

(No Model.)

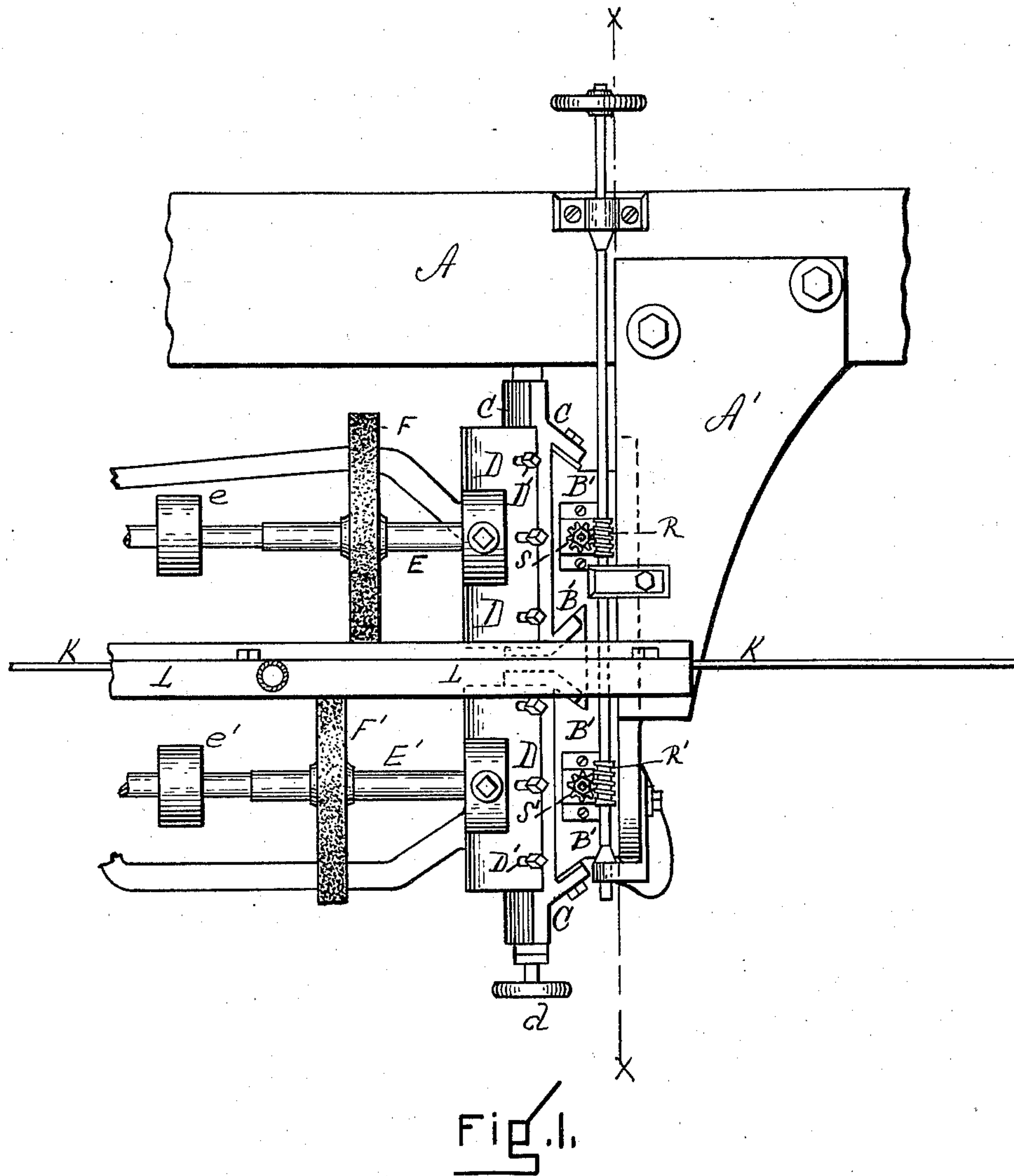
2 Sheets—Sheet 1.

