

*J. J. Parker,*

*Patented June 13, 1844.*

*N<sup>o</sup> 3,629,*

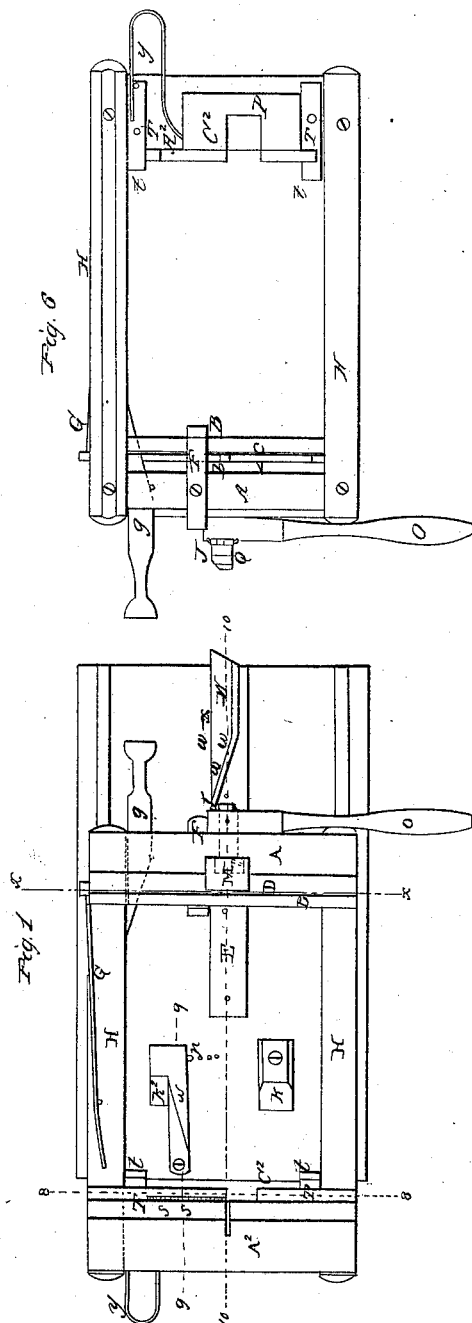


Fig. 6

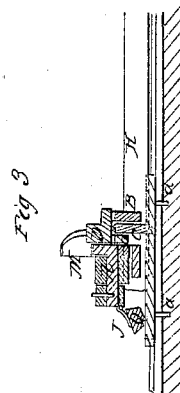


Fig 3

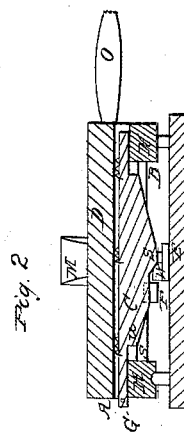
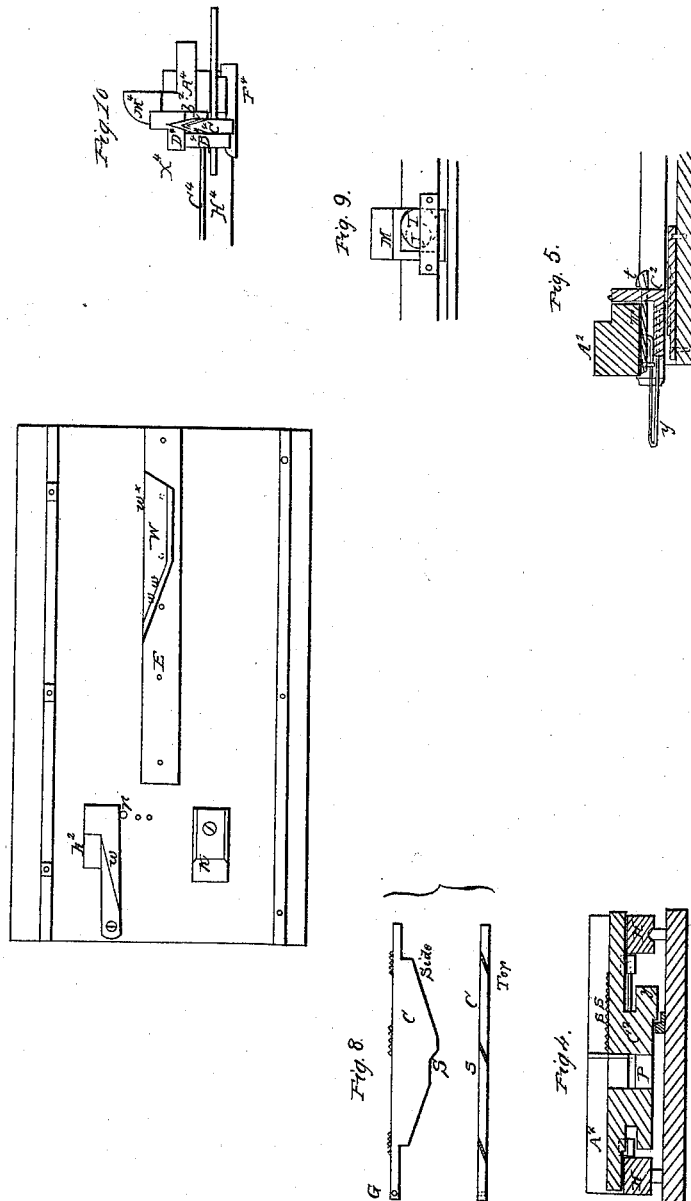


