

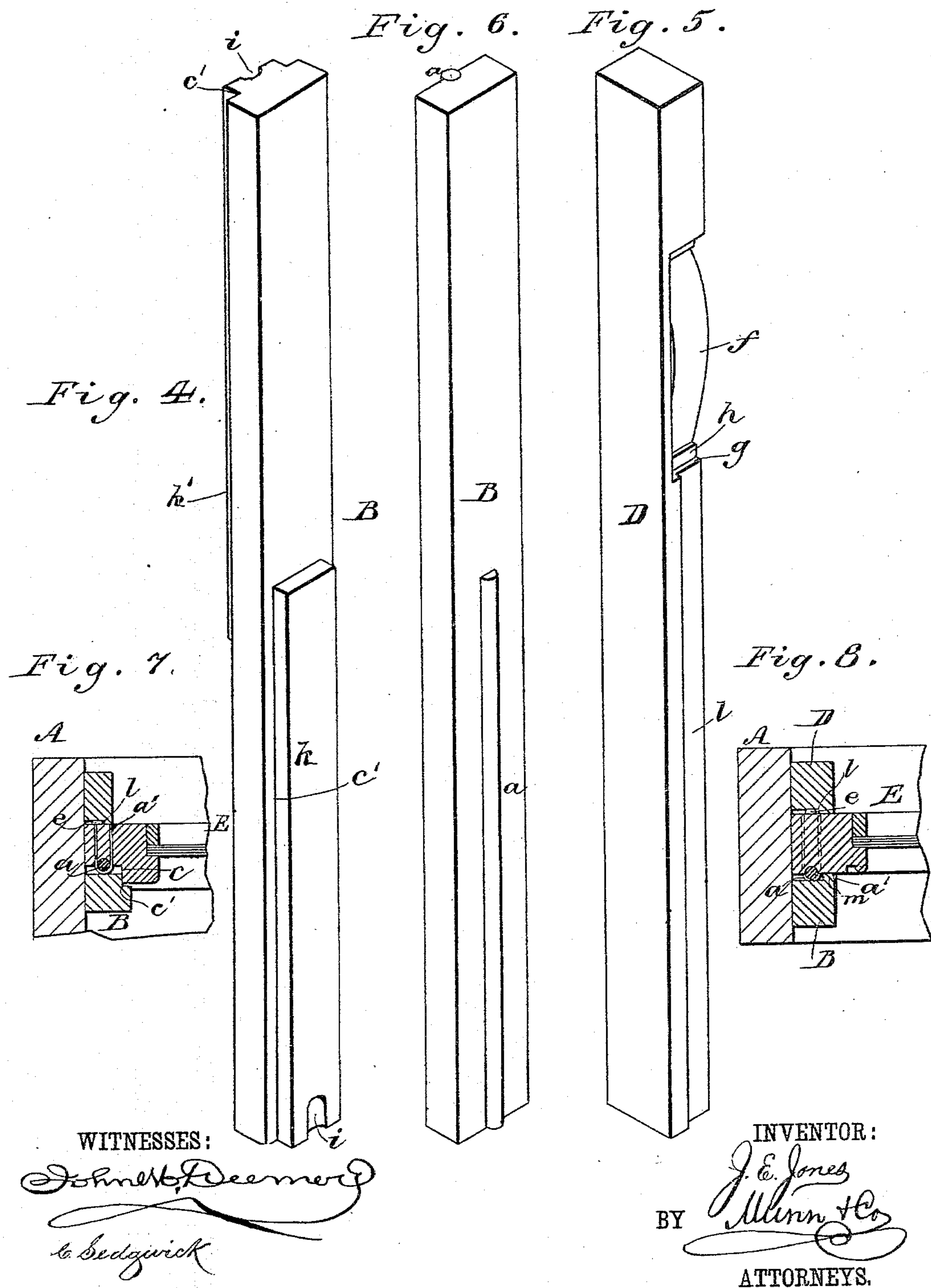
(No Model.)

2 Sheets—Sheet 2.

J. E. JONES.
WINDOW FRAME AND SASH.

No. 356,943.

Patented Feb. 1, 1887.



UNITED STATES PATENT OFFICE.

JOHN E. JONES, OF NEW YORK, N. Y.

WINDOW FRAME AND SASH.

SPECIFICATION forming part of Letters Patent No. 356,943, dated February 1, 1887.

Application filed March 25, 1886. Serial No. 196,540. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. JONES, of the city, county, and State of New York, have invented a new and Improved Window Frame and Sash, of which the following is a full, clear, and exact description.

My invention relates to certain improvements in my new and improved window frame and sash shown and described in Letters Patent No. 319,265, which were granted to me June 2, 1885; and the invention consists of the construction, arrangement, and combination of parts, all 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.

Figure 1 is a front elevation of my new and improved window sash and frame. Fig. 2 is a vertical sectional elevation of the same, the stop-beads being partly broken away. Fig. 3 is a sectional plan view taken on the line $x x$ of Fig. 1. Fig. 4 is a perspective view of one of the parting-strips. Fig. 5 is a perspective view of one of the stop-beads. Fig. 6 is a perspective view of a modified form of parting-strip. Fig. 7 is a detail sectional plan view showing the friction-pieces, and Fig. 8 shows a modified form of parting-strip.

