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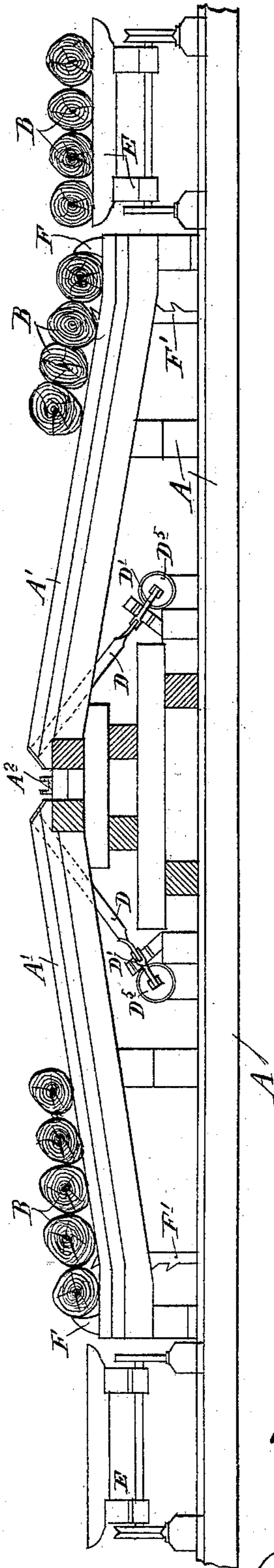
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W. A. WILKINSON
LOG ROLLER.

No. 495,716.

Patented Apr. 18, 1893

Fig. 1.



Witnesses.
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A. H. Osahl.

