(No Model.) 2 Sheets—Sheet 1.

H. D. WOLCOTT.

CIRCULAR SAW DRESSER.

No. 343,785. Patented June 15, 1886.

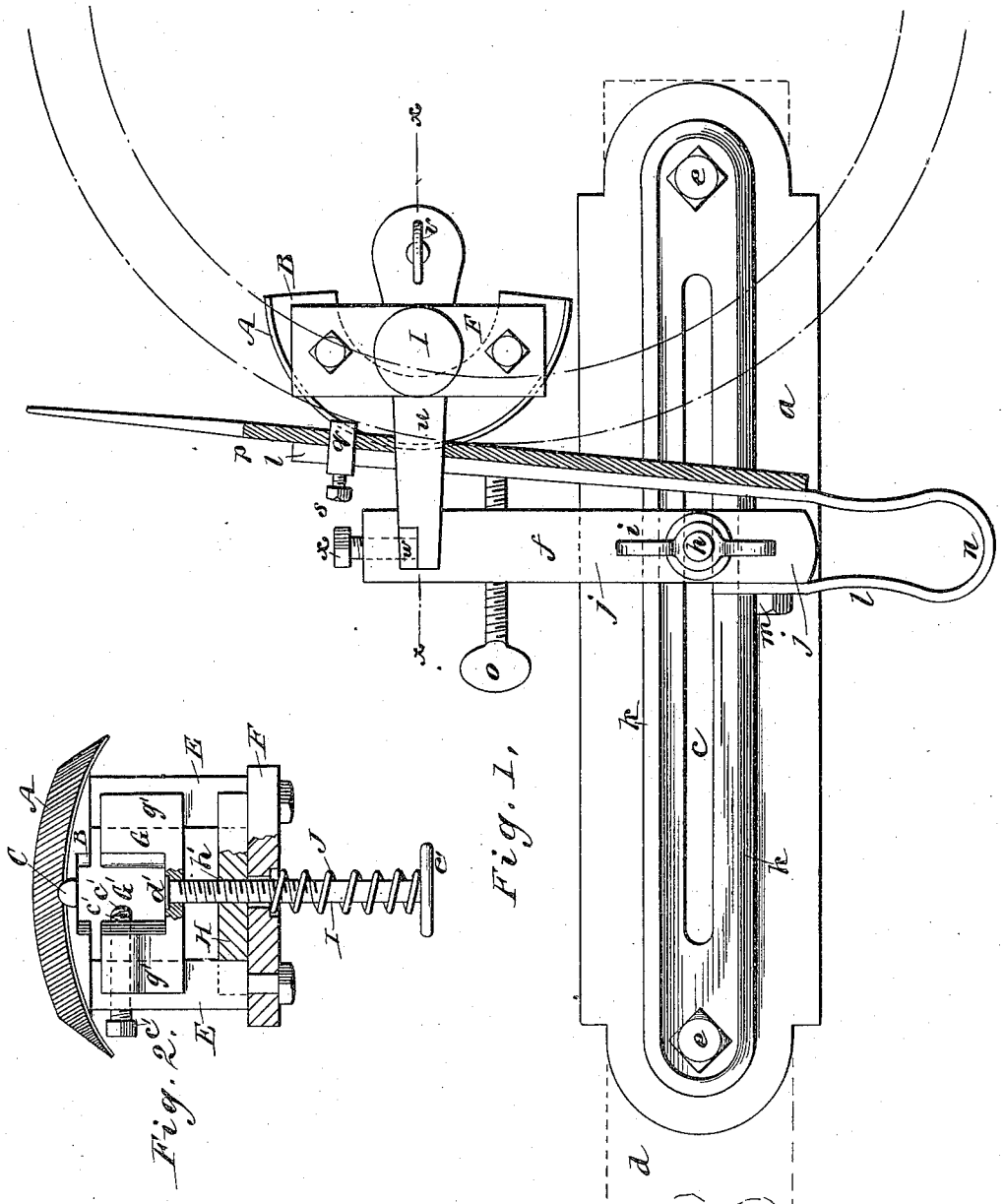

Fig. 1.

