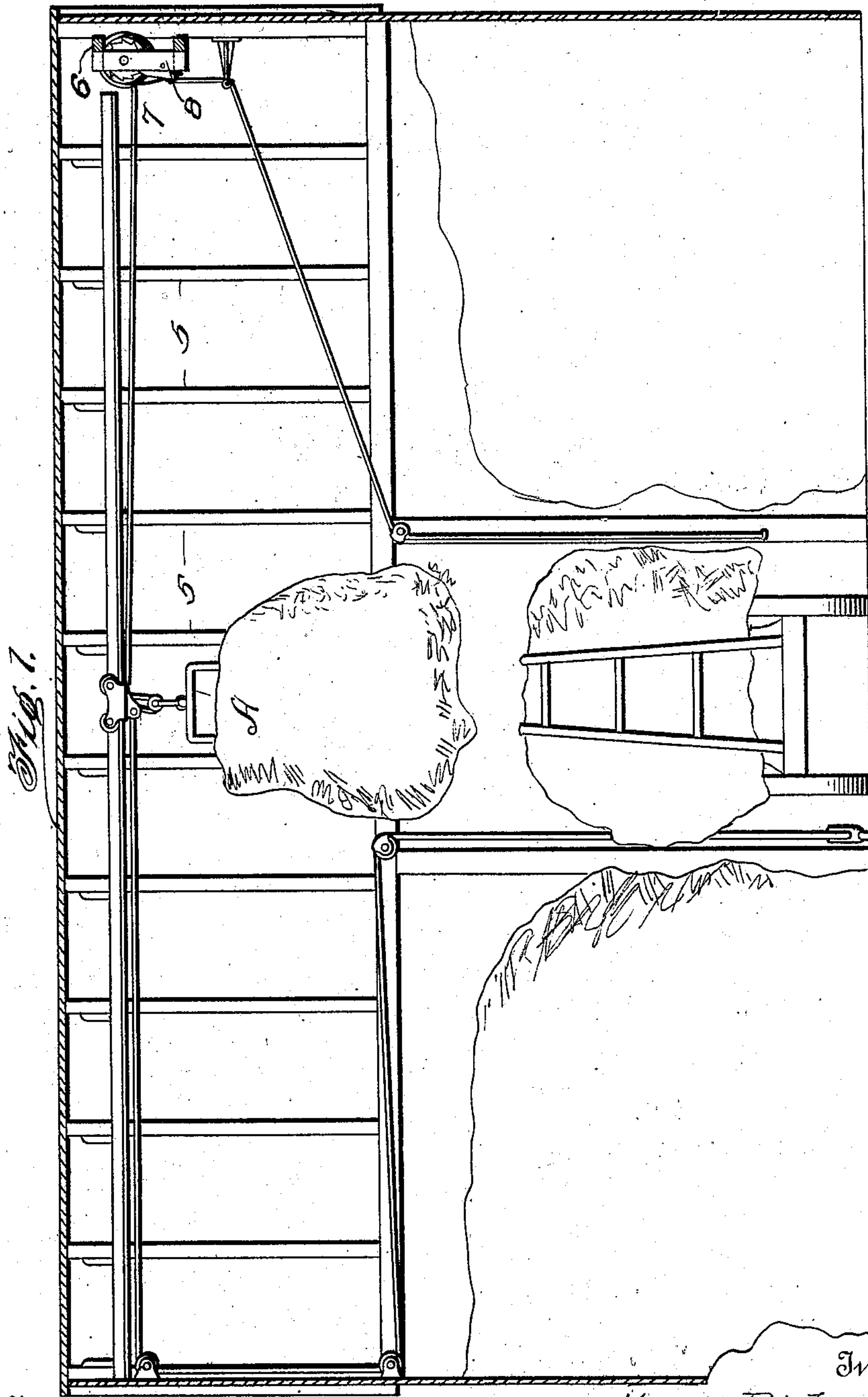


H. RICHARDSON.  
FORK RETURN MECHANISM.  
APPLICATION FILED OCT. 26, 1907.

915,888.

Patented Mar. 23, 1909.

