

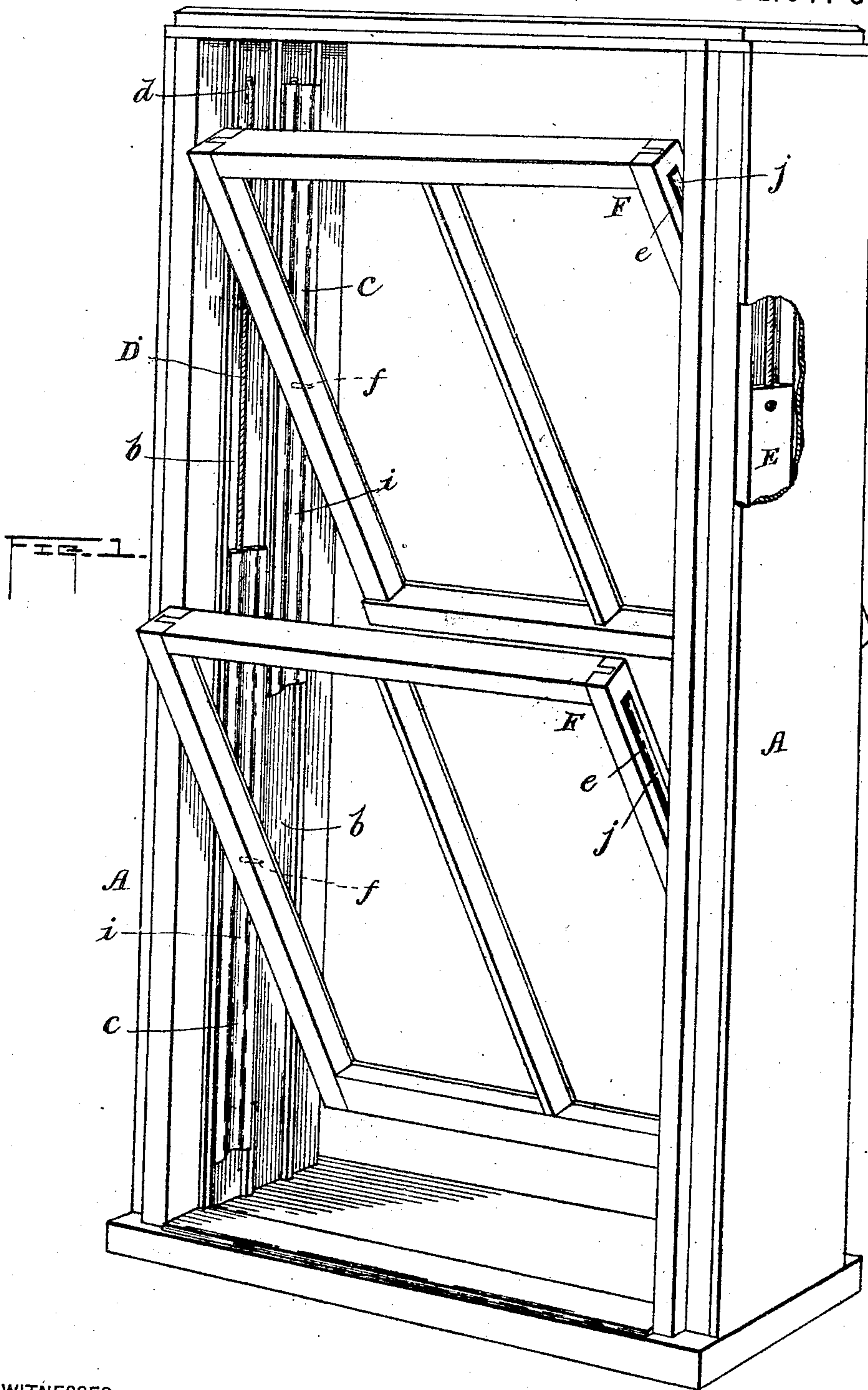
(No Model.)

2 Sheets—Sheet 1.

ANTHONY ISKE & ALBERT ISKE.
WINDOW SASH.

No. 462,488.