Fig. 2

J. J. Parker,  
Saw-Mill Head-Block,  
No. 3,629,  
Patented June 13, 1844.



# UNITED STATES PATENT OFFICE.

JOS. J. PARKER, OF PLYMOUTH, OHIO.

## SELF-SETTING HEAD AND TAIL BLOCK OF SAWMILLS.

Specification of Letters Patent No. 3,629, dated June 13, 1844.

*To all whom it may concern:*

Be it known that I, JOSEPH J. PARKER, of Plymouth, in the county of Washington and State of Ohio, have invented a new and useful Improvement in Self-Setting Head and Tail Blocks for Sawmills, which is described as follows, reference being had to the annexed drawings of the same, making a part of this specification.

Figure 1 is a top view of the head and tail blocks, together with the carriage; showing also the self acting holdfast. Fig. 2 is a vertical longitudinal section through the center of the self setting apparatus of the tailblock, drawn at the dotted line *x, x*, of Fig. 1. Fig. 3 is a vertical transverse section of the same drawn at the dotted line 10, 10, of Fig. 1. Fig. 4 is a vertical longitudinal section through the self setting apparatus of the head block drawn at the dotted line 8, 8 of Fig. 1. Fig. 5 is a vertical transverse section of the same, drawn at the dotted line 9, 9, of Fig. 1. Fig. 6 is a view of the underside of the head and tail blocks and carriage turned bottom upward. Fig. 7 is a plan or top view of the floor of the saw mill, upon which are seen the flat sills or streamers, with the inclined wedges, &c., by which the setting apparatus are set in motion by coming in contact with the same, as the carriage moves. Fig. 8 represents a side and top view of the slide of the tail block. Fig. 9 shows a front view of the hold fast. Fig. 10 is another modification of the tail block showing an inverted V shaped plate for straddling the slide C to prevent slipping and to do away with the notched plates.

A in Figs. 1 and 3 represents the permanent part of the tail block, made without the usual rabbeted bearing, the latter being made movable and called the "slide block." B, a horizontal bearer fastened to the carriage in front of the permanent tailblock leaving a sufficient space between the bearer and block to admit of the free motion of the slide D.

C represents the slide for raising against the slideblock (with the log thereon) and moving it toward the saw, by running in contact with the inclined wedge W of Fig. 1 as hereafter described. Said slide has three sets of saw like teeth placed crosswise for holding. It consists of a rectangular bar of timber, flat on the upper side which comes in contact with the slide block, and having formed on the underside an oblique inclined

shoulder S as represented in Fig. 2, against which shoulder, the inclined and beveled edge of the inclined wedge W comes in contact for sliding it toward the saw, and having a notch or mortise in the front side of it near the end into which is inserted the end of a spring G fastened to the top of the carriage, which throws back the said slide; after having performed its lateral movement and set over the slideblock with the log thereon. As the carriage advances toward the saw while cutting the log, the spring G presses the oblique inclined shoulder of the slide against the inclined beveled edge of the inclined wedge W, when by the time the said slide passes said inclined wedge the slide is brought to its former position ready for a new or another set. On the underside of the permanent tail block is a sliding gage for determining the thickness of the boards to be sawed, having a wedge shaped end passing under the slide C, against the beveled edge of which sliding gage a shoulder on the underside of the slide strikes, said slide moving horizontally and flatwise against the underside of the tail block, and between the tail block and cross timber of the carriage and secured there by means of a wedge or screw or any convenient manner. By advancing the wedge shaped end of the gage between the carriage timber and shoulder formed on the underside and near the end of said slide, the throw or movement of the slide is diminished, by withdrawing the gage the distance of movement is increased, thereby increasing the thickness of the board.

