(No Model.)

F. W. LECHNER.

GATE SPRING.

No. 535,381. Patented Mar. 12, 1895.

Fig. 1.

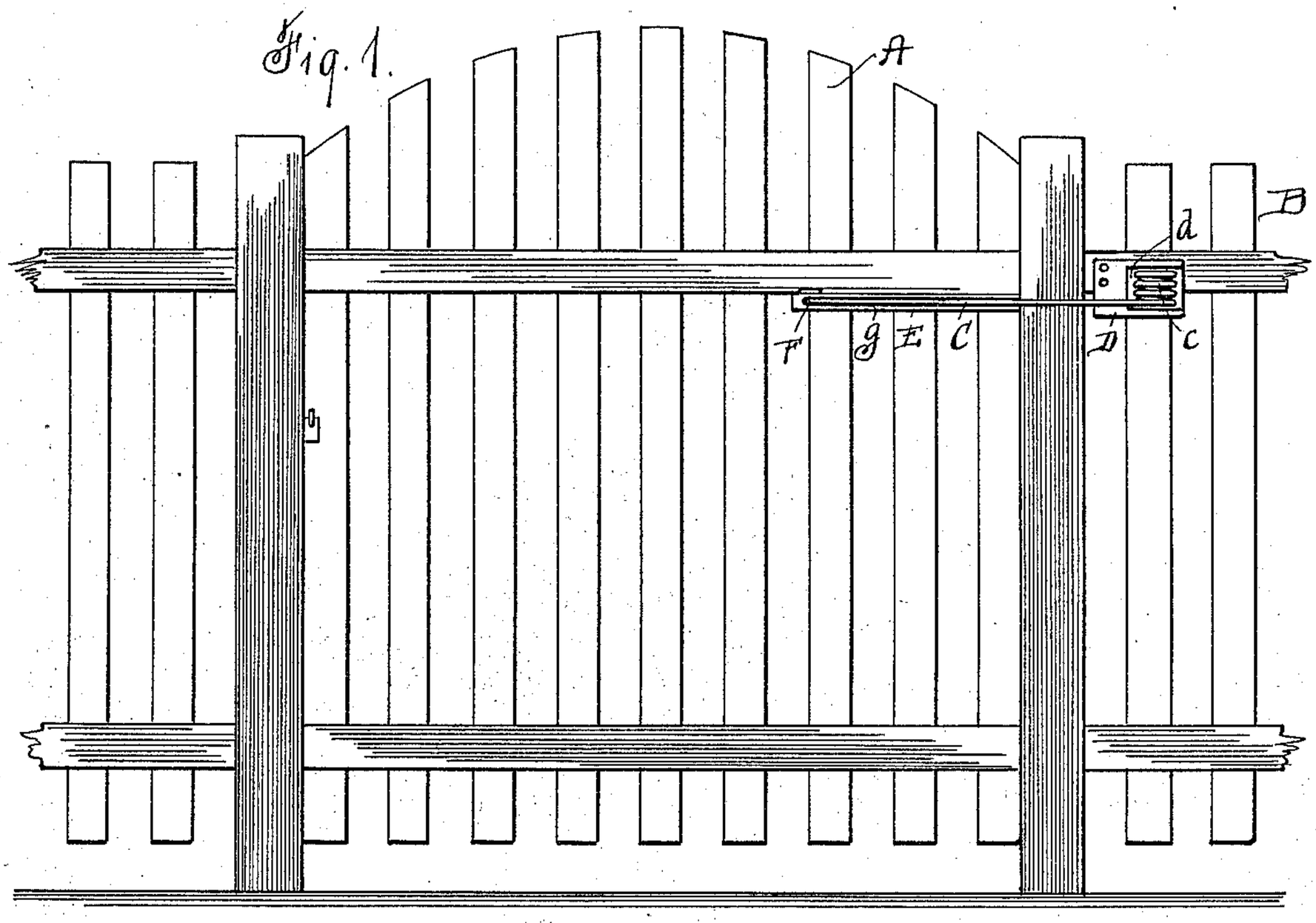


Fig. 2.

