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 Titus McGraw.
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 James L. Sexton.
 By his attorney

UNITED STATES PATENT OFFICE.

JAMES L. SEXTON, OF CHARLOTTE, NORTH CAROLINA, ASSIGNOR OF ONE-THIRD TO E. F. BLACK AND ONE-THIRD TO S. J. WENTZ, BOTH OF CHARLOTTE, NORTH CAROLINA.

DRAWING-ROLL.

949,504.

Specification of Letters Patent. Patented Feb. 15, 1910.

Application filed December 20, 1907. Serial No. 407,378.

To all whom it may concern:

Be it known that I, JAMES L. SEXTON, a citizen of the United States, residing in Charlotte, North Carolina, have invented certain Improvements in Drawing-Rolls; of which the following is a specification.

My invention relates to certain improvements in the steel rolls of drawing frames, slubbers, speeders and spinning frames.

The object of my invention is to provide a roll which can be quickly repaired when the journal or neck becomes worn and which, when repaired, will be centered so that the rolls will always be in proper alinement. This object I attain in the following manner, reference being had to the accompanying drawing, in which:—

Figure 1, is a side view of sufficient of a drawing roll to illustrate my invention; Fig. 2, is a partial sectional view of the roll illustrated in Fig. 1; Fig. 3, is a perspective view showing the parts of the roll detached; Fig. 4, is a partial sectional view illustrating a modification of the invention; Fig. 5, is a detached perspective view of the parts illustrated in Fig. 4; Fig. 6, is a partial sectional view of another modification of the invention; and Fig. 7, is a detached perspective view of the modification illustrated in Fig. 6.

Referring to Figs. 1 to 3, both inclusive, A is the drawing roll having the usual fluted sections *a, a* and the neck C. These necks are arranged at intervals throughout the length of the roll and are supported by bearings which keep the roll in proper alinement, as the least variation will affect the product of the machine.

Referring to Figs. 2 and 3, the neck C forms an integral part of the section A' of the rolls and has a squared end *c* fitting a squared cavity *a'* in the section A² of the rolls. The neck proper is turned down as indicated for the reception of a sleeve C', which is made in halves, as illustrated in Fig. 3. In the end of the section A' is a cavity *d* and in the end of the section A² is a cavity *e* into which extend the ends of the sleeve C', as clearly shown in Fig. 2. In assembling the parts the sections of the sleeve C' are placed in the cavity *d* and forced back of the projecting portions *c'* of the squared section *c* and then the section A² is forced over the squared portion *c* until the ends of the sleeve sections C' enter the cavity *e*, thus

bringing the several parts into proper alinement. This construction may be applied either to new rolls or to rolls which have become worn and in which the neck was solid, by simply turning down the solid neck to the diameter indicated and placing the steel sleeves over the neck as illustrated.

In some instances it may not be desired to make the sleeve in two parts. If the squared section was slightly less in diameter than the neck then the sleeve could be made in one piece and slipped over the end of the squared section, but as it is desired to make the squared section as large as possible, and, owing to the fact that a great number of the rolls now in use have the enlarged square neck, I prefer to make the sleeve in two parts.

In Figs. 4 and 5, I have shown a modification of the invention especially applicable to new rolls, but which may also be applied to old rolls as well. The neck C² is octagonal or other shape, except round, for its full length and the opening in the sleeve C³ corresponds to the shape of the neck as well as the opening in the section A² of the rolls. The sleeve is then driven over the neck C² and the end of the neck is projected into the opening in the section A² of the rolls.

In Figs. 6 and 7, I have shown a still further modification in which it is not desired to disturb the squared portion of the neck which fits the squared opening in the section A² of the roll, in this case the neck C⁴ is made separate from the section A' and is turned down to receive a sleeve *c*⁵; an integral collar *c*² being left between the turned down portion and the squared portion, and the end of the turned down portion has a screw thread cut on it and the opening *d'* in the section A' has a screw thread with which meshes the screw thread on the end of the neck. On assembling the parts the sleeve is simply placed over the neck and the screw threaded end of the neck is screwed into the section A', after which the parts are coupled to the section A² in the ordinary manner.

It will thus be seen that by the use of any one of the arrangements illustrated the alinement of the rolls is insured, the parts can be readily renewed when worn, and the invention can either be applied to old rolls having a worn neck and a squared or other

shaped end, or a neck especially adapted to receive the sleeve.

I claim:—

1. A drawing roll made in two sections
5 each having an annular recess in one of its ends, and one section having an irregular opening co-axial with its recess, a neck made integral with and projecting from one section and having an end of irregular shape
10 fitting the irregularly shaped opening in the other section, with a sleeve mounted on the neck with its ends fitting the recesses in the ends of the two sections.

2. A drawing roll made in two sections
15 each having an annular recess in one end, a neck integral with and projecting from the end of one section and fitting a cavity of irregular form in the end of the other section, and a two part sleeve mounted on the neck
20 between the sections, the ends of the two parts of the sleeve entering the recesses in

the ends of the sections and being held in place by said sections.

3. The combination of a drawing roll made in two parts, one part having a neck
25 projecting from one end, said neck having a round and a square portion, of which the latter portion is of greater diameter than the round portion and is constructed to fit a square cavity in the other section, both of
30 the sections being recessed at one end, and a split sleeve mounted on the round portion of the neck and fitting into the cavity with its ends covered by the overhanging edges of the same.
35

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JAMES L. SEXTON.

Witnesses:

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