

J. C. KIMSEY, DEC'D.

S. R. VALE, EXECUTOR.

WINDOW.

APPLICATION FILED JUNE 26, 1906.

Patented Jan. 5, 1909.

4 SHEETS—SHEET 1.

909,094.

Fig. 2.

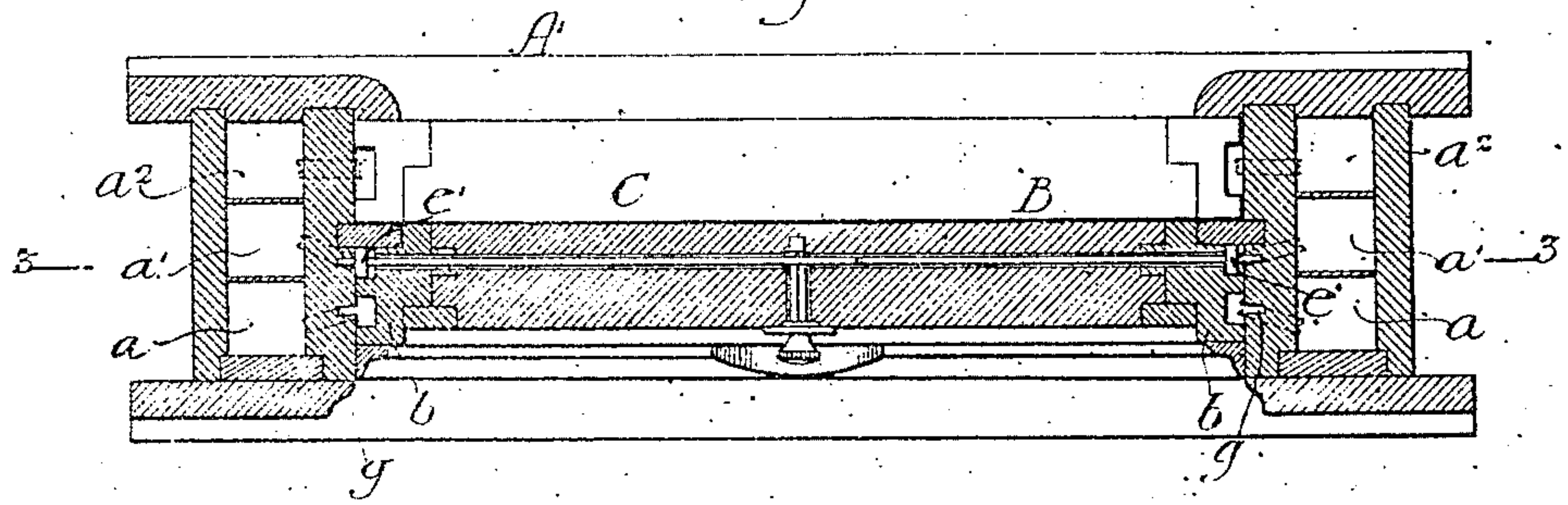
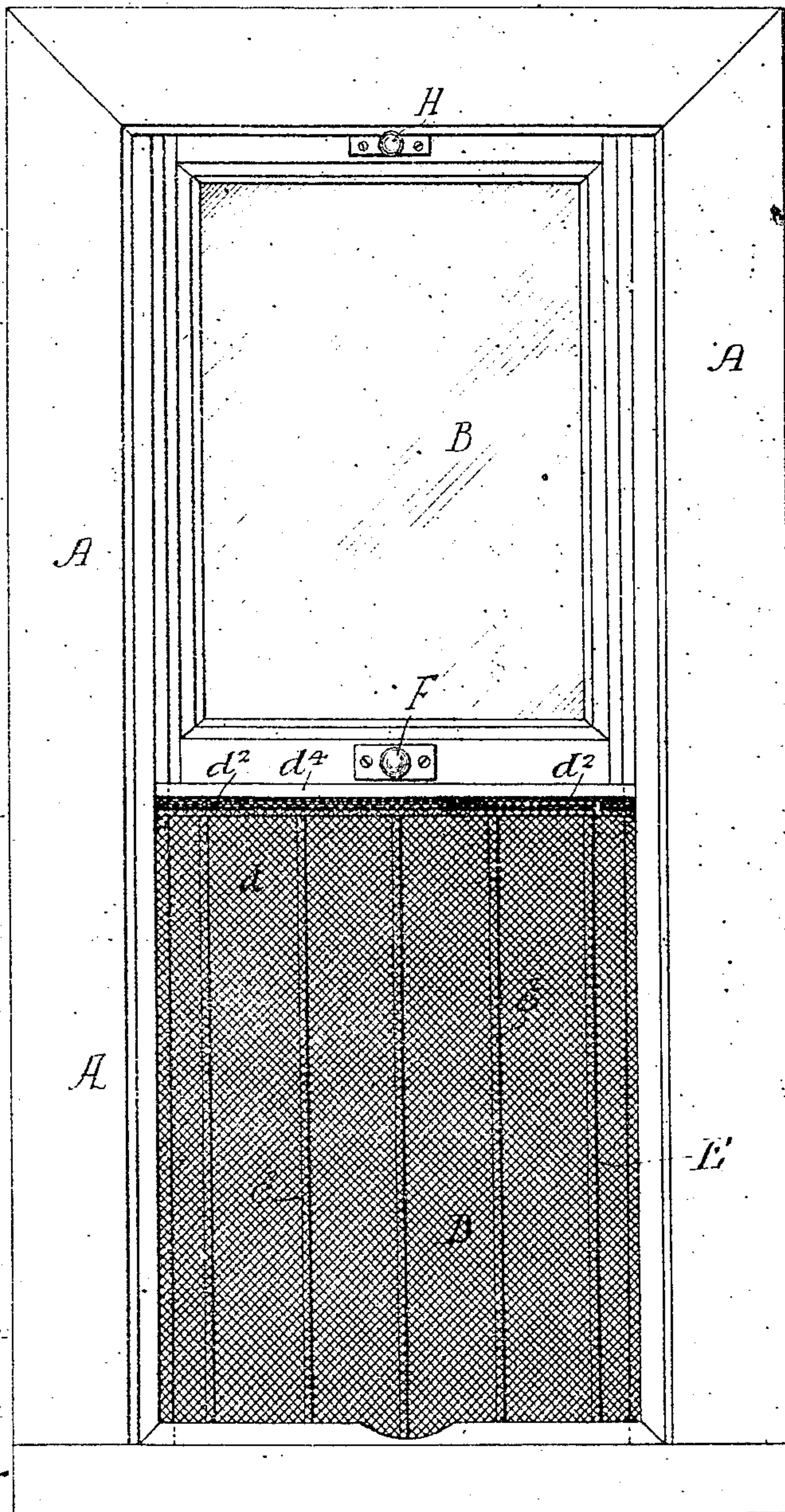
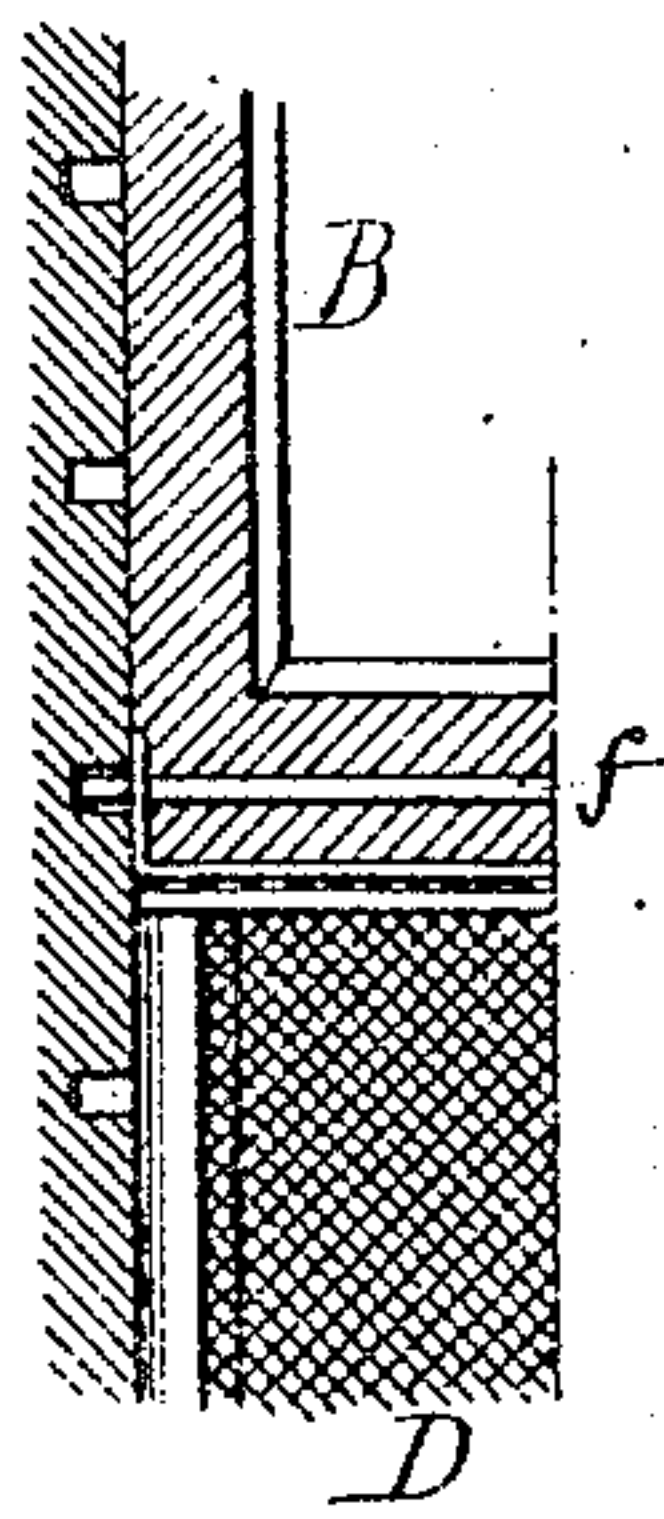


Fig. 1.

