

No. 778,191.

PATENTED DEC. 20, 1904.

J. B. HALL.
BELT CLEANER AND LUBRICATOR.

APPLICATION FILED APR. 7, 1904.

NO MODEL.

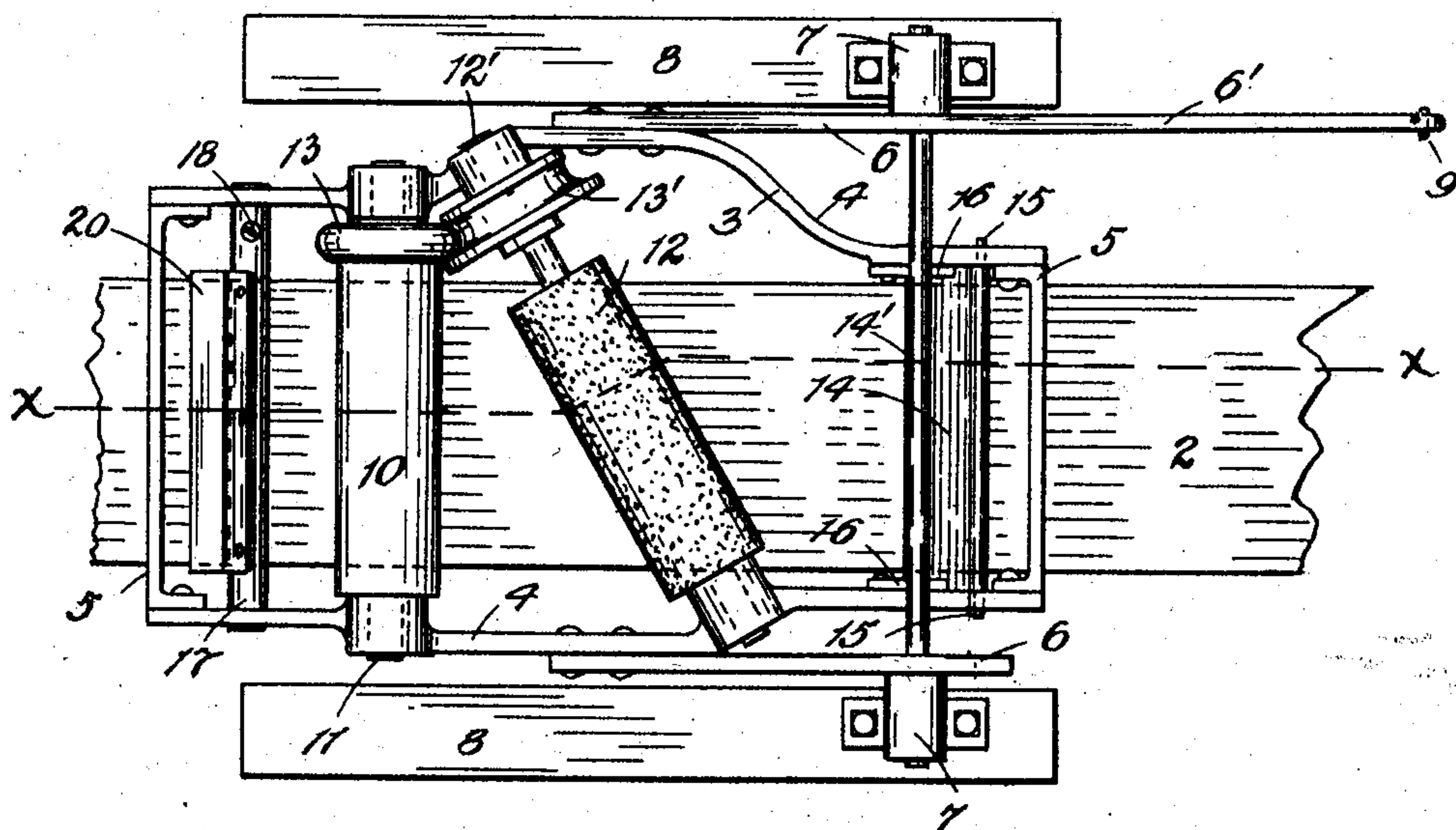


Fig. 1.

