

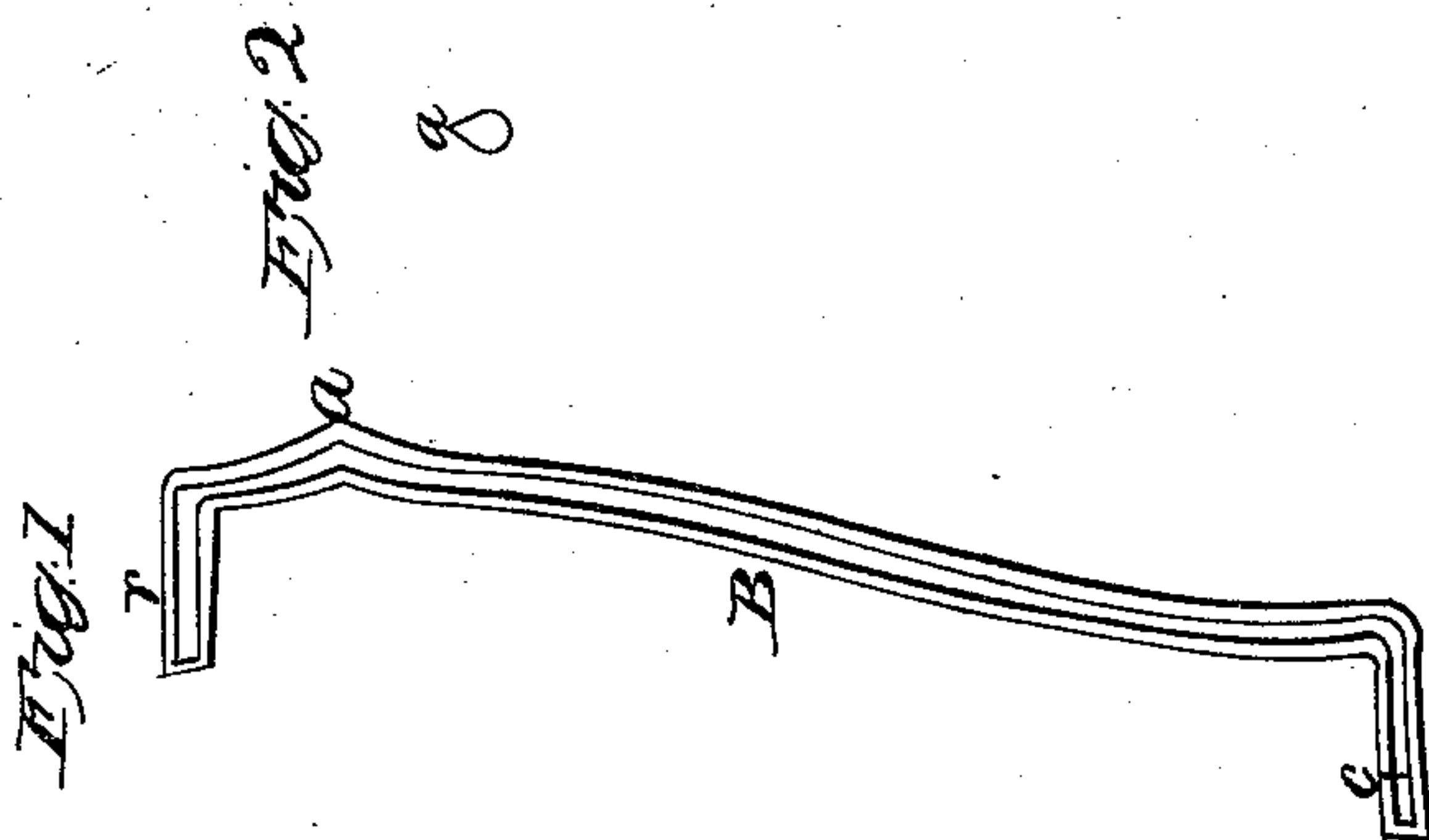
