

(No Model.)

J. PAYETTE.
ASH SIFTER.

No. 603,704.

Patented May 10, 1898.

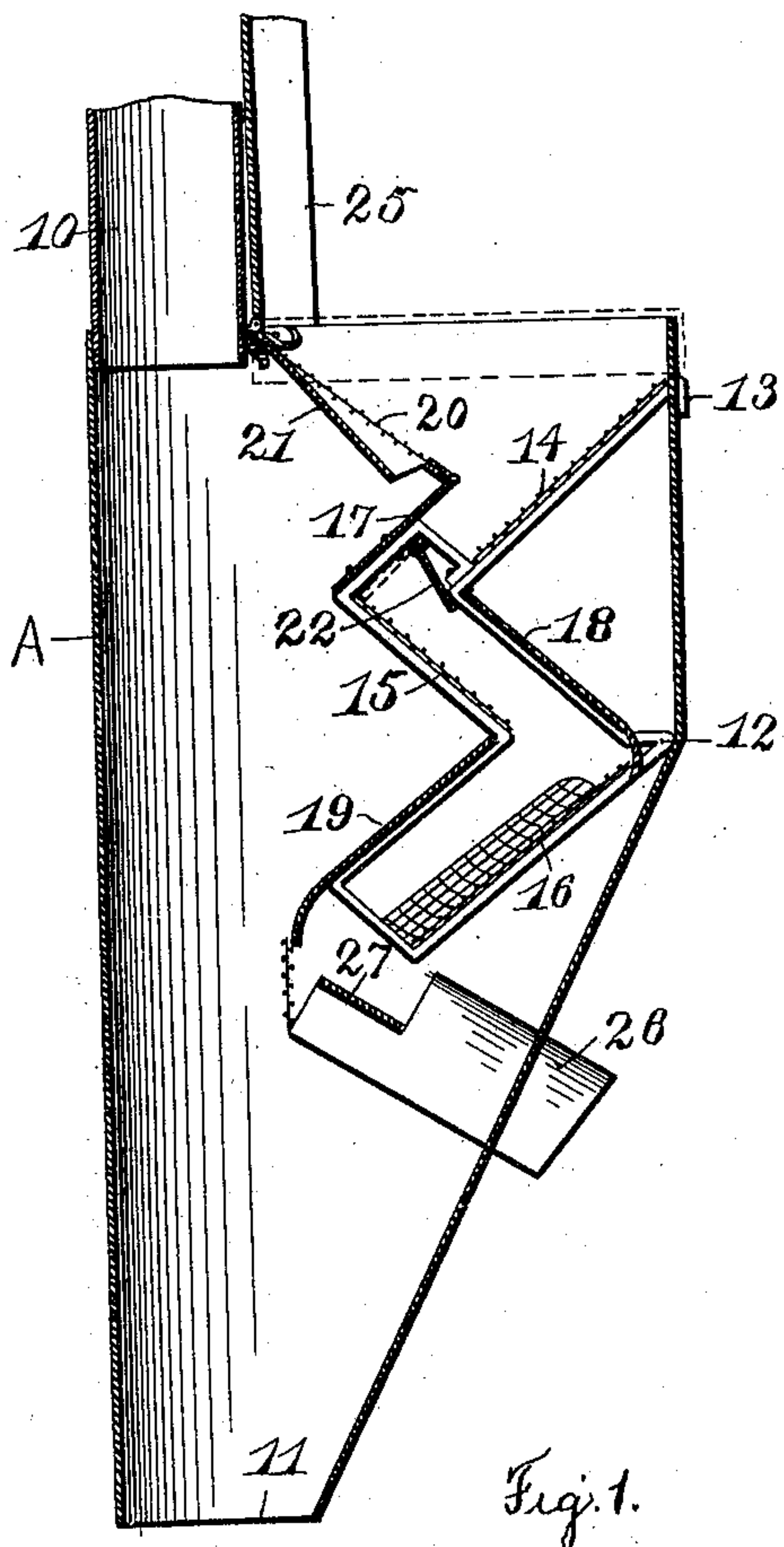


Fig. 1.

