J. DESAUTELS & J. LACROIX.
DRIP RAIL PLATE FOR TWISTING FRAMES.
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FIG. 1

FIG. 2

FIG. 3

FIG. 4

Witnesses
Isa. & Clement
Herbeccia Lorde

Inventor
Joseph Lacroix
Joseph Desautels

By
Atty.
To all whom it may concern:

Be it known that we, Joseph Desautels and Joseph Lacroix, citizens of the United States, residing at Fall River, county of Bristol, Commonwealth of Massachusetts, have invented certain new and useful Improvements in Drop Rail Plates for Twisting-Frames, of which the following is a specification:

Our invention relates to drop rail plates for twisting frames and particularly to a plate which shall not only afford the usual functions of such a plate but which will in addition act as a water vaporizer and back edge check.

We need not say that it is of the greatest importance that all excess water be removed from the thread silver after leaving the trough in order to avoid the spattering which not only increases the gather of dirt instead of in the run of the thread but wets the silver, causing debris, and is also apt to result in endless thread and as it is wound. An invention frequently difficult in this class of twisting is accomplished in the running back of the silver into the water trough. This running back not only becomes the twist in the thread but is in part responsible for various other serious results. In the first place, the retraction of the thread silver as it passes through the trough is proportioned to the speed at which the thread silver travels and the condition in which the silver is. If the silver is already unstirred it will obviously absorb the water much more quickly and become completely wet. If, on the other hand, it is already watered it will equally well be a proportionate degree. The actually used of the twist, therefore, prevents the production of a completely uniform thread. The twisting of the thread in the trough has a further disadvantage. The water in the trough catches and wets a very considerable amount of foreign matter, in particular, dust and other kinds of caked droppings from the hair, which would be otherwise still be present at the moment the thread began to twist. The caked droppings of foreign matter coming in contact with the thread in this condition.

It is, therefore, the object of our invention to produce a rail plate which, as stated above, will not only afford the usual thread run but will completely strip the excess of water and will hold the twist against running back into the trough.

In addition to the above, our device involves several features of advantage, one of which resides in the provision of a protective apron for guarding the wooden rail against the deposits of water and sediment as stripped from the thread.

The construction and operation of our device will be more fully described in the specification which follows. Throughout that specification and the drawings which form a part of it like reference numerals are employed to indicate corresponding parts.

In the drawings—Figure 1 is a side view of our plate as applied to the rail of a wet twister, Fig. 2 is a plan view of the same, Fig. 3 is a rear view of the same removed from the rail to show the overhanging apron, and Fig. 4 is a sectional view on the line 4-4 of Fig. 3.

Our plate consists of a top member having centrally thereof a raised portion having a central transverse passage of a toric form. On one side there is a depending apron. The passage 3 on its two faces has depending notches 5 and 6 and centrally of the passage are two oppositely fixed shoulders 7 and 8 which slope down to provide two points which slightly overlap, 9 and 10. The thread is indicated as 11.

The overlapping points, therefore, give to the thread a slight stagger out of the straight line. This not only keeps the thread drawing tightly and evenly but the point 10 will strip the excess water firmly from the thread X while the point 9 against which the thread twists will effectively stop the creeping back of the twist into the trough.

In running down through the notch 6, any water which might be drawn through the notch will drip over the apron 4 against the trough, the edge of which lies just beyond the apron, as indicated by 11, which indicates the edge of the trough and 12 which indicates the trough proper. In this way the rail 16 is guarded against rotting and the smooth porcelain surface of the
apron 4 will make it possible to keep it white and clean from dust and sediment. Various modifications in the form of the plate, its manner of attachment, the shape and arrangement of the water and the channel, also apron, may obviously be made all without departing from the spirit of my invention if within the limit of the appended claims.

What we, therefore, claim and desire to secure by Letters Patent is:

1. A trough rail plate for a wet twister comprising a top portion and a lateral depending apron for protecting the side of the rail.

2. A trough rail plate for a wet twister having a groove transversely of its upper face, a pair of opposed shoulders having substantially parallel inner faces and having inclined outer edges projecting within said groove and slightly overlapping each other at their lower ends.

3. A trough rail plate for a wet twister having a groove transversely of its upper face, a pair of opposed shoulders and having inclined outer edges projecting within said groove and slightly overlapping each other at their lower ends.

4. A trough rail plate for a wet twister having a groove transversely of its upper face, a pair of opposed shoulders slightly overlapping each other at their lower ends.

5. A trough rail plate for a wet twister having a transverse groove, a stop on the outside for holding the back twist from the twister, a stop on the inside for stripping the water from the thread as it rises from the trough.

6. A trough rail plate for a wet twister having a transverse groove, a shoulder on the outside for holding the back twist from the twister, a shoulder on the inside for stripping the water from the thread as it rises from the trough.

7. A trough rail plate for a wet twister having a transverse groove, said groove having a substantially straight open upper area and a tortuous bottom area.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH DESAUTELES.
JOSEPH LACROIX.

Witnesses:

PHILIPPE E. LAUVIERE,
JOSEPH E. LACROIX, JR.