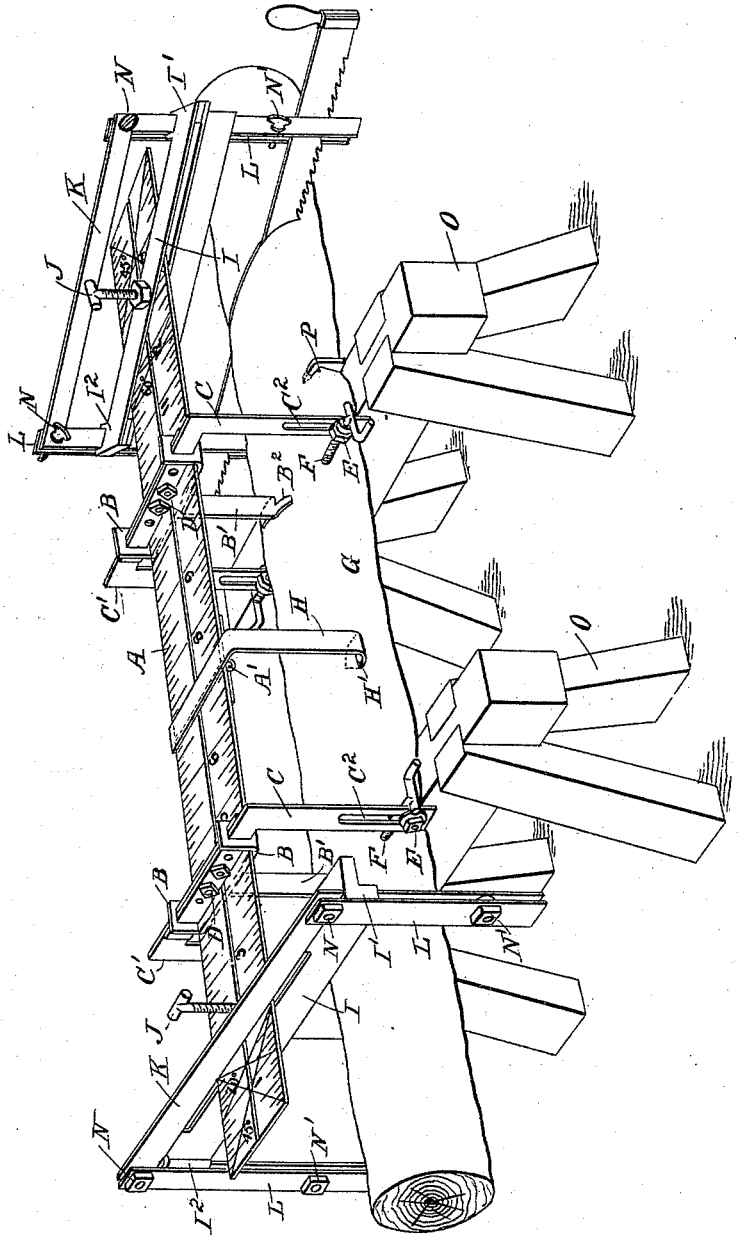
(No Model.)

H. L. JOHNSTON & J. E. SANDBERG.

SAW GUIDE.

No. 492,299. Patented Feb. 21, 1893.



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UNITED STATES PATENT OFFICE.

HENRY L. JOHNSTON AND JOHN E. SANDBERG, OF BUTTE CITY, MONTANA.

SAW-GUIDE.

SPECIFICATION forming part of Letters Patent No. 492,299, dated February 21, 1893.

Application filed August 27, 1892. Serial No. 444,282. (No model.)

To all whom it may concern:

Be it known that we, HENRY L. JOHNSTON and JOHN E. SANDBERG, both of Butte City, in the county of Silver Bow and State of Montana, have invented a new and Improved Saw-Guide, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved saw guide which is simple and durable in construction, very effective in operation, and designed for conveniently sawing logs and other material at any desired angle.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawing forming part of this specification, in which the figure is a perspective view of the improvement.

