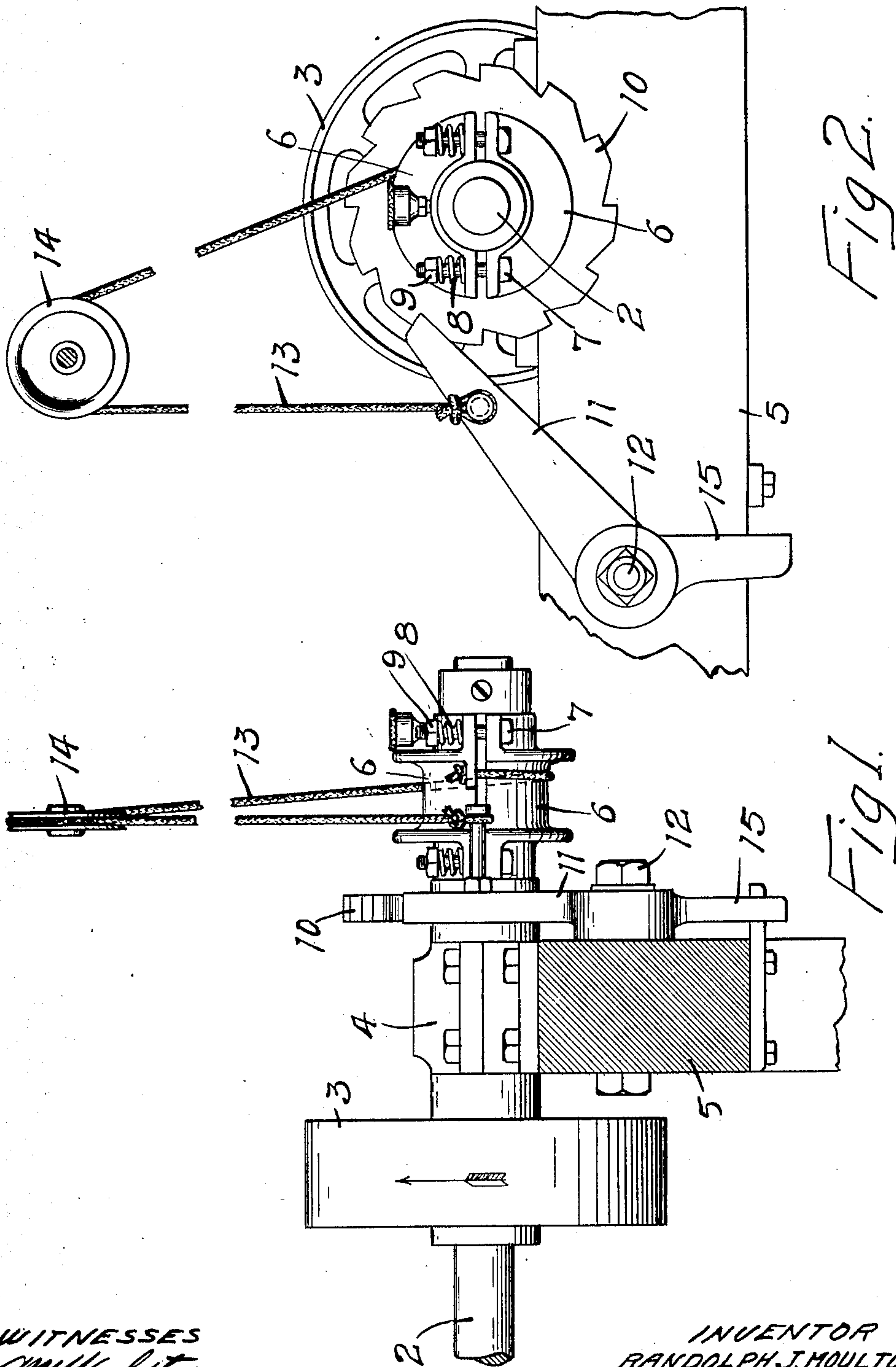


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NON-REVERSING STOP.  
APPLICATION FILED DEC. 16, 1907.

925,715.

Patented June 22, 1909.



