

No. 811,931.

PATENTED FEB. 6, 1906.

W. C. KINCAID.
FENCE MAKING MACHINE.
APPLICATION FILED MAR. 28, 1905.

2 SHEETS—SHEET 1.

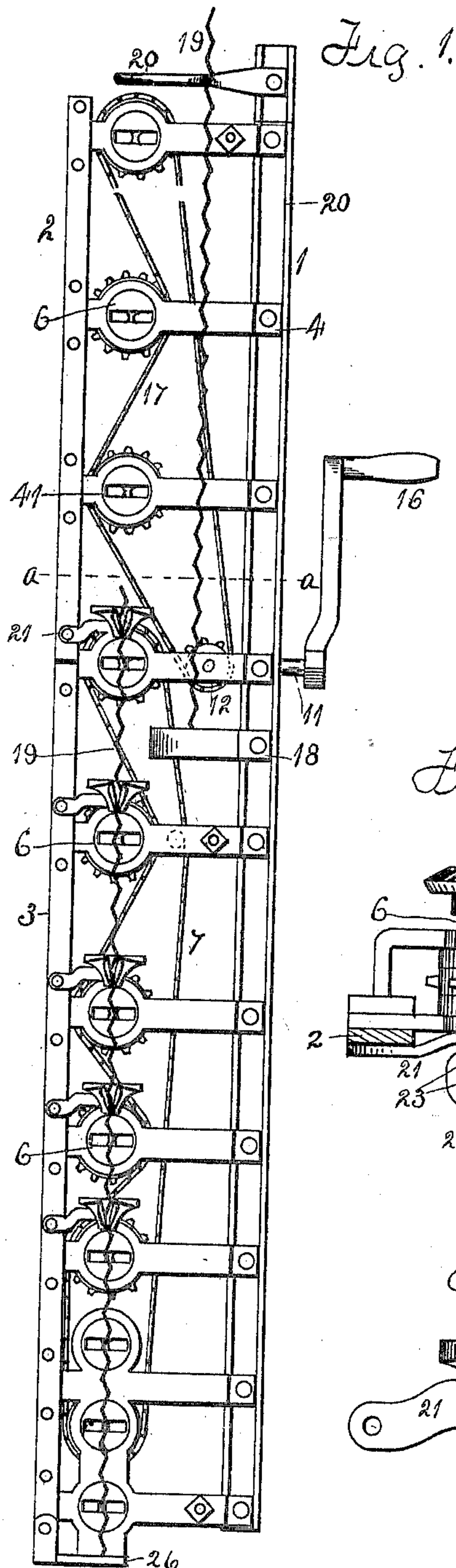


Fig. 1.

Fig. 3.

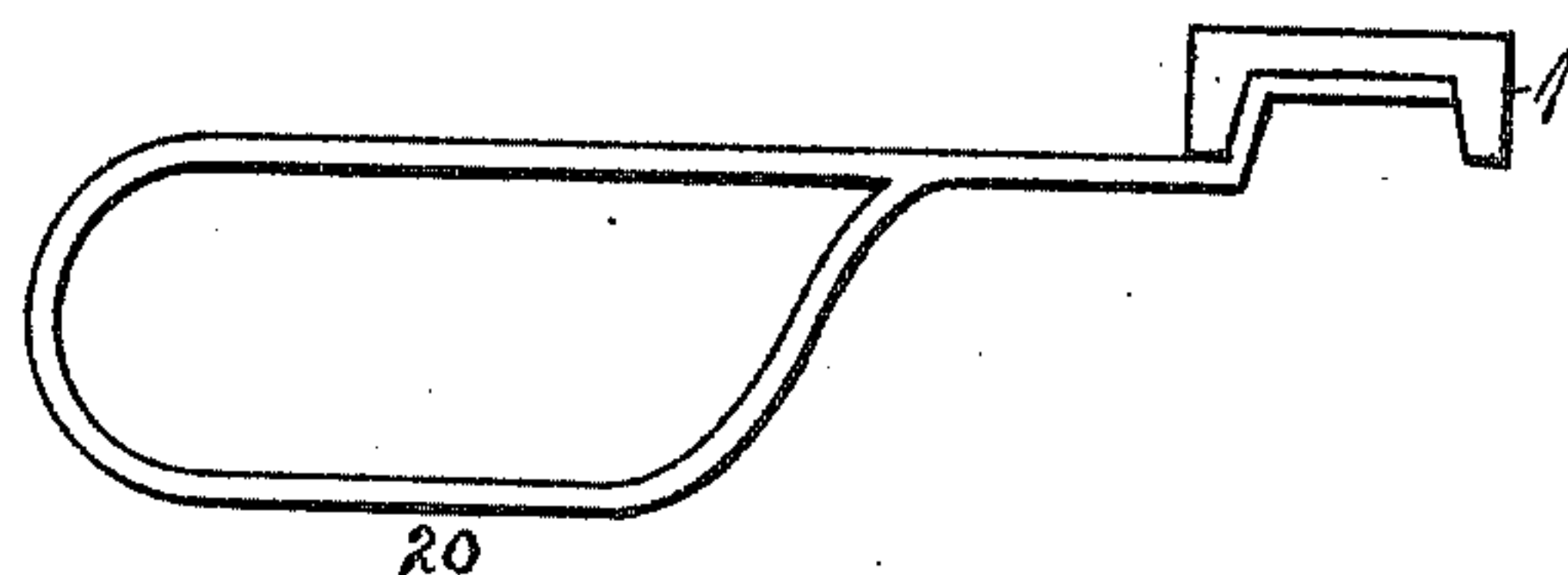


Fig. 4.

