No. 740,201. PATENTED SEPT. 29, 1903.

E. B. STIMPSON.

SLITTING MACHINE OR THE LIKE.

APPLICATION FILED NOV. 26, 1902.

NO MODEL.

Fig. 1.

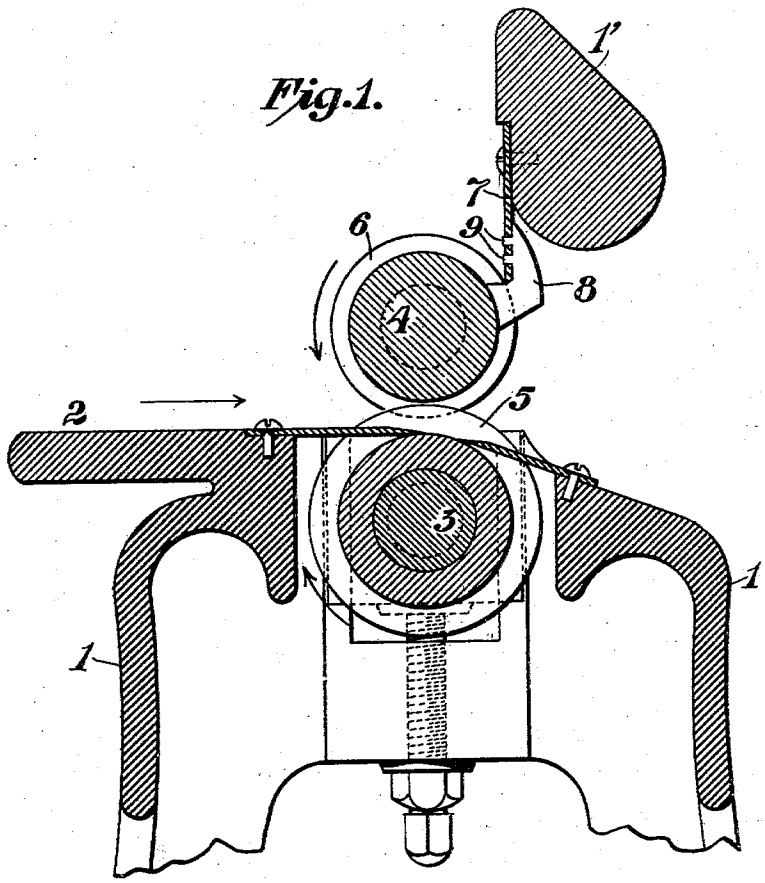


Fig. 2.

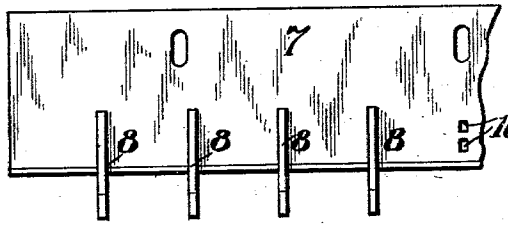
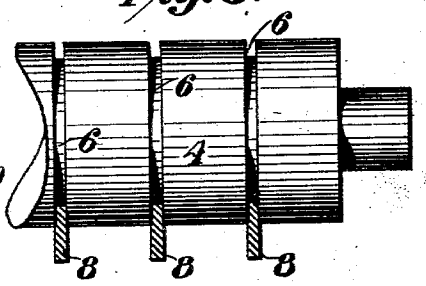


Fig. 3.



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

No. 740,201. Patented September 29, 1903.

UNITED STATES PATENT OFFICE.

EDWIN BALL STIMPSON, OF NEW YORK, N. Y.

SLITTING-MACHINE OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 740,201, dated September 29, 1903.

Application filed November 26, 1902. Serial No. 132,888. (No model.)

To all whom it may concern:

Be it known that I, EDWIN BALL STIMPSON, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, and city and State of New York, have invented certain new and useful Improvements in Slitting-Machines or the Like, of which the following is a specification.

