

No. 756,559.

PATENTED APR. 5, 1904.

A. ARENS.
SASH FASTENER.

APPLICATION FILED OCT. 10, 1903.

NO MODEL.

Fig. 1.

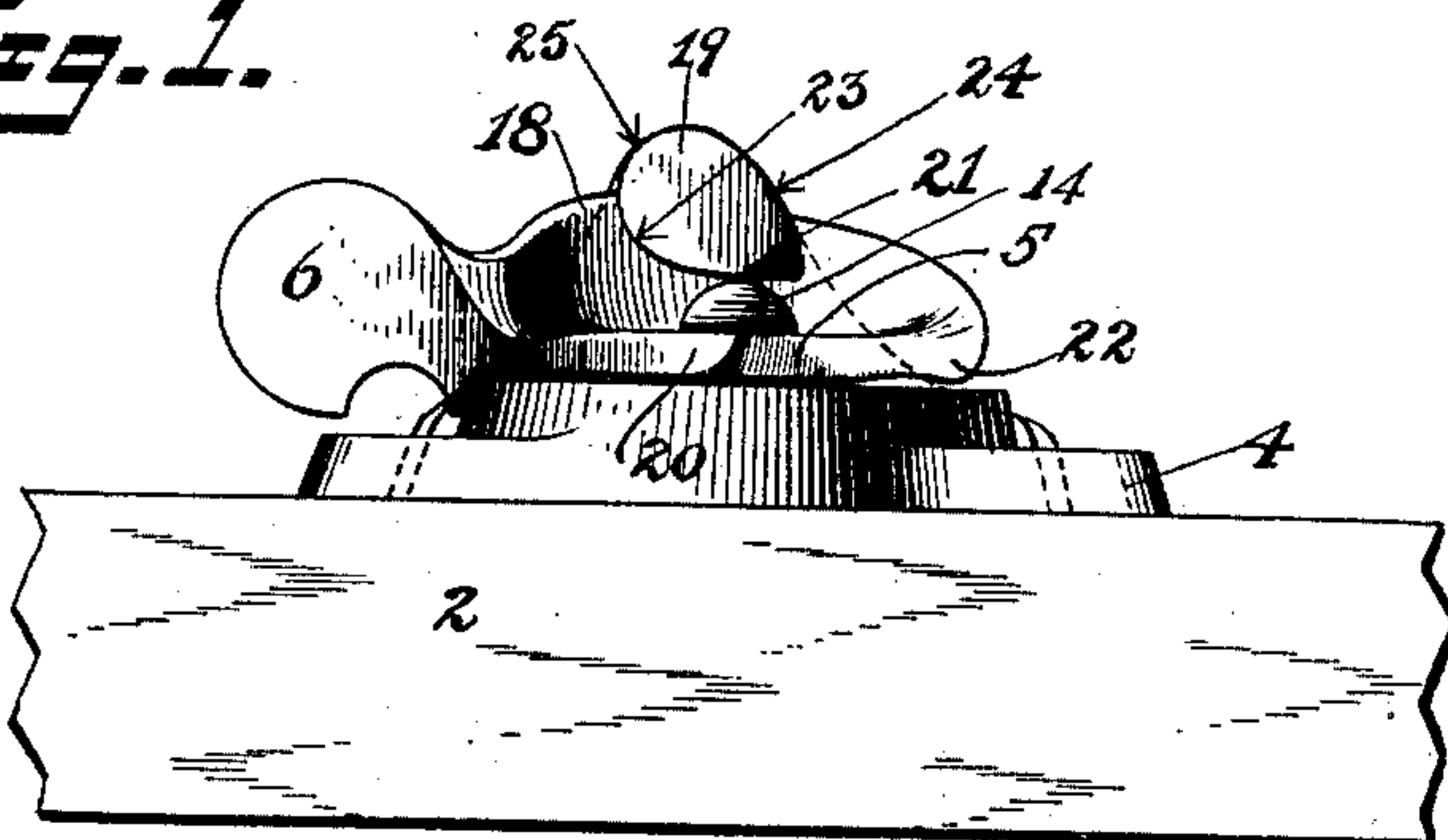


Fig. 2.