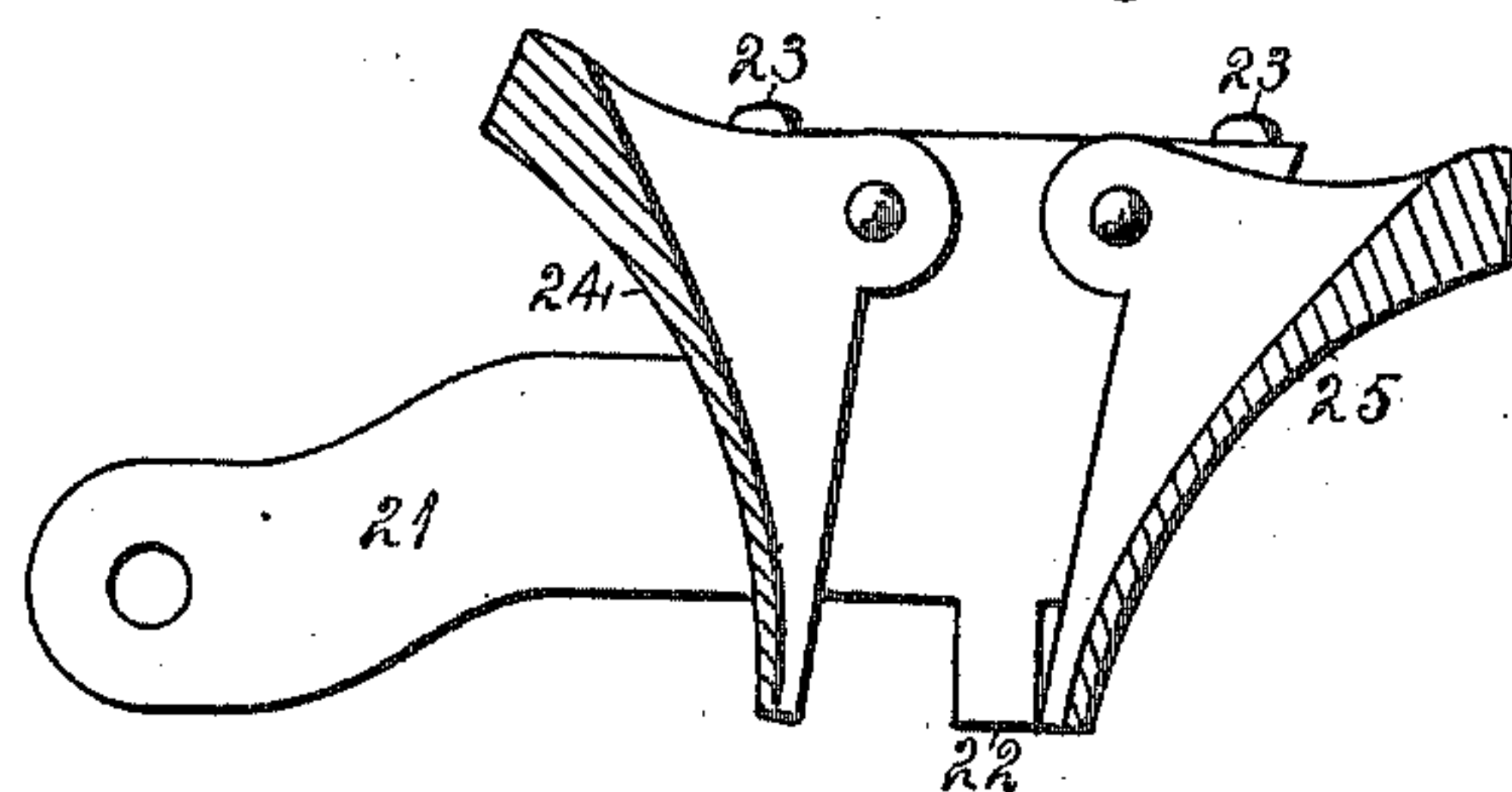


Fig. 2.

