

No. 609,369.

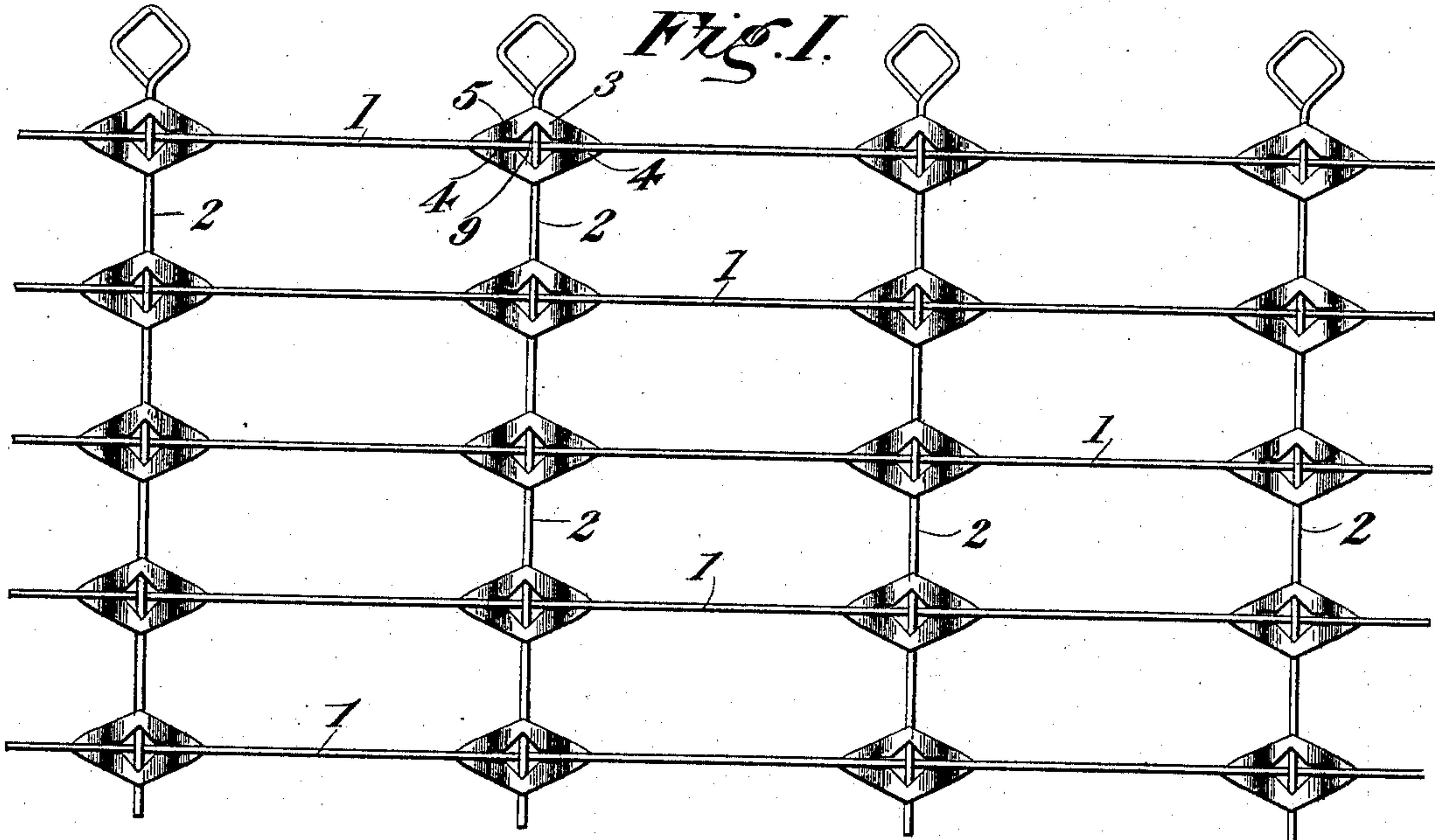
A. S. ROBINSON.

Patented Aug. 16, 1898.

