

C. W. RUSSELL.  
 YIELDABLE SHEAVE SUPPORT FOR LOGGING APPARATUS.  
 APPLICATION FILED MAR. 24, 1910.

991,650.

Patented May 9, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

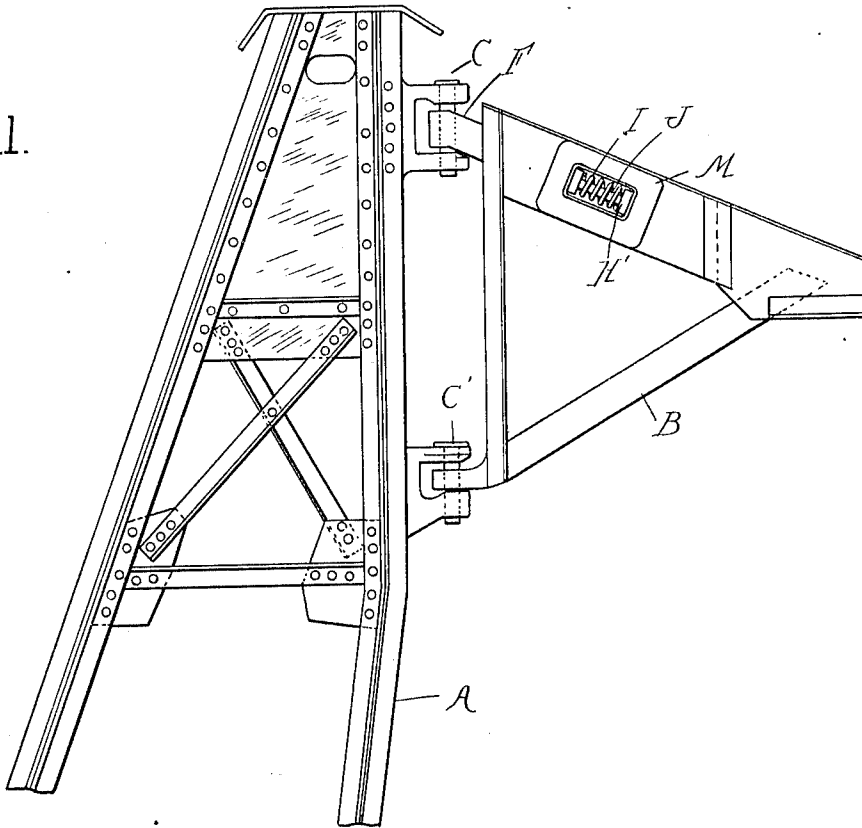


Fig. 4.

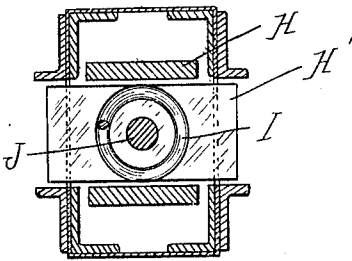
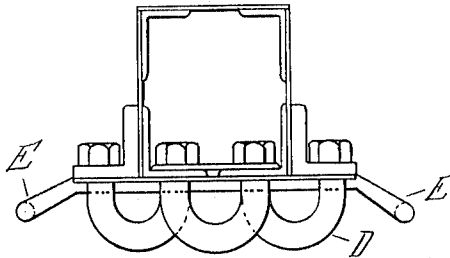


Fig. 3.



Witnesses  
*W. B. Ford*  
*W. B. Ford*

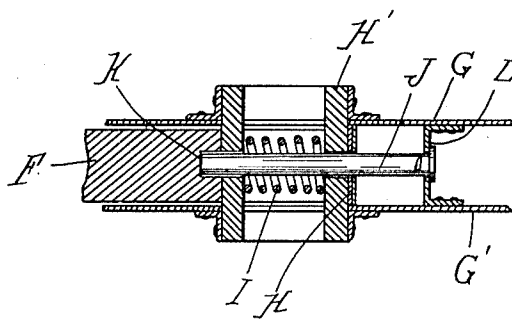
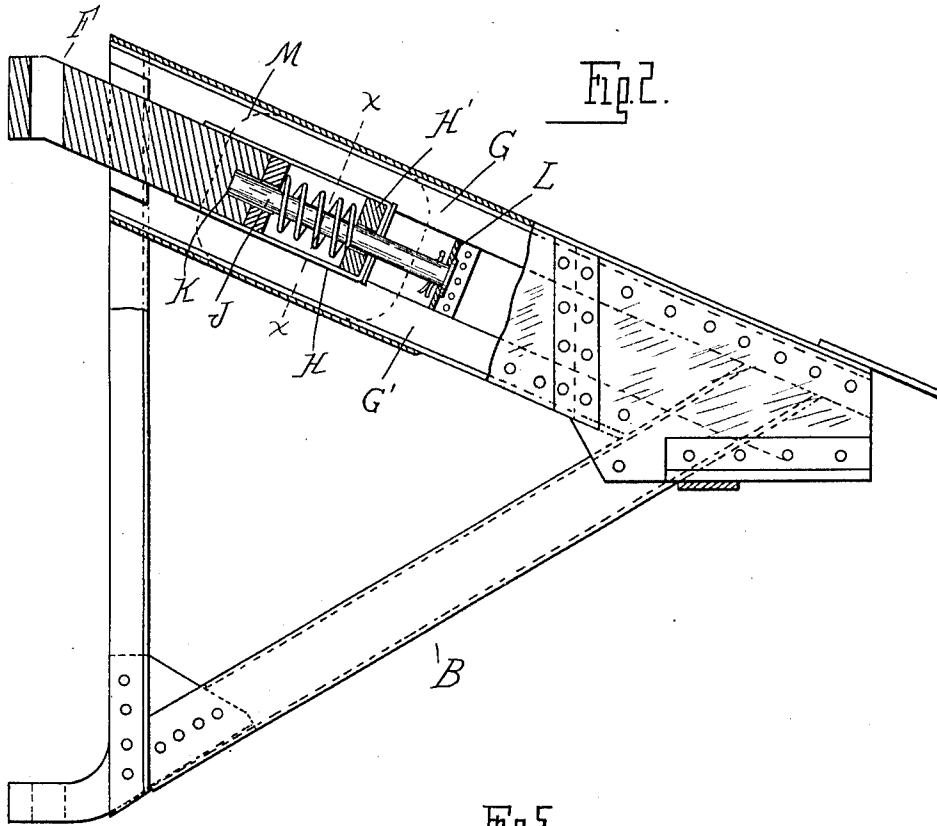
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 By *William H. Russell*  
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

