(No Model.)

H. STREIBER.

CRANK PIN TURNING MACHINE.

No. 457,960. Patented Aug. 18, 1891.

Fig. 1.

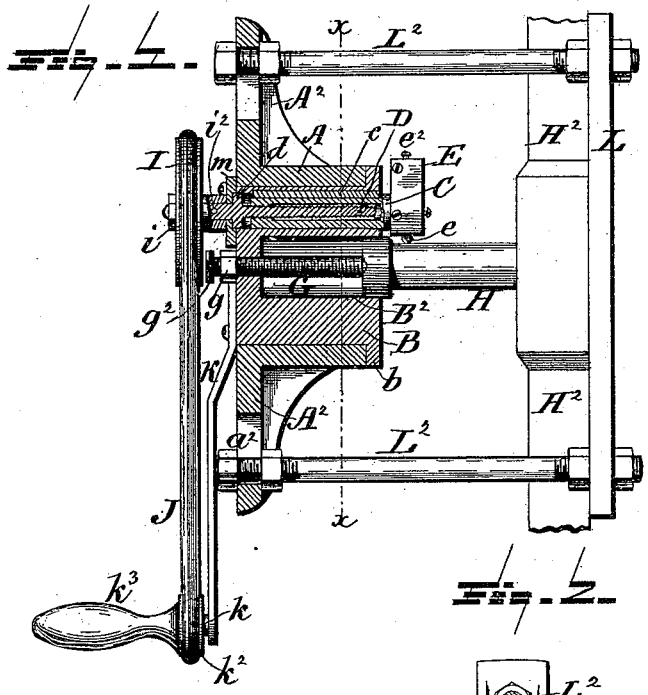


Fig. 3.

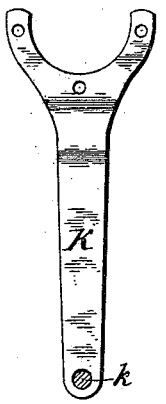
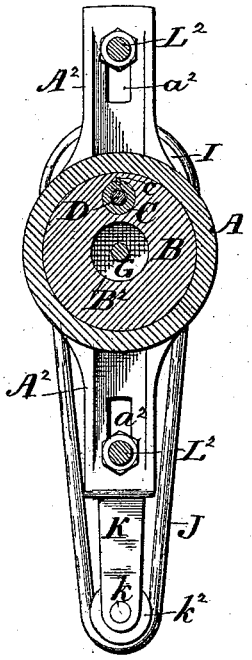


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

HILBERT STREIBER, OF OIL CITY, PENNSYLVANIA.

CRANK-PIN-TURNING MACHINE.

SPECIFICATION forming part of Letters Patent No. 457,960, dated August 18, 1891.

Application filed December 22, 1890. Serial No. 375,475. (No model.)

To all whom it may concern:

Be it known that I, HILBERT STREIBER, a citizen of the United States, residing at Oil City, in the county of Venango, State of Pennsylvania, have invented certain new and useful Improvements in Crank-Pin-Turning Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to machines to turn the crank-pins of locomotives and other journals having a collar at the ends thereof, and also for turning other shafts when worn out of true; and the objects of my improvement are to provide a machine of simple construction provided with a central rotatable bushing carrying the tool-box spindle and adapted to be connected to the spokes of wheels by means of bolts located parallel with the crank-pin. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section of the device attached to the spokes of a wheel. Fig. 2 is a transverse section on line $x\,x$ of Fig. 1. Fig. 3 is a front view of the power-lever.

In said drawings, A represents the frame of the machine, which is preferably made of cast-iron, and has two lugs A^2 arranged on opposite sides of the center of said frame. Said lugs have slots a^2 to receive one end of bolts L^2, that have their opposite ends adjustably secured by means of nuts to a slotted clamp-plate L, located against the inner side of the wheel-spoke H^2, so that the retaining-bolts are made to pass between the spokes of said wheel in a direction parallel with the crank-pin H of the wheel. The center portion of the frame A has a cylindrical perforation, within which is placed a cast-metal bushing B, having a central cylindrical opening B^2 large enough to receive the collar of the crank-pin. The bottom of the opening B^2 is closed and has a central screw-tapped perforation, having in engagement therewith a screw G, the pointed end of which is received in the centering-hole in the end of the crank-pin, while the opposite end is locked by means of a jam-nut g thereon bearing against the face of the bushing. The screw G has a head g^2, by which its pointed end can be made to engage with the centering-hole of the crank-pin.

The bushing B has a cylindrical perforation therethrough parallel with the central opening B^2, and within said perforation is placed the steel spindle C, having at one end thereof, preferably integral therewith, the tool-holder E, which has therein the cutting-tool e, adjustably retained by means of the screw e^2 pressing against the rear end thereof. The spindle C is prevented from rotating upon its own axis, as it carries a feather c, that is also received in a groove formed in the bushing B.

To advance the tool-holder and its cutting-tool along the surface of the crank-pin H, while the tool-holder is made to travel around said crank-pin by rotating the bushing B, the spindle C is hollow and its inner end is screw-threaded and has in engagement therewith a screw D, upon the outer end of which is secured the belt-wheel I by means of the nut i upon said outer end and a pin i^2, passing through the hub of said belt-wheel and through the screw. To prevent any lengthwise motion of the screw, it has integral therewith a collar d, against which is placed a housing m, that is secured to the bushing B, and as the hub of the belt-wheel I also abuts against the housing the latter prevents any lengthwise motion of the screw in either direction. Endwise motion of the bushing B is also prevented by its collar b at one end and by the housing m and the inner part of the power-lever K at the other end. Said lever K is secured to the bushing B, and has upon its outer end a spindle k, upon which is loosely mounted a pulley k^2, having an axial handle k^3, and said pulley is connected by means of a belt J with the belt-wheel I, so that when feeding or advancing the cutting-tool the handle must be held firmly in the hand to prevent rotation. The belt can be either straight or crossed, according to the direction in which it is desired to advance the cutting-tool. By this construction either crank-pins with collars or collarless crank-pins can be turned with ease, and said crank-pins may be of any length by using the bolts L^2 of any suitable length. As the bushing B is substantially the only part that is rotated,

but little power is required to operate the machine, and as the cutting-tool is straight there is no springing thereof, and consequently a perfectly cylindrical form can be given to the crank-pin.

Having now fully described my invention, I claim—

1. In a crank-pin-turning machine, the combination of the frame having two slotted lugs, a clamp-plate L, parallel with said lugs, and bolts adjustably uniting said plate L to said slotted lugs, a bushing B, central within the frame, a tool-holder-carrying spindle passing eccentrically through said bushing, a screw within said spindle, and means to rotate said bushing, substantially as described.

2. The combination of the frame A and means, as described, for securing it to a crank-pin wheel, a bushing B, central within said frame, a tool-holder, its spindle passing through said bushing, a screw within said spindle and provided with a collar, a housing *m*, embracing said screw and its collar, a band-wheel upon the end of the screw, a power-lever secured to the central bushing, and means to rotate the band-wheel, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HILBERT STREIBER.

Witnesses:
C. G. STRANCE,
F. W. HAYS.