

No. 624,045.

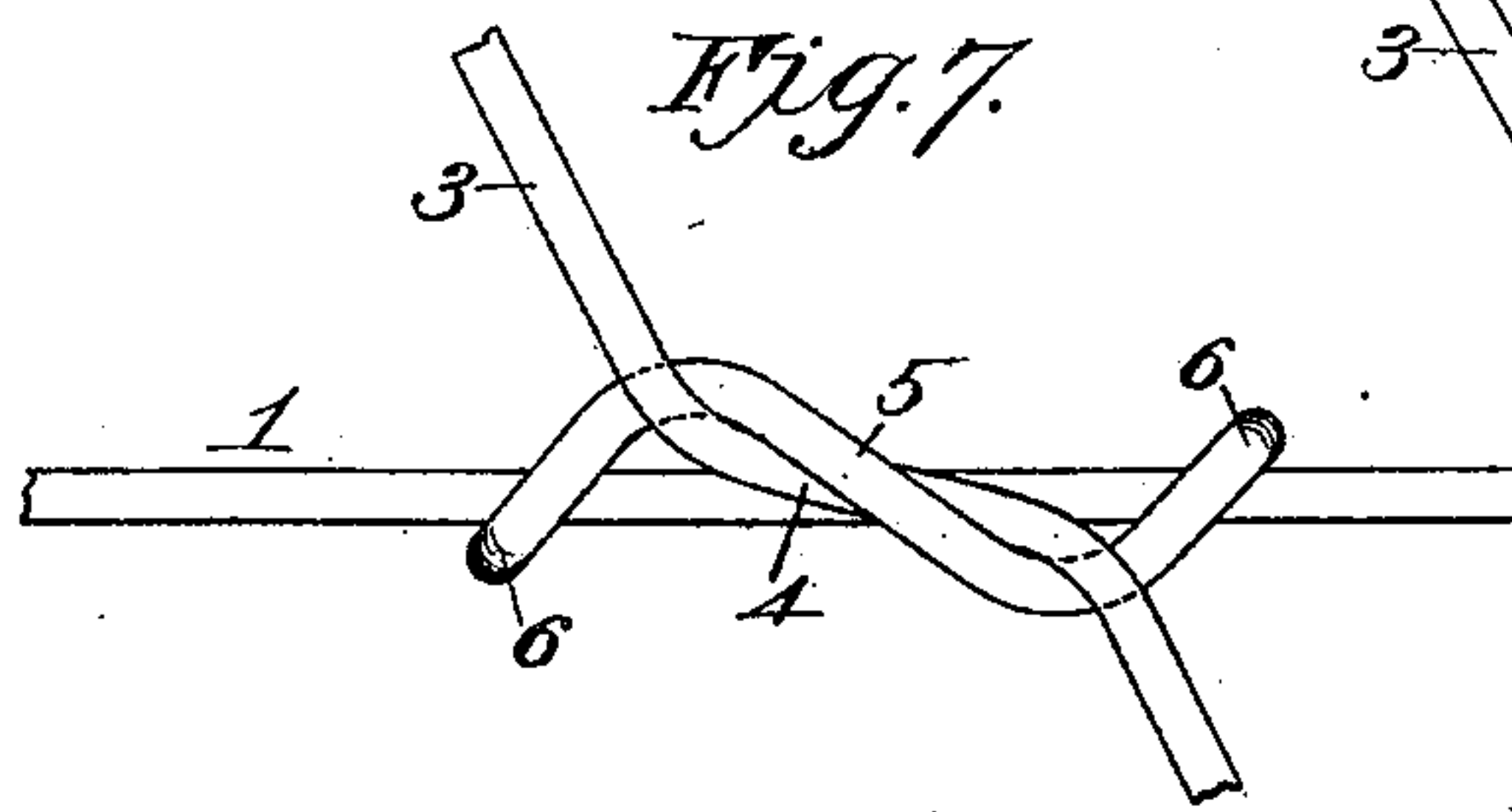
