

(No Model.)

2 Sheets—Sheet 1.

J. S. CLAY & J. R. RUCKER.

DRAG SAW.

No. 491,985.

Patented Feb. 21, 1893.

Fig. 1.

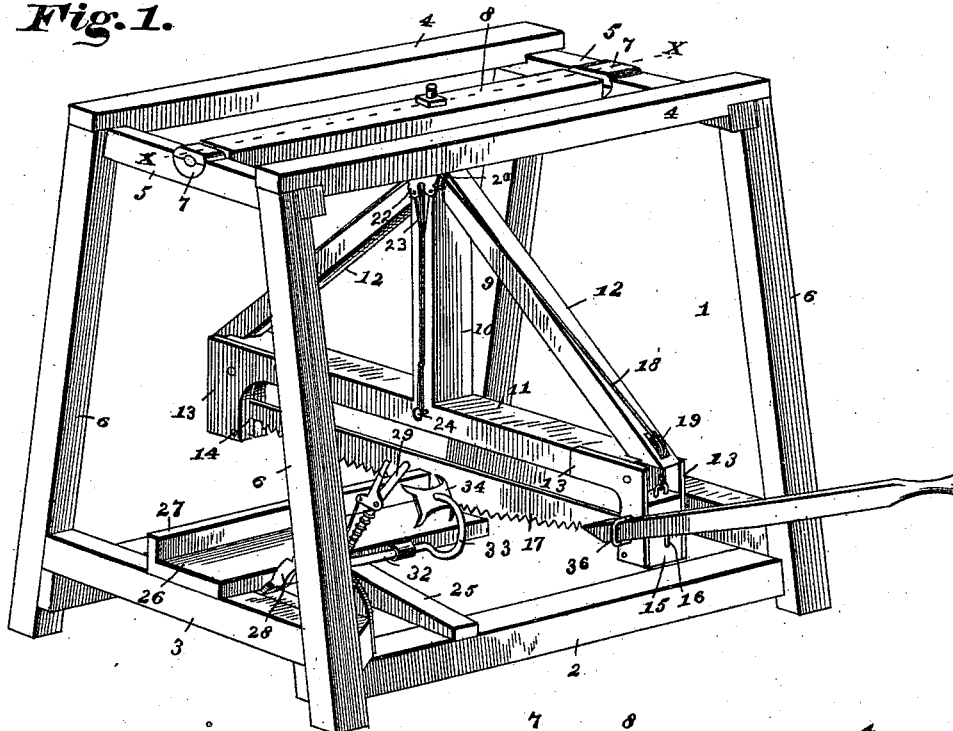


Fig. 2.

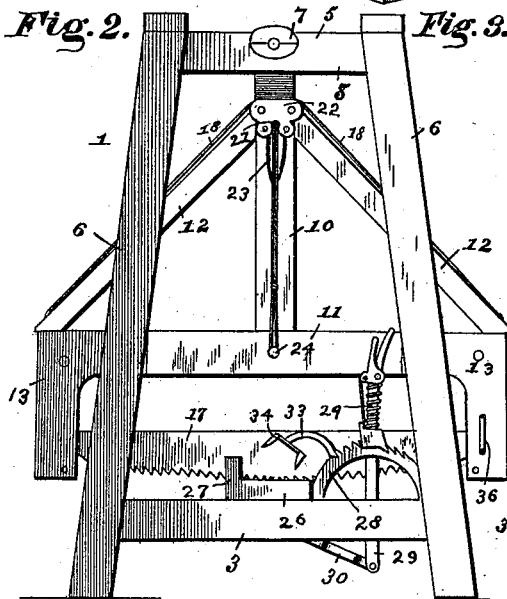
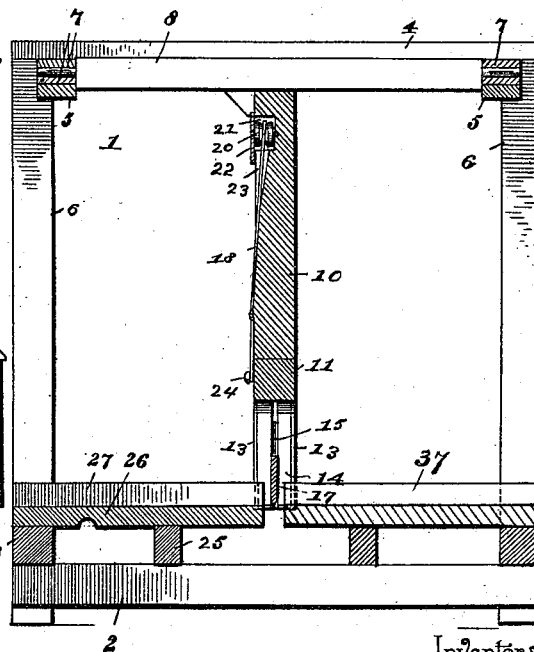


Fig. 3.