CLINTON W. RUSSELL, OF DETROIT, MICHIGAN.

YIELDABLE SHEAVE-SUPPORT FOR LOGGING APPARATUS.

991,650.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed March 24, 1910. Serial No. 551,375.

*To all whom it may concern:*

Be it known that I, CLINTON W. RUSSELL, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Yieldable Sheave-Supports for Logging Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to logging apparatus commonly known as a skidding machine, and more particularly to the construction of a yieldable sheave support, as more fully hereinafter set forth.

In the drawings—Figure 1 is an elevation of a portion of a derrick provided with my improved yieldable sheave support; Fig. 2 is a sectional elevation of the sheave support; Fig. 3 is an end elevation thereof; Fig. 4 is a section on line X—X, Fig. 2, and Fig. 5 is a longitudinal section through the yieldable portion of the frame.

A is the derrick mounted upon a suitable supporting base (not shown). Projecting laterally from the upper end of this derrick is a sheave supporting frame B preferably in the form of a triangle, which is attached to the derrick by vertical pivots C C'. The outer end of this frame is provided with a plurality of clamps or U-bolts D for the attachment of the various sheaves for the skidding ropes, and upon opposite sides of these U-bolts are eyes E for the attachment of sheaves for the anchoring guy lines, the ends of which are made fast to any convenient object on each side of the machine, the lines passing through the sheaves on the end of the pivoted frame, through sheaves supported in the top of the tower, and are tightened by means of drums located on the deck of the machine.

The construction just described is one in which the skidding leaves are held from lateral movement solely by the guy lines, as the frame B is hinged to the derrick and is free to swing laterally thereon. This prevents danger of the overturning of the derrick by the stress on the hauling cable when extending laterally, and even in case of a breaking of the guy lines the swinging frame B would temporarily relieve the tension by swinging into the line of the pull, and permit the operator to slacken the hauling cable. It is, however, desirable to provide a resilient connection between the

sheaves and their support, but it is objectionable to interpose a spring between the U-bolts D and the sheaves, as this permits too great a swinging movement I have, therefore, devised a construction in which the yielding member is between the frame B and the derrick.

F is a bar which engages with one of the pivots C C' and connects the same with the frame B. As shown, this bar F is arranged at the upper end of the frame B and is slidably secured between parallel members G and G' which form the upper member of the triangular frame.

H is a strap connected with the bar F, which embraces a spring I arranged between the bars G G'.

J is a pin or bolt extending centrally through the spring and provided at one end with an abutment K, and at its opposite end being connected to the anchor cross-bar L.

M are guide frames secured to opposite sides of the members G G' and serving to limit the movement of the strap H.

The arrangement is such that the spring I will normally hold the strap member H to its abutment H' against the guide frame M, but whenever a load is applied to the outer end of the frame B, the spring will yield, and thus forms a cushion.

The specific construction and location of the yielding member of the frame, as shown and described, are not essential, as the desired effect could be produced by any form and arrangement of yielding connection between the frame B and the derrick.

In operation, whenever a sudden stress is exerted upon any one of the sheaves attached to the U-bolts D, the spring I will permit a slight tilting of the frame B in a vertical plane. This frame is, however, still held from lateral movement by the guy lines secured to the eyes E. Thus the desired cushioning effect is obtained without permitting a shifting of the location of the sheaves.

What I claim as my invention is:

1. The combination with a derrick, of a sheave supporting member secured to and projecting laterally from the derrick, and a cushion intermediate the outer end of said member and the connection of the latter with the derrick.

2. The combination with a derrick, of a sheave supporting member projecting lat-

erally from said derrick and pivoted there-  
to, and a cushion intermediate the outer end  
of said member and the pivotal connection  
between the latter and the derrick for per-  
mitting the yielding of said sheave support  
in relation to the derrick.

3. The combination with a derrick, of a  
sheave supporting arm, and a cushion inter-  
mediate the ends of the arm.

4. The combination of a derrick, a sheave-  
supporting frame pivotally connected to said  
derrick and projecting laterally therefrom,  
and a resilient yieldable connection between  
one point of the pivotal connection and said  
sheave supporting frame.

5. The combination with a derrick, of a  
triangular sheave-supporting frame project-  
ing laterally from said derrick, pivotal con-

nections between the upper and lower ends  
of one side of said triangular frame and the  
derrick, and a resilient yieldable connection  
between one of said pivotal connections and  
triangular frame.

6. A yieldable sheave support, comprising  
a triangular frame and pivotal connections  
for attaching said frame to the rigid sup-  
port, and a resilient yieldable member for  
connecting one of said pivotal connections  
and said frame.

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

CLINTON W. RUSSELL.

Witnesses:

NELLIE KINSELLA,  
B. J. BELKNAP.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
Washington, D. C."

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