Fig. 12.



Witnesses:
 Thos. H. Jones.
 Augustus B. Coppe.

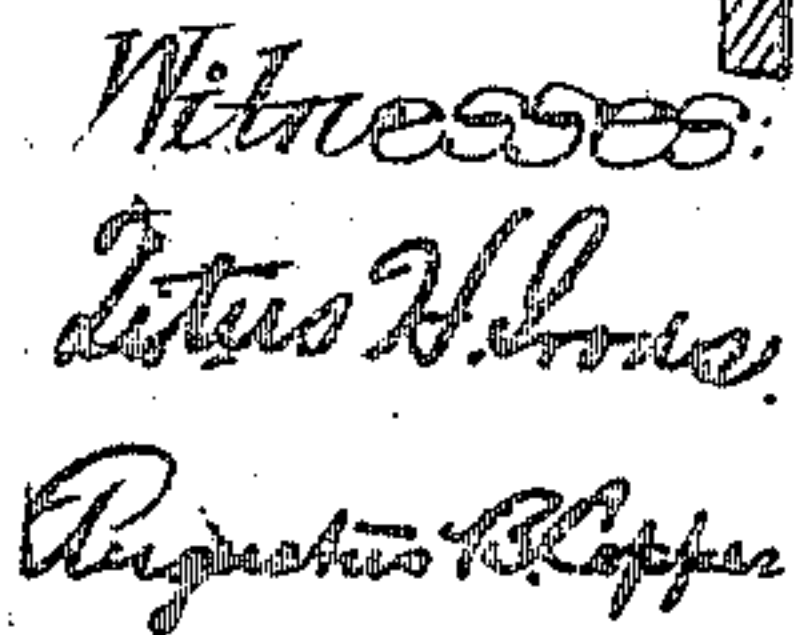
Inventor:
 James C. Kimsey.
 By his Attorneys
 Howard &
 Harman

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4 SHEETS--SHEET 2.

Fig. 4.

Fig. 3.

