No. 615,646. Patented Dec. 6, 1898.

M. M. WHIPPLE, 2d.

FEED ROLL.

(Application filed July 23, 1898.)

(No Model.)

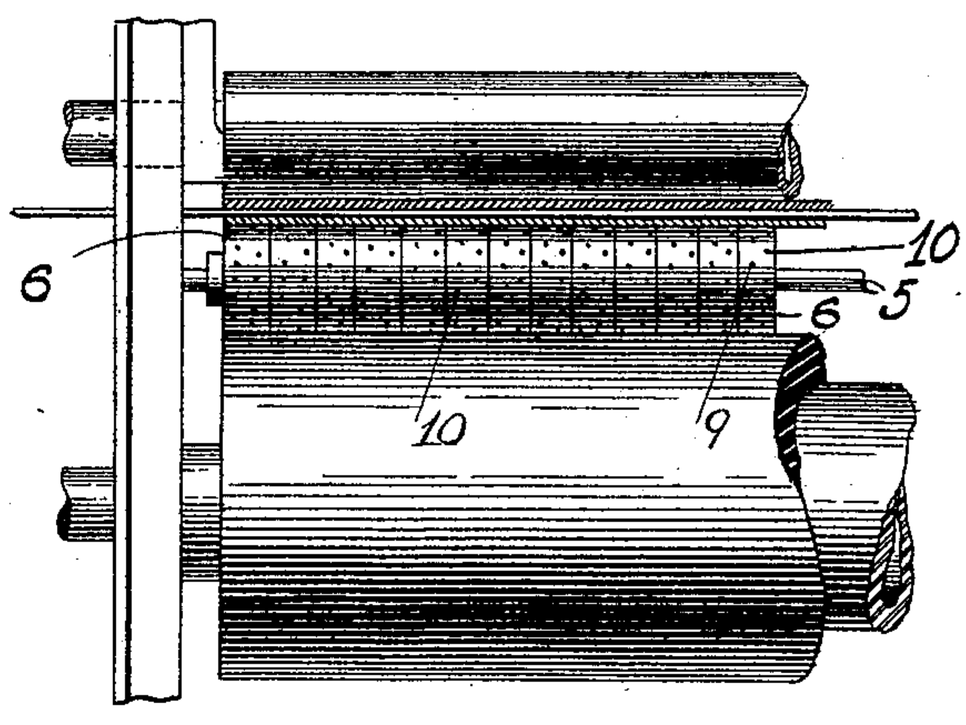

Fig. 1.

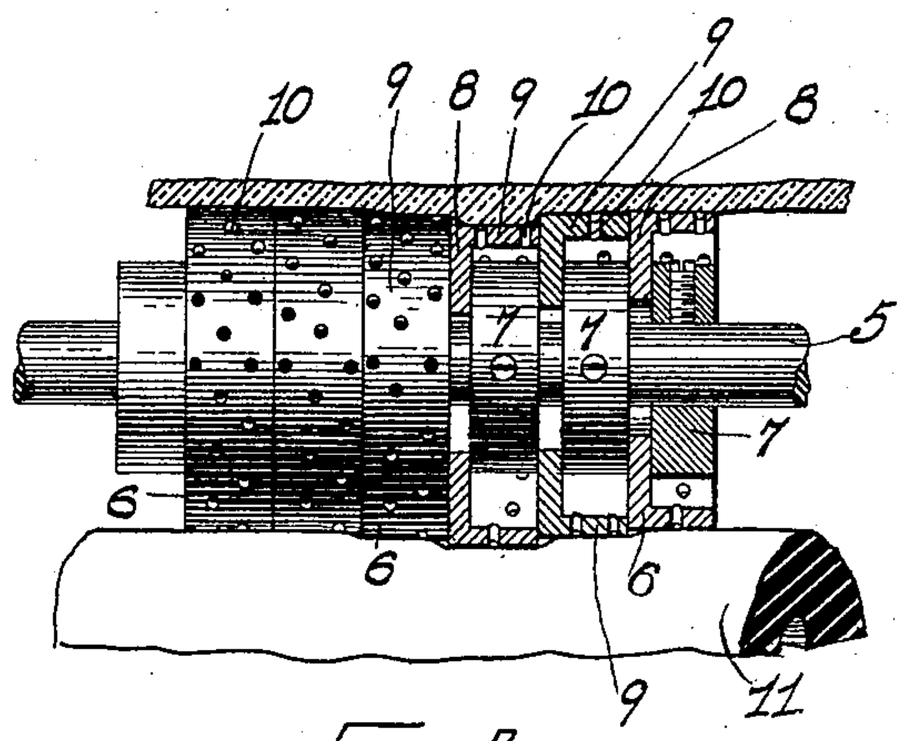

Fig. 2.