Inventor.
William A. Wilkinson
By his Attorney.
Jas. P. Williamson

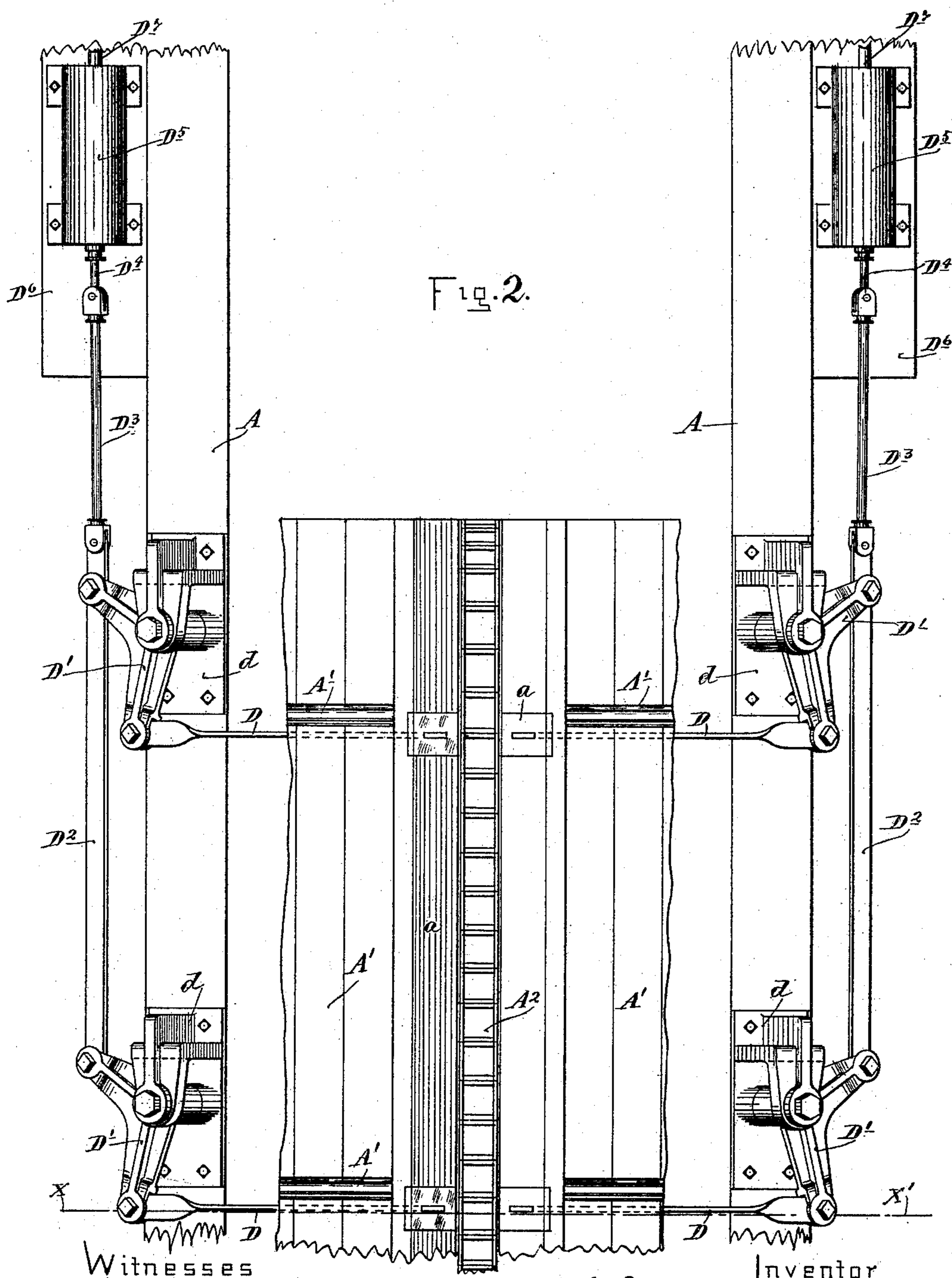
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INVENTOR
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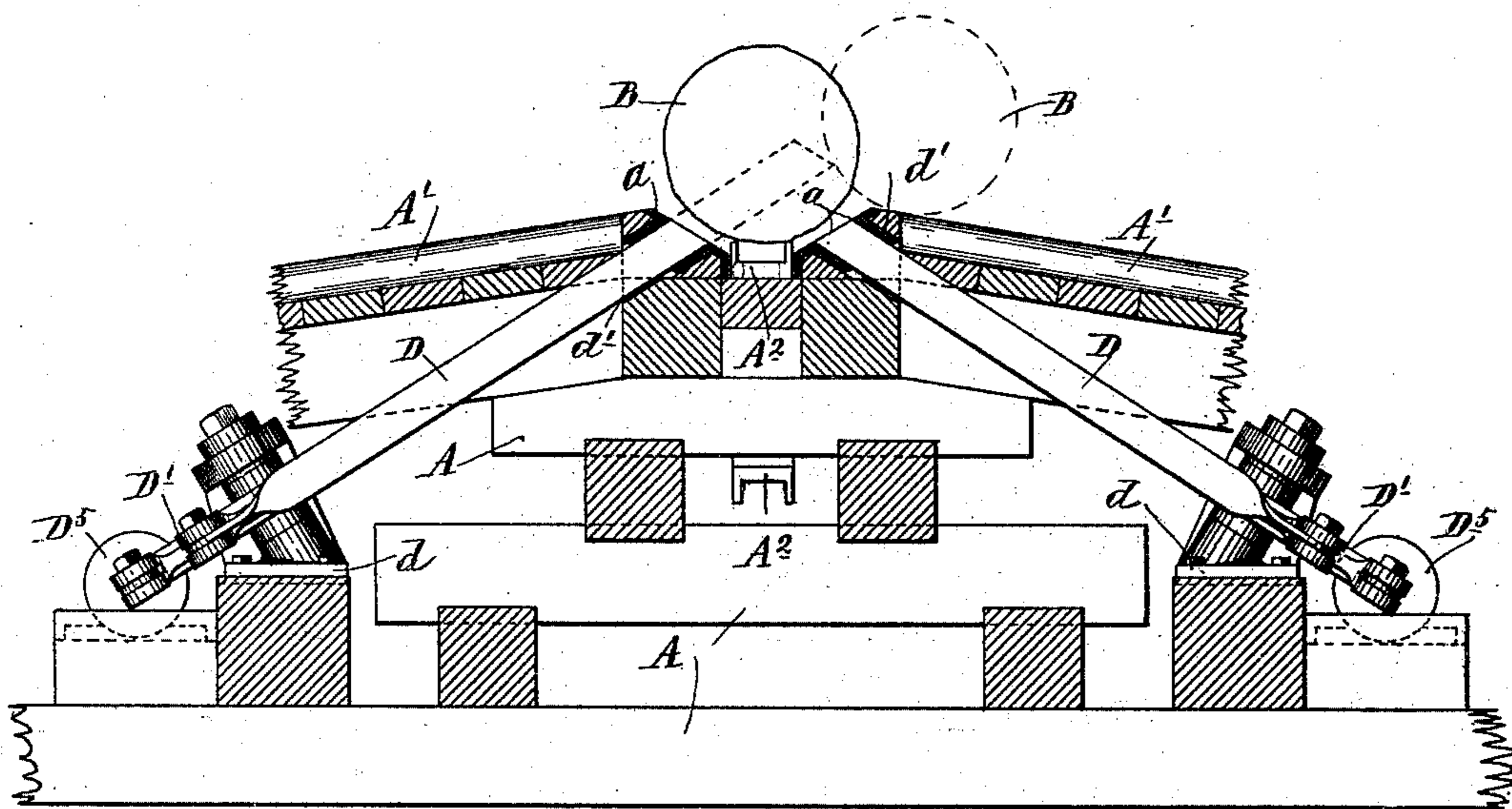
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Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM A. WILKINSON, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO
ALVORADA RICHARDSON AND H. H. SMITH, OF SAME PLACE.

