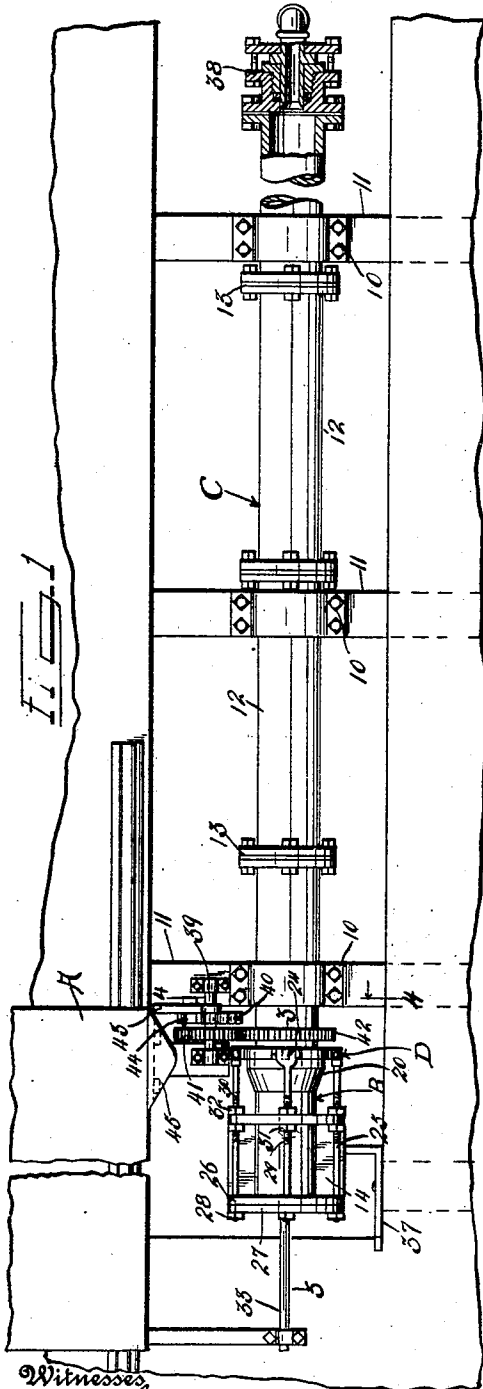


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 ROTATING STEAM FEED FOR SAWMILL CARRIAGES.
 APPLICATION FILED APR. 3, 1911.

1,011,803.

Patented Dec. 12, 1911.

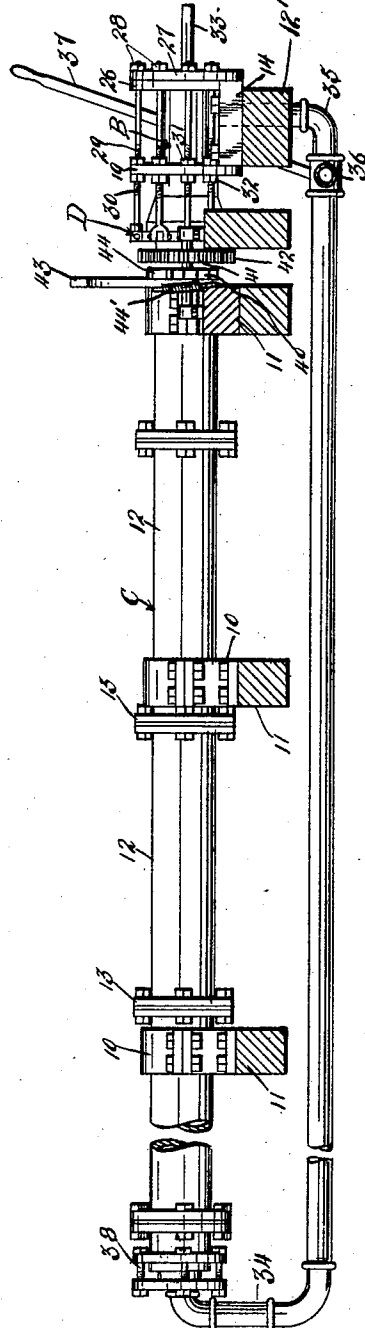
2 SHEETS-SHEET 1.