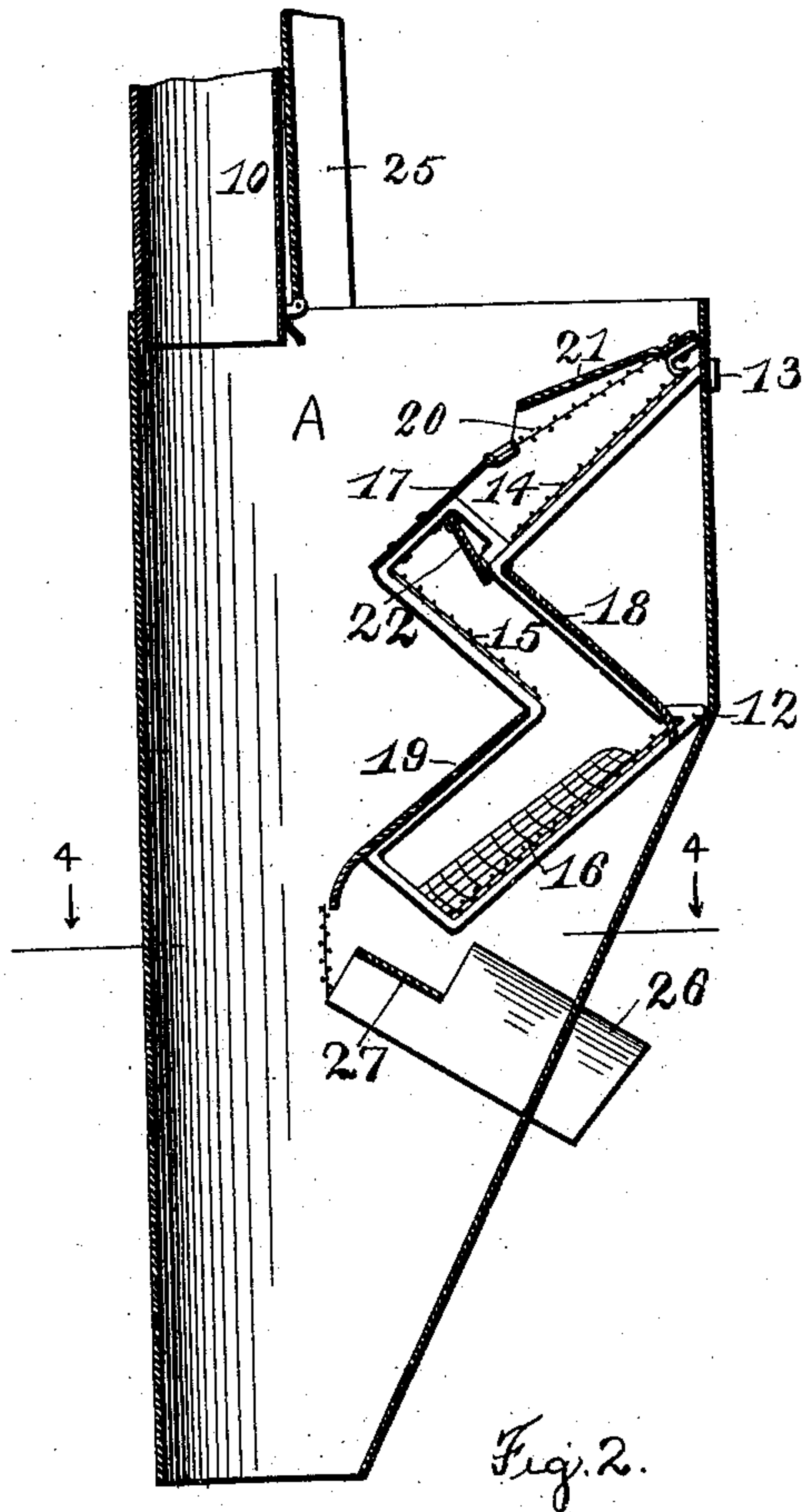


Fig. 2.