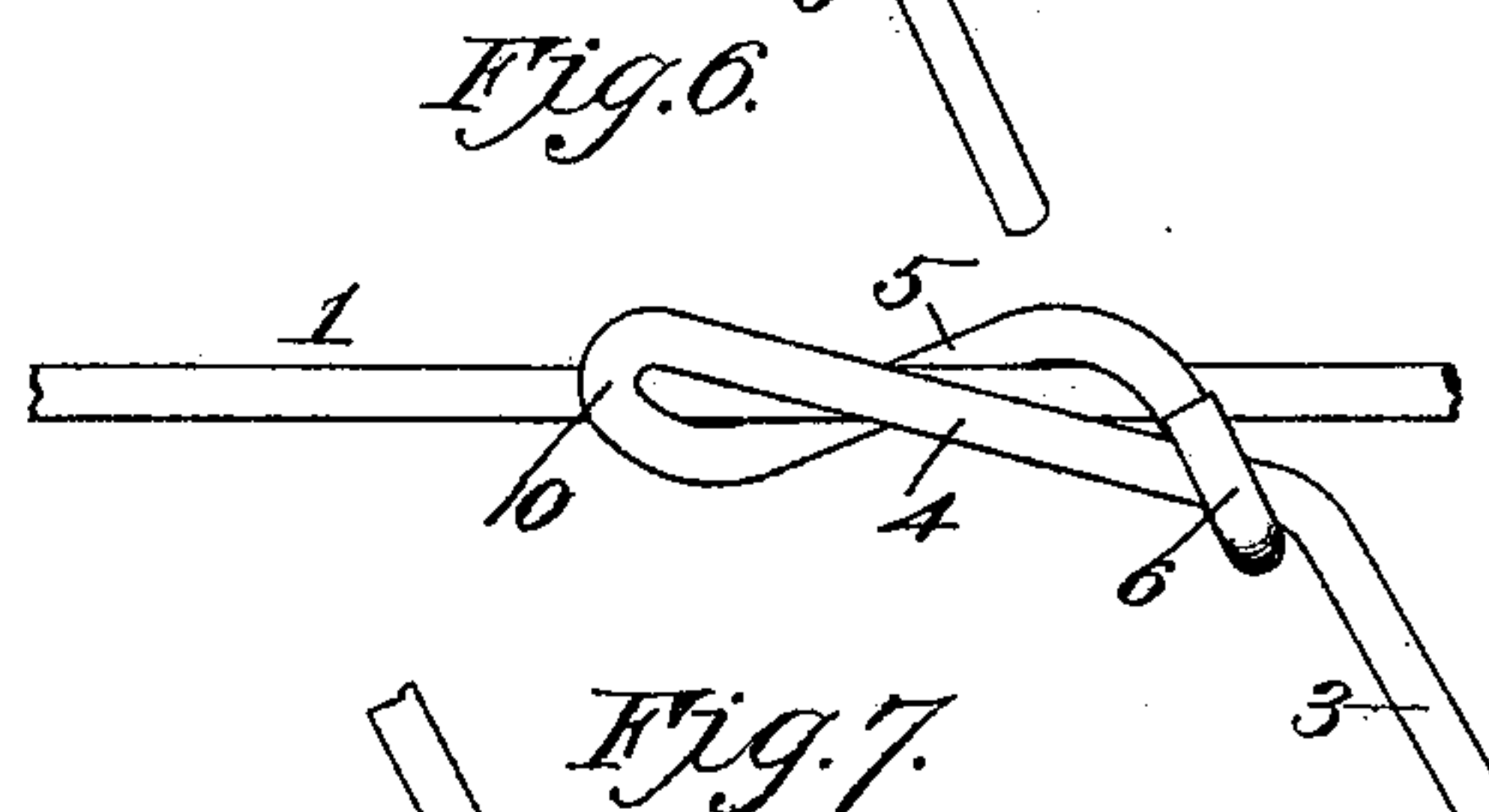
