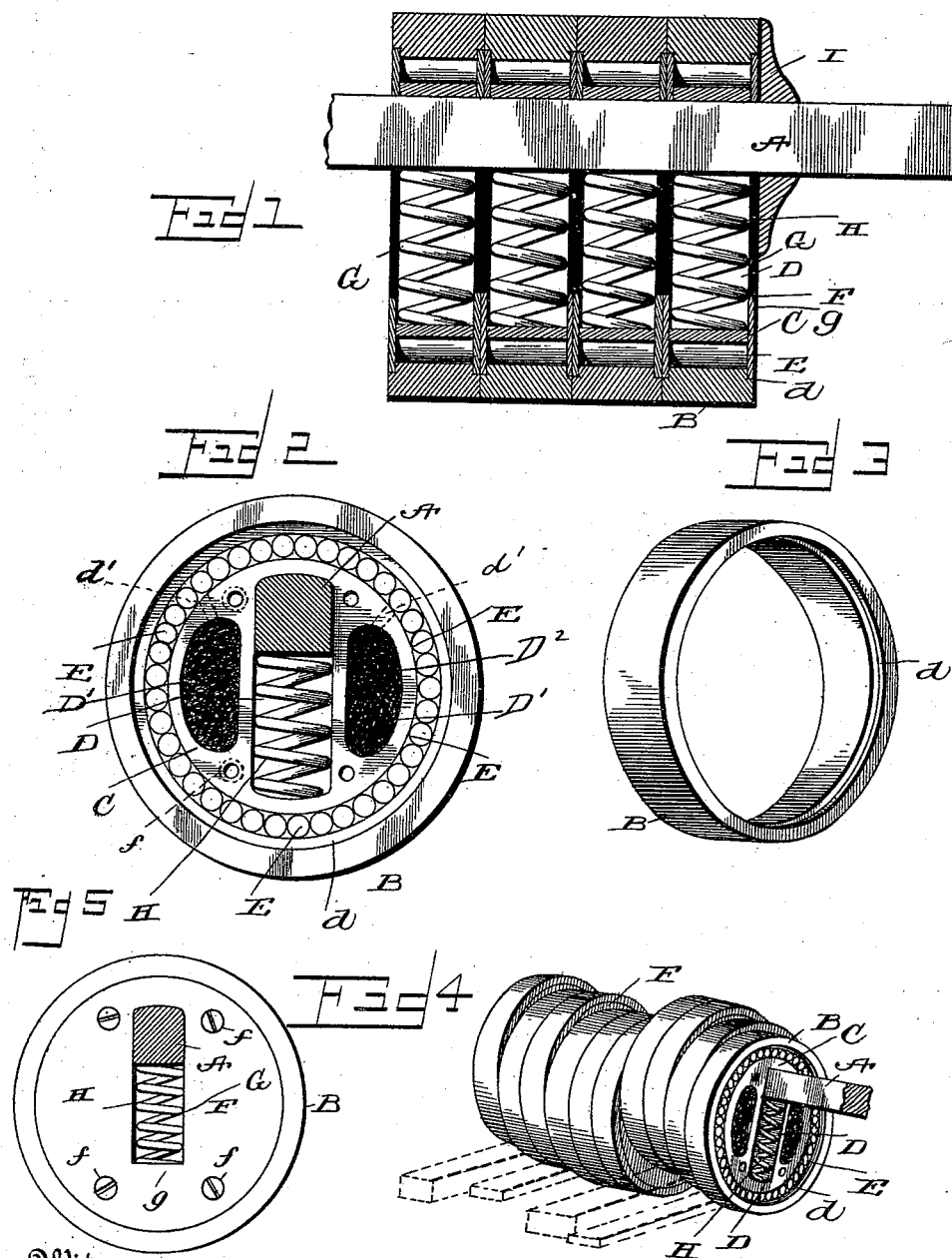


(No Model.)

A. M. VAUGHT.
FEED ROLLER.

No. 492,072.

Patented Feb. 21, 1893.



Witnesses

John D. Mirie
Bernard Herk

Inventor

Albert M. Vaught

By his Attorney

Charles E. Adamson

UNITED STATES PATENT OFFICE.

ALBERT M. VAUGHT, OF PORTLAND, INDIANA.

FEED-ROLLER.

SPECIFICATION forming part of Letters Patent No. 492,072, dated February 21, 1893.

Application filed January 27, 1892. Serial No. 419,429. (No model.)