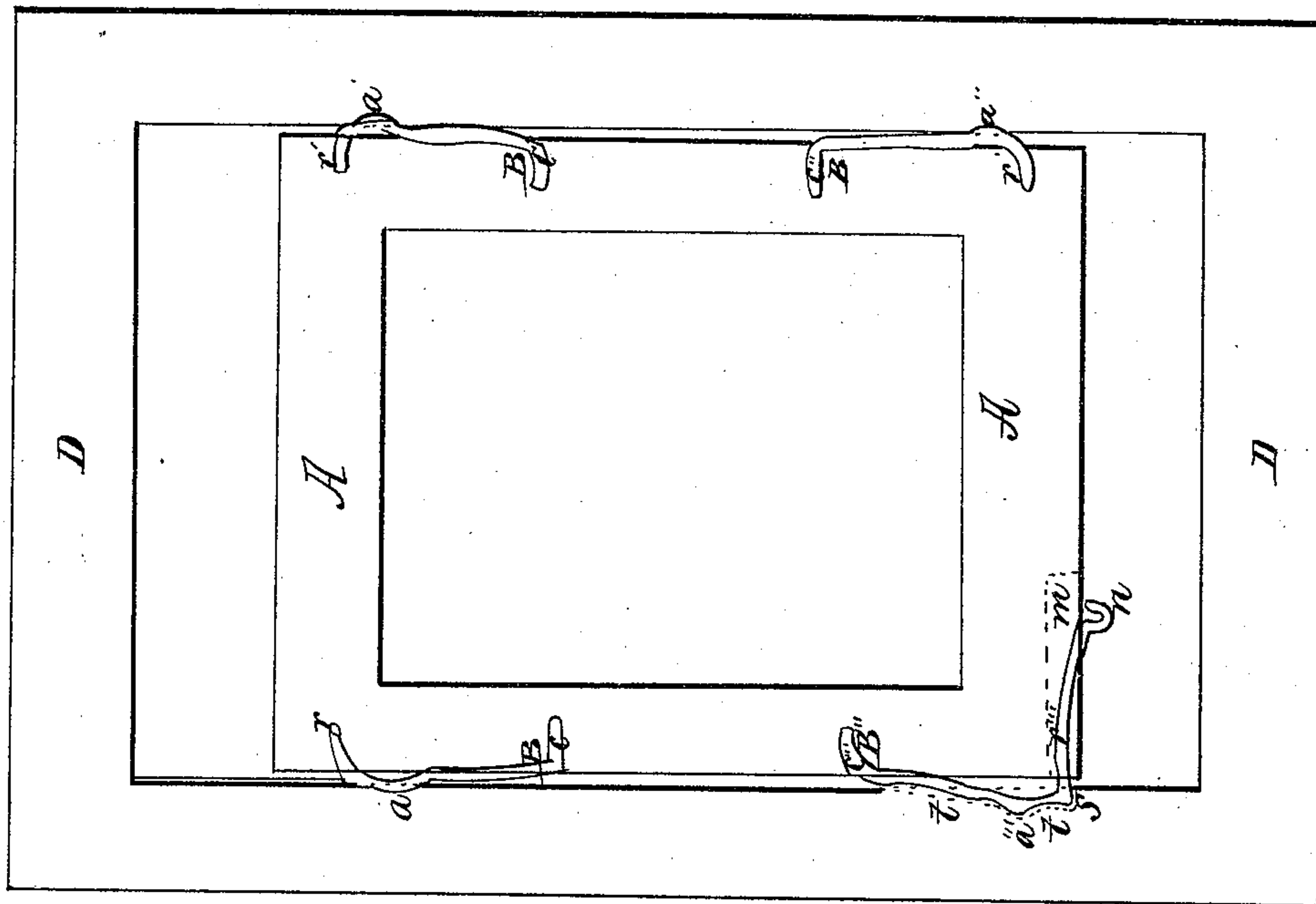
E. D. Williams,

