April 30, 1940. B. M. SMITH 2,198,844

HOOK-UP BOOM

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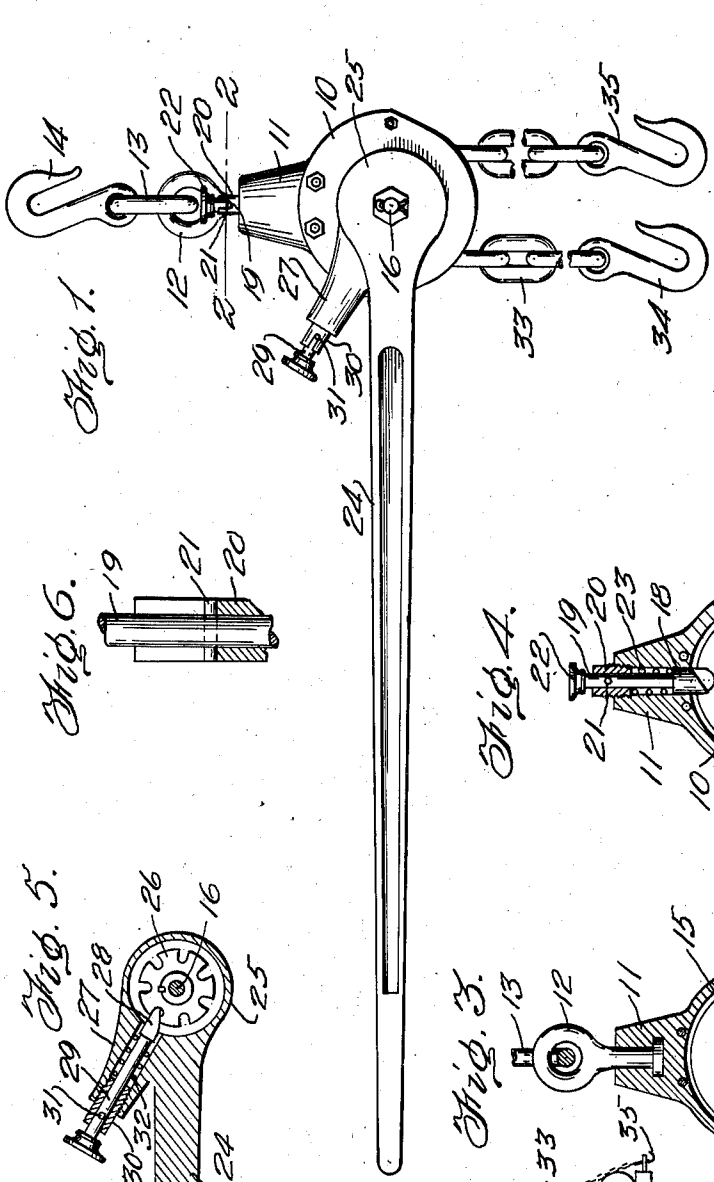


Fig. 1.

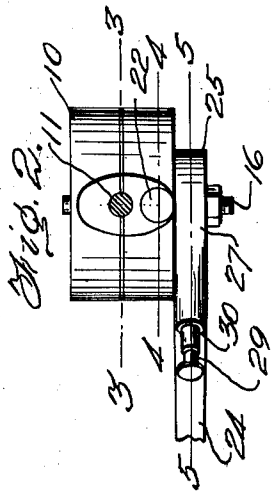


Fig. 2.

Fig. 6.

Fig. 4.

Fig. 5.

Fig. 3.

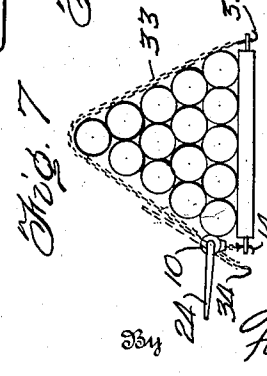


Fig. 7

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HOOK-UP BOOM

Birdie Mae Smith, Fort Worth, Tex.

Application October 2, 1939, Serial No. 297,570

3 Claims. (Cl. 254—164)

This invention relates to a device for clamping a log raft or for holding such logs on a truck or the like while being transported.

It is an object of this invention to provide novel means for exerting tension on a binding member which embraces or partially embraces the boom so that the logs will be held against undue vibration or movement.

It is furthermore an object of the invention to provide novel means whereby a lever or handle may be oscillated to communicate motion to the binding element and the provision of other means for retaining the binding element in its different positions of adjustment.

It is furthermore an object of this invention to produce a boom holder comprising comparatively few inexpensive parts which can be expeditiously manipulated to retain the parts in operative positions or to release them so that tension on the binding elements may be released and the binding elements removed from the boom encircling positions.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawing forming part of this application, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in elevation of a device embodying the invention;

Figure 2 illustrates a sectional plan view thereof, the section being on the line 2—2 of Fig. 1;

Figure 3 illustrates a sectional view on the line 3—3 of Fig. 2;

Figure 4 illustrates a sectional view on the line 4—4 of Fig. 2;

Figure 5 illustrates a sectional view on the line 5—5 of Fig. 2;

Figure 6 illustrates a detail view of the ratchet retaining means; and

Figure 7 illustrates a diagrammatic view showing one method of utilizing the hook-up boom.