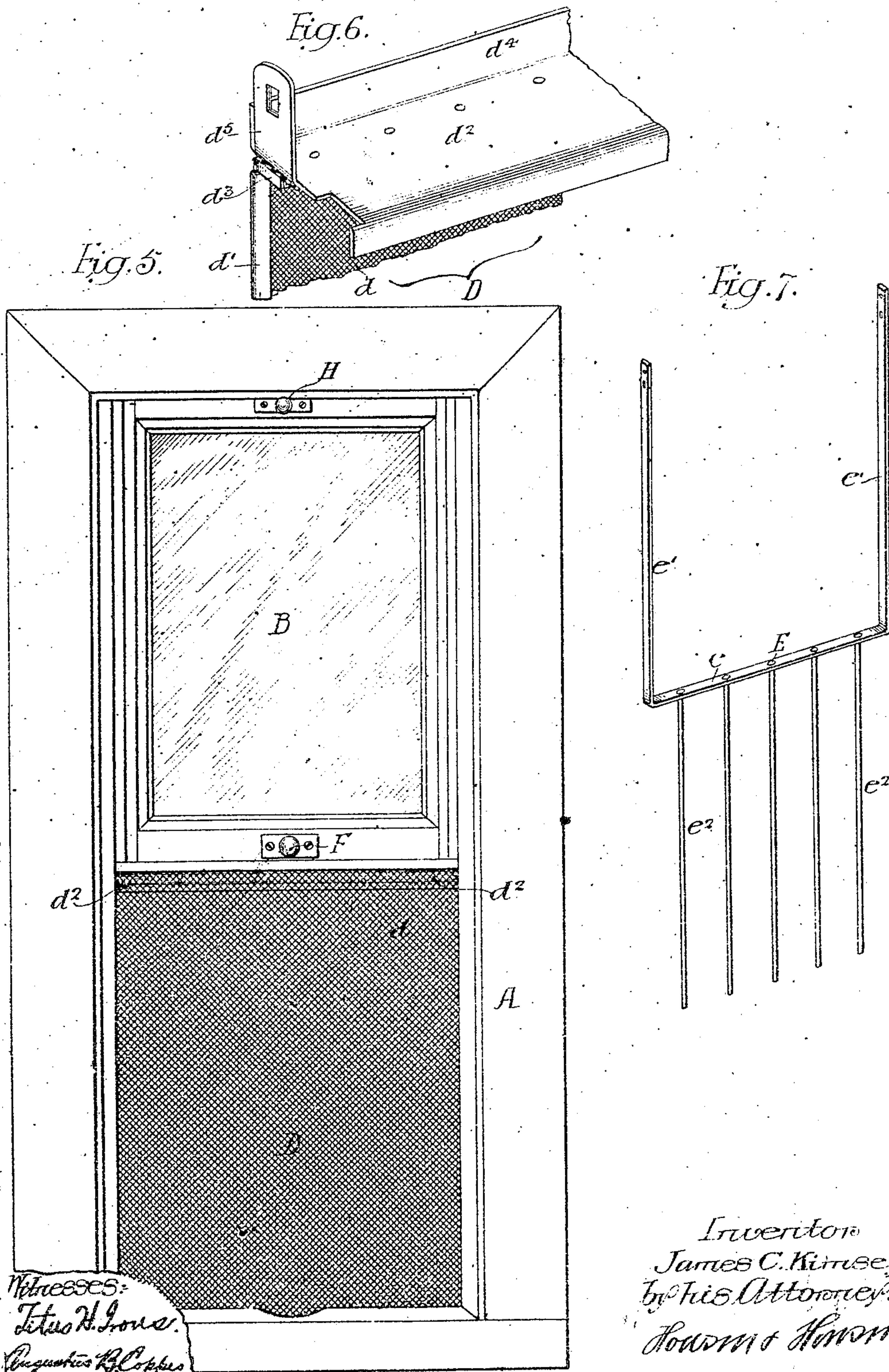


In witness whereof
James C. Kimsey
by his Attorneys
Howson & Howson

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4 SHEETS—SHEET 4.

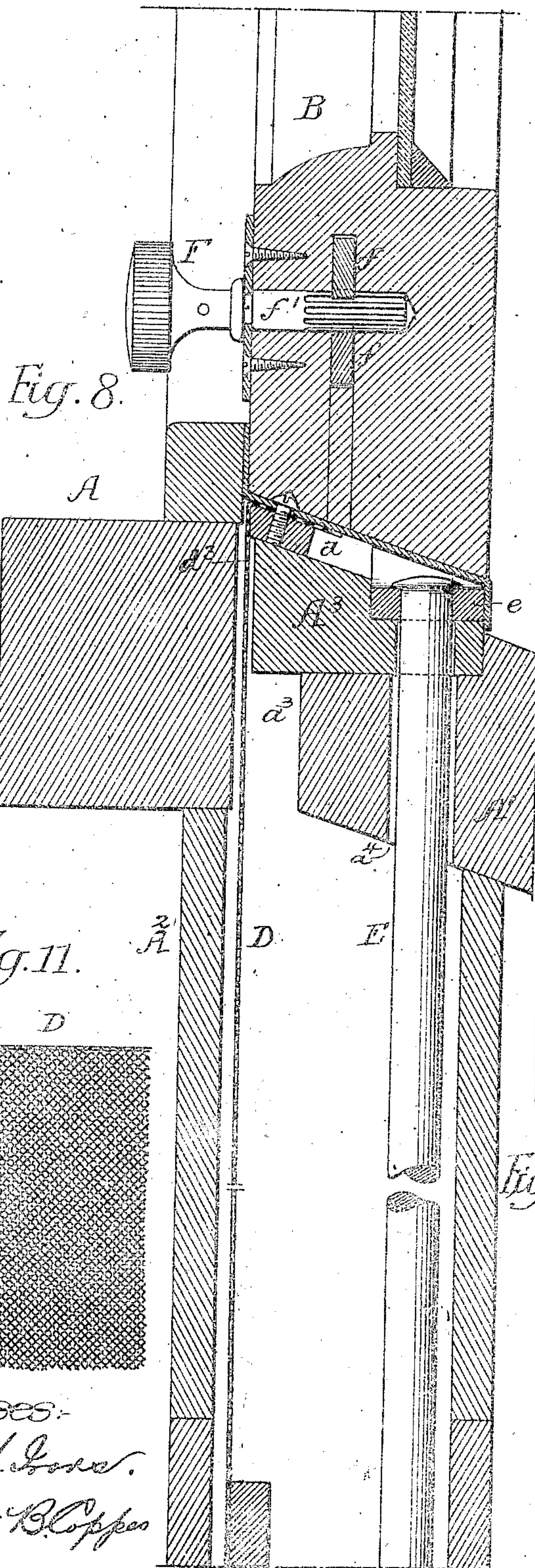


Fig. 8.

