

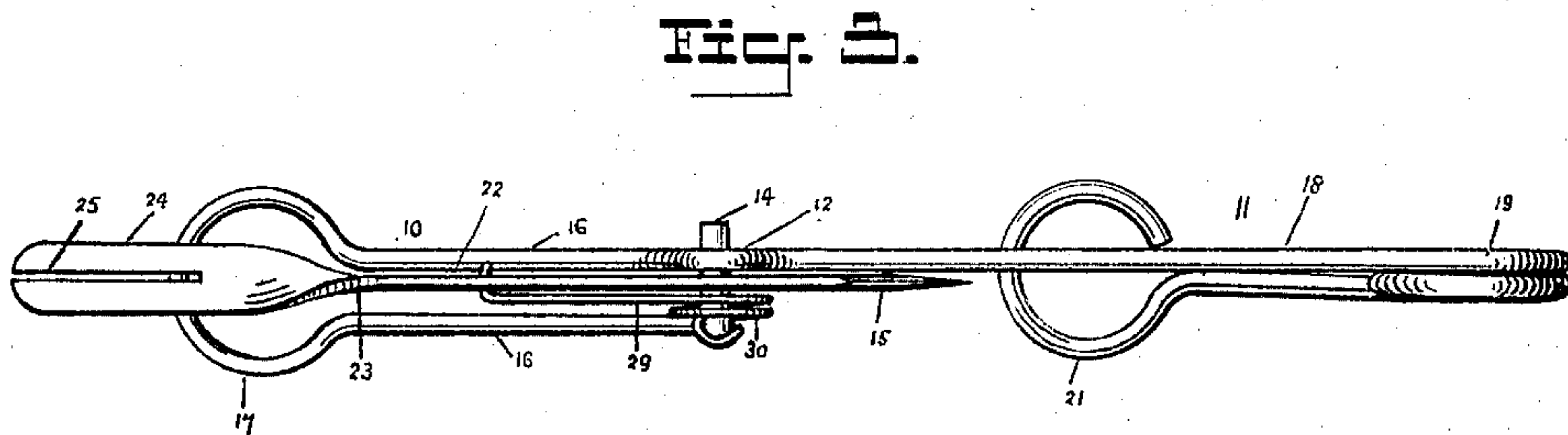
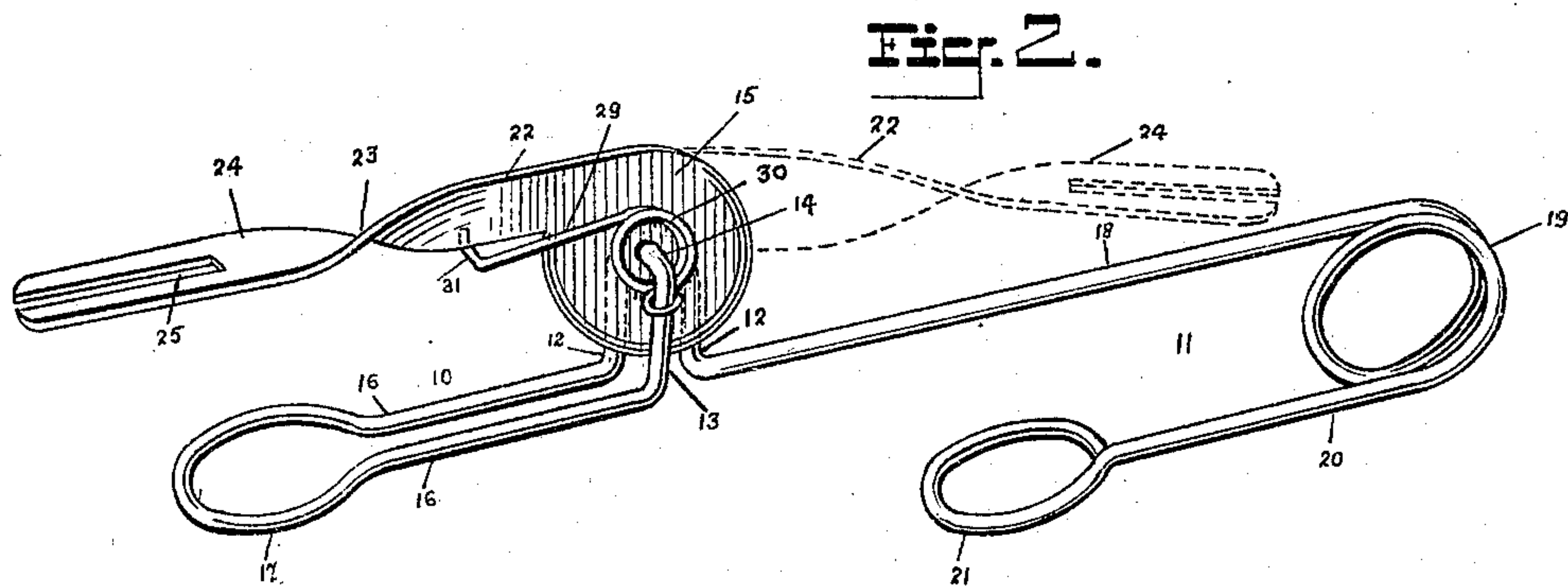