Fig. 2.

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INVENTOR:

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(No Model.) 2 Sheets—Sheet 2.

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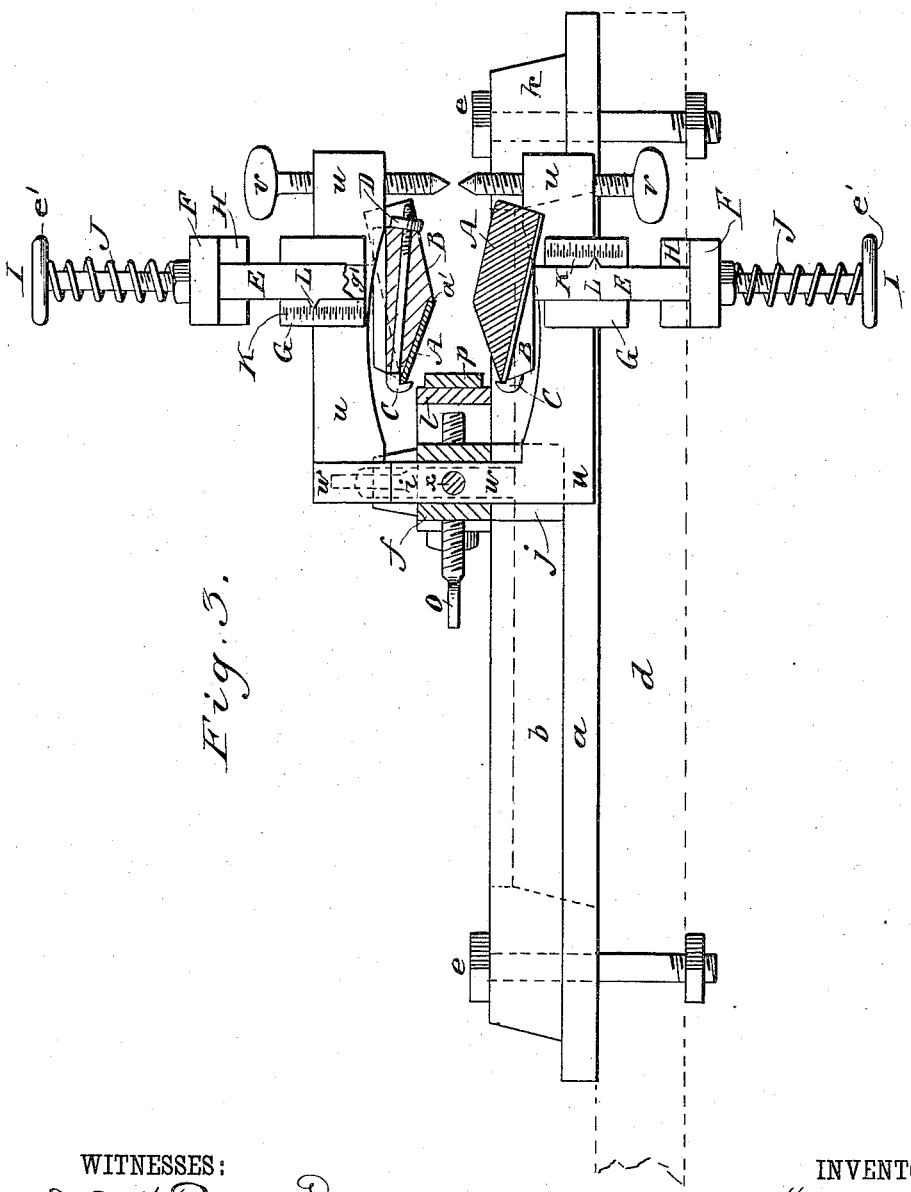

Fig. 3.

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UNITED STATES PATENT OFFICE.

HYMAN D. WOLCOTT, OF WRIGHT'S, PENNSYLVANIA.

