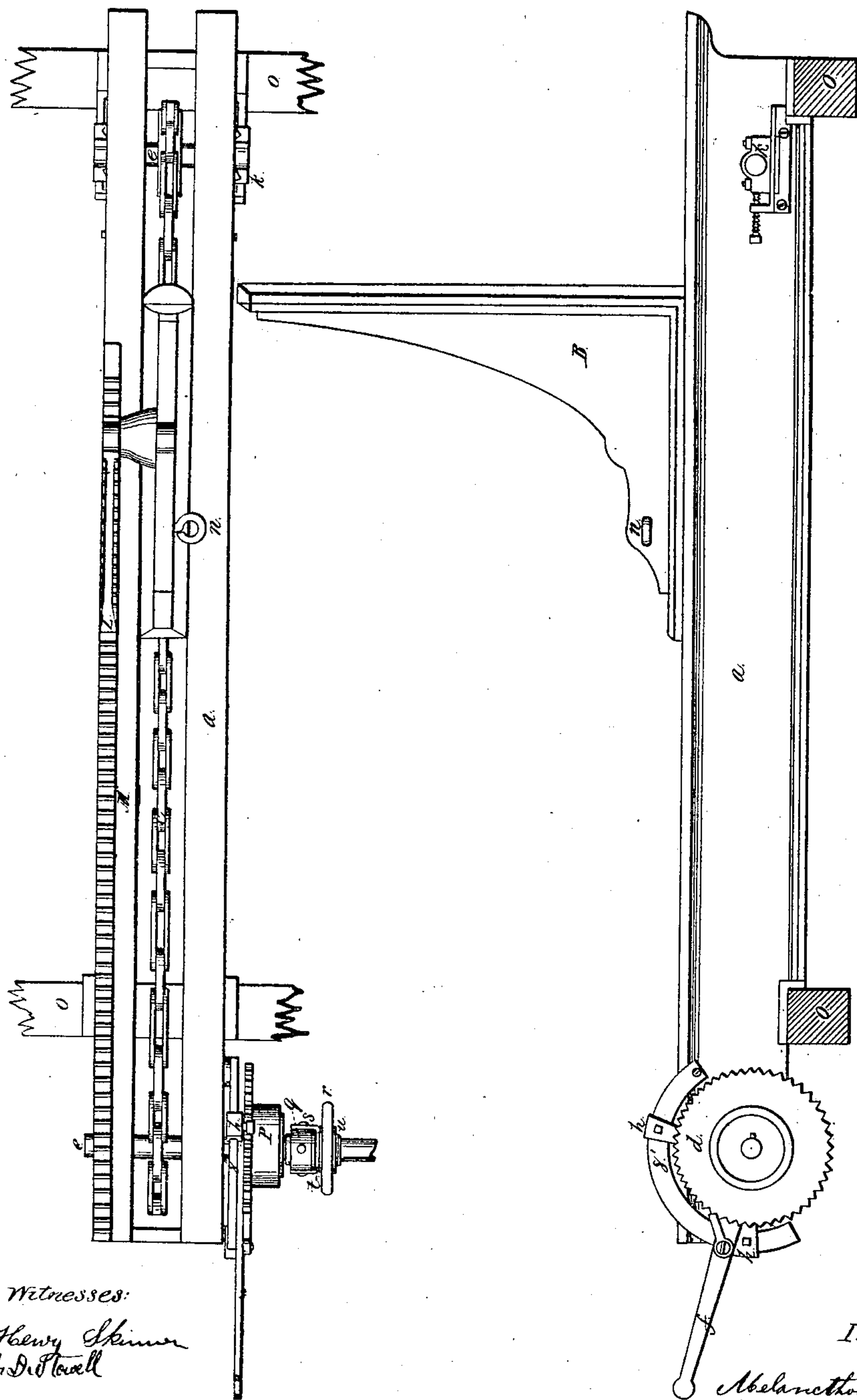


M. W. DANKS.  
HEAD BLOCK FOR SAWMILLS.

No. 40,248.

Patented Oct. 13, 1863.



Witnesses:  
Henry Skinner  
J. D. Stowell

Inventor:  
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# UNITED STATES PATENT OFFICE.

MELANCTHON W. DANKS, OF FULTON, NEW YORK.

