

No. 822,265.

PATENTED JUNE 5, 1906.

H. FREISE.
DUST CART.

APPLICATION FILED MAR. 28, 1905.

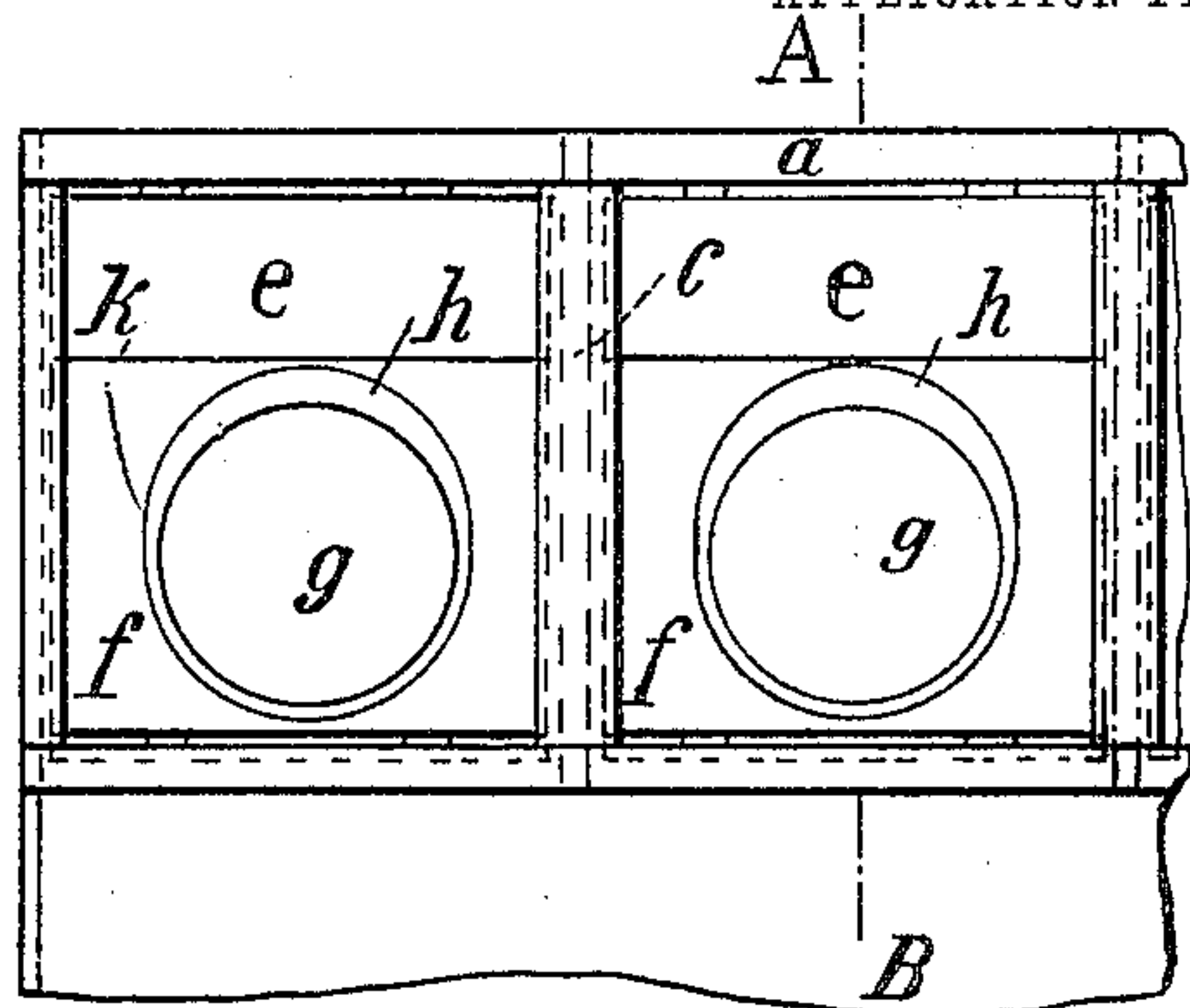


Fig. 1.