Witnesses

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By their Attorneys,

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(No Model.)

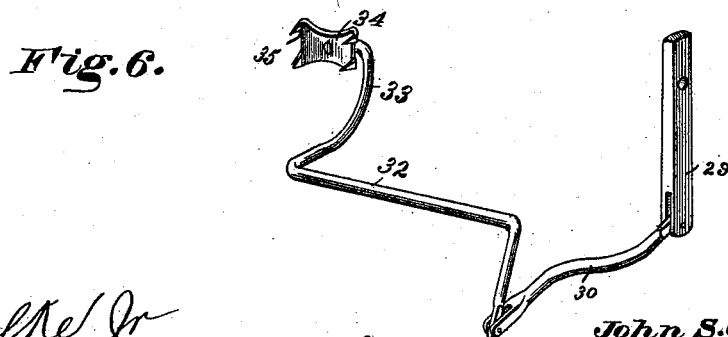
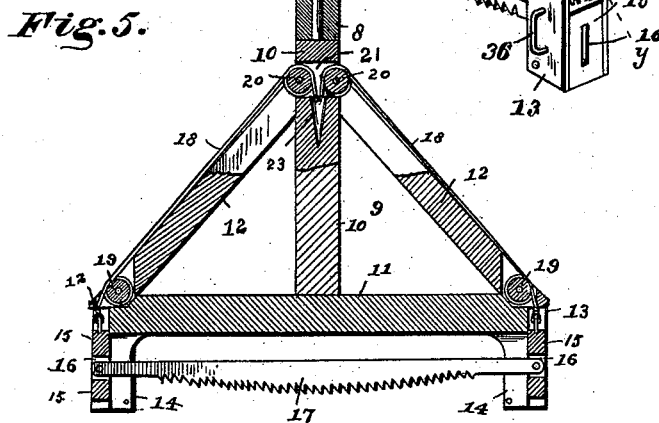
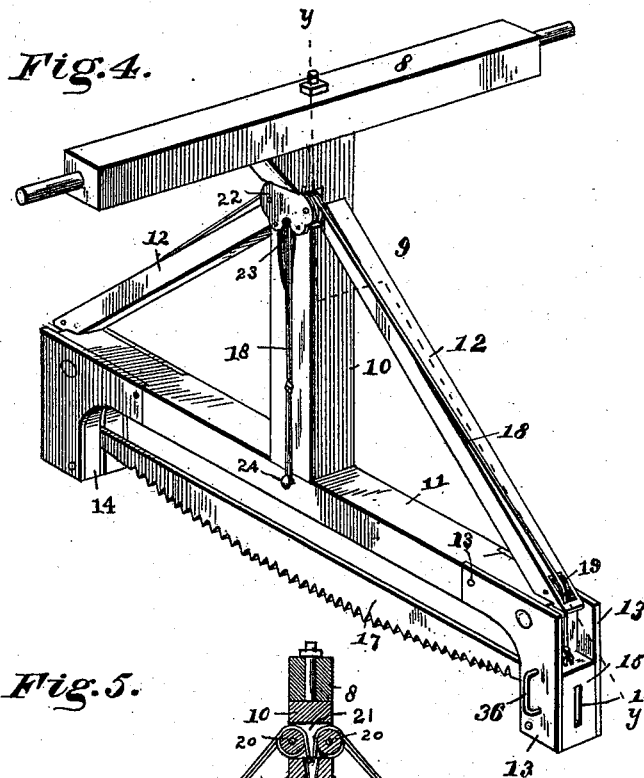
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

JOHN S. CLAY, OF FARMINGTON, AND JAMES R. RUCKER, OF BISMARCK,
MISSOURI.

DRAG-SAW.

SPECIFICATION forming part of Letters Patent No. 491,985, dated February 21, 1893.

Application filed April 14, 1892. Serial No. 429,125. (No model.)

To all whom it may concern:

Be it known that we, JOHN S. CLAY, of Farmington, and JAMES R. RUCKER, of Bismarck, in the county of St. Francois and State of Missouri, citizens of the United States, have invented a new and useful Drag-Saw, of which the following is a specification.

This invention relates to wood-sawing machines, and consists in the construction and arrangement of the parts thereof, as will be more fully hereinafter described and claimed.

The object of this invention is to furnish an improved apparatus of this character which is simple in its construction, convenient in use, and effective in operation.

In the drawings—Figure 1 is a perspective view of a machine embodying the invention. Fig. 2 is an end elevation of the same. Fig. 3 is a longitudinal vertical section on the line $x-x$, Fig. 1. Fig. 4 is a detail perspective view of the saw and its frame removed. Fig. 5 is a transverse vertical section on the line $y-y$, Fig. 4. Fig. 6 is a detail perspective view of the dog and its connection removed.

Similar numerals of reference indicate corresponding parts in the several views.

