

(No Model.)

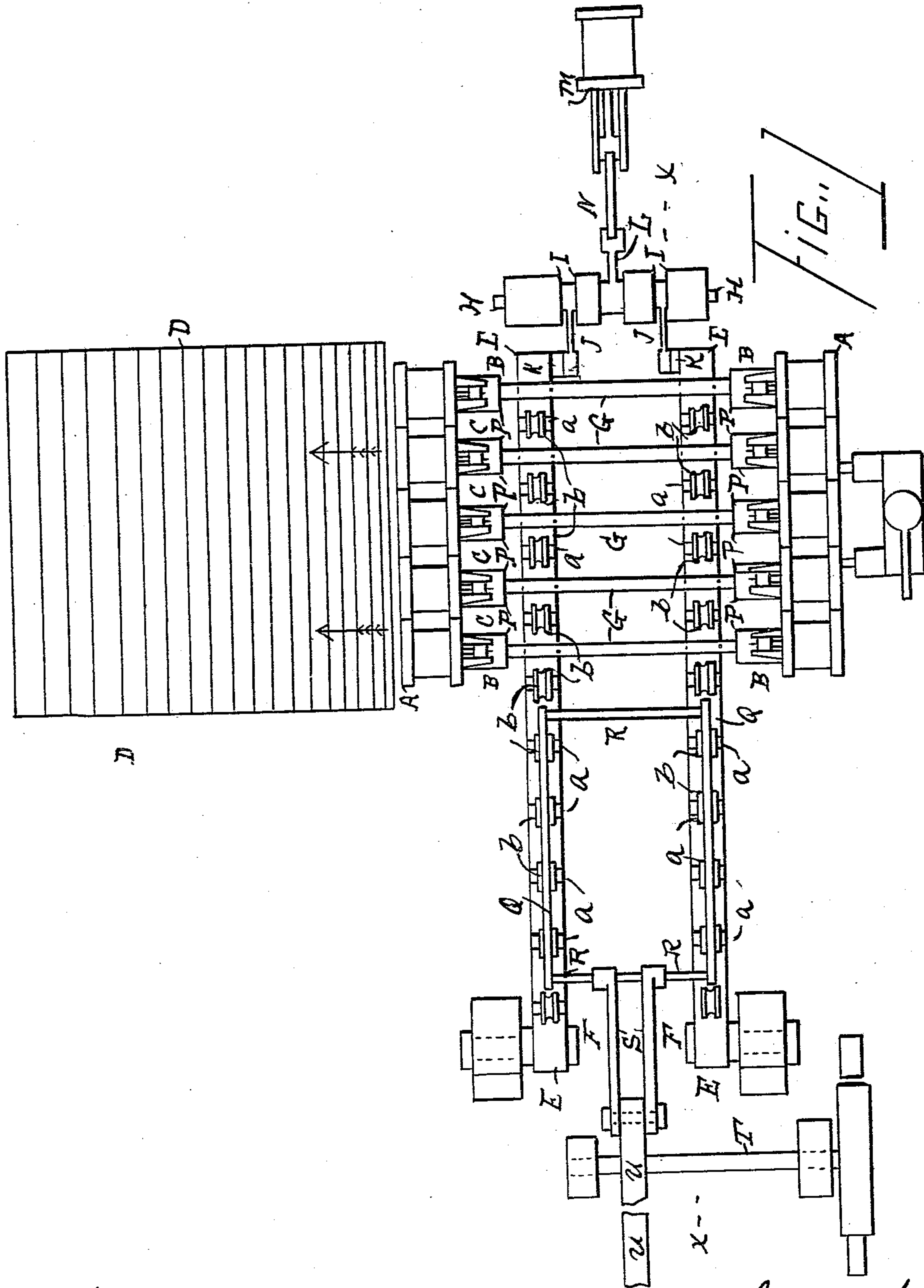
2 Sheets—Sheet 1.

E. C. HARGRAVE.

APPARATUS FOR PLACING LOGS UPON CARRIAGES OF SLABBER GANG SAWS.

No. 557,813.

Patented Apr. 7, 1896.



Witnesses
Amelia J. Williams.
Henry R. Lothrop.

Inventor.
Edward C. Hargrave
by Geo. H. Lothrop atty.

