

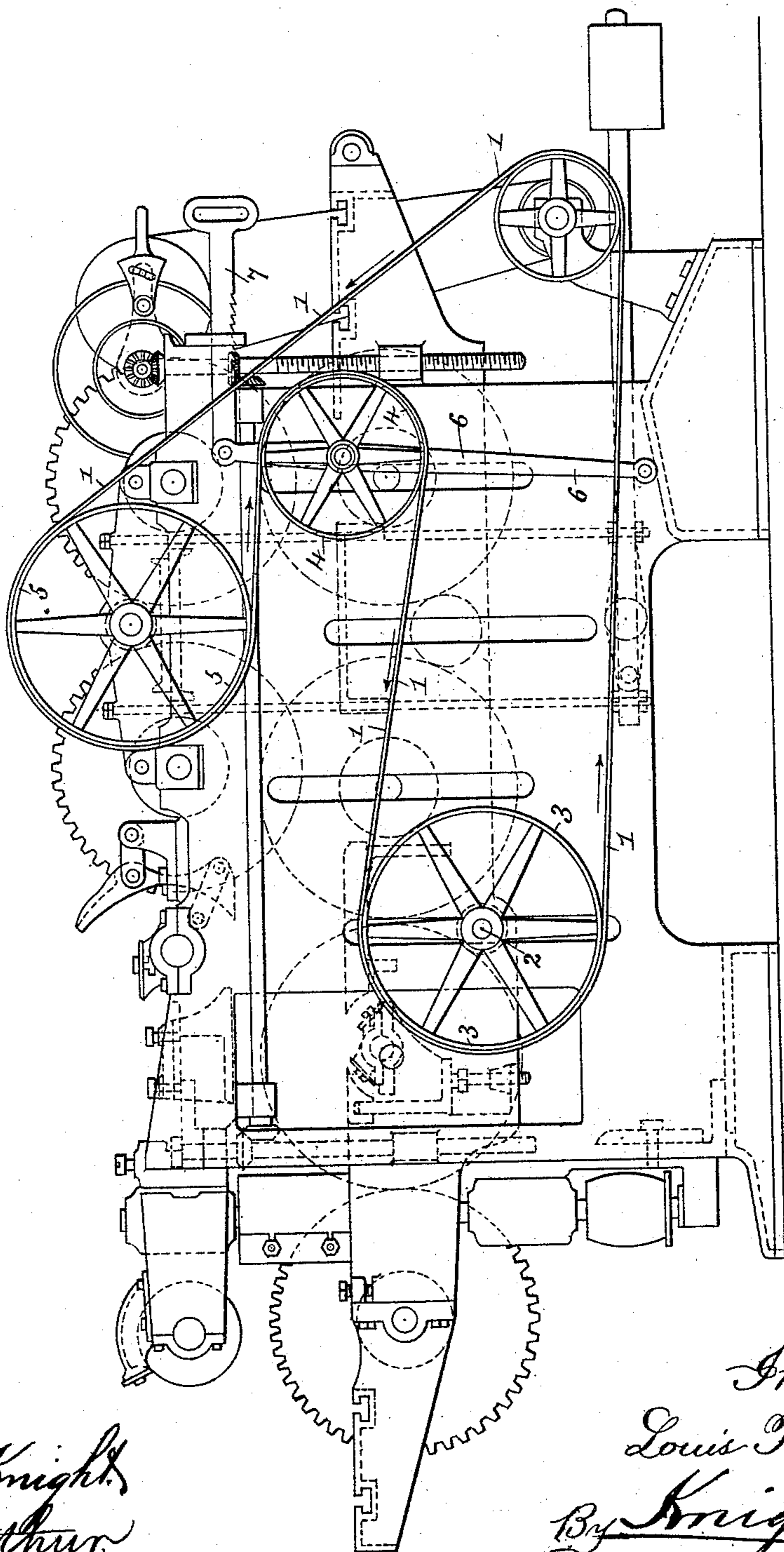
(No Model.)

L. T. PYOTT.

DRIVING GEAR FOR WOOD WORKING MACHINES.