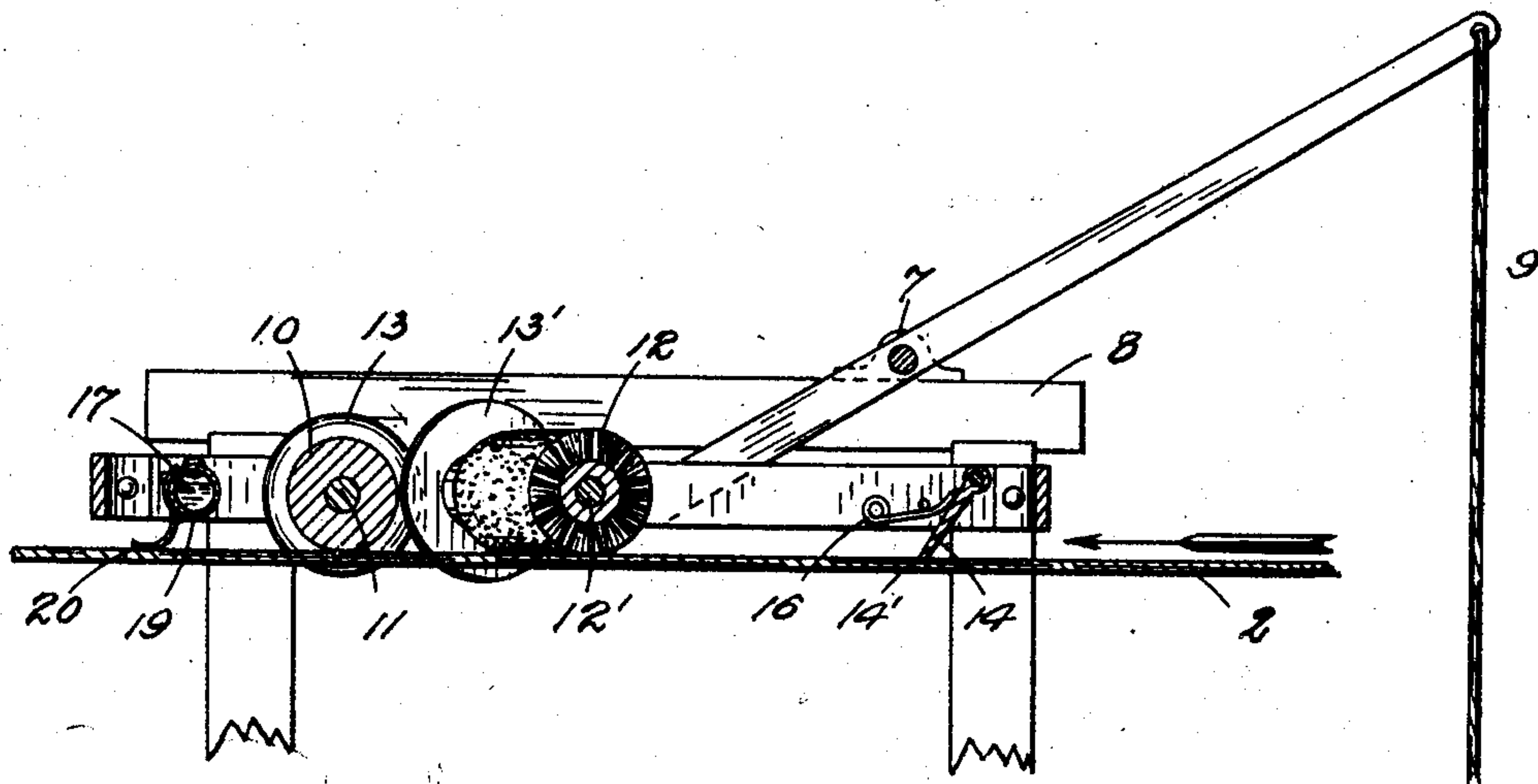


Fig. 2.

WITNESSES:

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JAMES B. HALL, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-HALF TO
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BELT CLEANER AND LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 778,191, dated December 20, 1904.

Application filed April 7, 1904. Serial No. 201,948.

To all whom it may concern:

Be it known that I, JAMES B. HALL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Belt Cleaners and Lubricators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to belts such as are used in communicating motion from one pulley to another, and more particularly to devices for cleaning and applying lubricants or preservatives to belts while in motion.

