the latter by adhering to the said wires, or by losing their velocity in the direction of the current so completely, owing to friction against the closely-huddled wires, that they settle down out of the current of fumes and collect on the floor of the compartment. The fumes passing from the compartment B into the compartment B' move downward and again come in contact with the wires J, suspended in the said compartment. Then the fumes pass into the third and fourth compartments, also passing over the wires suspended in the said compartment, so that any metallic or solid particles remaining in the flue-dust collect on the said suspended wires in the several compartments or are precipitated by said wires. The fumes passing out through the opening H are comparatively free from any solid or metallic particles.

When it is desirable to remove the collected particles adhering to the wires J, the latter are lightly struck by a suitable tool, so that the particles fall down onto the bottoms of the several compartments and may be removed.

At K K, Fig. 1, are indicated the doors or openings through which the discharging of the contents of the compartments is effected.

Having thus fully described my invention,
5 I claim as new and desire to secure by Letters Patent—

1. In a flue-dust collector, a series of wires suspended in the fume or flue-dust chamber at their upper ends, and separate and independent of each other below their points of
10 suspension, substantially as shown and described.

2. In a flue-dust collector, the combination, with a flue-dust chamber, of a series of separate and independent wires, suspended at
15 their upper ends in the said chamber, in line

with the current of fumes passing through the said chamber, substantially as shown and described.

3. In a flue-dust collector, the combination, 20 with a series of connected compartments through which pass the fumes, of wire-netting secured horizontally across the upper ends of said compartments, and wires suspended from the said wire-netting, said wires 25 being separate and independent one from the other below said netting, substantially as shown and described.

BERNHARD RÖSING.

Witnesses:

GOTTFRIED HENING,
ARTHUR KAPE.