CIRCULAR-SAW DRESSER.

SPECIFICATION forming part of Letters Patent No. 343,785, dated June 15, 1886.

Application filed December 24, 1885. Serial No. 186,597. (No model.)

To all whom it may concern:

Be it known that I, HYMAN D. WOLCOTT, of Wright's, in the county of McKean and State of Pennsylvania, have invented a new and Improved Circular-Saw Dresser, of which the following is a full, clear, and exact description.

This invention relates to the construction of a saw-dresser applicable for use as an attachment for that form of saw-jointer illustrated and described in Letters Patent No. 298,538, granted to me on the 13th day of May, 1884.

The object of the invention is to provide an attachment whereby the saw-teeth will be uniformly dressed, and so shaped that they will remain sharp for a much longer time than they do with the ordinary form of dresser; and to this end the invention consists of a pair of beveled and circular files that are mounted in a frame secured to the guiding-arms of a saw-jointer, and arranged so as to be adjusted to or from the saw and be held in yielding connection therewith, as will be hereinafter described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of the saw-jointer with my attachment applied thereto. Fig. 2 is a view of one of the beveled circular files and its connections, a portion of the device being shown in section to disclose the construction of the parts. Fig. 3 is a sectional plan view of the jointer provided with my improved dresser on the line *x x*, Fig. 1, parts being broken away.

Before proceeding with the description of the attachment forming the subject-matter of this application I will briefly describe the construction of the saw-jointer in connection with which it is designed to be used.

In constructing this saw-jointer I make a base-plate, *a*, with a deep groove, *b*, in the back, and a slot, *c*, through the front to bolt on the side of the filing-bench *d* by bolts *e*, through the ends of said plate for holding the file and guide-supporting stock *f* in front of the saw *g* to be jointed, said stock *f* being clamped against the front side of said base-plate *a* by the bolt *h* and the thumb-nut *i*, and having guide-lugs *j*, bearing against the upper and lower edges, *k*, of the base-plate, which are beveled, so that the guide-lugs being correspondingly beveled will draw snugly on to them when the bolt *h* is screwed up tight and hold the file-supporting stock up rigidly against back-pressure at the upper end. This supporting-stock may be shifted along the base-plate toward and from the saw, as required for adjusting it by slackening the bolt *h* and shifting it along the groove *b* and the slot *c* of the base-plate. The groove *b* affords the requisite space in the base-plate between the front of said plate and the side of the filing-bench for the head of the bolt *h*, and the side walls of the groove hold the bolt from turning by the friction of the nut. The file-holding plate *l* is connected to the lower end of the supporting-stock *f* by the bolt *m*, and has a flexible bow, *n*, projecting below the lower end of the file-stock to enable the plate to shift to and from the saw *g*, and near the upper end of the stock an adjusting-screw, *o*, is fitted, bearing against the side of the plate, to cause the file *p* to bear against the points of the teeth with sufficient pressure to dress them off and to set up the file as the points are filed away. The file *p* is secured to the plate *l* by a hook-clamp, *q*, and binding-screw *s*. A couple of guide-arms, *u*, with screw saw-guides *v*, are attached to the supporting-stock *f* near the upper end for guiding the saw to prevent the saw from wabbling, and also to bear it to one side or the other, as may sometimes be required, to make the teeth slightly shorter on one side than on the other, to correct any tendency of the saw to run out of line in the logs. The screw-guides are adjustable in the guide-arms, and the guide-arms are adjustable in the supporting-stock, said arms being connected to the stock by elbows *w*, inserted in a mortise through the stock and overlapping each other therein, so as to be secured in any position by a binding-screw, *x*. This construction is the same as that heretofore described by me in my patent above referred to, and I would now refer more particularly to Fig. 2 of the drawings, wherein A is a circular bevel-faced file mounted upon a

