

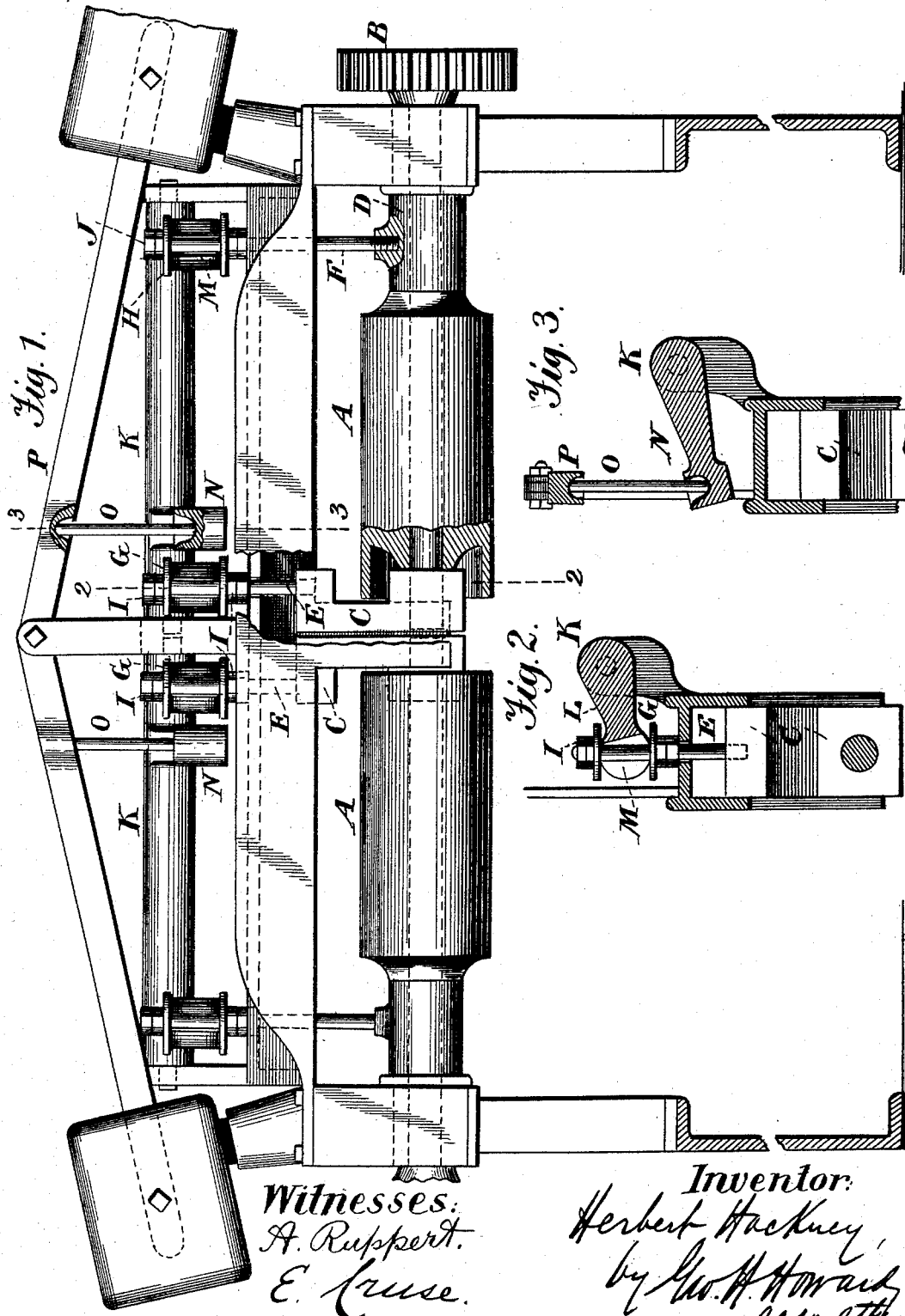
(No Model.)

H. HACKNEY.

FEED WORKS FOR WOOD WORKING MACHINES.

No. 489,076.

Patented Jan. 3, 1893.



Witnesses:
A. Ruppert.
E. Cruise.

Inventor:
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UNITED STATES PATENT OFFICE.

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FEEDWORK FOR WOODWORKING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 489,076, dated January 3, 1893.

Application filed December 30, 1891. Serial No. 416,617. (No model.)

To all whom it may concern:

Be it known that I, HERBERT HACKNEY, a citizen of the United States, residing at South Evanston, county of Cook, State of Illinois, have invented certain new and useful Improvements in Feedworks for Woodworking-Machines, of which the following is a specification, reference being had to the accompanying drawings.

It is the purpose of my invention to provide a construction of the pressure devices for the movable feed-roller which will permit the accommodation of the rolls to irregularities in the thickness of the lumber without cramping the gearing which drives them. For the furtherance of this object I provide for maintaining the roll always in correct alignment with the gearing by which it is driven; accommodating transverse inequalities in the thickness of the material worked by making use of short rolls so geared that each roll is independent, and can accommodate itself to the thickness of the lumber which is beneath it.

In the drawings: Figure 1 is a view of a portion of the feed-works, as seen from the end of the machine, the drawing being partially in section. Fig. 2 is a vertical section on line 2, 2, of Fig. 1. Fig. 3 is a like section, on line 3, 3, of Fig. 1.

A A are two broken rolls each provided with its special driving and pressure devices which are in all essential respects duplicates of each other so that only one need be described.

B is the driving-gear upon the shaft of the roll A. It may be actuated by any suitable gear, but as the latter forms no part of my present invention and is not necessary to its understanding, it is not herein illustrated.

Attached to the bearings C D of the roll A are studs E F provided at their upper ends with collars G G and H H. Said collars are adjusted by means of nuts I I and J J above and below.

Parallel with the roller A and journaled in the framing of the machine is a rock-shaft K having at or near each end an arm L M. Said arms are slotted to receive the studs E and F and the adjustable collars G G and H H bear upon the upper and lower surfaces, respectively,

of the arms L M. The outer ends of said arms have a circular section as to their upper and lower bearing surfaces, which may be either spherical or cylindrical, so as to be capable of making an easy but sufficiently close fit between the collars G G, H H, in all positions.

Projecting from the rock-shaft K is an arm N which is cupped upon its upper surface to receive a pin O, the latter transmitting to said arm N the pressure of a loaded lever P. The pressure upon the arm N is transmitted to the rock-shaft K and tends to impart a rotating movement thereto, and through said rock-shaft is transmitted to the arms L and M. As the arms L M are of the same length and move through the same angle, the roll A in all its movements preserves the alignment to which it is originally adjusted. Where narrow pieces of lumber are passed underneath the rolls no accommodative movement of the latter to inequalities in the thickness at the opposite edges of the lumber is necessary and where wide lumber passes beneath the rolls the independent movement of each short roll is sufficient to preserve a steady and even feed. The original alignment of the rolls is so adjusted as to make the gearing driving them in correct operative position and the original conditions are preserved whatever the irregularities in the thickness of the lumber may be.

Without confining myself to the precise details herein shown and described, I claim:

The combination of a pressure roll, a rock shaft having an arm projecting over each bearing of said roll, a stud projecting from each bearing and loosely connected to said arms, a third arm N also projecting from said rock shaft, and a pivoted loaded lever connected to the arm N to impart a yielding rotative pressure to the rock shaft to cause the latter to exert a yielding pressure, through its connections, to the bearings of the pressure roll, substantially as described.

HERBERT HACKNEY.

Witnesses:

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