

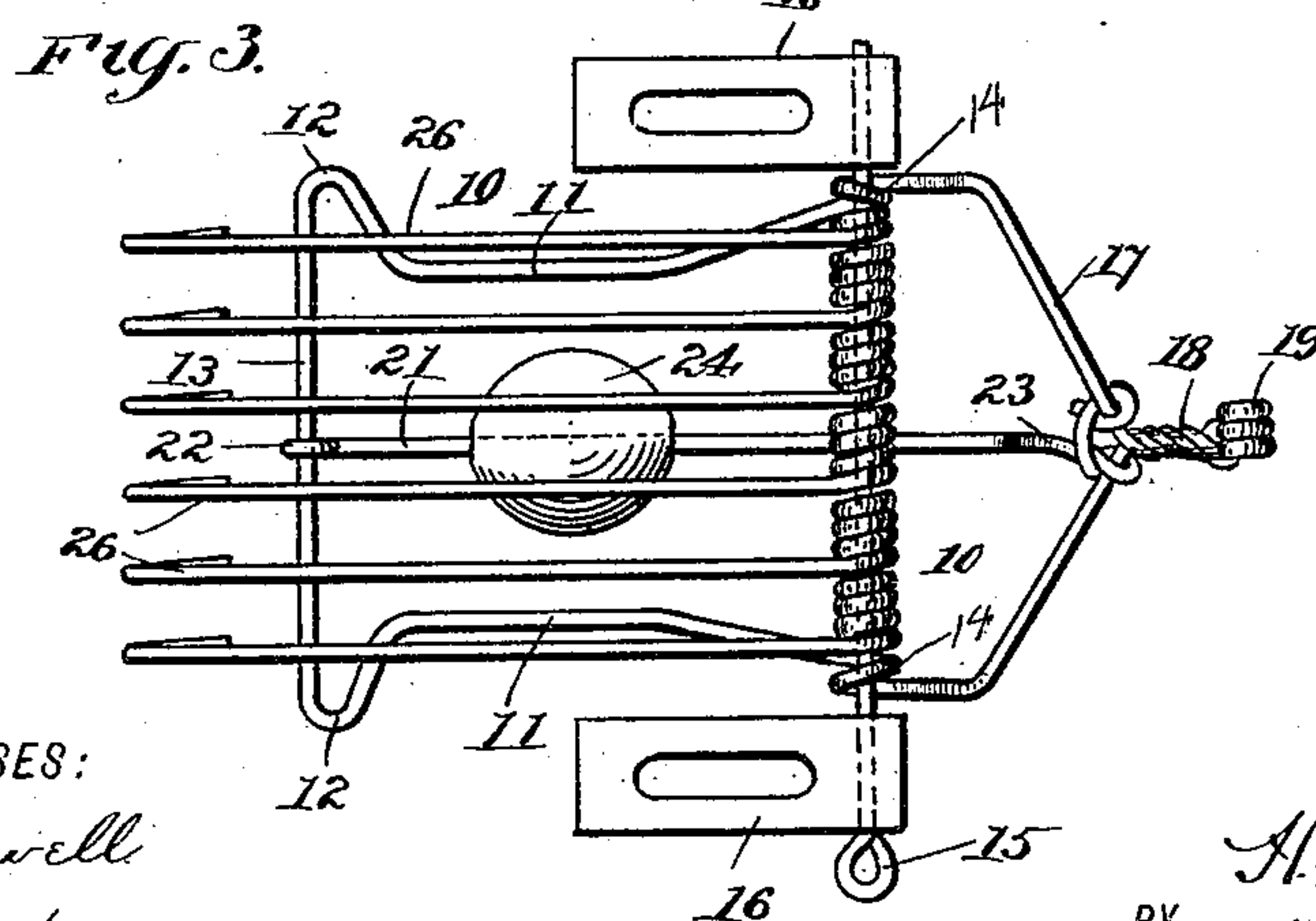