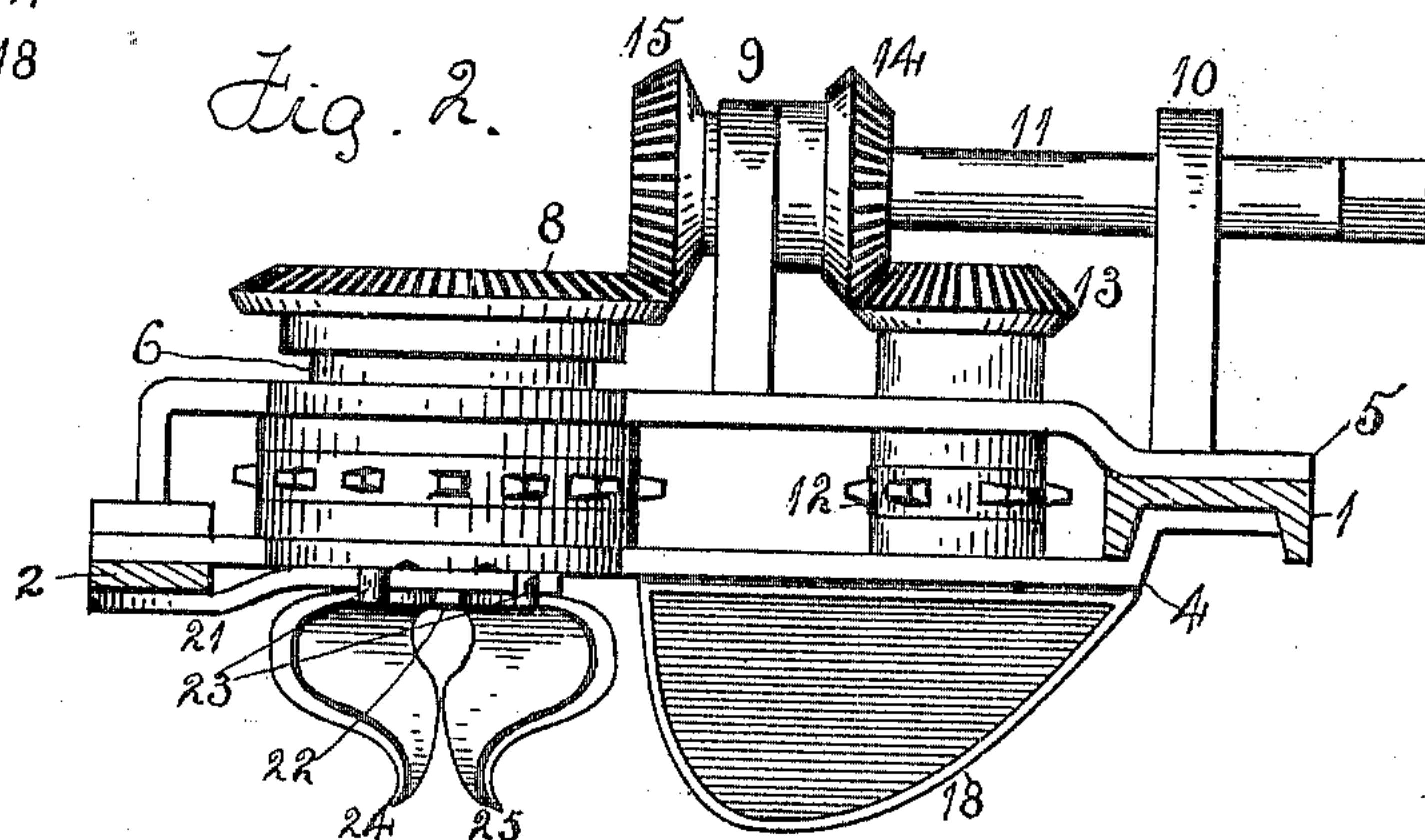


Fig. 5.