Patented Nov. 3, 1891



WITNESSES

Everance
W. Harvey Muzzey

INVENTORS

Anthony Iske
and
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Attorney

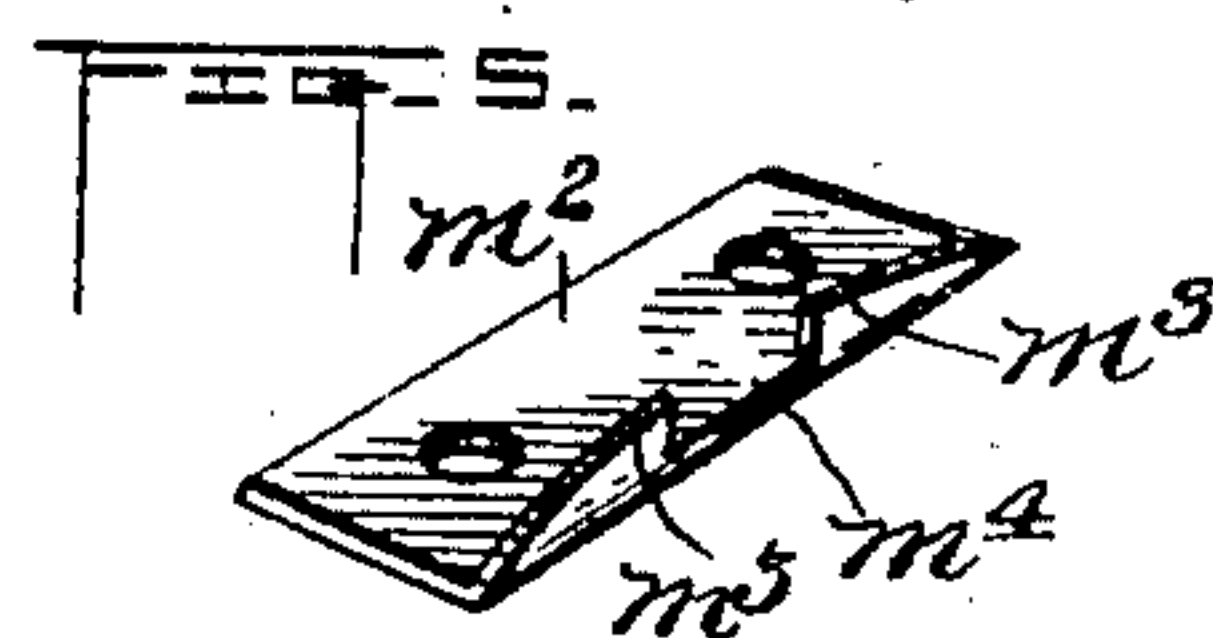
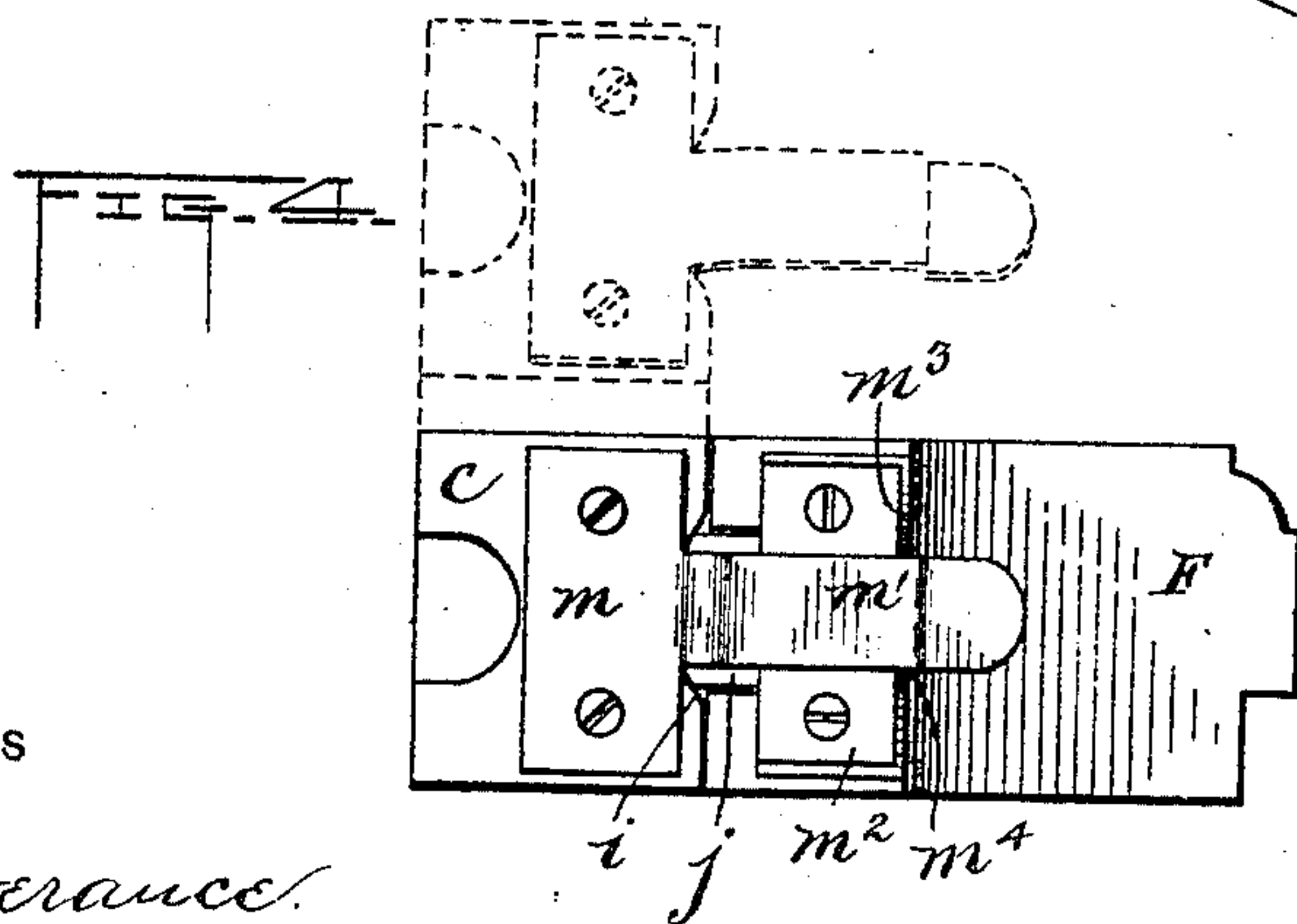
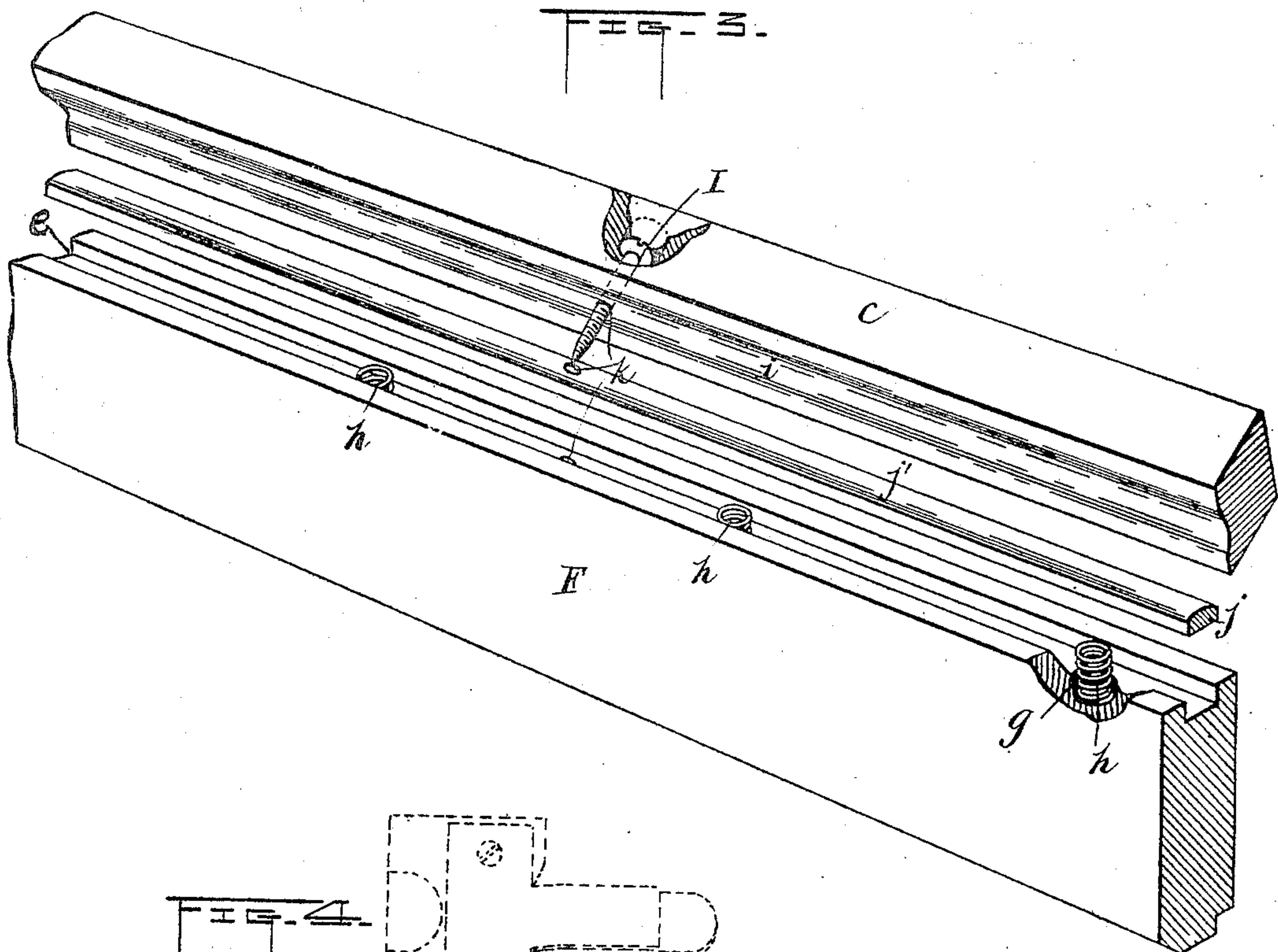