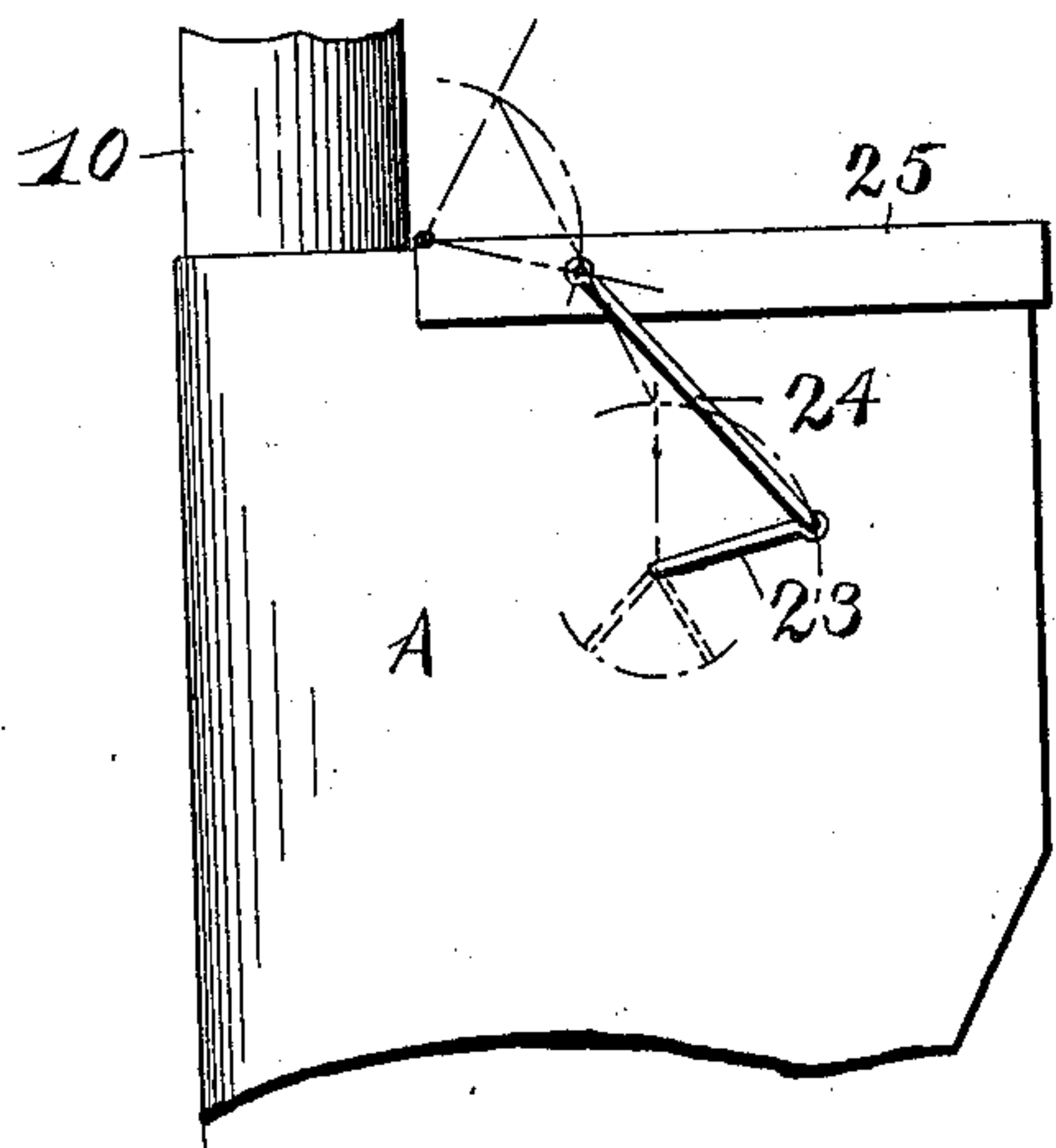


Fig. 3.

