March 31, 1942. J. H. BAKER 2,278,035

LOG LOADER

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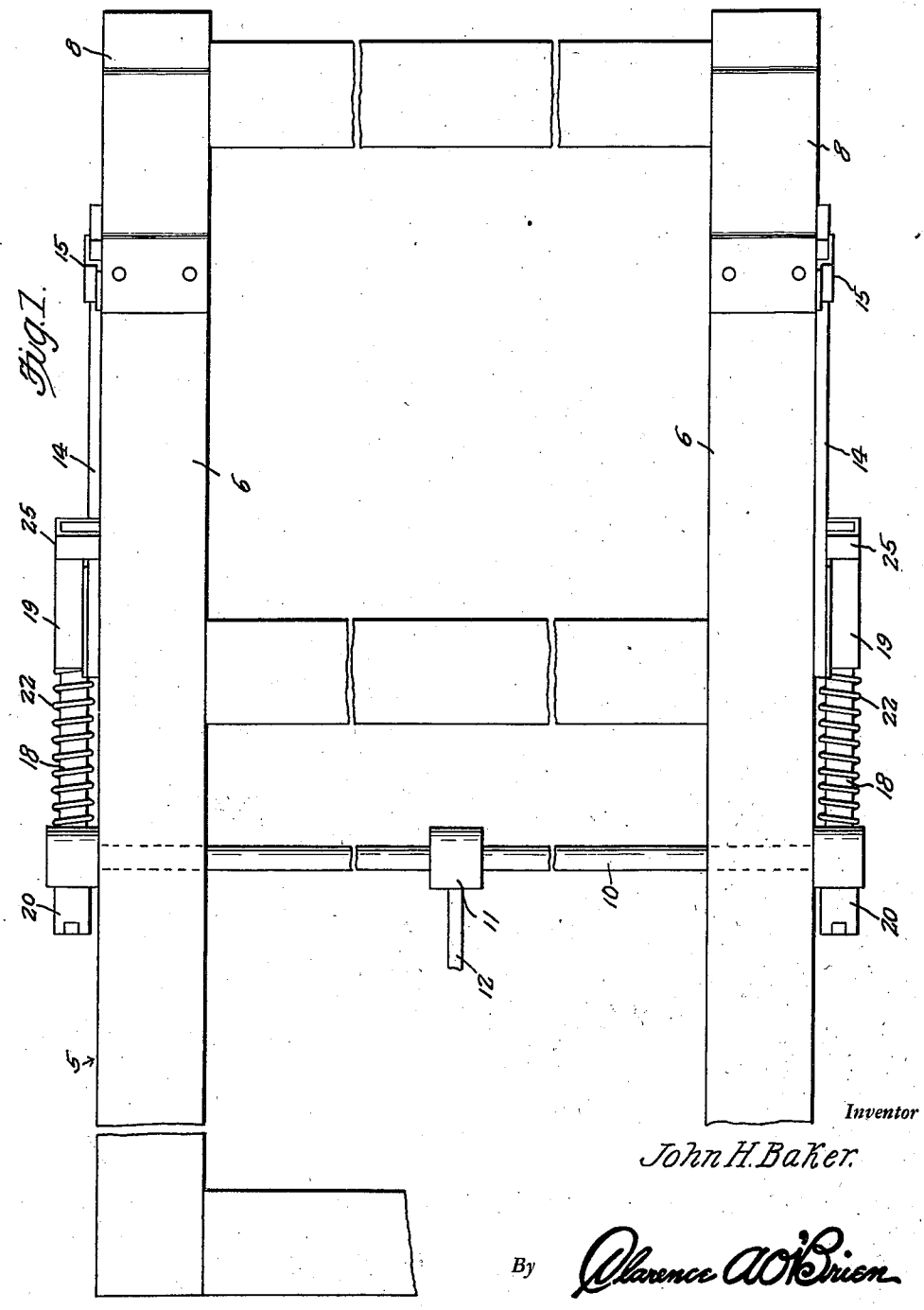


Fig. 1.