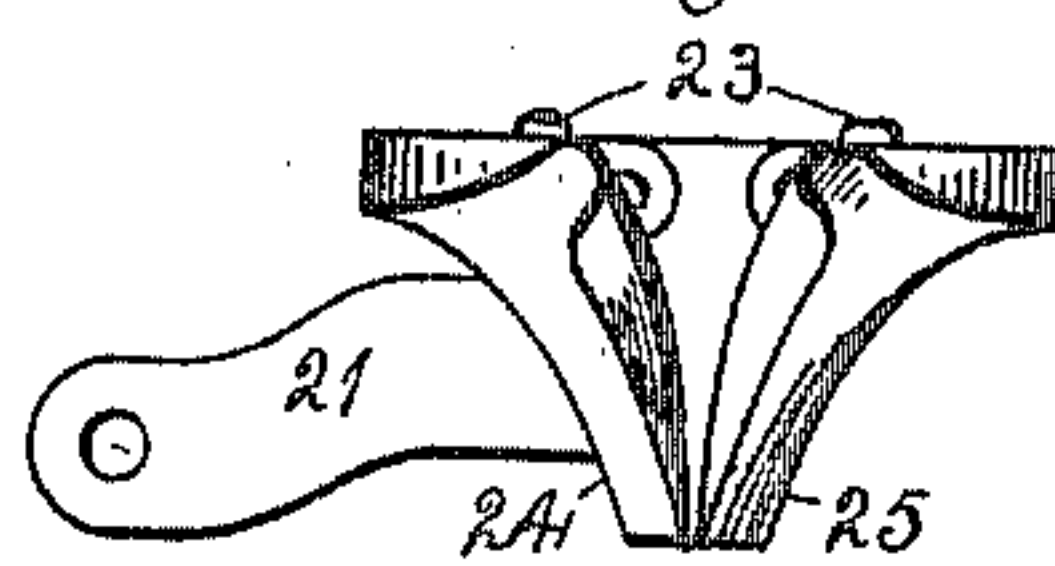
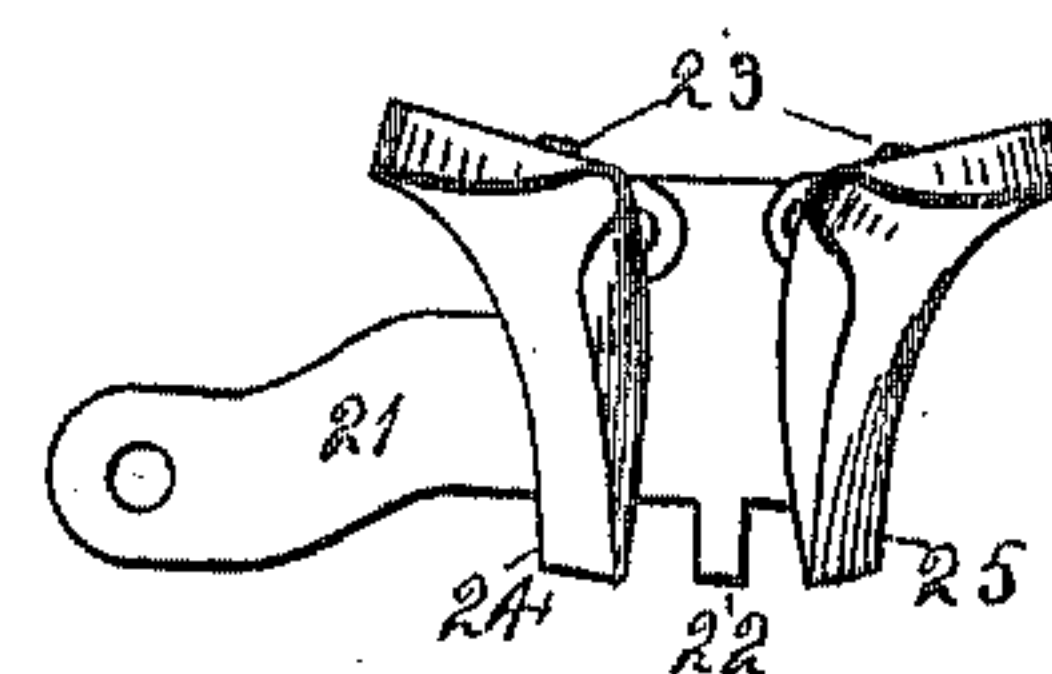


Fig. 6.