The objects of the invention are to provide efficient apparatus of this character which will be of simple and inexpensive construction. I attain these and other objects by the mechanism hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of apparatus embodying my invention, and Fig. 2 is a longitudinal vertical section taken through line *xx* of Fig. 1.

The numeral 2 represents a portion of an endless belt which passes in the usual manner about a driver and a driving-pulley. (Not shown in the drawings.)

3 represents a frame consisting in the construction illustrated of longitudinal members 4 and transverse members 5, integrally connected together and pivotally suspended by arms 6 to boxes 7, which are fastened to suitable framework, such as 8, of the mill. By this arrangement the frame 3 may be tilted up, so that the operative parts, to be presently described, carried thereon will become inoperative when desired, and a convenient manner of accomplishing this is by forming or providing one of the arms 6 with an extension 6', which may be connected by a line 9 within easy reach of an attendant upon the mill-floor.

10 is a transversely-arranged roller having its axle 11 journaled in the said longitudinal members and is rotated frictionally by peripheral contact with the moving belt.

12 is a sweeper-brush positioned in advance

of the roller 10 and, similarly thereto, has its axle 12' journaled in the said longitudinal frame members, but disposed, preferably, so as to extend obliquely across the belt. The brush is rotated from the roller advantageously by means of friction-wheels 13 and 13', mounted upon the respective axles, and which causes the brush to rotate oppositely to that of the roller. Positioned in advance of the brush is a scraper-blade 14, secured to the frame by pivotal pins 15, and the scraping edge 14' thereof is tiltably kept in contact with the belt traveling therebeneath by springs, such as 16, whereby the said scraping edge will raise to accommodate itself to uneven thicknesses of the belt—as, for instance, at the belt-lacings—and yet bear sufficiently to dislodge any dirt accumulations which may adhere to the belt-surface, to be afterward swept off by the following brush. The belt being thus cleaned is compressed or smoothed by the aforesaid roller and passing therebeyond is given a dressing of oil or other like substance from a receptacle 17, secured at its ends to the said frame. This receptacle is formed, preferably, of a cylindrical vessel closed at both ends and provided with a supply-aperture 18 at its top and a series of discharge-perforations 19 upon the under side, through which the dressing or lubricant exudes to fall upon the belt. To spread this dressing evenly over the belt-surface, I use an apron or wiper 20, which is secured along its top edge to the oil-receptacle and wipes with its opposite edge the adjacent face of the belt.

If desired, the oil-receptacle and also the scraper may be removed from the frame, leaving the brush and its driving mechanism in operative connection with the belt in order that the belt-surface after being lubricated may be kept clean and free from sawdust or the like.

The time required to thoroughly lubricate a belt would consume with the use of this invention but a few minutes each day, and it can be manipulated without stopping the machinery either to put it into or out of action, as aforesaid, either in part or in its entirety.

The advantages of the invention reside in the fact that by its use the life of a belt may be extended by reason of its being cleaned and the even distribution of oil over its entire area.

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

1. In a device of the character described, the combination with a tiltable frame, revoluble
10 brush, a driving-roll, mechanical connections between the said brush and the roll, a scraper-blade, and an oil-receptacle.

2. In a device of the character described, the combination with a frame, a brush and means
15 to rotate said brush, of a scraper-blade.

3. In a device of the character described, the combination with a tiltable frame and belt-cleaning devices positioned in advance of an
20 oil-receptacle carried by said frame, of said receptacle provided with oil-discharge perfora-

tions, and means to spread the said oil over the surface of a belt traveling therebeneath.

4. In a device of the character described, the combination with a supporting-frame, of an oil-receptacle, provided with oil-discharge open- 25 ings and an oil-supply opening, and means for tilting said supporting-frame.

5. In a device of the character described, the combination with a supporting and tiltable
30 frame, of a brush, and an oil-receptacle.

6. In a device of the character described, the combination with a supporting and tiltable frame, of a revoluble brush and means to rotate said brush.

In testimony whereof I affix my signature in 35 presence of two witnesses.

JAMES B. HALL.

Witnesses:

PIERRE BARNES,
HENRY S. NOON.