

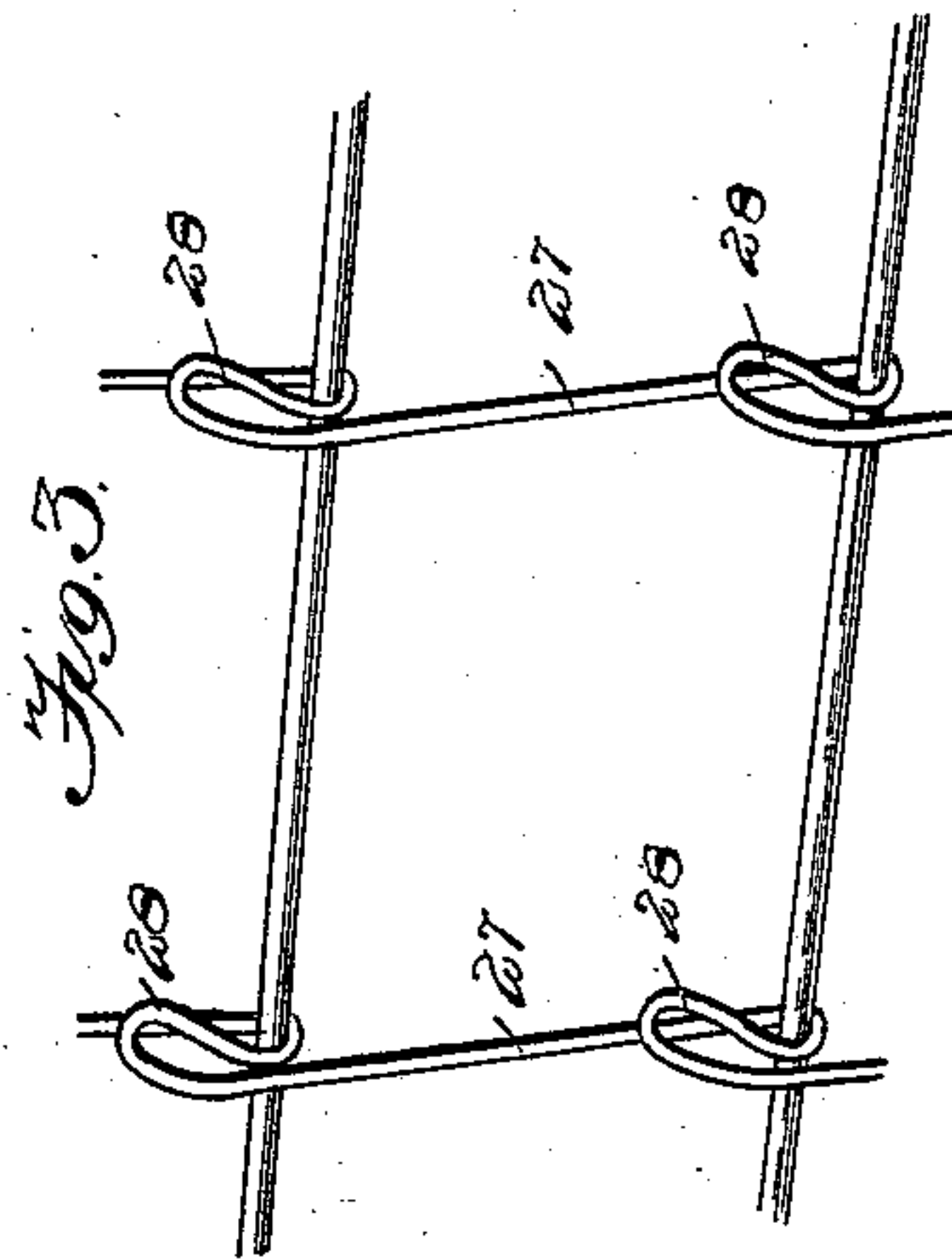