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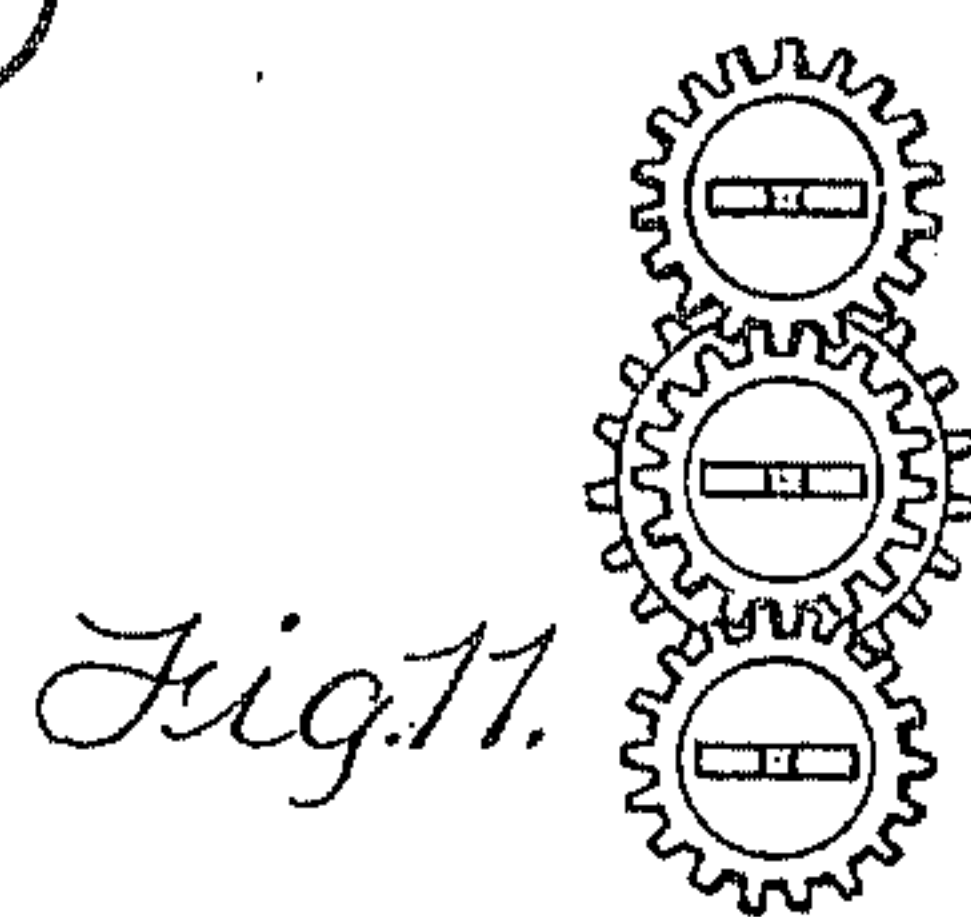
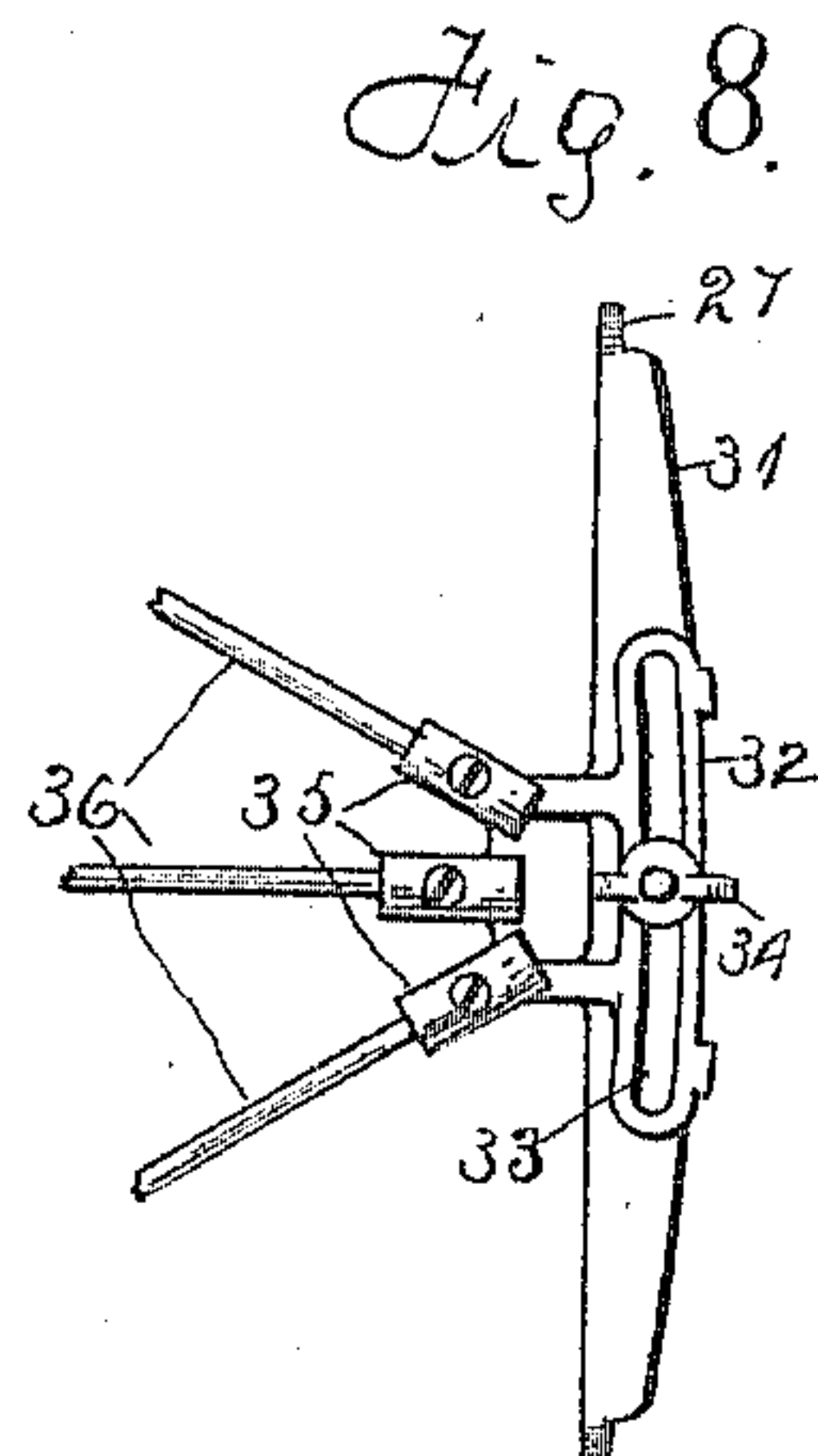
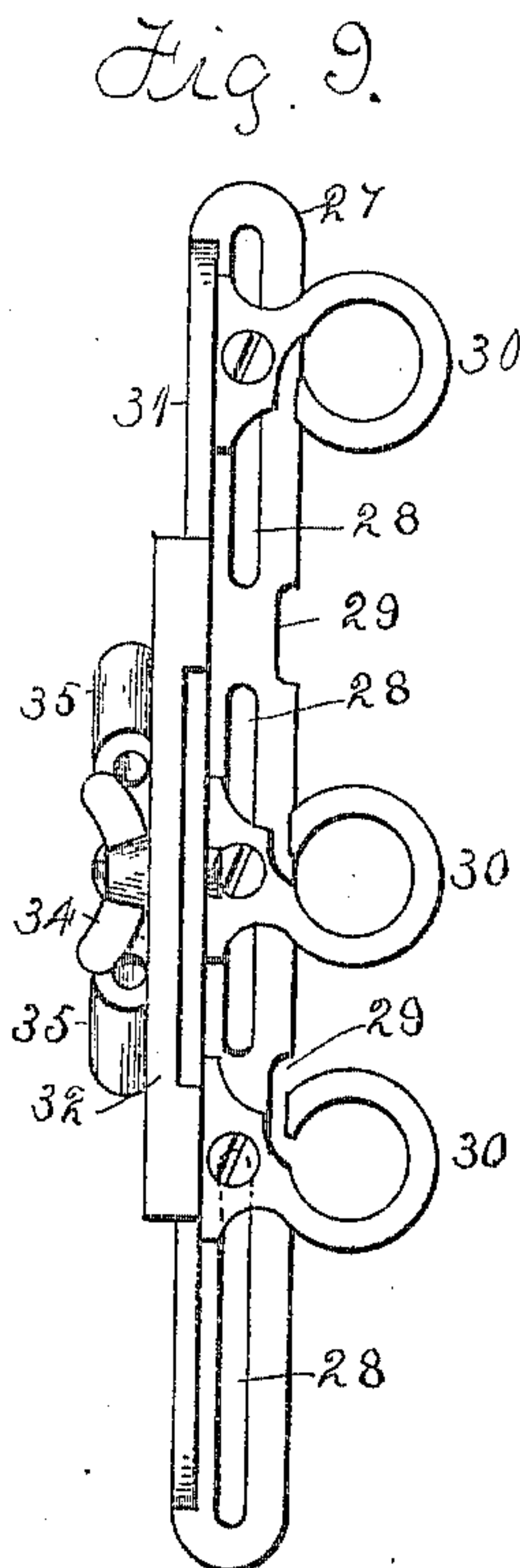