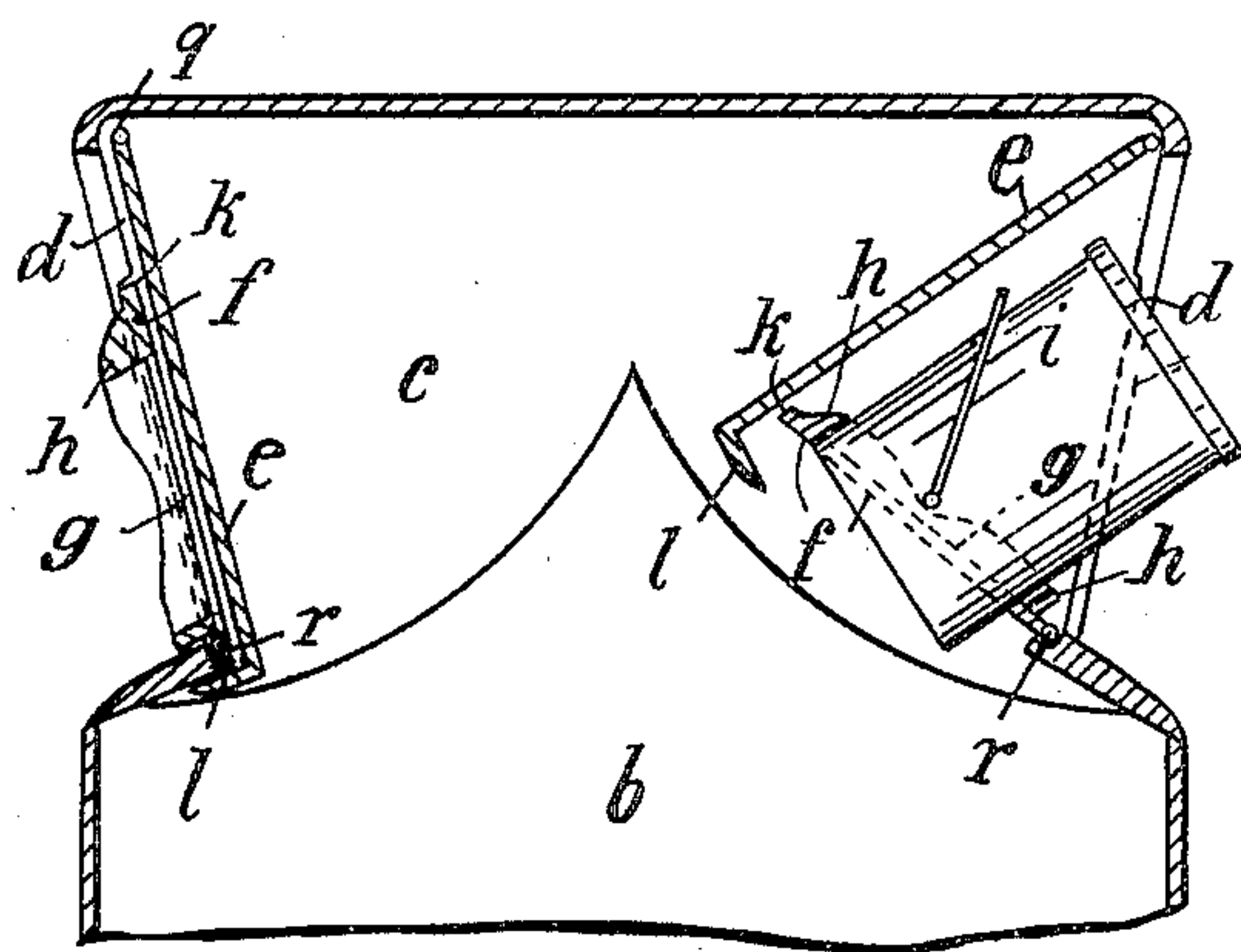


Fig. 2.