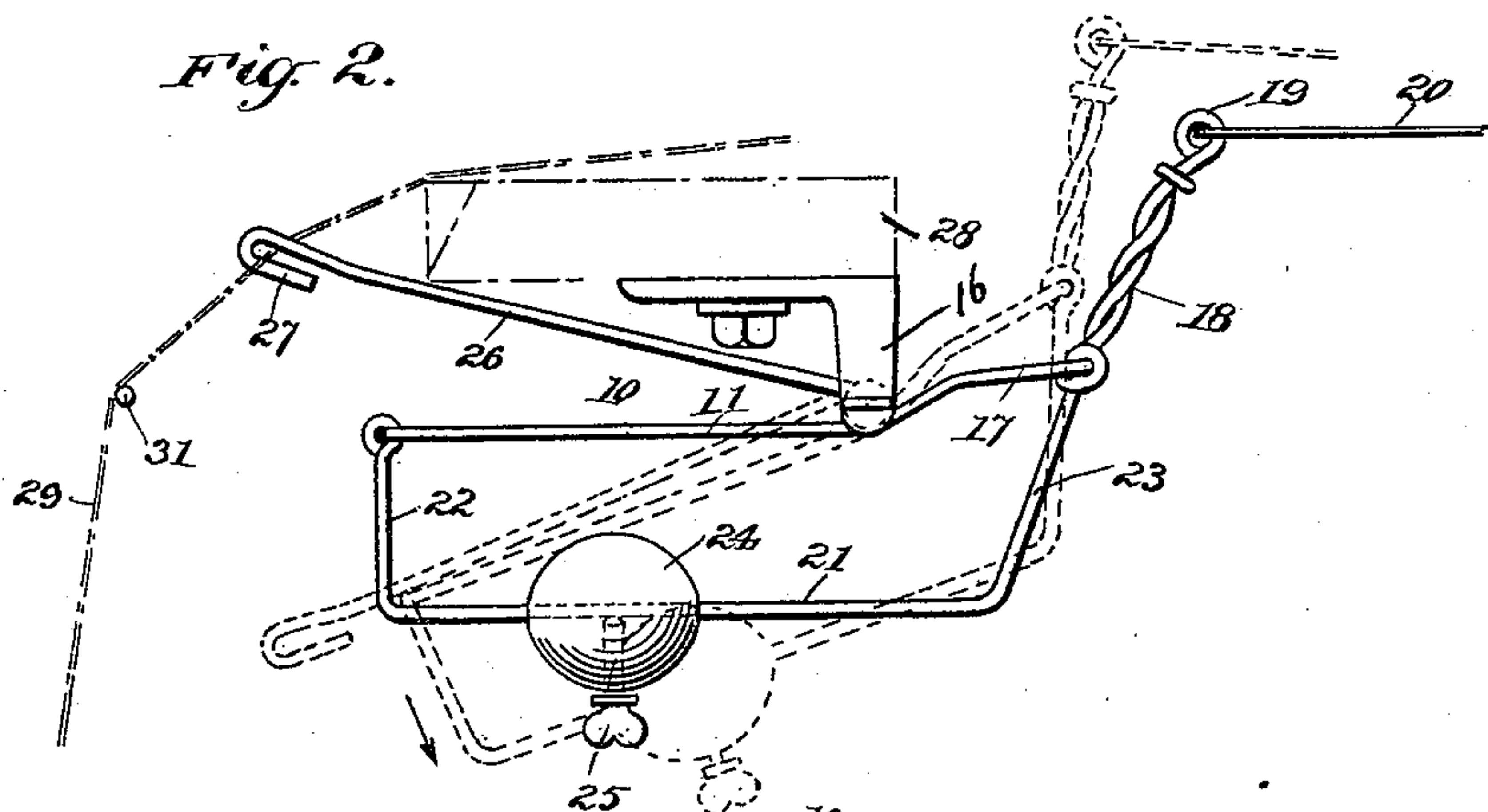