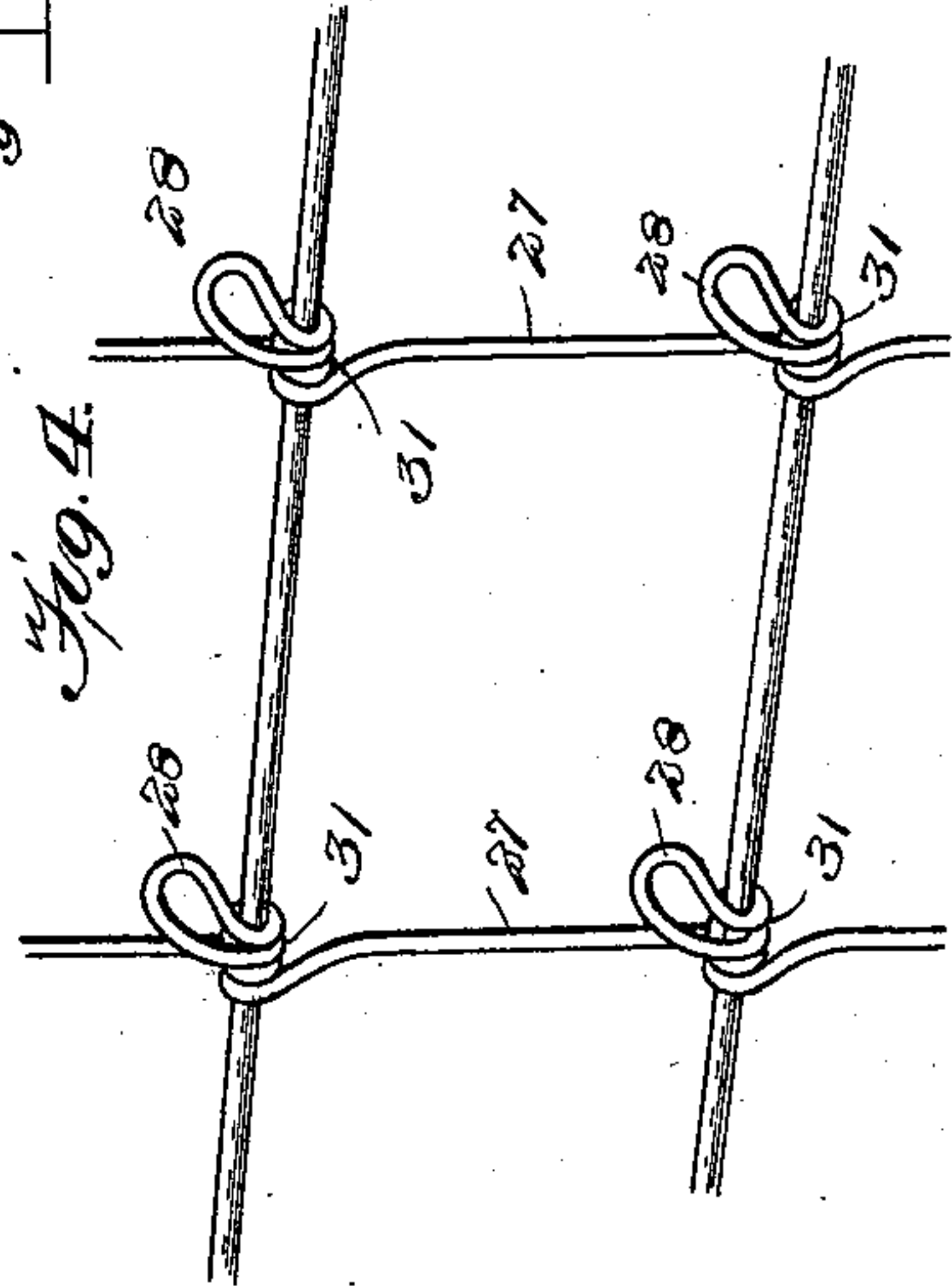