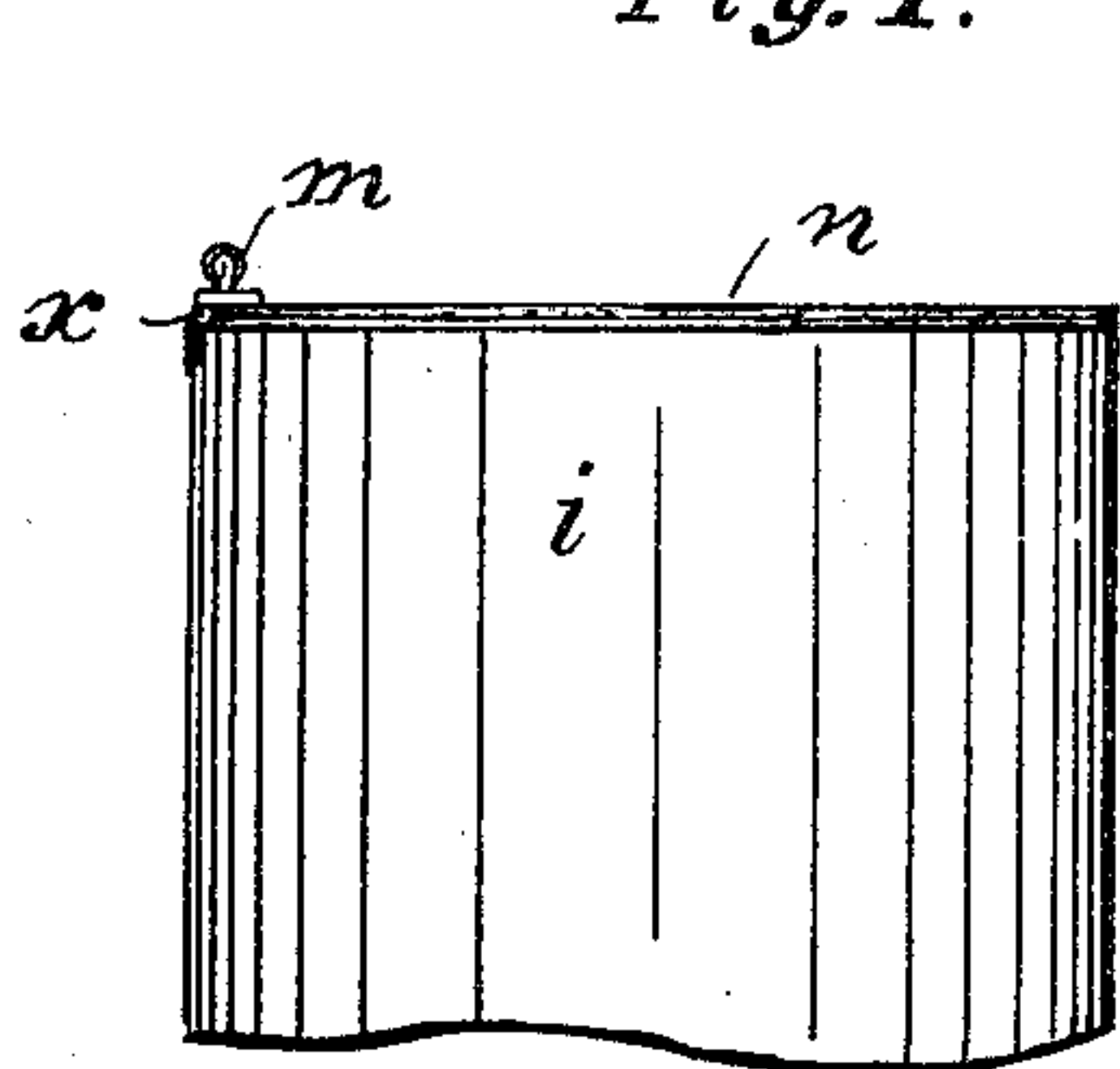


Fig. 3.

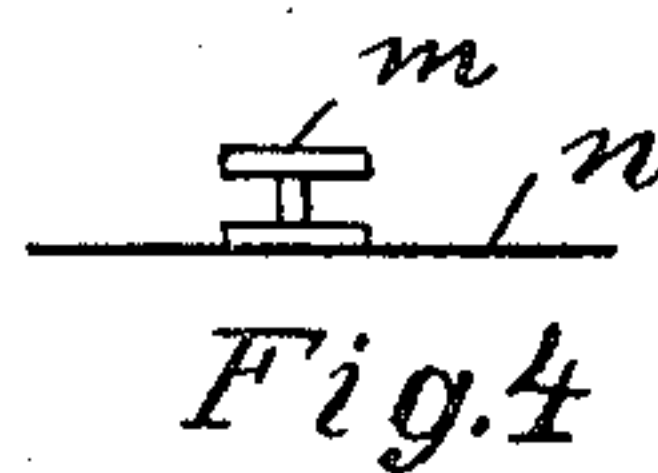


Fig. 4.

