(No Model.)

H. L. BEACH.

SAW HANGING.

No. 429,838. Patented June 10, 1890.

Fig. 1.

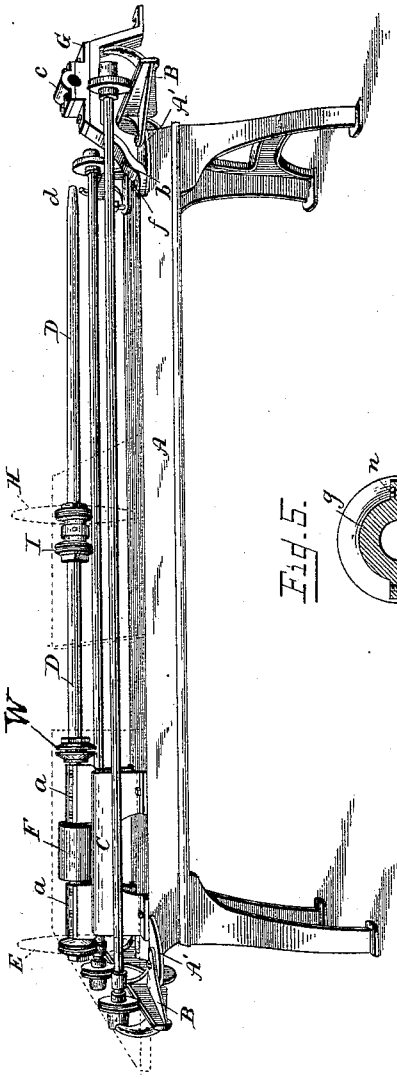


Fig. 4.

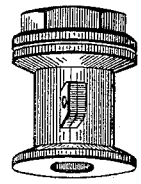


Fig. 3.

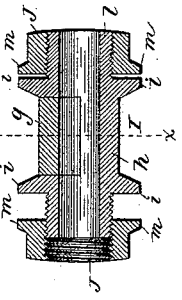


Fig. 5.

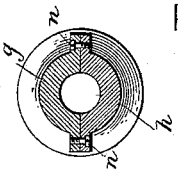
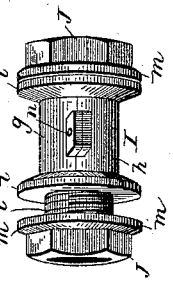


Fig. 2.



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SAW-HANGING.

SPECIFICATION forming part of Letters Patent No. 429,838, dated June 10, 1890.

Application filed January 2, 1890. Serial No. 335,576. (No model.)

To all whom it may concern:

Be it known that I, HENRY LLOYD BEACH, a citizen of the United States, residing at Montrose, in the county of Susquehanna and State of Pennsylvania, have invented certain new and useful Improvements in Saw-Hanging, of which the following is a full and clear description, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of a sawing-machine embodying my invention and showing the saw-carriage removed and the bracket or casting which supports one end of the arbor thrown outward. Fig. 2 is an enlarged perspective view of one of the saw-clamping sleeves. Fig. 3 is a sectional view of the same. Fig. 4 is a modification of Fig. 2. Fig. 5 is a cross-sectional view on the line *x x* of Fig. 3.

My invention relates to sawing-machines, and especially to that class which embraces the manner of hanging the saws; and my invention consists in the constructions and combinations of devices which I shall hereinafter fully describe and claim.

To enable others skilled in the art to make and use my invention, I will now describe its construction and indicate the manner I carry the same out.

In the drawings, A represents the main frame of the machine, constructed of suitable material, and having at its corners the outwardly-extending lugs or flanges A′, to which the track-irons B are bolted in a manner substantially as shown in my former application, Serial No. 307,510, filed April 16, 1889.

The main frame is provided with a fixed casting C at one end having journal-boxes *a*, adapted to receive one end of the saw-arbor D, which is provided with saw-clamps or fixed sleeves W, one upon each side of the casting, and adapted to secure a fixed saw E, while a pulley F on the arbor between the boxes *a* is the medium through which motion is communicated to run the saw. At the opposite end of the frame A is another casting G, which is provided with an arm *b*, adapted to be pivotally secured to the said frame, while in the upper portion of the casting G is a journal box or bearing *c* for the adjacent end of the arbor, the said box or bearing having a conical seat adapted to receive the conical end *d* of the arbor, whereby the arbor is supported.