circular disk, B, formed to fit against the under and convex surface of the file A, which is placed so that it abuts against a flange, *a'*, formed on the disk B, the file being held against the flange by a clamping or binding lug, C, which passes through the disk B, and has a threaded shank that is engaged by a nut, D, by which arrangement the file is held rigidly against the disk. Two horizontal arms, E E, are fixed to the disk B, the projecting ends of these arms being united by a tie-bar, F, the disk, arms, and tie-bar being rigidly connected. Between the arms E E there is a supporting-stock, G, formed with ways *g' g'*, in which the arms E E ride. This stock G is provided with a central aperture, G', so formed and proportioned that the guide-arms *u* may be inserted therein, the stock being secured to the guide-arm by set-screws *c' c'*. Between the stock G and the tie-bar F there is a jam-stop, H, which is slotted at either end to receive the arms E E, and in the center of this jam-stop H there is a threaded socket, *h'*, which is engaged by an adjusting-screw, I, which passes through the tie-bar F and carries a collar, *d'*, which is fitted within a groove formed in the stock G, as shown in Fig. 2. The spiral spring J is coiled about the adjustable screw I, and abuts against the outer face of the bar F and the under face of the thumb-piece *e'*, that is fixed to the end of the screw I, the action of the spring being to force the jam-stop H against the bar F. Two of these dressers are secured to the arms *u u* in substantially the position shown in Fig. 3, with the set-screws *c' c'* upon the under side.

A proper adjustment of the dressing-files A is secured by means of the graduated scale K, that is formed on the upper end of the stock G, the pointer L being carried by the arm E, this adjustment being brought about by means of the screw I, care being taken in setting up the dressers that they are exactly opposite each other. After the saw has been jointed in the usual manner and the teeth spread by a swage and finally rounded up by a jointer, the file *p* is thrown back out of the way and the said dressers set to the required position by means of their feed or adjusting screws. After the dressers have been properly set the saw is turned in the same direction as when jointed until the dresser-files cease to cut the teeth, and this operation is performed in a fraction of the time usually taken to dress the saws.

In addition to the speed with which the operation of dressing is performed, it will be readily understood that the shape of the teeth after the saw has been dressed will be such that the teeth of the saw will not readily become round, so as to work against the timber with a bevel-edge, but that the cutting-edge will remain sharp, as the teeth are cut with a slant from the extreme cutting-edge to the plate.

From the construction of the attachment it will also be understood that although the files may be positively adjusted against the side faces of the teeth of the saw such files are maintained in the position to which they are adjusted by yielding connection with the supporting-stock, for should any undue pressure be brought to bear upon the files they will be forced backward against the tension of the spring J.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a circular-saw dresser, the combination, with a stock, of a horizontally-movable frame on the stock, a curved bevel-face file upon the forward end of the frame, means for adjusting the frame in relation to the stock, and a spring acting to cushion the said file-supporting frame when moved rearward on the stock, substantially as set forth.

2. In a circular-saw dresser, the combination, with the disk having a circular beveled face, of a separate file shaped to fit the said beveled circular face, and a clamping device for securing the file to the said disk, substantially as set forth.

3. The combination, in a circular saw dresser, with the disk B, having the circular beveled face and the shoulder *a'*, of the file A, shaped to fit the said circular beveled face and abutting against the shoulder, and the clamping-lug C, having a shank extending through the disk, and a nut therefor, substantially as set forth.

4. In a circular-saw-dresser, the combination, with a file, A, of a disk, B, arms E E, bar F, stock G, stop H, screw I, and spring J, substantially as described.

5. In a circular-saw dresser, the combination, with a file, A, of a disk, B, clamping-hook C, arms E E, bar F, stock G, stop H, screw I, and spring J. the stock G being formed with a central aperture and provided with set-screws *c' c'*.

6. The combination, with the arm *u*, of the stock G, adjustable on said arm, the stop H, the disk B, carrying the file A, and provided with the arms E E, and bar F, upon which arms E the stock G and stop H are adapted to slide, the screw I, threaded into stop H and swiveled to stock G, and the spring J, substantially as shown and described.

HYMAN D. WOLCOTT.

Witnesses:
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ALLEN YATES.