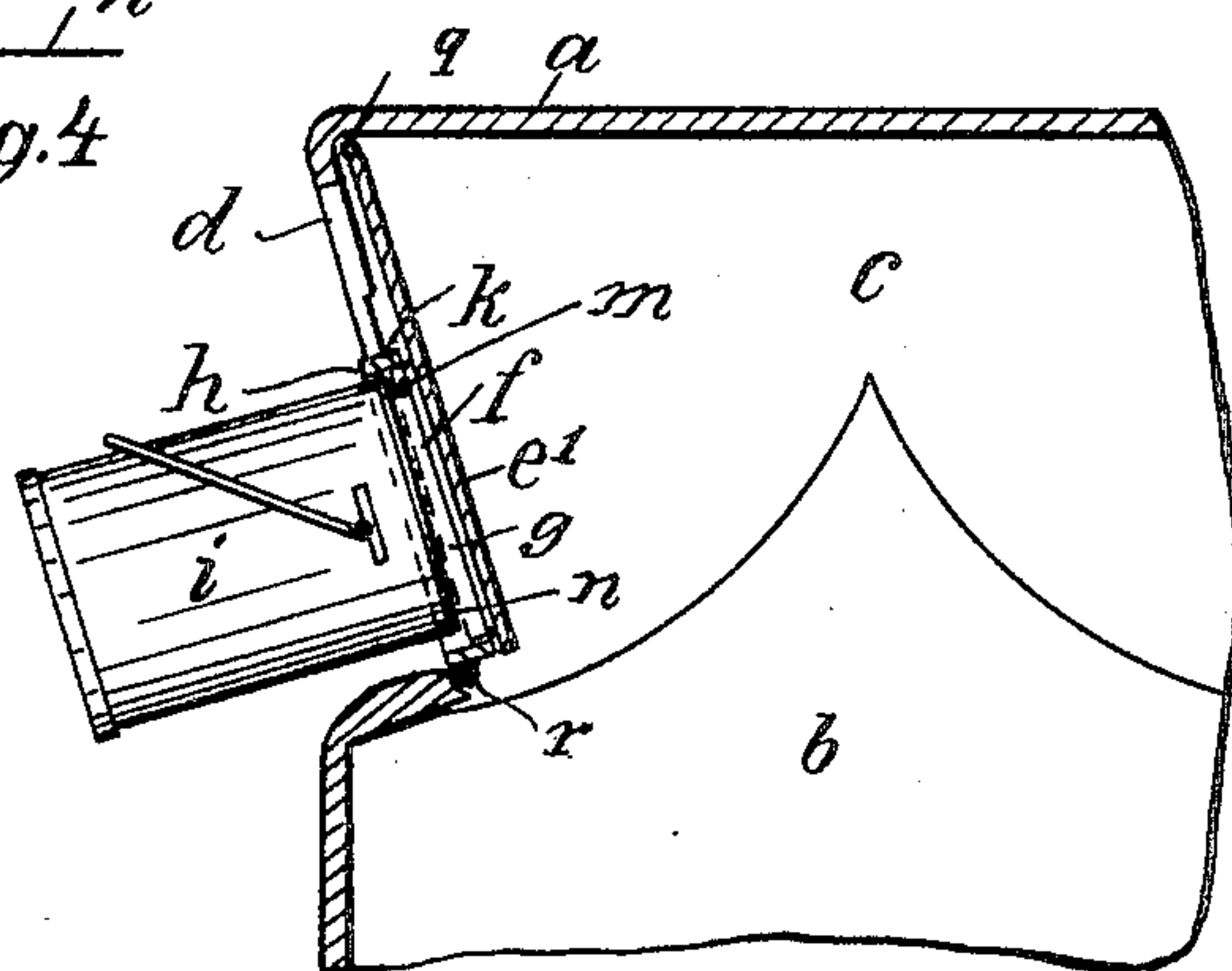


Fig. 5.