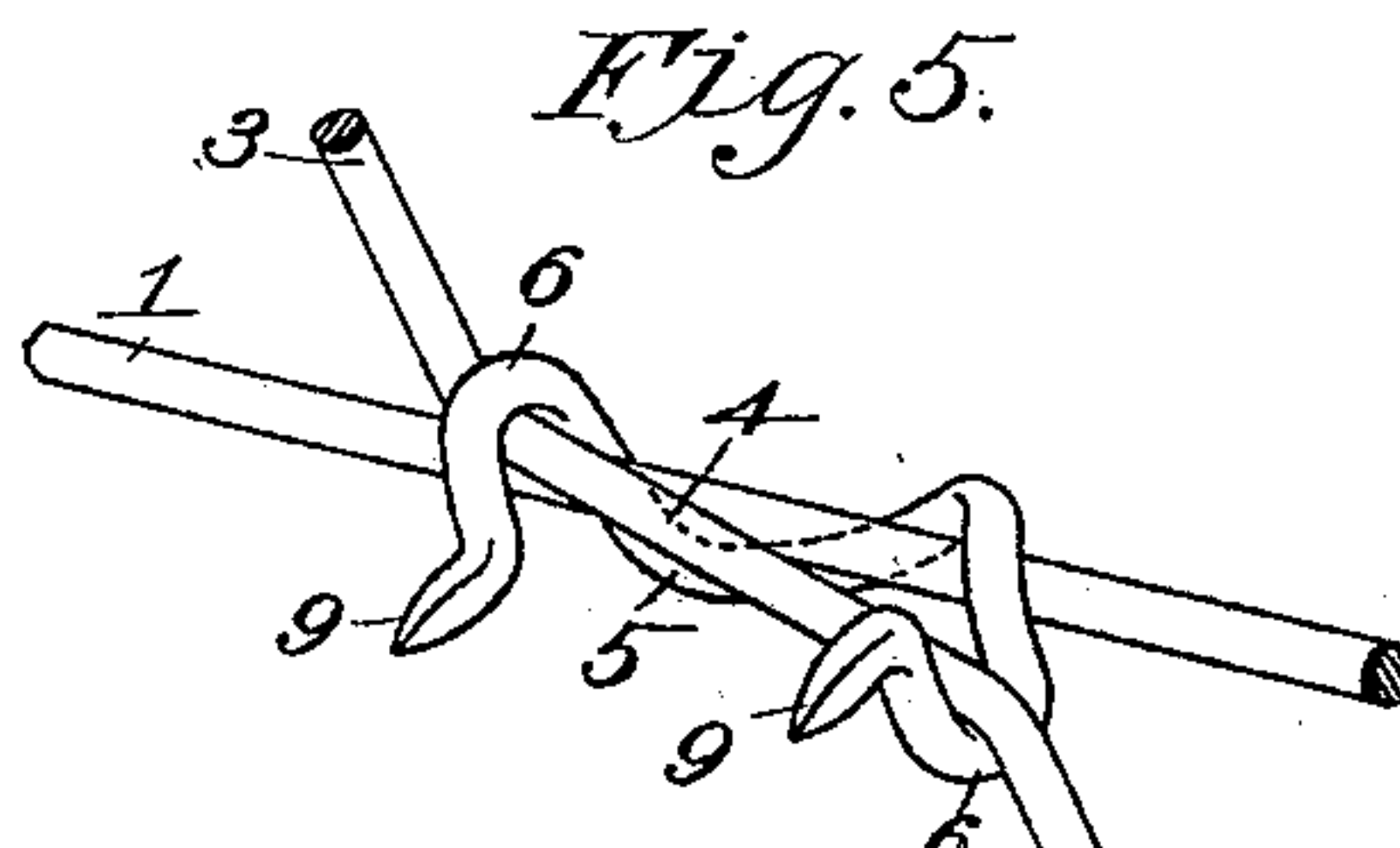
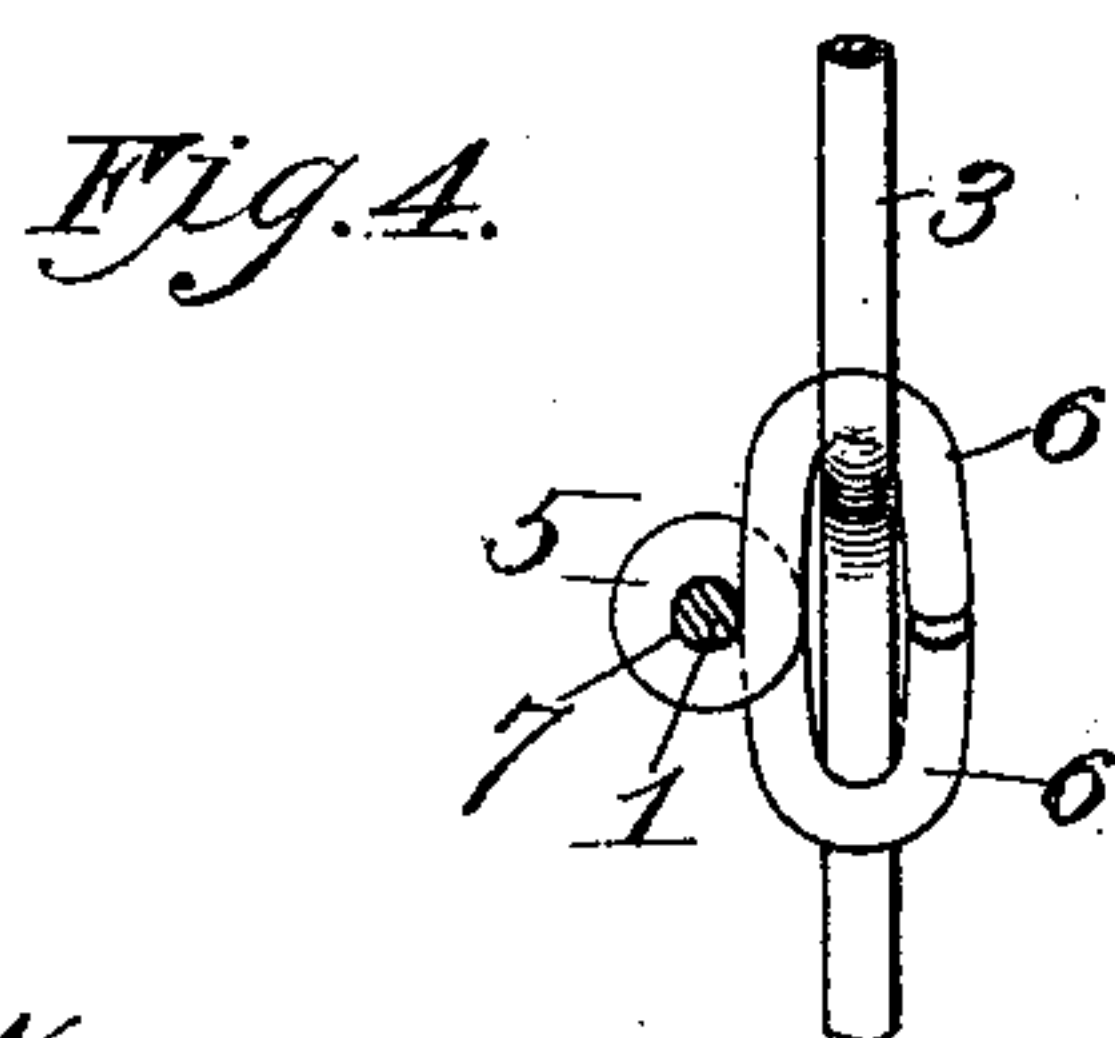