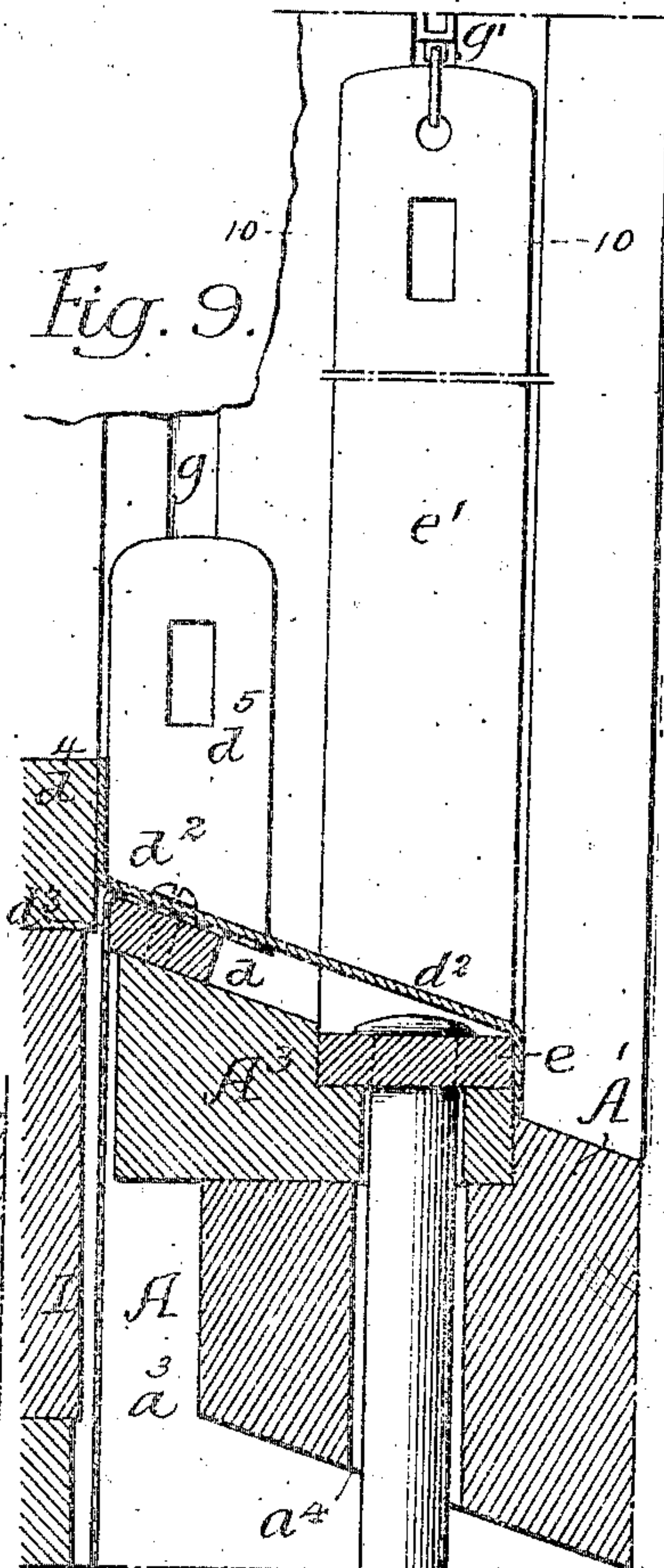


Fig. 9.

