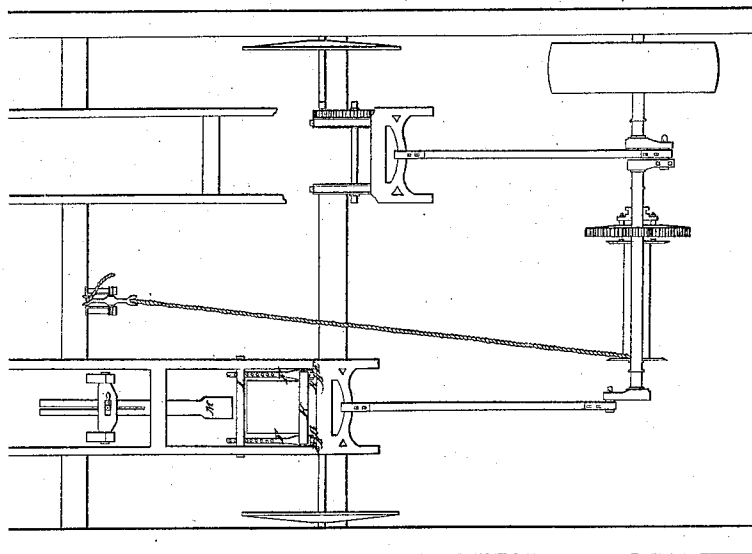
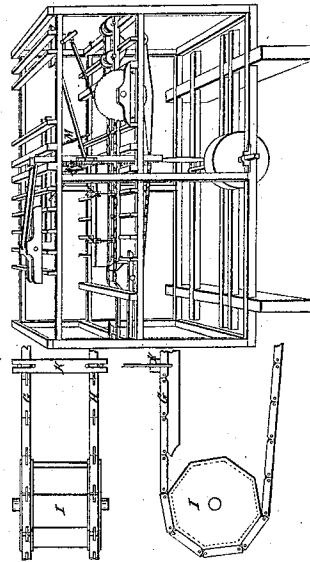
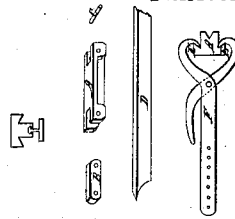