2 SHEETS—SHEET 1.



Witnesses

*Geo L. Thom*  
" *E. L. Chandler*

By

*Woodward & Chandler*  
Attorneys

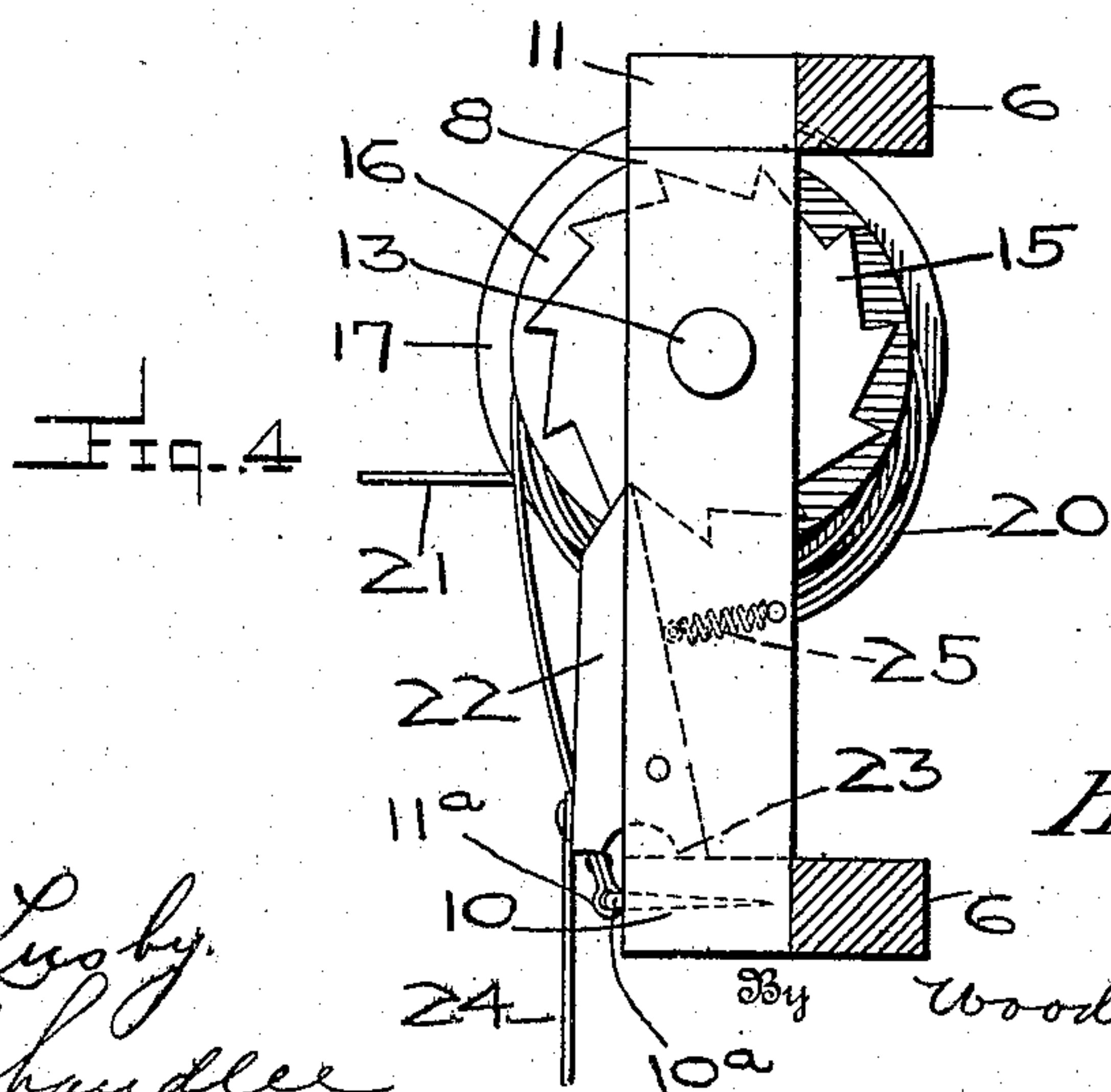
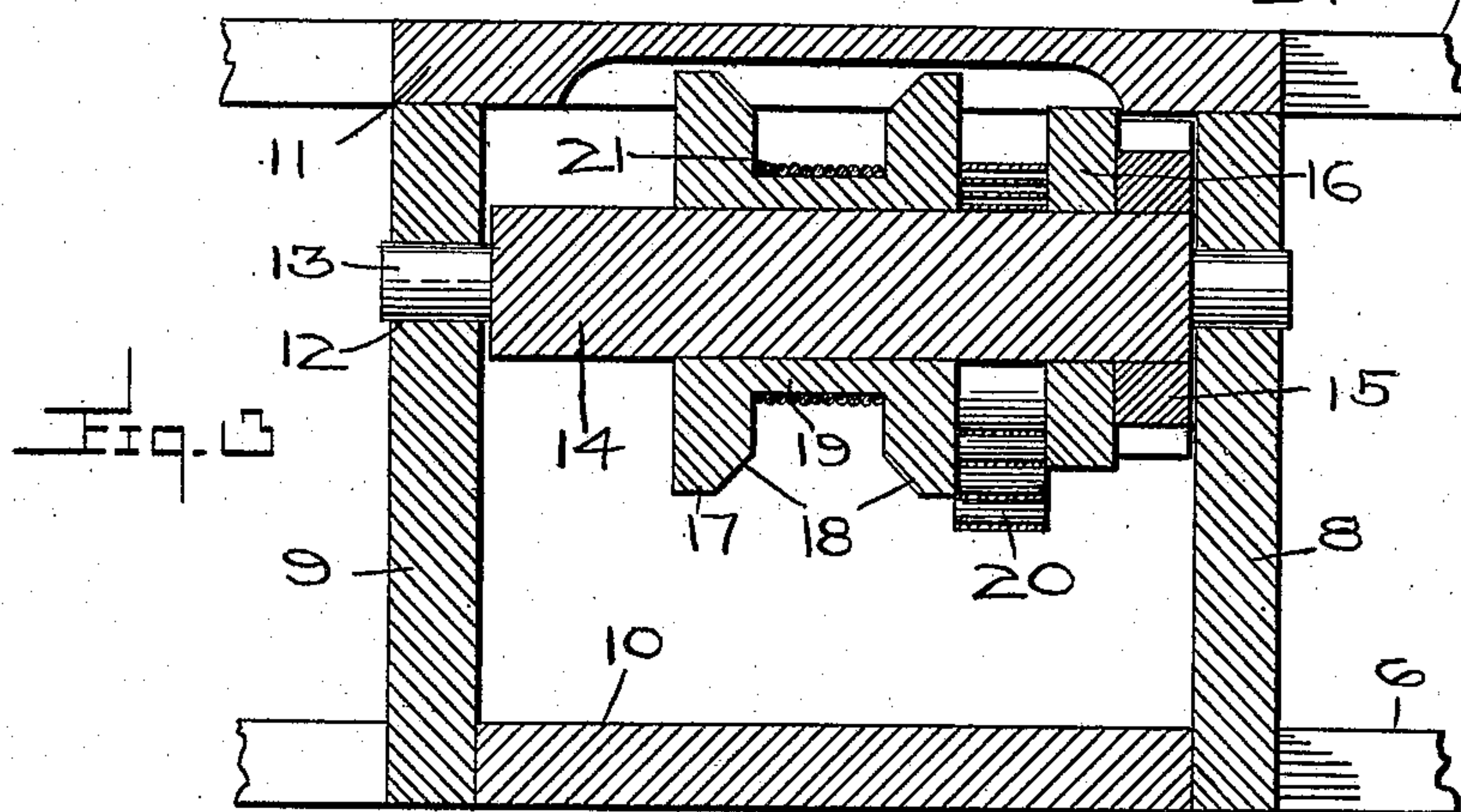