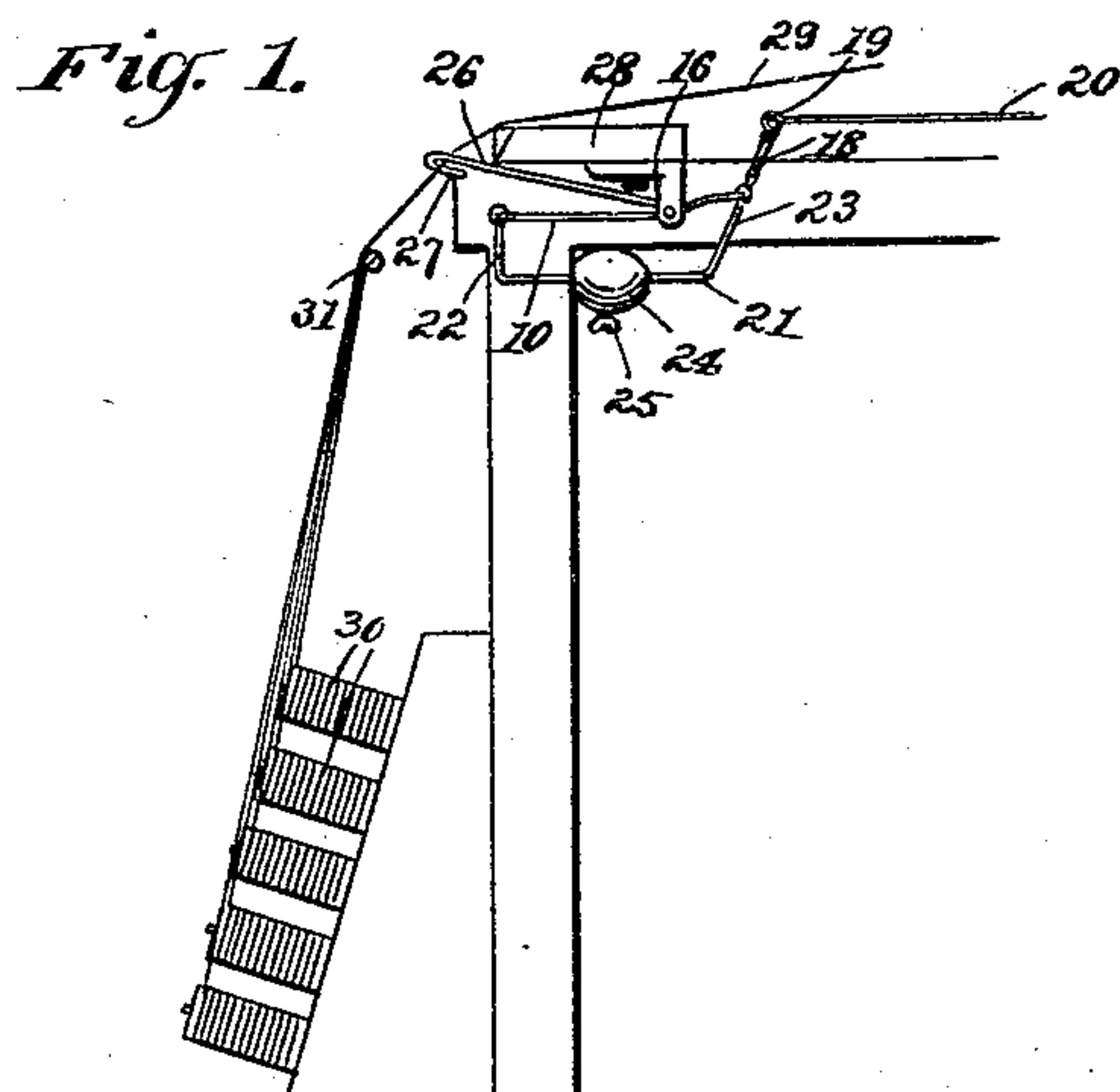
(No Model.)