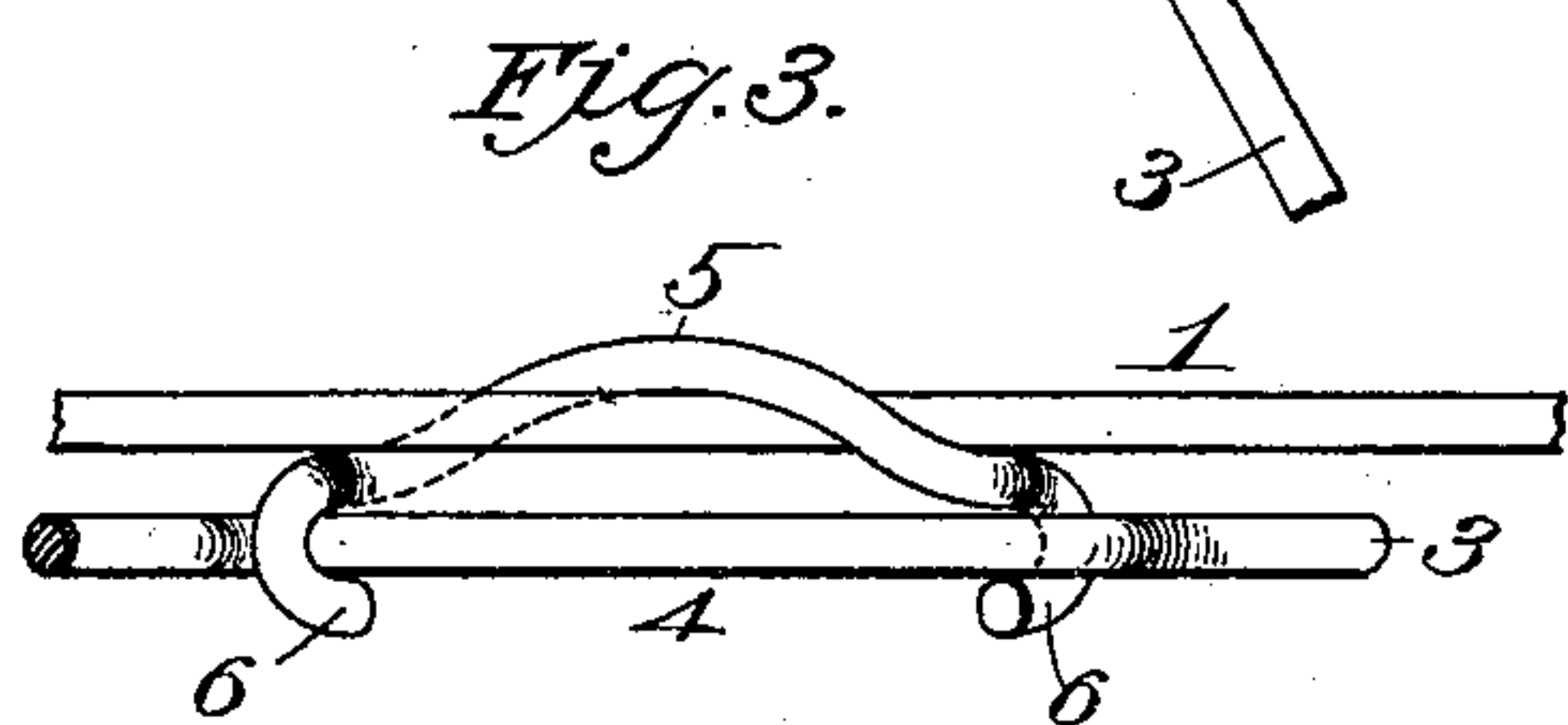