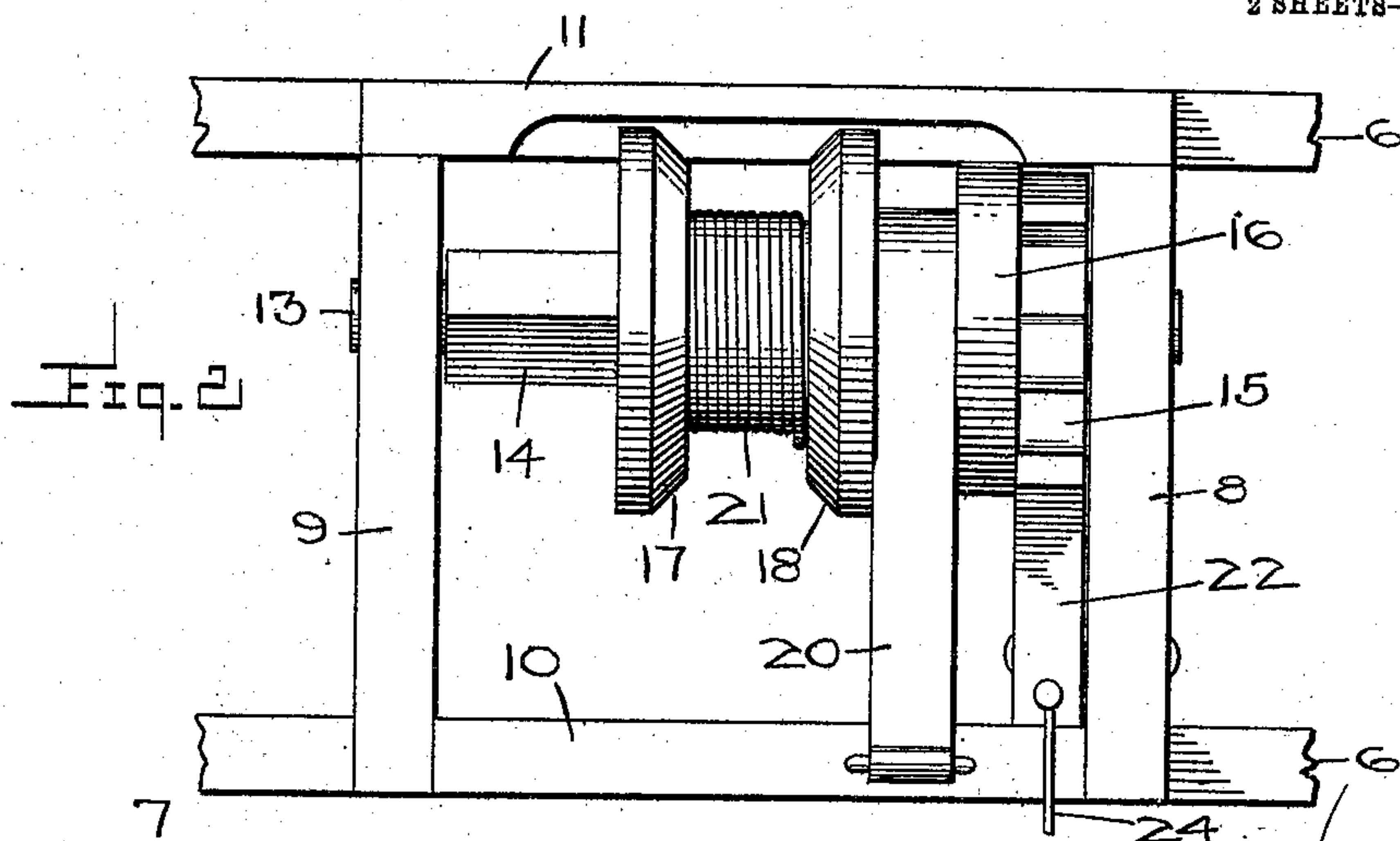
Inventor  
*Hazen Richardson.*

