

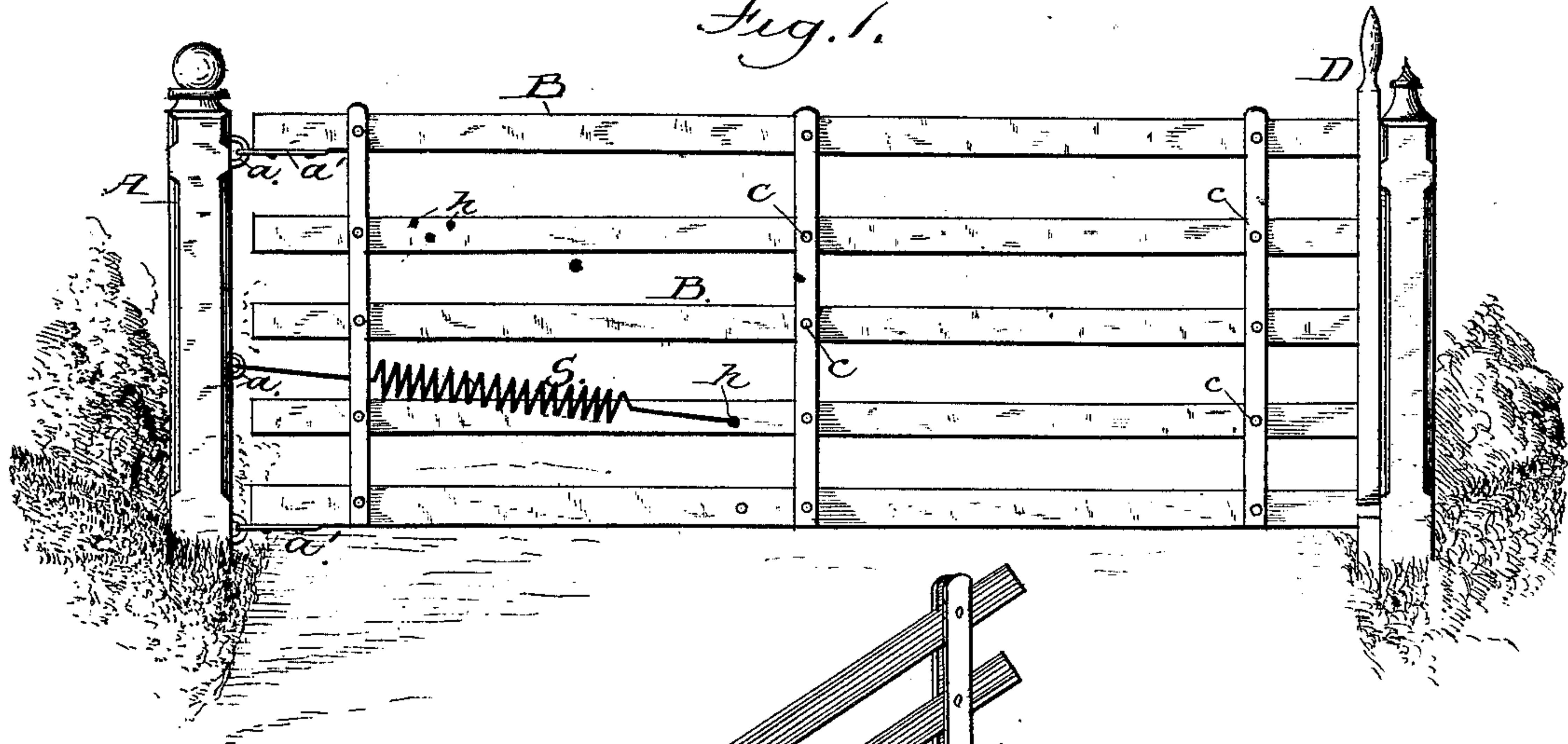
(No Model.)