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LOG LOADER

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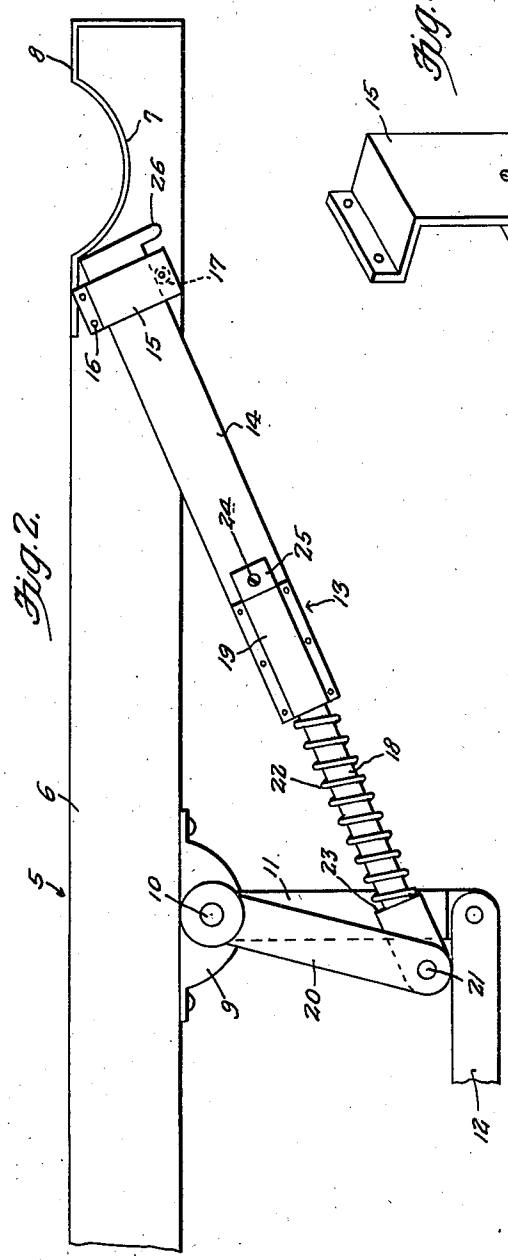


Fig. 2.

Fig. 6.

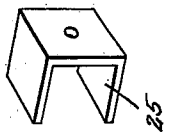


Fig. 7.

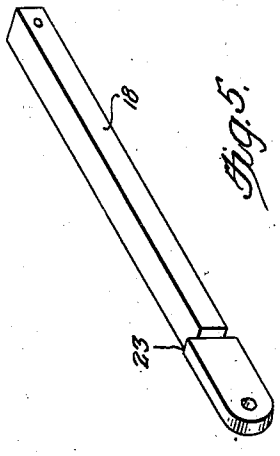


Fig. 5.

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LOG LOADER

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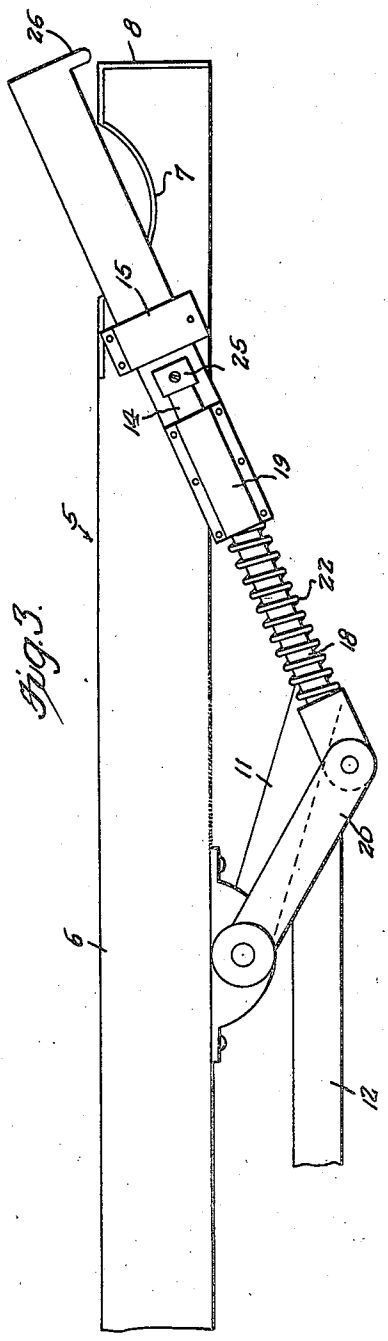


Fig. 3.