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*Hosen Richardson*

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Attorney



# UNITED STATES PATENT OFFICE.

HOSEN RICHARDSON, OF CARTERVILLE, ILLINOIS.

## FORK-RETURN MECHANISM.

No. 915,888.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed October 26, 1907. Serial No. 399,374.

*To all whom it may concern:*

Be it known that I, HOSEN RICHARDSON, a citizen of the United States, residing at Carterville, in the county of Williamson and State of Illinois, have invented certain new and useful Improvements in Fork-Return Mechanisms, of which the following is a specification.

This invention relates to traveling hay forks and more particularly to return mechanism therefor, and has for its object to provide a spring fork return mechanism arranged to return the fork to position over the hay load without the use of weights or other cumbersome and balky apparatus.

Another object is to provide a fork return mechanism which will be simple and which may thus be cheaply manufactured without being likely to become easily disarranged.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a view showing a barn in section and illustrating the use of the present invention. Fig. 2 is an elevational view of the present return mechanism. Fig. 3 is a longitudinal section through the return mechanism. Fig. 4 is an end view of the present return mechanism.

Referring now to the drawings there is shown a portion of a barn to the rafters 5 of which there are secured a pair of parallel supporting members 6. Between these supporting members there is mounted a frame 7, including vertical end members 8 and 9, a bottom member 10 and a top member 11. The end members 8 and 9 are provided with registering openings 12 therein, receiving the rounded end portions 13 of a horizontally extending shaft 14, rectangular in cross section, as shown.

A ratchet wheel 15 is carried by the shaft 14 inwardly of and adjacent to the end member 8 of the frame, and inwardly of the ratchet wheel, a disk 16 is mounted upon the shaft.

A drum 17 is mounted upon the shaft 14 at the inner side of and in spaced relation to the disk 16, the drum including circular side portions 18 and a connecting core 19.

A coil spring is secured at its inner end to the portion of the shaft 14 lying between the disk 16 and the drum 17, and at its outer end, the coil spring is secured to the bottom member 10 of the frame by means of a staple 10<sup>a</sup> which has a portion thereof engaged with a curled end 11<sup>a</sup> of the spring, as shown. A cable 21 is secured at one end to the core 19 of the drum 17, and the coil spring 20 is thus arranged to revolve the shaft to wind the cable upon the drum. To hold the shaft against rotation under the action of the spring, a dog 22 is pivoted against the inner face of the end member 8, and has a stop 23 arranged to engage the upper surface of the bottom member 10 when the dog is in position for engagement of the ratchet wheel 15.

A trip cord 24 is secured to the dog 22 and extends downwardly from the return mechanism in order that it may be grasped and pulled to disengage the dog from the ratchet wheel. A spring 25 is arranged to hold the dog yieldably in engagement with the ratchet wheel, and it will be understood that when the cable is pulled to unwind it from the drum, the shaft will be revolved to energize the springs 20.

In practice, the cable is attached to the hay fork, indicated at A in the drawings, so that when the fork is moved to deposit its load upon the mow, the cable will be unwound from the drum 17, and the spring energized. The dog 22 will hold the shaft against rotation after the fork is stopped, until it is desired to return the fork to position to receive a new load, when the trip cord will be pulled, disengaging the dog 22 from the ratchet wheel, and permitting the shaft to revolve under the action of the spring 20, to rewind the cable upon the drum 17. When the trip cord is released, the spring 25 will return the dog to normal position.

What is claimed is:

1. A fork return mechanism comprising a frame, a shaft journaled in the frame, a ratchet wheel carried by the shaft, a disk carried by the shaft adjacent the ratchet wheel, a drum carried by the shaft in spaced relation to the disk, a coil spring secured at one end to the shaft between the disk and drum, said spring being secured at its other end to the frame, a cable secured at one end to the drum, a dog pivoted to the frame for engagement with the ratchet wheel to hold the shaft against movement under the action



of the spring, a spring arranged to hold the dog yieldably in engagement with the ratchet wheel, and a trip cord secured to the dog.

5 2. In a fork return mechanism, the combination with supporting members, of a frame mounted between said supporting members, said frame comprising parallel side members and top and bottom members se-  
10 cured thereto, said parallel side members having alining openings therein adjacent to their upper ends, a rectangular shaft having rounded end portions revolubly engaged in the openings of the end members,  
15 a ratchet wheel mounted upon the shaft adjacent to one of the end members, a dog pivoted to said end member and arranged for engagement of the ratchet wheel to hold the latter with the shaft against movement  
20 in one direction, a spring arranged to hold

the dog normally in engagement with the ratchet wheel, a trip cord secured to the dog for movement thereof against the action of the spring, a disk carried by the shaft and located adjacent the ratchet wheel, a drum 25 mounted upon the shaft and disposed in spaced relation to the disk, a coil spring secured at its inner end to the shaft between the disk and drum and at its outer end to the bottom member of the flange, and a cable 30 secured at one end to the drum to be wound thereupon, said cable being adapted for attachment to a traveling hay fork.

In testimony whereof I affix my signature, in presence of two witnesses.

HUSEN RICHARDSON.

Witnesses:

WALTER C. KRUCKHAUS,  
W. H. ZIMMERMAN.