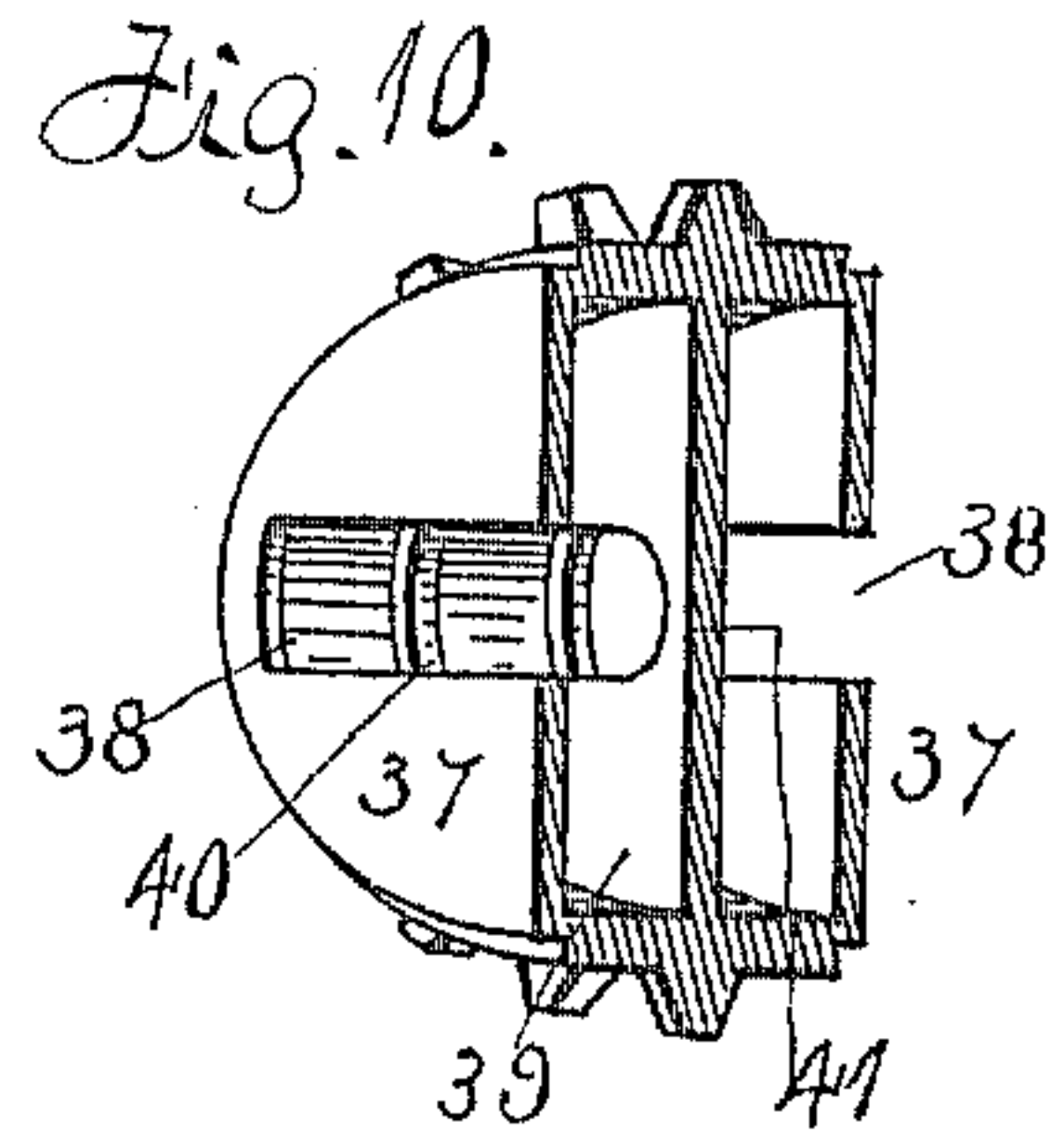
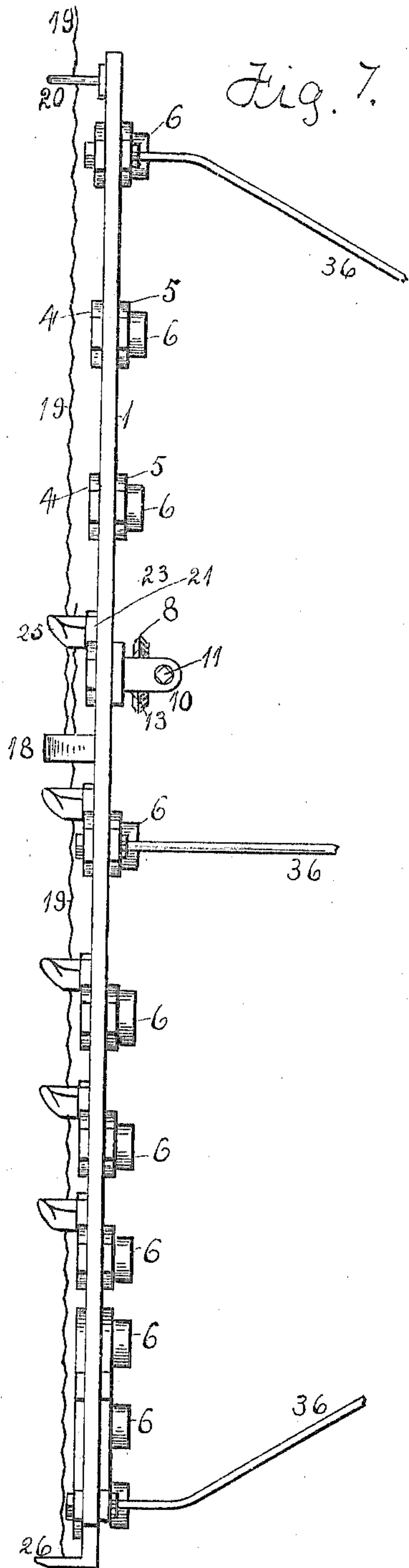
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WALTER C. KINCAID, OF ST. CHARLES, ILLINOIS.

