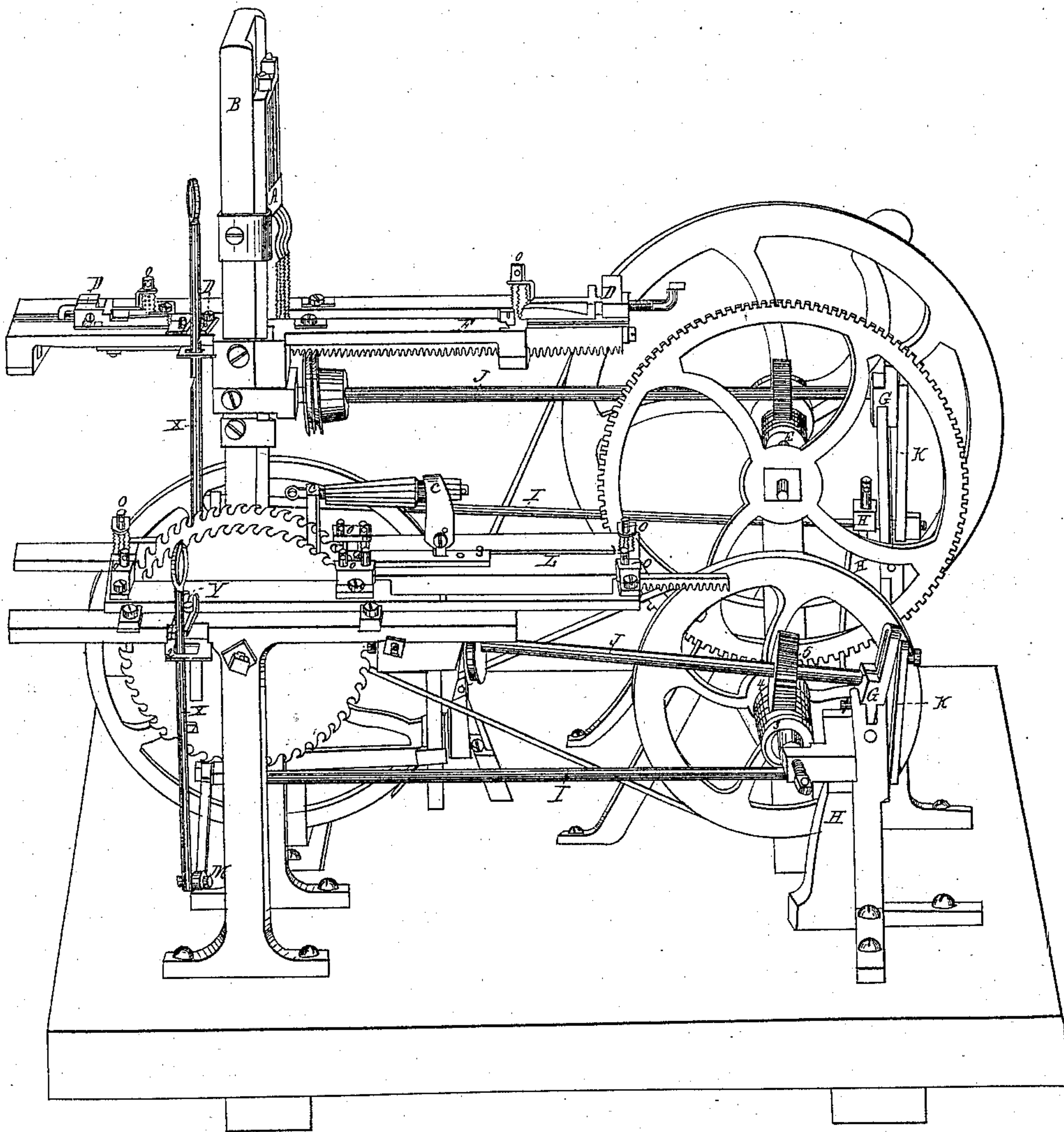


A.S.T. Copeland,

Circular Saw Mill.

N^o 11,210.

Patented July 4, 1854.



Witnesses

*Wilson McCandless,
Marcus A. Aderson*

Inventor

A.S.T. Copeland

UNITED STATES PATENT OFFICE.

A. S. T. COPELAND, OF PITTSBURG, PENNSYLVANIA.

MECHANISM FOR OPERATING SAWMILL-CARRIAGES.

Specification of Letters Patent No. 11,210, dated July 4, 1854.

To all whom it may concern:

Be it known that I, A. S. T. COPELAND, of
Pittsburg, in the county of Allegheny and
State of Pennsylvania, have invented a new
5 and useful Improvement in Sawmills,
called "A. S. T. Copeland's Stationary and
Portable Sawmill," of which the following
is a specification.

The rack and gig-wheels and all the gear-
10 ing connected therewith, of the old saw-
mill are dispensed with in the improved
mill, in the manner following, to wit, on
the one end of centripetal spindle I stands
cam M; to cam M is connected an upright
15 handle X which is furnished with two pins
(1) on its reverse sides; said handle works
through catch (2) up and down as occasion
may require; on the other end of centripetal
spindle I stands spring cam H and cam K;
20 a pin in cam K works in slide of cam G;
to cam G is connected a triangular shaft J
which is furnished with a pinion 5; im-
mediately under said pinion are two right
and left double threaded endless screws E,
25 and in the right or left of said screws said
pinion works according as it is sought to
move log carriage L forward or backward;
thus by setting the upper pin 1 of upright

handle X below catch 2 triangular shaft
pinion 5 is thrown into left screw 3 and 30
three distinct reverse motions are made;
a pin on log carriage L coming in contact
with latch Y sets upright handle X off
catch 2, whereupon spring cam H reverses
cams M, K, and G, and triangular shaft J 35
to their rectilinear position, making six
reverse motions; by raising upright handle
X until the lower pin 1 is above catch 2 the
triangular shaft pinion 5 is thrown into
right screw; then second pin on log carriage 40
L coming in contact with latch Y spring
cam H sets triangular shaft J in its rectili-
near position, making twelve reverse mo-
tions.

I claim as my invention—

The combination of the triangularly
working shaft, J; the mechanism for shift-
ing it into and out of gear; with the right
and left handed endless screws 3 and 4, in
any manner, substantially the same as here- 50
inbefore shown and described for the pur-
poses set forth.

A. S. T. COPELAND,

Attest:

MARCUS W. ACHESON,
THOS. STEEL,