Jan. 27, 1953 C. H. SPARKS ET AL 2,626,715

LOG HANDLING BOOM

Filed June 8, 1951 2 SHEETS—SHEET 1

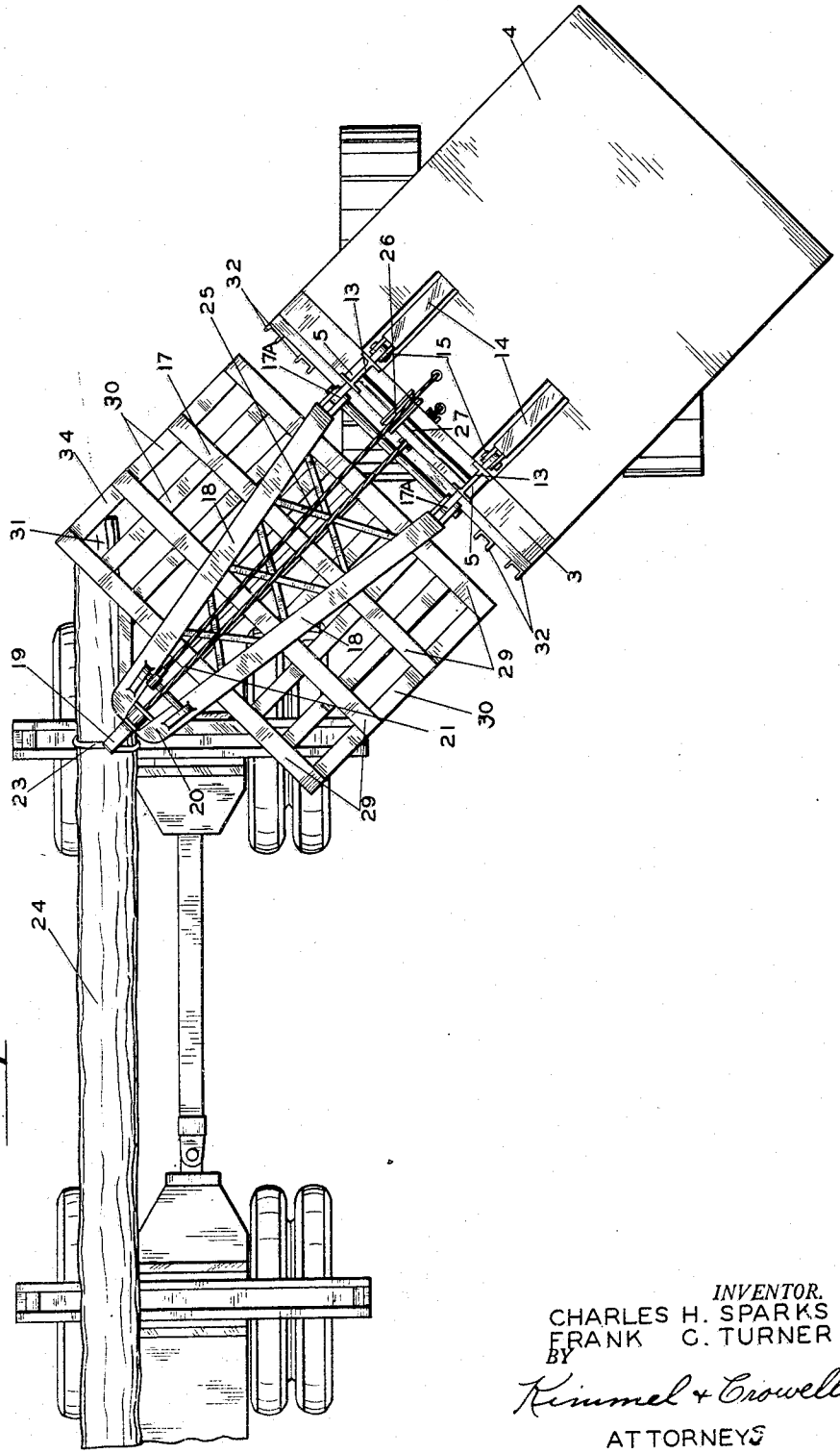

Fig. 1

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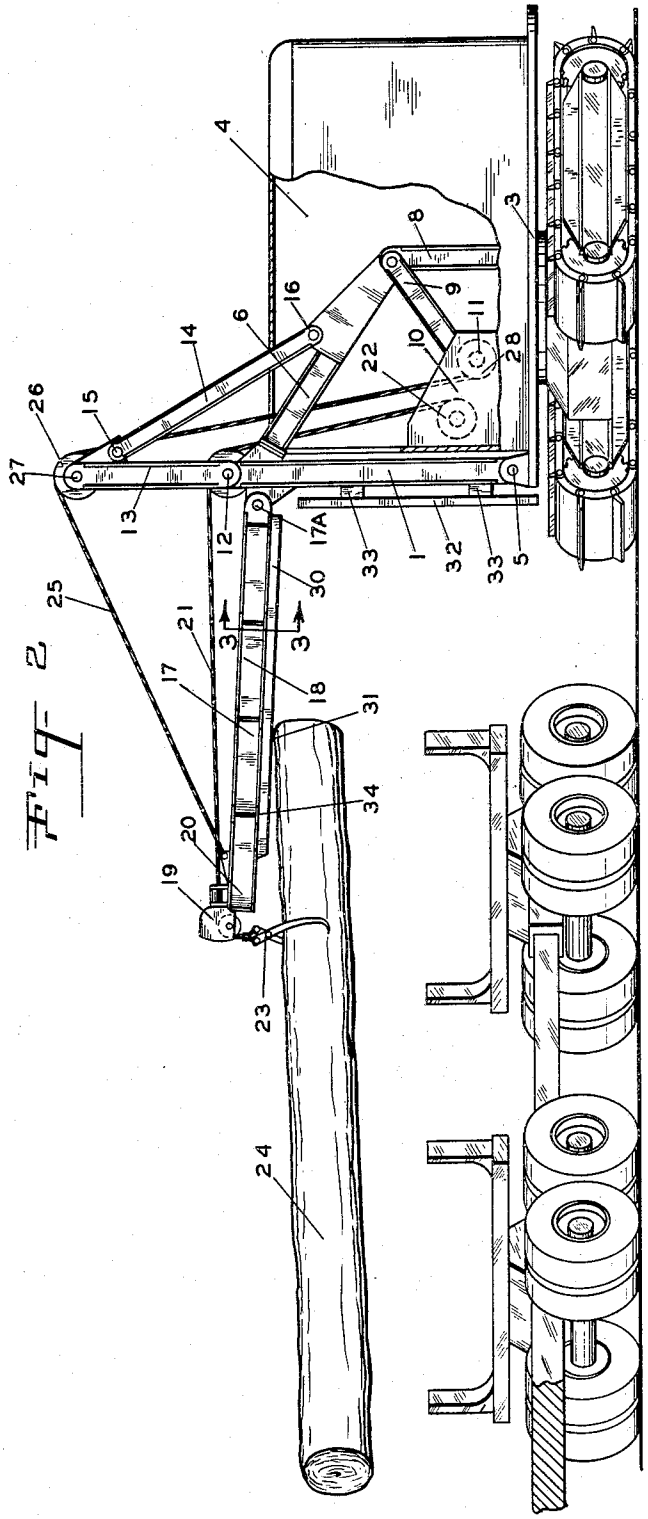

Fig. 2

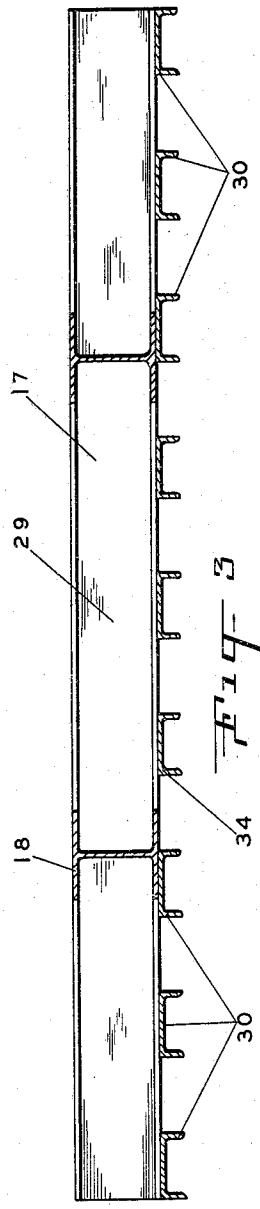

Fig. 3

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LOG HANDLING BOOM

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2 Claims. (Cl. 212—144)

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This invention relates to booms and is particularly adapted to be used in connection with portable boom or shovel operating machines in the handling of logs, poles and the like.

The primary object of our new and improved boom is to provide a log handling boom that will lift logs in a horizontal plane and at an angle to the center line of the boom.