Witnesses
 L. C. Stahl

Henry T. Bright

Fig. 2.



Inventor

F. B. Jones

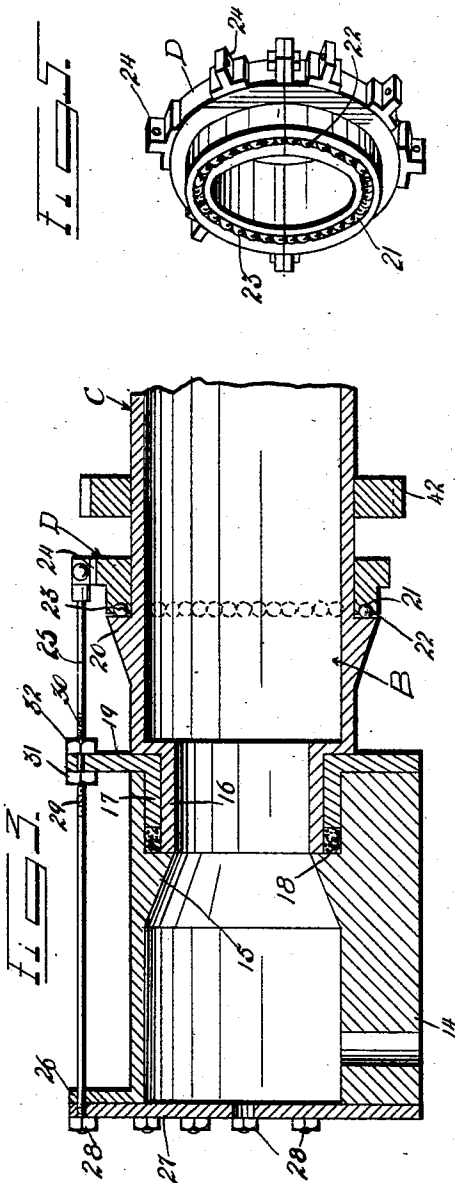
By

Charles C. Jones
 Attorneys

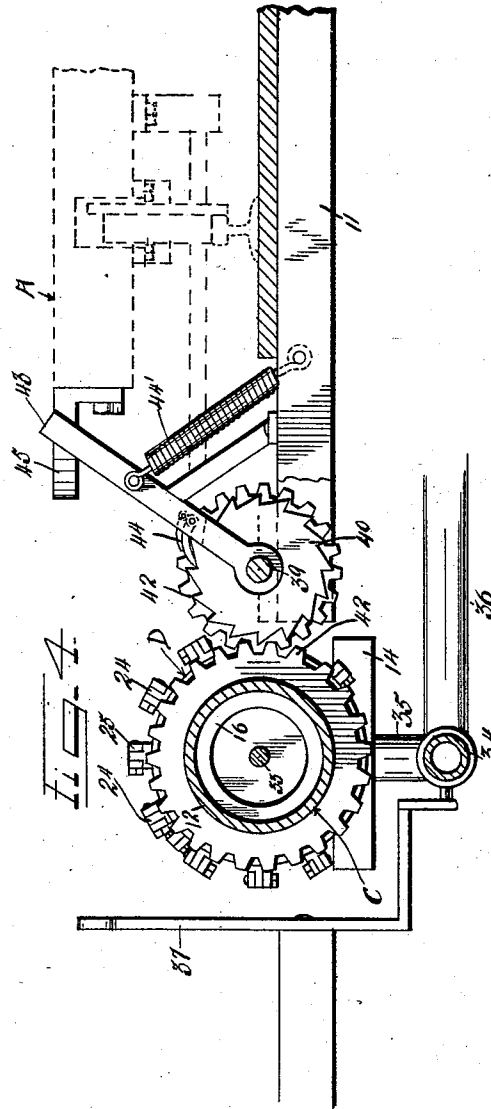
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Witnesses
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UNITED STATES PATENT OFFICE.

