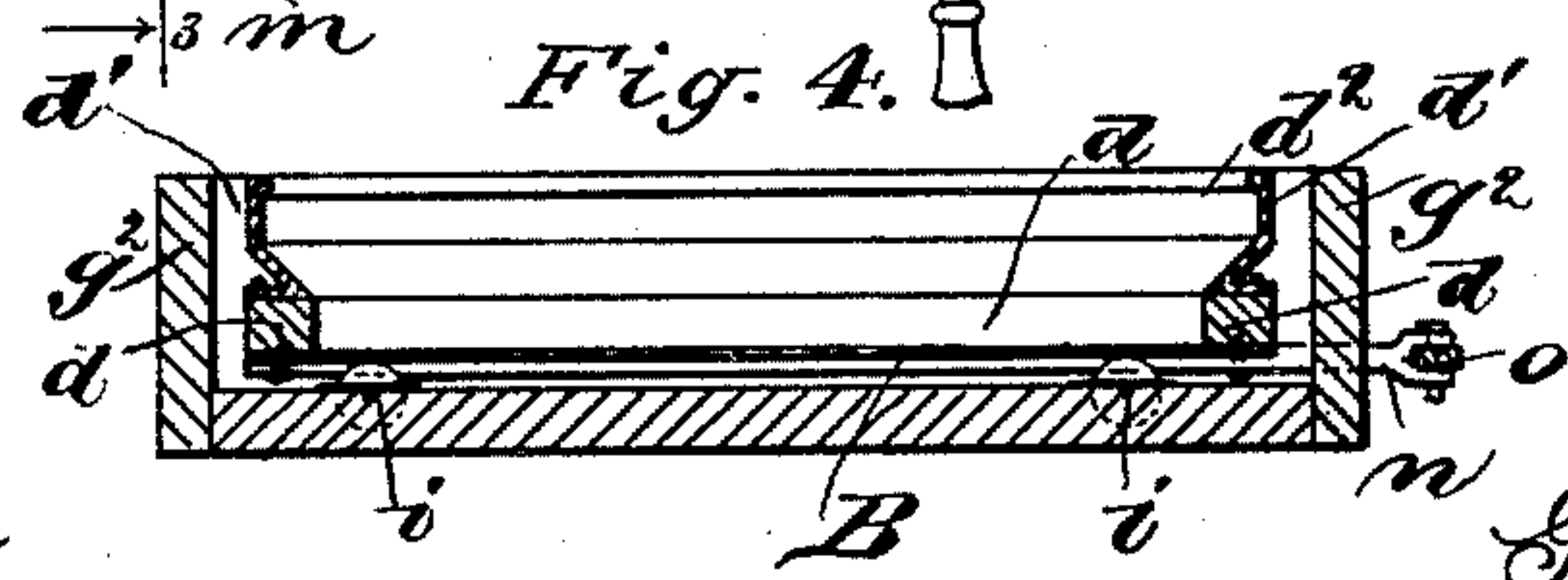