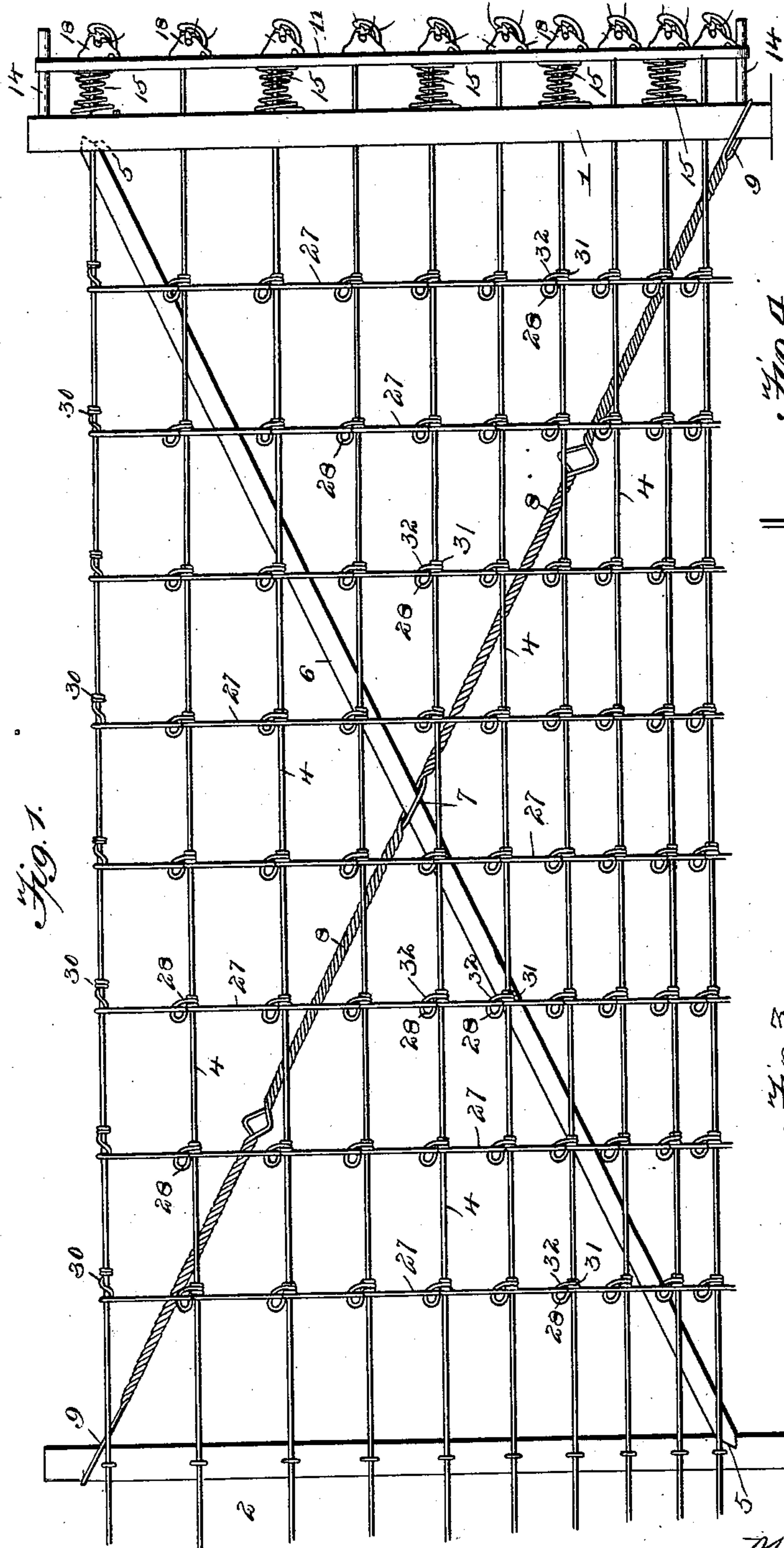
(No Model.)