LOG-ROLLER.

SPECIFICATION forming part of Letters Patent No. 495,716, dated April 18, 1893.

Application filed January 16, 1893. Serial No. 458,552. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. WILKINSON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Log-Rollers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to log-rollers; and is especially designed for use in saw-mills, to throw the logs from the head of the haul-up slip onto the receiving and storage deck, at opposite sides of the head of the slip. The carriages are loaded from opposite sides of this deck, and two log-rollers are therefore employed, one at each side of the slip. The invention is, however, capable of use elsewhere, wherever it may be desirable to throw or roll logs from a supporting deck sidewise into some other position.

To this end, my invention broadly viewed, consists in a log-roller, having one or more strikers or thrusting arms, which are movable transversely to the log and into contact therewith, for rolling or throwing the same into some other position. In its preferred form, the arms are carried on bell-crank levers and are operated by a fluid pressure motor; and at least two arms are employed on each roller, which operate on the log at opposite sides of its center, to impart a parallel movement to both ends of the log.

The invention in its preferred form, as applied for co-operation with the haul-up device in saw-mills, is illustrated in the accompanying drawings.

In the said drawings, like letters referring to like parts,—Figure 1 is a view in vertical cross section through the haul-up slip, looking toward the deck or head of the slip, showing said deck with my log-roller applied thereto, and also the log-receiving carriages in end elevation. Fig. 2 is a plan view of the central portion of the deck and my log-roller in working position, as shown in Fig. 1. Fig. 3 is a vertical cross section on the line X X' of Fig. 2, looking toward the head of the slip, showing a log in position on the slip.

A are the supporting timbers, and A' the

deck of an ordinary haul-up slip. A² is the haul-up chain and *a* the trough, all of the ordinary well-known construction.

B represents logs, shown in Fig. 1 on the receiving deck, and in Fig. 3 on the chain at the head of the slip.

D are the strikers in the form of thrusting arms, which are carried on the rear arms of bell-crank levers D', pivoted to bearing-plates *d*, bolted to bed-timbers of the slip. The bell-cranks are set on the timbers, at an angle to the deck of the slip, and the thrusting arms D, work through guide-ways *d'*, which are cut through the deck and terminate at the sides of the log-trough, so that the upper or free ends of the thrusting arms, will strike the log on its under side, and have a lifting, as well as a rolling action on the log.