Witnesses.
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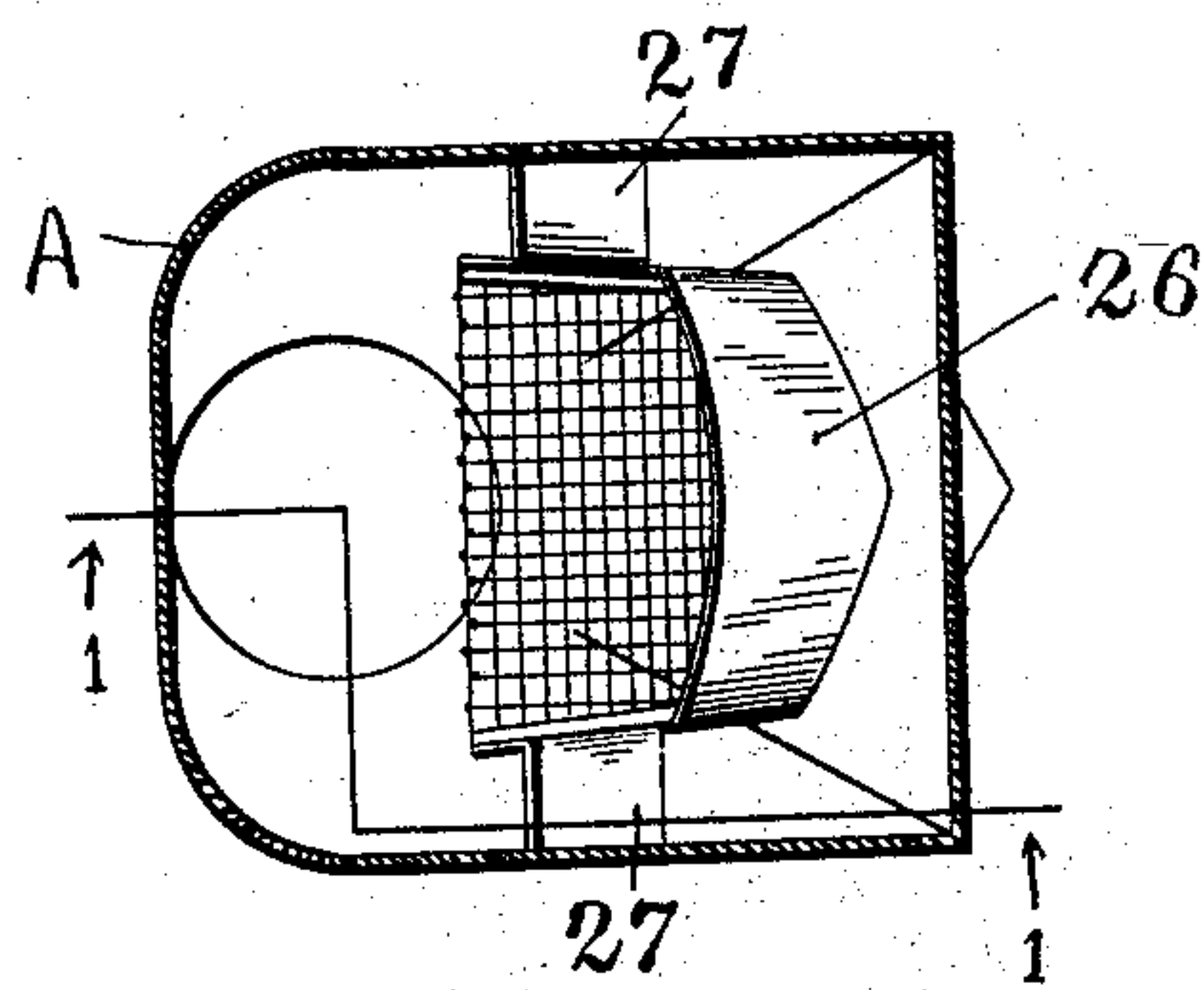


Fig. 4.

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UNITED STATES PATENT OFFICE.

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ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 603,704, dated May 10, 1898.

Application filed November 8, 1897. Serial No. 657,735. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH PAYETTE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Ash-Sifters, of which the following is a specification.

My invention relates to an ash-sifter designed for household use; and the object of my invention is to provide a strong, simple, inexpensive, and convenient ash-sifter in which the material to be sifted will be allowed to pass by gravity over a number of inclined screens, so as to separate the ashes from coal without manual labor.

To these ends my invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a sectional view of an ash-sifter constructed according to my invention, taken on the line 1 1 of Fig. 4. Fig. 2 is a similar view showing the parts in a different relative position. Fig. 3 is a partial side view of an ash-sifter constructed according to my invention, and Fig. 4 is a sectional plan view taken on the line 4 4 of Fig. 1.

One especial object of my invention is to arrange the parts of a gravity ash-sifter so that the sifted material will not be allowed to pass through the same until the operator has had time to place the coal-hod or other receptacle used to convey the ashes to the sifter in position below the spout. To accomplish this purpose, an ash-sifter constructed according to my invention comprises a hopper or receptacle arranged in the upper part of the casing, with inclined passages leading down therefrom to the spout. To prevent the coal from running freely from the hopper down the inclined passages, I preferably provide a shut-off door, and I preferably connect the shut-off door with the cover or lid of the casing, the connections between these parts being arranged so that the coal will be retained in the hopper as long as the casing-cover is kept open.

A further object of my invention is to construct the ash-sifter so that ashes or other material may be introduced into the chute or

casing without causing the same to pass through the inclined sifting-passages. To accomplish this purpose, I preferably hinge one of the sections which forms the hopper or receptacle in the upper part of the casing, so that the same can be turned back, as illustrated in Fig. 2, to allow the material to pass freely to the chute at the rear of the casing. In practice I also preferably support the screenwork and cover sections upon a frame and secure the frame detachably in the casing, so that the same can be removed whenever it is desired to have free access to the inside of the casing.