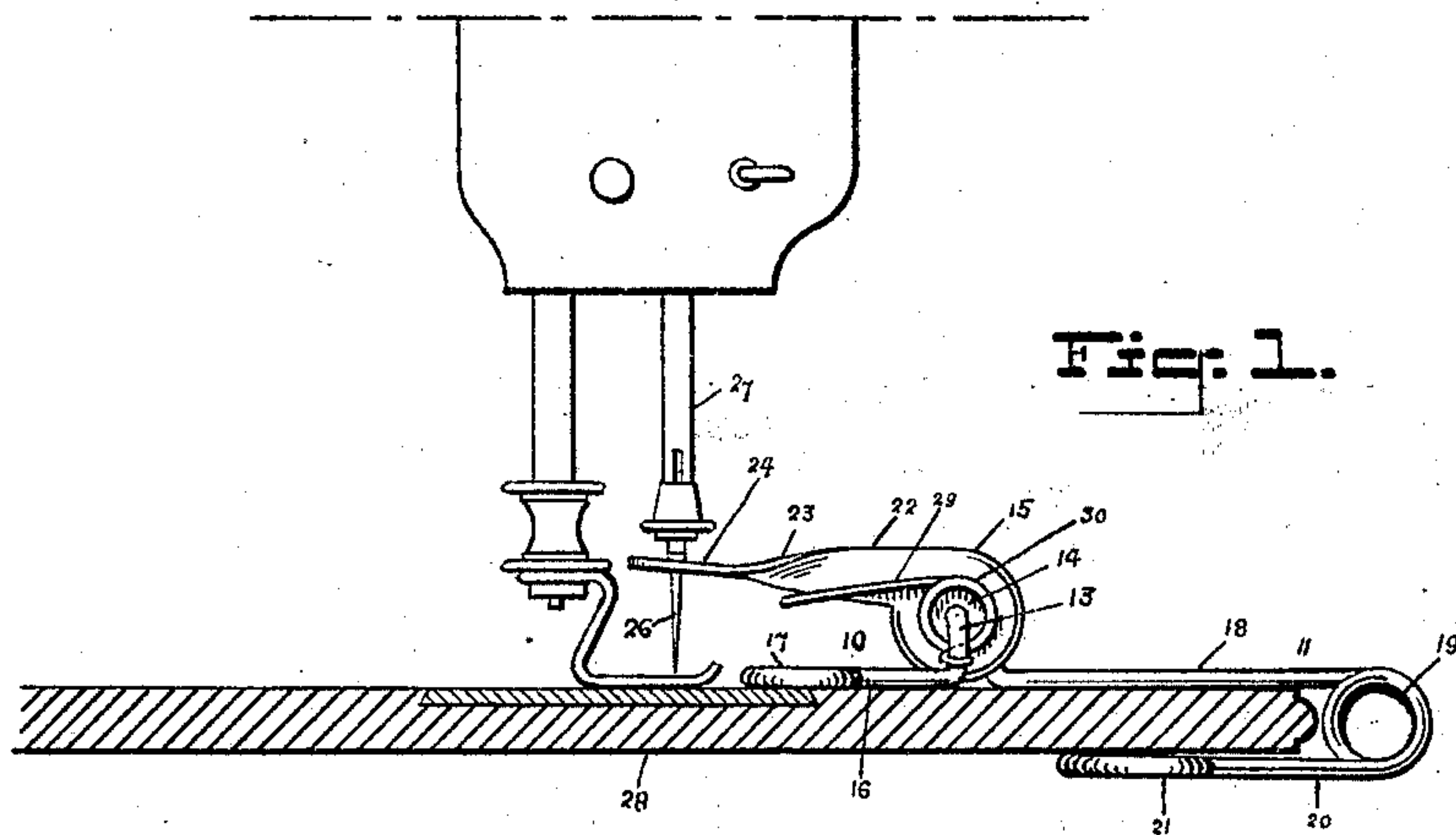
No. 638,356.