## IMPROVED HEAD-BLOCK FOR SAW-MILLS.

Specification forming part of Letters Patent No. 40,248, dated October 13, 1863.

*To all whom it may concern:*

Be it known that I, MELANCTHON W. DANKS, of the village of Fulton, State of New York, have invented a new and Improved Mode of Regulating and Adjusting Head-Blocks upon Saw-Mill Carriages; and I do hereby declare that the following is a full and exact description of the same.

The nature of my invention consists in adapting to the head-block of a saw-mill carriage a chain propelled by a lever, and chain-wheels, as hereinafter described, designed to obviate the irregularities and inconvenience occasioned by the screw commonly in use; also, in adapting a dog and rack to such head-block in the manner hereinafter described, for the purpose of protecting the head-block from injury by the concussion of heavy logs or timbers against the same.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my head-block as to size and shape like those in ordinary use.

I adapt to the head-block a flat chain with double or single links. I cause the chain to revolve on wheels having in their perimeter cogs adapted to the links of the chain. I cause the chain to revolve by means of a lever, to which is attached a ratchet-dog moving a ratchet-wheel. Above the ratchet-wheel I construct a circular index, to which I adapt two stops, adjustable at pleasure, designed to regulate the thickness of the board or timber while in the process of being sawed. To the ratchet-wheel I attach a female coupling, as shown at P on the accompanying drawings, about four inches in diameter. Into this I insert a male coupling. This coupling is held firmly in its place by means of two dogs attached to a knuckle-joint.

The object of attaching the female coupling is for the purpose of connecting and disconnecting another head-block constructed in all respects like the one herein described, with a view of sawing timber in the form of a wedge, if desired, or of different dimensions at the extremities—that is to say, when the two head-blocks are coupled by the rod hereinafter referred to the head-blocks will advance in parallel lines, but when disconnected one head-block may be advanced and the other remain stationary, and thereby the saw adapted

to the log for the purpose of taking off a slab of equal thickness at each end from a log of greater diameter at one end than the other. The knuckle-joint I expand or contract by means of a rod drawn by a screw, the latter being propelled by a hand-wheel, as shown at *r* in the drawings.

I construct adjustable boxes, as shown at K, for the purpose of keeping the chain taut and taking up any slack that may be occasioned by friction or use.

To give additional strength to the head-block and preserve the chain from strain, I construct a rack, into which is inserted a dog, as shown at L.

This improvement in the use of a chain with the combination above described as a substitute for a screw has this advantage, to wit: The thread of the screw by use wears away irregularly at different points, thereby preventing the lumber or timber from being uniform in thickness. My improvement also saves much time in the adjustment of the head-block by means of a lever, and also by means of the couplings. The coupling is designed to connect two head-blocks constructed as above described by means of a shaft or rod. Those now in use are connected by a band or belt. My invention obviates the irregularities of a belt movement. I mark upon the index inches and parts of inches by adapting the stops to any given measurement. Each full sweep of the lever will propel the stake B a regular and uniform distance.

On the accompanying drawing, letter A represents the frame. Letter B represents the stake. Letter C represents the chain. Letter *d* represents the ratchet-wheel. Letter *e* represents the chain-wheel shafts. Letter *f* represents the lever. Letter *g* represents the circular index. Letter *h* represents the stops on the index. Letter *i* represents the groove in hand-wheel. Letter K represents the movable boxes. Letter *l* represents the dog for the stake. Letter O represents the carriage for the head-block. Letter P represents the female coupling. Letter *q* represents the sleeve-containing pin passing through the rod of the male coupling to which knuckle-joint is attached. Letter *r* represents the hand-wheel and nut. Letter *s* represents the ears that hold the sleeve to hand-wheel. Letter *t* represents the groove in hand-wheel.



Letter *u* represents the thread of screw in hand-wheel.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the chain *C* with the chain-wheel *c* and the movable boxes *K*, when the whole is arranged, constructed, and operated in the manner substantially as and for the purpose set forth.

2. The combination and arrangement of the

female coupling *P*, sleeve *q*, ears *s*, hand-wheel *r*, groove *t*, and knuckle-joint or their equivalent, constructed and arranged relatively with each other, to operate as and for the purpose described

MELANCTHON W. DANKS.

Witnesses:

HENRY SKINNER,  
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