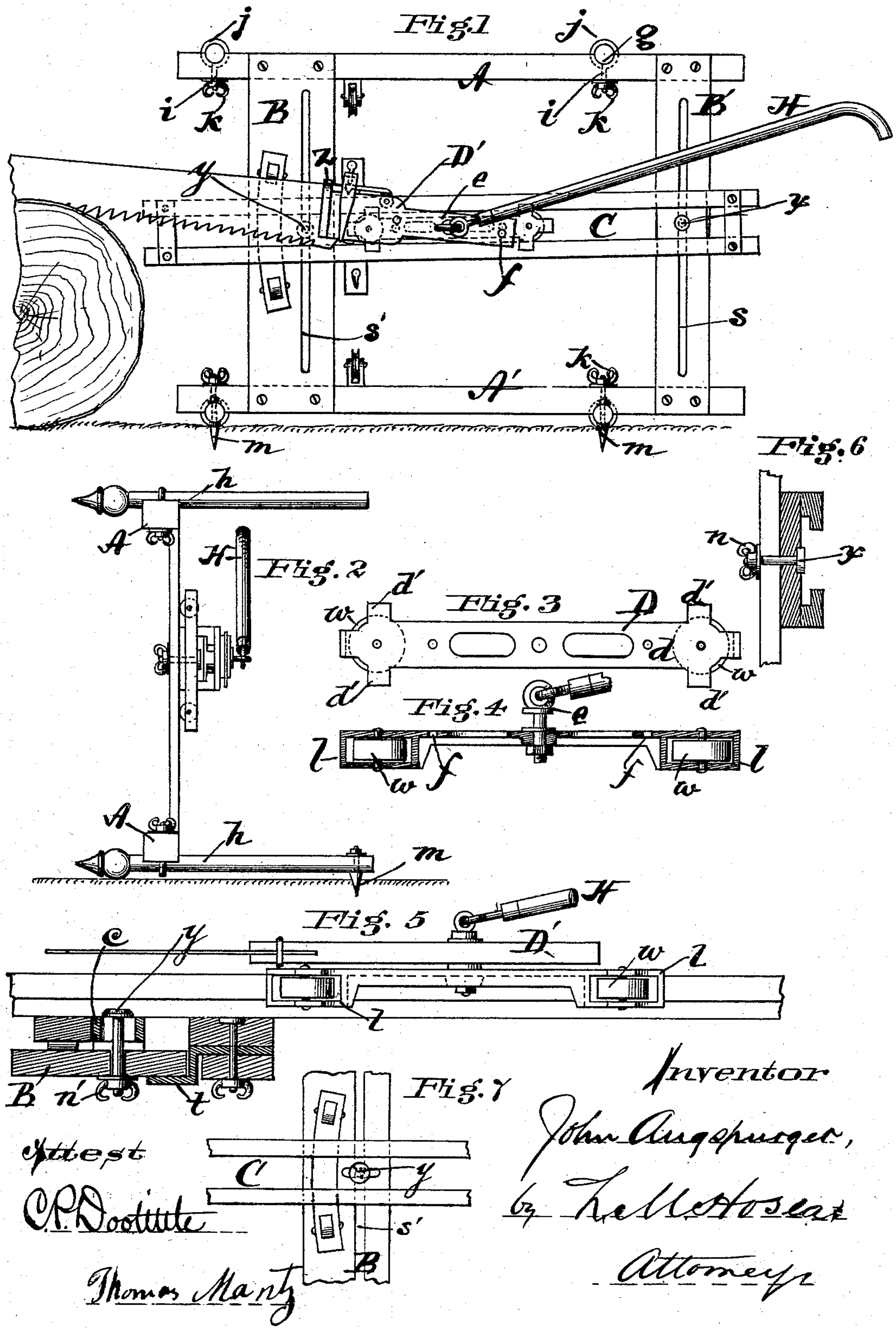
(No Model.)

J. AUGSPURGER.

SAWING MACHINE.

No. 262,915. Patented Aug. 22, 1882.



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UNITED STATES PATENT OFFICE.

JOHN AUGSPURGER, OF TRENTON, OHIO.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 262,915, dated August 22, 1882.

Application filed July 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN AUGSPURGER, a citizen of the United States, residing at Trenton, Butler county, Ohio, have invented new and useful Improvements in Sawing-Machines, of which the following is a specification.

My invention relates to sawing-machines, and is more particularly in the nature of an improvement upon that for which Letters Patent were allowed me August 30, 1881, the object being to improve the construction of the machine there described in certain particulars, and to render the same more efficient and adapt it to use both for standing and felled timber at the convenience of the operator.

To this end my present improvements consist, first, in an improved construction of the supporting-frame of the machine and its movable saw-guideway, whereby a wider range of adjustment is given to the movable guideway; second, in an improved construction of the traveler and saw cross-head, whereby the saw has a pivotal adjustment to the saw cross-head; third, in an improved construction of the supporting-legs and their mode of attachment to the frame, whereby the frame may be secured upon the ground either horizontally or vertically for cutting standing or felled timber; and, fourth, in certain minor improvements in construction and arrangement, more particularly hereinafter pointed out.