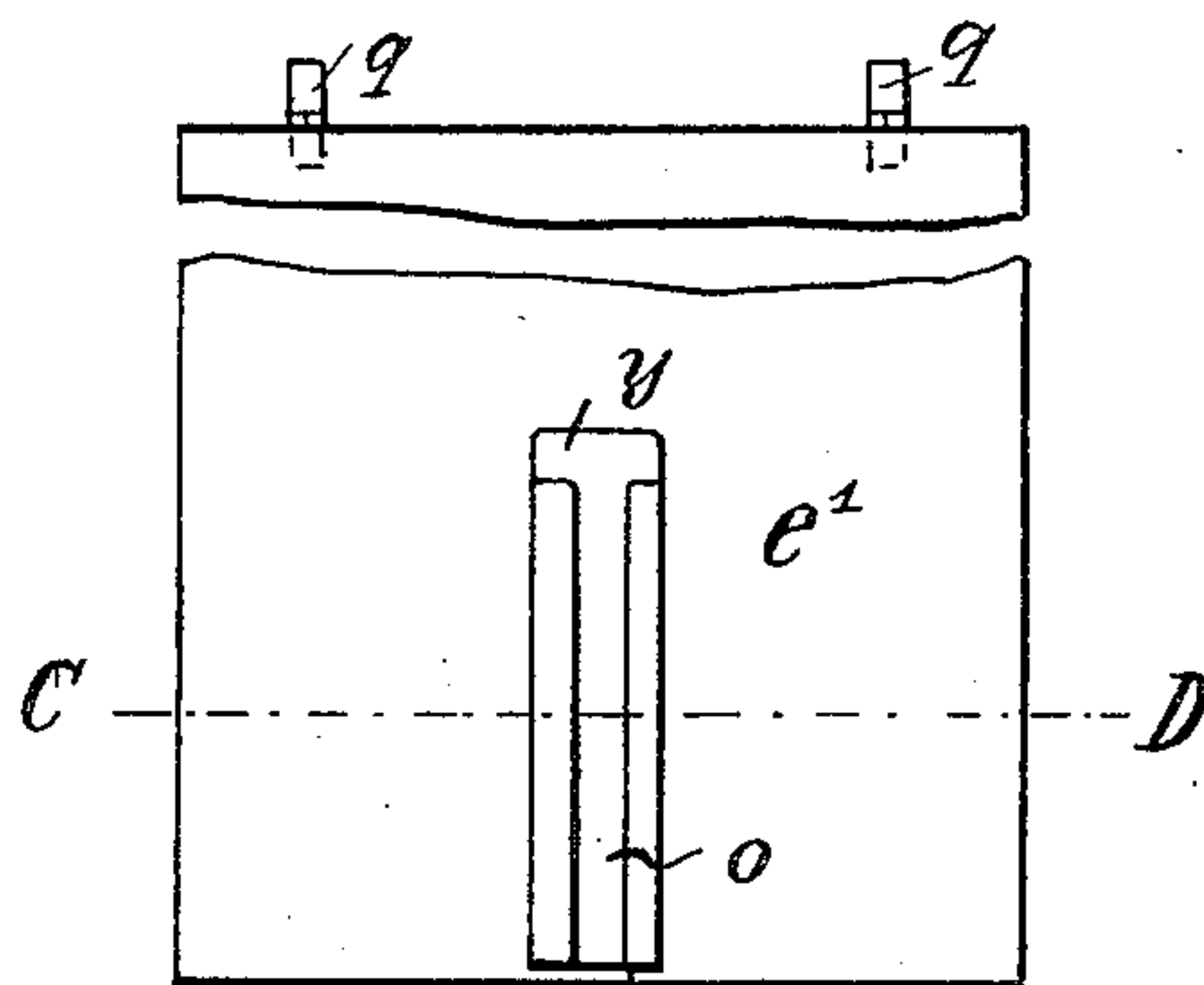


Fig. 6.