2 Sheets—Sheet 1.

M. HAYS.  
WIRE FENCE.

No. 560,583.

Patented May 19, 1896.



Inventor

Morris Hays,

Witnesses

John O. Shaw.  
S. P. Thompson.

By his Attorneys.

C. A. Snow & Co.

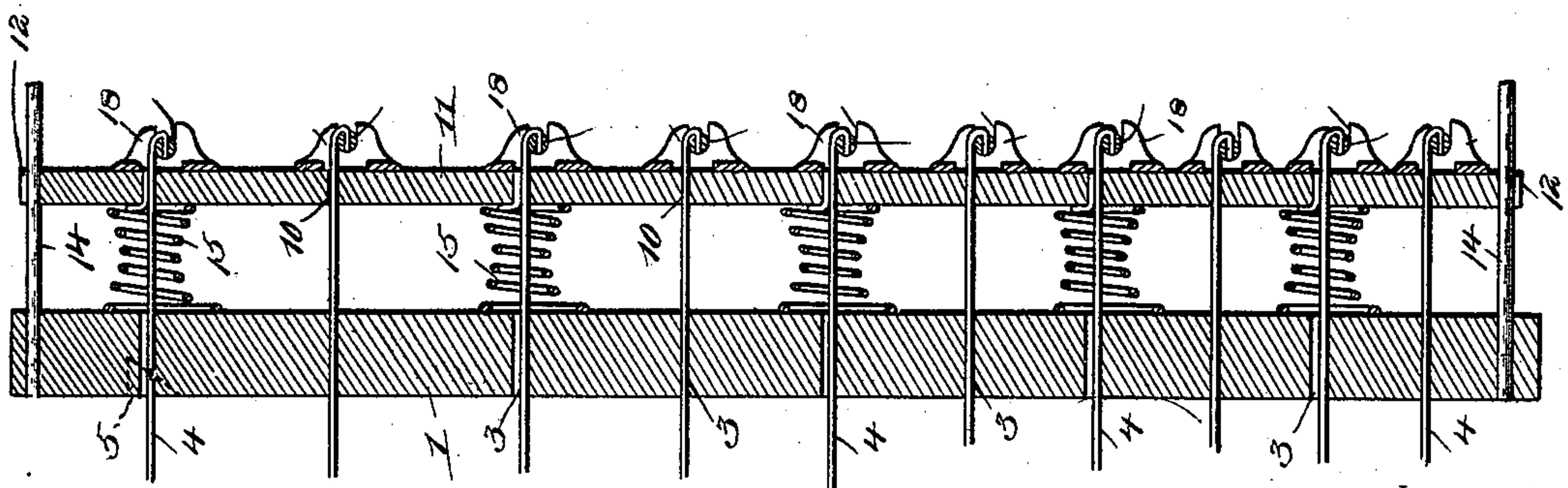
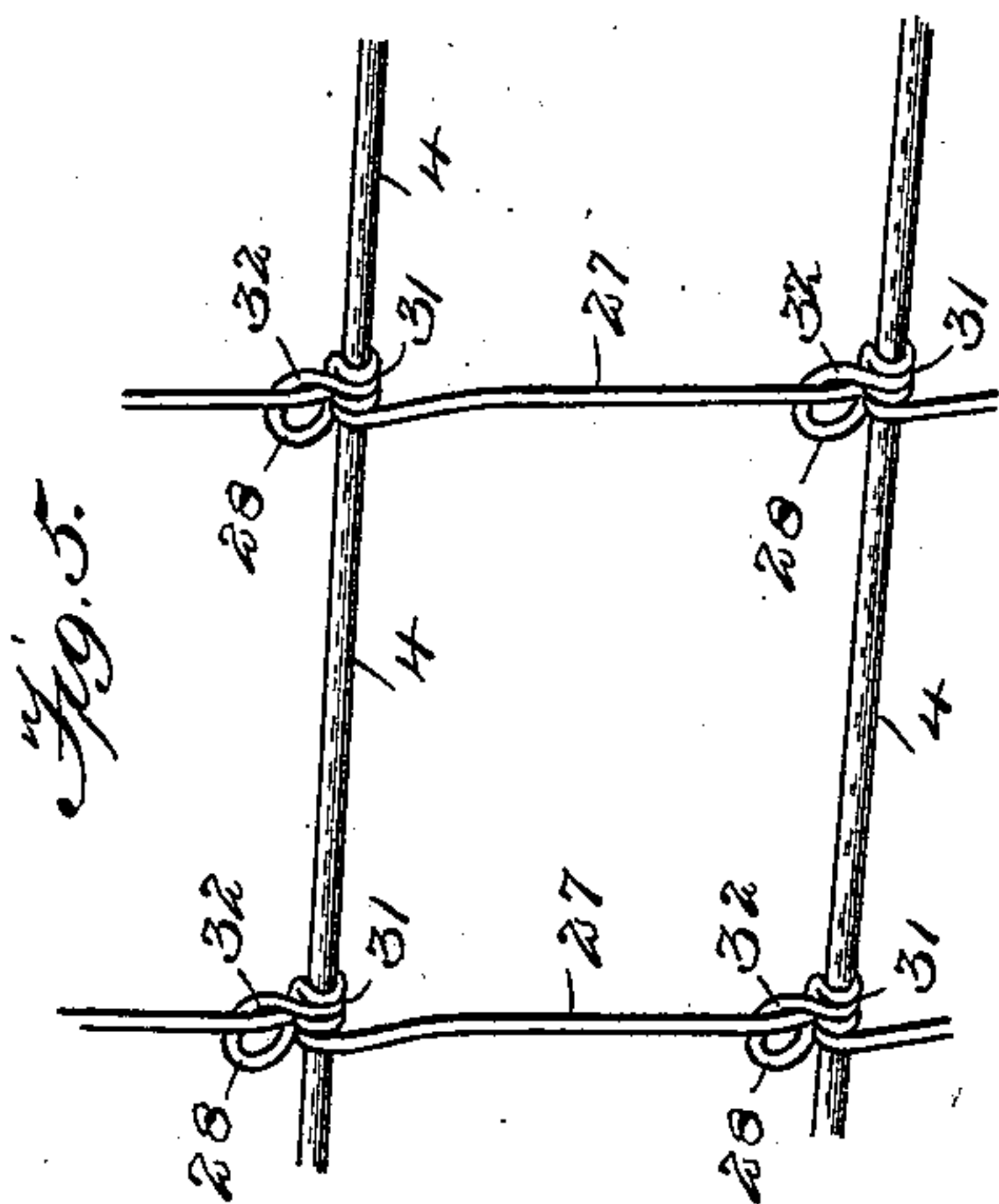
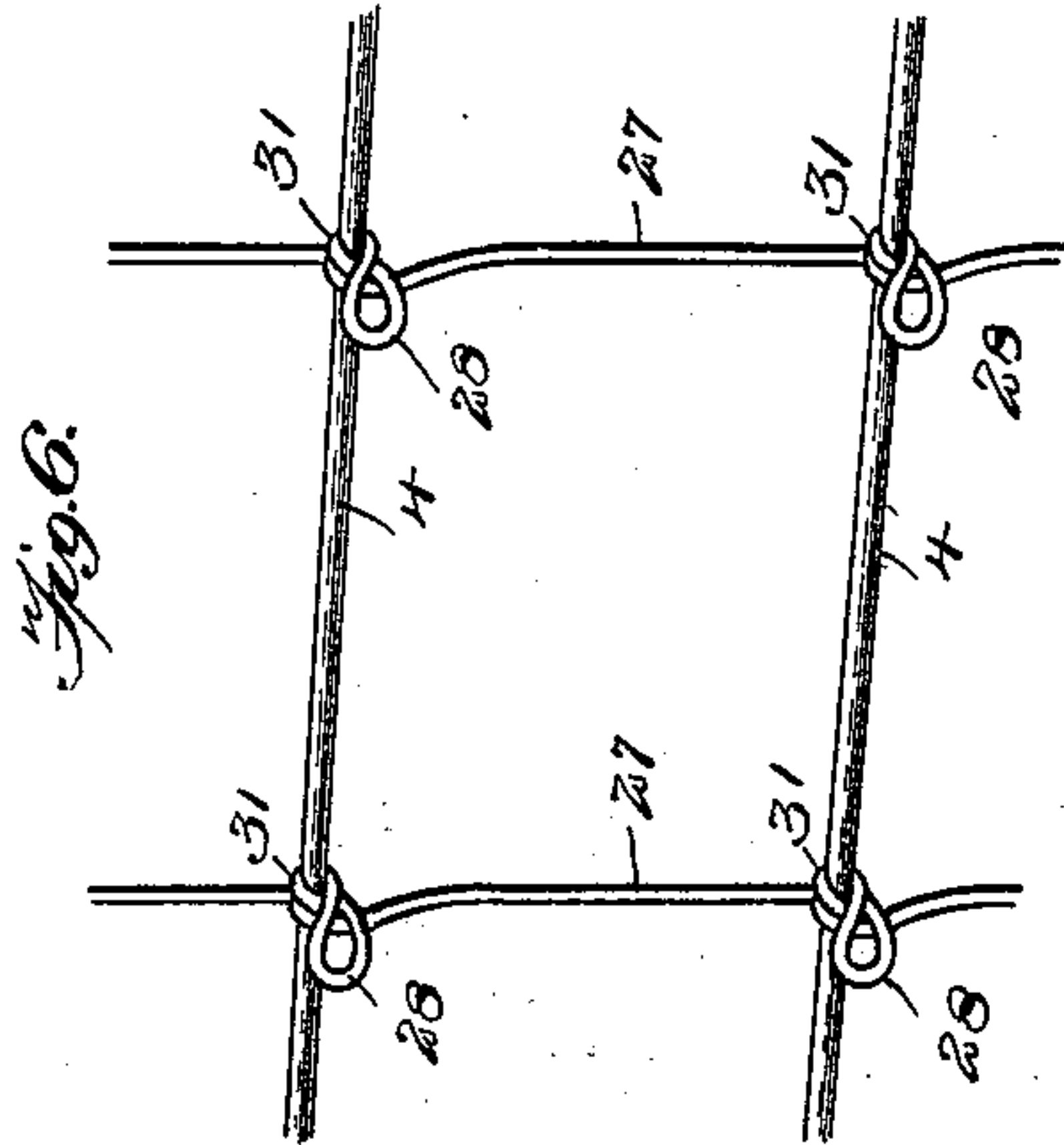
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# UNITED STATES PATENT OFFICE.

