(No Model.)

W. A. MADDEN.

LUMBER CLAMP.

No. 458,763. Patented Sept. 1, 1891.

FIG. 1

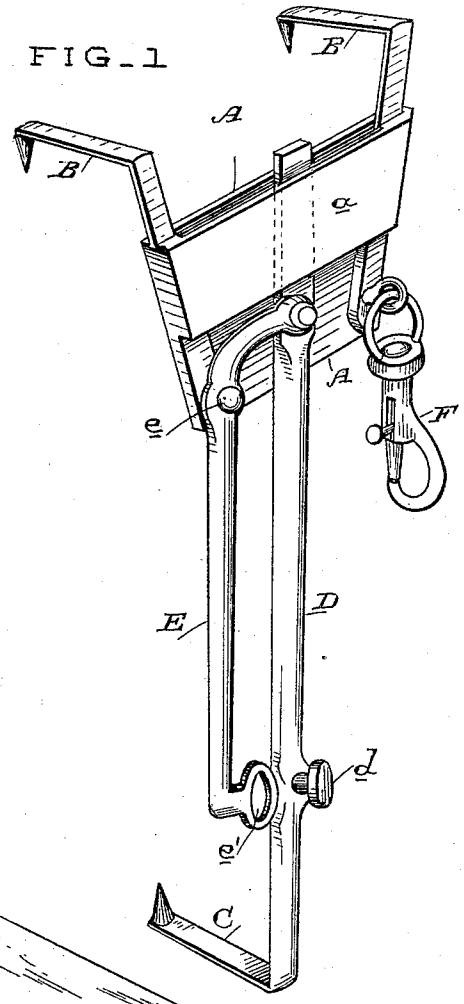
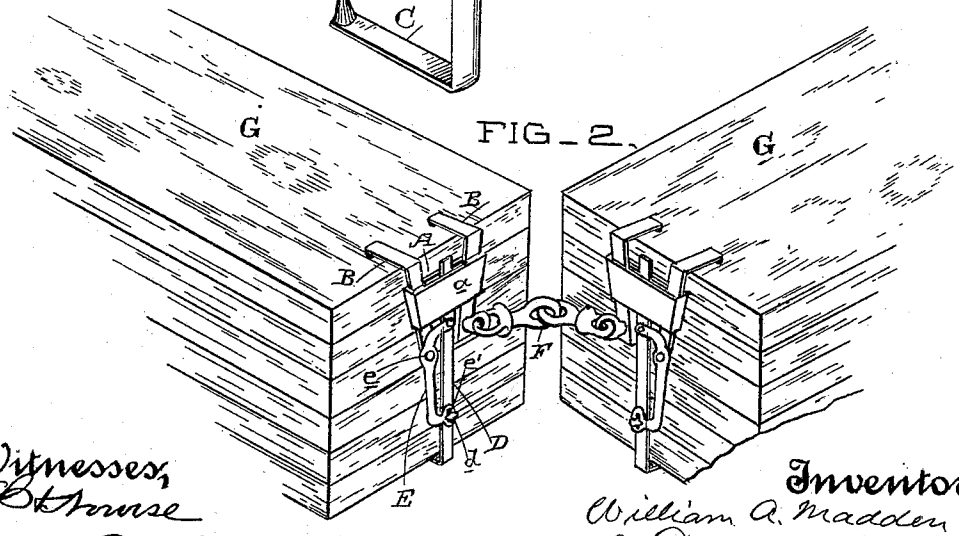


FIG. 2.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM A. MADDEN, OF MADERA, CALIFORNIA.

LUMBER-CLAMP.

SPECIFICATION forming part of Letters Patent No. 458,763, dated September 1, 1891.

Application filed March 25, 1891. Serial No. 386,393. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. MADDEN, a citizen of the United States, residing at Madera, Fresno county, State of California, have invented an Improvement in Lumber-Clamps; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of clamps the object of which is to bind together bunches of lumber to be sent in compact masses down a flume.

My invention consists in the novel clamp hereinafter fully described, and specifically pointed out in the claims.

The object of my invention is to provide a clamp which can be readily adjusted and tightened to place on the end of the bunch, and which will avoid any necessity of using wedges commonly employed to spread the lumber to tighten the bunch in the clamp.