S. S. SPEICHER.  
Gate.

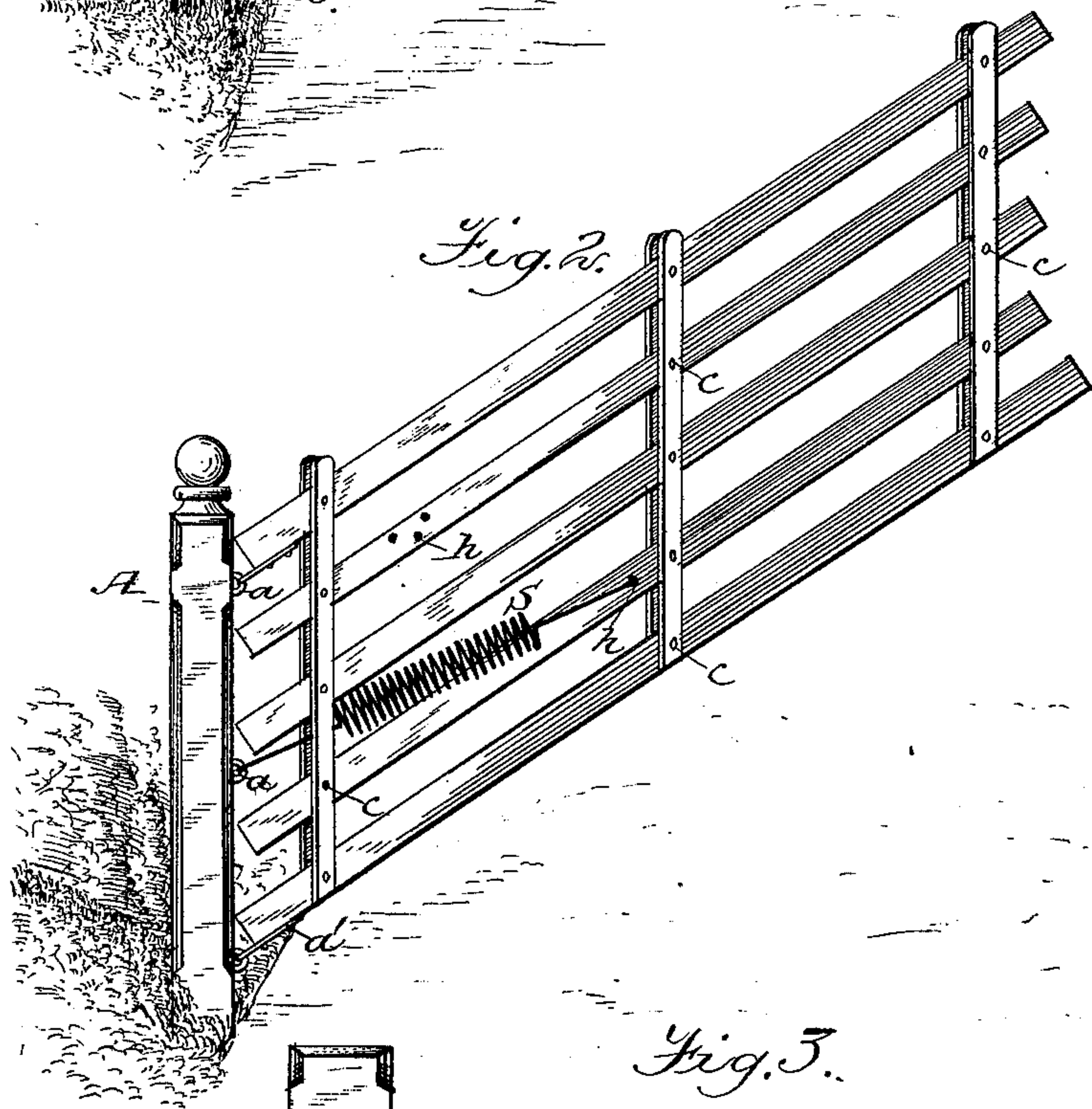
No. 231,244.

Patented Aug. 17, 1880.

