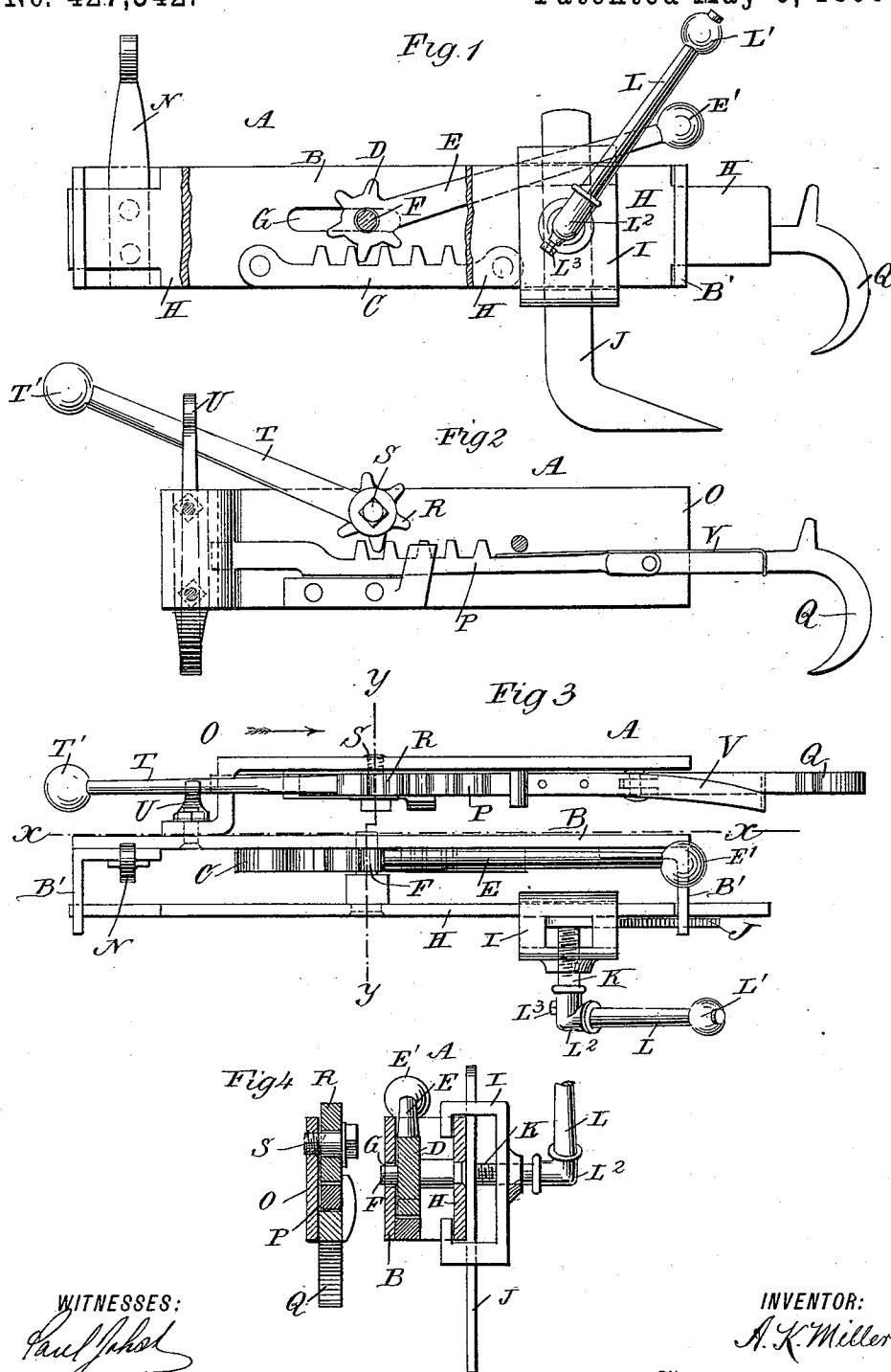


(No Model.)

A. K. MILLER.
SAW MILL DOG.

No. 427,342.

Patented May 6, 1890.



WITNESSES:

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ALFRED K. MILLER, OF MILLERSPORT, OHIO.

SAW-MILL DOG.

SPECIFICATION forming part of Letters Patent No. 427,342, dated May 6, 1890.

Application filed August 22, 1889. Serial No. 321,606. (No model.)

To all whom it may concern:

Be it known that I, ALFRED K. MILLER, of Millersport, in the county of Fairfield and State of Ohio, have invented a new and Improved Saw-Mill Dog, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved saw-mill dog which is simple and durable in construction, very effective in driving the hooks into the log or lumber, and when set holds the log or lumber firmly in place on the saw-mill carriage.

The invention consists of a bar mounted to slide on a frame and carrying an adjustable hook, a gear-wheel provided with a lever and mounted on the said sliding bar, and a rack fastened on the main frame and in which the said segmental gear-wheel meshes.

The invention also consists in certain parts and details and combinations of the same, as will be described hereinafter, and then 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 elevation of the improvement with parts broken out. Fig. 2 is a sectional side elevation of part of the improvement on the line *xx* of Fig. 3. Fig. 3 is a plan view of the improvement, and Fig. 4 is a transverse section of the same on the line *yy* of Fig. 3.

