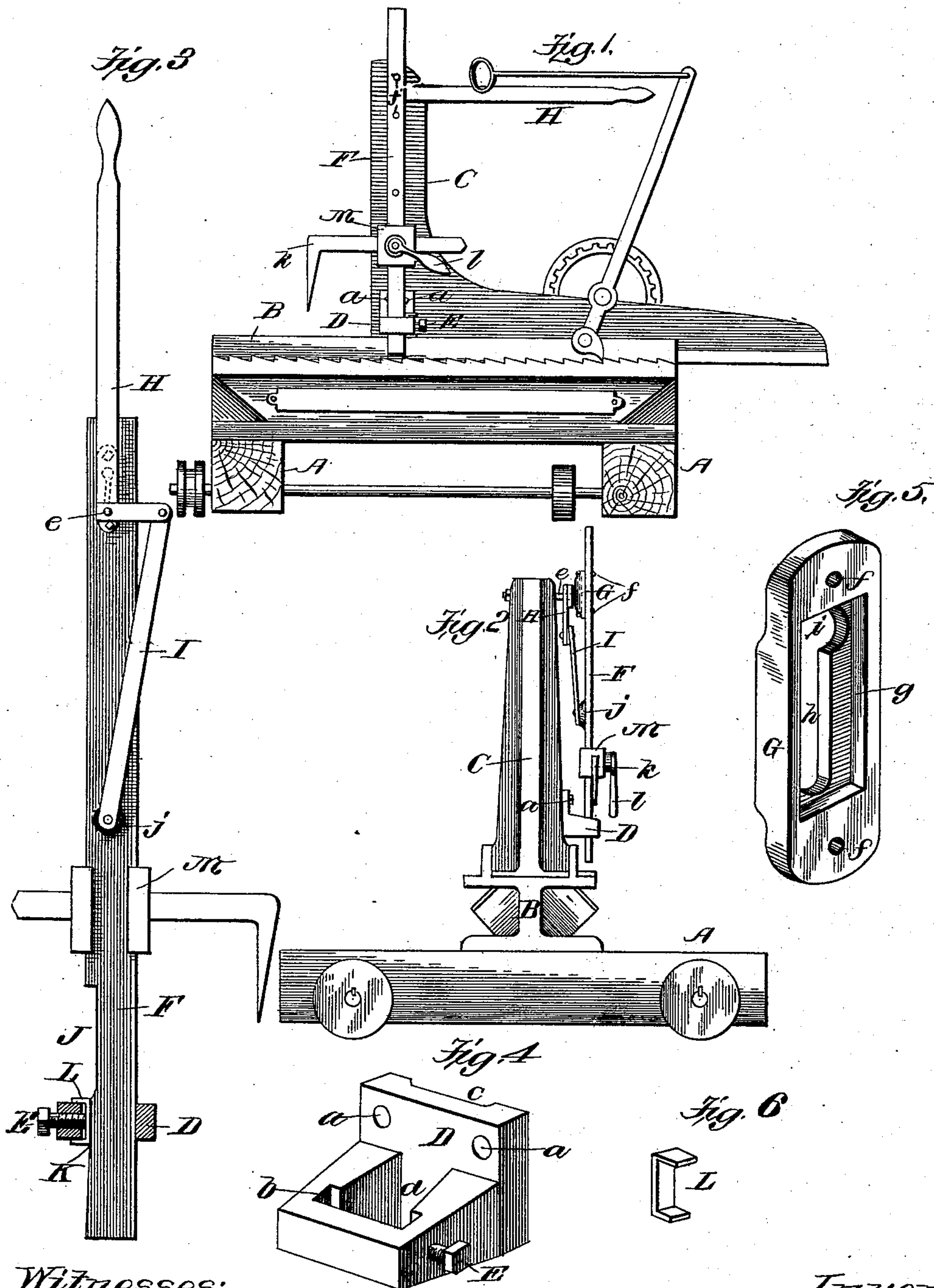


(No Model.)

A. HARROLD.
SAWMILL DOGGING MECHANISM.

No. 509,029.

Patented Nov. 21, 1893.



Witnesses:

F. P. Cornwall
H. A. Balch

Inventor,
Amos Harrold,
By his Attorney
O. E. Dyer.

UNITED STATES PATENT OFFICE.

AMOS HARROLD, OF COLUMBIANA, OHIO.

SAWMILL DOGGING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 509,029, dated November 21, 1893.

Application filed February 9, 1893. Serial No. 461,668. (No model.)

To all whom it may concern:

Be it known that I, AMOS HARROLD, a citizen of the United States, residing at Columbiana, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Sawmill Dogging Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relating to saw-mill carriages, has particular reference to the adjustable dog-head and dog constituting part thereof, and to means whereby the latter are readily manipulated in the operation of dogging a log.

It has for its object the production of strong, durable, and compact mechanism for securing the dog-head to the carriage, and rendering it convenient and effective in its use and operation.

The invention will be hereinafter described and particularly pointed out in the claims.

In the accompanying drawings which form part of this specification, Figure 1, represents a front elevation of my invention; Fig. 2, an end view thereof; Fig. 3, a rear elevation of the dog-bar, showing also the operating angle-lever and link by which the latter is attached to the former. Figs. 4 and 5, are detail perspective views of castings whereby the dog-bar is adjustably secured to the knee of the carriage, and Fig. 6 a similar view representing a key used in connection with the lower casting for engaging and jamming the dog-bar when elevated.

Reference being had to the drawings and letters thereon A indicates the timber-carriage or sills of wood, B a metallic head-block whereon the timber rests, and C the knee or head-piece with feeding mechanism of any approved construction.

