No. 657,024. Patented Aug. 28, 1900.

F. GOETZ.

FEED ROLL.

(Application filed June 11, 1900.)

(No Model.)

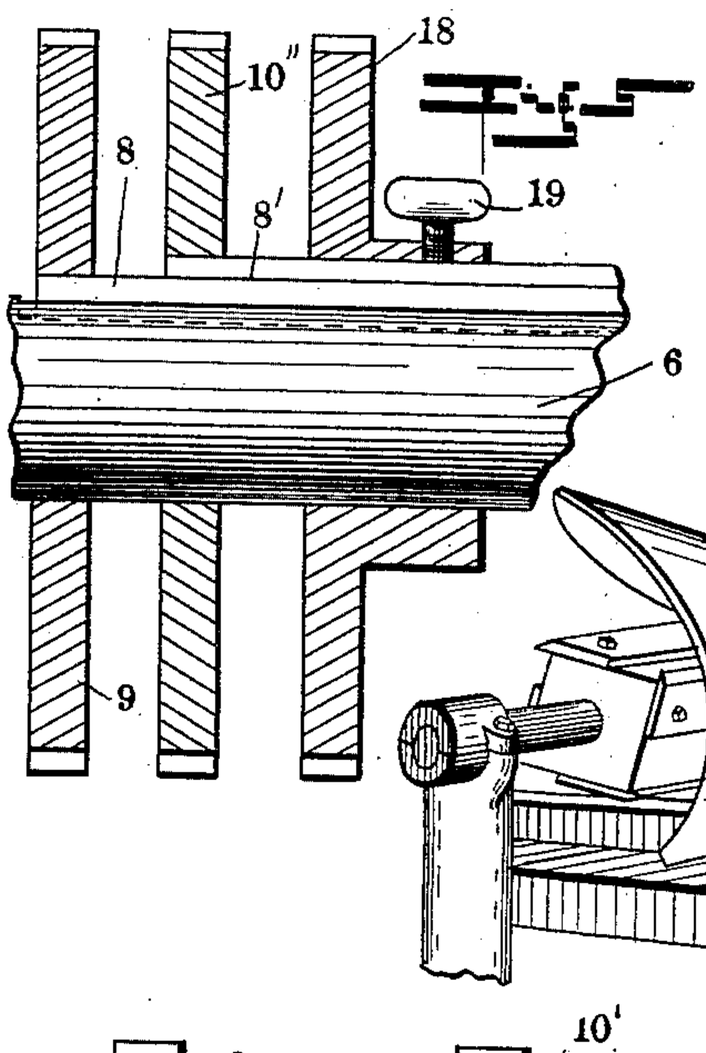
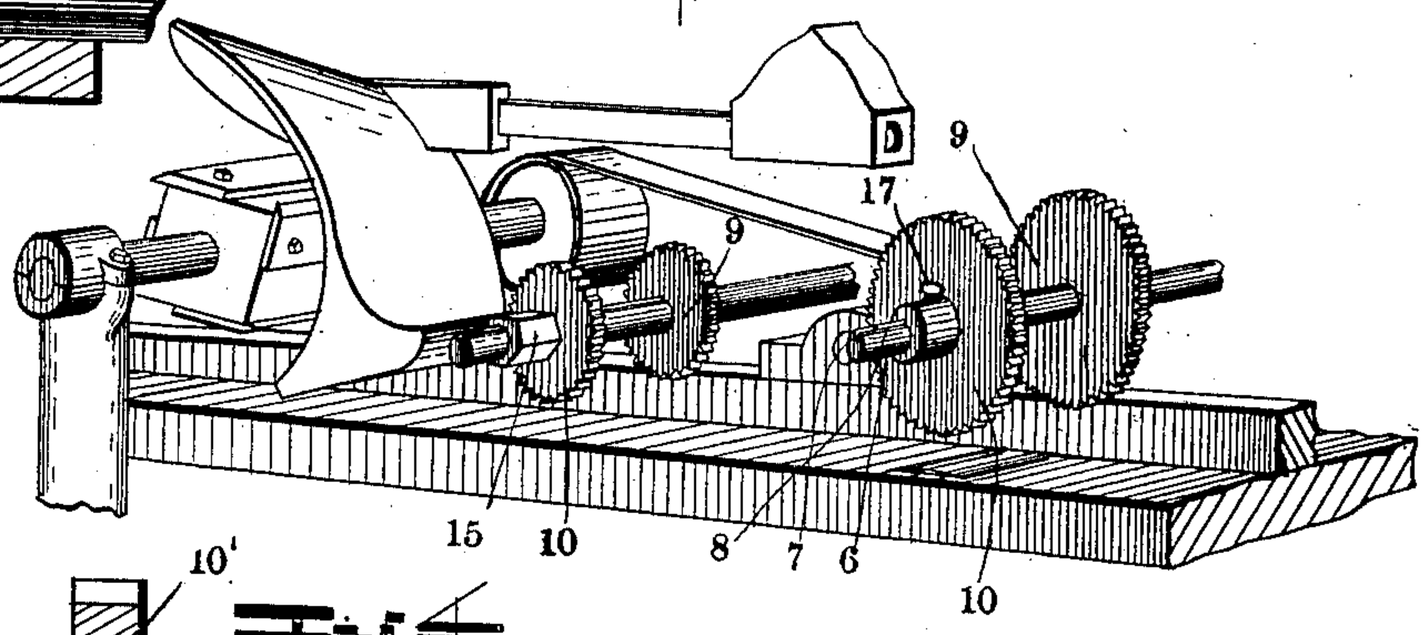