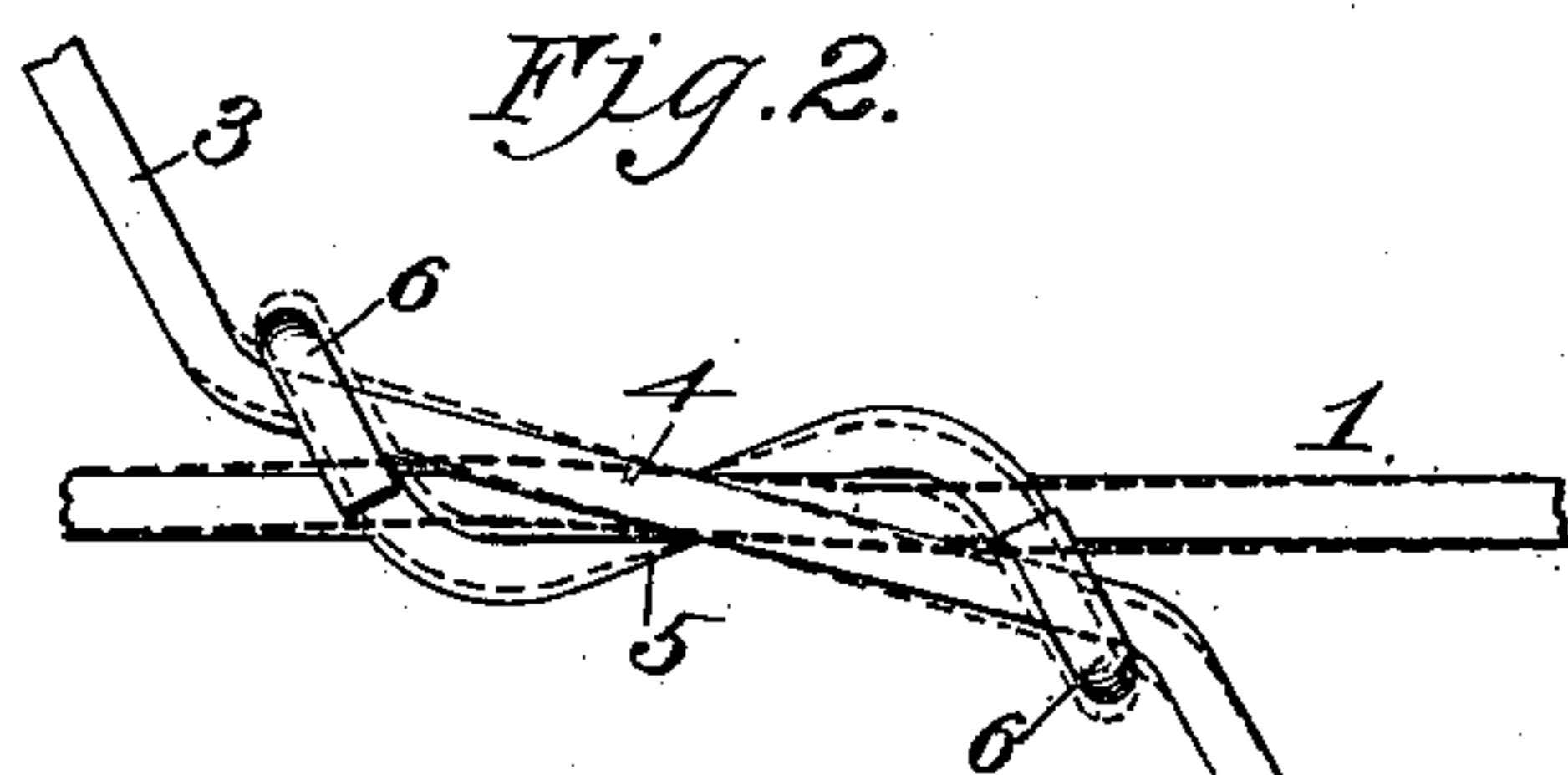