My invention is illustrated in the accompanying drawings, in which Figure 1 is an elevation of my improved sawing-machine as used for cutting logs upon the ground, the figure being properly a plan view of the machine. Fig. 2 is a cross-section of the machine in said position; Figs. 3 and 4, plan and longitudinal sections of the traveler. Fig. 5 is a side elevation of the traveler and saw cross-head, with a cross-section of the front cross-bar of the frame and contiguous parts. Fig. 6 is a cross-section of the movable guideway, taken at the slot of the rear cross-bar of the supporting-frame. Fig. 7 is a plan view of the roller-carrier of the guideway and its immediate connections.

The similar letters of reference in the specification and drawings indicate similar parts.

I employ, as in the previous invention referred to, as to which this is an improvement, a rectangular supporting-frame composed of longitudinal bars A A′ and cross-bars B B′, and a guideway, C, adjustable on said supporting-frame. The guideway C is provided with the pivot-bolt *x*, passing through the block connecting the bars of the guideway near its rear end and through the slot *s* of the cross-bar B′, and thus held adjustably by the thumb-nut *n*, all as described in said former patent. In my present improvement I provide a similar connection between the guideway and forward cross-bar, B, of the frame, and for this purpose I form a slot, *s′*, in the cross-bar B, attach a connecting-block, *c*, to the under side of the guide-bars, and pass a bolt, *y*, through this block and through the slot *s′* of the cross-bar B, and secure by a thumb-nut, *n′*. In order to permit adjustment of the guideway C in positions at an angle with the cross-bars, the block *c* is provided with a slot for the bolt *y*, which slot is long in the direction of the guideway C, as shown in Fig. 5. The two bolts *x* and *y* furnish the means, therefore, of adjusting the guideway to any desired angle upon its supporting-frame. The forward end of the guideway C is furnished with a cleat and supporting-rollers to run upon the cross-bar B, and also with a tongue, *t*, to extend forward under the cross-bar B and retain the guideway in its horizontal movements.

The traveler or cross-head D, of the form shown in Figs. 3 and 4, is a casting, preferably of malleable iron, and consists substantially of a rectangular piece, *d*, somewhat narrower than the space between the guide-rails, with a sort of rectangular loop, *l*, at each end at the under side. In these loops are pivoted vertically wheels *w w*, to run between the guide-rails, which are preferably of hard wood, and at the line of the wheel-pivots ears *d′ d′* project laterally from the part *d*, as retaining-lugs above and below the guide-rails. This constitutes the traveler or cross-head proper, and upon it is fastened the head D′, which contains the saw, the mode of fastening being as follows: The eyebolt *e*, to which the manipulating-handle H is attached, extends through the head D′, forming a pivot-connection for that member, and is firmly seated and held by suitable nuts in the part D, as shown in Fig. 4. Other bolt-apertures, *f f*, are provided

in the parts D and D′, by which other bolt-connections may be made to secure the parts firmly together, as is desirable when used for felling standing timber; but when used for cutting horizontal logs the pivot-connection is alone used.

The mode of mounting the legs on the frame is as follows: A shallow groove, *g*, to fit the leg *h*, is cut across the outer surface of the bar A, and the bolt *i* is inserted through the bar A at the center of the shallow groove, and a shallow cross-recess is provided for the large eye or loop *j* of the bolt. The bolt is held by a thumb-nut, *k*, at the opposite side of the bar A. The leg *h* being inserted through the eye *j* and the bolt being drawn in by its thumb-nut *k*, the leg is drawn into and held tightly in the groove and securely and stiffly held against the bar A. This mode of attachment, as will be readily perceived, enables me to use the legs *h* upon one side of the frame as base-supports when the structure is turned on its side, and the stiffness of the connection is very favorable to maintaining the structure upright when used, as shown in Figs. 1 and 2. To further this use and retain the structure in position on the ground, I provide the legs with side spurs, *m*, at their upper extremities, which, being driven into the ground, securely hold the machine in position.

The operation of the machine in sawing standing timber is the same as already described in my said former patent; but when it is desired to cut logs upon the ground the machine is placed upon its side in proper relation to the log, the spurs *m* driven into the ground to hold the machine, and the guideway C adjusted by means of its bolts *x* and *y* to the exact position desired, the fastenings *f f* detached, and the head D′ allowed to swing pivotally upon the traveler D. The saw is placed upon the log, as shown in Fig. 1, with a weight, *z*, upon it, if found necessary, and is manipulated by the handle H, and the position of the guideway changed and adjusted from time to time, as may be necessary.

Having described my invention, I claim and desire to secure by Letters Patent—

1. In a sawing-machine for cutting both standing and fallen timber, a rectangular supporting-frame capable of being used both in a horizontal and a vertical position, in combination with a guideway provided with means for adjusting and retaining it at any desired position or angle upon said supporting-frame, a cross-head or traveler operated manually in said guideway by a handle, and a crosscut-saw provided with means for securing it pivotally or rigidly to said cross-head or traveler, as desired, substantially as and for the purpose specified.

2. The traveler D, constructed as shown, in combination with a head, D′, for containing the saw, the said head being provided with both a pivotal and a rigid adjustment to the traveler, to be used alternately, substantially as set forth.

3. The combination of the frame composed of bars A A′ and cross-bars B B′, provided with slots *s* and *s′*, respectively, in combination with the guideway C, its slotted block *c*, and connecting-bolts *x* and *y*, substantially as specified.

4. In combination with a sawing-machine adapted to alternate use, as described, the legs *h*, provided with lateral spurs *m*, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN AUGSPURGER.

Witnesses:
C. P. DOOLITTLE,
JNO. P. O'NEIL.