WITNESSES.

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FEED-ROLL.

SPECIFICATION forming part of Letters Patent No. 615,646, dated December 6, 1898.

Application filed July 23, 1898. Serial No. 686,680. (No model.)

To all whom it may concern:

Be it known that I, MARCUS M. WHIPPLE, 2nd, of Sharon, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Feed-Rolls; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in sectional feed-rolls used in leather-splitting machines.

The object of the invention is to so construct a feed-roll of this nature that it will feed the leather more accurately, and particularly leather which is in a moist condition, such as green hides, provision being made whereby the moisture and slime may pass from the surface of the feed-roll to the interior of the roll and thence to the surface of the cushion driving-roll.

Another object of the invention is to improve the feed-roll with reference to its engagement of the leather, and particularly of green hides.

The invention consists of a roll comprising a shaft, a series of circular blocks secured on the shaft, and a series of cup-shaped sections having annular perforated walls secured between said blocks against longitudinal movement, but free to move laterally in a limited degree.

The invention also consists in such other novel features of construction and combination of parts, as shall hereinafter be more fully described, and pointed out in the claims.

Figure 1 represents an elevation of portions of a leather-splitting machine of this nature, showing the improved roll in its relation to the cushion drive-roll and the gage-roll. Fig. 2 represents an enlarged view of portions of the same, more clearly showing the construction of the feed-roll.

Similar numbers of reference designate corresponding parts throughout.

In machines of this character the feed-roll is mounted in frictional contact with an elastic cushion drive-roll, by which contact the feed-roll is driven to carry forward the leather under operation to the knife. Above the feed-roll is adjustably mounted the gage-roll, which is adjusted in accordance with the desired thickness of leather.

Owing to the various conditions in which the leather reaches the splitting-machine, much trouble and annoyance have been occasioned by the slipping of the feed-roll on the leather and a lack of sufficient engagement thereof to feed the leather to the knife. This difficulty is occasioned, mainly, by the moisture in the leather, combined with the animal tissues, forming a slimy mixture, which, when the leather enters between the feed-roll and the gage-roll, is pressed out onto the feed-roll, causing the same to become slippery and lessening the engagement of this roll with the leather. When the surface of the roll is merely roughened, the slime cakes onto this rough surface, which soon becomes more slippery than the smooth roll.

In practice I find that provision should be made for carrying the slimy matter away from the surface of the roll as nearly at the point where this matter is pressed from the hide or leather as possible. To this end I construct a feed-roll comprising the shaft 5, the cup-shaped sections 6 6, and the blocks 7 7, alternately placed, the sections having the inwardly-extending walls 8 8 and the annular members 9 9, furnished with the perforations 10 10, arranged in spiral lines around this member. In assembling the parts on the shaft 5 one of the blocks 7 is first secured to the shaft by means of its set-screw. A cup-shaped section is then placed on the shaft and is pushed down until it covers the block 7, as shown in the drawings. A second block 7 is then secured in place against the wall 8 of the cup-shaped section, so that a frictional contact is maintained between the blocks and the walls 8 of the cup-shaped sections, while under the undue pressure of a rough portion of the leather these sections may move against and embed themselves slightly in the elastic covering of the roll 11, as is shown in exaggerated degree in Fig. 2 of the drawings.

By the use of the perforated sections 6 6 the slime may pass to the interior of the sections and thence out through the lower perforations. These perforations also serve to more securely engage the under surface of the leather.

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

1. In a feed-roll for leather-splitting machines, the combination with a shaft, and securing means mounted thereon of a series of shaft-sections having a perforated annular member and an inwardly-extending wall.

2. The combination with the shaft 5 and the blocks 7 7 secured thereto, of a series of shaft members 6 having the inwardly-extending walls 8 8 secured between the blocks 7 7 and the annular members 9 9 furnished with the perforations 10 10, as and for the purpose described.

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Witnesses:
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