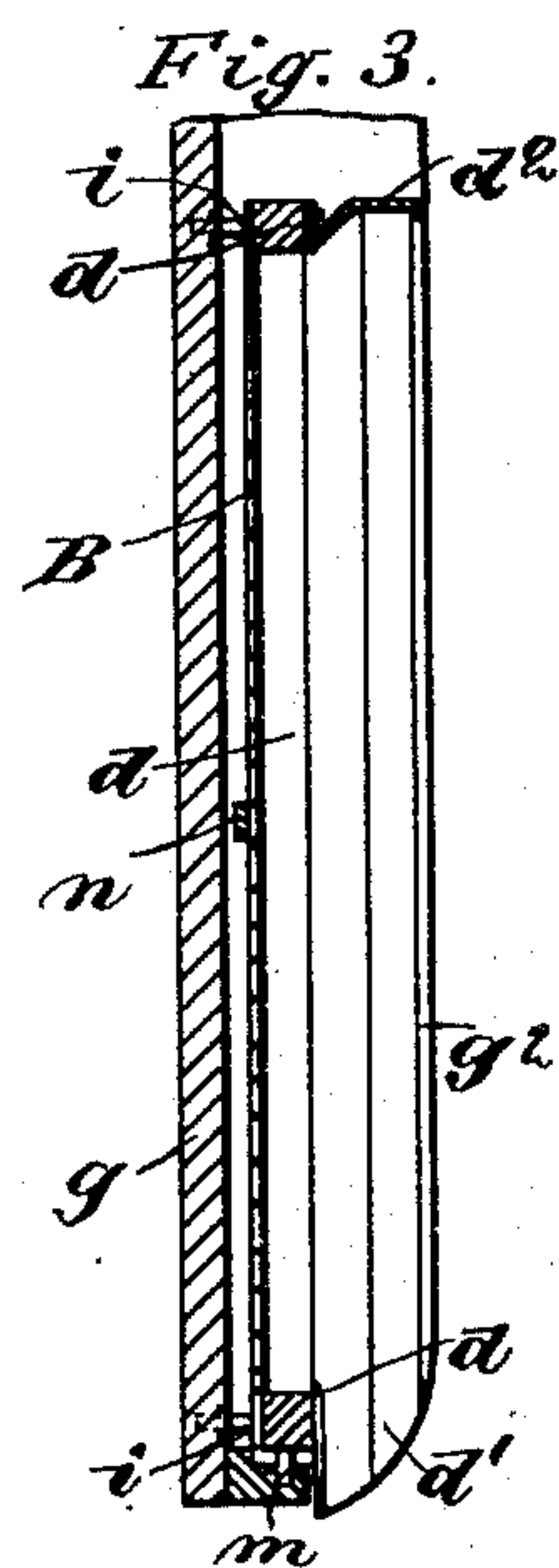
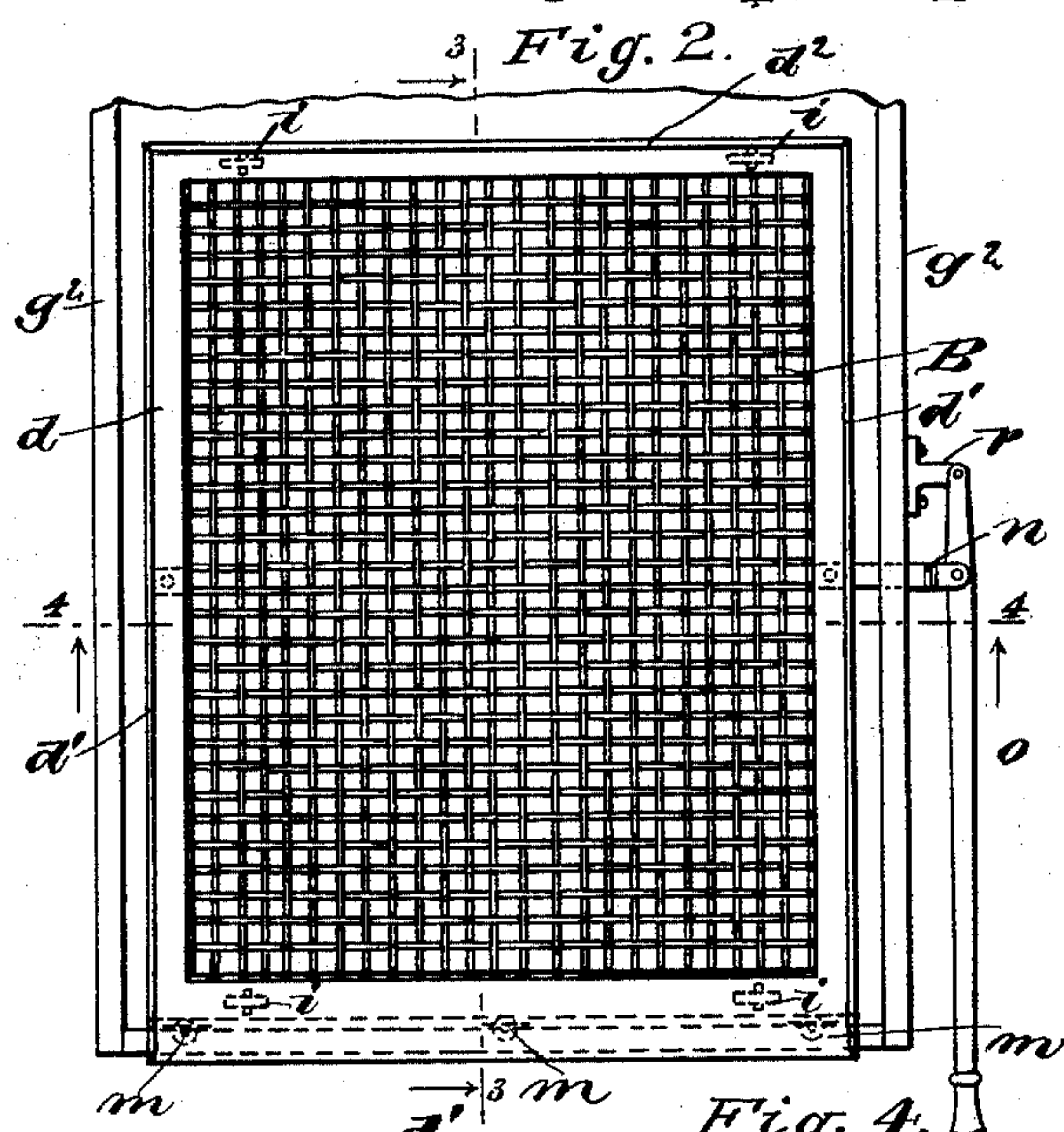