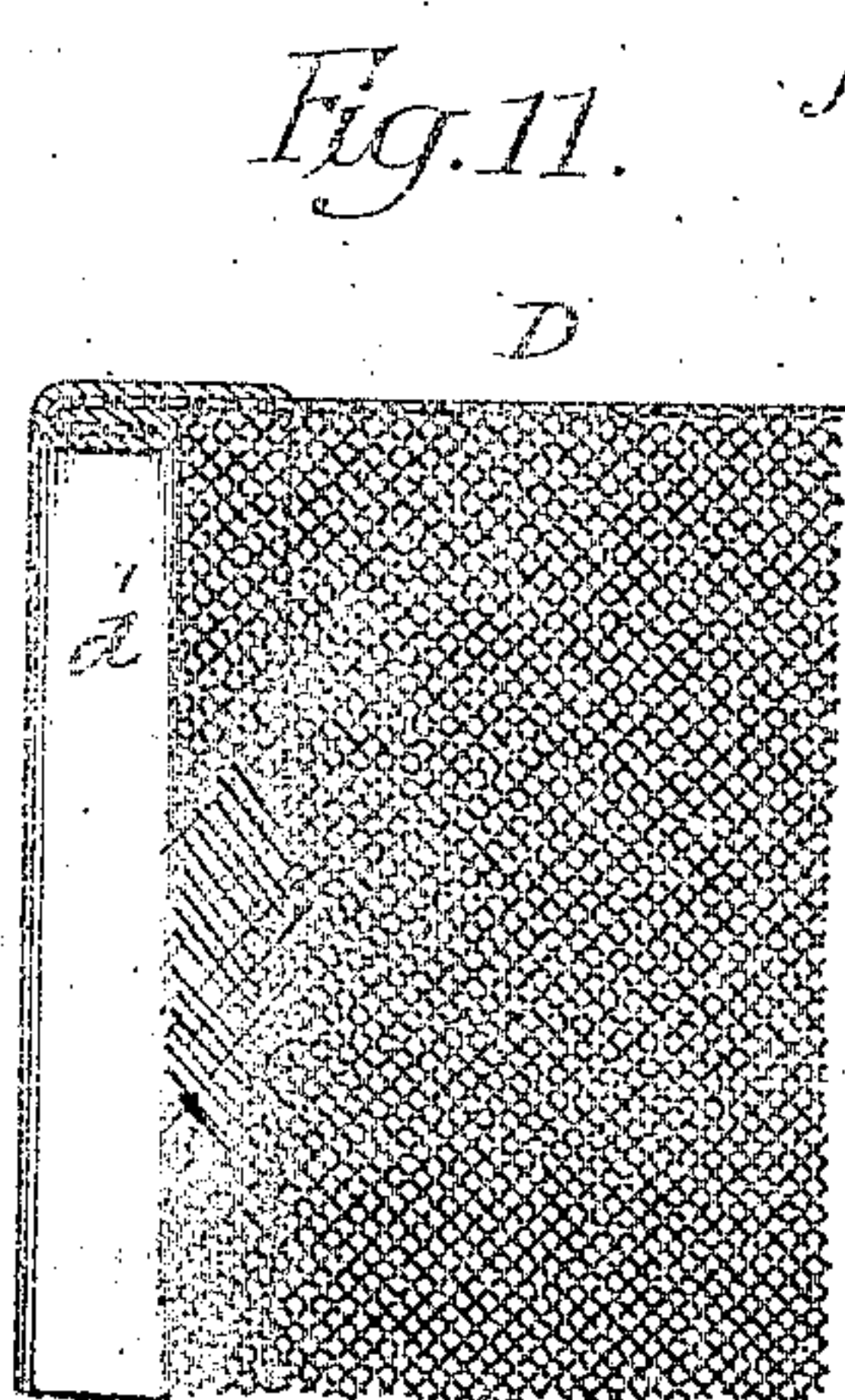


Fig. 11.

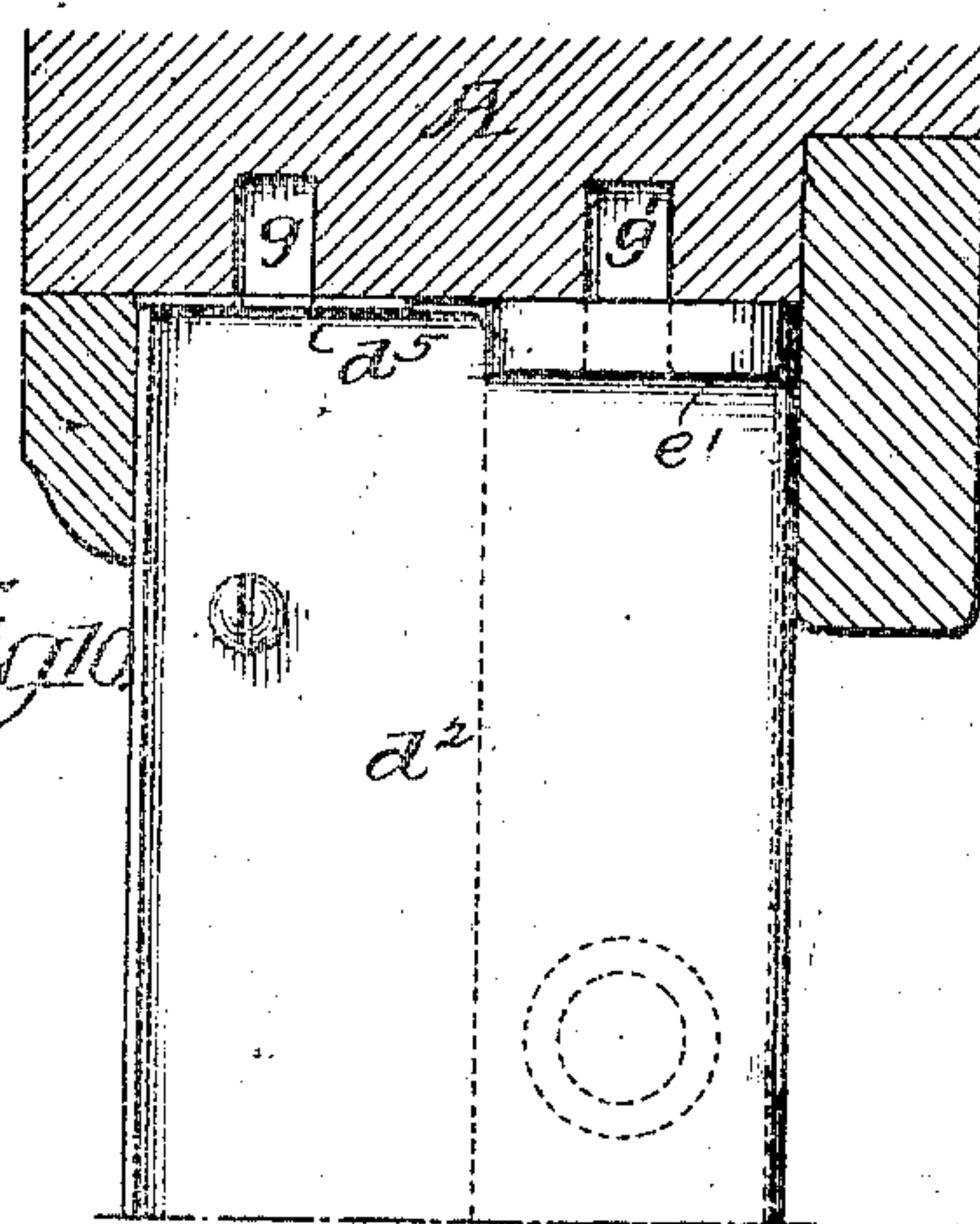


Fig. 10.