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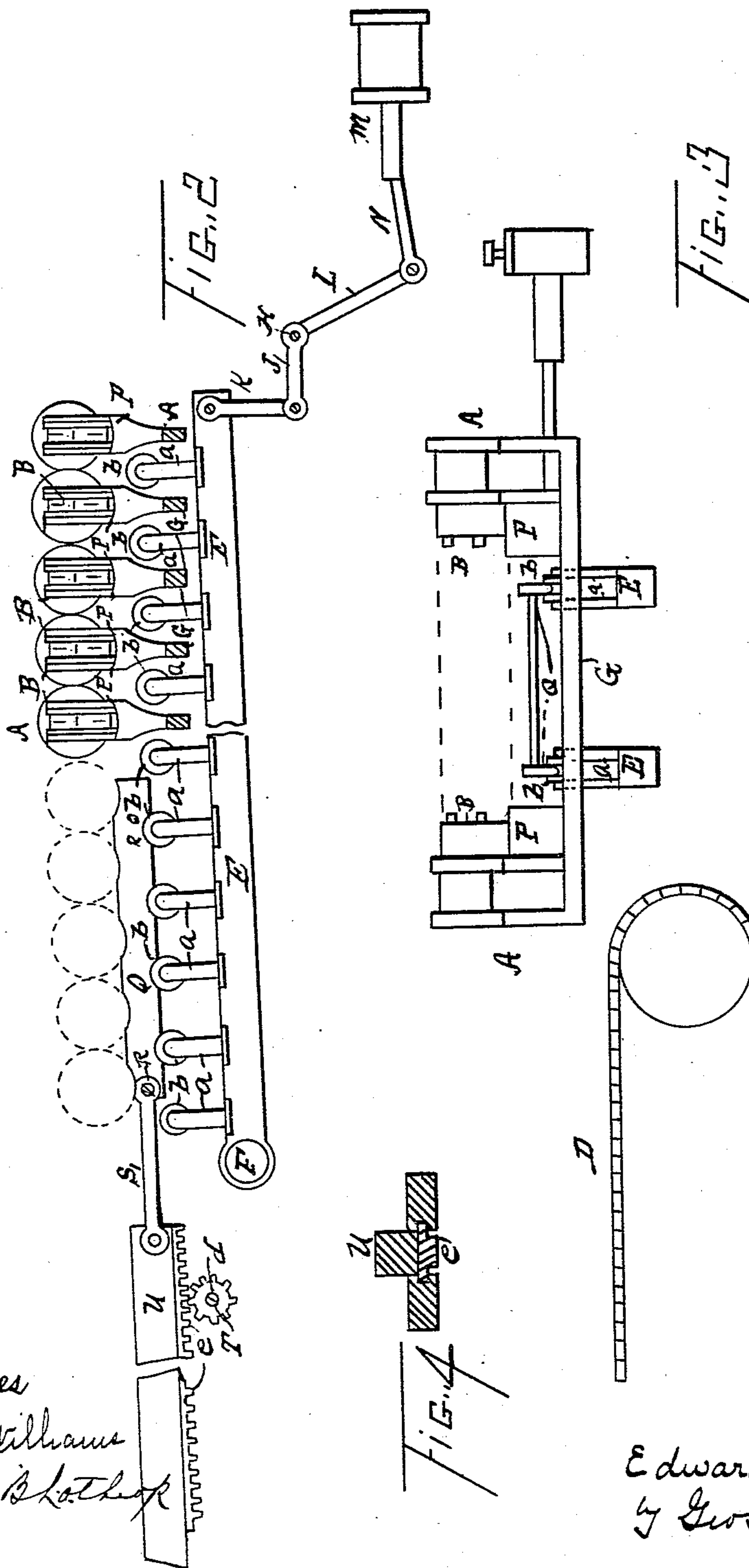
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UNITED STATES PATENT OFFICE

EDWARD C. HARGRAVE, OF HINCKLEY, NEW YORK.

APPARATUS FOR PLACING LOGS UPON CARRIAGES OF SLABBER GANG-SAWS.

SPECIFICATION forming part of Letters Patent No. 557,813, dated April 7, 1896.

Application filed May 7, 1894. Serial No. 510,245. (No model.)

To all whom it may concern:

Be it known that I, EDWARD C. HARGRAVE, of Hinckley, in the county of Herkimer and State of New York, have invented a new and
5 useful Improvement in Apparatus for Placing Logs upon Carriages of Slabber Gang-Saws, of which the following is a specification.

My invention relates to apparatus for placing logs upon the carriage of a slabber gang-saw; and it consists in the improvements hereinafter described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a plan view of an apparatus embodying my invention. Fig. 2 is a section on the line *x x*, Fig. 1. Fig. 3 is a side elevation looking from the right of Fig. 1, the track-raising mechanism being omitted; and Fig. 4 is a detail sectional view.