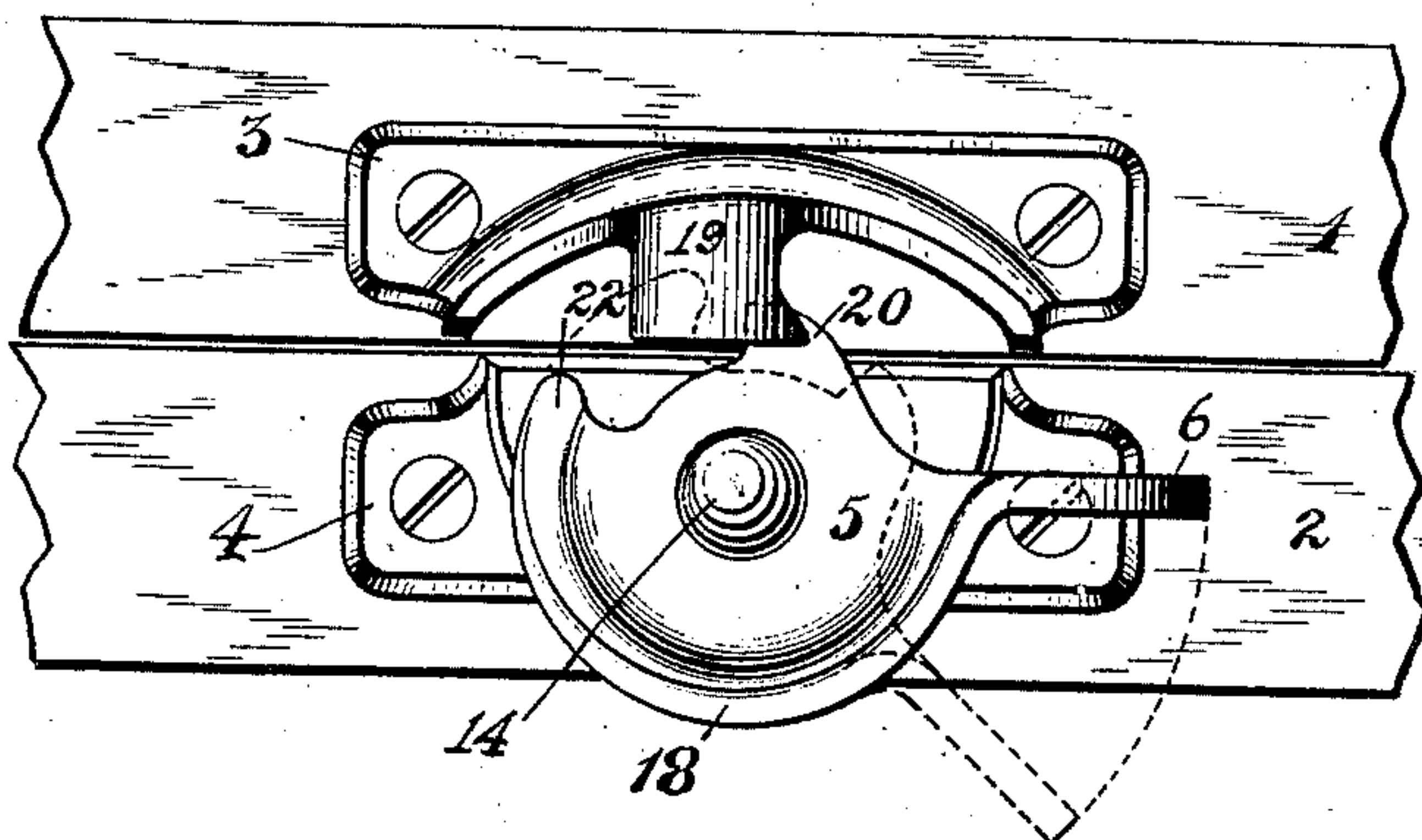


Fig. 3.

