

(No Model.)

2 Sheets—Sheet 1.

G. M. HINKLEY.
SAWMILL CARRIAGE.

No. 582,286.

Patented May 11, 1897.

Fig. 1.

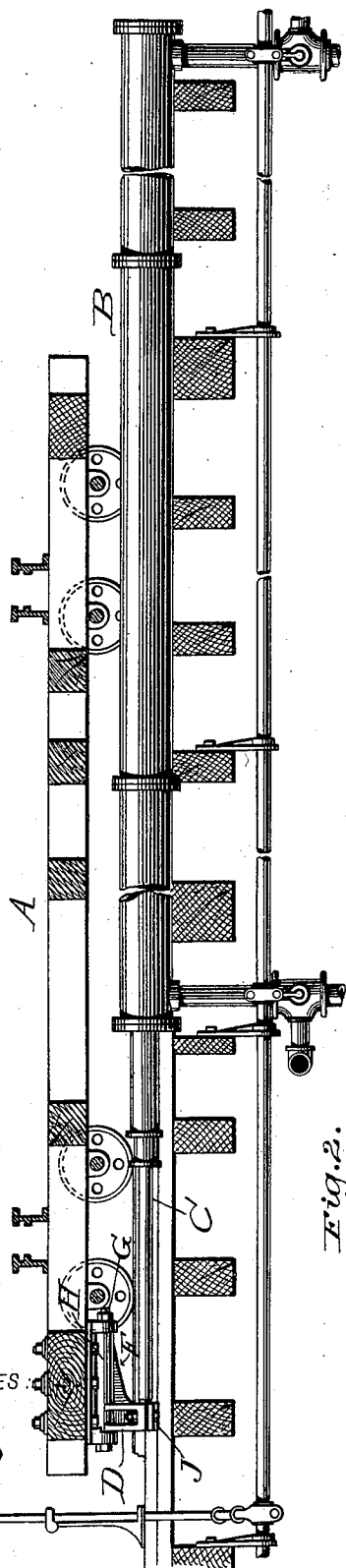


Fig. 2.

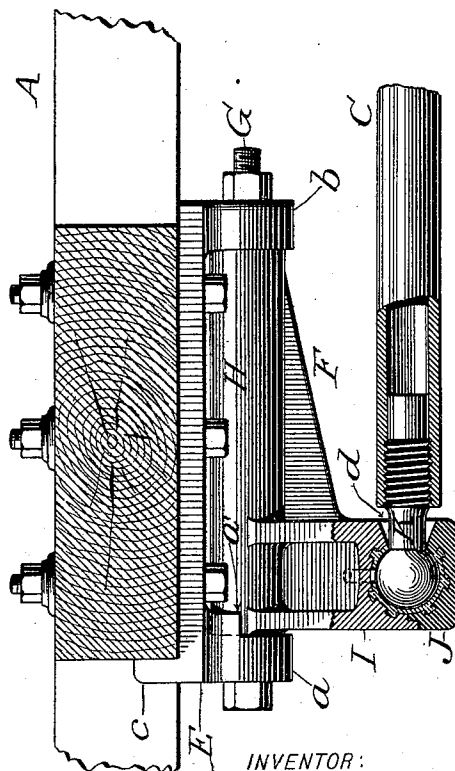
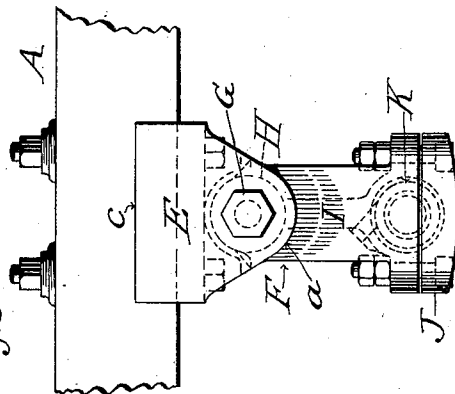


Fig. 3.



WITNESSES:

Arthur C. Coker
D. Burdine

INVENTOR:

George M. Hinkley,
BY
Dodge and Lane,
ATTORNEYS.

(No Model.)

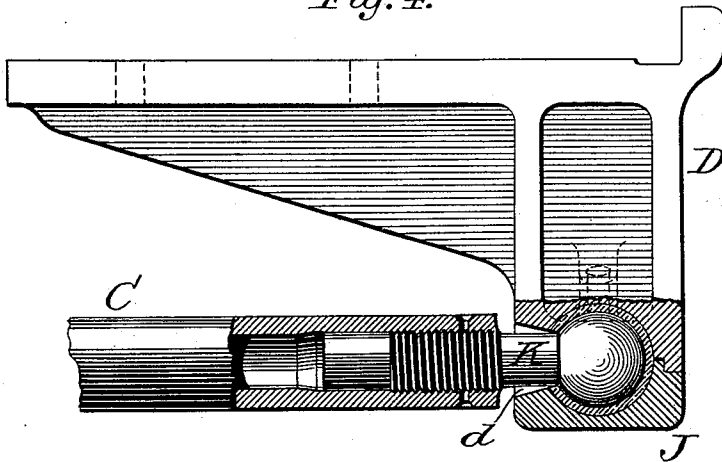
2 Sheets—Sheet 2.

