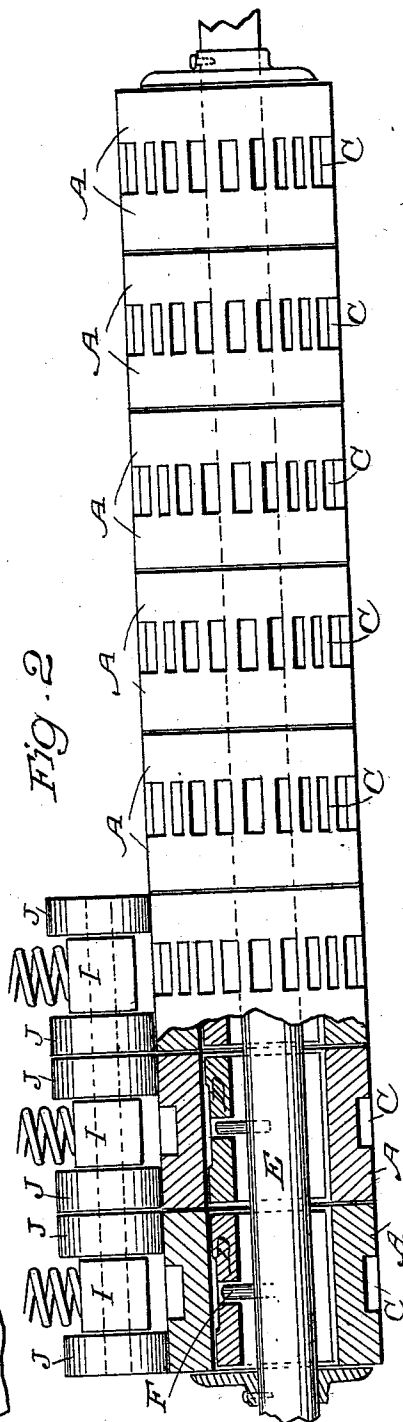
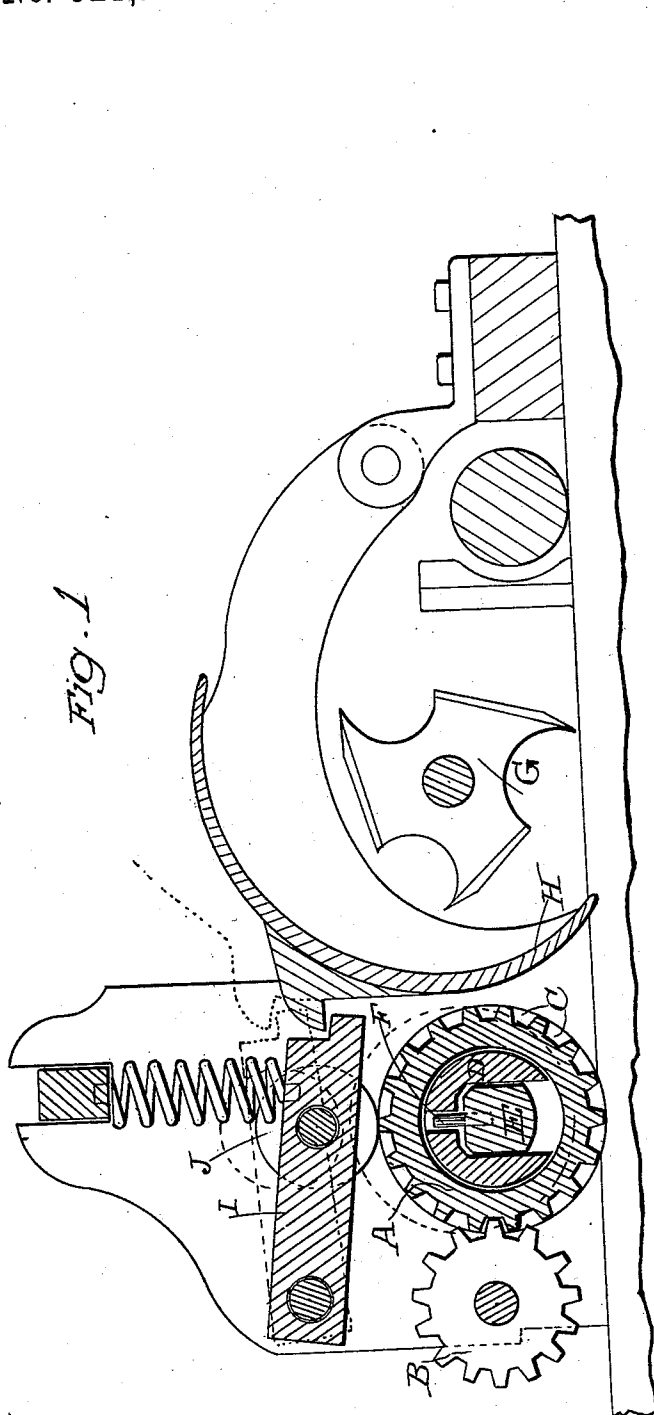


(No Model.)