To all whom it may concern:

Be it known that I, ALBERT M. VAUGHT, a citizen of the United States, residing at Portland, in the county of Jay and State of Indiana, have invented certain new and useful Improvements in Feed-Rollers; and I do hereby 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.

My invention relates to certain improvements in feed rollers for planing machines and other wood working machines.

The object of my invention is to provide a feed roller which will feed two or more pieces of lumber or boards of unequal thickness, at the same time, and will readily adapt itself to the thickness of said boards and will yield sufficiently at different points along its length to pass over any obstructions or uneven thickness of the stuff.

My said invention consists in certain novelties in the construction, arrangement and combination of the various parts all of which I will now proceed to point out and describe, reference being had to the accompanying drawings, in which,

Figure 1 is a longitudinal section taken through the center of my improved roller, the same being partially broken away. Fig. 2 is a transverse section of one of the parts of the roller. Fig. 3 is a perspective of one of the rings. Fig. 4 is a perspective showing the roller passing over several pieces of lumber of unequal thickness to indicate its action, the lumber being indicated by dotted lines. Fig. 5 is a plan of one of the parts of the roller.

My improved roller is adapted to be used with that class of machines in which said roller is located above and acts in conjunction with an endless feed belt which it is not necessary to herein describe and is of any desired form common to such machines.

In the drawings A represents a central shaft, which is substantially rectangular throughout its length and is rigidly secured to the frame or bearing blocks of the machine in the required position. In order to use this roller with old machines the ends of the shaft may be journaled and secured rigidly in the bear-

ing block by means of pins or in any other suitable manner.

B are a series of yielding rings mounted upon the shaft A. For convenience I will describe but one of said rings as they are all similar in construction.

C indicates a circular hub having a substantially rectangular elongated central opening D. On said hub is mounted the ring B the inner circumference of which is of greater diameter than the outer circumference of the hub. On each side of the apertures D are pockets D', which are adapted to be filled with oily waste D² or any suitable lubricating material.

d' are passages or openings [shown in dotted lines] leading from the pockets D' to the periphery of the hub, to lubricate the same.

E are a series of rollers interposed between the hub and ring thus forming a roller or anti-friction bearing for the ring. Said parts are united by means of plates F located on each side of, and of greater diameter than the hub, which plates are secured thereto by means of screws f. The projecting edges of the plates overlap the ring and resting in annular grooves d, in the sides of said ring. Said plates are also provided with substantially rectangular elongated apertures G of less length than the apertures D in the hubs. When the plates are secured to said hubs the apertures G register with the apertures D, but being of less length than the same, the plates overlap one end of said apertures D, as at g, forming a pocket in which is arranged a spring H. These rings so constructed are independently mounted side by side upon the shaft A which passes through the hubs, the springs in each ring bearing against one side of the shaft. At each end of the series of rings forming the roller are secured retaining caps I.

From the above description of my improved roller its operation will be readily understood, the springs engaging with the shaft hold the rings freely down upon the lumber or boards as it passes under said roller, at the same time permitting each ring to have an independent movement transverse to the axis of the shaft and thus permit said roller at dif-

ferent points along its length to accommodate itself to any inequalities in the lumber or boards and also permitting two or more boards or pieces of lumber to be fed at the same time, as illustrated in Fig. 4.

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

1. In a feed roller, the combination of a shaft angular in cross section, a series of independent hubs having substantially rectangular central apertures therethrough and mounted upon said shaft, springs disposed in said apertures and engaging the shaft, and a series of independent rings mounted upon said hubs, all constructed, arranged and operating substantially as shown and described.

2. In a feed roller, the combination of a shaft angular in cross section, a series of independent circular hubs having substantially rectangular elongated apertures therethrough and mounted upon said shaft, springs disposed in said elongated openings, between said hubs and shaft, and a series of independent

ent rings mounted upon said hubs and provided with anti-friction bearings, all constructed, arranged and operating substantially as shown and described. 25

3. In a feed roller, the combination of the shaft A, angular in cross section, the series of independent hubs C having the substantially rectangular elongated apertures D, and mounted upon the shaft, the springs H disposed in said apertures between the hubs and shaft, the series of independent rings B, mounted upon said hubs, anti-friction rollers E interposed between said rings and hubs and the side plates F having the elongated apertures G and secured to the hubs, all constructed, arranged and operating substantially as shown and described. 30 35 40

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

ALBERT M. VAUGHT.

Witnesses:

PATTERSON M. HEARN,
A. W. EVILSIZER.