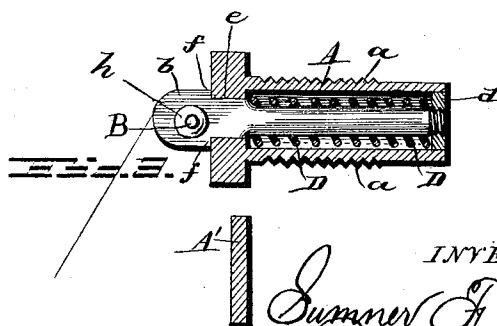
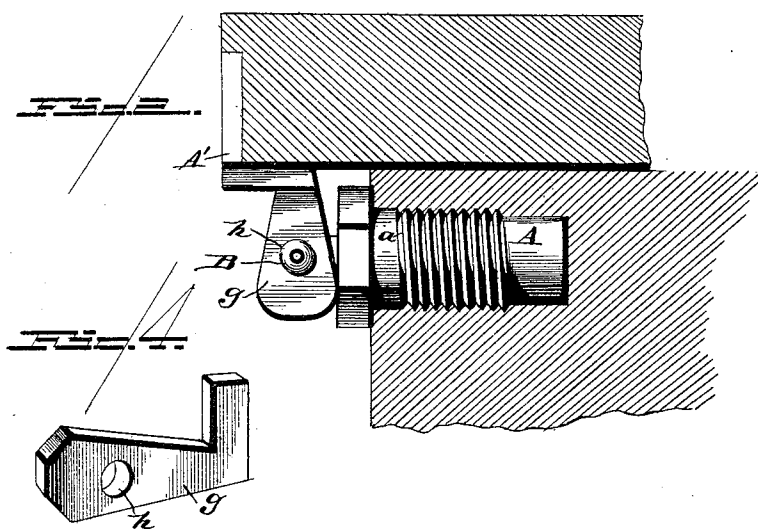
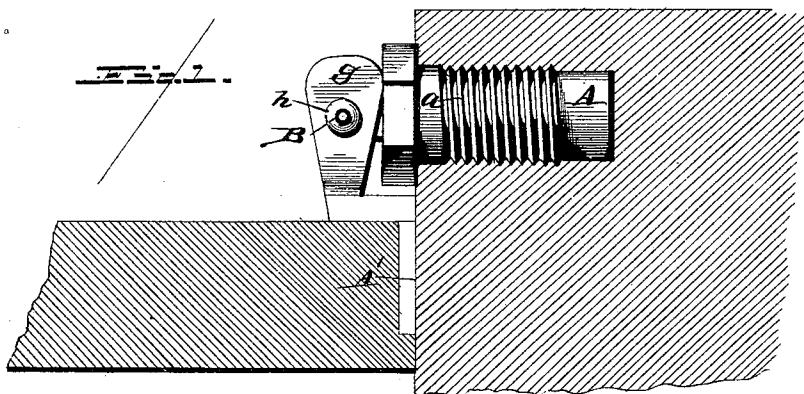


(No Model.)

S. F. STREETER.
SPRING HINGE.

No. 403,494.

Patented May 14, 1889.



WITNESSES
Walter H. Humphrey
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UNITED STATES PATENT OFFICE.

SUMNER F. STREETER, OF GREENFIELD, MASSACHUSETTS.

SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 403,494, dated May 14, 1889.

Application filed December 8, 1888. Serial No. 293,012. (No model.)

To all whom it may concern:

Be it known that I, SUMNER F. STREETER, a citizen of the United States of America, residing at Greenfield, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Hinges, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to certain improvements in screen door or blind hinges; and it consists of the combination of parts, including their construction, substantially as hereinafter fully claimed.

15 In the accompanying drawings, Figure 1 is a plan view of my hinge in the position it occupies when the door or blind is closed. Fig. 2 is a similar view of the same in the position it occupies when the door or blind is open; Fig. 3 is a horizontal section thereof, and Fig. 4 is a modification of the cam.

In the embodiment of my invention I employ a cylindrical or tubular portion, A, which is provided with an external screw-thread, a, to effect its connection with the door-jamb. A' is a leaf which is applied or secured to the door or blind in the usual way by screws.

25 A horizontal arm or shank, b, cylindrical the greater portion of its length, has a pintle, B, on its outer or flattened end. The cylindrical portion of said arm is encircled by a spring, D, and both the cylindrical portion of the pintle arm or shank and its encircling spring are inclosed within the tubular portion or hollow screw A of the hinge. The spring D bears against a disk, d, secured upon the inner end of the pintle-arm and against an inner shoulder of the tubular portion or hollow screw A. This arrangement permits 35 of the limited withdrawal or an outward movement of the pintle and its automatic retraction or inward movement as the door or blind is opened or closed.

The pintle shank or arm b is prevented 45 from turning under the action of its encircling spring by means of an angular surface, e, thereof fitting in a corresponding aperture in the outer end or head of the tubular portion of screw A. The arm is further provided 50 upon its outer end with shoulders f f', to limit its inward movement under the pull of the spring.

The leaf A' is provided with a shank or

arm, g, the wider surface of which is provided with an aperture, h, to receive and permit its 55 disposition upon the pintle B, and which wider surface is in a plane at right angles to that of the leaf. The leaf, arm, or shank also constitutes a cam or eccentric, which is provided with a convex or angular bearing-surface, as 60 shown in Fig. 4, the same having an eccentricity of action and bearing upon the outer end or head of the tubular portion or hollow screw A of the hinge as the door is opened and closed. This action has the effect to partially withdraw or project the pintle shank 65 or arm and contract its encircling spring in the swinging of the door or blind upon its hinges. Thus, as the inner end of the leaf, shank, or arm moves out of alignment with a 70 horizontal plane passing through the screw A and the pintle A' either to the right or left, according as the door or blind is opened or closed, the spring will automatically open and close the door or blind and hold them in such 75 positions.

I claim as my invention—

1. The screen door or blind hinge comprising the hollow screw, a spring-encircled arm or shank inclosed by said screw, a pintle 80 secured thereon, and the leaf having a cam or eccentric arm or shank fitting upon the pintle and bearing against the head or outer end of the screw, substantially as and for the purpose set forth. 85

2. The screen door or blind hinge comprising the hollow screw having an angular aperture in its head or outer end, an arm cylindrical for the greater portion of its length and provided with an angular portion fitting 90 said aperture of the screw-head, a pintle secured thereon at the outer end, a disk thereon at its inner end, a spring encircling said pintle arm or shank and bearing against said disk and against the inner portion of the hollow screw, and the leaf having an apertured cam or eccentric-arm fitting upon said pintle 95 and resting against the screw-head, substantially as specified.

In testimony whereof I affix my signature 100 in presence of two witnesses.

SUMNER F. STREETER.

Witnesses:

CHAS. F. A. EDDY,
W. C. BRYANT.