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ROTATING STEAM-FEED FOR SAWMILL-CARRIAGES.

1,011,803.

Specification of Letters Patent.

Patented Dec. 12, 1911.

Application filed April 3, 1911. Serial No. 618,589.

To all whom it may concern:

Be it known that I, FRANK B. JONES, a citizen of the United States, residing at Shreveport, in the parish of Caddo, State of Louisiana, have invented certain new and useful Improvements in Rotating Steam-Feeds for Sawmill-Carriages; 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.

This invention relates to rotating steam feeds for sawmill carriages.

The object of the invention resides in the construction of a rotating steam feed for sawmill carriages which includes a steam cylinder formed of connected stationary and rotating portions and in providing means for intermittently actuating the rotatable portion of the cylinder when the feed is in operation.

A further object of the invention resides in the provision of an improved connection between the stationary and rotatable portion of the cylinder which will effectually produce a steam tight joint and permit of the necessary adjustment of the said joint to compensate for wear.

With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claims.

In describing the invention in detail reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views, in which—

Figure 1 is a plan view of a part of a sawmill showing the carriage and the feeding means partly broken away. Fig. 2 a side view of what is shown in Fig. 1 with the carriage removed. Fig. 3 an enlarged section on the line 3—3 of Fig. 1. Fig. 4 an enlarged section on the line 4—4 of Fig. 1, and Fig. 5 a detail perspective view of the securing ring which directly engages the rotatable portion of the cylinder to hold same against disengagement from the fixed portion.

Referring to the drawings A indicates a sawmill carriage which is movable on rails in the usual manner.

The cylinder of the sawmill feed illustrated herein is shown as comprising stationary and rotatable portions B and C respectively, the latter being mounted in journal brackets 10 which are supported upon cross beams 11 respectively. The rotatable portion C of the cylinder of the sawmill feed consists of a number of sections 12, as many of which may be used as desired. These sections are united together by flanged and suitably packed heads 13. Any of these sections may be removed and a new one substituted when ever desired. The stationary portion B of the cylinder has formed integral therewith a base 14 which is secured to a cross beam 12' in the usual and well known manner. The bore of the stationary portion B of the cylinder is provided with an inwardly extending annular shoulder 15, while the adjacent end of the rotatable portion C of the cylinder is reduced in diameter as at 16 and projects into the bore of the portion B so as to abut the shoulder 15. As the end of the rotatable portion C of the cylinder is reduced in diameter an annular space will be left between the outer face of said reduced portion and the inner face of the portion B of the cylinder, and seated in this space is an annular gland 17 which is adapted to cooperate with a packing 18 to maintain an efficient steam tight joint between the portions A and B of the cylinder. The rotatable portion C of the cylinder is provided with an exterior annular shoulder 20 against which bears a securing ring D surrounding the portion C. This ring is preferably formed of a pair of semicircular sections detachably bolted together so as to render it more easy of application upon the cylinder. The ring D is provided in its inner face with an annular groove 21 which has a contracted mouth 22. Seated in this groove is a plurality of ball bearings 23 which when the ring is secured in place bear against the shoulder 20 and facilitates the rotation of the portion C of the cylinder. The ring D is further provided at spaced points in this periphery with radially dis-

posed ears 24 to each of which is pivotally connected one end of a bar 25. These bars 25 respectively extend through perforations in the flange 19 and through perforations in a flange 26 and in a cap 27 at the outer end of the portion B of the cylinder. The end of each bar 25 adjacent the flange 26 and the cap 27 is threaded, and mounted on this threaded end of each bar is a nut 28 which when screwed upon respective bars serves to bind the cap 27 in proper position and to hold the securing ring D firmly against the shoulder 20. Each of the bars 25 are further provided with intermediate opposite threads 29 and 30 disposed respectively on opposite sides of the flange 19. Mounted on the threads 29 and 30 of each bar 25 are nuts 31 and 32 respectively which are adapted to be manipulated to adjust the flange 19 and of course the gland 17 on said bars. This independent adjustment of the gland 17 on the bars 25 permits the efficiency of the steam type connection between the portions A and B of the cylinder to be always maintained.