*J. Murray,*  
*Reciprocating Saw Mill.*

*25 sheets, Sheet 1.*

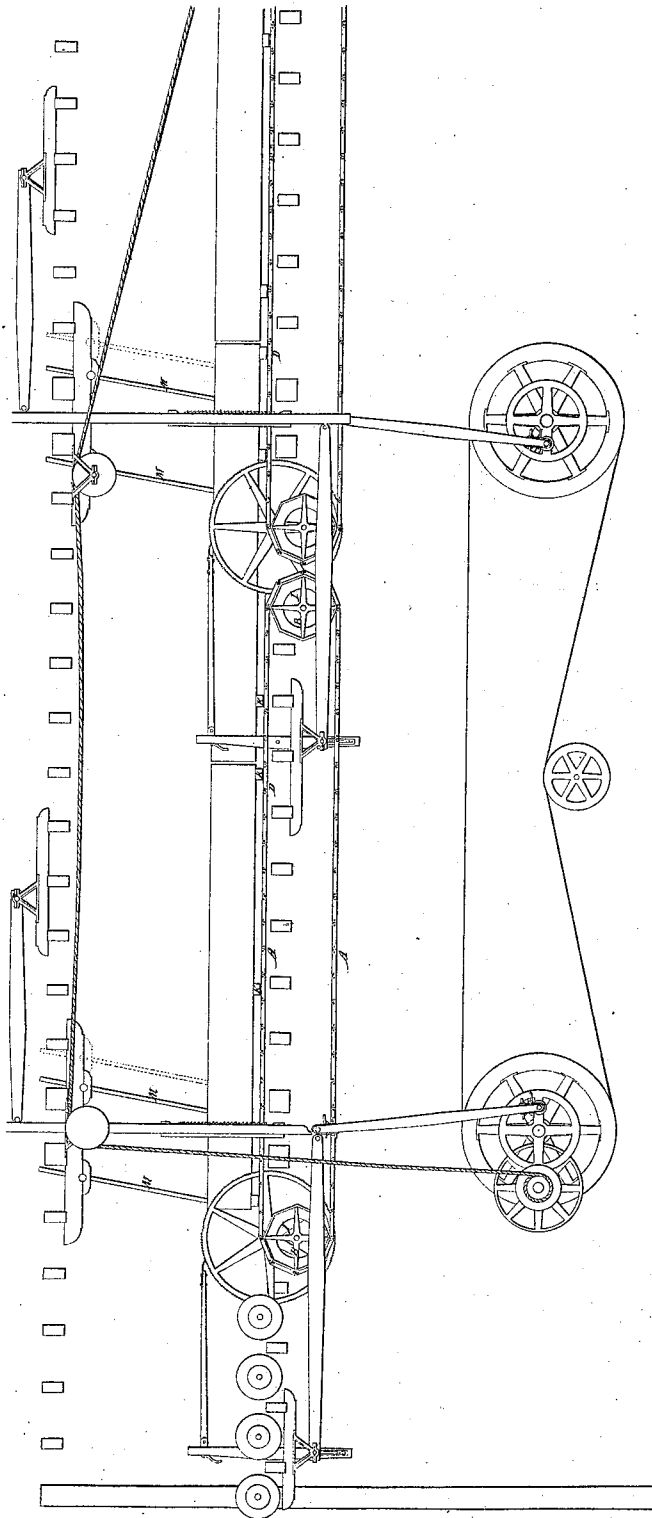
*Patented Oct. 11, 1836.*



*J. Murray,*  
*Reciprocating Saw Mill.*

*25 sheets, Sheet 2.*

*Patented Oct. 11, 1836.*



# UNITED STATES PATENT OFFICE.

JAMES MURRAY, OF BALTIMORE, MARYLAND.

## ENDLESS-SLIDE-CHAIN-CARRIAGE SAWMILL.

Specification of Letters Patent No. 51, dated October 11, 1836.

*To all whom it may concern:*

Be it known that I, JAMES MURRAY, of the city of Baltimore and State of Maryland, have invented a new and useful Improvement in Sawmills by the Application of an Endless-Slide-Chain Carriage, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

10 The distinguishing feature of this improvement consists in making use of an endless chain carriage having a continual motion for conveying the logs to the saws as well as conveying away the boards, instead of the common sliding carriage, which  
15 requires to be stopped and drawn back every time a cut has been made to receive a new log. The main part of the sawmill frame is made similar to those of the best construction in use.

In the improvement each link of the chains consists of three pieces, namely, the link A, the coupling or strop band the pin C. The link is made in the manner represented in the drawing with an acute angled or V notch, or other formed groove on the under side for sliding over the way D, which is formed of a corresponding shape on its upper edge to fit thereon. Projections E,  
30 are likewise formed on the sides of the link of the chain to allow the pincers F, to lay hold of the same, for securing the clamps which embrace the log, and hold it fast. The strap is made with an eye at each end, through which, and corresponding eyes in the cars pass the pins for connecting the cars, and strap together; the pins are made round to fit the holes just mentioned. There  
35 are two chains G, H, forming the two sides of the carriage placed parallel with each other at a sufficient distance apart according to the width of carriage required. They pass around polygonal wheels I, placed horizontally at a suitable distance apart determined by the length of the carriage. The parts of the chains which support the log move over permanent ways D, made in the manner before described fixed on the frame. The log is secured to the chains by means  
40 of clamps, each clamp consisting of a trans-

55 som Figure K, placed across the chains, upon which the log is laid. A beam L, is placed upon the log over the transom just mentioned connected at the ends of the pincers F, which lock under the projections of the chains before described. There may be any required number of these clamps which are required to be removed constantly by the attendant, as the log advances, and replaced in the rear of the saws. The polygonal  
60 wheels at each end over which the chains pass, being necessarily larger than the pinion on the common sawmill the speed must be regulated by suitable gearing. The log may also be secured upon the carriage  
65 by binders in the usual manner with the addition of braces M, to prevent the log from rising.

An additional set of saws, and carriage may be used for cutting a log into any number of pieces, and after these pieces are cut, they may be turned down on another carriage and cut into laths, flooring, or other stuff from half an inch to any requisite thickness.

75 By the use of this carriage but little time is wasted in sawing as one log may be placed against the end of the preceding one, and the saws kept constantly going, whereas in the common gang sawmill, the saws will be idle while the boards are taken off and the carriage is backed to receive another log. Another advantage in the use of an endless carriage is that it will discharge the lumber out of the mill without manual labor. The  
80 gangs of saws and endless carriages may be so arranged that the timber from one carriage, when sawn shall pass directly upon another carriage, or otherwise.

The invention claimed and desired to be secured by Letters Patent consists in—

The application of an endless slide chain or chains forming a continual moving carriage, upon which the timber is sawed, and the boards, etc., are conveyed out of the  
85 mills.

JAMES MURRAY.

Witnesses:

SAM FARNANDES, N. P.,  
JOHN W. POWERS.