J. D. SIGLER.
PLANER FEED ROLL.

No. 521,297.

Patented June 12, 1894.



Witnesses,
J. H. House
J. A. Bayless

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UNITED STATES PATENT OFFICE.

JOHN D. SIGLER, OF SAN FRANCISCO, CALIFORNIA.

PLANER FEED-ROLL.

SPECIFICATION forming part of Letters Patent No. 521,297, dated June 12, 1894.

Application filed February 1, 1894. Serial No. 498,787. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. SIGLER, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Planer Feed-Rolls; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improved sectional feed roll for planers.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section showing the portion of a wood planing machine and sectional view of my improved roll. Fig. 2 is a side elevation and partial section of the rolls, showing also the pressure rolls above.

The object of my invention is to provide a rigid sectional feed roll, the different sections of which will adapt themselves to strips of varying thicknesses which may be passed through the planer, and which, having their lower surfaces resting upon the bed of the planer, the upper surfaces will be of irregular heights. By reason of the rigidity of all the parts and their free movement with relation to each other, they will automatically adjust themselves to the irregular thickness of the strips to be planed, and may, at the same time, be held in position to engage the driving gears.

A A are roller sections of the same diameter mounted in line with each other so as to form a continuous roll. These sections may either be driven by a pressure roll acting upon their upper periphery in the manner usual to planers of this class, or they may be driven by gear wheels B mounted upon a driving shaft at right angles with the axis of the feed roll. When constructed in this manner, the sections A have a central toothed portion, as shown at C, with which the teeth of the gear B engage and by which these sections are rotated.

In order to allow the sections to move up and down independently to accommodate themselves to varying thicknesses which may be passing beneath them, I have shown the sections bored out so as to receive an inter-

nal sleeve D, one of which is made of the same length and fits within each roll section. These sleeves are slotted from a point above the center to the lower periphery where they are entirely open as shown.

Through the center passes a rigid shaft E, the sides of which are parallel and adapted to fit within the channels in the sleeves D sufficiently loose to allow these channeled sleeves to slide up and down upon this shaft or guide, and the sections A turn loosely enough to rotate about the sleeves in whatever position they may be placed with reference to the shaft. From this construction it will be seen that any one of the sections A may rise above or be depressed below the adjacent section or sections without in any way interfering with these adjacent sections because the grooved or channeled sleeve D of each one is allowed to rise independently of the one adjacent to it. A pin F is fixed in the top of the shaft E and extends into a corresponding hole in the sleeve D so that as the latter rises and falls, the pin guides it and prevents its moving endwise, and crossing the junction of the adjacent rolls so as to prevent their independent movement. As the driving gear B engages the teeth of the sections in an approximately horizontal plane through the two axes, it will be seen that the feed rolls may rise or fall as much as is necessary without becoming disengaged from the driving gear. By reason of the rigidity of the central shaft E, the intermediate channel sleeve D and the roll A itself, it will be seen that no side pressure will disengage the gearing from each other, as all parts, being made of metal, are sufficiently rigid to maintain their relative position as well as if the rolls were made in a continuous solid piece.

In the present drawings I have shown the rotating planer head G, one form of chip breaker H which is used on planers, and the fulcrumed spring-actuated bar I carrying the pressure rolls J in the manner in which they are employed for maintaining a suitable pressure upon the upper periphery of the feed rolls; but these are no part of my invention, being already in common use upon planers.

My invention relates especially and entirely to this adjustable construction of rigid sectional feed rolls.

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

5 1. An adjustable feed roll for planers consisting of the independent rigid cylindrical sections provided with internal bores, cylindrical sleeves within said bores having approximately the same length as the sections, and having their lower ends open, and a shaft
10 fitting into the channels in the lower part of said sleeves whereby the sleeves and sections may rise and fall independently.

2. A feed roll mechanism for planers consisting of independent cylindrical sections extending axially in line with each other, internal cylindrical sleeves about which said sections rotate freely, a rectangular shaft fitting
15 into vertical channels made in the lower part of said sleeves, whereby the sleeves and rolls are allowed to rise and fall independently, and a connection between the shaft and each

section for guiding the vertical movement of the latter and preventing its movement endwise of the shaft.

3. A feed roll mechanism for planers, consisting of independent cylindrical sections extending axially in line across the planer bed, a bar extending through the center of the hollow sections, sleeves having open channels extending from the bottom above the centers
25 whereby each of the sleeves and its roll are vertically movable independent of the others, and vertical pins slidable in corresponding holes whereby each sleeve is retained within its roller section and is prevented from moving
30 endwise, substantially as herein described.
35

In witness whereof I have hereunto set my hand.

JOHN D. SIGLER.

Witnesses:

S. H. NOURSE,
H. F. ASCHECK.