

No. 630,781.

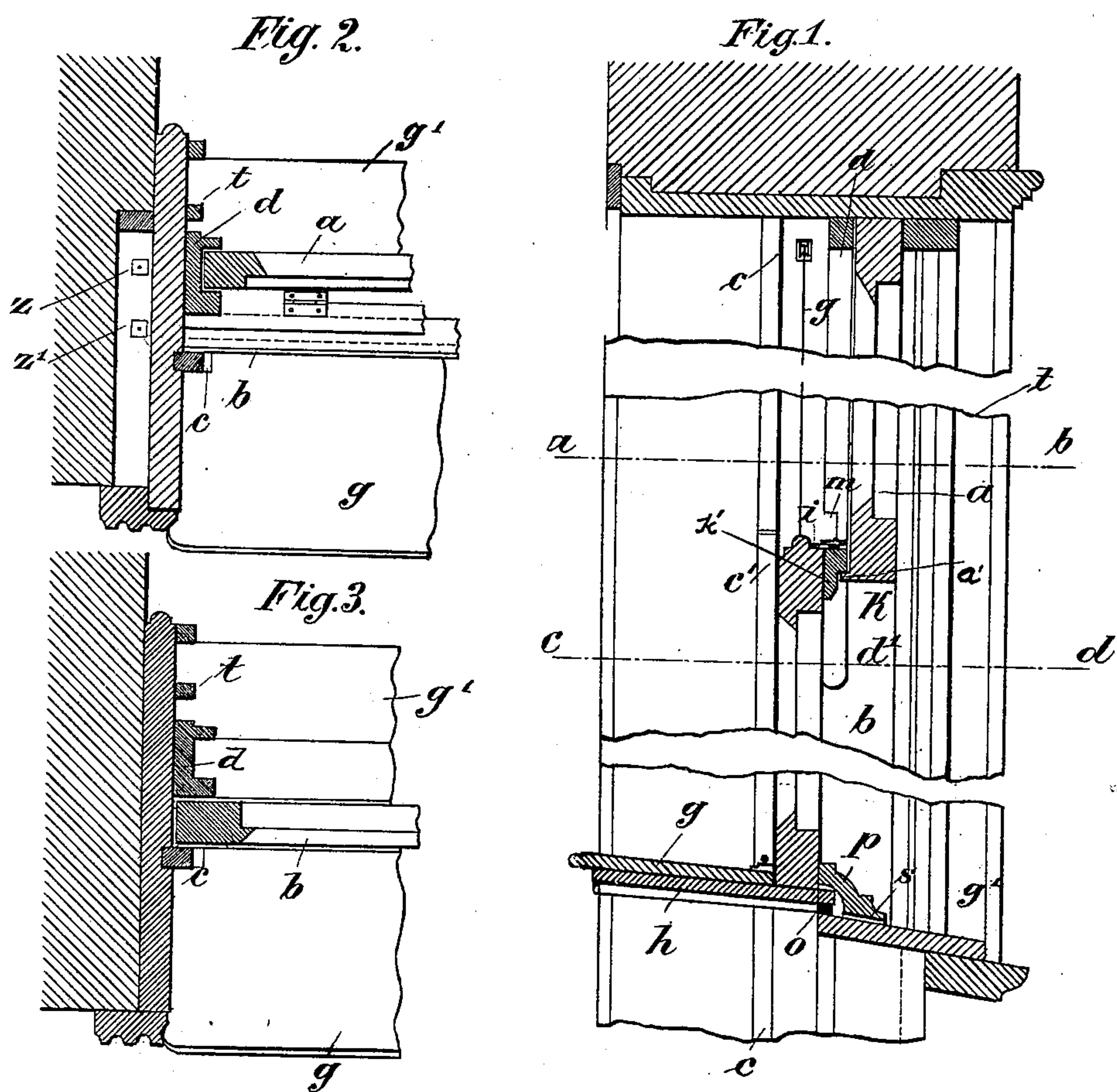
Patented Aug. 8, 1899.

H. NIEDERLÄNDER.

SLIDING WINDOW.

(Application filed Feb. 25, 1899.)

(No Model.)



Witnesses:
James R. Mansfield
W. S. Austin.

Inventor:
Heinrich Niederländer
By:
Alexander & Sorell
Attys.

UNITED STATES PATENT OFFICE.

HEINRICH NIEDERLÄNDER, OF PONZ-ON-THE-RHINE, GERMANY.

SLIDING WINDOW.

SPECIFICATION forming part of Letters Patent No. 630,781, dated August 8, 1899.