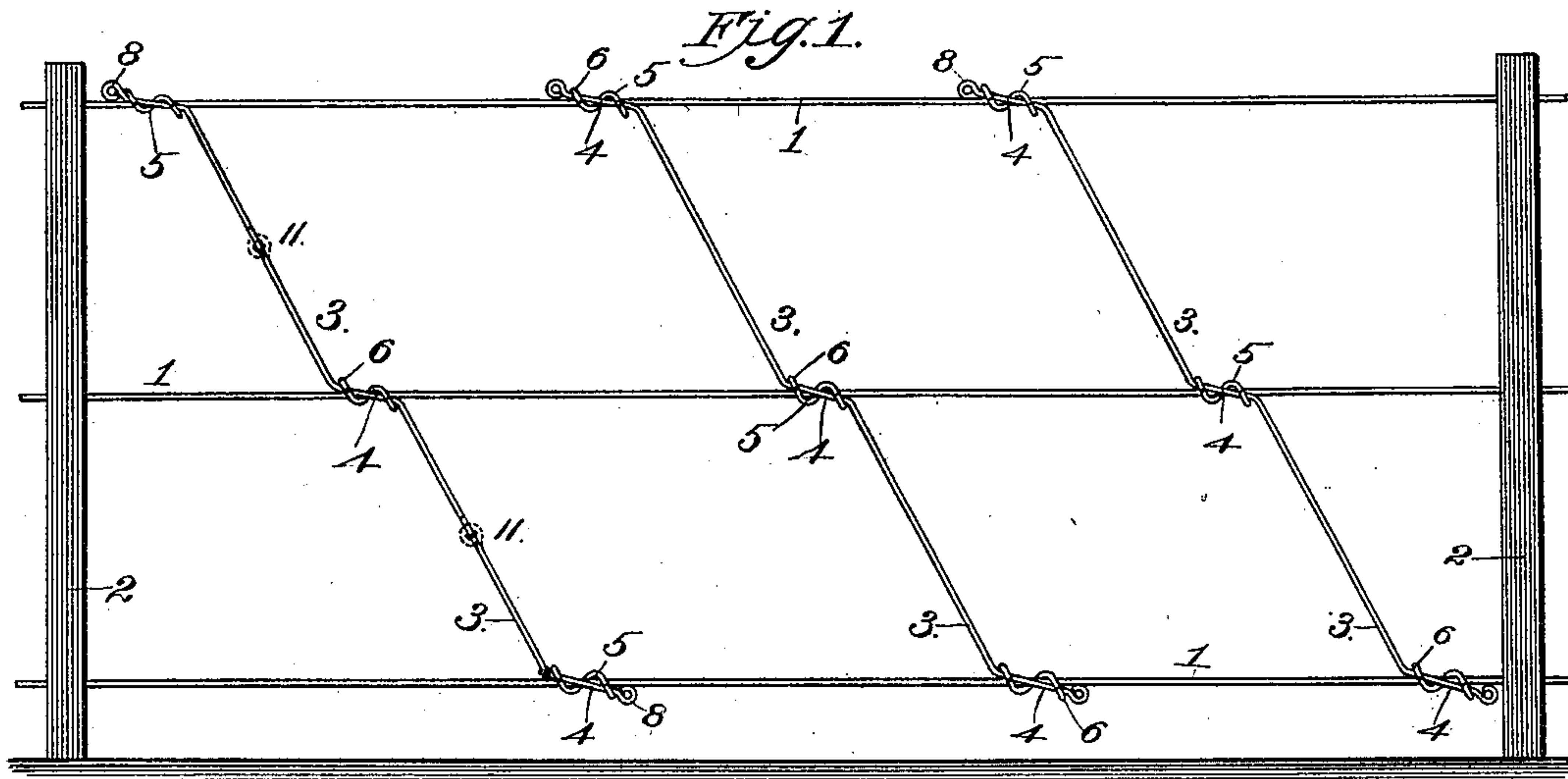
Patented May 2, 1899.