Patented Dec. 5, 1899.

F. A. REYNOLDS.
RIPPING DEVICE.

(Application filed Dec. 2, 1898.)

(No Model.)



WITNESSES:

S. D. Mott
C. S. Cowley

INVENTOR

Frank A. Reynolds.

BY

Hutchinson & Criswell.
ATTORNEY

UNITED STATES PATENT OFFICE.

FRANK ARTHUR REYNOLDS, OF LEWISTON, MAINE, ASSIGNOR OF ONE-HALF
TO STEPHEN H. MANNING, OF SAME PLACE, AND HERSCHEL C. PARKER,
OF NEW YORK, N. Y.

RIPPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 638,356, dated December 5, 1899.

Application filed December 2, 1898. Serial No. 698,129. (No model.)

To all whom it may concern:

Be it known that I, FRANK ARTHUR REYNOLDS, of Lewiston, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Ripping Devices, of which the following is a full, clear, and exact description.

My invention relates to improvements in ripping devices, and especially to such ripping devices as are adapted for use on sewing-machines.

The object of my invention is to produce a simple and particularly cheap ripping device which can be instantly attached to or detached from any ordinary sewing-machine without the use of screws or any fastening devices, which is adapted to be rapidly operated from the needle-bar or some reciprocating part of the machine, which is arranged so as to hold the knife firmly in order that it may do its work well, and which is adapted to bring the knife between the needle-bar and the operator, so that it is in a most convenient position for use.

To these ends my invention consists of a ripping device the construction and arrangement of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of my improved device as applied to a sewing-machine. Fig. 2 is a detailed perspective view of the ripping device, and Fig. 3 is a plan view of the same.

To make the device as simple and inexpensive as possible, its body portion is made, preferably, of a single wire and comprises a rearwardly-extending base portion 10, adapted to sit on the table of a sewing-machine, a forwardly-extending clamp 11 to grasp the front edge of a machine-table, and a nearly centrally disposed post or support formed of the upward bend 12 in the wire and the opposite upright wire 13, the latter being turned at essentially a right angle at its upper end, as shown at 14, to form the journal of the knife 15, which is oscillated in a manner hereinafter described. It will be noticed, especially in Fig. 3, that the terminal bend 14

comes beneath the bent-up portion 12 of the wire, so that the parts 12, 13, and 14 form practically a rigid post or support for the knife.

