2 Sheets--Sheet 1.

G. GAVIT.

Machines for Grinding Rolls.

No. 151,485. Patented June 2, 1874.

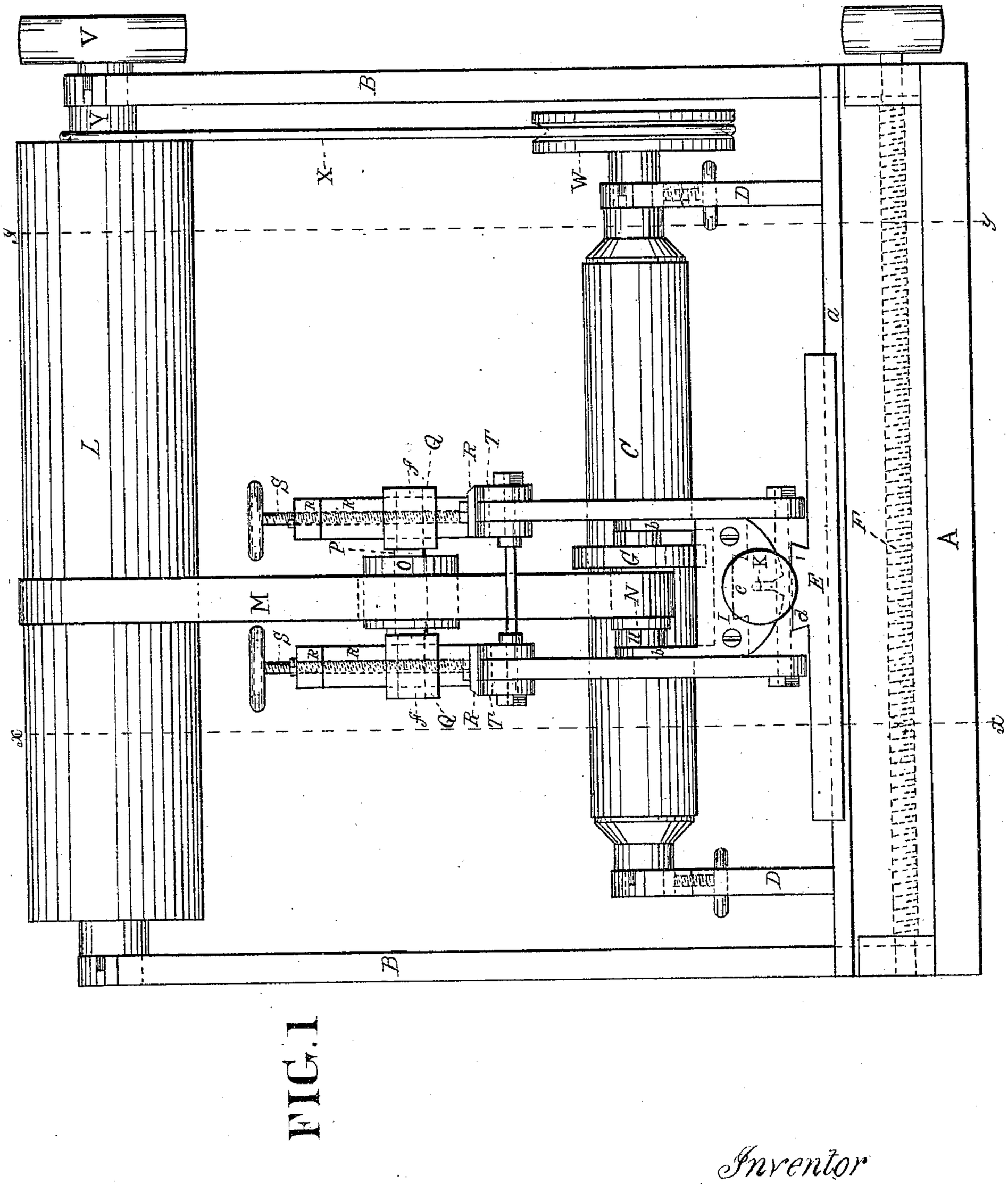

FIG. 1

Witnesses
Thomas E. Bewley.
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Inventor
Gorton Gavit
By His Attorney
Stephen Ostick

