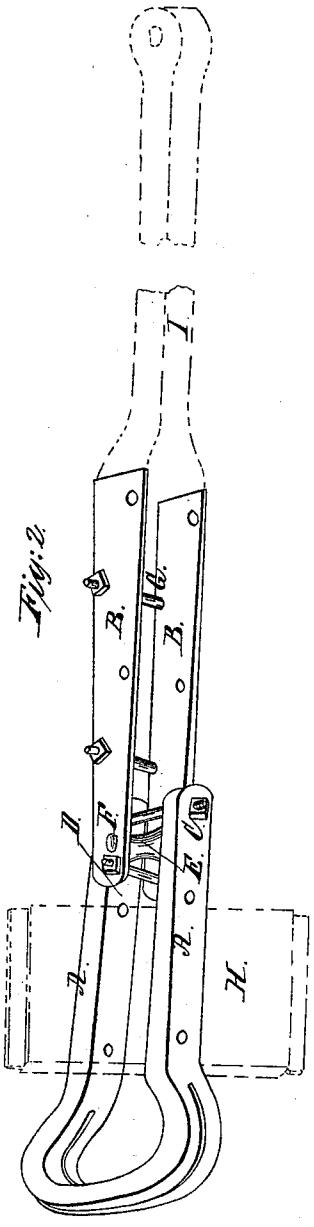
G. Hotchkiss,

Hanging Sams.

No. 7,167. Patented Mar. 12, 1850.

Fig. 3.

Fig. 2.



Inventor:

Gidim Hotchkiss

UNITED STATES PATENT OFFICE.

GIDEON HOTCHKISS, OF WINDSOR, NEW YORK.

NODDLE-IRON FOR SAWMILLS.

Specification of Letters Patent No. 7,167, dated March 12, 1850.

To all whom it may concern:

Be it known that I, GIDEON HOTCHKISS, of Windsor, in the county of Broome and State of New York, have invented a new and useful Improvement in Noddle-Irons for Sawmills; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings making a part of this specification.

Figure 2 is a perspective view of the stirrups and noddle iron joint ready for use and application to connect the pitman or connecting rod I of a sawmill to the saw gate or sash by the lower girt H; Fig. 3 represents the knuckle or four pointed gudgeon which connects the stirrups to the straps.

A, the stirrups before being bent or turned on the form by the bender is forty-six inches long and two inches wide and five-eighths of an inch thick with a long opening in the center of proper dimensions to receive the saw when formed into a stirrup, by being bent or turned, but this stirrup differs from the ordinary stirrup by being extended three or four inches below the bottom of the girt H and are rounded at their lower ends, through which a tie bolt five inches long and five-eighths of an inch square, is inserted to confine their ends together as at C.

The two straps B, B, are twenty-six inches long four inches wide and $\frac{3}{16}$th of an inch thick at one end and 2 inches wide and $\frac{5}{8}$ths of an inch thick at the other end, which being rounded at their ends and secured together with a tie bolt in the same manner as the bottom of the stirrup before described.

Fig. 3 represents the knuckle four and a half inches from point to point and one and one-fourth of an inch thick in the center. Each four points are at right angles pointing outward with a conical or step gudgeon formed to work in sockets formed in the ends of the stirrups and straps. Said knuckle may be made of cast iron, composition, brass or any fusible metallic substance or partly of steel and partly of wrought iron or all steel. If made of fusible metals in the form as at Fig. 3 may be made in molds or chills by which process the knuckle is hardened. Said knuckles may be made sufficiently large to have their points made concave or inverted from the oval or pointed knuckle. On the inside of the before named straps and stirrups at F, there are indented pivot holes or sockets laid with steel in form corresponding with the points of the knuckle as represented at Fig. 3. Said cavities are formed as near the ends of said straps and stirrups as can be and give ample strength and permit said tie bolts to be outside or nearest their ends. The said straps and stirrups are secured together by inserting two branches of the knuckle in said concaves of the stirrup by springing out their ends so as to inclose the ends and secured by a tie bolt below. The before mentioned straps are placed on or over the other two branches of the knuckle filling the concaves of the strap and secured to its place by another tie bolt passing at right angles with the tie bolt of the stirrup one above and the other below the knuckle. In forming the concaves for the knuckle and welding in the steel with dies and swaging a projection or convex is raised directly opposite to the knuckle points outside of the straps and stirrups which being so made permits the knuckle point to take a deeper hold and have a more central draft with lighter straps than could be made with a plain surface.

When constructed as before described and represented in the drawings it constitutes a noddle iron with an equilibrium of strain on all points of the knuckle, combining greater strength avoiding all stiffness or pry although the saw gate may not work parallel with the crank and at the same time allow the pitman to vibrate in any direction without any change or alteration of the joint.

What I claim as my improvement in noddle irons for sawmills and desire to secure by Letters Patent, is—

The combination of the four pointed knuckle with indented straps and screw tie bolts the whole constructed and arranged substantially in the manner and for the purposes set forth.

Windsor, January 19th, 1850.

GIDEON HOTCHKISS.

Witnesses:

M. A. MOORE,

JOHN BULLOCK.