Referring to the drawings and in detail, A designates a sheet-metal casing of any ordinary or preferred construction.

As illustrated, the casing A is provided with an upwardly-extending pipe 10, and the bottom of the casing is narrowed at 11, so as to connect to a downwardly-extending pipe, if desired. A frame 12 is removably supported in the casing A by means of hooks or extensions 13. Secured on the frame 12 are screenwork or sifting sections 14, 15, and 16 and cover-sections 17, 18, and 19, which form inclined sifting-passages. A discharge-opening is left between the front edge of the cover-section 18 and the front of the casing. Pivotaly connected to the upper cover-plate 17 is a screenwork-section 20. Secured on the back of the screenwork-section 20 is a shield or plate 21. When the screenwork-section 20 is in its normal position, as illustrated in Fig. 1, it will cooperate with the screenwork-section 14 to form a hopper or receptacle to receive the material to be sifted. Located in the inclined passage leading down from the hopper or receptacle I provide a pivoted shut-off door 22, and I preferably connect the shut-off door 22 with the lid or cover 25 of the casing A, so that the shut-off door 22 will be kept closed as long as the lid 25 remains open. The connections which I employ for this purpose are most clearly illustrated in Fig. 3 and comprise a crank-arm 23, which is connected to the lid or cover 25 by means of a link 24.

Extending through the casing A, below the frame 12, is a spout 26, which is provided with deflecting-plates 27 for directing the sifted material into the same. The spout 26 is somewhat narrower than the casing A, as

shown in Fig. 4, so that the ashes or siftings may pass down around the outside of the same.

In operating an ash-sifter constructed according to my invention a hod of ashes or other material to be sifted may be deposited in the hopper formed by the screenwork-sections 14 and 15 in the upper part of the casing and will be retained therein by the shut-off door 22 as long as the casing-cover 25 is kept open. After the coal-hod or other receptacle has been placed in position below the spout 26 the cover 25 may be closed, which will permit the material to fall freely down through the inclined passages, the ashes being sifted out through the screenwork-sections 14, 15, and 16.

I am aware that changes may be made in the construction of the ash-sifters by those who are skilled in the art without departing from the scope of my invention as expressed in the claims. I do not wish, therefore, to be limited to the form which I have shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In an ash-sifter, the combination of a casing A, a frame 12 carrying screenwork-sections 15 and 16, and cover-sections 18 and 19, said sections forming inclined sifting-passages, screenwork-sections 14 and 20 forming a hopper in the upper part of the casing A, a covered spout 26 extending into the casing A to receive the sifted coal, while ashes which pass through the meshes of the screenwork-sections are retained inside the casing, and a cut-off door 22 for temporarily retaining the material to be sifted in the hopper, substantially as and for the purpose set forth.

2. In an ash-sifter, the combination of a casing A, a frame 12 carrying screenwork-sections 15 and 16 and cover-sections 18 and 19, said sections forming inclined passages,

screenwork-sections 14 and 20 forming a hopper in the upper part of the casing A, a covered spout 26 extending into the casing A to receive the sifted coal, and a cut-off door 22 for temporarily retaining the material to be sifted in the hopper, the framework 12 being provided at its upper end with hooks 13, extending through sockets in the casing A to detachably support the hopper, screenwork and cover sections in position in said casing, substantially as described.

3. In an ash-sifter, the combination of a casing A, inclined, screenwork-sections 14 and 20 forming a hopper in the upper part of the casing, and inclined sifting-passages leading down from the hopper, the screenwork-section 20 being hinged so as to permit material to be introduced into the casing without causing the same to pass through the sifting-passages, substantially as described.

4. In an ash-sifter, the combination of a casing A, a frame 12 detachably secured in said casing, screenwork-sections 14, 15 and 16, and cover-sections 17, 18 and 19 carried by the frame 12 to form inclined sifting-passages, a hinged screenwork-section 20 arranged to cooperate with the screenwork-section 14 to form a hopper, or to be turned back to allow material to be introduced into the casing without causing the same to be passed through the sifting-passages, and a shut-off door 22 for the sifting-passages, a hinged cover 25 for the casing, substantially as described.

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

JOSEPH PAYETTE.

Witnesses:

PHILIP W. SOUTHGATE,
FREDERICK B. HARLOW.