Application filed February 25, 1899. Serial No. 706,862. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH NIEDERLÄNDER, joiner, a subject of the King of Prussia, Emperor of Germany, residing at Ponz-on-the-Rhine, in the Kingdom of Prussia and Empire of Germany, have invented certain new and useful Improvements in Connection with Sliding Windows, of which the following is a full, clear, and exact description.

This invention is an improvement in windows; and it consists in the novel constructions and combinations of parts hereinafter described and claimed.

This invention has especial reference to that type of windows in which the lower larger half is adapted to be moved both upward and downward and to be lowered through a transverse slot in the lower window-sill. It is therefore important that when closed such sash should be draft and water tight, and this is attained by the means illustrated in the drawings and described as follows.

In the annexed drawings, Figure 1 is a vertical section of a window embodying my invention, and Figs. 2 and 3 are transverse horizontal sections on lines *a b* and *c d*, Fig. 1.

The window consists of two sliding sashes *a* and *b*. These sashes are guided between strips *c*, *c'*, and *d*, secured in the window-frame proper, much as usual. The lower sash *b* may be lowered below the sill *g* through a slot formed between the inner and outer parts *g* and *g'* of the sill by channeling the sides of the window-jambs, this construction being well known. This slot is adapted to be closed by a slide *h*, arranged under part *g* of the sill when the sash *b* is fully raised, as shown in Fig. 1, the bottom rail of sash *b* then resting upon slide *h*. The sashes *a b* are so far separated that when closed, as in Fig. 1, their adjoining rails do not meet and a slit or opening is left between them; but this is closed by a cross-piece *k*, which is rabbeted on its lower outer edge, as at *k'*, to engage a shoulder or flange *a'* on the lower rail of sash *a*. On the top of cross-piece *k* is hinged a plate *i*, which is adapted to cover the joint between the cross-piece and the top rail of sash *b* and said plate, as shown in Fig. 1, when the sash *b* is pushed up, bead *d* being provided with incisions *m* for that purpose.

In order to carry off any water condensing

on the window, the outer half *g'* of the window-sill carries a ledge *o*, upon which the inner end of slide *h* rests when closed. This ledge *o* is covered by a hollow molding *p*, and any water drained into this bead can escape through small channels *s* in the beading.

A part *c'* of the guiding-bead *c* is removable in order to enable the sash *b* to be taken out of the window-frame into the interior of the room for the purpose of cleaning. The central bead *d* does not extend to the bottom of the sill, as will be seen from Fig. 1, to permit sash *a* to be taken out into the room when lowered, sash *b* being first moved up or down out of the way.

Double or gauze windows may easily be inserted without special appliances in the ground-strips.

What I claim, and desire to secure by Letters Patent, is—

1. In a window, the combination of the frame having an opening in its sill for the passage of the lower sash; with a sash adapted to be lowered through and raised through said slot, and a slide adapted to close said slot when the sash is raised and to support the sash when raised; with a grooved molding attached to the outer part of the sill opposite the slot and adapted to project over the outer edge of the slide when the window is closed, substantially as described.

2. In a window, the combination of the upper and lower sashes, a cross-piece interposed between said sashes and adapted to close the space between the upper rail of the lower sash and the lower rail of the upper sash, and a plate hinged to said cross-piece adapted to lie over upon the upper rail of the lower sash when the window is closed, substantially as described.

3. In a window, the combination of the frame having a slot in its sill for the passage of the lower sash, and the upper and lower sashes, substantially as described; with a slide below the inner part of the sill and adapted to close the slot therein when the lower sash is raised above the slide, a ledge *o* on the outer part of the sill, and a hollow molding secured to the outer part of the sill and projecting over the said ledge, for the purpose and substantially as described.

4. In a window, the combination of the

frame having a slot in its sill for the passage of the lower sash, and the upper and lower sashes, substantially as described; with a slide below the inner part of the sill and adapted to close the slot therein when the lower sash is raised above the slide, a ledge *o* on the outer part of the sill, and a hollow molding secured to the outer part of the sill and projecting over the said ledge; in combination with a fixed cross-piece interposed between the upper rail of the lower sash and the lower rail of the upper sash when the windows are closed, and the hinged plate secured to said cross-piece and adapted to be raised when the lower sash is lifted, substantially as described.

5. In a sliding window having vertical sliding upper and lower sashes *a* and *b*, the lower half of which is adapted to move downward through the sill of the window-frame as well as upward; a slide *h* below the lower sill *g*, a guide-bead *c* having a removable part *c'* and a partial guiding-bead *d'* for guiding the upper sash *a*, substantially as and for the purpose set forth.

In witness whereof I subscribe my signature in presence of two witnesses.

HEINRICH NIEDERLÄNDER.

Witnesses:

WILLIAM A. MADDEN,
CHAS. E. BARNES.