No. 690,456. Patented Jan. 7, 1902.

# E. ORDING.

## FEED ROLL.

(Application filed Aug. 6, 1901.)

(No Model.) 2 Sheets—Sheet 1.

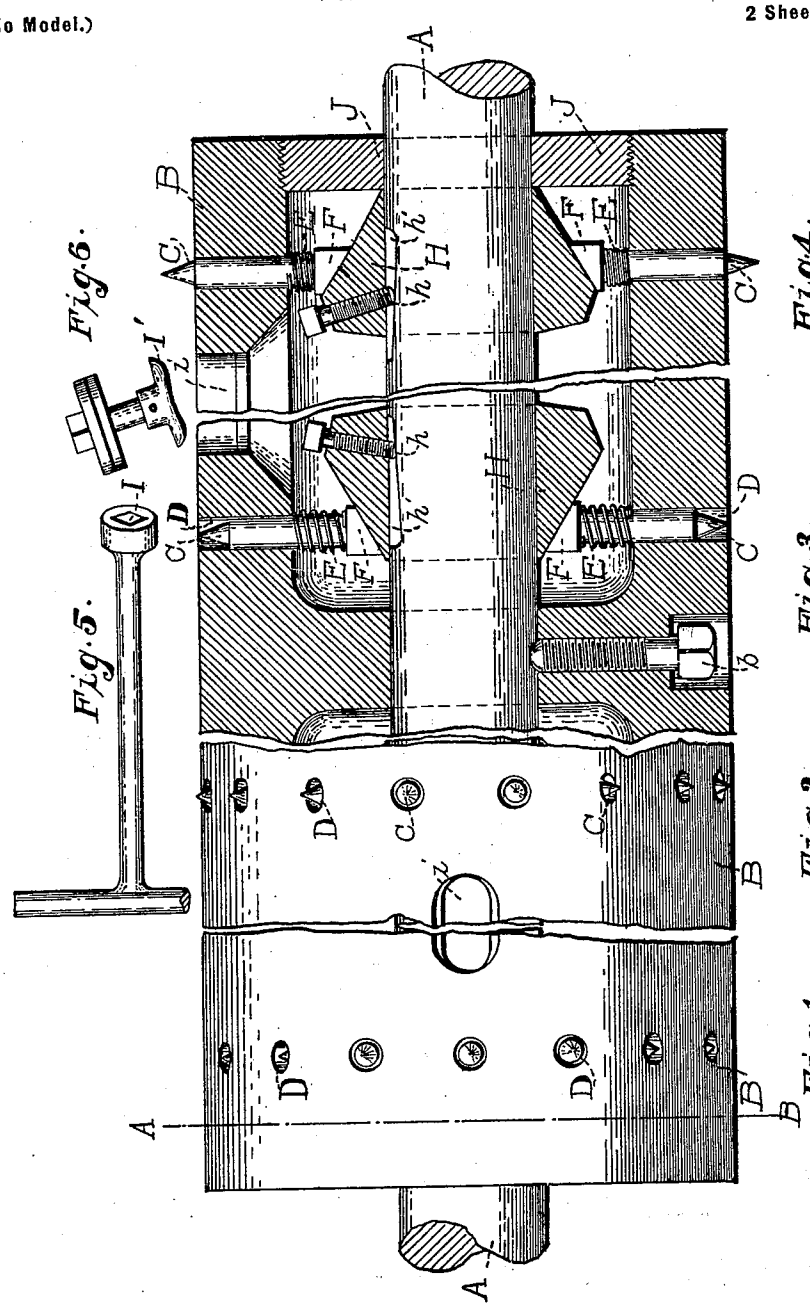



Fig. 6.

Fig. 4.

Fig. 5.

Fig. 3.

Fig. 2.

Fig. 1.

Witnesses.
Wm. Gordon:
Emma Heckel

Inventor.
Edward Ording
per Eugene Ayres,
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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(No Model.) 2 Sheets—Sheet 2.

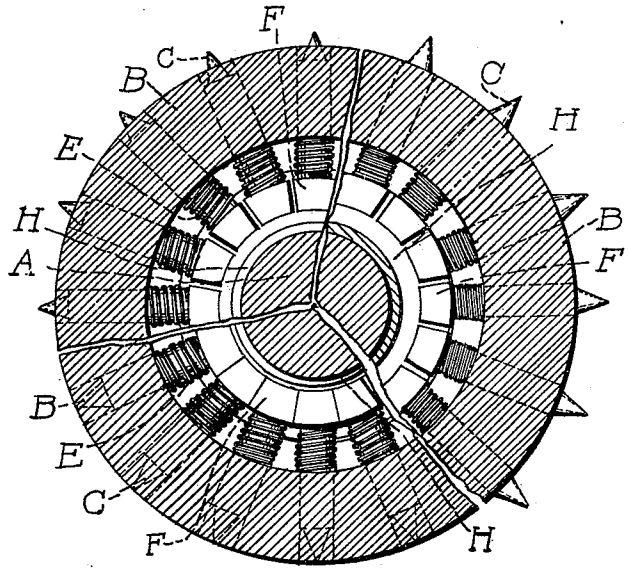



Fig. 7.