J. W. JENNINGS & J. O. SPRADLING.

WIRE FENCE.

(Application filed Dec. 11, 1897.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOHN W. JENNINGS AND JAMES O. SPRADLING, OF KEARNEY, MISSOURI.

## WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 624,045, dated May 2, 1899.

Application filed December 11, 1897. Serial No. 661,541. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN W. JENNINGS and JAMES O. SPRADLING, of Kearney, Clay county, Missouri, have invented certain new and useful Improvements in Wire Fences, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

Our invention relates to wire fences; and it consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

The object of the invention is to produce a wire fence of extreme simplicity, strength, durability, and cheapness which can be made by hand alone—that is to say, without the use of tools.

Other objects of the invention will hereinafter appear and be pointed out in the appended claim.

In order that the invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents a side view of a portion of a fence embodying our invention. Fig. 2 represents a detail side view, on a larger scale, to more clearly illustrate the construction. Fig. 3 represents a plan view of the last-mentioned figure. Fig. 4 represents a cross-section of the fence. Fig. 5 represents a detail perspective view showing the fence provided with barbs. Fig. 6 represents a side view of a modified form of construction. Fig. 7 represents a view illustrating a part of the fence with the spring lock or tie wire engaged with the stay-wire instead of the strand-wire as illustrated in the preceding figures.

In the said drawings, 1 designates the strand-wires, stapled or otherwise secured to the posts 2 in the customary manner.

3 designates the stay-wires, which generally extend in an oblique direction, the oblique sections being parallel to each other and connected by short sections 4, which intersect the strand-wires, but extend at such slight angles that their points of junction with the oblique portions 3 are only slightly above and below said strand-wires. In other words, these portions 4 may be described as approxi-

mately-horizontal sections of the oblique stay-wires.

The strand-wires and the stay-wires are connected together at their points of intersection by spring locking members or ties, which consist of the spiral body portions 5 and the hooks 6, said hooks being disposed at opposite ends of the spiral and opening in opposite directions—that is to say, when in place one opens upwardly and the other downwardly and both occupy positions at the same side of the strand-wires as do the stay-wires.

The spiral formation of the body portion 5 is such as to form an eye 7, seen clearly when viewed in the line of the strand-wires, as shown in Fig. 4, and by reference to the same figure it will be seen that the free ends of said oppositely-disposed hooks bear such relation to each other that an elongated vertical loop is formed in which is embraced substantially the full length of the approximately-horizontal portions 4 of the stay-wires.