Sash Holder.

N^o 24,254.

Patented May 31, 1859.

Fig. 3



Witnesses:

George V. Brown
Joseph Graham

Inventor:

E. D. Williams

UNITED STATES PATENT OFFICE.

E. D. WILLIAMS, OF PHILADELPHIA, PENNSYLVANIA.

FRICITION-SPRING FOR SUPPORTING WINDOW-SASH.

Specification of Letters Patent No. 24,254, dated May 31, 1859.

To all whom it may concern:

Be it known that I, E. D. WILLIAMS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented
5 a new and Improved Sash Friction-Spring and Stopper; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of refer-
10 ence marked thereon.

The nature of my invention consists in providing sash friction springs with a projection or spur on their friction or bearing surfaces sharpened so that the projection or
15 spur shall cut a groove in which the projection or spur shall slide to prevent the sash from rattling.

Of the accompanying drawings, which make a part of this schedule, Figure 1
20 is a general view of one of my improved friction springs of which (*a*) is the sharpened projection or spur, the edge or point at (*a*) being sharpened, as seen in Fig. 2. The part (*c*) is driven tightly into the sash to
25 secure the spring in the proper place. The part (*r*) works loosely in a hole provided for that purpose so as to keep the elastic or moving end of the spring in the proper position.

Fig. 3 is a view of a sash and frame the sash being furnished with my improvement, as seen at (*a—a'—a''—a'''*) of springs (*B—B'—B''—B'''*), parts of the sash and frame being removed so as to show the working
35 position of the friction springs. The sash is represented partly hoisted and stopped by the spring *B'''* which has sunk into the mortise indicated by the line (*t—t*) the right-angular shoulder of the spring bearing
40 on the shoulder (*s*) of the mortise in the frame. (*m*) is a mortise to receive the part (*r'''*) when the sash is unlocked.

To enable others skilled in the art to make and use my invention, I will proceed to describe the manner of so doing.
45

Bend a piece of spring wire into the shape represented generally by Fig. 1 hereof. Sharpen the projection (*a*) to an edge at the highest surface line. At each corner of
50 the sash, on the perpendicular edges affix one of the springs so that the sharp edge of the projection (*a*) shall bear against the frame when the sash is in its working place. A groove should be cut in the edge of the
55 sash for each spring so that the body of the

spring may be depressed below the level of the edge of the sash. The end of the spring (*c*) should be driven tightly into the wood of the sash. The end (*r*) should be free to move out and in the hole provided for it. 60 The operation of this part of my invention is very simple. The sash being put into its place, slide it up and down a few times. The edge of the projection (*a*) will cut a groove for itself in the outside frame in which it 65 will remain; thus preventing the sash from rattling. But when it shall have sunk the spring into the frame so as to cause the broadest surface to bear against the surface of the frame, it will cease to sink into the 70 frame faster than the spring would do if it had no sharpened projection.

Stopping or locking the sash is provided for by sinking a mortise into the outside frame at the desired point, so that the bot- 75 tom of the mortise shall have a square shoulder (*s*). When the sash is raised so as to bring the spring intended for the purpose opposite the mortise, the spring will be projected into the mortise by its own elasticity, 80 and its square shoulder will stand on the shoulder of the mortise. To provide for unlocking and letting the sash down, extend the part (*r*) of the locking spring to the point (*n*) at which make a suitable projec- 85 tion for operating the spring—cut a mortise in the bottom of the sash to receive the extended part (*r*) deep enough to allow the projection (*n*) to sink below the level of the bottom edge of the sash. By pressing the 90 projection (*n*) upward and from the edge of the sash the sash is unlocked. By treating a spring at an upper corner in like manner the sash may be locked down.

This contrivance has the advantage of being entirely out of sight, except the small projection (*n*) when the sash is locked. It is very cheap and by cutting its own groove saves much useful labor.

What I claim and desire to secure by Letters Patent is:— 100

Providing sash with friction springs having sharpened projections or spurs for cutting their own grooves substantially as above set forth.

E. D. WILLIAMS.

Witnesses:

GEORGE G. BROWNE,
JOSEPH GRAHAM.