The casting G instead of being rigidly secured is pivoted by a bolt *f* to the frame A, and is adapted to be swung outward, as shown in Fig. 1, to permit the removal of the saws, when desired, the saw H being mounted on a sliding sleeve I fitted upon the arbor and being adjustable on the arbor to correspond with the different lengths of work to be cut. The sleeve I secures the adjustable saw, and, if desired, a "fitting" similar thereto, but tightly secured on the arbor, may hold the fixed saw, and this sleeve I is preferably formed in two pieces or sections, one piece *g* being the cap-piece, while the other piece *h* is cast with integral collars *i* and threaded portions *l* at each end, upon which the flanged nuts J are screwed. The flanges *m* of the nuts J correspond with the flanges or collars *i* of the section *h*, and between these flanges and collars the saw is secured.

In casting the sleeve the center is cored out its entire length, after which the cap-piece or section *g* is fitted in position to make a tight joint between itself and the corresponding seat upon the section *h*, and the two sections *g* and *h* are then bolted together by bolts *n* passing in opposite diections—to wit, one bolt being passed loosely through the cap-piece or section *g* and screwing into the other section *h*, and the other bolt being passed loosely through the section *h* and screwed into the cap-piece or section *g*, and both sections *g* and *h* are recessed or countersunk to receive the heads of the bolts, whereby these latter are flush with or come below the exterior surfaces of the lugs of the sections *g* and *h*. The sleeve is now placed in a lathe and bored out to fit the arbor, and then placed on a mandrel and turned true to insure a perfect balance, which is necessary in the running of saws. The cap-piece *g* is now removed from its seat and one of its faces relieved a trifle by removing a thin portion or shaving therefrom, and is then again placed in position on the section *h*, and the now completed sleeve is slipped endwise upon the arbor into its desired position, and the oppositely-extending bolts *n* are screwed home to

tightly secure the sleeve to the arbor, thereby enabling me to adjust the position of the movable saw with relation to the fixed saw.

When it is desired to change the position of the movable saw upon the arbor, it may be done by loosening the bolts *n* and slipping the sleeve endwise into its new position and then clamping it to the arbor in the manner previously described.

The sleeve shown in Figs. 2 and 3 is a double one, or one designed to carry a saw at each end, so that when the saw is placed on one end and adjusted near the fixed saw or its table I am enabled to cut short lengths, and when placed on the opposite end and adjusted on the arbor to the outer end, I may cut the longest possible lengths, it being understood that in cutting short lengths the fixed saw is fitted on the fixed saw clamp or sleeve W on the right side of the casting C, and when cutting long lengths said fixed saw is placed on the clamp or sleeve at the end of the arbor on the left side of the casting C.

If desired, the sleeve may be made to carry but one saw, this change being made by dispensing with one of the threaded ends and flanged nuts, as shown in Fig. 4. In this connection it will be understood that the saws carried by the sleeve will operate in conjunction with a fixed saw or saws on the stationary table with which the sawing-machines are usually provided, and that the adjustable saws operate within a movable table in the well-known manner—as, for instance, as described in my former application before referred to.

When it is desired to cut a board into several pieces, any desired number of sleeves I may be fitted upon the arbor and provided with saws, thereby greatly facilitating the work of the machine.

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

1. The combination, with the main frame, the saw-arbor mounted thereon, and the fixed and adjustable saws, of the sleeve for carrying the adjustable saw, said sleeve being formed in two parts, one of which serves as a cap-plate, and bolts extending through both parts of the sleeve from opposite directions, whereby the sleeve is clamped to the arbor, substantially as herein described.

2. The main frame, the saw-arbor mounted thereon, and the fixed and adjustable saws, in combination with a saw-clamping sleeve formed in two pieces or sections, one of which *h* is provided with threaded ends and integral flanges, and the other *g* serving as a cap-plate, nuts adapted to be screwed upon said threaded ends and provided with flanges adapted to clamp the saw against the flanges of the section *h*, and nuts extending from opposite directions through the two sections of the sleeve and clamping the sleeve on the arbor, substantially as described.

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W. B. DEANS.