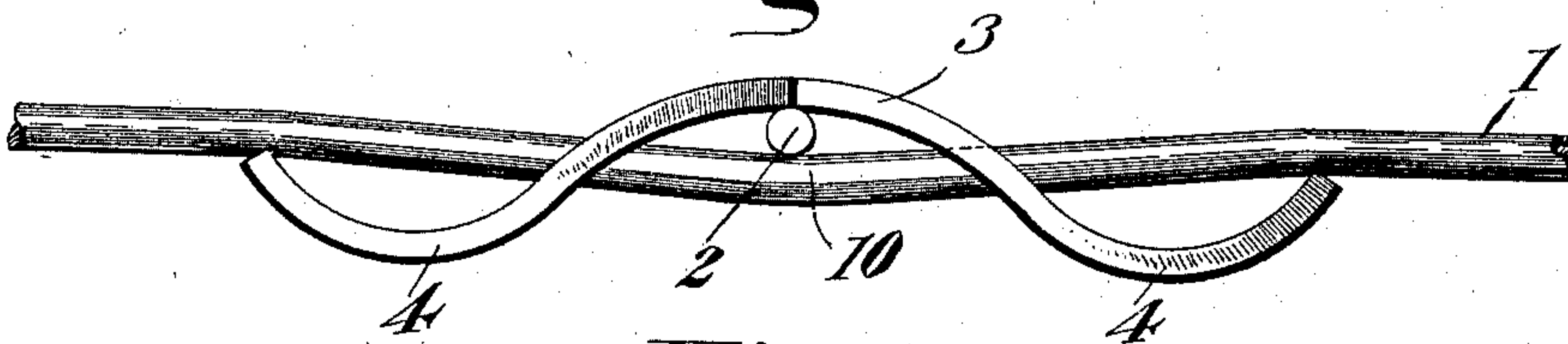
FENCE.

(Application filed Apr. 2, 1898.)

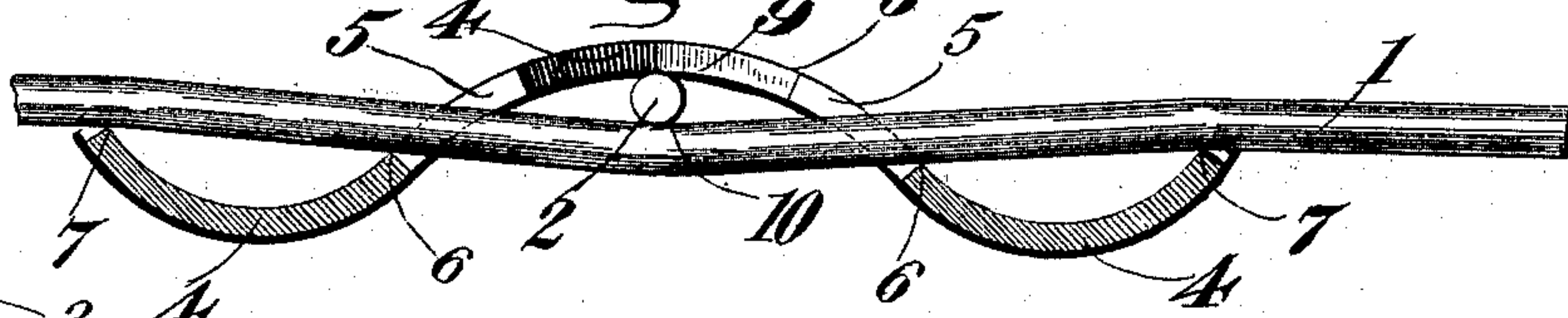
(No Model.)