A further object is to provide a connection between the adjacent bunches of such a character as to permit each bunch to turn freely to its riding side without cramping or danger of loosening the clamps, and which will hold each bunch in place and not permit any riding over and consequent jamming in the rapids of the flume.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my clamp. Fig. 2 is a view showing the clamps applied to the lumber bunches.

A is the body or frame of the upper or stationary jaw or jaws B. C is the lower or movable jaw, having the stem or shank D, which passes upwardly through and is guided by a cross-plate *a* of the body A.

E is a bent or elbow lever pivoted at *e* to the body A. Its short arm is connected with the shank or stem D of the lower or movable jaw C. The end of its long arm is provided with an eye or loop *e'*, which is adapted to fit over and engage a lug *d* on the shank or stem D. Though there might be a single upper jaw, I deem two preferable, and by extending them from each side of the body or frame A the whole clamp is better balanced and can get a more stable grip or bearing on the top of the lumber bunch.

F is a swiveled snap-hook connected with the body or frame A.

Where lumber is sent down a flume it is usual to pile it into masses of, say, ten or twelve pieces, called "bunches." Then the members of each bunch are clamped together at each end, and the bunches are connected one behind another and so sent down the flume. The clamps usually employed are jaws connected by a straight rigid bar. The jaws are fitted to bunch ends on top and on the bottom, and as these clamps have no adjustment it is necessary to drive wedges in between the planks in order to spread the bunch and thus to tighten the bunch to the clamp. Then the bunches are connected end to end by means of ropes connected with the bunches by staples. One side of a bunch is always heavier than another, and this side is called its "riding side," because, when floating free in the flume, it will turn over onto that side. Now, it often happens that in turning over onto their riding sides, during their passage, the rope connections get twisted up and cramping results, and the staples get pulled out, and as the ropes are too long one bunch rides over upon the end of another and a jam takes place in the rapids. The water then overflows and undermines the supports of the flume. My clamp overcomes all these difficulties. It is applied to the ends of the bunches G by passing the jaws above and below, as usual. Then, instead of having to drive in wedges to tighten the bunch to the clamp, the clamp is tightened on the bunch by pressing down on the long arm of the lever E and locking its eye over the lug *d*. This movement of the lever, on account of its fulcrum connection with the upper jaws and its pivotal connection with the lower jaw, draws the jaws together tightly on the bunch. Then the adjacent clamps are connected directly by their hooks F. These hooks, being swiveled, permit each bunch to turn freely to its riding side, and the connection between them is too short to permit any bunch to ride over the end of another.

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

1. A lumber-clamp comprising a fixed up-

per jaw, a movable lower jaw, and a lever fulcrumed to the fixed jaw and having an arm connected with the movable jaw, whereby the jaws are operated, substantially as herein described.

2. A lumber-clamp consisting of the body or frame A, having the upper jaw, the stem or shank fitting in the body or frame and guided thereby and having the lower jaw, and the bent lever fulcrumed to the body or frame and pivoted to the stem or shank, substantially as herein described.

3. A lumber-clamp consisting of the body or frame A, having the upper jaw, the stem or shank fitting in the body or frame and guided thereby and having the lower jaw, and the bent lever fulcrumed to the body or frame and pivoted to the stem or shank, said lever having an eye or loop on its lower end adapted to engage a lug on the stem or shank to lock the parts in position, substantially as herein described.

4. A lumber-clamp consisting of the body or frame A, having the cross-guide plate and the two upper jaws extending from its sides, the stem or shank D, guided by the cross-plate and having the lower jaw, and the bent lever connecting the stem or shank with the body or frame and adapted to tighten the jaws on the lumber, substantially as herein described.

5. A lumber-clamp consisting of the body or frame having the upper jaws, the shank or stem having the lower jaw, the bent lever connecting the body or frame and the shank or stem and operating the jaws, and the swiveled hook connected with said body or frame, substantially as herein described.

In witness whereof I have hereunto set my hand.

WILLIAM A. MADDEN.

Witnesses:
M. J. McCROSSED,
PATRICK SMITH.