In the drawing, 10 denotes a housing having a boss or extension 11, in which a coupling 12 is swiveled, the said coupling having a link 13 to which a hook 14 is connected, and it is the purpose of the inventor that said hook shall be applied to an anchorage with relation to which the boom is to be held.

A load wheel or sheave 15 is rotatably mounted in the housing on a shaft 16 to which the load wheel or sheave may be keyed or otherwise secured. A ratchet wheel 17 is likewise keyed to the shaft and a dog or ratchet 18 acts in conjunction therewith to hold the shaft against turning in one direction. As here shown, the ratchet is on a stem 19 slidable in a sleeve 20 which is longitudinally slotted for a portion of its length and the said stem is provided with a pin 21 which lies in said slot, the arrangement being such that when the stem is pulled outwardly, the said pin will clear the end of the sleeve, and by turning the said stem through the use of a thumb piece 22, the ratchet will be held out of the zone of travel of the ratchet wheel. The ratchet is under pressure of a spring 23 which encircles the stem between the sleeve 20 and the head of the ratchet, and this spring is intended to force the ratchet into operative position when the pin is released from the outer end of the sleeve. The handle or lever 24 has a hollow hub 25 which is rotatably mounted on the shaft and a ratchet wheel 26 is mounted on the shaft 16 within the hub. The handle and hub are provided with a hollow boss 27 in which a ratchet 28 coacts with the ratchet wheel 26. The ratchet 28 has a stem 29 slidable through a sleeve 30, and the stem has a pin 31 coacting with the sleeve to hold the ratchet retracted in the same manner as the ratchet 18 is held and manipulated successively. A spring 32 between the head of the ratchet and the sleeve is operative to hold the ratchet in operative relation to the ratchet wheel.

A binding element such as a chain 33 is looped over the load wheel or sheave and it may be provided with hooks 34 and 35 at its ends, anchored in appropriate manner, so that when the load wheel 15 is operated or rotated, the binding element will be drawn around the boom or load and thereby held.

It is obvious from an inspection of Fig. 5 that when the handle is oscillated on the shaft, the ratchet will ride over the teeth of the ratchet wheel when it is moved in one direction and will communicate motion to the ratchet wheel when moved in the opposite direction and that the motion thus imparted to the shaft will be communicated to the load wheel, and while the handle is being rotated in a direction opposite that in which it was moved to rotate the ratchet wheel, the ratchet 18 will hold the shaft against rotation in a counter direction so that the manipulation of the handle successively communicates motion to the load wheel. When it is desired to release the tension of the binding elements on the boom,

the ratchet 18 is released from the ratchet wheel and the ratchet 28 is likewise released from the ratchet wheel 26, although, if desired, the ratchet 28 may be turned so that it will operate to rotate the ratchet wheel in the opposite direction as the said handle is oscillated.

I claim:

1. A device of the kind described including a substantially cylindrical housing having an arcuate slot extending circumferentially of the housing centrally of the axial dimension of said housing, said housing having end walls, a shaft journaled in the end walls of said housing concentric to the housing, said shaft having one end extending outwardly of the housing, a chain wheel fixed on said shaft within the housing and opposite said slot, a chain looped around said wheel and having its ends extending through said slot, hooks each attached to a respective end of the chain, a boss projecting radially of the housing opposite said slot, an eye swiveled to said boss, a hook connected to said eye, and means to effect step-by-step rotation of the shaft in selected direction.

2. A device of the kind described including a substantially cylindrical housing having an arcuate slot extending circumferentially of the housing centrally of the axial dimension of said housing, said housing having end walls, a shaft journaled in the end walls of said housing concentric to the housing, said shaft having one end extending outwardly of the housing, a chain wheel fixed on said shaft within the housing and opposite said slot, a chain looped around said wheel and having its ends extending through said slot, hooks each attached to a respective end of the chain, a boss projecting radially of the housing opposite said slot, an eye swiveled to said boss, a hook connected to said eye, an operating lever having a hollow head journaled on the projecting end of said shaft, a ratchet wheel fixed on said shaft within said head and covered by the head, a second ratchet wheel fixed on said shaft within said housing, a reversible spring pressed pawl carried by said lever and engaging the first ratchet wheel, and a second reversible spring pressed pawl supported in said boss and engaging the second ratchet wheel.

3. A device of the kind described including a substantially cylindrical housing having an arcuate slot extending circumferentially of the housing centrally of the axial dimension of said housing, said housing having end walls, a shaft journaled in the end walls of said housing concentric to the housing, said shaft having one end extending outwardly of the housing, a chain wheel fixed on said shaft within the housing and opposite said slot, a chain looped around said wheel and having its ends extending through said slot, hooks each attached to a respective end of the chain, a boss projecting radially of the housing opposite said slot, an eye swiveled to said boss, a hook connected to said eye, an operating lever having a hollow head journaled on the projecting end of said shaft, a ratchet wheel fixed on said shaft within said head and covered by the head, a second ratchet wheel fixed on said shaft within said housing, a reversible spring pressed pawl carried by said lever and engaging the first ratchet wheel, a second reversible spring pressed pawl supported in said boss and engaging the second ratchet wheel, and combined guide and stop means for each pawl adjustable toward and from said shaft to limit engagement of the pawls in the respective ratchet wheels.

BIRDIE MAE SMITH.