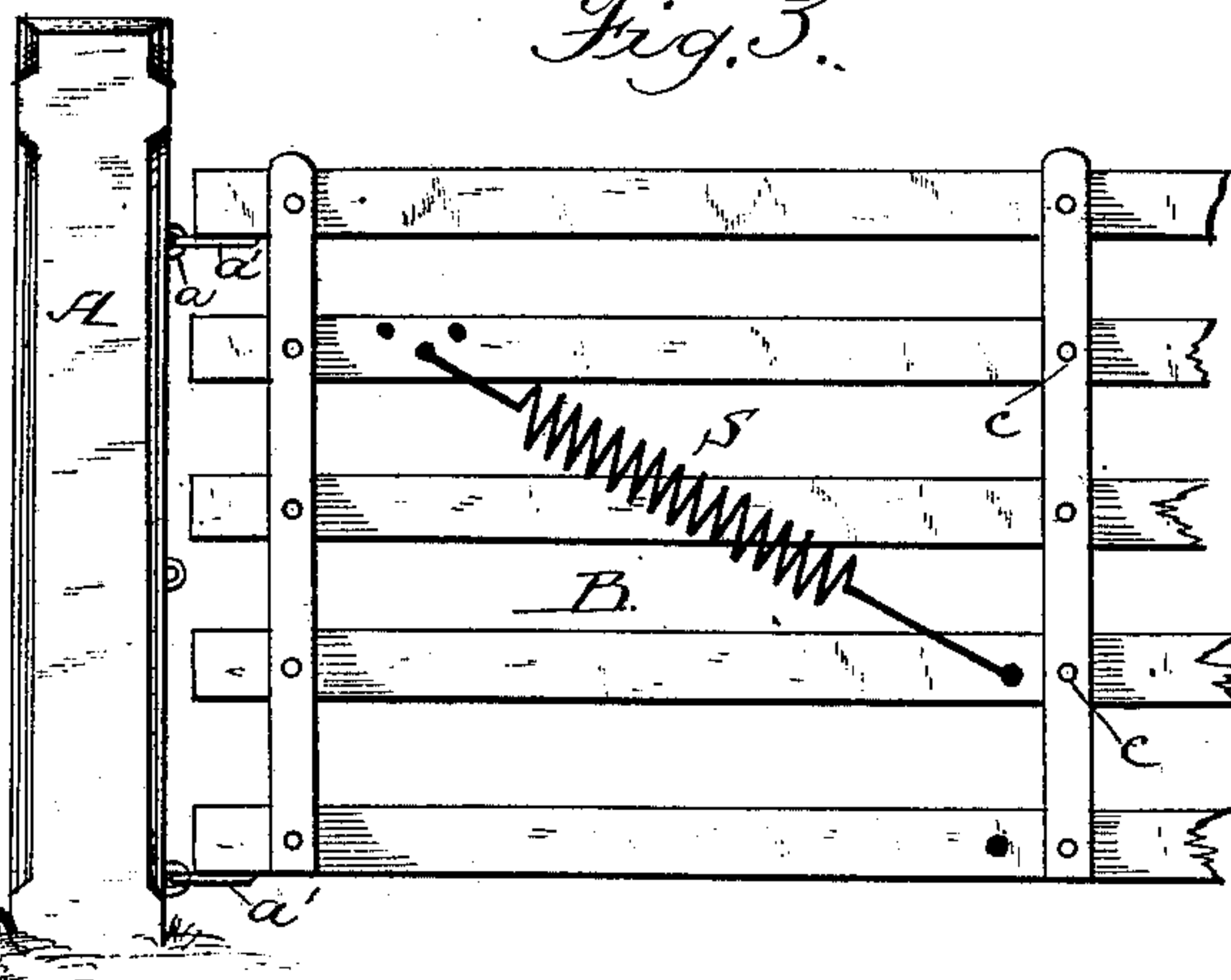
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Attest.  
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# UNITED STATES PATENT OFFICE.

SAM. S. SPEICHER, OF URBANA, INDIANA.

## GATE.

SPECIFICATION forming part of Letters Patent No. 231,244, dated August 17, 1880.

Application filed June 11, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, SAM. S. SPEICHER, of Urbana, Wabash county, and State of Indiana, have invented certain Improvements in Operating Gates; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front elevation of the gate closed. Fig. 2 is an elevation, showing the gate in the act of opening. Fig. 3 is a modification of my invention.

The object of my invention is to provide a gate which, on being released from its fastening, will open automatically; and my invention consists in a gate constructed of a series of bars or slats pivoted to vertical pieces, combined with a spring having one end engaging in one of the pivoted slats and the other end engaging in a staple on post which supports the gate, as hereinafter more fully described and claimed.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is a post supporting the gate, and to which it is hinged. At the other end of the gate is a post provided with a spring-catch, D, to hold the gate when closed. The gate proper is made of a series of slats, B B, arranged horizontally and parallel between vertical bars E, disposed in pairs, and pinned together by bolts *c c*, so that slats B will freely turn on bolts *c c*. A heavy distended coiled spring, S, has one end engaged in a hole, *h*, in one of the lower slats B, and the other end attached to the staple *a* in the post A. The lifting tendency of the spring

relieves hinges *a' a'* very considerably from the weight of the gate.

When the gate is closed, as seen in Fig. 1, the outline is rectangular; but the moment the spring-catch D is released the spring S draws upward the slat to which it is attached, and throws the free end of the gate upward, making the gate assume a shape in general rhomboidal, by the slats turning on bolts *c c*, as seen in Fig. 2. This change of shape suddenly changes the center of gravity of the gate, and tends to swing it on its hinges and open it.

A gate of this character is of great utility when snow is on the ground, as the operation raises the greater part of the lower slat out of the snow, so the gate can turn easily.

Fig. 3 shows a modification of my device, one end of the spring being fastened to a lower slat and the other end to an upper slat. The operation is the same with Fig. 1.

I am aware that gates have heretofore been constructed of horizontal slats loosely pivoted to vertical bars, and such gates have been supplied with pulleys, cords, and weights to counterbalance the gate, so that any one opening it could easily raise the gate; but none of these gates open automatically.

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

A gate composed of horizontal slats B B, loosely pivoted between vertical bars, in combination with spring S, having one end attached to one of the lower slats and the other end attached to the gate-post, substantially as set forth.

SAM S. SPEICHER.

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