Fig. 1.



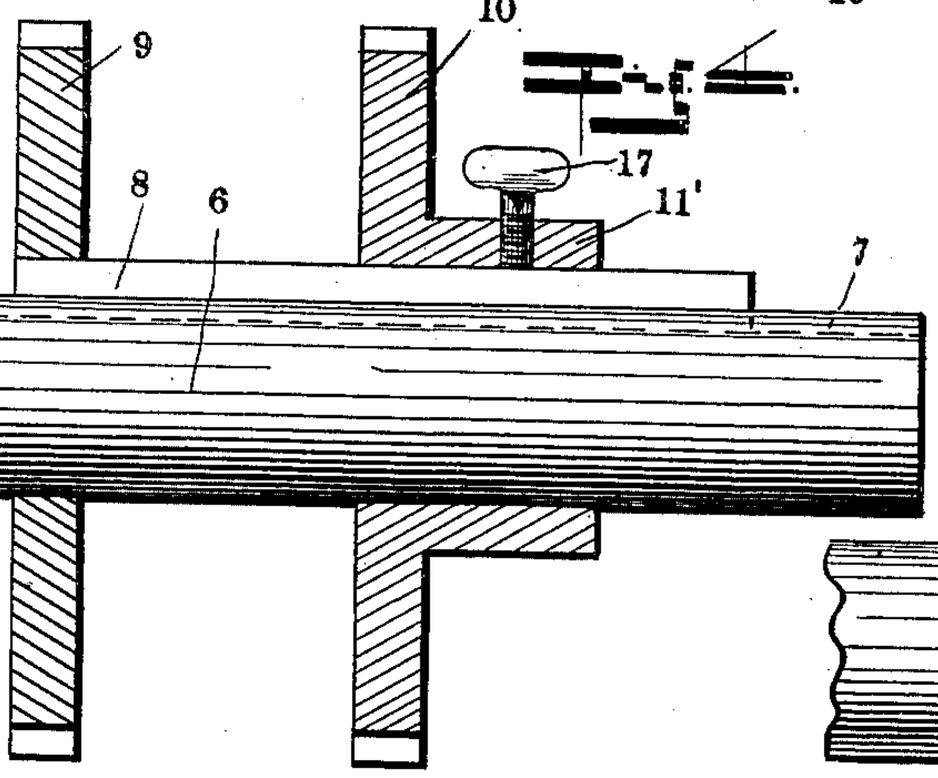


Fig. 2.