The improved saw-mill dog A is provided with a frame B, on which is secured a rack C, in which meshes a gear-wheel D, provided with a handle E, carrying at its outer end a weighted ball E'. The gear-wheel D is mounted to turn on a stud F, projecting into the slot G, formed in the frame B and extending parallel with the rack C. The stud F is secured on a bar H, mounted to slide on offsets B', formed on the ends of the frame B. When the lever E is moved forward or backward, the gear-wheel D is turned and rolls off on the rack C, held fixed on the stationary frame B. The rolling off of the gear-wheel D causes a forward and backward motion of the stud F, so that the bar H is caused to slide forward and backward, according to the direction in which the gear-wheel D travels.

On the sliding bar H is held adjustably a clip I, through which passes the shank of a hook J, adapted to be clamped against the bar H by a screw K screwing on the front of the clip I and turned by a handle L. The latter is provided on its free end with a weighted ball L', and is also provided with a socket L², secured on the outer end of a screw K by a set-screw L³. By this arrangement the lever L may be adjusted in any desired position in relation to the screw K, the hook J, and the bar H. By moving the lever L to the left the screw K is unscrewed, so that the hook J may be raised or lowered in the clip I, and the latter may be moved forward or backward on the bar H, and when the desired position is reached the lever L is thrown downward to the right, so that the screw K is screwed inward, pressing the hook J against the bar H, and consequently locking the clip I, as well as the hook J, in place. When the bar H is now moved longitudinally on the frame B, as previously described, the hook J moves with it and can be easily forced into the log or lumber.

On the back of the frame B is secured a plate O, provided with a rack P, mounted to slide on the said plate O, and on which is pivoted a hook Q by the pivot Q', the hook Q being adapted to engage the log or lumber on the opposite side to that on which the hook J passes into the log or lumber, as previously described.

In the rack P meshes a gear-wheel R, mounted to turn on a stud S, secured to the plate O, and on the said gear-wheel R is fastened the lever T, provided on its outer end with a weighted ball T'.

The lever E, as well as the lever T, may be locked in place by spring-catches N and U, respectively.

A spring V is secured on the top of the rack P and supports, with its outer curved ends, the hook Q, so that the latter is free to move up and down slightly, in order to engage the proper place in the lumber or log.

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

1. In a saw-mill dog, the combination, with a slotted frame provided with a stationary

rack, of a sliding bar provided with a stud projecting into the slot of the frame, a gear-wheel mounted on the stud and meshing with the rack, a lever for operating the gear-wheel, and a hook carried by the said sliding plate, substantially as described.

2. In a saw-mill dog, the combination, with a slotted frame provided with a stationary rack, of a sliding bar provided with a stud projecting into the slot of the frame, a gear-wheel mounted on the stud and meshing with the rack, a lever for operating the gear-wheel, and a hook adjustably secured to the said sliding bar, substantially as described.

3. In a saw-mill dog, the combination, with a frame provided with a rack and a longitudinal slot parallel with the said rack, of a gear-wheel in mesh with the said rack, a weighted lever formed on the said gear-wheel for turning the latter, a stud on which the said gear-wheel is mounted to turn, and which projects in the said slot of the frame, and a plate carrying the said stud and supporting the hook, substantially as shown and described.

4. In a saw-mill dog, the combination, with a frame provided with a rack and a longitudinal slot parallel with the said rack, of a gear-wheel in mesh with the said rack, a weighted lever formed on the said gear-wheel for turning the latter, a stud on which the said gear-wheel is mounted to turn, and which projects in the said slot of the frame, a plate carrying the said stud, a clip held on the said plate, a hook passing with its shank through the said clip, and a screw screwing in the said clip against the said hook-shank, substantially as shown and described.

5. In a saw-mill dog, the combination, with a frame provided with a rack and a longitudinal slot parallel with the said rack, of a gear-wheel in mesh with the said rack, a weighted lever formed on the said gear-wheel for turning the latter, a stud on which the said gear-wheel is mounted to turn, and which

projects in the said slot of the frame, a plate carrying the said stud, a clip held on the said plate, a hook passing with its shank through the said clip, a screw screwing in the said clip against the said hook-shank, and a lever for turning the said screw, substantially as shown and described.

6. In a saw-mill dog, the combination, with a supporting-frame and a sliding rack thereon, of a hook pivoted to the rack and a spring secured to the rack and having its outer end engaging the hook, substantially as and for the purpose set forth.

7. In a saw-mill dog, the combination, with a rack mounted to slide, of a hook pivoted on the said rack, a spring held on the said rack and supporting the said hook, a gear-wheel meshing in the said rack and fulcrumed on the said plate, and a weighted lever formed on the said gear-wheel and serving to turn the same, substantially as shown and described.

8. In a saw-mill dog, the combination, with a frame, of a plate mounted to slide on the said frame, an adjustable clip held on the said plate, a hook held adjustably on the said clip, a pivoted hook supported by a spring and mounted to slide, and a plate secured on the said main frame and carrying the said hook, substantially as shown and described.

9. In a saw-mill dog, the combination, with a frame, of a plate mounted to slide on the said frame, an adjustable clip held on the said plate, a hook held adjustably on the said clip, a pivoted hook supported by a spring and mounted to slide, a plate secured on the said main frame and carrying the said hook, and means, substantially as described, for imparting a sliding motion to the said plate and the said hooks, substantially as set forth.

ALFRED K. MILLER.

Witnesses:

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