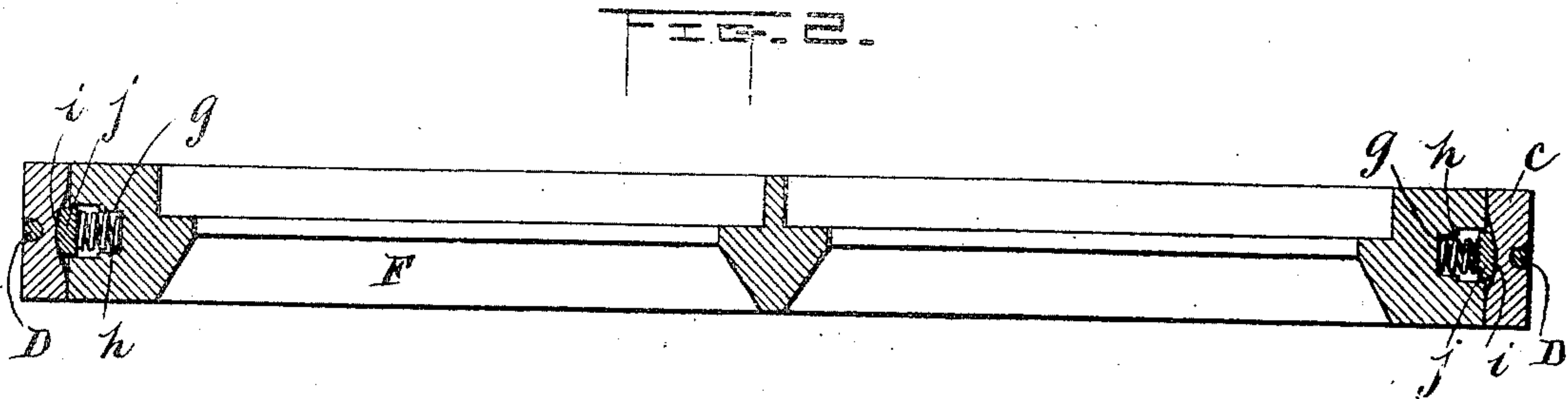
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UNITED STATES PATENT OFFICE.