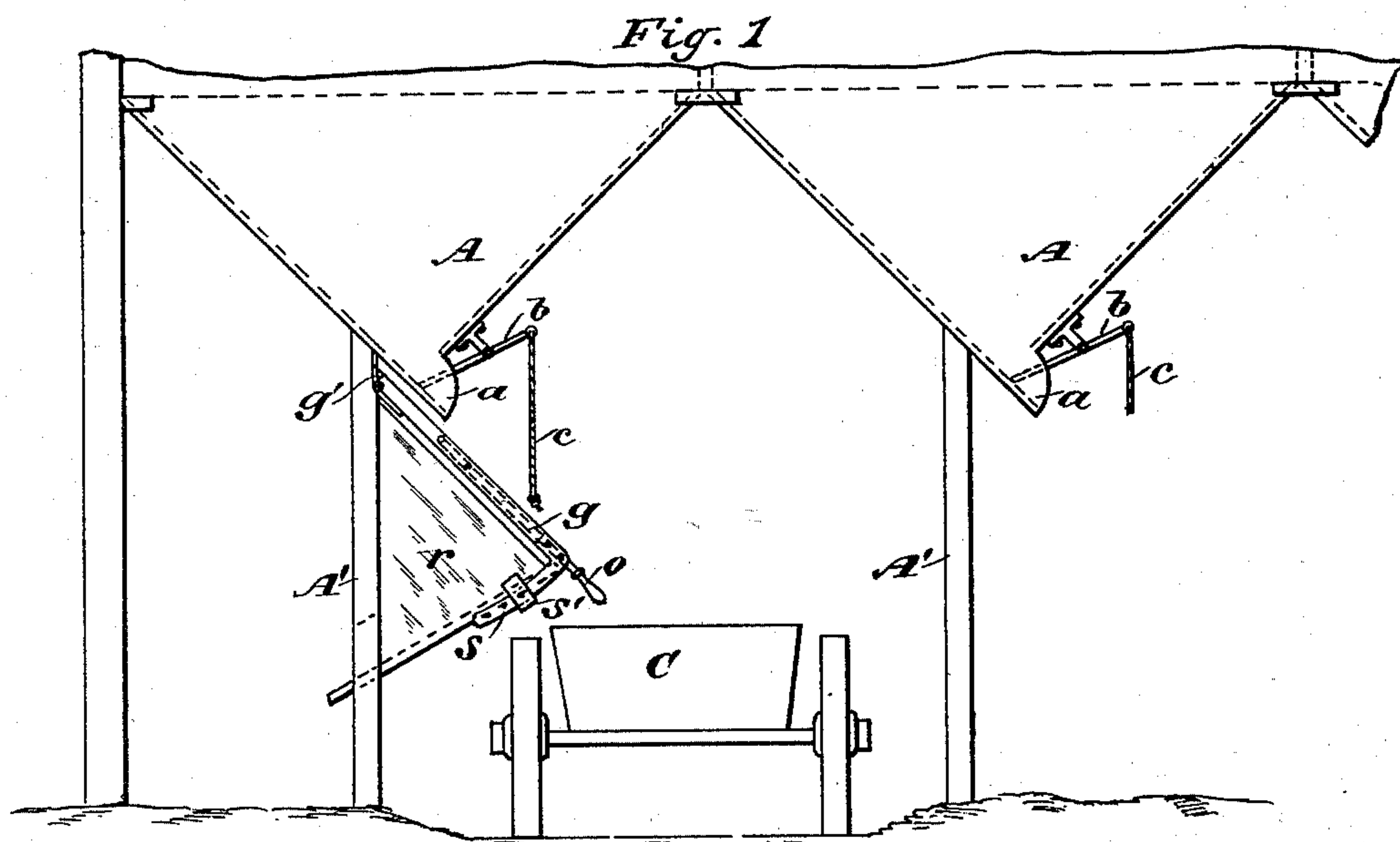