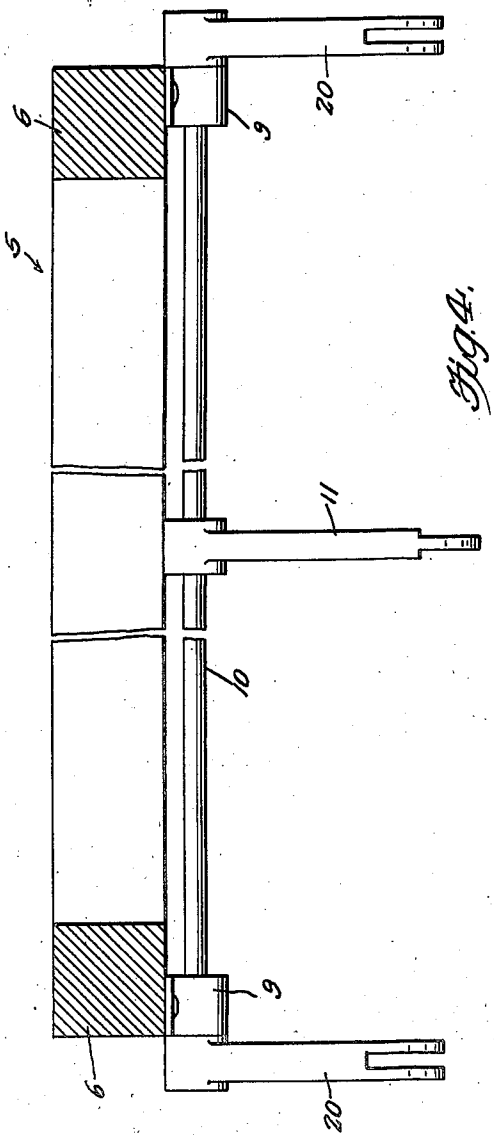


Fig. 4.

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UNITED STATES PATENT OFFICE

2,278,035

LOG LOADER

John H. Baker, Garrison, Tex.

Application August 14, 1941, Serial No. 406,901

4 Claims. (Cl. 214—1)

This invention relates to what may be termed a "log loader," the object of the invention being the provision of a device for facilitating the transfer of logs, in a logging mill, from the skid to the carriage.

A further object of the invention is to provide a device of this character which is characterized by simplicity of construction, efficiency of operation, and in use will enable the rapid and easy transfer of logs incidental to the loading of the logs on a carriage or other vehicle provided for transportation thereof.

The invention together with its objects and advantages will be best understood from a study of the following description taken in connection with the accompanying drawings wherein—

Figure 1 is a top plan view of a log loader embodying the features of the present invention.

Figure 2 is a side elevational view of the device with the ejector members shown in retracted position.

Figure 3 is a view similar to Figure 2 but with the ejector members in a projected position.

Figure 4 is a transverse sectional view through the device with certain parts omitted.

Figure 5 is a perspective view of one of the sections of the ejector member.

Figure 6 is a perspective view of a guide member forming part of the invention, and

Figure 7 is a perspective view of a stop head forming part of the invention.

Referring more in detail to the drawings it will be seen that to facilitate the transfer of logs from a skid to a carriage I provide a substantially rectangular frame 5 to be interposed between the skid and the carriage for transferring the logs from the skid, individually, to the carriage.

The frame 5 has opposite side or longitudinal members 6 provided at one end thereof with arcuate recesses 7 forming transversely aligned seats for the log to be forced from the frame 5 onto the carriage.

At the seat-equipped ends 7 thereof, the members 6 of the frame are reinforced through the medium of metallic plates 8, the plates 8 having arcuate intermediate portions which form liners for the seats 7.

Intermediate the ends of the side members 6 of the frame, there are bolted or otherwise secured to the undersides of such members bearings 9—9.

Rotatably supported through the medium of the bearings 9 is a shaft 10 that intermediate its ends is provided with a crank 11.

The crank 11 is adapted to be connected through the medium of a link 12 with any suitable mechanism for rocking the shaft 10 to project and retract the log-ejecting elements 13.

There are two log-ejecting elements 13, one disposed at each side of the frame 5.

Each ejector 13 embodies a section 14 that has a sliding working fit through a substantially channel-shaped guide 15 bolted or otherwise secured, as at 16, diagonally to an adjacent side member 6 at the outer side of the frame.

To facilitate movement of the section 14 of the ejector through the guide 15 the latter is provided with a suitable roller 17 upon which the member 14 rests.

Each ejector member 13 also embodies a section 18 that has a sliding working fit in an elongated guide member 19 secured laterally to the section 14.

At the respective opposite ends thereof the shaft 10 is provided with arms 20 to which are pivoted, as at 21, the ejector sections 18.