D represents in Fig. 2 the slide block rabbeted in the form of a right angle or like a common headblock, made movable. This slideblock is placed upon the bearers B, (b) Fig. 3, and over the slide C, and immediately in front of the permanent tailblock. It is held down securely by the "holdfast" M when its weighted arm or lever O is down, and loosed or liberated when said arm or lever is raised. The end of the log rests upon this rabbeted slide block. Immediately behind the slide C and fastened to the front of the permanent tail block is a short bearer (b) upon which the posterior part of the slide block D rests—See Fig. 3.

E represents in Figs. 1 and 7 the flat sill placed on the floor of the mill, and fastened permanently there, upon which the inclined

wedge shaped way is placed. In said sill there are holes or apertures for receiving dowel pins *a, a* on the underside of the wedge shaped inclined way *W*, as represented in Fig. 3, for adjusting said way to the length of the log to be sawed.

*W* represents in Fig. 1 the aforesaid inclined wedge shaped way, having its upper and inclined edge sloped or beveled, against which slope or bevel, the oblique inclined shoulder *S* on the underside of the slide *C* comes in contact in running the carriage back which causes a lateral movement of the slide. On the underside of the way are dowel pins *a, a*, as shown in Fig. 3 which are received by corresponding holes or apertures in the flat sill *E*.

*F* as shown in Fig. 6 is a rectangular shaped bar of timber fastened transversely on the underside of the cross timber of the carriage, beneath the tailblock, extending forward under the bearer *B* and being let into said bearer so as to prevent a lateral movement of said bar *F* of timber. Said cross bar *F* has a groove on its upper surface corresponding to the aperture or space between the two bearers *B b* in which the slide *C* moves back and forth, said cross timber or bar *F* passes along the straight side *w w* of the before described way *W* (Fig. 1) and prevents the carriage from being pressed sideways, by the action of the shoulder on the under side of the slide *C* against the inclined edge of the way *W*.

*G* as shown in Fig. 1, represents the spring for holding the shouldered part *c c* of the slide *C* against the sliding gage *g* so that as the carriage runs back and the oblique inclined shoulder *S* on the under side of the slide *C* comes in contact with and passes along the beveled edge *w w* of the inclined wedge shaped way *W*; the said spring *G* in giving resistance to the lateral movement of the slide occasioned by the action of the way *W* upon or against the shoulder *S* of the slide; it is by this compound action of the spring, and inclined wedge shaped way *W* acting upon the slide, which produces the simultaneous vertical and lateral movement of the slide *C* together with the slideblock and log thereon.

*I* of Fig. 9 represents an eccentric on the end of an axle *J* see Figs. 1 and 9 passing through the tail block secured to the tail block; having a weighted lever *O*, on the opposite end of said axle, for bearing the holdfast hard down upon the sliding block for holding it fast and steady, while the saw is passing through the log;—without this eccentric and lever, the motion of the mill would so agitate the slide block with the log thereon as to endanger the breaking of the saw.

*Q* is a hinged block for lifting said weighted lever for liberating the holdfast

from the slide block, which trips and turns on its points, and passes over the wedged shaped way *W* as the carriage advances toward the saw without moving the lever and which on running back the carriage or "jigging back," as it is termed, assumes a straight vertical line, in passing around the inclined wedge shaped block, or way, *W*, causing the lever to rise, and turn the eccentric, and thus remove the pressure from the slide block.

*M* in Figs. 1, 2, 3, 9 represents the holdfast having on its anterior and superior part a shoulder, which fastens upon the slide block. When the weighted lever or arm is down, it has also a mortise through its center in which the eccentric is situate and operates.