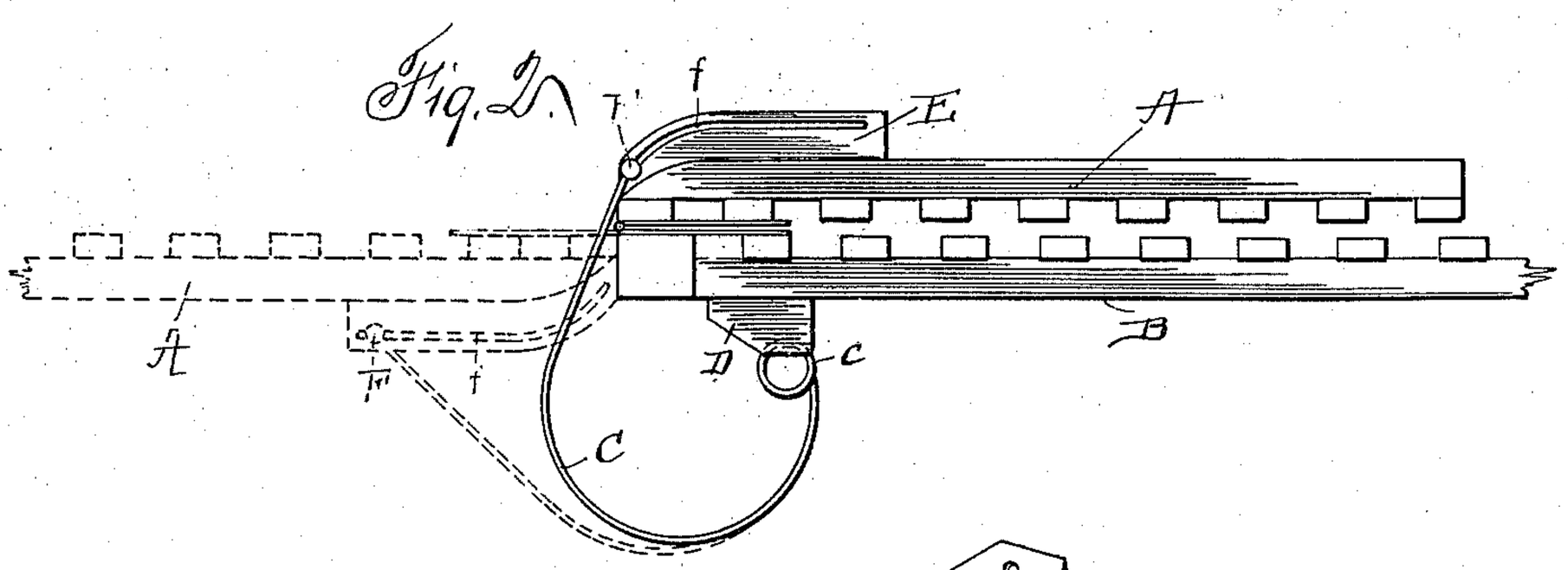
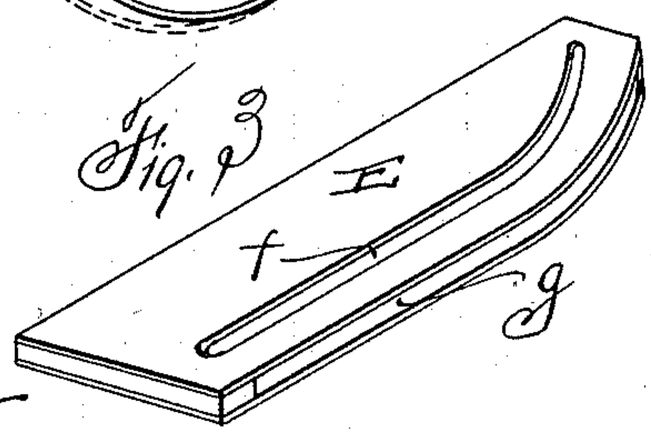


Fig. 3



WITNESSES

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FRED W. LECHNER, OF GARFIELD, ILLINOIS.

GATE-SPRING.

SPECIFICATION forming part of Letters Patent No. 535,381, dated March 12, 1895.

Application filed May 21, 1894. Serial No. 511,970. (No model.)

To all whom it may concern:

Be it known that I, FRED W. LECHNER, a citizen of the United States, and a resident of Garfield, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Gate-Springs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is an elevation showing the invention applied. Fig. 2 is a plan view of the invention with gate entirely open. Fig. 3 is a detail of slotted plate.

This invention has relation to certain new and useful improvements in gate springs, the object being to provide a simple and efficient attachment which can be readily applied to any form of horizontally swinging gate for the purpose of keeping it closed; and the invention consists in the novel construction and combination of parts, all as hereinafter described and pointed out in the appended claim.

Referring to the accompanying drawings illustrating my invention, the letter A represents a gate, which may be of any well known form, and B a section of fence adjoining said gate.

C designates the spring, which is formed of heavy, resilient wire, having formed therein near one end, a horizontal coil or coils *c*. This end of the spring is usually connected to the bar of the fence section by means of a block D, secured by nails or bolts and to which the end of the spring is attached. The said block is usually formed wlth a groove *d* which partially receives said coil or coils and prevents their spreading.

The spring is bent around in a large loop and its other end is loosely attached to a plate E secured to a longitudinal bar of the gate. The connection between the spring and plate is effected by means of a vertical pin F carried by the spring and loosely engaging an elongated vertical slot *f* in the said plate, the spring entering a horizontal guide-slot *g* in the said plate. The plate and slots are curved at the rear portion so as to permit the gate to swing through an angle of one hundred and eighty degrees, or back parallel with and against the fence section, so that there is no danger of the spring being broken by an attempt to force the gate beyond the limit of its movement as would likely be the case were the gate capable of swinging through an angle of ninety degrees only.

As the gate opens, the pin F moves along the straight portion of the slot until the gate has swung through an angle approaching ninety degrees. While the gate swings through the remaining half of its movement, the pin follows the curve of the slot. It will be apparent that this movement causes a compression of the coil or coils and a tension of the wire so that as soon as the gate is released, the spring will quickly throw it closed.

The plate E is usually attached to the under face of the upper bar of the gate, as shown, the end portion of said bar being rounded off to correspond to the curve in the slot.

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

The herein described spring attachment for gates, comprising the attachment block D secured to the fence section adjacent to the gate, the spring C formed of heavy, resilient wire attached at one end to said block, said spring having a coil or coils *c* from which the wire is bent outwardly in a large loop extending to the gate, a vertical pin F carried by the free end of said spring, and a plate E curved at its outer edge and secured to the gate, said plate having an elongated, vertical slot *f* therein engaged by said pin F, said slot having a curved portion, and a horizontal slot *g* which guides the spring, said slots *f* and *g* permitting a movement of the pin F to allow the gate to swing through an arc of approximately one hundred and eighty degrees, substantially as specified.

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

FRED W. LECHNER.

Witnesses:
GEORGE H. PARMELEE,
PHILIP C. MASI.