This invention relates to the class of machines for slitting sheet material—such as leather, for example—wherein two rolls are employed, one with circular knives properly spaced and the other with circumferential grooves into which the knives on the other roll enter. It is found that the fragments or particles from the material get into and clog the circumferential grooves in the latter roll, and thus interfere materially with the cutting operation; and it is the object of the present invention to provide a means for clearing said grooves and keeping them clear.

In the accompanying drawings, which illustrate an embodiment of the invention, Figure 1 is a vertical transverse section of so much of a slitting-machine as is necessary to illustrate the application of the present invention thereto. Fig. 2 is a fragmentary rear view of the cleaning-stripper detached. Fig. 3 is a plan view of a part of the grooved or upper roll, showing the strippers in cross-section engaging the grooves therein.

As the machine seen in Fig. 1 is well known it has not been deemed necessary to fully illustrate it. It is sufficient to say that 1 is the main frame, usually of cast-iron, and having a work bed or table 2 to receive the material to be slitted. 3 is the lower or cutting roll, and 4 is the upper or circumferentially-grooved roll. The arrows show the direction in which the rolls rotate and the direction in which the material moves when being fed to the rolls. The cutters 5 on the lower roll enter the grooves 6 on the upper roll. The usual plates are employed to support the material as it passes between the rolls. These are slotted to receive the cutters on the cutting-roll.

The cleaner or stripper for the grooves in the upper roll consists of a plate 7, adapted to be secured by screws or otherwise to the cross-bar 1′ of the frame above, and a plurality of fingers 8, which are secured to the plate 7 and so spaced as to enter the respective grooves 6 in the roll 4, as clearly shown in Figs. 1 and 3.

Preferably the fingers 8 will be made from sheet metal of such thickness as to fit into the groove snugly but not too tightly, and preferably, also, it will have the contour clearly seen in Fig. 1, the bearing-face being curved so as to fit snugly up to the roll at the bottom of the groove. It may be secured by means of two prongs or tenons 9, which enter apertures 10 in the plate 7 and are then riveted. The apertures in the plate are seen in Fig. 2, where one of the fingers has been omitted, so as to disclose them.

The operation will be readily understood. As the grooved roll rotates any particles or fragments carried up in the grooves 6 are arrested and driven out by the fingers 8.

It will be noted that the function of the fingers 8 is not to prevent the slitted material from wedging between the cutters 5 and being carried around by the cutting-roll. This is the function of the slotted plates, over which the slitted material passes. The fingers engage the narrow circumferential grooves in the upper roll and remove the finer particles which would otherwise pack into and clog up these grooves and break the edges of the cutters. The edge of the plate 7, as seen in Fig. 1, is slightly beveled and fits up closely to the surface of the roll 4, thus serving as a suitable scraper therefor.

Obviously the stripping device may be applied to any cutting or slitting machine of this character where a grooved roll like the roll 4 is employed.

Having thus described my invention, I claim—

1. In a machine for the purpose specified, the combination with a cutting-roll and a circumferentially-grooved roll which coöperates therewith, of means for cleaning and keeping clean the grooves in the last-named roll, said means consisting of fixed fingers which engage the respective grooves in the roll and bear on the roll at the bottom of said grooves.

2. A machine for the purpose specified, comprising a frame, a cutter-roll rotatively mounted therein, a roll above the cutter-roll having in it narrow circumferential grooves to receive the respective cutters on the lower

roll, means for preventing the slitted material from being carried about the lower roll between the cutters, and means for cleaning the grooved upper roll, said means comprising the fixed plate and the fingers thereon which engage the respective grooves therein and extend to the bottom thereof, substantially as set forth.

In witness whereof I have hereunto signed my name, this 21st day of November, 1902, in the presence of two subscribing witnesses.

EDWIN BALL STIMPSON.

Witnesses:
PETER A. ROSS,
WILLIAM J. FIRTH.