WITNESSES  
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*J. B. Byington*

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# UNITED STATES PATENT OFFICE.

RANDOLPH J. MOULTON, OF MINNEAPOLIS, MINNESOTA.

## NON-REVERSING STOP.

No. 925,715.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed December 16, 1907. Serial No. 406,613.

*To all whom it may concern:*

Be it known that I, RANDOLPH J. MOULTON, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful  
5 Improvements in Non-Reversing Stops, of which the following is a specification.

The object of my invention is to provide a non-reversing mechanism which will permit free revolution of a driven element in one di-  
10 rection but will automatically prevent revolution in the opposite direction.

A further and particular object is to provide a non-reversing mechanism applicable to the shaft of a motor or a counter shaft of  
15 an elevator leg drive to prevent backing up of the elevator and consequent clogging of the leg if for any reason the power should be unexpectedly taken off.

The invention consists generally in various  
20 constructions and combinations, all as hereinafter described and particularly pointed out in the claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a side  
25 view of a non-reversing stop mechanism embodying my invention. Fig. 2 is an end view of the same.

In the drawing, 2 represents a shaft having a driving pulley 3 secured thereon from  
30 which the elevator operating in the leg is driven. This elevator leg is of ordinary construction and the manner of arranging the elevating apparatus therein is the same as is usually employed, and I have not thought it  
35 necessary to illustrate the direct application of my invention to this work, although it is designed particularly to prevent the elevating apparatus from running backward and clogging the leg in case there should be at any  
40 time, an absence of power to drive the elevator forward.

The shaft 2 has bearings 4 in a frame 5 and a drum divided longitudinally into two sections 6 is loosely journaled on said shaft, and  
45 the sections are yieldingly connected by means of bolts 7 and coiled springs 8 thereon. Adjusting nuts 9 permit the tension of these springs to be regulated for the purpose of drawing the drum sections together or allow-  
50 ing them to separate. Ordinarily these nuts will be adjusted so that there will be suf-

ficient friction between the shaft and the drum to revolve the latter. A ratchet wheel 10 is secured on the shaft and a dog 11 is pivoted at 12 on said frame and is adapted  
55 to engage the teeth of the ratchet and normally lock the ratchet and shaft against backward movement. This dog would permit forward movement of the ratchet and shaft, and to avoid the necessity of keeping  
60 the dog in contact with the teeth of the ratchet at all times I provide a cable 13 attached at one end to the dog 11 and passing over a sheave 14 and secured at its other end to the drum. When the shaft starts forward  
65 the drum will revolve with it and the cable be wound on the drum and the dog disengaged from the teeth of the ratchet.

When the dog has been disengaged from the ratchet teeth and the slack of the cable  
70 taken up, the drum will slip on its bearing, the shaft continuing to revolve freely to operate the elevating apparatus. As soon, however, as there is absence of power to drive the shaft and it ceases to revolve and  
75 the weight of the elevator causes it to start backward, the drum will be turned backward with the shaft until there is sufficient slack in the cable to allow the dog to drop by gravity into engagement with the teeth of  
80 the ratchet, whereupon the shaft, the ratchet and the elevating apparatus will be locked against backward movement. The depending arm 15 on the dog 11 tends to swing its opposite end into engagement  
85 with the ratchet teeth as soon as the cable is slackened. The dog may be weighted in any other suitable way.

I claim as my invention:

The combination, with a driving element, 90 of a toothed member secured thereon, a dog adapted to engage the teeth of said member and normally prevent backward movement of said driving element, a drum loosely mounted on said driving element, there be-  
95 ing normally sufficient friction between said driving element and drum to cause the revolution of the drum with said driving element, a cable attached at one end to said drum and at its other end to said dog, and a pulley  
100 above the level of said dog and drum and over which said cable passes, the initial for-

ward movement of said driving element winding said cable on said drum and tripping said dog, and the initial backward movement of said driving element unwinding said  
5 cable and permitting said dog to reengage said toothed member, substantially as described.

In witness whereof, I have hereunto set my hand this 4th day of December 1907.

RANDOLPH J. MOULTON.

Witnesses:

J. H. BALDWIN,  
J. B. BYINGTON.