To the casing A of the window are secured the opposite parting-strips B B and the inside stop-beads, C C, and outside stop-beads, D D, for keeping the window-sash E F in place in the window-frame. The upper sash, E, is provided with the packing-strips $a a$, of rubber, set in grooves, and held at the upper ends by the staples $a' a'$, which also constitute friction-pieces to prevent contact of the packing-strips a with the parting-strips when the sash is raised and lowered, as hereinafter described, and the lower sash, F, is provided with similar packing-strips, $b b$, set in grooves and held at their lower ends by the staples $b' b'$, exactly similar to the staples a' , and shown in dotted lines in Fig. 2.

The sashes E are rabbeted to form the offsets or shoulders $c c$, which match in rabbets $c' c'$, made in the parting-strips B, as shown clearly in Figs. 3 and 7. The lower rail, E', of the upper sash and the upper rail, F', of

the lower sash are each provided at each end with a metal plate, d , that fits the outer corner of the parting-strip, as shown in Fig. 2, to prevent wear and to secure at all times a true movement of the sash up and down. The lower rail, E', of the upper sash, E, is provided with the packing-strip a^2 , to form a tight joint between the rails E' F' when the window is closed, as will be understood from Fig. 2.

Each side rail of the sashes E F is provided with a stud, e , preferably of metal, to run in contact with the curved plates f when the sashes are closed, for forcing the sashes toward the parting-strips B, to compress the packing-strips $a b$ into close contact with the parting-strips, thus causing tight joints to be formed. The curved plates f are held in recesses g , made in the stop-beads C D, and are held by metal boxes h , placed in said recesses, and back of the plates f in the said boxes h are placed heavy blocks h' , of soft rubber, to act as springs for forcing the plates f outward, so they, in connection with the blocks of rubber, will cause the studs e to force the sashes against the parting-strips to compress the packing, as just described.

The lower strip, G, secured upon the window-sill, is provided with a packing-strip, j , which excludes the air at the bottom of the window, and tends to force the lower end of the lower sash in close contact with the parting-strips, and shallow recesses $i i$ (shown in Fig. 4) are formed in the parting-strips at top and bottom to receive the staples $b' a'$ when the sashes are closed, so said staples will not prevent the packing from being pressed into close contact with the parting-strips.

When the sash E is lowered or the sash F raised, as the staples $a' b'$ pass out of the small recesses i they force the sash away from the stop-beads and run in contact with the plain surfaces of the beads, as shown in Fig. 7, so the strips a will not be worn away or injured by the up and down movement of the sash.

The parting-strips B are formed upon the inside each with a rib, k , that reaches from the lower end of the strip to the top of the lower sash, and upon the outside with a rib, k' , that reaches from the top of the strip to the lower edge of the upper sash, as shown clearly in Fig. 4, and the plates d , when the sashes are

closed, shut over the ends of these offsets, as shown in dotted lines in Fig. 3. The object of the ribs $k k'$ is to enable joints to be formed between the parting-strips and the sashes, which will hide and also protect from the weather the packing-strips a . The object of the plates d is to close the space between the parting-strips and those portions of the sashes in which the parting-strips are set.

10 The inner edges of the stop-beads $C D$ are grooved, as shown at l , to form clearances for the studs e , so they will not interfere with the raising and lowering of the sashes, as will be understood clearly from Figs. 7 and 8.

15 In Fig. 8 the parting-strips B are grooved to form the lip m , that extends the length of the sash to protect the packing-strips a from the weather, and in some cases I shall provide the parting-strips B on opposite sides at top and bottom with strips of rubber packing a , set in grooves and secured, as shown clearly in Fig. 6, the sash being arranged to be pressed against the packing-strips when closed.

Constructed as described, the sashes when 25 closed are to all intents and purposes air-tight, and all wear and friction is removed from the packing-strips, so the sashes may be raised and lowered without injury to the packing, and instead of constructing the staples a' to serve the double purpose of holding the strips of rubber packing and as friction-pieces, separate knobs or friction-buttons might be used for the latter purpose.

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

1. The parting-strip B , formed with projec-

tions $k k'$ and rabbets c' , in combination with the sash formed with offsets or shoulders c , substantially as described. 40

2. The sash provided with the metal plates d , in combination with the parting-strips rabbeted at c' and formed with the projections $k k'$, substantially as described.

3. The sashes provided with packing-strips 45 and with the friction pieces or staples a' , in combination with the parting-strips having recesses $i i$, substantially as and for the purposes set forth.

4. The stop-bead D , provided with the spring 50 h' and curved plate f , in combination with the sash provided with a stud, e , substantially as and for the purposes set forth.

5. The box h , provided with the rubber spring h' , in combination with the curved plate 55 f , held in the box over the spring, substantially as described.

6. The stop-bead D , grooved at l and provided with spring f , in combination with the sash provided with the studs e , substantially 60 as and for the purposes described.

7. The sash provided with packing-strips and with stud e , in combination with a spring device held in the parting-strip, substantially 65 as described.

8. The sash provided with packing-strips, in combination with the parting-strips B , grooved to form a lip to protect the packing from the weather, substantially as described.

JOHN E. JONES.

Witnesses:

H. A. WEST,
C. SEDGWICK.