MORRIS HAYS, OF MONMOUTH, ILLINOIS.

## WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 560,583, dated May 19, 1896.

Application filed November 14, 1894. Serial No. 528,800. (No model.)

*To all whom it may concern:*

Be it known that I, MORRIS HAYS, a citizen of the United States, residing at Monmouth, in the county of Warren and State of Illinois, have invented a new and useful Wire Fence, of which the following is a specification.

This invention relates to wire fences; and it has for its object to provide a new and useful fence of this character that shall be strong and durable and will always maintain its original shape without loosening or sagging.

With this and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a wire fence constructed in accordance with the present invention. Fig. 2 is an enlarged vertical sectional view at one end of the fence. Fig. 3 is an enlarged detail in perspective of a short section of a fence at the intersection of the horizontal line and vertical stay wires, showing the first stage of forming the wire lock for the stay-wire. Fig. 4 is a view similar to Fig. 3, showing another stage of the wire lock or fastening just before completion. Fig. 5 is a similar view showing the completed wire lock or fastening for the stay-wire. Fig. 6 is a similar view of a modification of the completed wire lock or fastening for the stay-wire.

Referring to the accompanying drawings, 1 and 2 designate, respectively, adjacent upright fence-posts of a fence forming one panel therefor, and the post 1 forms one of the end posts for the line of fencing and is provided with a vertical series of wire-openings 3 to receive the horizontal line-wires 4 of the fence, that are arranged at one side of and suitably secured to the adjacent post 2 and the other similar posts providing a support for the fence in the usual manner. The said horizontal line-wires 4 may be arranged in any number desired, or closely together, or far apart, at the option of the manufacturer, according to the height of the fence desired; and in the present invention the end post 1 and the post 2 adjacent thereto are provided with the diagonally-opposite brace-notches 5 to receive the opposite ends of the diagonally-arranged

brace-bars 6, located between the said posts 1 and 2. The said diagonal brace-bar 6 is embraced at a point intermediate of its ends by the center loop 7 of a twisted diagonal wire brace 8, that crosses the brace-bar 6 and is looped at its opposite ends, as at 9, respectively around the upper end of the post 2 and the lower end of the post 1. At intermediate points above and below the diagonal brace-bar 6 the separate portions of the wire brace 8 are closely twisted together to firmly position the bar 6 and rigidly brace the adjacent posts 1 and 2 together.