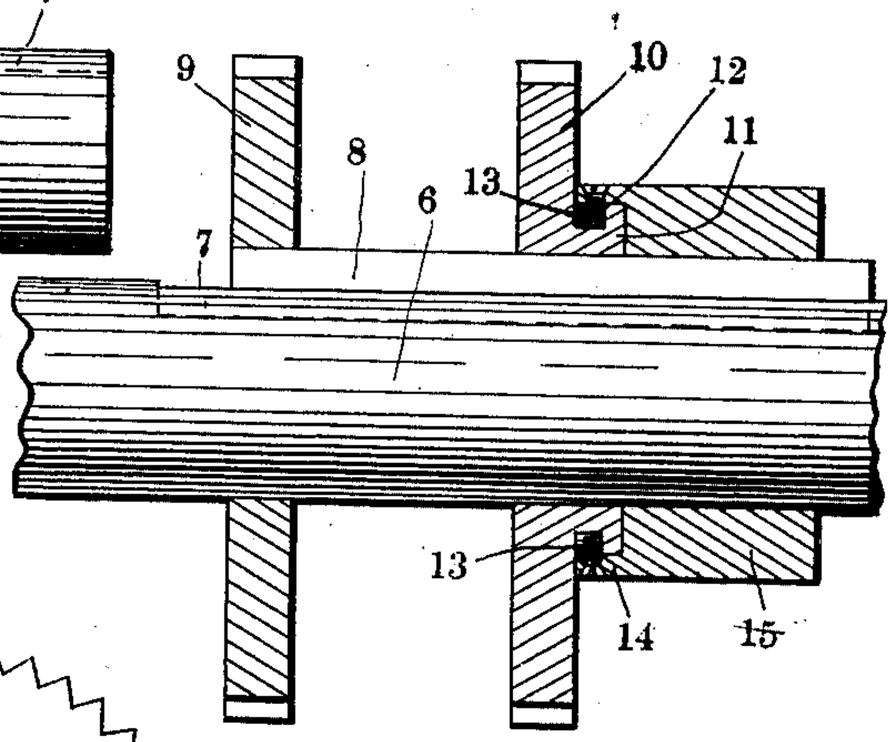
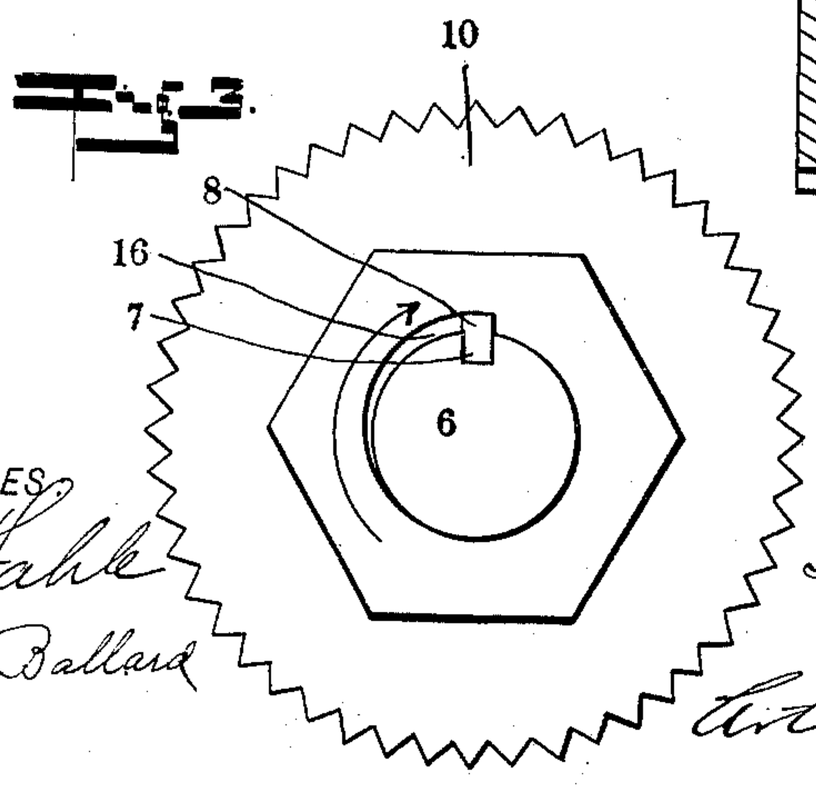


Fig. 3.