2 Sheets--Sheet 2.

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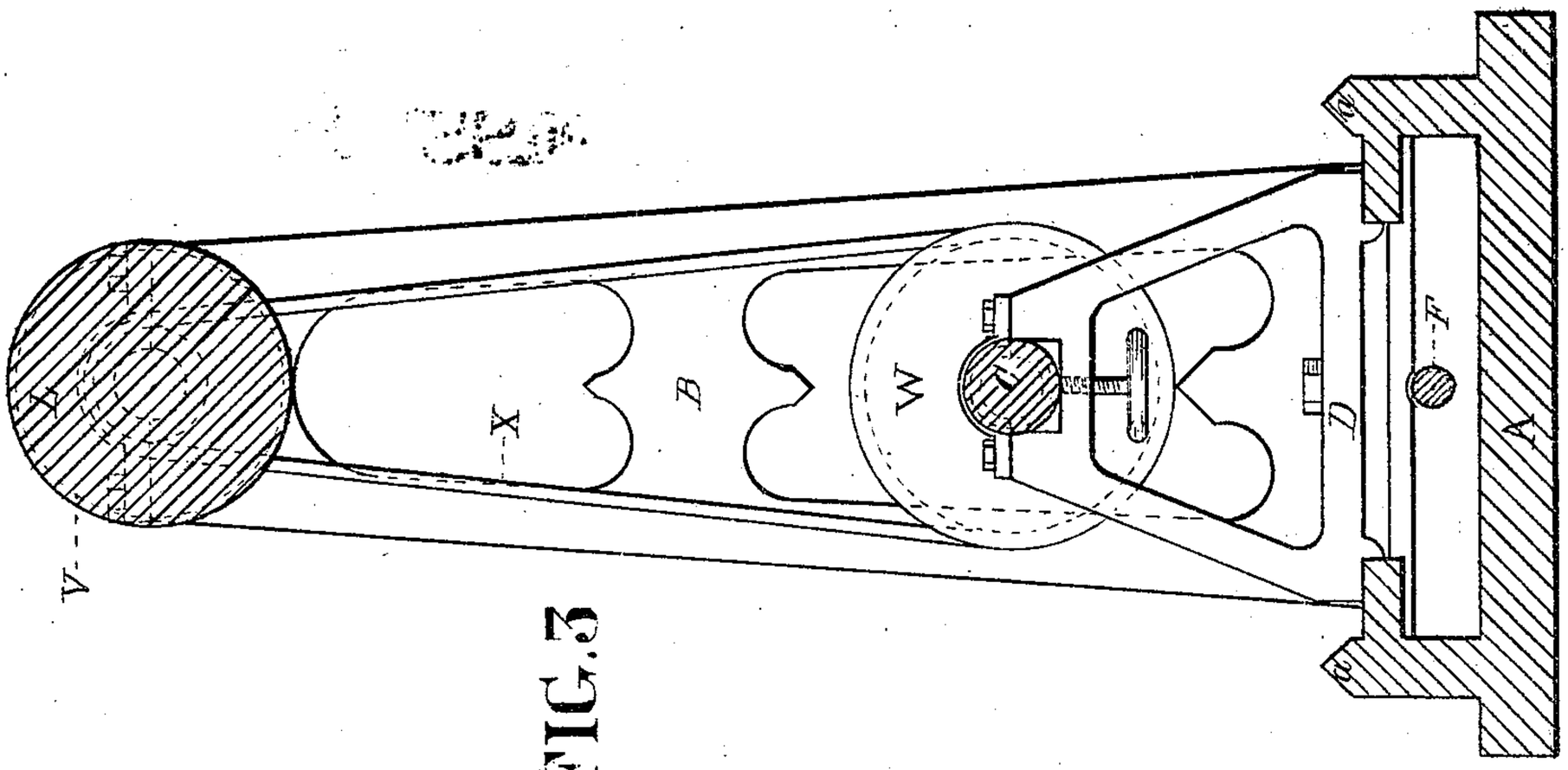

FIG. 3

FIG. 2

Witnesses.

Thomas S. Beasley.

Jos. S. Hathorn.

Inventor.

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By His Attorney

Stephen Ustick

UNITED STATES PATENT OFFICE.

GORTON GAVIT, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR GRINDING ROLLS.

Specification forming part of Letters Patent No. **151,485**, dated June 2, 1874; application filed January 29, 1874.

To all whom it may concern:

Be it known that I, GORTON GAVIT, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improvement in Machines for Grinding Rolls, of which the following is a specification:

My invention relates to the combination, with adjustable carriages which carry a pair of grinding-wheels, of a series of pivoted bars for supporting the belt-adjusting device, as hereinafter fully described.

Figure 1 is a side elevation of my improved machine. Fig. 2, Sheet No. 2, is a vertical section at the line *x x* of Fig. 1. Fig. 3 is a like section at the line *y y*.

Like letters of reference in all the figures indicate the same parts.

A is the bed-plate of the machine. B B are the housings. C is the roll to be ground. D D are pedestals, which support the journals of the roll. E is a slide, which has a longitudinal movement on the V-shaped guides *a a*, for carrying the grinding-wheels back and forth from end to end of the roll, the movement of the slide being given by the longitudinal screw-rod F. G G are the grinding-wheels, whose shafts H H have their bearings in the cheeks *b b* of the carriages I I. These blocks are connected with the carriages J J by means of the dovetail guides *c c*, and have an accurate adjustment thereon by means of the screw-rods K K for setting the wheels. The carriages J J also have an adjustment toward or from the roll C, being connected with the dovetail guide *d* of the slide E. L is a drum, whose journals *e e* are supported in the upper ends of the housings B B. M is a belt for driving the grinding-wheels. It passes around the drum, the pulleys N N on the shafts H H of said wheel, and the intermediate pulley O of the shaft P. Thus a uniform and simultaneous movement is given to the two wheels by a single belt. Q Q are bearings, which support the journals *f f* of the shaft P. They have a vertical adjustment in the pedestals R R by means of the screw-rods S S for regulating the tightening of the belt M. The pedestals are connected with the horizontal cross-bars T T, that have a joint connection with the carriages J J by means of the vertical rods U U, as seen in Figs. 1 and 2, which admits of the carriages being moved inward or outward for a partial adjustment of the grinding-wheels G G, above described. On one end of the shaft of the drum L there is a pulley, V, which connects by means of a belt with the motive power. W is a pulley connected with one end of the rolls C. A belt or band, X, connects with this pulley, and the pulley Y on the drum-shaft, for communicating motion to the roll.

I claim as my invention—

In a machine for grinding rolls, in combination with the adjustable carriages I I J J, carrying the grinding-wheels, the pivoted bars U U U U and T T, for supporting the belt-adjusting device, substantially as described.

GORTON GAVIT.

Witnesses:

STEPHEN USTICK,

A. FURM BLAIR.