The ends of the stay-wires are preferably bent to form enlargements or eyes 8, which, however, perform no mechanical function.

In practice to build a fence of this type the strand-wires are secured to the posts in the customary manner, and then the spring locking members or ties are slipped upon said wires. A stay-wire provided with sections 4 equal in number to the strand-wires is then disposed at the inner or outer side of the strand-wires, so that one of the sections 4 intersects the adjacent strand-wire at about the proper point and at such point is fitted into one of the hooks of the companion locking member or tie. It is then sprung downwardly or upwardly, as the case may be, and caused to engage the other hook of said locking member or tie. The adjacent portion 3, either above or below the portion 4 thus secured to the strand-wire, is then sprung or bent in a direction which will tend to bring it at right angles to said engaged portion 4, and while under this tension or strain the corresponding portion 4 at the opposite end is engaged with the tie-wire upon the intersecting strand-wire. This operation is repeated until the stay-wire is secured to all of the strand-wires, as illustrated in Fig. 1, and it will be observed that as the stay-wires when thus secured in



position are under a heavy strain there will be no possible chance of their "creeping" upon the strand-wires and leaving an undesirably wide space between any two of the stay-wires. In fact in practice the force required to spring the stay-wires into engagement with the locking members or ties causes the strand-wires to kink slightly, and as a consequence a number of blows of a hammer upon the stay-wires and in the direction of the strand-wires have failed to move the locking members or ties from the positions in which they were originally clamped. Under the strain imposed by the locking member or tie that portion of the strand-wire assumes approximately the position shown in dotted lines, Fig. 2.

In case it be desired to construct a barbwire fence on these lines it is only necessary to form at the free ends of the hooks 6 of the ties the laterally-projecting prongs or barbs 9, and these will project inwardly or outwardly of the fence, accordingly as the stay-wires are placed at the inner or outer side of the strand-wires.

If it be desired to form the topmost and lowest locking members or ties integral with the stay-wires, the latter near their extreme ends are bent back, as shown at 10, and then spirally encircle the strand-wire and are hooked to the portions 4 at one end only, as shown in Fig. 6. This construction while precisely the same in principle as that described is possibly a little cheaper.

Fig. 7 illustrates an arrangement wherein the locking members or ties are mounted upon the portions 4 of the stay-wires, with their hooks 6 engaging the strand-wires. In this connection it will be noted that the stay-wires may be located at the inner side of the strand-wires, while the prongs or barbs 9 project outwardly from the same, or by locating the stay-wires at the outer side of the strand-wire the barbs may project inwardly.

If it be desired to arrange all of the stay-wires at one side of the strand-wires, either in or out, and barb the fence at both sides, the locking members or ties may be engaged

alternately with the strand and stay wires, as will be readily understood.

In a fence thus constructed ample provision for expansion and contraction is made and the tension maintained continuously, owing to the fact that the stay-wires are arranged obliquely, which is not the case where vertical stay-wires are employed unless said stay-wires are kinked, which materially increases the cost of the fence as a whole and is otherwise objectionable.

A fence constructed as shown and described possesses not only the qualifications of strength, durability, and cheapness, but it is also of ornamental appearance.

It is to be understood, of course, that all changes which do not involve a departure from the spirit and scope of the invention we reserve the right to make. For example, the stay-wires may be formed in sections looped together, as shown by dotted lines in Fig. 1, or otherwise connected, so as to provide a more flexible fence, which under extreme pressure at any point will yield to a greater extent than a stiff fence, and thus be less liable to breakage.

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

A wire fence, comprising strand or run wires, stay-wires intersecting the same and bent at their opposite ends to form portions 4, intersecting and extending approximately parallel to the top and bottom strand-wires, and bent also at the outer ends of said portions 4 back upon itself and spirally around the said strand-wires, and terminating in hooks which engage the portions 4 and thereby lock the strand and stay wires reliably together.

In testimony whereof we affix our signatures in the presence of two witnesses.

JOHN W. JENNINGS.  
JAMES O. SPRADLING.

Witnesses:

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LAWSON H. PERRIN.