The improved saw guide is provided with a plate A, preferably made in two parts hinged together at A′, so that the plate can be conveniently folded to take up very little space in the carpenter's tool chest. The plate A is supported in two or more carriers B, each formed with a U-shaped head and a leg B′, having a curved foot B^2 adapted to rest on top of the log to be sawed. The head of each carrier B is formed in its vertical end with apertures for the passage of the horizontally extending legs of the L-shaped arms C and C′, adapted to be bolted together on top of the plate A by bolts D, as is plainly illustrated in the drawing, the said legs being adjustable transversely so as to fit over logs of different diameters. The downwardly extending legs of the arms C and C′ are provided with slots C^2, in each of which is held adjustably a bolt E formed on its head with a nut, in which screws a handled screw rod F adapted to engage the side of the log G, so as to fasten the arms C and C′ in place on the log, and thereby prevent lateral shifting of the plate A above the log.

As shown in the drawing, two supporting devices for the plate A are arranged on opposite sides of the hinge A′, and in order to prevent accidental closing of the plate A, I provide an L-shaped arm H, one leg of which extends over the joint at the hinge A′, its other leg being provided with a point H′ adapted to be driven into the side of the log.

In each of the free ends of the plate A is fitted to slide and to turn a slotted transversely extending set screw J screwing in the top of the frame I upon the top of the plate A. In the ends of the frame I are arranged vertically-extending guide-ways I′ and I^2, in which are fitted to slide loosely the ends of an inverted U-shaped frame K, supporting, on the vertical ends, the bars L, by means of set screws N and N′, the bars L, being a sufficient distance from the corresponding vertical end of the frame K, to permit a free passage of the saw blade.

The frame K and its attached bars L straddle the log and the saw is reciprocated through the space between the depending ends of the frame K and the bars L; the set screws N′ resting on the back of the saw and permitting the frame K as a whole to descend as the depth of the cut increases.

As shown in the drawings, the log G is supported on trusses O and is secured thereon by suitable dogs P held on the trusses. The top of the plate A is graduated, the graduation representing linear measurement and also angles, so that the frame I can be set on the said graduation for straight cuts suitable distances apart, and also for angular cuts, according to the desired bevel to be formed on the end of the log. It is understood that this desired bevel is indicated by the angle graduation on the top of the plate A.

The operator, before commencing to saw, adjusts the frame I to the desired graduation on the top of the plate A. The frame K is then in an uppermost position so that the saw blade on top of the log can be conveniently straddled by the ends of the frame and the bars L, as previously described. The saw can now be moved forward and backward for making the desired cut in the log, it being understood that the saw is guided in its downward movement by the frame K, which slides loosely downward as the cut deepens.

It is understood that the saw must follow the position of the frame K, so that the angle indicated by the frame I on top of the plate A will correspond with that of the cut made by the saw.

The several parts of the device are so ar-

ranged that they can be conveniently taken apart and folded up in small compass for carrying in a carpenter's tool chest.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination with a frame to cross the upper side of a log and means for supporting the frame from the log, of a vertically sliding gravity guiding-frame having depending members to straddle the log and provided with saw guiding spaces through which the saw is adapted to be reciprocated, substantially as set forth.

2. The combination with an elongated plate or support having means for supporting it longitudinally above the upper side of a log, of a transverse frame pivoted centrally upon said plate and adjustable thereon longitudinally thereof and at any desired angle thereto, and a vertically sliding gravity saw-guiding frame; the depending guiding arms of which straddle the log being sawed and are supported upon the back of the saw, substantially as set forth.

3. In a saw guide, the combination with a graduated plate, provided with depending supporting devices to engage a log and support the plate longitudinally thereabove; of a frame held adjustably on the said plate, and a second frame mounted to slide vertically and loosely in the said first-named frame, the said second frame straddling the log and riding on the back of the saw blade, substantially as shown and described.

4. In a saw guide, the combination with a plate and means for supporting the same above the log and from the log, of a frame held adjustably on the said plate and provided with vertical guideways, and a second frame fitted to slide loosely in the said guideways and loosely straddling the saw blade, substantially as shown and described.

5. In a saw guide, the combination with a plate and means for supporting the same above the log and from the log, of a frame held adjustably on the said plate and provided with vertical guideways, a second frame fitted to slide loosely in the said guideways and loosely straddling the saw blade, and means, substantially as shown and described, for supporting the said second frame on top of the said saw blade, substantially as shown and described.

6. In a saw guide, the combination with a plate made of two sections hinged together and provided on its top with a graduation, and a saw guiding mechanism carried by said plate of supports for carrying the said plate, each support comprising a U-shaped arm having openings in its ends, and L-shaped arms engaging the said apertured ends and bolted together above the plate, the vertical legs of the said L-shaped arms carrying adjustable screw rods for fastening the legs to the log to be sawed, substantially as shown and described.

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