Referring to the drawings, the numeral 1 designates a suitably constructed frame, having base-bars 2, cross-bars 3 adjacent to the bars 2, upper cross-bars 4, connected by transverse bars 5, which are all secured to uprights 6. In the transverse bars 5 are boxes 7, in which the ends of a swinging-beam 8 are journaled, which supports the saw-frame 9. The said saw-frame consists of an upright 10, centrally rising from a cross-beam 11, and it has braces 12, extending from the outer ends of the cross-beam 11 to the upper part of the upright 10. To the ends of the cross beam 11 are secured angular plates 13, which depend below the said cross-beam 11, and inclose slotted blocks or strips 14. The said angular plates 13 extend beyond the ends of the cross-beam 11 and the slotted blocks 14 to form guide-ways for weights 15, vertically movable in the same, and formed with slots 16, which receive the ends of a saw 17, which also passes through and is vertically adjustable in the slotted blocks 14. To the upper ends of the weights 15 are secured ropes or

chains 18, which pass over sheaves or pulleys 19, in the lower ends of the braces 12; and then over pulleys or sheaves 20, seated in a recess 21 in the upright 10. The pulleys or sheaves 20 are held in position by an exterior plate 22, and the ropes or chains 18, after passing over the pulleys 20, are carried down centrally between the same through a groove or slot 23 in the upright 10, and are adapted to be united and attached to a suitable supporting fastening 24, by which the adjustment of the same may be sustained. By the mechanism just set forth, the saw 17 may be raised or lowered to and from the work or wood being operated upon, and will compensate for various thicknesses of logs or wood being cut by the saw.

Extending centrally into the frame, and supported by one of the cross-bars 3 and a brace-bar 25, is a guide-table 26, having a flange 27 at one side thereof, whereby the logs or wood may be supported while being sawed, and guided to the saw. Adjacent to this guide-table 26 is mounted a toothed segment 28, which is embraced by a portion of a lever 29, having a spring-actuated pawl and grip to engage the teeth of said segment. To the lower end of said lever 29 is secured an arm 30, by a suitable pivotal connection, and the opposite end of said arm 30 is pivotally attached to a crank 31 of a rock-shaft 32 which is journaled in suitable bearings on the side of the table 26. The free end of the rock-shaft is bent at a right angle and formed into a sweeping curve as at 33 to form a dog, and has a plate 34 secured to the end thereof, which is formed with a series of downwardly-projecting teeth 35, and by operating the lever 29, the said plate 34 with its teeth may be thrown over onto the wood or drawn away therefrom in order to hold the same in position or release it when desired. One of the angular plates 13 is provided with a loop 36, adapted to receive the hand-power to the frame 9, whereby the same may be operated.

As shown in Fig. 3, the lower portion of the frame is provided with a sluice-box or table 37, by means of which the wood as sawed may be conveyed or directed away from the saw toward one end of the frame. This table

or box may be of the ordinary form of construction and slightly tilted to provide for a self-movement of the sawed wood, as will be readily understood.

5 Having thus described the invention, what is claimed as new is—

1. In a wood sawing machine, the combination of a main frame, a swinging beam journaled thereon, a saw frame supported by said
10 swinging beam and depending at right angles therefrom and consisting of an upright centrally located upon and connected to a lower cross beam, the latter having depending slotted blocks at the opposite ends thereof and
15 recesses outside of said block, weights adjustably mounted in said recesses and having slots therein, a saw located under said cross beam and extending through the slotted blocks thereof at its opposite ends and secured in the slots of the weights, pulleys at
20 opposite ends of the cross beam adjacent to the recesses thereof and also on said upright above said cross beam, and ropes or chains connected to said weights, passed over said
25 pulleys and united and held against said upright, substantially as described.

2. In a wood sawing machine, the combination of a main frame, a swinging beam journaled in the upper portion thereof, a saw
30 frame depending from said swinging beam and arranged at right angles thereto and consisting of a vertically disposed upright centrally connected at its lower end to a

cross beam and having slotted blocks depending from the ends of said cross beam, angle
35 plates secured to the ends of said cross beam on opposite sides and projecting beyond the same to form recesses, one of said angle plates having a loop in connection therewith for the removable reception of the handle, slotted
40 weights mounted between said angle plates in the recesses formed thereby, a saw having its ends passing through said slotted blocks and secured in said slotted weights, a cord
45 connected to each of the weights and passing over pulleys located at the ends of the cross-bar and at the upper portions of the upright, said cords being united after passing
50 over the pulleys of the said upright, a table for supporting the wood to be sawed terminating at the line of transverse movement of the saw, and a dog secured to said
55 table and connected at one end with an operating lever and at its opposite end formed with a sweeping curve to which is secured a plate having downwardly projecting teeth, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN S. CLAY.
JAMES R. RUCKER.

Witnesses:

LUTHER E. HURRY,
JOSEPH H. PERKINS.