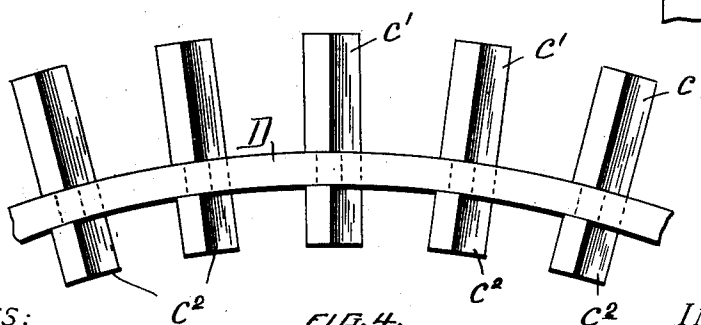
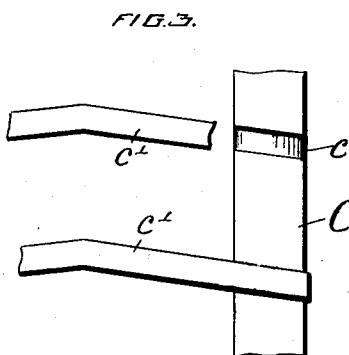
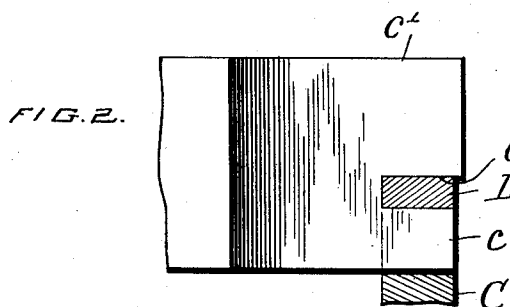
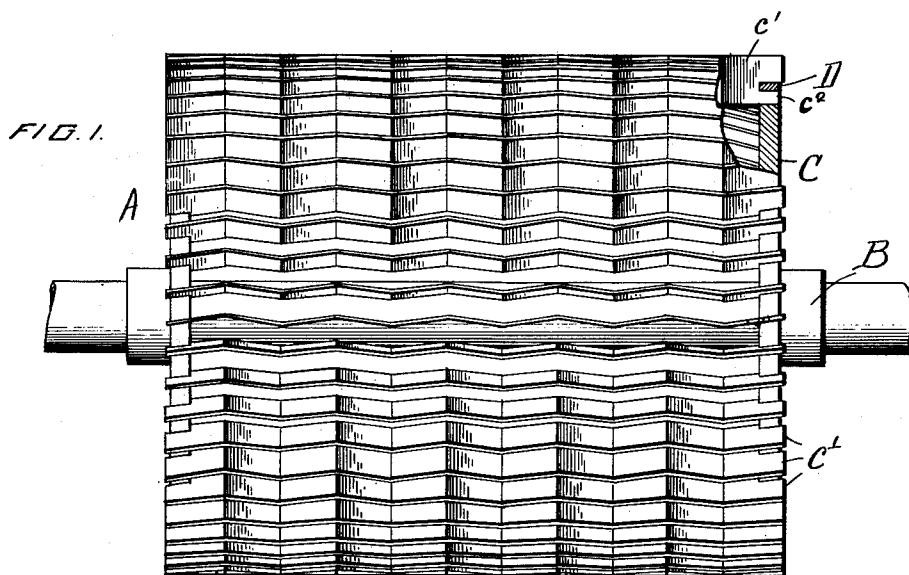


H. R. SIMONDS.
 ROLL AND BARS FOR BEATER AND WASHER ENGINES.
 APPLICATION FILED JUNE 11, 1912.

1,056,461.

Patented Mar. 18, 1913.



WITNESSES:
H. F. [Signature]
Robt. E. Barry

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UNITED STATES PATENT OFFICE.

HERBERT R. SIMONDS, OF DAYTON, OHIO.

ROLL AND BARS FOR BEATER AND WASHER ENGINES.

1,056,461.

Specification of Letters Patent.

Patented Mar. 18, 1913.

Application filed June 11, 1912. Serial No. 703,095.

To all whom it may concern:

Be it known that I, HERBERT R. SIMONDS, citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Rolls and Bars for Beater and Washer Engines; 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.

My invention relates to improvements in the construction of the roll of a beater and washing engine and particularly to the arrangement for securing corrugated fly bars in the roll.

The details of construction and arrangement of the improved roll are as hereinafter described and illustrated in the accompanying drawings.

In said drawings: Figure 1 is a front elevation of the roll having a portion cut away to show the bar or ring fastening. Fig. 2 is a side view of a portion of a fly bar and a section of the retaining ring and roll head. Fig. 3 is a view of a portion of one of the roll heads and a portion of two of the fly bars, showing one of the grooves on the roll head in which the fly bars are set. Fig. 4 is a side view of a portion of the retaining ring holding a few of the fly bars.

In the drawings, A is the assembled roll which is mounted upon a shaft B.

C, C are the heads of the roll which are circular in shape and provided on their peripheries with a plurality of slanting grooves c , c .

c' , c' are the fly bars which are corrugated and provided at their ends with lugs c^2 , c^2 and open slots c^3 , c^3 . Into the grooves c , c are inserted the lugs of the fly bars. The grooves c , c are made slanting to permit the lugs c^2 , c^2 of the corrugated bars to be inserted without any special shaping or bending of said lugs. A retaining ring D is inserted in the open slots c^3 , c^3 of the fly bars, after the same have been placed upon the heads C, C and retain the same in place.

This ring D is inserted while hot, and the shrinking caused by cooling will effectually retain the same in position.

It will be seen from the foregoing that I have constructed a roll which can be simply and quickly assembled and one in which when the bars are once secured in place, they will be held rigidly in position.

Straight bars have been secured by providing the ends of the bars with recesses forming lugs below them, inserting the said lugs in grooves or notches in the ends of the roll and shrinking a band upon the lugs in the manner employed by the applicant. In my construction the slanting grooves are of uniform depth and as such grooves or notches in the heads of the roll are inclined across the same, the bottom of said grooves or notches possess the same curvature as the periphery of the heads. The lugs of the bars are made straight and substantially as wide as the depth of the grooves or notches. Centrally of the heads, the lugs will be substantially on a level with the peripheral surface of the head but will be slightly above such surface at each end of said groove or notch or be above such surface at each side of the heads of the roll. When the securing ring has been shrunk to its place, it will press the lugs downward upon the upwardly curving bottom of the grooves or notches giving a firmer hold upon the lugs than in the older construction.

What I claim and desire to secure by Letters Patent is:—

1. A roll for beating and washing engines comprising a plurality of circular heads provided on their peripheries with a plurality of grooves of uniform depth extending diagonally across the peripheries of said heads, corrugated fly bars having open slots in their ends forming lugs of uniform width seated in said grooves, and retaining rings engaging said open slots in said fly bars and shrunk upon said heads.

2. A roll for beating engines comprising a plurality of circular heads provided on their peripheries with a plurality of diag-

onal grooves, corrugated fly bars having
open slots in the ends of the same forming
lugs of uniform width, seated in said
grooves, and retaining rings engaging said
5 end open slots of said bars and shrunk upon
said lugs and heads.

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

HERBERT R. SIMONDS.

Witnesses:

LOUISE BAUER,

EUGENE G. KENNEDY.

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