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FRIEDRICH GOETZ, OF INDIANAPOLIS, INDIANA.

FEED-ROLL.

SPECIFICATION forming part of Letters Patent No. 657,024, dated August 28, 1900.

Application filed June 11, 1900. Serial No. 19,814. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH GOETZ, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Feed-Roll, of which the following is a specification.

My invention relates to an improvement in feed-rolls, particularly those used in that form of wood-planers known as "molding-machines."

At the present time machines of the class mentioned are provided with one or more feed-rolls each consisting of a series of rolls roughened peripherally, their position on the shaft depending upon the position of spacing-washers. In the use of machines of this class it is often necessary to rearrange the feed-rolls upon their shafts, and in order to accomplish this it is necessary to remove the ordinary clamping-nut, rearrange the rolls and spacing-washers, and replace the nut, all of which often takes more time than the operation of the machine for the production of the desired amount of molding.

The object of my invention is to provide a feed-roll construction of such form as to obviate the difficulty mentioned.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of a section of a molding-machine provided with my improved rolls. Fig. 2 is an axial section of one of said rolls. Fig. 3 is an end elevation. Fig. 4 is an axial section of a modified form. Fig. 5 is a similar section showing the construction as applied to more than two rolls.

In the drawings, 6 indicates the shaft upon which the rolls are mounted and by means of which the said rolls are driven. Shaft 6 is provided with a keyway 7 or its equivalent, and mounted in said keyway so as to slide axially therein is a key or feather 8, to one end of which is secured, so as to slide therewith, a feed-roll 9. Keyed upon key 8 and longitudinally movable thereon is a second roll 10, having a short hub 11, which is provided with a peripheral groove 12. Groove 12 is arranged to receive the ends of pins 13, projecting inward from a flange 14 of a sleeve 15. Sleeve 15 is provided with a cam-shaped interior 16 and is rotatable upon the shaft, so that when rotated in the direction indicated by the arrow it will clamp the key 8 in any desired longitudinal position, said clamping being due to the coaction between the sleeve, key, and shaft, and therefore resulting in fixing the axial position of the roll 10. In order to shift the position of the rolls, the operator merely turns the sleeve 15 back through a partial revolution, thus loosening the several parts upon the shaft. Roll 9, with its attached key 8, may then be shifted to any desired position, the key sliding in its way and through roll 10, and roll 10 may also be shifted with relation to the shaft and to roll 9. All of the parts may be then secured in axial position by tightening the sleeve.

In the form shown in Fig. 4 the second roll 10′ is provided with an integral hub 11′, in which is mounted a set-screw 17, adapted to engage the top of key 8.

In Fig. 5 the second roll 10″ is provided with a key 8′, which is secured thereto and which lies immediately on top of key 8. The third roll 18 may then be keyed upon the two keys 8 and 8′ and provided with any clamping means for clamping the several rolls in any desired relative position, the set-screw 19 being shown in the drawings for that purpose. It will be noticed from this figure that any desired number of rolls may be used together without departing from the spirit of my invention.

I claim as my invention—

1. The combination with a drive-shaft, of a pair of rolls mounted thereon, and fixed against rotary motion thereon but capable of axial movement, connections between the two rolls, and a single means for clamping said rolls in any desired axial position upon said shaft.

2. The combination with a shaft having a keyway formed therein, of a roll mounted thereon, a key secured to said roll and axially movable in the keyway, a second roll keyed upon said key but longitudinally movable thereon, and means carried by said second roll for engaging said key and thereby clamping the two rolls in any desired axial position upon the shaft.

3. The combination with a shaft having a keyway formed therein, of a roll mounted

thereon, a key secured to said roll and longitudinally movable in said keyway, a second roll keyed upon said key, and a clamping-sleeve connected to said second roll but rotatable thereon, said clamping-sleeve encircling the shaft and being provided with an interior cam-face adapted to engage said key and thereby clamp the two rolls upon the shaft.

FRIEDRICH GOETZ.

Witnesses:
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