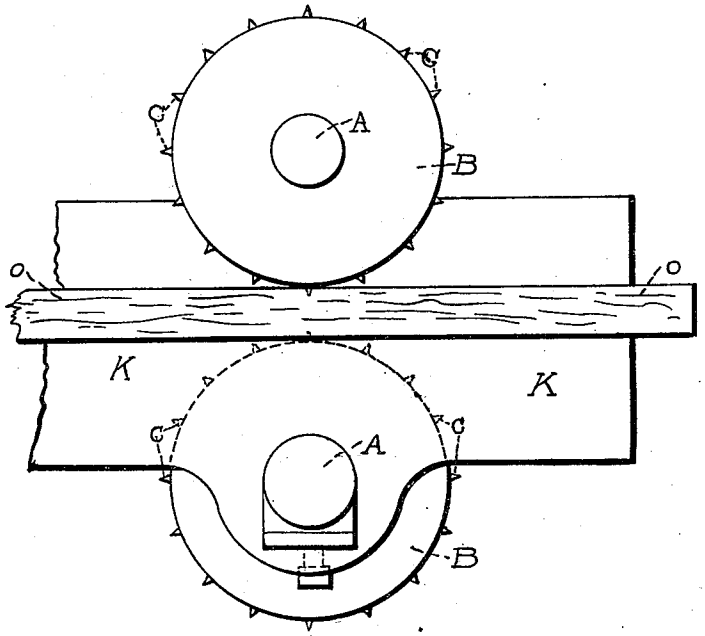



Fig. 8.

Witnesses:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

EDWARD ORDING, OF ST. JOSEPH, MISSOURI.

## FEED-ROLL.

SPECIFICATION forming part of Letters Patent No. 690,456, dated January 7, 1902.

Application filed August 6, 1901. Serial No. 71,372. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD ORDING, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Feed-Rolls; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention consists of an improvement in feed-rolls especially designed for use in woodworking machinery; and my object is to obtain a roll that will carry the timber with steadier and stronger motion.

I attain my object by the mechanism illustrated in the accompanying drawings, in which—

Figures 1, 2, 3, and 4 illustrate a top view of the roll and its shaft broken in parts, Fig. 1 showing the roll complete with spurs drawn back, Fig. 2 showing the roll complete with the spurs projected, while Figs. 3 and 4 show the shaft and interior of the roll, including the collars, the spurs, and their springs. Fig. 5 is a wrench serving as a key for throwing out the spurs. Fig. 6 is a plug to close the wrench-hole. Fig. 7 is a vertical sectional view of one of the rolls on its shaft, and Fig. 8 shows the bed and part of the casting of the machine and an upper and lower roll feeding the wood.

Similar letters refer to similar parts throughout the several views.

In my device, A A represent the shafts which carry the rolls, and B B the outer castings of the rolls.

C C are spurs operating through apertures D D in castings B B.

E E are springs to draw the spurs backward through apertures D D.

F F are shoulders at the bottom of the springs to hold them in position.

H H are beveled collars on the shafts.

*h h* are set-screws by which to fasten the collars to the shafts, and *h' h'* are slots in the shafts to assist in keeping the collars in position.

*b* is a set-screw by which to rigidly attach each roll to its shaft.

I is the end of the wrench which is adapted to fasten the collar on the shafts by use of screws *h h* and at the same time to shove the collar into whatever position desired in order to throw out the spurs.

I' is the end of a plug to insert in one of wrench-holes *i i* when the wrench is removed to prevent the entrance of dust and shavings.

J J are end pieces for the rolls adapted to be screwed in to permit entrance to the rolls to insert the spurs, to make repairs, or for other purpose.

K is the bed of the machine, and O, Fig. 8, is a timber shown as being fed over the bed of a machine by an upper and lower roll, the spurs operating on the top and bottom of said timber.

To operate the device, I insert the wrench and by it take hold of one of the collar-screws, shove the collar into place, thereby throwing the spurs out the required distance, and fasten the collar to its shaft. The machine is then ready to operate.

While my invention is especially useful on molding machines, it is not necessarily confined to use on them, but can be operated in connection with band, resaw, flooring, and other machines. It is preferably constructed of cast-iron, the spurs being of steel and the points tempered. The spurs can be used on corrugated as well as smooth rolls by simply widening the space between the corrugations at the line or lines where it is desired to have the perforations and by lengthening the points of the spurs.

While my device can be operated with two rolls only, as illustrated in the drawings, I do not limit myself to that number, as four or more rolls can be used without altering the principle of my invention. A roll may also be operated with one series of apertures and spurs or by several.

What I claim, and desire to secure by Letters Patent, is—

1. In a feed-roll, a shaft provided with slots, the collars on said shaft provided with set-screws adapted to work in said slots, the spurs provided with shoulders, the roll-castings provided with apertures through which the spurs may operate, the springs resting upon said

shoulders and adapted to bear up against the casting, and the means to slide said collars, substantially as described.

2. The combination in a feed-roll of a shaft provided with horizontally-extended slots, a collar on said shaft, a set-screw through said collar adapted to slide in one of said slots, a spur provided with a shoulder, the spring resting upon said shoulder, the casting provided with a spur-aperture and with a hole adapted to permit the insertion of a wrench to move said collar and a plug to close the same when the wrench is removed, substantially as described and for the purpose specified.

3. In a feed-roll the combination of a shaft, of the roll-casting fastened thereon and provided with one or more surrounding series of apertures and with wrench-holes, of the collars on the shaft, of the slots in the shaft and the set-screw in each adapted to slide in the slot to prevent the collar reversing around on the shaft and to keep the collar in place within reach of the wrench-hole, of the spurs adapted to operate through said apertures and provided with shoulders adapted to rest on said collars, of the springs resting on said shoulders and bearing up against the inside of the casting and adapted to withdraw the spurs into the apertures upon withdrawal of the collar from beneath, substantially as described.

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

EDWARD ORDING.

Witnesses:
F. J. MASS,
J. F. BODE.