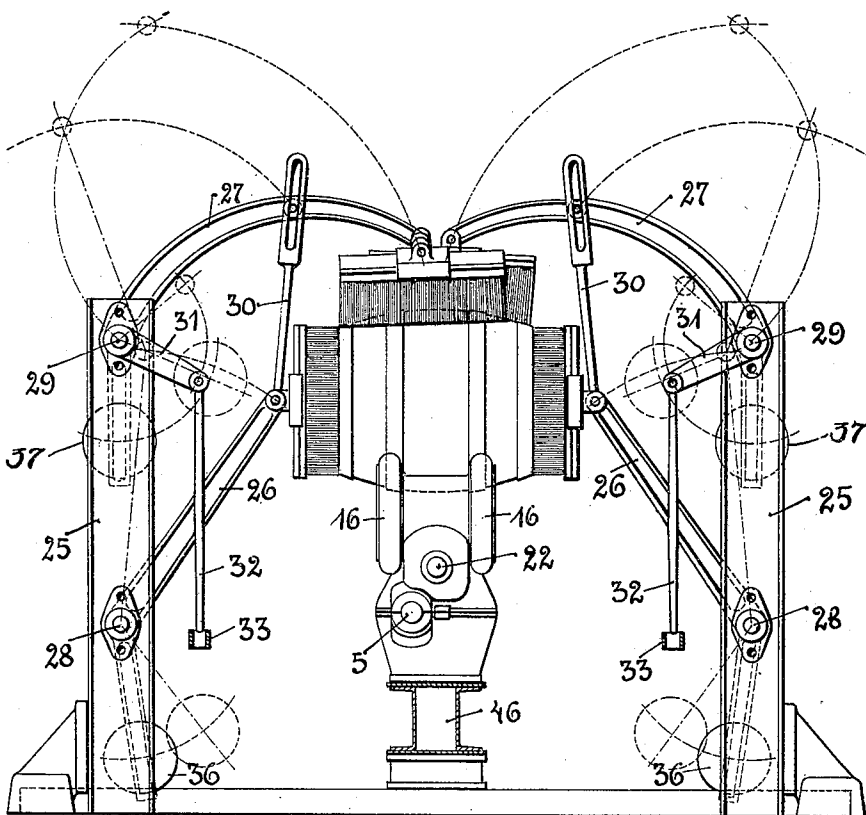


P. ROMBERG.
 BARREL BRUSHING APPARATUS.
 APPLICATION FILED AUG. 4, 1910.

1,121,872.

Patented Dec. 22, 1914.



Witnesses
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UNITED STATES PATENT OFFICE.

PAUL ROMBERG, OF LEIPZIG, GERMANY.

BARREL-BRUSHING APPARATUS.

1,121,872.

Specification of Letters Patent.

Patented Dec. 22, 1914.

Application filed August 4, 1910. Serial No. 575,557.

To all whom it may concern:

Be it known that I, PAUL ROMBERG, a subject of the King of Saxony, residing at Leipzig, in Germany, have invented a certain new and useful Improvement in Barrel-Brushing Apparatus, of which the following is a specification.

This invention relates to barrel-brushing apparatus of the type in which the barrels are automatically carried to and from supports consisting of revolving rollers, arranged in proximity to brushes which are pressed against the barrel revolving on said rollers.

The invention consists in an improved arrangement and means for moving the brushes to and from operative position, and is primarily intended for use in machines in which the barrels are conveyed to and from the supporting rollers by an automatic conveyor such as shown in the specification filed with my co-pending application Serial No. 575555. In connection with machines of this kind my invention has the special advantage that the brushes all swing aside, after operation, to make a free path for the conveyor.

The invention is illustrated in the annexed drawing, which is a front elevation of the brushing apparatus.

The barrel supporting rollers 16 are driven by a shaft 5 and suitable connecting gear.

The brushes for cleansing the heads and wall of the barrel are hinged to bell cranks 26 and 27 pivoted at 28 and 29 respectively to spaced standards 25, so that both sets of brushes can be swung outward into the positions indicated by dotted lines in the drawing, enabling the barrel to be deposited on the supporting rollers 16, and also to be removed after the brushing operation. The bell cranks 26 are connected to the bell cranks 27 by link rods 30, which are pivoted to the bell cranks 26 and slotted to engage pins projecting from the bell cranks 27, so that when the brush-carrying arms of the latter have been swung outward to a certain extent their continued movement pulls the brush-carrying arms of the bell cranks 26 outward. The movable connection between the bell cranks enables both sets of brushes to continue in efficient operation though they be unequally worn. Moreover, when the brush carriers swing inward, the brushes acting on the barrel-heads come into opera-

tion before the other brushes. This is an important feature, inasmuch as if the wall-treating brushes came down first the barrel would tend to jump off the supporting rollers.

The bell cranks are rocked outward by means of arms 31 fixed to the pivots 29 and connected by rods 32 to actuating levers 33. The levers 33 may be actuated by cams fixed to a crank shaft of the conveyor shown in my prior specification cited, and operate so that when a fresh barrel has been placed on the supporting rollers 16 the levers allow brush-carriers to swing inward with an even, regular motion.

Inasmuch as the brush-carrying arms, in rocking toward the barrel, are moving from a more or less vertical position to an inclined or horizontal position, the tendency of the weight of these arms (including the weight of the brushes) is to increase the inward thrust of the brushes as they approach the support. The effect of this weight alone would, therefore, be to apply greater brush pressure to small barrels than to large barrels, whereas in practice the contrary effect is desirable, that is to say, the pressure of the brushes on large barrels should be greater than that on small barrels. I obtain this contrary effect by means of weights 36, 37 on the other arms of the bell cranks. The disposition of these other arms is such that the effect of their weight, in imparting inward thrust to the brushes, is greatest when the brushes are remote from the support, and gradually decreases as the brushes approach the support. Consequently the brush pressure is greater, when operating on large barrels, than when operating on small barrels.

What I claim is my invention and desire to secure by Letters Patent of the United States is:—

1. In a barrel brushing device, the combination with a barrel support consisting of rollers, of brushes adapted to contact with the heads of the barrel, levers carrying said brushes, other brushes adapted to contact with the wall of the barrel, levers carrying the last mentioned brushes, and means connecting the last mentioned levers with the first mentioned levers in such manner that a limited lateral movement of the levers with relation to one another is permitted.

2. In a barrel brushing device the combination with a barrel support consisting of

rollers of brushes adapted to contact with the heads of the barrel, levers carrying said brushes, other brushes adapted to contact with the wall of the barrel, levers carrying the last mentioned brushes, slotted links connecting the last mentioned to the first mentioned levers, and means for positively swinging the last mentioned levers away from the barrel support.

3. In a barrel brushing device the combination, with a barrel support consisting of rollers, of a bell crank lever adjacent said support, said bell crank lever having a

weighted arm, and a brush carried by the other arm of said bell crank lever, the latter being disposed to rock said brush toward said support, with a thrust in part due to the weighted arm, the latter approaching the vertical as the brush approaches the barrel.

In witness whereof I have signed this specification in the presence of two witnesses.

PAUL ROMBERG.

Witnesses:

RICHARD CLEMS,
RUDOLPH FRICKE.

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