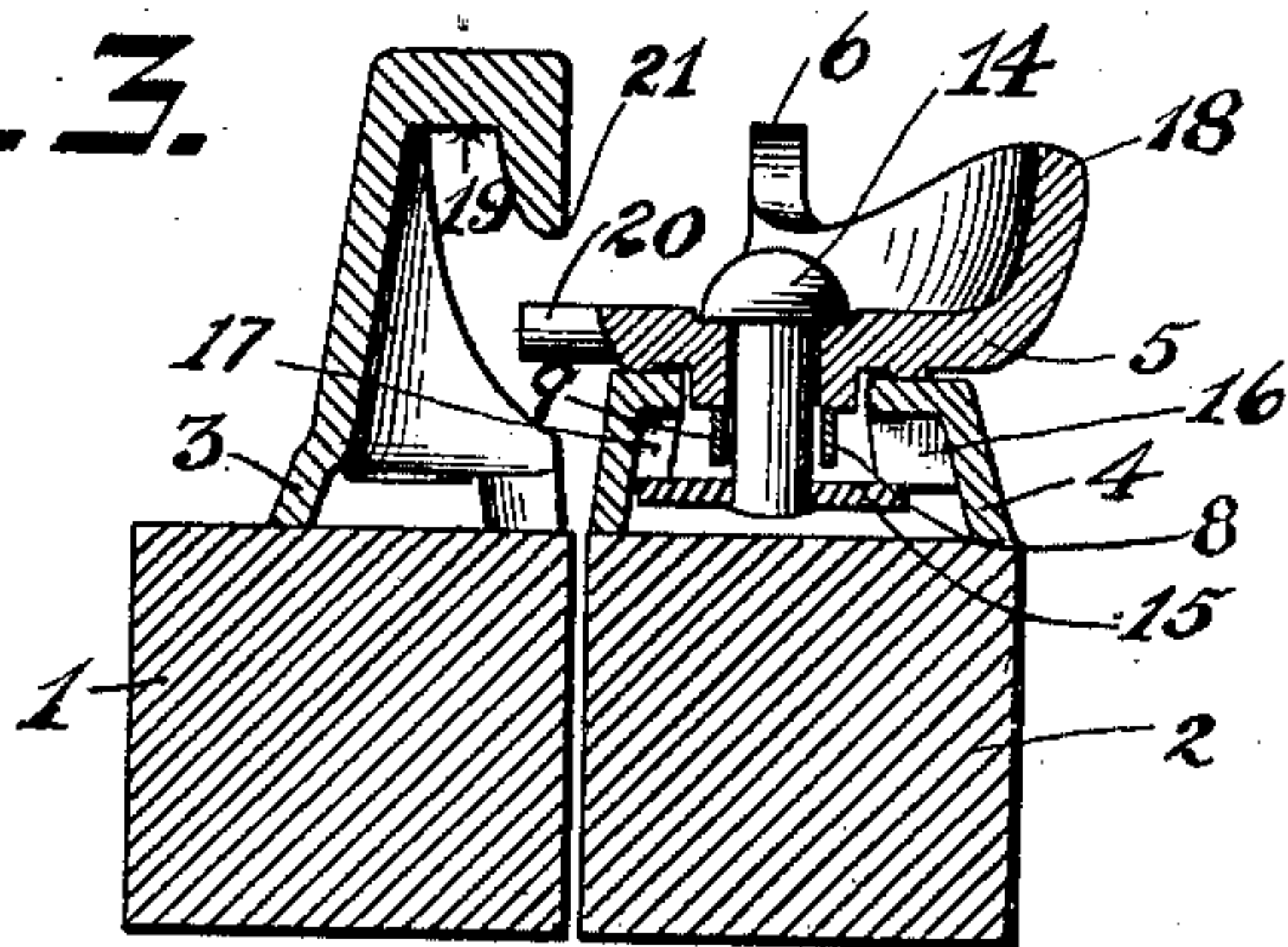
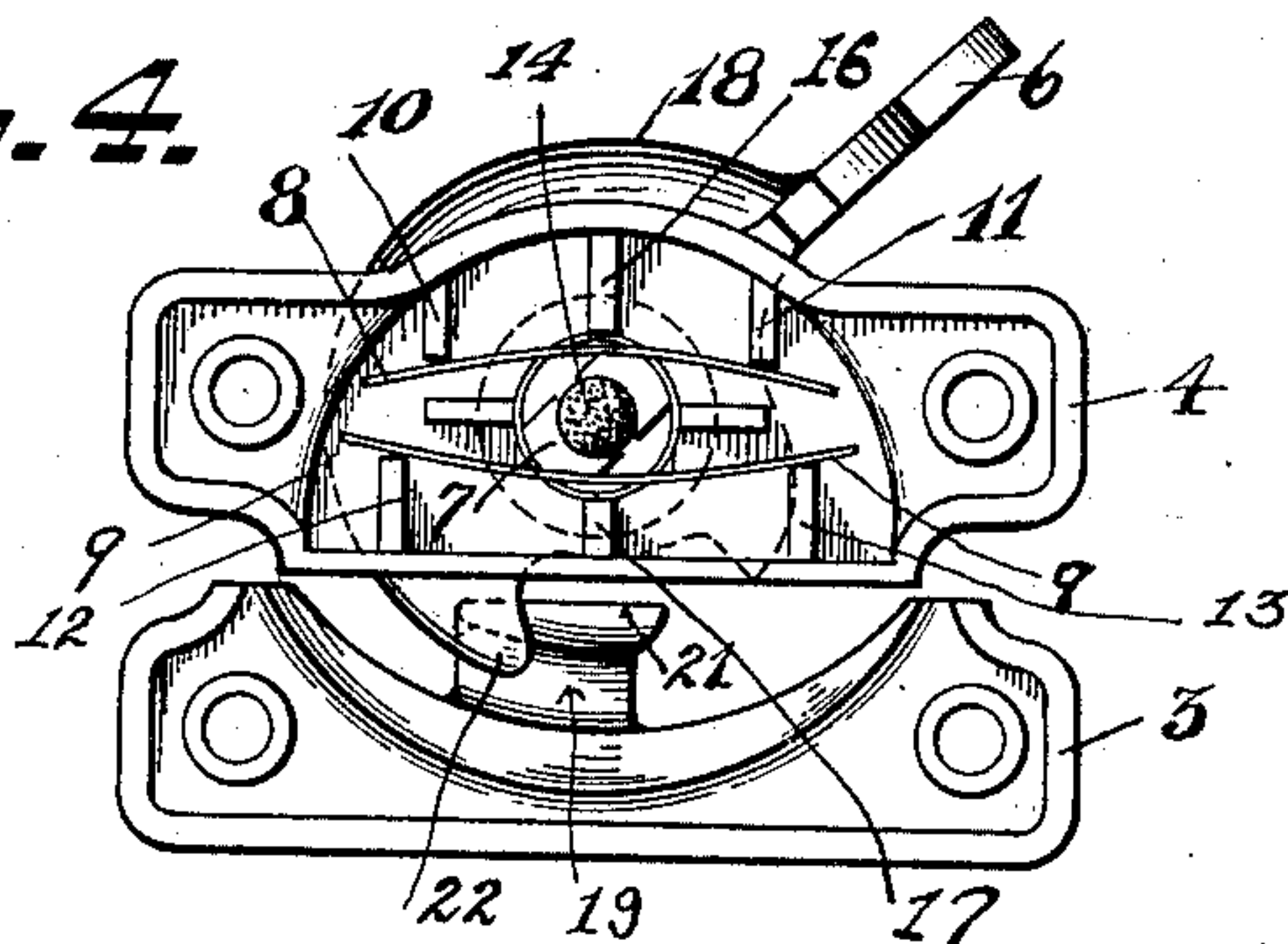