In the loading of logs on trucks and the like, it is desirable to be able to lift the log by heeling one end to the boom and at various angles to the center line of the boom so that the log may be loaded on trucks adjacent the boom operating machine.

As it is today, in order to load logs, the log has to be lifted and heeled against the boom in line with the boom, therefore the truck has to be backed directly towards the boom operating machine, but with our new and improved boom the truck may be backed along side of the boom operating machine and the log loaded on the bunks of the truck, due to the ability to lift the log heeling the same under the boom at an angle to the center line of the boom.

Another object of our invention is to design a boom whose outer end is on a relatively horizontal plane so that the butt of the log can be heeled under the boom with the best advantage, as best illustrated in the accompanying drawings.

These and other incidental objects will be apparent in the drawings, specification and claims.

Referring to the drawings:

Figure 1 is a plan view of our new and improved boom being operated by a usual boom operating machine. In this view the truck is located at one side of the machine and the log is being lifted at an angle to the center line of the boom.

Figure 2 is a side view of our new and improved boom and hoisting machine, lifting a log and locating it over the truck bunks. The tracks of the boom operating machine and the truck in this view are located parallel to one another, the boom having been swung to the position over the truck.

Figure 3 is a sectional view of our new and improved boom, taken on line 3—3 of Figure 2.

Referring more specifically to the drawings:

Our new and improved boom consists of a pair of uprights 1 and 2, mounted to the base 3 of the hoisting machine 4 at 5. These uprights are held in a vertical position by the braces 6, which in turn are supported by the uprights 8 within the machine 4 and to the base of the same. The braces 6 and uprights 8 are further braced by the braces 9, which may be secured to the base 3 of the machine, or in this case to the framework 10 of the hoist 11.

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Pivotally mounted at 12 to the uprights 1 and 2 are extensions or uprights 13, which are held in a fixed position by the braces 14. The uprights 13 are adapted to fold down over the machine while transporting the same about. By disconnecting the braces 14 from either of their ends 15 or 16, the uprights will lay down over the top of the machine.

Our new and improved boom assembly 17 is pivotally mounted to the uprights 1 and 2 at 17A and operates in a relatively horizontal position. The boom 17 consists of A-frame members 18 having a block 19 fixedly secured to their ends 20. This block is adapted to receive the lifting cable 21 leading to the hoisting drum 22 of the hoist 11. Secured in the usual manner to the lifting cable 21 is the lifting tongs 23 for lifting the log 24. The outer end 20 of the boom 17 is supported by the cable 25 operating over a sheave 26 which is mounted to the upper ends of the uprights 13 by way of the cross shaft 27, the cable 25 being wrapped about the drum 28 in the usual manner.

Transverse beams 29 are welded within the A-frames 18, best illustrated in Figure 3. Running longitudinally of the boom and secured to the said beams are channels 30 having their legs extending downwardly and adapted to engage the end 31 of the log 24, preventing the said log from slipping sidewise.

By constructing an abutment rack 34 consisting of the rails 30 and transverse beams 29 covering a relatively large area, logs can be picked up at various angles to the center line of the boom facilitating placing them on the bunks of the trucks.

We have found that a most satisfactory position of the hoisting machine in regards to the truck is that illustrated in the drawings, although we do not wish to be limited to this operating position, as our invention is well adapted to handle logs at various working angles to the boom.

Vertical bumper rails 32 are secured to the front sides of the upright beams 1 and 2 by the transverse beams 33. These bumper rails prevent the end of the log damaging the hoisting machine, and at the same time assists in the positioning of the butt 31 of the log under the abutment rack 34.

What is claimed is:

1. A portable log handling apparatus including a base, a pair of spaced apart uprights fixedly mounted on said base, guard members extending between said uprights, brace means holding said uprights in vertical position, a boom pivoted to the upper end portions of said uprights, and a

relatively wide log abutment frame carried by the lower side of said boom whereby to provide means for heeling a log when said boom is disposed at an angle relative to said log.

2. A portable log handling apparatus including a base, a pair of spaced apart uprights fixedly mounted on said base, guard members extending between said uprights, brace means holding said uprights in vertical position, a boom pivoted to the upper end portions of said uprights, a relatively wide log abutment frame carried by the lower side of said boom whereby to provide means for heeling a log when said boom is disposed at an angle relative to said log, a pair of pivoted extensions on said uprights, and brace means releasably connected between said pivoted uprights and said base.

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