The forward arms of the bell-crank D' of each log roller are connected to a common side-bar D², to which a reciprocating movement is imparted, at the proper times, by any suitable motor. As shown, the side-bar D² is pivotally connected by a rod D³ to the stem D⁴ of a piston, working in the steam cylinder D⁵, secured to a fixed support D⁶. Steam is supplied to the cylinder D⁵, to operate the piston, at the proper times through a supply pipe D⁷ and a steam chest and valve-mechanism, not shown.

As shown in Fig. 1, E represents the carriages, to be loaded from the deck at the head of the slip. F are stops located at the extreme opposite edges of the deck, and F' are the log-turners, for loading the logs on the carriages, all being of the ordinary and well-known construction.

The operation and use of the device is obvious.

The carriages to be loaded come in any desired order or time to their loading position, in line with the opposite sides of the deck or head of the slip.

The logs are supplied by the haul-up chain, one after the other, in succession with a continuous action, and are thrown by means of my log-rolling device, to one side or the other of the deck, at will, or as may be required to clear the slip and keep a supply or storage of logs for the carriage E. Whenever one of the carriages E is brought to its loading position,

its corresponding log-turner F' is thrown into action, to effect the loading of the same, the operation of which is well-known.

It is obvious that, with my device, the logs may be thrown from the slip with an instantaneous action, as rapidly as supplied by the haul-up chain. The haul-up device may therefore, be kept continuously loaded and run to its full capacity, and all the machinery be worked to the greatest advantage, so far as the supply of logs is concerned.

The arrangement of the bell-crank levers D', in a line with each other parallel with the slip and the log, enables any number of the same to be connected up to and operated by a common bar or rod D². I do not, however, desire to limit myself to this particular construction and arrangement of bell cranks, for operating the thrusting arms D. Any suitable intermediate mechanism, capable of giving to the arms a reciprocating motion into contact with the logs, at the proper time, might be employed and be operated by any suitable kind of a motor, under the control of an attendant. The strikers might also take other forms, but the thrusting arms are most convenient.

As indicated in the introductory paragraphs, it is of course obvious, that this log-roller might be used on any kind of a log-supporting deck, for throwing the logs therefrom into some other position; and one or more might be employed, according to whether it was necessary to throw the logs in one or more directions.

The device effects a large saving in the operation of a saw-mill.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination with a log-support, such as the head of a haul-up slip, of a pair of independent log-rollers, located one at each side of the support, and provided each with one or more thrusting arms, movable transversely

to the log and into contact therewith, and independent operating devices, one for each log-roller, substantially as described.

2. The combination with a log-support, such as the head of a haul-up slip, of a pair of independent log-rollers, located one at each side of the support, and provided each with one or more thrusting arms, movable transversely to the log and into contact therewith, and independent operating motors, one for each of said log-rollers, substantially as and for the purpose set forth.

3. The combination with a log-support, such as the head of a haul-up slip, of a log-roller, located at one side of said support, comprising two or more thrusting arms or bars seated on said support for endwise movement transversely to the log and into contact therewith, bell cranks pivoted at their angles to said support and having one set of their arms connected to said thrusting bars, and the other set of the same connected to a common tie-rod or bar and a power device applied to said common tie-rods, substantially as and for the purpose set forth.

4. The combination with a log-support, such as the head of a haul-up slip, of a pair of independent log-rollers, located one at each side of the support, and comprising each two or more thrusting arms or bars seated on said support with freedom for endwise movement transversely to and into contact with the log, bell cranks pivoted at their angles to the said support and having one set of their arms connected to said thrusting bars and the other set connected to a common tie-rod and a motor connected to said common tie-rod, substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM A. WILKINSON.

Witnesses:

ALEX. INGRAHAM,

JAS. F. WILLIAMSON.