FENCE-MAKING MACHINE.

No. 811,931.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed March 28, 1905. Serial No. 252,492.

To all whom it may concern:

Be it known that I, WALTER C. KINCAID, a citizen of the United States, residing at St. Charles, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Portable Fence-Making Machines, of which the following is a specification.

The object of this invention is to construct a portable fence-making machine in which a series of guides for the stay-wires are provided and in the details of construction hereinafter pointed out.

In the accompanying drawings, Figure 1 is a face elevation. Fig. 2 is a section on dotted line *a a*, Fig. 1. Fig. 3 is an end view. Fig. 4 is a vertical section through one of the stay-wire guides. Fig. 5 is a front face elevation of a stay-wire guide in its closed position. Fig. 6 is a front face elevation of a stay-wire guide in its open position. Fig. 7 is an edge elevation of the machine. Fig. 8 is an edge elevation of the support for the machine. Fig. 9 is a face representation of the support. Fig. 10 is a sectional view of one of the twister-heads. Fig. 11 is a view of the lower three twisters, showing their gear connection.

The several twister-heads are supported in a frame composed of the channel-bar 1, extending about the length of the machine, and a flat bar in two sections 2 and 3.

Brackets in two sections 4 and 5 connect the channel-bar and the flat bar. These brackets support the twister-heads 6 in a manner to permit them to be revolved. A chain 7 drives the lower eight twister-heads. To one of the twister-heads is connected a beveled toothed gear-wheel 8. From the section of the bracket supporting the twister-head to which is attached the beveled toothed gear-wheel 8 extend two arms 9 and 10, which support a shaft 11 in a manner to permit it to revolve therein. This section of the bracket and the other section connected with it support a sprocket-toothed wheel 12, having a miter gear-wheel 13, connected to rotate with it.