D represents a cast bracket bolted to the knee C as at *a*, having a transverse vertical slot *b* near its outer edge, and provided with an adjusting-screw E penetrating its side and projecting slightly into slot *b*, said bracket being formed with a recess *c* in its rear surface, and one marked *d* opposite; the latter being adjacent to and communicating with slot *b*,

and both recesses serving to lighten the casting and aid in its adjustment and use in connection with the adjoining parts.

Near the upper end of knee C, above and in vertical line with the center of bracket D, is rigidly attached a bolt *e* head out, which together with said bracket serves to secure the operative parts of my invention in position as will hereinafter appear.

F indicates a vertically sliding dog-bar resting near its lower end in slot *b* of bracket D, and bearing near its opposite end, rigidly bolted or otherwise secured as at *f* a cast guide or supporting-block G, having a channel *g* in its under side, the latter being broken by a vertical guide-slot *h* terminating in an enlargement *i*. In the course of construction the head of bolt *e* is admitted through enlargement *i* to channel *g*, wherein it rests; its sides meanwhile engaging the walls of guide-slot *h*, allowing a vertical movement of the dog-bar, thus supported by brackets D and block G, limited only in such movement by the length of guide-slot *h*.

On bolt *e* between block G and knee C is fulcrumed an angle-lever H the arms of which are permanently joined as by welding; to the short member thereof is journaled an operating link I, its opposite or lower end being in like manner connected to a lug *j* upon the inner side of dog-bar F.

In the vicinity of that portion of the dog-bar F which engages slot *b* of bracket D, said bar is cut away upon its edge as shown at J in Fig. 3. Below this point the dog-bar F is gradually increased to its average width, thus forming an incline K which serves to wedge or jam upon the end of screw E in bracket D, when the dog-bar is elevated, for the purpose of retaining it in an elevated position.

To further facilitate the latter operation and provide for taking up the wear of incline K, a key L is provided, and interposed between the end of adjusting-screw E and the edge of dog-bar F in slot *b*.

Vertically movable on the bar F is a dog-head M of usual construction, carrying a horizontally adjustable-dog *k*, both head and dog being retained in position by a jam-screw operated through the medium of a hand lever *l*.

This being substantially the construction

of my invention its operation is as follows: The timber or log to be cut having been rolled into position upon the head blocks B, is first temporarily engaged by the bit of the dog *k* and properly stabbed. Lever H then being elevated operates through link I to raise the dog-bar F carrying with it dog-head M and its dog *k*, until incline K on the lower end of the bar F comes in contact with key L in slot *b* of bracket D, where it is wedged or jammed thus retaining the parts in an elevated position as shown by Fig. 3, and guarding against an accidental return of the dog to a position where it would interfere with handling of the log. The log to be operated on is now finally adjusted in position, and a reverse or downward movement of lever H and the parts cooperating therewith, serves to embed the bit of the dog *k* in the log, which may then be sawed into lumber in the usual manner and without waste.

By the construction shown and described it will be observed that wear of the incline K may readily be compensated for by setting up the screw E when necessary. The bracket D requires little or no fitting up as its recess *c* leaves but small surface to meet with any irregularities in the side of knee C, and its recess *d* performs a like function with relation to the vertically sliding dog-bar F.

Having thus fully described my invention, what I claim is—

1. In a saw-mill carriage the combination with a knee, of a bracket supported thereby, a vertically sliding-dog-bar having an inclined surface resting in the bracket, a dog carried by the bar, and a lever fulcrumed on the knee engaging the dog-bar whereby the latter is lowered, or raised until its incline is jammed upon the side of the bracket, substantially as described.

2. In a saw-mill carriage the combination with a knee, of a bracket supported thereby provided with a vertical slot and an adjusting screw bearing therein, a dog-bar having an inclined edge resting in said slot, a dog carried by the bar and a lever fulcrumed on the knee engaging the dog-bar whereby it is lowered, or raised until its incline is jammed

upon the adjusting screw, substantially as described.

3. In a saw-mill carriage the combination with a knee, of a bracket supported thereby having a vertical slot near its outer edge and a set screw bearing therein, a dog-carrying bar having an inclined edge resting in the slot, a key interposed between said screw and bar, and a lever fulcrumed on the knee engaging the dog-bar whereby it is lowered, or raised and jammed by engagement of its incline with the key.

4. In a saw-mill carriage the combination with a knee, of a bracket supported thereby, a vertically adjustable dog-carrying bar having an inclined edge resting in the bracket, an adjusting screw operating through said bracket upon the dog-bar, a key interposed between the screw and bar, an angle-lever fulcrumed on the knee, and a link connecting the lever with the dog-bar whereby it is operated.

5. In a saw-mill carriage the combination with a knee, of a bracket supported thereby, a vertically adjustable dog-carrying bar having an inclined edge resting in the bracket, a guide block secured to the dog-bar, a projection on the knee engaging the guide block, and a lever operating on the dog-bar to elevate or depress it.

6. In a saw-mill carriage the combination with a knee, of a bracket supported thereby, a vertically adjustable dog-carrying bar having an inclined edge resting in the bracket, a guide-block secured to said bar having a longitudinal channel broken by a central vertical slot, a bolt projecting from the knee the head whereof slides within the guide-block, and a lever fulcrumed on said bolt whereby the dog-bar is elevated or depressed through the medium of a connecting link, substantially as described.

In testimony whereof I subscribe my signature in presence of two witnesses.

AMOS HARROLD.

Witnesses:

T. H. GROVE,
ELMER HARROLD.