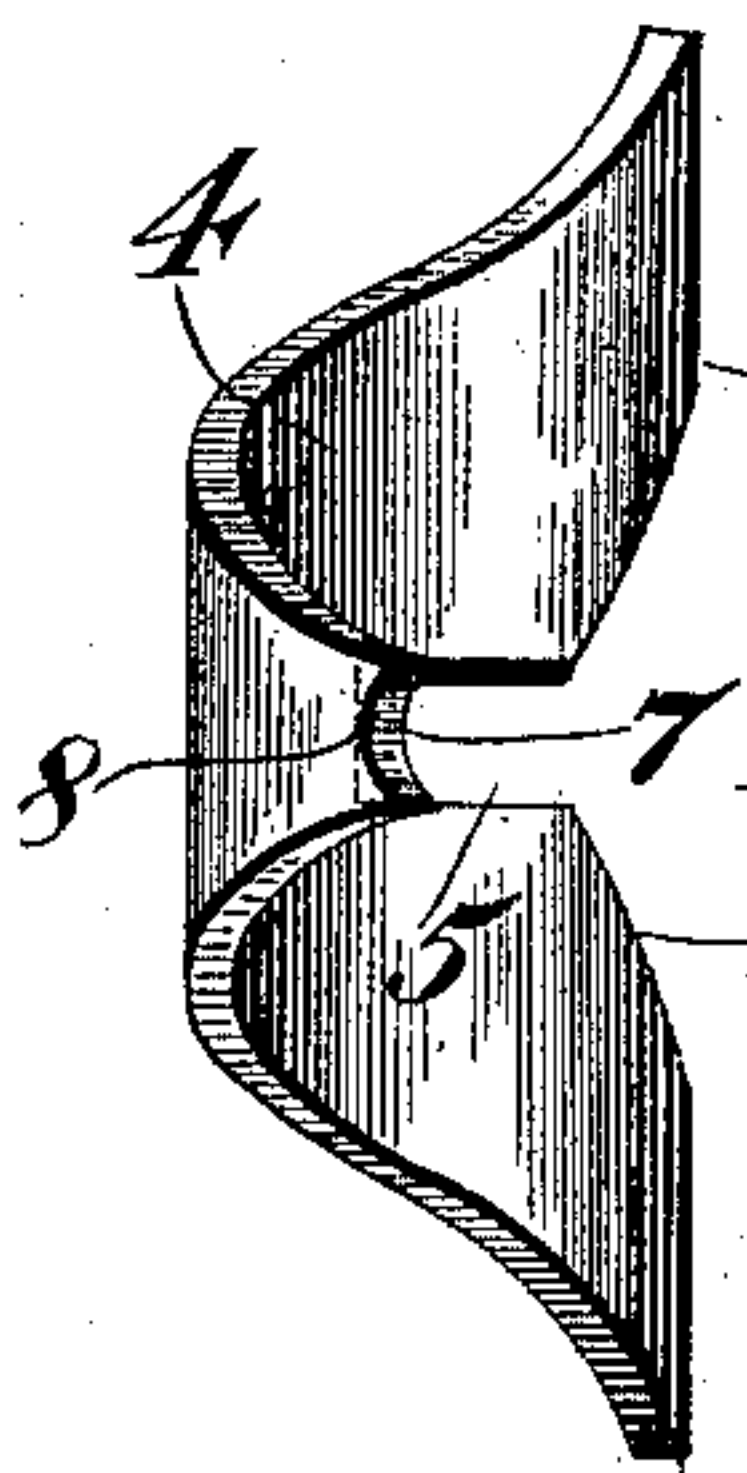
*Fig. II.*



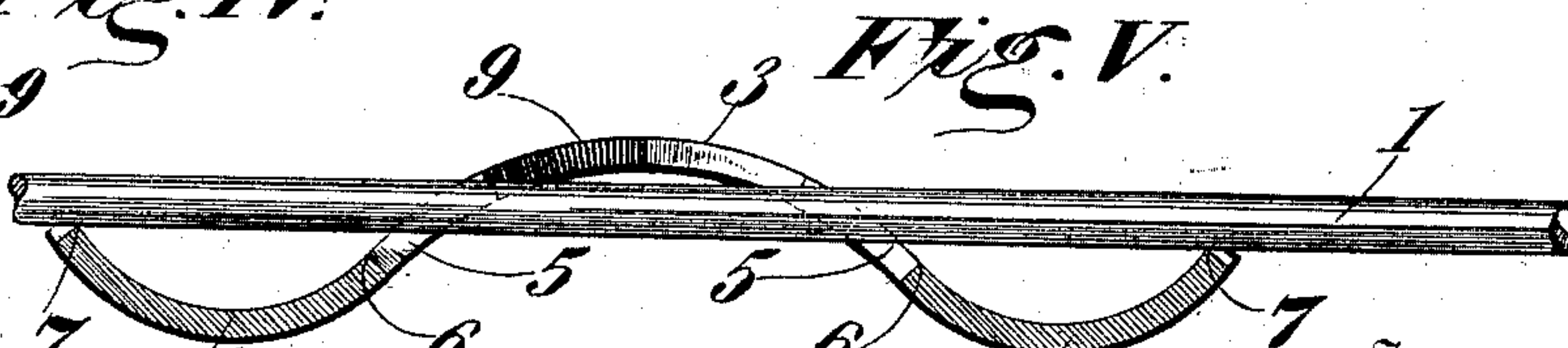
*Fig. III.*



*Fig. IV.*



*Fig. V.*



Witnesses

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# UNITED STATES PATENT OFFICE.

AQUILA S. ROBINSON, OF CAMDEN, NEW JERSEY.

## FENCE.

SPECIFICATION forming part of Letters Patent No. 609,369, dated August 16, 1898.

Application filed April 2, 1896. Serial No. 585,962. (No model.)

*To all whom it may concern:*

Be it known that I, AQUILA S. ROBINSON, of Camden, county of Camden, State of New Jersey, have invented certain new and useful Improvements in Fences, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce improvements in fences composed of a series of longitudinally-strung strands or stringer-wires and a series of transversely-disposed upright or picket-like wires in which special provision is made for automatically keeping the stringer-wires taut under changing conditions of heat and cold and securing the pickets upon the stringers, so that while they may be secured in place or withdrawn when required they are when in place immovably fixed against accidental dislodgment.