This shaft 11 has fixedly connected to it a miter-toothed wheel 14 and a beveled toothed pinion 15. The miter-toothed wheels 13 and 14 are in mesh, and the beveled toothed pinion 15 is in mesh with the beveled toothed wheel 8. The end of the shaft 11 is squared to receive the crank 16. A chain 17 drives the upper three twister-heads from the

sprocket-toothed wheel 12, the sprocket-toothed wheel being rotated by the crank 16. The beveled pinion 15 rotates the beveled toothed wheel 8, and it in turn drives the chain 7, which rotates the lower seven twister-heads. The lower twister-heads are geared together in the manner shown in my Patent No. 713,452, dated November 11, 1902. To the channel-bar 1 is secured a receptacle 18 for holding stay-wires 19, and a loop 20, connected to the upper portion of the channel-bar, serves to hold the stay-wires in a vertical position.

In Figs. 1, 2, and 7 of the drawings I have shown guides for the stay-wires, which are located above some of the twister-heads. These guides may be placed in connection with as many of the twister-heads as may be deemed necessary, and in the machine shown in the drawings five have been employed and all are of the same construction. Each stay-wire guide consists of the support 21, by which it is connected to the flat bars of the main frame. This support has a depending lug 22. Two stops 23 extend from the upper edge of the support. To the support are pivoted two wings 24 and 25, having their meeting edges curved outwardly and their upper edges weighted by an increase in the thickness of the material of which they are made. The lower edges of these wings rest in contact with the lug 22, and their upward movements are limited by the stops 23. These wings, when in their normal positions, as shown at Figs. 2, 5, and 1, form a central opening larger at the top and tapering toward the bottom in funnel shape. These wings come together near the bottom.

A stay-wire 19 is removed from the receptacle 18 and its lower end permitted to enter between the wings of the top stay-wire guide. It is then liberated and will pass through all the guides and finally rest on the foot 26 of the machine. The twisters are then rotated by the crank 16, which will twist the main lengthwise wires of the fence against the stay-wires and will force the machine ahead, thereby causing the wings of the stay-wire guides to open, as shown at Fig. 6, and permit the stay-wire to pass from the guides. The weighted upper end of the wings will return the wings to their normal positions. The receptacle 18 will hold a quantity of stay-wires which are near the upper stay-wire guide. A stay-wire will readily pass through the guides after it has been placed in the upper guide.

At Figs. 8 and 9 are shown in detail the support for the machine—that is, the device for holding the machine in a vertical position. The main section 27 of the support is provided with three lengthwise slots 28 and two edge recesses 29. Three wire loops 30 have a connection with the main section by screw-bolts passing through the lengthwise slots and are adjustable in the lengthwise direction of the slots. These loops are open, and when their openings overlies the main section they will be closed, and when the loops are adjusted so that their openings coincide with one of the edge recesses 29 a lengthwise wire of the fencing may enter a loop, and when the loop is moved so as to close the opening therein the wire is held from disengagement.

The main section 27 has an extension 31 located at right angles thereto. To this extension is adjustably connected a plate 32, having a lengthwise-curved slot 33, and by means of the thumb-screw 34 the plate can be adjusted. From this plate extend three sockets 35, and rods 36 connect the sockets with the main frame of the machine, as the lengthwise wires of the fencing pass through the twister-heads, and as the supports shown at Figs. 8 and 9 have an engagement with three of the wires it is evident that the machine proper will be held in an upright position, and the adjustable connection between the plate and the main section of the support will permit the support to be located at the proper angle with respect to the machine when the fence is being built on a side hill.

At Fig. 10 is shown in section one of the twister-heads which comprises the ends 37, each provided with a transverse opening 38 and a center division-wall 39, provided with a transverse opening 40, across which is located a bar 41. By this construction of twister-head two cavities are formed, one each side of the center division-wall, within which oil may be placed, and as the heads rotate the oil will be distributed around the cross-bar 41, thereby permitting the lengthwise wires to pass more readily through the heads.

I claim as my invention—

1. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, and a series of stay-wire guides, each guide comprising a movable section.
2. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, and a series of stay-wire guides, each guide comprising two movable sections.
3. In a portable fence-making machine, the combination of a suitable frame, twisters

supported by the frame, a series of stay-wire guides, each comprising two movable sections, and stops limiting the closing movement of the section.

4. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, a series of stay-wire guides, each guide comprising two movable sections, and stops limiting the opening movement of the sections.

5. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, a series of stay-wire guides, each guide comprising two movable sections, a stop limiting the closing movements and stops limiting the opening movements of the sections.

6. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, and a series of stay-wire guides, each guide comprising a self-closing section.

7. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, and a series of stay-wire guides, each guide comprising two self-closing sections.

8. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, and a series of stay-wire guides, each guide comprising a movable section having its upper portion weighted.

9. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, and a series of stay-wire guides, each guide comprising two movable sections having their upper portions weighted.

10. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, a series of stay-wire guides, each guide comprising two movable sections having their meeting edges curved outwardly.

11. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, each twister composed of ends provided with transverse openings, a center division having a transverse opening and a bar across the opening.

12. In a portable fence-making machine, the combination of a suitable frame, twisters supported by the frame, a support for the frame having a series of adjustable open loops whereby the openings may be closed.

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