Fig. 7.

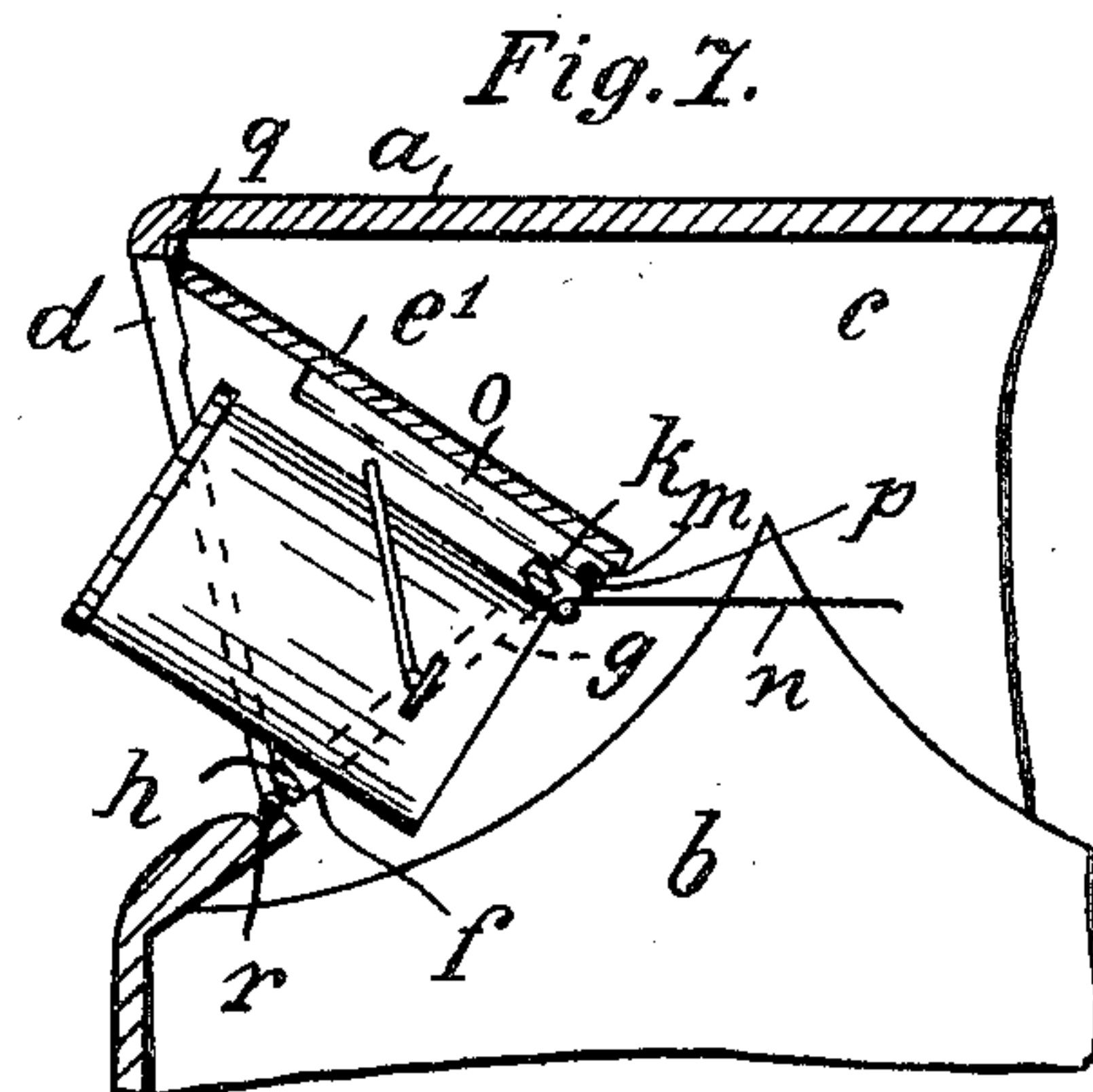


Fig. 8.

Witnesses:

Peter Lieber
Lamm Herber.