The base portion 10 comprises two parallel members 16, which merge at their rear ends in a loop 17, this loop not being essential, but serving to give an increased bearing-surface on the table of the machine, thus affording a better support for the whole device.

The clamp 11 comprises an upper member 18, also adapted to rest on the sewing-machine table, a coil 19, adapted to come opposite the front edge of the table and to give a sufficient tension to the clamp, and a lower member 20, which merges in a terminal eye or loop 21, adapted to rest securely against the end part of the table, as illustrated in Fig. 1.

It will of course be understood that the wire body comprising the parts hereinabove specifically detailed can be changed or modified more or less in its shape without departing from the principle of the invention, the essential features of the body being its wire construction and spring-clamp and the wire-formed post or support for the knife.

The knife 15 is of a generally circular shape, but can be of any necessary form, having its front portion ground to an edge and having on its back a rearwardly-extending shank 22, which is preferably struck out of the same metal as the knife and is for convenience twisted at 23 to bring its free end 24 into a practically horizontal plane, so that the elongated slot 25 in the said free end can be more conveniently made to straddle the needle 26 of the needle-bar 27 of the sewing-machine, the base of the ripping device resting on the table 28 of the machine, as the drawing clearly shows. The shank 22 is normally pressed upward by the spring 29, which is not necessarily of the exact kind shown, although the illustration exhibits a preferred type of the spring. As shown, the spring has a coil 30 to give it the necessary tension, and one end of it is made fast to the central post, while the opposite end is bent, as shown at 31, so as to extend beneath the shank 22 of the knife. It will be seen that when the device is in position for use the descent of the needle-bar 27

depresses the shank 22, while on the return of the needle-bar the shank is pressed upward by the spring and the rapid repetition of these motions gives the necessary oscillation to the knife.

The advantage of having the knife hung as illustrated, besides its usefulness in operation, is that when the device is packed for shipment the knife can be tipped over, as shown by dotted lines in Fig. 2, and the affair is then in very compact form.

It will of course be understood that the particular details, such as the construction of the shank 22 in its twisted form, the spring 21, and the exact configuration of the wire body, can be departed from without affecting the principle of the invention, although I claim that the wire body in its form shown and described is a particularly advantageous one and that such body is new.

To place the device in position for use, it is simply pushed upon the machine-table 28, the clamp 11 claspings the front edge of the table, while the free end 24 of the knife-shank 22 straddles the needle 26. The device is then ready for use, and the alternate operation of the needle-bar 27 and spring 29 on the knife-shank gives rapid oscillations to the knife, so that the ripping is quickly and easily done. Moreover, the arrangement of the clamp 11 is such that the pressure against the knife-edge only fixes it more firmly in place. To take the device off the machine, it is simply pulled forward, so as to release the clamp 11, no fastening other than this being required.

From the foregoing description it will be observed that this device is of the utmost sim-

plicity, that it is extremely cheap, and that it is adapted to do rapid and efficient work.

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

1. A device of the character described comprising a wire body portion having a bend, as the terminal eye, to enable it to rest firmly on its support, a post or upright formed by bending the wire, a spring-clamp formed by bending the wire at the front end of the body, and a knife journaled on the post or support and provided with a shank for oscillating it, substantially as described.

2. The combination with the wire body having an upward bend therein, of an upright member of said wire body opposite the bend, the upright member having a terminal bend to support a knife, a knife journaled on the aforesaid terminal bend, and means as the shank on the knife for oscillating it, substantially as described.

3. A ripping device comprising a wire body having a rearwardly-extending base portion with a loop or eye at the back end thereof, a forwardly-extending spring-clamp having a central tension-coil and a terminal eye, an upright or post formed by bending up the wire of the body, a knife journaled on the post, and a spring-pressed shank forming part of the knife and extending outwardly therefrom, said shank having a slotted free end, substantially as described.

FRANK ARTHUR REYNOLDS.

Witnesses:

A. J. PINARD,
ALBERT WADE.