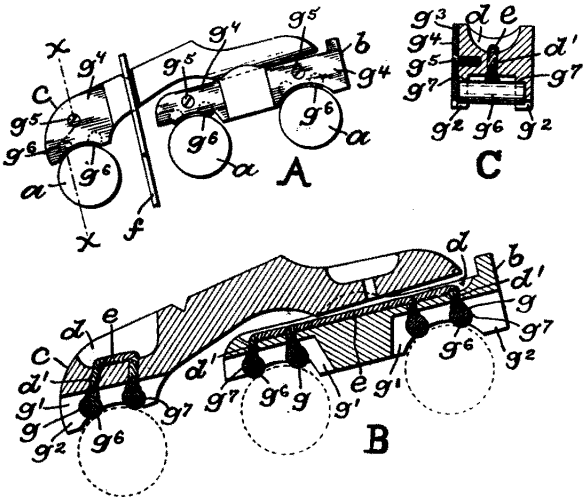
An Improvement in the Bearings of Top Roll Saddles for Ring Frames.

It is well known that top roll saddles of ring frames, constructed with straight or parallel bearings, create considerable friction on the journals of the top rolls and consequently are the cause for an excess waste of power required to run the top rolls of a ring frame, besides requiring the use of more oil in lubricating the bearings of the top roll saddles than would be necessary



if this excess in friction is overcome. To do this, *i. e.*, to eliminate friction as near as possible, between the journals on the top rolls and the bearings of the top roll saddles, and thereby increasing the life of the saddles, is the object of a new top roll saddle of the Dixon Lubricating Saddle Co., of Bristol, R. I. The new construction at the same time will also reduce the amount of oil required to lubricate the bearings of top roll saddles, thereby reducing the cost of lubricating the same.

THE GIST OF THE IMPROVEMENT: The new saddle has roller bearings bearing on the journal of the top roll, thus practically eliminating friction between the journal of the top roll and the bearing of the top roll saddle.

ILLUSTRATIONS: In order to be able to more thoroughly explain to the reader the construction and operation of the new saddle, the accompanying three illustrations are given, and of which diagram *A* is a side view of the front and back top roll saddles provided with improved anti-friction or roller-bearings and showing the same in their operative position on the journals of the top rolls of a ring frame. Diagram *B* is a somewhat enlarged sectional view, if compared to diagram *A*, taken lengthwise through the front and back top roll saddles, showing the means for oiling the roller bearings. Diagram *C* is a transverse sectional view through the front top roll saddle, taken on line *X-X* of diagram *A* (shown for sake of clearness enlarged), showing the construction of the roller bearing in the same.

DESCRIPTION OF THE CONSTRUCTION: Letters of reference accompanying the illustrations indicate thus: *a* the journals of the top rolls, *b* the back saddle, *c* the front saddle, *d* oil grooves in the front and back saddles, *e* oil wicks in the oil grooves, *f* the stirrup strap and *g* the roller bearings of front and back top roll saddles.

The back and front saddles *b* and *c* each have holes d^1 for the wicks *e*, leading from the grooves *d* to the cavities g^1 formed in the underside of the saddles, as shown in diagram *B*. The lower edges of the side walls g^2 of both saddles conform in their shape to the journals *a* of the top rolls. The saddles have the outer countersunk portions g^3 for the plates g^4, which conform in their shape to the contour of the saddles and are secured to the saddles in the countersunk portions g^3 by the screws g^5, as shown in diagrams *A* and *C*. Rolls g^6 are rotatably secured in the bearings g^7 formed in the side walls g^2, by boring two holes through the countersunk side wall g^2 and partly through the opposite side wall g^2. The bearings g^7 thus formed, intersect the lower edge of the side walls g^2, allowing the rolls g^6 when secured in the bearings g^7 by the plate g^4 to project slightly through the lower edge of the side walls g^2, as shown in diagram *C*. The ends of the wicks *e* project through the holes d^1 onto the rolls g^6 for lubricating the same.

On the ring frame, these wicks *e* are oiled by the operator in the usual way, and when the wicks leading to the roller bearings *g* lubricate the bearings for a longer period with one oiling than has heretofore been done, the roller bearings *g* at the same time eliminating friction between the journals of the top rolls and the bearing of the top roll saddles, with the consequence of reducing the power required to run the top rolls.