It will of course be understood that the usual piston rod 33 is movable within the cylinder.

Steam is supplied alternately at either end of the cylinder by pipes 34 and 35 connected to a common supply pipe 36 by means of the valve connection not shown; said valve connection being operated as desired, to permit the passage of steam to either end of the cylinder by means of a lever 37. A stuffing box 38 is divided where the end of the pipe 34 enters the rotatable part of the cylinder so as to afford the proper connection between the cylinder and said pipe.

Rotatably mounted upon the floor beams 11 and extending longitudinally of the cylinder is a shaft 39 upon which is fixed a ratchet wheel 40 and a gear wheel 41 the latter meshing with a ring gear 42 surrounding and fixed to the rotatable portion C of the cylinder. Loosely mounted upon the shaft 39 adjacent the ratchet wheel 40 is a lever 43 which carries a pawl 44 for operative engagement with the ratchet wheel 40. This lever 43 is normally held in position by means of a spring 44' one end of which is secured to the lever and the other end to the floor beam or other suitable fixed part. By this construction it will be apparent that when the lever 43 is moved against the influence of the spring 44' the shaft 39 will be rotated and this rotation of said shaft will in turn be imparted to the portion C of the cylinder through the medium of the gears 41 and 42. This movement of the lever 43 just referred to occurs during each reciprocation of the carriage A and is accomplished by means of a projection 45 on

said carriage which engages the lever 43 and moves same against the influence of the spring 44'.

What is claimed is:

1. A cylinder for rotating steam saw mill feeds comprising a stationary portion having an interiorly disposed annular shoulder and a rotatable portion having one end reduced in diameter and abutting said shoulder of the stationary portion with its outer face disposed in spaced relation to the inner face of the stationary portion, a packing disposed in said space, a gland also disposed in said space and operating upon said packing, said gland having an annular flange extending between the stationary and rotatable portions, means cooperating with said flange for adjusting said gland, and means for securing the rotatable portion of the cylinder against longitudinal movement with respect to the stationary portion.

2. A cylinder for rotating steam saw mill feeds comprising a stationary portion having an interiorly disposed annular shoulder, and a rotatable portion having one end reduced in diameter and abutting said shoulder, of the stationary portion with its outer face disposed in spaced relation to the inner face of the stationary portion, a packing disposed in said space, a gland also disposed in said space and operated upon said packing, means disposed exteriorly of the cylinder for adjusting said gland, and means for securing the rotatable portion of the cylinder against longitudinal movement with respect to the stationary portion.

3. A cylinder for rotating steam saw mill feeds comprising a stationary portion having an interiorly disposed shoulder adjacent its inner end and a perforated annular flange at its outer end, and a rotatable portion having one end reduced in diameter and abutting said interior shoulder with its outer face disposed in spaced relation to the inner face of the stationary portion, a packing disposed in said space, a gland also disposed in said space and operating upon said packing, said gland having an annular flange extending between the stationary and rotatable portions and provided with perforations disposed exteriorly of the cylinder, an exterior annular shoulder on the rotatable portion, a securing ring surrounding the rotatable portion, and bearing against the exterior shoulder of the rotatable portion, a plurality of rods having their inner end pivotally connected to said ring and extending through respective perforations in the flange of the gland and the flange on the outer end of the stationary portion, a head removably mounted on the outer end of said rods for closing the outer end of the cylinder, nuts threaded on the outer end of each rod for forcing said

head into engagement with the flange on the
outer end of the stationary portion and for
drawing said rods longitudinally of the cyl-
inder to force the securing ring into engage-
5 ment with the exterior shoulder on the rota-
table portion, and means for adjusting said
gland longitudinally of said rods.

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

FRANK B. JONES.

Witnesses:

W. P. LAMBERT,

C. L. WHEELER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