H. G. POUNDS.

DOUBLING ATTACHMENT FOR QUILLING MACHINES.

No. 471,020.

Patented Mar. 15, 1892.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HERBERT G. POUNDS, OF NEW YORK, N. Y.

## DOUBLING ATTACHMENT FOR QUILLING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 471,020, dated March 15, 1892.

Application filed September 8, 1891. Serial No. 405,125. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT G. POUNDS, of New York, (Morrisania,) in the county and State of New York, have invented a new and  
5 Improved Doubling Attachment for Quilling-Machines, of which the following is a full, clear, and exact description.

My invention relates to improvements in quilling-machines, and especially to that variety which is adapted for use in quilling silk; and the object of my invention is to produce a simple form of quiller which will do  
10 entirely away with the ordinary doubling-machine and doubling-bobbins, which will wind and double the silk directly from the winding-bobbins and in a perfectly even manner, and which, when a bobbin is emptied or a thread broken, will immediately stop the spindle.

20 To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying  
25 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 the device embodying my invention, showing it supported upon a frame and in operative position. Fig. 2 is an enlarged detail side elevation of the quiller, and Fig. 3 is a plan view of the same.

The entire device, with the exception of  
35 the supporting-brackets, is preferably made of wire doubled to the required shape, and the drop-frame 10 of the device has parallel side pieces 11, which diverge near the front ends, as shown at 12, and then merge in a front cross-piece 13, which is at right angles to the side pieces and is adapted to support the tension-hooks, as described below. The rear ends of the side pieces 11 also diverge slightly and are formed into a coil 14, which  
45 is adapted to receive the pivot-pin 15 of the frame, and this pin is supported in brackets 16 having screw-holes therein, so that they may be easily screwed to a supporting-rail. The frame 10 has also a rearwardly-extending portion 17, which projects beyond the  
50 pivot-pin and is inclined slightly upward, the

rear end of this projection terminating in an upwardly-extending arm 18, which has a terminal eye 19, adapted to receive a wire 20, which may connect with the ordinary stop-  
55 motion of the spindle, so that when the frame is tilted, as indicated by dotted lines in Fig. 2, the pull on the wire will stop the spindle.

Arranged centrally beneath the frame 10 and in a nearly-parallel position with the frame is a wire rod 21, having its front end 22 bent upward to connect with the front cross-rod 13 of the frame and having its rear end 23 bent upward to connect with the projecting end 17 of the frame. A weight 24 is  
60 held to slide on the rod 21 and may be secured in a desired position by means of the thumb-screw 25, which projects through the weight and impinges on the rod. By means of this weight the frame 10 may be very  
70 nicely balanced.

Pivoted on the pivot-pin 15 of the frame 10 is a series of parallel forwardly-extending hooks 26, which project beyond the front end of the frame and which have their front ends  
75 doubled under, as shown at 27; but, if desired, the ends may be doubled up, so as to form hooks. It is essential, however, that the hooks be bent either up or down, instead of laterally, as the construction enables the  
80 silk to bear upon both members of the hook, so as to produce an even tension. In practice the frame 10 is supported beneath a rail 28 of a suitable supporting-frame, the brackets 16 being screwed to the rail, and the hooks  
85 26 project beyond the front edge of the rail. The threads 29 from the bobbins 30 extend upward over a tension-rod 31, are doubled, so as to extend through the tension-hooks 26, and from thence they extend over another  
90 rod above the rail 28 and through the guide to the quill.

When the threads are being doubled, the tension caused by hooks 26 will lift them against the rail 28, as best shown in Fig. 2,  
95 and when a bobbin is emptied or a thread breaks, one or more of the hooks, as the case may be, will fall upon the cross-rod 13 of the frame 10 and will tilt the frame into the position indicated by dotted lines in Fig. 2, thus  
100 operating the stop-motion and instantly stopping the spindle.



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

1. A quilling-machine attachment compris-  
5 ing a frame pivoted in supporting-brackets,  
an adjustable balance-weight held to the un-  
der side of the frame, a series of tension-  
hooks pivoted on the frame-pivot and extend-  
ing above the front end of the frame, and an  
10 arm secured to the rear end of the frame and  
adapted to connect with a spindle stop-mo-  
tion, substantially as described.

2. A quilling-machine attachment compris-  
ing an open frame having a transverse coil

therein, a pivot-pin extending through the 15  
coil and into suitable supporting-brackets, a  
wire rod extending beneath the frame and  
supported thereon, an adjustable weight held  
to slide on the rod, a series of tension-hooks  
pivoted on the pivot-pin and extending for- 20  
ward above the front end of the frame, and  
an upwardly-extending arm secured to the  
rear end of the frame and having a terminal  
eye, substantially as described.

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Witnesses:

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