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Fig. 4.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

GEORGE M. HINKLEY, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF TO THE EDWARD P. ALLIS COMPANY, OF SAME PLACE.

SAWMILL-CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 582,286, dated May 11, 1897.

Application filed February 1, 1897. Serial No. 621,490. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. HINKLEY, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Sawmill-Carriages, of which the following is a specification.

My present invention pertains to sawmill-carriages, and more particularly to that class which are moved through the agency of a direct-acting steam-feed. Heretofore it has been customary in this class of machines to secure to the under side or face of the carriage a depending bracket provided with an opening for the reception of the end of the piston-rod. The rod was formed with a long straight neck designed to fit in the opening in the bracket and with a shoulder on one side, double nuts being secured upon the protruding end to securely and rigidly hold it in place. In practice the necessary shape and size of the brackets which are employed so as to locate the steam feed-cylinder below and clear of the carriage-truck axles brings the piston-rod approximately ten inches below the carriage-timbers. With this necessary construction of the bracket when steam is applied to operate the carriage in either direction the wood frame of the carriage gives sufficiently to allow the bracket to rock more or less, in proportion to the firmness of the structure, causing the center of the piston-rod to bend down and the end to rise up every time the rod pushes, or the reverse when it pulls, which breaks the neck of the rod in a short time.

The object of the present invention is to overcome this difficulty and to provide means whereby breakage of the rod and its connections is avoided.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of so much of a sawmill-carriage and its appurtenances as is necessary to a proper understanding of the invention; Fig. 2, an enlarged side view of one form of the bracket and a portion of the piston-rod; Fig. 3, an end view of the bracket, and Fig. 4 an enlarged side view of another form of bracket.

In said drawings, A denotes the carriage, mounted upon suitable trucks in the usual

manner, and B designates the steam-cylinder, provided with the necessary inlet and exhaust valves and the connections for operating the same.

C indicates the piston-rod, connected at its forward end to a bracket D, secured to the rear end of the carriage. Said bracket, in the form shown in Figs. 1, 2, and 3, consists of two members E and F. Member E comprises a plate provided with two depending lugs *a b*, having openings therein for the reception of a bolt G when the parts are assembled. Said plate is also formed with an upwardly-extending lug *c* at its forward end, designed to fit and bear against the front face of the cross-timber to which said plate or member E is secured.

It will be noted upon reference to Figs. 1 and 2 that lug *a* is provided near its base with an inwardly-projecting shoulder *a'*, the purpose of which will presently appear.

Member F of the bracket consists of a tubular shell H, formed with a downwardly-extending arm I at its forward end, in the lower end of which, in conjunction with a cap-plate J, is formed a socket lined with suitable anti-friction metal. Arm I and cap-plate J are cut away, as seen in Fig. 2, to form a tapering opening *d*. Shell H is of such length as to fit accurately between the lugs *a b*, and when in such position is secured in place by bolt G.

As seen in Fig. 2, the forward portion of the depending arm I does not quite come into contact with the shoulder *a'*, but said arm and the collar H may turn slightly on bolt G, limited only by contact of the arm with the shoulder *a'*.

To the forward end of the piston-rod is secured a short section K, provided with a ball, the parts fitting within the tapering opening *d* and the socket in the lower end of the arm I.

In Fig. 4 the bracket is a fixed one, and there is no side play in the bracket itself. This form is used principally in connection with carriages where circular saws are used, the swinging or yielding bracket being employed with offsetting carriages when operated with band-mills.

Under the construction shown and described a connection is secured which compensates for any spring or give of the parts and at the

same time does away with any liability of breakage thereof. This is found to be the case from actual use of the structure, and it does away with disadvantages inherent under the old method first alluded to.

Having thus described my invention, what I claim is—

1. In combination with a sawmill-carriage provided with a bracket secured thereto; a piston-rod; and a ball-and-socket connection between said rod and the bracket.

2. In combination with a sawmill-carriage provided with a bracket capable of a slight lateral movement; a piston-rod; and a ball-and-socket connection between said rod and the bracket.

3. In combination with a sawmill-carriage,

a bracket secured thereto comprising the fixed plate E, and a second member F pivoted thereto; a piston-rod; and a ball-and-socket connection between said rod and the member F.

4. In combination with a sawmill-carriage; a fixed plate E having the depending lugs *a, b*, and shoulder *a'*; member F pivoted thereto and comprising shell H and depending arm I formed with a socket in its lower end; a piston-rod; and a section K secured to the end of said rod, substantially as described.

In witness whereof I hereunto set my hand in the presence of two witnesses.

GEORGE M. HINKLEY.

Witnesses:

FRANK W. GREENLEAF,
DAVID HARLOWE.