Each ejector section 18 has disposed thereabout a coil spring 22 that at one end impinges against the associated guide 19 and at an opposite end impinges against the shoulders 23 provided adjacent the pivoted end of the section or member 18 of the ejector.

At the extremity thereof remote from the pivot 21 the member 18 of the ejector has secured thereto, through the medium of a screw or suitable fastening element 24, a substantially U-shaped stop cap 25 that engages the guide 19 in a manner to limit movement of the section 18 in response to the action of the spring 22 relative to the section 14 of the ejector.

Also movement of the ejectors 13 to a retracted position is limited through the medium of stop extensions 26 provided on the free ends of the sections 14 of the ejectors 13 as shown.

In actual practice the log to be transferred from the skid to the carriage is moved from the skid onto the frame 6 to settle in the seats 7 with the ejectors 13 in the retracted position shown in Figure 2.

When the seating of the log has been accomplished, shaft 10 is rocked to cause the ejectors 13 to move longitudinally through the guides 15 thus bringing the forward or free ends of the members or sections 14 of the ejectors into engagement with the log in a manner to unseat the log and force the same from off of the frame 5 onto the carriage.

Thus it will be seen that with a device of this

character the transfer of logs onto the carriage can be quickly and easily accomplished.

While I have herein illustrated and described what is considered the preferred embodiment of the invention, I am well aware that in actual practice minor changes may be resorted to either from expediency or desire. Consequently I do not wish to limit myself to the precise details herein illustrated and described, but claim all such forms of the invention to which I am entitled.

Having thus described the invention what is claimed as new is:

1. In a log handling device, a frame provided adjacent one end thereof with means to accommodate a log in a relatively stationary position on the frame, ejector members slidably mounted on the frame at opposite sides thereof and movable to a projected position for engaging the log and displacing it from its seated position on the frame, a crank for each ejector member, an operating connection between said ejector members for simultaneously projecting and retracting such members, and spring means between each crank and its associated ejector member placed under tension upon initial ejecting movement of the members, and adapted to subject the log to the force of the spring means for continuing the ejecting movement of the members after the completion of the throw of the crank.

2. In a log handling device, a frame provided adjacent one end thereof with means to accommodate a log in a relatively stationary position on the frame, ejector members slidably mounted on the frame at opposite sides thereof and movable to a projected position for engaging the log and displacing it from its seated position on the frame, a crank for each ejector member, an operating connection between said ejector members for simultaneously projecting and retracting such members, each of said ejector members including a pair of sections one of which is provided with a guide, and the other of which has a working fit in said guide, spring means between each crank and its associated ejector member placed under tension upon initial ejecting movement of the members, and adapted to subject the log to the force of the spring means for continuing the ejecting movement of the members after the completion of the throw of the crank, and stop means on one of the sections cooperable with said guide for limiting such relative movement of the sections in response to said spring.

3. In a device for facilitating the transfer of logs from a skid to a carriage, a frame adapted to receive the logs from the skid incidental to transferring the logs to the carriage, said frame having side members provided adjacent one end of the frame with arcuate recesses forming seats for the logs, guides mounted on the side members of the frame adjacent said seats, ejectors working through said guides and including slidably connected sections, a shaft rotatably mounted transversely of the frame, cranks on said shaft, pivotal connections between said cranks and said ejectors for transmitting movement of the shaft to the ejectors, spring means between the sections of the ejectors placed under tension upon initial ejecting movement of the ejectors and adapted to subject the log to the force of the spring means for continuing the ejecting movement of the ejectors after completion of the throw of the crank and means for rotating said shaft.

4. In a device for facilitating the transfer of logs from a skid to a carriage, a frame adapted to receive the logs from the skid incidental to transferring the logs to the carriage, said frame having side members provided adjacent one end of the frame with arcuate recesses forming seats for the logs, guides mounted on the side members of the frame adjacent said seats, ejectors working through said guides, a shaft rotatably mounted transversely of the frame, cranks on said shaft, and pivotal connections between said cranks and said ejectors for transmitting movement of the shaft to the ejectors, and means for rotating said shaft, and each ejector including a pair of complemental sections one of which is provided with a guide, and the other of which has an end working in said guide, said other section having its other end pivoted to an aforementioned crank, a stop on the first-named end of said other section cooperable with said guide for limiting relative movement of the sections in opposite directions relative to one another, and a spring device disposed about the second-named section and having one end impinging against the guide of the first-named section and a second end impinging against shoulder means provided therefor on the second-named section adjacent the end of the second-named section pivoted to said crank.

JNO. H. BAKER.