The horizontal line-wires 4, that are strung throughout the entire length of the fencing, pass through the wire-openings 3 of the end posts 1 and also through the aligned wire-openings 10 of the adjacent movable tension-bar 11. The movable tension-bar 11 is arranged beyond the end post 1 and is provided at its upper and lower ends with the upper and lower guide notches or openings 12, which loosely receive the upper and lower offstanding guide-bars 14, fitted at one end into the end post 1 and projected off from the same in order to support for a sliding adjustment therebetween the said tension-bar 11, and interposed between the tension-bar 11 and the end post 1 on certain of the line-wires 4 are the double conical or hour-glass shaped compensating springs 15, that bear against the tension-bar and the end post to provide for yieldingly holding the tension-bar off from said end post, whereby any slack or tightening of the line-wires due to contraction and expansion will be compensated for, as will be readily understood.

The ends of the horizontal line-wires 4, that pass through the wire-openings 10 of the movable tension-bar 11, are connected with the wire-stretchers 18, that are arranged in a vertical series on the outer side of said movable tension-bar.

At regularly-spaced intervals the horizontal line-wires 4 of the fence are connected by the lighter vertical stay-wires 27, the separate portions of which, between the line-wires, are vertically aligned. The lighter vertical stay-wires 27 consist of suitable lengths of wire that will serve to connect the line-wires 4 vertically and hold the same rigidly spaced apart, while at the same time, together with



the line-wires, forming the panels of the fencing between the posts to which the line-wires are secured. At the point of intersection with the line-wires 4 the vertical stay-wires 27 are engaged by means of any suitable twisting-tool, (not shown,) and are bent to form the integral lock-loops 28. Before the formation of the integral lock-loops 28 at the points of intersection with the line-wires 4 the upper ends of the vertical stay-wires are twisted into engagement with the uppermost line-wire, as at 30, and after their formation, by means of any suitable tool, the said loops 28 are twisted tightly around the said line-wires at one side of the vertical stay-wires to form a tight horizontal twist 31, it being observed that while the lock-loops are twisted around the line-wires the same maintain a right-angular disposition thereto. When a sufficient twist 31 of the looped portions of the stay-wires has been formed on the line-wires, as described, the untwisted portion of said lock-loops is then bent laterally, as at 32, in rear of and partly around the vertical stay-wires, above the line-wires, as clearly shown in Fig. 5 of the drawings; but this final lock of said loops may be slightly modified, as shown in Fig. 6 of the drawings, in which the untwisted portion of the loops is passed in front of and partly around the vertical stay-wires below the horizontal line-wires. However, in both cases the lock or fastening for the vertical stay-wires is substantially the same and positively prevents the loosening or unraveling of the horizontal twists, thereby providing a strong

permanent connection between the stay-wires and the line-wires which they intersect.

From the above the construction and advantages of the herein-described fence will be apparent without further description, and it will be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In a wire fence, the combination with the horizontal line-wires; of a series of stay-wires intersecting the line-wires at right angles and having their separate portions between the line-wires vertically alined, said stay-wires being provided at their points of intersection with the line-wires with integral lock-loops 28, circularly and tightly twisted around the line-wires at one side of the stay-wires to form tight horizontal twists, and having their untwisted portions bent laterally in the direction of the length of the line-wires at one side of and partly around the vertical stay-wires to positively prevent the loosening or unraveling of the tight horizontal twist, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MORRIS HAYS.

Witnesses:

D. E. CLARKE,  
F. A. YOUNG.