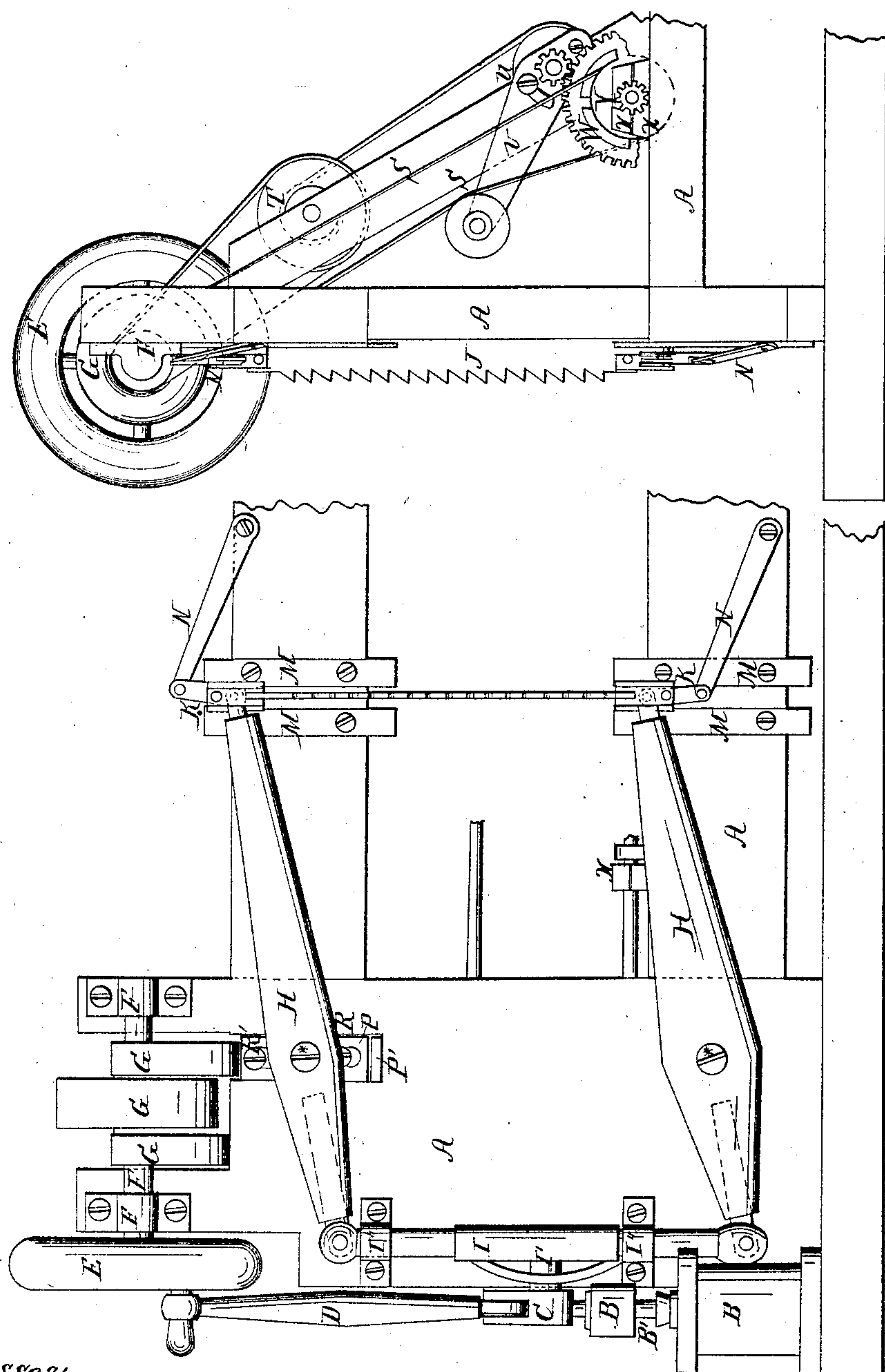


*W. H. Crittendon,
Reciprocating Saw Mill.*

N^o 23,355.

Patented Mar. 29, 1859.



*Witnesses,
Geo. W. Schmitt
J. C. Baker*

*Inventor,
W. H. Crittendon*

UNITED STATES PATENT OFFICE.

WM. H. CRITTENDON, OF GRAFTON, OHIO.

SAWING-MACHINE.

Specification of Letters Patent No. 23,355, dated March 29, 1859.

To all whom it may concern:

Be it known that I, WM. H. CRITTENDON, of Grafton, county of Lorain, in the State of Ohio, have invented a new and useful
5 Improvement in Saw Machinery; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

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

A, A, A, Figure 1, is the main frame to which the several other parts are attached.

15 B, is the steam cylinder.

B', is the piston rod.

B'', is a stay box through which the piston rod plays.

20 C, is the cross-head; D, the connecting rod.

E, is the fly-wheel; F, main shaft; F', F', main boxes.

25 G, G, G, are pulleys. The small ones are for operating the feed works of the mill, the large one for any other purpose that may need power.

H, H, are straining levers.

30 I, is the straining rod which is attached to the crosshead of the steam engine at I' and being thus connected the power is applied to the saw J.

I'' I'' are boxes for holding the stay-rod.

35 The saw J, is attached to the straining levers by means of the compensating levers K, K. Said compensating levers rocking on the pivots L, prevent a curvilinear motion being given to the saw sidewise and consequent binding of the crosshead against the guides M.

40 N, N, are compensating rods the outer ends of which are set at a distance propor-

tionate to the amount of leverage given on the levers H, H, and compensating levers K, K, between the points marked * on the levers H, and the pivots of the levers K. 45 The upper lever H is made adjustable by means of the slotted holder P, and key P', said holder being kept in place by means of the screws or bolts R, R'.

S, S, Fig. 2, are braces which support the 50 upper part of the main frame. They also furnish bearings for the feed works of the mill, T, being upper drum or cone.

U, is the lower cone.

V, is the lever which holds the journal of 55 the feed pinion on the cone shaft. At the opposite end of said lever is attached a stud on which the tightening pulley revolves for gigging back the carriage.

W, is the large gear that feeds up the car- 60 riage shaft.

X, X', are boxes for holding the carriage shaft.

Y is a gigging back drum.

J', is a side view of the saw. 65

N, N, are the compensating levers and rods as shown in Fig. 1.

Having thus described my improved saw-mill what I claim as new and desire to secure by Letters Patent is— 70

The manner of arranging the compensating levers K, K, and rods N, N, in combination with the straining levers H, H, straining rod I, adjustable slotted holder P, saw J, the whole being arranged and operating 75 in the manner and for the purpose as set forth.

WM. H. CRITTENDON.

Witnesses:

FRANCIS E. ROWE,
WILLIAM HART.