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

AUGUST ARENS, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO P. & F. CORBIN, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 756,559, dated April 5, 1904.

Application filed October 10, 1903. Serial No. 176,465. (Model.)

To all whom it may concern:

Be it known that I, AUGUST ARENS, a citizen of the United States, residing at New Britain, Hartford county, Connecticut, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a full, clear, and exact description.

My invention relates to improvements in sash fasteners and locks, and particularly to a construction by means of which window-sash may be locked automatically by the mere closing of the sash or manually locked thereafter.

The invention consists, broadly, in improvements in the construction of that type of lock in which a disk-like member may be rotated, so as to coöperate with a keeper-plate to secure the sash firmly together.

The object of the invention is to simplify the construction to the end of making the manufacture thereof more economical and rendering the finished device effective and durable.

Figure 1 is a front elevation of a sash-fastener of my invention with fragments of a sash, the parts being in the position which they occupy when "manually locked." Fig. 2 is a plan view of the same construction in what is termed the "automatically-locked" position and the locking device shown dotted on the "intermediate" position. Fig. 3 is a cross-sectional elevation showing the construction of the parts on a plane perpendicular passing through the center of the locking device. Fig. 4 is a view showing the construction of the underneath portion of the fastener and lock with the locking device in what is termed the "intermediate" position.

1 and 2 indicate fragments of the upper and lower sash members of the window, respectively.

3 and 4 are the base-plates of the keeper and of the locking device, respectively.

5 is a disk-like locking member which has the handle or thumb-piece 6.

7 is a hub which extends downward from the bottom of the disk 5 and has flattened sides against which flat springs 8 and 9 lie when the disk is in either of the locked posi-

tions. The corners of the hub are also flattened, as shown in Fig. 4, and afford bearing-surfaces for the springs when the locking member 5 is in the intermediate position. If the member 5 is slightly turned on its axis clockwise from the position shown in Fig. 4, the springs will throw the member 5 to the position shown in Fig. 2.

10, 11, 12, and 13 are shoulders which afford bearings for the springs 8 and 9.