Witnesses:
Lester H. Goss.
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Inventor:
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by his Attorneys,
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UNITED STATES PATENT OFFICE.

JAMES C. KIMSEY, OF PHILADELPHIA, PENNSYLVANIA; RUBY R. VALE, EXECUTOR OF SAID KIMSEY, DECEASED, ASSIGNOR TO THE KIMSEY COMPANY, A CORPORATION OF NEW JERSEY.

WINDOW.

No. 909,094.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed June 26, 1906. Serial No. 323,512.

To all whom it may concern:

Be it known that I, JAMES C. KIMSEY, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Windows, of which the following is a specification.

The object of my invention is to combine a movable screen and a movable set of bars with a window frame, so that they can be secured to the lower sash and be moved with it.

In the accompanying drawings:—Figure 1, is a view of a window frame and sash showing the screen and bars raised; Fig. 2, is a sectional plan view on the line 2—2, Fig. 3; Fig. 3, is a section on the line 3—3, Fig. 2; Fig. 4, is a section on the line 4—4, Fig. 3; Fig. 5, is a view of the window frame showing the lower sash raised and the screen in position; Fig. 6, is a perspective view of a detail of the screen; Fig. 7, is a detached perspective view of the set of bars; Fig. 8, is an enlarged sectional view on the line 8—8, Fig. 3; Fig. 9, is a sectional view similar to Fig. 8, with the sash raised; Fig. 10, is a sectional view on the line 10—10, Fig. 9; Fig. 11, is a perspective view showing a detail of the screen; and Fig. 12, is a view of a modification.

This invention is especially applicable to windows where it is wished to raise the lower sash and yet make the window proof against sneak thieves and where it is desired to use a fly screen.

Permanent window bars are objectionable as they are unsightly when the window is down and oftentimes it is not necessary to either use the screen or the bars. By my invention I am enabled to raise and lower the lower sash without the bars or screen, or with the screen alone attached, or with both the screen and bars.

A is the window frame, B is the lower sash and C is the upper sash. These sashes are arranged to slide in the ordinary ways of the window frame and are preferably made as shown in Fig. 2, the sash B, for instance, has side members *b, b* which can be detachably secured to the main sash so that these side members can be made of hard wood if desired in order to make a neat fit in the ways.

The window frame has three sash weight wells *a, a', a''*; in the present instance, *a* being the well for the counterweight of the lower sash, *a''* the well for the counterweight of the upper sash, and *a'* the well for the

counterweight of the bars. If spring balances are used in place of the weights it will be understood that this construction will be dispensed with.

Directly under the window frame A is a box *A'* for the reception of the screen D and the set of bars E.

The sill *A'* is slotted at *a'* for the screen and perforated at *a''* for the bars, *A'* is a detachable section of the sill also perforated for the bars and recessed for the head *e* to which the bars are attached. The detachable section of the sill extends over the slot *a'* in the sill leaving room only for the body of the screen to pass while the slot *a''* is of sufficient size for the passage of the bottom bar of the screen so that when the section *A'* is detached the screen and bars can be removed.

The screen D is the ordinary fly screen having a bar *d'* at each edge, Fig. 11, which is turned over the raw edge of the screen. The upper end *d* of the body portion of the screen is clamped to a head plate *d''* by a bar *d'''*, as clearly shown in Fig. 6. This plate *d''* overlaps the projecting portion *A'* of the sill, as clearly illustrated in Fig. 8, and the plate is turned up at *d'* and fits against the inner surface of the lower portion of the lower sash. At each end of the plate *d''* are projecting lugs *d'''* perforated to receive the bolts *f, f* which are carried by the lower sash B and which lock the screen D to the lower sash. The inner ends of these bolts pass each other and are toothed for a certain distance, and engaging the toothed portion of the bolts is a toothed spindle *f'* mounted in the lower portion of the sash B and provided with an operating knob F. In place of the knob F in some instances a detachable key may be used for turning the spindle or wheel *f'*.

The ways of the frame A preferably have vertical grooves *g* to allow the bolts *f, f* to project far enough so that the screen frame will not slip off the bolts, although where the projecting portions *d''* of the screen frame are made heavy the bolts may only be projected into the opening in the screen frame, the slots in this instance being dispensed with.