In the accompanying drawings, Figure I is a side elevation of a section of my fence. Fig. II is a detail view showing, as in top plan view, a portion of one of the stringer-wires and a portion of one of the pickets united to the former by my spring-fastener. Fig. III is a longitudinal section of the same. Fig. IV is a side elevation of my fastener detached. Fig. V is a longitudinal central section thereof, showing the relation of the fastener to a stringer-wire before the insertion of a picket.

Referring to the figures on the drawings, 1 indicates each of a series of stringer-wires which are in use supported in the usual manner by suitable posts. (Not illustrated.) The stringer-wires are arranged parallel, or substantially so, to the ground and are designed to support at suitable intervals, as desired, a series of pickets 2. The pickets are preferably, but not necessarily, made of wire. The size and number of stringers and the size, design, and number of pickets are all matters of detail, which may be varied to suit the purpose for which the fence is intended or the taste of a builder. To secure the pickets in place upon the stringers, I employ a fastener, in which, mainly, both in itself and as applied to the completed fence, resides my invention. This fastener consists of a spring-steel plate whose resiliency is properly proportioned to its office, which is to hold the pickets in place upon the stringers and to automatically keep the latter taut and

stiff. This plate is fashioned in the form of a compound curve, having a body part 3 and terminal spring-bows 4. The body part is pierced with a longitudinal slot 5, which is of a size to accommodate a stringer. At each end of the slot 5 through the curve of the bows a sharp edge 6 is presented against the surface of the stringer. A similar sharp edge 7 is defined at the outer extremity of each of the bows by a concave cut or indentation 8. The middle part of the slot 5 may be cut away, as indicated at 9; but this feature has no mechanical significance and may be employed or not, as preferred, for the sake of ornamentation or economy in material.

When the fastener is in its normal position, its concave ends 8 extend beyond the plane in which the edges are located, as indicated, with respect to the surface of a straight stringer. (Shown in Fig. V.) When in practice the fastener is applied against its stringer, a picket is inserted between the body part 3 of the fastener and the stringer, thereby keying the fastener in place upon its stringer. At the same time, however, the picket acting against the resilient force of the fastener causes the bows to bend and brings the edges 6, as well as the edges 7, firmly against the surface of the stringer. Through this action the fastener, so long as the picket is in place, is secured to its stringer by four sharp oppositely-acting or counteracting cutting edges. Moreover, the force of the spring-bows in a fastener of properly-proportioned strength is such as to exercise a constant force to slightly bend the stringer, as indicated at 10 in the drawings. Now before the pickets are applied in use the stringers are first drawn tense between vertical supports. Afterward when the pickets and fasteners are applied the magnitude of the bends 10 is in proportion to the tension upon the stringers, when, as may readily be apprehended, if the tension upon the stringers is great the power of the spring-bows of the fasteners will be less able to overcome the force of the tension and to deflect the stringer from its straight course. If, however, after the fence is built the stringer should become slackened through any cause, as through expansion occasioned as by heat, the spring-bows will exert themselves to take up the slack and to keep the stringers taut



and the pickets firmly secured upon the stringers. If, on the other hand, the tension upon the stringers should be increased through contraction occasioned as by cold, such tension will serve only to counteract to a greater degree the force of the spring-bows and to secure the parts more firmly together. Thus by the employment of a number of pickets, with their fasteners for each panel of fence, a practically completely efficient automatic tension-regulating mechanism is provided, which at the same time serves to preserve the rigidity and symmetrical completeness of the structure.

What I claim is—

1. In a fence, the combination with a stringer-wire, and spring-metal fastener composed of a body part and oppositely-curved spring-bows, of a slot in the body part, and a picket inserted between the stringer and the curved body part and serving to force the spring-bows against the stringer, substantially as set forth.

2. A fence consisting of stringer-wires and cross-pickets united together by a spring-fastener, retained in place upon the stringers by the pickets and operating, respectively,

to exert a constant pressure against the stringers, and thereby to automatically control their tension, substantially as set forth.

3. In a fence-fastener, a spring-plate formed to constitute a body part and oppositely-curved spring-bows, substantially as set forth.

4. A fence-fastener, composed of a spring-plate curved to form a body part, oppositely-curved spring-bows, a longitudinal slot in the body part, and sharp edges defined upon the extremities of the bows and the opposite ends of the slot, respectively, substantially as set forth.

5. A fence-fastener, consisting of a spring-metal plate, curved to form a body part, and a slot in the body part, in combination with spring-bows upon opposite extremities of the plate, in line with the slot, the ends of the bows normally extending beyond the axial line of the ends of the slot, substantially as and for the purpose specified.

In testimony of all which I have hereunto subscribed my name.

AQUILA S. ROBINSON.

Witnesses:

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