14 is a pivot-pin for the member 5, which extends downward and has a washer 15 riveted in place, which washer rests against the shoulders 16 and 17. The washer is shown dotted in Fig. 4 for better illustration.

18 indicates a cam-lip constituting the main locking portion of the member 5, which coacts with the keeper-hook 19 for drawing the sashes together in the manually-locked position. The cam-lip 18 extends approximately one-half way around the disk-like member 5 and terminates in the thumb-piece 6.

20 is a projection which lies in the plane of the disk 5 and serves to automatically lock the sash in the closed position and when in its locked position stands beneath the lower edge 21 of the keeper-hook, which is preferably substantially flat and parallel to the bearing-surface of the bolt. The edge of the projection 20 is preferably in line with a radius of the disk 5, and the lower surface is beveled off, as shown in Fig. 1.

22 is the point of the cam-lip 18, which constitutes the "setting" means, to coact with the two cam-surfaces 23 and 25 of the keeper-hook.

To open the sashes, the member 5 is moved into the intermediate position, (shown dotted in Fig. 2,) the point 22 standing beneath the lower curved cam portion 23 of the keeper. If now the sashes are separated, the setting-point 22 coming in contact with the lower cam-surface 23 will cause the member 5 to rotate on its axis sufficiently to permit the springs 8 and 9 to throw it into the position shown in full lines in Fig. 2, in which the projection 20 stands above the incline 24. When the sashes are brought together again, (and the member

5 has not been disturbed,) the projection 20 will strike against the incline 24, down which it will slide, rotating said member 5 until it clears the lower right-hand point of the keeper-hook. The springs 8 and 9 will then immediately rotate the member 5 back into the position shown in full lines in Fig. 2, so that the sashes will be automatically locked. The sashes may also be separated by moving the member 5 so that the space between the projection 20 and the point 22 is directly under the keeper-hook 19, the disk being cut away at this point to afford a passage-way for the keeper-hook.

I have formed the left-hand top corner of the keeper, as shown in Fig. 1, rounded off, so that if the disk is put into the intermediate position while the sashes are separated and the sashes are then brought together the setting-point 22 will strike against the upper cam-surface 25, whereupon the member 5 will be rotated toward the position shown in Fig. 2 until the locking projection 20 strikes against the incline 24, when the operation will be as above described. The keeper approximates the outline of a truncated cone with its top rounded off or a pyramid which has great strength and yet requires the minimum amount of material.

What I claim is—

1. A sash-fastener including a keeper having an inclined portion, a rotary member having a cam-lip cooperating with one part of said keeper, automatic setting means, and an automatic locking projection in the plane of the base of said rotary member cooperating with the inclined portion of said keeper, said setting means being operated by separating the sash members, so that the said locking projection will cooperate with the inclined portion of the keeper when the sash members are brought together.

2. A sash-fastener including a keeper having an upper cam, a rotary member, a setting-point for cooperating with the upper cam, and a locking projection operated by said setting-point when the sashes are separated and also when the sashes are brought together.

3. A sash-fastener comprising a keeper having an upper cam, a locking member, a setting-point for cooperating with the upper cam, a locking projection operated by said setting-point when the sashes are separated and also when the sashes are brought together, and a spring for actuating said locking member to assist in throwing the locking projection into its operative position.

4. A sash-fastener comprising a keeper having an inclined portion, an upper cam, a lower cam and a lower edge, a locking member, a setting-point and a locking projection carried by said member, said setting-point being adapted to coact with the upper cam or the lower cam, said locking projection being adapted to cooperate with the inclined portion or the lower edge of said keeper, and means for supplementing the action of said setting-point to throw the locking member into operation.

5. A sash-fastener including a keeper having an inclined upper cam portion, a rotary locking disk-like member, a setting-point and a locking projection carried by said member and substantially in the plane of the base thereof, there being a clearance-space between the locking projection and the setting-point to provide a passage-way for the keeper-hook when the parts are operated, said setting-point and locking projection being adapted to cooperate with the keeper for the purpose specified.

6. A sash-fastener comprising a keeper having a hook with an inclined portion, upper and lower cam-surfaces, and a lower edge meeting the inclined portion in a point at one side of the center and a locking device adapted to cooperate with the above-mentioned portions of said keeper for manually or for automatically locking the parts.

Signed at New Britain, Connecticut, this 7th day of October, 1903.

AUGUST ARENS.

Witnesses:

LAURA MAE BRAMAN,
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