No. 421,303.

Patented Feb. 11, 1890.



Attest:

H. S. Knight,  
E. Arthur.

Inventor:

Louis T. Pyott

By Knight Bros

attys:

# UNITED STATES PATENT OFFICE.

LOUIS T. PYOTT, OF LOWER MERION, PENNSYLVANIA.

## DRIVING-GEAR FOR WOOD-WORKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 421,303, dated February 11, 1890.

Application filed September 10, 1889. Serial No. 323,551. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS T. PYOTT, a citizen of the United States, residing at Lower Merion, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Driving-Gear for Wood Planing and Molding Machines, of which the following is a full, clear, and exact specification.

My invention relates to improvements in methods of driving the feed-rolls of wood planing and molding machinery; and my improvements consist, first, in providing the upper and lower set of feed-rolls, each set or line geared together independently in such wise that the relative vertical adjustment of the feed-rolls to suit the thickness or width of the material being operated upon does not affect the driving-connections, and in arranging, in connection with the said separate sets of feed-rolls and their respective independent trains of gearing, a single driving-belt for imparting simultaneous movement to the two sets of feed-rolls under any variation in their relative adjustment; secondly, in combining with the said separate sets of feed-rolls and their gearing and the single or common driving-belt, which imparts simultaneous movement thereto, a tightening-pulley arranged intermediately of the horizontal planes of the driving-pulleys of the respective sets of rolls to tighten the single driving-belt on the belt-pulleys of both trains of feed-rolls simultaneously, substantially as hereinafter described.

In order that the invention may be fully understood, I will proceed to describe my improved driving mechanism with reference to the accompanying drawing, which shows a side elevation of an improved double surfacing or planing or molding machine with my improvement applied.

In order to obtain all the beneficial results of the roll-driving mechanism in common use in planing-machines, and at the same time to obviate difficulties and disadvantages existing therein, I employ a compound belt motion consisting of a single belt 1, driven from the power-shaft 2 at the entry end of the

machine, passing around pulley 3 on the upper line of rolls, thence around a tightening-pulley 4, thence to a pulley 5 on the bottom line of rolls, and thence to the power-shaft pulley.

The gearing in connection with the belt-pulleys is indicated in dotted lines, and does not require specific description.

The tightening-pulley 4 is mounted on a lever 6, connected with a rack-bar 7, for securing it in any position in which it is set for tightening the belt, or permitting its instantaneous release, so as to slacken the belt on all the pulleys simultaneously. By means of the single belt 1, operated by the tightener 4, as described, the gearing in connection with the top and bottom lines of rolls is brought into action at the same instant in starting the feed, and the tightener furthermore compensates for variations which occur when the upper and lower sections of the machine are changed in relative distance to operate upon various thicknesses or widths of material. This method of belting feed is applicable to either what is known as the "falling-bed" machine (illustrated in the accompanying drawings) or the old style of planer and molder, where the upper cutter-head is raised and lowered in relation to the main bed or base of the machine.

One great advantage that is gained by my arrangement is: As the upper and lower lines of rolls are driven by independent trains of gearing, the strength and durability are doubled. If either section breaks, they become idle or pressure rolls, and the other section will still drive the feed.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination, in a planing-machine, of an upper and a lower line of feed-rolls, each line geared together independently, driving-pulleys 3 5, connected with the upper and lower lines of rolls, respectively, and the driving-belt 1, arranged, substantially as herein shown and described, to impart simultaneous movement to both upper and lower sets of rolls and gearing.

2. The combination, in a planing machine,  
of an upper and lower line of feed-rolls, each  
line geared together independently, driving-  
pulleys 3 5, each mounted on the shaft of an  
5 intermediate pinion of the upper and lower  
lines of rolls, the driving-belt 1, passing over  
said pulleys, and the tightening-pulley 4, ar-

ranged intermediate of the horizontal planes  
of said driving-pulleys, substantially as set  
forth.

LOUIS T. PYOTT.

Witnesses:

GEO. K. MECKÉ,  
JOHN BREEN.