In some instances in addition to or in place of using the slots, holes may be bored into the frame A at intervals so that the bolts can be shot into the holes, and this construction will not only lock the screen to the sash

but will also lock the sash to the frame. This construction is shown in Fig. 12. Other means for locking the lower sash to the frame may be used without departing from my invention.

The set of bars E consists of a head e having up-turned members e' , and a series of bars e^2 the ends of the members e' have two perforations at their upper ends, one for the bolts h , h and the other for the attachment of the counterbalance chain e^3 which passes over a pulley at the top and from which is suspended a weight e^4 , Figs. 3 and 9. The bars e^2 are attached to the head e by riveting or other suitable means, and there may be as many of these bars as desired.

In the present instance bolts h , h are mounted in the upper end of the lower sash B and a toothed spindle or wheel h' engages the toothed sections of these bolts in the same manner as the spindle f' . A knob H is provided for projecting or withdrawing the bolts. In this instance I have shown longitudinal slots g' in the frame for the reception of the ends of the bolts h , h , although these slots may be dispensed with when it is desired not to project the bolts through the members of the bars E. By projecting the bolts the bars are attached to the lower sash so that when the lower sash is raised the bars, as well as the screen, are raised with it, as clearly shown in Fig. 1.

It will be noticed that the sash pulleys at the top of the window are arranged at an angle so that the frame will accommodate the three weights without one interfering with the other.

I have not shown any means of fastening the upper sash when the lower sash is raised. I have used the ordinary sash fastening, as illustrated in Fig. 4, for securing the two sashes together but any suitable lock may be used to lock the upper sash in any position desired.

It will be seen that by my invention I make a frame which to all appearances is of the ordinary construction and in which the lower sash can be raised and lowered in the ordinary manner without the screen or the bars. When it is desired to use only the screen the lower bolts f , f are projected by simply turning the knob G when the sash is down, after which the sash can be raised with the screen attached thereto, the bars remaining below the sill. When it is desired to raise the bars the sash is lowered and the upper bolts are projected by turning the knob H and on raising the sash the bars will be raised as well as the screen and the lock for the bars cannot be tampered with.

When the sash B is raised, as illustrated in Fig. 9, the plate d^2 forming the head of the screen D acts as a shield and continuation of the sill throwing off any water which may lodge on the sill. When the screen bars are

raised the sill itself is so formed as to allow water to flow away, the heads e of the bars resting in a step or recess at the edge of the sill, as clearly shown in the enlarged views, Figs. 8 and 9.

It will be understood that this invention may be used in connection with the upper sash as well as the lower sash, the parts being simply inverted, and in this instance it may not be necessary to make the screen and bars as long as the screen and bars of the lower sash, as all that is necessary is to allow for a slight movement of the upper sash for ventilation.

I claim:—

1. The combination with a window frame having a sliding sash and a pocket, of a screen adapted to occupy said pocket, a plate having upturned ends to which the upper edge of said screen is secured, locking means carried by the sash for engaging said plate to detachably connect said screen with the sash, and means for operating said lock, the window frame having recesses to receive the locking means and support said screen at different heights.

2. The combination with a window-frame having a sliding sash and a pocket, of a screen and a set of bars adapted to simultaneously occupy such pocket, each having means for detachably connecting it to the sash so that either or both may, by the opening or closing motion of the sash, respectively, be withdrawn from the pocket to close the opening left by the sash or returned to such pocket.

3. The combination of a sash having movable locking means projected from its sides, a plate having bent ends and arranged to embrace the end portion of the sash, said ends being adapted for engagement by the locking means, and a device, connected with said plate, for obstructing the space caused by the opening of the window.

4. The combination of a window frame having an apertured sill, a sash, bars arranged to slide vertically through the apertures of the sill, counterbalancing means for the sash, and independent counterbalancing means for such bars.

5. The combination of a window frame, a lower sash, a box under the frame, the sill of the frame being slotted and perforated, a screen mounted in the box and projecting through the slot in the sill, bars in the box projecting through the perforations in the sill, a plate secured to the screen and having perforated lugs at each end, a head to which the bars are attached and members projecting from each side of the head and arranged to slide in the frame, counterbalance weights attached to the said members, said members being perforated for the reception of bolts, with bolts on the upper and lower portions of the sash, the upper bolts arranged to engage the frame of the bars and the lower

bolts arranged to engage the frame of the screen.

6. The combination of a window frame having a sill slotted and perforated, a detachable portion of the sill also slotted and perforated, said detachable portion being recessed, a series of bars mounted in the perforations and having a head secured to the bars and mounted in the recess in the sill, a screen frame extending through the slot in the sill, the bar having a cap plate, the slot

in the detachable portion being narrower than the slot in the body of the sill, so as to prevent the removal of the screen without removing the detachable portion.

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

JAMES C. KIMSEY.

Witnesses:

WILL. A. BARR,
JOS. H. KLEIN.