(No Model.)

G. A. THOMPSON.  
SCREENING DEVICE FOR COAL POCKETS.

No. 483,799.

Patented Oct. 4, 1892.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

GEORGE A. THOMPSON, OF BROOKLYN, NEW YORK.

## SCREENING DEVICE FOR COAL-POCKETS.

SPECIFICATION forming part of Letters Patent No. 483,799, dated October 4, 1892.

Application filed November 18, 1891. Serial No. 412,258. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. THOMPSON, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful  
5 Screening Device for Coal-Pockets, of which the following is a full, clear, and exact description.

In the retailing of coal that is broken for stove use competition requires that the coal  
10 be cleaned or separated from dust that is mixed with it in cars which haul it from the mines. To this end there are series of coal-receiving bins provided in yards where merchantable coal is stored, which bins, technically  
15 termed "pockets," are sufficiently elevated to allow a cart to be driven under any one of them and receive a supply of coal therefrom through a discharge-chute, and ordinarily there is an inclined screen affixed below  
20 the chute, whereon the coal falls and slides in its passage to a cart below the screen.

It has been found in use that the coal traversing a fixed screen will not be properly separated from the dust; and the object of my invention is to provide means to agitate the  
25 screen and control the delivery of coal from a pocket at the same time, and thus effect a thorough cleansing of the coal as it passes over a comparatively-short screen.

30 A further object is to provide means for adjusting the screen, so as to change its degree of inclination, as may be desired.

To these ends my invention consists in the construction and combination of parts, as hereinafter described and claimed.

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.

40 Figure 1 is a side view of two coal-pockets, one provided with the improvement, and a coal-cart in position to receive coal. Fig. 2 is an enlarged plan view of the screening device detached from its support and broken away above. Fig. 3 is a longitudinal section on the  
45 line 3 3 in Fig. 2, and Fig. 4 is a transverse section on the line 4 4 in Fig. 2.

In Fig. 1, A A are two coal-pockets for the delivery of broken anthracite coal or other  
50 kinds of coal that require screening before delivery to consumers. Each pocket is supported in an elevated position and receives

the coal-supply from cars that run on elevated tracks. (Not shown.) At the lowest point on each pocket A a delivery-chute *a* is formed or  
55 secured, which is provided with a pivoted gate *b*, that may be opened any desired extent to discharge coal from the pocket by pulling the cord *c*, which will rock the gate. It will be understood that I do not restrict myself to the  
60 exact form of gate shown, as any gate which will serve the purpose desired may be employed.