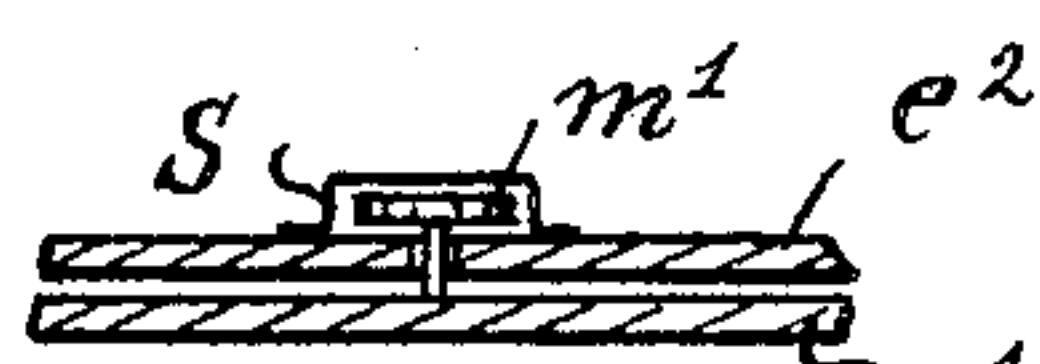


Fig. 9.

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UNITED STATES PATENT OFFICE.

HEINRICH FREISE, OF BOCHUM-HAMME, GERMANY.

DUST-CART.

No. 822,265.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed March 28, 1905. Serial No. 252,580.

To all whom it may concern:

Be it known that I, HEINRICH FREISE, a subject of the German Emperor, and a resident of Bochum-Hamme, Germany, have invented certain new and useful Improvements in an Arrangement for Emptying the Dust-Bins in a Cart without Raising Dust, of which the following is a specification.

Arrangements exist for emptying dust-bins in the dust-carts in which the dust-bin is set in a frame which is arranged to turn before the mouth of the side exit of the cart, which turns on the pressure of the dust-pin, and thereby opens the flap, which closes the chute-opening. In older arrangements of this kind the frame moved between fixed walls arranged above the chute-opening and was attached to the closing slide by a special guide-plate.

By means of the present invention the application of this guide-plate is thereby avoided that the frame is arranged directly before a hanging closing flap for the chute-opening, and on the flap being thrown back moves along same dust-tight, and thereby opens it. For closing the openings sideward, freed by the folding back, two side walls are used in the usual way, along which the inwardly-swinging closing flaps lead dust-tight.

The drawings show two forms of execution of the object of invention, and Figure 1 shows a side view of the upper part of the dust-cart. Fig. 2 shows a vertical section on line A B of Fig. 1 of one of the first forms of execution, while Fig. 3 gives a side view of the bin; Fig. 4, a separate view of the lid with the projection attached to same; Fig. 5, a view of the flap; Fig. 6, a section on line C D of Fig. 5; Fig. 9, a different form of execution in a horizontal section through the flap, and Figs. 7 and 8 finally show in vertical sections two different positions of the arrangement. Figs. 3 to 9 refer to the second execution and show a further development of the first form of execution.

The roof *a* of the cart-box *b* is divided on both sides into several compartments by vertical-running division-walls *c*. The chute-openings *d* arising therefrom are closed by flaps *e*, which are fastened swinging to the upper rim of the chute-opening. The flaps *e* move between the division-walls *c* or between a division-wall and the front or back wall of the cart-box *b*. Before each flap *e* the frame or a second flap *f* of the same breadth but of less height is arranged, which

is attached swinging to the lower rim of the chute-opening *d*. The frame *f* has an opening *g*, which is surrounded by a raised rim *h*.

Opening *g* is closed in its normal position, Fig. 2, left, by the back flap *e*. Opening *g* and rim *h* serve for the reception of the dust-bin *i*, Fig. 2, right, made to fit same. In emptying the dust-bin the flap *e* and frame *f* are moved inward. The downward motion of the frame *f* is circumscribed by a knob *l* on the flap *e* or on the division-wall *c*. When the dust-bin has been emptied, same is moved back and takes the frame *f* with it, because the dust-bin jams firmly into the deep rim *h*, while the flap *e* shuts automatically by its own weight. The raising of the flap *e* can also be effected by a special coupling arrangement on the dust-bin and frame. By moving the flap *e* and the frame *f* inward and in guiding same back to the normal position the upper rim *k* of frame *f* always remains in all positions in dust-tight contact with the flap *e*. As at the same time the opening *g* is covered by the dust-receptacle and frame, as well as flap slide past close to the division-walls *c*, no dust can escape from the inside of the cart outward, in emptying the ash-buckets into the cart. Flap *e* and frame *f* can be secured in their normal position by means of any suitable contrivance.