ANTHONY ISKE AND ALBERT ISKE, OF LANCASTER, PENNSYLVANIA.

WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 462,488, dated November 3, 1891.

Application filed March 13, 1891. Serial No. 384,871. (No model.)

To all whom it may concern:

Be it known that we, ANTHONY ISKE and ALBERT ISKE, citizens of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Reversible Window-Sashes; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in window-sashes, and has for its object to so construct the sash that it can be reversed or turned with its outer side in without disconnecting any of its parts.

In the accompanying drawings, Figure 1 represents a perspective view with the sashes slightly turned of the devices embodying our invention. Fig. 2 represents a cross-section of one of the sashes shown in Fig. 1. Fig. 3 represents in perspective a part of the sash, showing the groove and springs, the grooved guide, and the weather-strip; and Figs. 4 and 5 represent in detail the spring-catch on the end of the sash.

A is the framing, in which are the grooves *b b*, in which the sashes are lifted and lowered. *c c* are guides, which are just the length of a window and run in grooves *b b*, respectively. The tops of these guides are provided each with a short groove extending longitudinally down its inner face. The end of a sash-cord *D* is secured in this groove and passes up and over a pulley-wheel *d* in the top of the framing *A* and is connected to a counter-balance *E*. Between each pair of the guides *c* and *c* there are pivoted, respectively, the two sashes at *f* and *f*. On the outer side each of the guides is provided along its whole length with a shallow groove *i*. Along the outer sides of sashes *F* and *F* are the deep square grooves *e e*. In the bottom of these grooves, at intervals, are bored small recesses *g*, into which we place small spiral springs *h*.

In each of the grooves *e e* and resting on springs *h* is a strip of wood *j*. This strip has three flat sides and one rounded side *j'*. In placing the strip in one of the grooves *e e*, &c., we insert it so that the rounded side will face outward. About the middle of the guides

we drill a hole *k*, starting from the side opposite the shallow groove *i* and ending in the bottom of said groove. Where this hole is started we ream the guide to about the depth of half an inch to receive the head of a screw *L*, which passes first through the hole *k*, then through the strip *j*, and enters the sash proper, thus binding the guide and the sash together, with the strip *j* between them. This strip, placed as it is with its oval side resting in the shallow groove of the guide and its flat sides resting in the square groove of the sash and on the spiral springs in said groove, tends, when screws *L* are tightened, to make an air-tight joint between the sash and the guide. The screws *L* act as pivots on which the sash can be turned. When extra large or heavy windows are constructed in this manner, it becomes necessary to have some kind of a catch to keep the window in place in its normal position. To do this we provide the top of each guide with one member of a catch, which consists of a flat plate *m*, having a projected spring-arm *m'*, having a step-shaped construction at its outer end. (See Fig. 4.) Fastened to the top of the sash is the other member of this catch, which consists of a flat plate *m²*, having at its rear an oval-shaped rise or projection *m³*, having its central portion cut away at *m⁴*. When the window is tipped back to its normal position after being turned or reversed, the catch *m'* rises on the projection *m³* until it comes to the cut *m⁴*, when it springs down and thus holds the window firmly in position, the step-shaped end of the spring-arm fitting behind the plate *m²*. The outer end of this arm is lifted to unfasten the catch.

The operation is as follows: When the window is to be reversed for cleaning or like purpose, it is grasped by the top of the sash and pulled forward, if it be a large window, the catch having first been undone. The sash turns on pivots *L*, and as it is pulled forward the strips *j* sink into grooves *e* and *e*. The guides have remained stationary in grooves *b* and *b*. When the window is returned to its normal position, the strips *j*, being pressed by springs *h*, make an air-tight joint by pressing forward into the shallow grooves of the guides.

The advantage of this construction of window-sashes can readily be seen, as it gives an air-tight joint, at the same time allowing the

window to be readily turned. If the sashes are turned at right angles to the guides, the window is opened fully, not half-way only, as in ordinary windows.

5 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of a pair of guides attached to a frame with a pivoted reversible
10 sash and spring-pressed strips attached to the said sash, the said strips and guide having rounded faces at the points of contact in order that the said strips may yield, as described, when the sash is opening and resume
15 their position fitting said guides when the sash is closed, substantially as set forth.

2. The combination of a pair of guides having shallow rounded grooves with a sash also grooved along its sides and pivoted to said guides, springs set at intervals in said sash- 20 groove, strips resting on said springs in said grooves and having rounded outer edges, and a spring-catch holding the window in its normal position, substantially as set forth.

In testimony whereof we affix our signatures 25 in presence of two witnesses.

ANTHONY ISKE.
ALBERT ISKE.

Witnesses:

JAS. B. DONNELLY,
HENRY K. GAINES.