The operation of the foregoing described tail block is as follows, as the carriage is run or jiggered back, the hinge block *Q* suspended from the lever *O*, comes in contact with the inclined edge of the wedge shaped way *W* which presses or gives it a lateral movement, thereby raising the lever, and turns the eccentric, sufficient to raise the holdfast from the slide block, thereby liberating it from the pressure of the holdfast, as the carriage passes on; the oblique inclined shoulder *s* of the slide comes in contact with the sloped or beveled edge of the wedge shaped way *W*, and by the action of the spring, the slide *C* is brought up against the slide block *D* and the simultaneous horizontal and lateral movement of the slide *C* together with the slide block *D* and log thereon is effected, making the set complete when the aforesaid shoulder *s* of the slide arrives at the straight part of the wedge shaped way—at which time the hinged block suspended from the lever *O* passes over the wedged shaped way *W* and lets the weighted lever fall and fasten the slide block. Then as the carriage moves forward toward the saw, the hinge block trips and turns on its joint and passes over the way *W* without raising the lever.

*A*<sup>2</sup> of Fig. 1 represents the head block rabbeted or made in the usual form.

*C*<sup>2</sup> of Figs. 1, 4, 5, 6 represents the slide which is placed in front of the head block. It is made in two parts and connected by a yoke *P* or otherwise, so as to leave a space between them for the saw to retreat into the groove in the head block; the outer end of each half of the slide being halved where they move laterally back and forth over the sides *H*, of the carriage; the inner ends next to the saw are suspended by tenons *T* Figs. 1 and 5 fastened to the under side of the head block, said tenons, passing through oblong mortises, made in the slide of greater length and depth, than the thickness of said tenons, so as to allow said slide to have a corresponding, vertical and horizontal move-

ment, and moving laterally the log toward the saw to be presently described. Said slide is held against the head block by means of shoulders *t* on the aforesaid ten-  
 5 ons. Said slide is drawn back to any required distance for a set, as the carriage is running back by a shoulder formed on the under side of one-half of said slide coming in contact with a wedge shaped block *w*,  
 10 Figs. 7 and 8, said block being fastened to the floor of the mill at one end by means of a bolt or screw or otherwise, the other end being movable so as to regulate the set, by moving it to the right or left, and main-  
 15 taining it in its required position by means of a pin *p* placed in the floor. Said slide after being drawn over the required distance as aforesaid is raised by running up inclined planes *k*, *k*<sup>2</sup>, one of which is con-  
 20 nected with the aforesaid wedge block *w*, which liberates the shoulder of said slide from the wedge block *w*. The teeth *s*, *s*, being pressed into the log it is carried over by the action of a spring *Y* Fig. 6 against  
 25 a shoulder on said slide.

*s s* of Fig. 4 represents a plate fastened to the aforesaid slide *C*<sup>2</sup> having its upper edge notched in the form of saw teeth, to prevent the slide from slipping under the log  
 30 while in the act of setting.

*Y* as shown in Fig. 6, is a metallic spring, made of sufficient strength for throwing or moving the slide laterally with the log thereon.

35 *X*<sup>4</sup> is an inverted V-shaped iron which

straddles the slide and supersedes the use of the notched plates.

I disclaim all invention to the individual parts before described. But

What I do claim as my invention, and 40 desire to secure by Letters Patent is—

1. The manner herein described and set forth in which I have arranged the movable parts of the tail block and combined them with the carriage so that by the oblique in- 45 clined shoulder *S* of the setting slide *C*, and the spring *G*, in combination with the sloped or beveled edge of the wedge shaped way *W* (by which the slide *C* is raised and made fast against the slide block *D*) a hori- 50 zontal lateral and vertical compound action is produced the pressure of the slide block *D*, with the log thereon, upon the permanent bearers *B*, *b*, being diminished, and the lateral movement of the log toward the 55 saw effected in the manner and for the purposes set forth.

2. I also claim the manner of setting the end of the log resting on the head block, by the combination, and arrangement of the 60 divided slide *C*<sup>2</sup> connected by the connecting yoke *P* and the shoulder on the under side of the slide *C*<sup>2</sup> and spring *Y* in conjunction with the wedge shaped block *w*, and inclined planes *k*, *k*<sup>2</sup> for the purposes set forth.

JOSEPH J. PARKER.

Witnesses:

JACOB L. MYERS,  
 JOB S. KING.