A further form of execution of the present invention has reference to an arrangement, Figs. 3 to 9, in which the motion of the flap along the frame is utilized to force the lid of the dust-receptacle wide open and on the backward motion again completely to close same. This is attained as follows: A knob in the lid of the dust-receptacle grips into a slit-guide in the flap, and thereby forces the lid on backward movement to follow the flap and to lift itself off the dust-receptacle. This connection between dust-receptacle, frame, and flap also insures a sure raising of the frame on the pushing back of the dust-receptacle. The ash-bucket *i* is supplied with a lid fastened with a hinge *x*. In the neighborhood of the revolving axis of the hinge *x* a projecting sliding piece *m* is attached, which, as is shown in Fig. 4, has a form like a head with a thin shaft and a broad head. On the flap *e*, which, as in the first form of execution, is hung up at the top of cart *a* by means of hinge *g*, guide-rails *o* are furnished, which, as may be seen from Fig. 6, can be made of C-shaped bent metal. At the upper end the space *y* remaining free between the

rails is so widened that the head of the projection *m* can be introduced into same. The lower end of the guide-rail connection is closed by a plate *p*. The dust-bin *i* is set 5 with its upper end in a frame *f*, revolving round the axle *r*. The projection *m* lays itself hereby into the widening *y* of the slide-rail connection *o*. (See Fig. 7.) In folding down the frame *f* backward the flap *e* is 10 pressed inward. The projection *m* slides along the guide *o*, whereby the guide-rails, catching behind the head of the projection, open the lid. (See Fig. 8.) When the frame is completely shut down, the lid *n* is very widely 15 open, so that it in no way prevents the falling out of the refuse. In moving back the receptacle *i* frame *f* and flap *e* regain their original position, whereby the projection *m* remains in catch with the rails *o* and compels a 20 secure closure of the flap *e* until it is again freed on reaching the position in Fig. 7. In the form of execution described up till now the rails *o* project over the front surface of the flap *e*. If this is to be avoided for the 25 purpose of completely tight closure, then the form of construction as per Fig. 9 can be chosen, in which the guide for the projection *m* is formed by the flap *e*².

What I claim as my invention, and desire 30 to secure by Letters Patent, is—

1. Means for preventing the escape of dust during the emptying of dust-bins into dust-carts, consisting of the combination of the 35 cart-roof, vertical walls *c* dividing the upper interior space under the cart-roof into compartments, flaps *e* hinged to the roof and closing the open ends of said compartments

and adapted to fit and swing between said wall *c*, and frames *f* of approximately the same width as the flaps *e* hinged at the lower 40 edge of the open ends of said compartments, said frames having openings *g* and raised rims *h* surrounding said openings, said rims being adapted to receive the dust-bins during emptying, substantially as described. 45

2. Means for preventing the escape of dust during the emptying of dust-bins into dust-carts, consisting of the combination of the cart-roof, vertical walls *c* dividing the upper 50 interior space under the cart-roof into compartments, flaps *e* hinged to the roof and closing the open ends of said compartments and adapted to fit and swing between said walls *c*, frames *f* of approximately the same width as 55 the flaps *e* hinged at the lower edge of the open ends of said compartments, said frames having openings *g* and raised rims *h* surrounding said openings, said rims being adapted to receive the dust-bins during 60 emptying, the dust-bins having hinged lids provided with slides and said flaps having guides in which said slides are adapted to engage when the bins are placed in the rims, whereby when the bins are emptied the bin- 65 lids are opened and when the bins are withdrawn the flaps are closed, substantially as described.

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

HEINRICH FREISE.

Witnesses:

PETER LIEBER,
EMMA HERBER.