The coal-screen B (shown in other views) is preferably made of screen wire-cloth having  
65 a proper mesh to suit the grade of coal it is to screen, the screen being secured upon a rectangular frame *d*. Upon the upright wall *A'*, which aids to support the pocket A, an inclined rectangular frame *g* is hinged there-  
70 to by its upper edge, as at *g'*, other supports for the frame being hereinafter described. The frame *g* is of such proportionate dimensions as will permit the screen-frame *d* to lie within it and move laterally a short distance,  
75 so as to permit a proper reciprocation. The outer frame *g* has opposite side boards *g<sup>2</sup>* secured on its side edges of a proper height and length to prevent coal that enters the screen from scattering over the side walls *d'*  
80 of the screen-frame *d*, which walls, as shown in Fig. 4, are bent outwardly and then upwardly, (and if found desirable the upper end wall *d<sup>2</sup>*, which joins the side walls, may be similarly bent,) whereby the coal passing over  
85 the screen B will be prevented from lodging on the screen-frame and also be prevented from passing down between the outer screen-frame *g* and the screen B when the latter is agitated and the coal is passing over it.  
90

To obviate frictional resistance, the screen-frame *g* is provided with a suitable number of small rollers *i*, that are located in the top and lower cross-pieces of the frame, which rollers engage the lower surface of the screen-  
95 frame cross-bars and afford a rotatable support therefor. On the lower transverse bar of the frame *g* other rollers *m* are revolvably sustained so as to project their peripheral faces beyond the inner side of said bar and  
100 permit the adjacent edge of the screen-frame *d* to loosely rest against the same, as shown in Fig. 3. The screen-frame *d* has a metal pusher-bar *n* secured transversely upon it,



preferably on its lower side and near the longitudinal center, which bar projects at one side beyond the outer frame *g*, as shown in Fig. 2, and is pivotally attached at this terminal to a lever *o*, that has its upper end similarly secured to a bracket-post *p*, which is affixed on a side bar of the frame *g*, the lever from its position being adapted to project toward the cart C when the latter is opposite the chute of the pocket A, as shown in Fig. 1.

Below the screen-frame and the supporting-frame *g* a dust-conveyer is formed, as at *r* in Fig. 1. The bottom wall of this receptacle, being inclined toward the upright wall A', passes through an opening in the latter, so as to deposit the dust on the opposite side of the wall from the screen B. As previously mentioned, the outer rectangular frame *g* is hinged at *g'* upon the vertical wall A', so that it may be vibrated to change the pitch of the screen B, and to adjustably sustain the forward edge of the screen at any desired angle there is an arch-piece *s*, attached to the frame *g*, which projects downwardly, passing through a keeper-loop *s'* and having a series of spaced holes transversely formed in it, so that the insertion of a pin through any of these holes and through an aligning hole in the loop will retain the screen at any desired degree of inclination.

In use the cart-driver locates the cart C in front of a chute *a*, grasping the cord *c* with one hand and the lever *o* with the other hand. The gate *b* is now raised a proper degree to allow coal to escape from the chute onto the screen, which latter is quickly agitated to shake the dust out of the coal on the screen by a proper vibration of the lever, and it will be seen that the delivery of the coal and removal of dust from it are by this means under

perfect control of the operator, so that the refuse matter can be thoroughly separated from the coal as it passes from the pocket A to the cart C.

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

1. The combination, with the elevated coal-pocket having a gate, of a vertically-swinging inclined frame hinged at its rear end below said gate and having adjusting mechanism for its forward end, a vibrating screen within the frame and having an operating-lever extending outwardly to the free edge of the frame within reach of the operator, an operating device depending from the gate of the pocket and also within reach of the operator to permit of simultaneous operation, and a dust-conveyer below and inclined reversely to the screen and its frame, substantially as set forth.

2. An apparatus for loading vehicles with coal, comprising an elevated pocket having a gate and a vertically-swinging frame hinged therebelow, an apertured curved arm secured to the frame and provided with a keeper and adjusting-pin, a dust-chute beneath and inclined reversely to said frame, a vibratory screen within the frame, a lever pivoted to the frame, connected to the screen, and extending to the lower outer edge thereof in reach of the operator, and a gate for the pocket, having its operating device extending down toward the said lever for simultaneous operation therewith, substantially as set forth.

GEORGE A. THOMPSON.

Witnesses:

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JULIUS STOHLMAN, Jr.