15 A is the carriage upon which the logs are placed to saw off the slabs.

B are the dogs by which the logs are secured upon the carriage A.

25 The gangs of saws are located at C C C C. The carriage is driven in the direction indicated by the arrows in any well-understood way over the traveling belt D. When said carriage has reached the end of its travel, the slabs are completely severed and they drop
30 down between the bars G, which bind the two ends of the carriage together, and are carried away by the belt D.

35 E E are long beams lying parallel to each other, pivoted to stationary bearings at F F, and extending transversely across and below the carriage A when said carriage is at the commencement of its travel.

a are standards secured to and extending upward from the beams E E.

40 *b* are grooved friction-wheels pivoted in bearings at the end of the standards *a*. Those standards *a* and friction-wheels *b* that are on those parts of the beams E E which are beneath the carriage A when said carriage is at the commencement of its travel are adapted
45 to pass between the bars G G, which bars bind the two ends of the carriage A together.

H H is a rock-shaft pivoted in bearings I I.

50 J J are arms secured to and extending horizontally from the shaft H H.

K K are links pivoted to the ends of the

beams E E, extending downward therefrom, and pivoted at their other ends to the free ends of the arms J J.

L is an arm secured at one end to the shaft H H and extending downward therefrom. 55

M is a horizontal steam-cylinder provided with the usual piston, piston-rod, and guides.

N is a connecting-rod pivoted at one end to the piston-rod of the cylinder M and at the other end to the lower end of the arm L. By letting steam in upon one side of the piston in the cylinder M the lower end of the arm L is pushed forward, rotating the shaft H H and raising the free ends of the beams E E by means of the arms J J and links K K, and thereby raising the friction-wheels *b b* above the bars G G. When steam is exhausted from said cylinder, the beams E E fall by their own weight, or steam may be let in on the other side of the piston, thus drawing the lower end of the arm L backward and drawing the beams E down. 60 65 70

P P are the chairs upon which the ends of the logs rest when said logs are in place upon the carriage A. 75

Q Q is a carriage adapted to roll in the grooves of the friction-wheels *b* in the direction of the lengths of the beams E E.

R is a cross-piece of the carriage Q. 80

U is a beam lying in a groove, in which it is adapted to slide in the direction of the lengths of the beams E E, and having a rack-bar *e* secured to its lower side throughout its entire length. The form of the beam U and rack-bar *e* that may be used is shown in Fig. 4. 85

S S are links pivoted at one end to the end of the beam U and at the other end to the cross-piece R.

T is a shaft which may be rotated in either direction. 90

d is a gear-wheel keyed upon the shaft T. The teeth of the gear-wheel *d* mesh with the teeth of the rack-bar *e*.

The operation of the above-described device is as follows: Suppose the carriages U and Q to be in the positions shown in the drawings. The logs are placed upon the carriage Q, as indicated in Fig. 2 by dotted lines. Steam is now let in upon the right-hand side of the piston of the cylinder M, which presses said cylinder forward and raises the free ends 95 100

of the beams E E to the position shown in Fig. 2, with the friction-wheels *b* considerably above the bars G. The shaft T is now set in motion, driving the beam U forward by means of the gear-wheel *d* and rack-bar *e*. The beam U, as it moves, pushes the carriage Q before it by means of the links S S, which links turn about their pivoted ends to adapt themselves to the varying relative vertical positions of the carriage Q and the beam U. When the carriage Q has moved to the position at which the ends of the logs upon it are over the chairs P, the beams E E are lowered until said logs rest upon said chairs and the carriage Q is a little way withdrawn from said logs. Said beams are now in the position shown in Fig. 3, in which position the carriage Q is above the bars G and below the logs on the carriage A. The shaft T is now set in motion in the opposite direction, drawing the carriage Q back to its first position. The beams E E are now lowered until the friction-wheels *b* are completely below the carriage A, so that they shall not interfere with the motion of said carriage.

Having fully described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. The combination with the log-carriage A, of the reciprocating transfer-carriage Q mounted at right angles to the log-carriage, the beams E, E, pivoted at one end to a fixed support and provided at the opposite end with means for raising and lowering said beams, and standards *a* arranged upon said beams upon which the carriage is adapted to travel forward and back, substantially as described.

2. The combination of the carriage A, having its ends connected by bars G, G, with spaces between them, the beams E, E, extending under the carriage A, the standards *a*, extending upward from said beams, the transfer-carriage Q, traveling upon the upper ends of said standards, the elevated chairs P, and means for raising and depressing said beams substantially as shown and for the purpose described.

EDWARD C. HARGRAVE.

Witnesses:

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SUSAN A. HOLMES.