J. ROBERTSON.

GRINDING ADJUSTMENT FOR BELT KNIFE LEATHER SPLITTING MACHINES.

No. 542,740.

Patented July 16, 1895.



WITNESSES
E. A. Hardbury
A. M. Conner

INVENTOR
James Robertson
By his Atty.
Henry Williams

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Fig. 2.

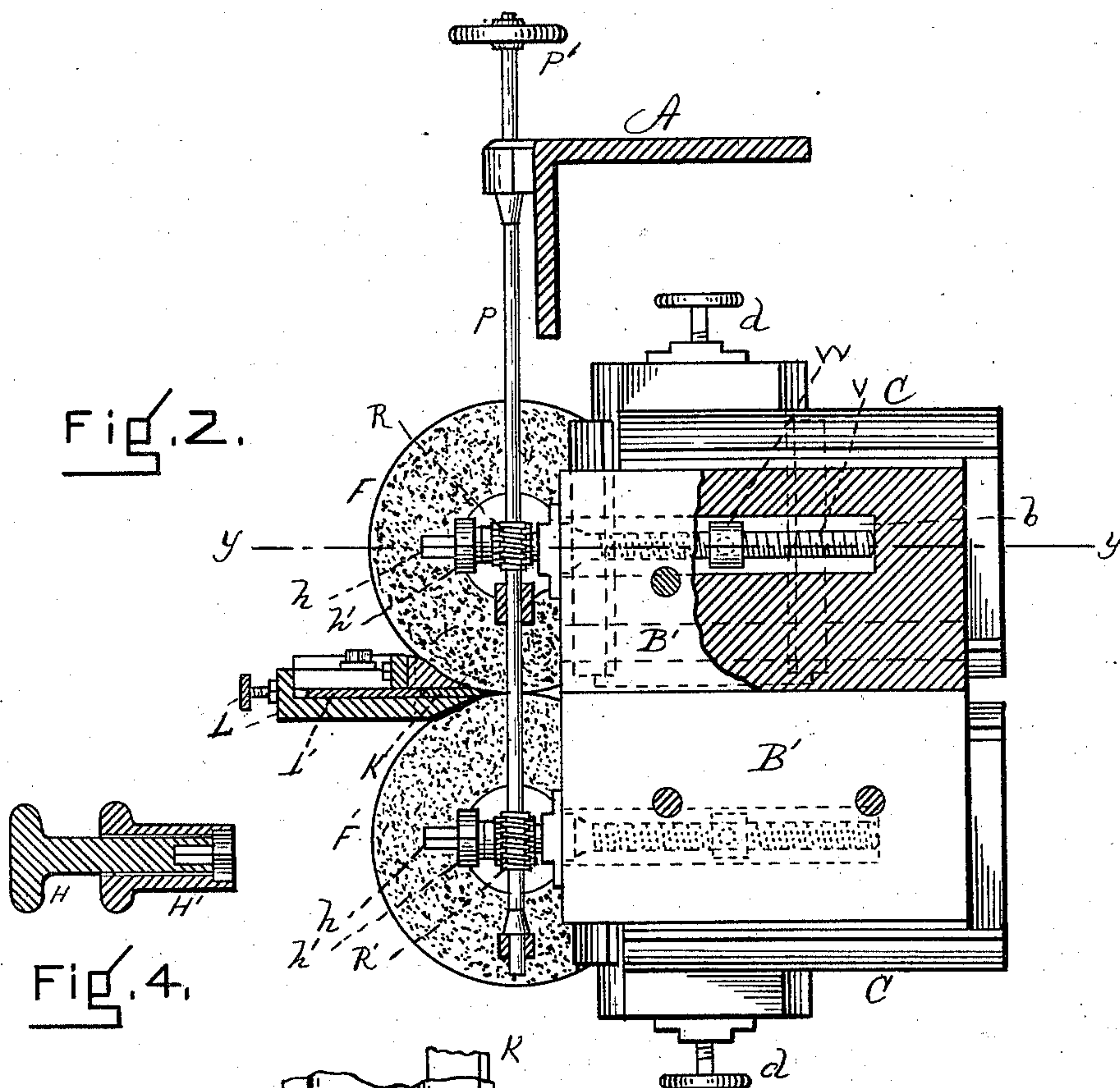
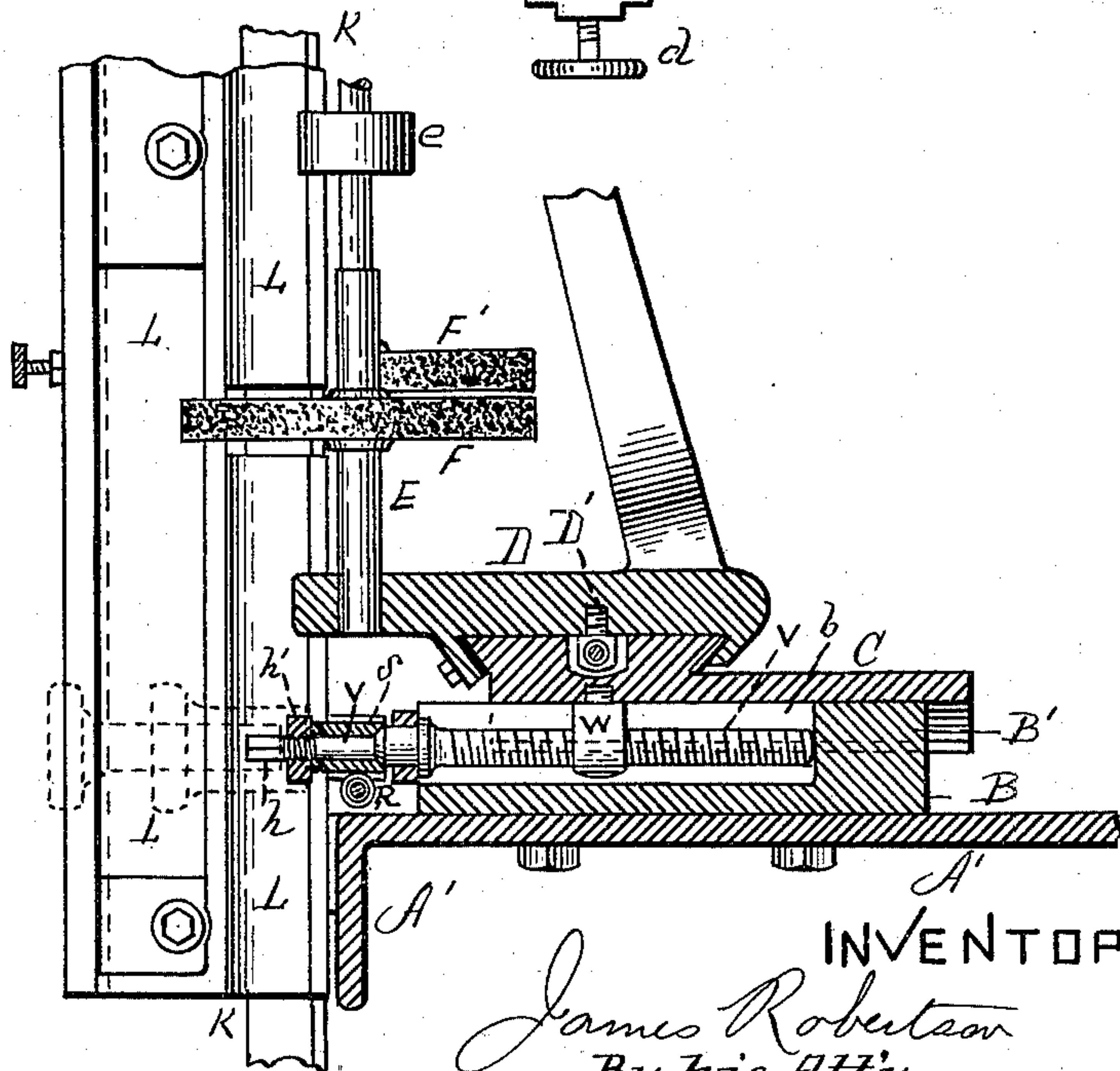


Fig. 4.

Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES ROBERTSON, OF WOBURN, MASSACHUSETTS.

GRINDING ADJUSTMENT FOR BELT-KNIFE LEATHER-SPLITTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 542,740, dated July 16, 1895.

Application filed March 19, 1895. Serial No. 542,356. (No model.)

To all whom it may concern:

Be it known that I, JAMES ROBERTSON, a citizen of the United States, residing at Woburn, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Grinding Adjustment for Belt-Knife Leather-Splitting Machines, of which the following is a specification.

This is an improved movement or adjustment of the belt-knife of a leather-splitting machine, whereby opening of doors or kneeling by the operator is rendered unnecessary, uniformity produced in the bevels on the opposite sides of the knife, and economy attained in the wear thereof, all with the effect of improving the quality of work produced by the splitting-knife; and the invention consists in the novel construction and arrangement of parts hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a portion of a belt-knife leather-splitting machine with my improved grinding adjustment applied thereto. Fig. 2 is a vertical section taken on line *x*, Fig. 1, looking toward the grinders. Fig. 3 is a horizontal section taken on line *y*, Fig. 2. Fig. 4 is a detail in section of a wrench whereby separate hand adjustment of one of the grinders may be had.

Similar letters of reference indicate corresponding parts.

A represents a portion of the frame of an ordinary belt-knife leather-splitting machine, and A' a bracket attached thereto. Secured to the bracket A' is a vertical piece B from which extends portions B' which constitute ways for the horizontal movement of the slides C, set one above the other, as shown in Figs. 1 and 2.

D D are carriages adjustably secured to slides at D', Fig. 3, and having an independent movement (not new in this invention) whereby they may be moved up and down and out of the way, if desired, by the hand-wheels *d*.

E E' are shafts each having one bearing in a carriage D, (the other bearings being as usual, and not new.) The shafts are driven by the pulleys *e e'*, and have rigidly secured to them the grinding-wheels F F'. The grinders F F' are set on opposite sides of the cut-

ting-edge of the endless belt-knife K, which is driven in the usual manner, and is guided and supported by the grinder-jaw L, which contains a back-plate L' for the purpose of moving the knife forward as it wears.

P is a vertical shaft having its bearings in the frame of the machine and extending up to a point convenient to the operator, so that he can rotate it by means of the hand-wheel P' without stooping. On this shaft P are fixed two worms R R' which engage, respectively, two gears S S' which are fast to screws V extending into the recesses *b* in the ways B'. These screws engage nuts W which are secured to the slides C, Figs. 2 and 3. By rotating the shaft P, therefore, the screws V are rotated, thus moving forward simultaneously the slides C, and hence the carriages D, which move the grinding-wheels F F' simultaneously forward against the opposite sides of the edge of the belt-knife K, sharpening and beveling both sides thereof at once with absolute accuracy, and of course sharpening both sides absolutely alike.

Should it be desired to move forward one carriage and its grinding wheel independently of the other, an adjusting wrench H, Fig 4, may be applied to either of the heads *h* of the screws or bolts B, the portion H' of said wrench being used to actuate the nut *h'* on said heads.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a grinding adjustment for belt-knife leather-splitting machines, the combination of the ways B B' secured to the frame of the machine, the horizontally moving slides C in said ways, the carriages D secured to said slides, the driving shafts E E' having bearings in said carriages, the grinding-wheels F F' fast on said driving shafts, the belt-knife K extending between said grinding-wheels, the vertical shaft P provided with the worms R R', and the screws V provided with the gears S S' which are engaged by said worms, said screws engaging said slides C by means of the nuts W, substantially as described.

JAMES ROBERTSON.

Witnesses:

HENRY W. WILLIAMS,
E. A. WOODBURY.