March 25, 1930. J. T. JOHNSTON 1,752,005

COVERING FOR PLATER ROLLS

Filed July 13, 1928

Fig. 1.

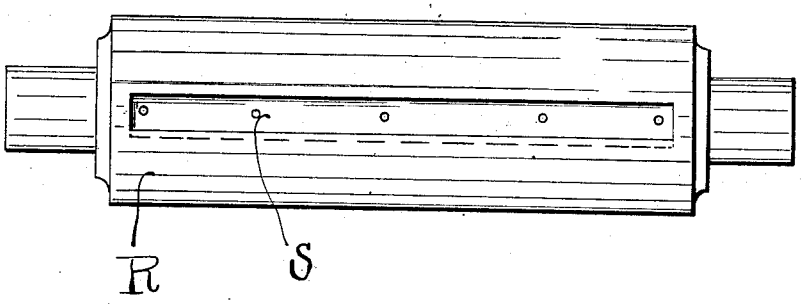
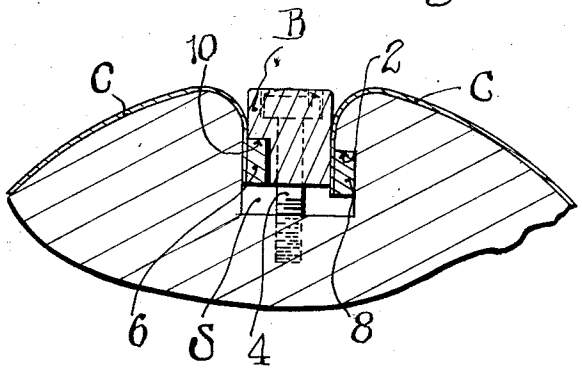



Fig. 2.




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# UNITED STATES PATENT OFFICE

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## COVERING FOR PLATER ROLLS

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This invention relates to improvements in coverings for plater rolls and is directed particularly to improved means for securing a plating or paper finishing covering to a roll of a plating or finishing machine.

According to one common practice the rolls of plating or finishing machines have specially formed surfaces for imparting to paper which is contacted therewith a finish corresponding to the form of the surface so that for each different finish it is necessary to provide a different roll, which is objectionable because of the cost involved It is one object of this invention to provide a covering for plater rolls and the like which may be removed therefrom so that a single roll may if desired carry various types of coverings for obtaining various effects and is accomplished by the provision of a covering plate, preferably of metal which may carry on its surface such ornamentation as is desired and which is sufficiently bendable to accommodate itself to the surface of the roll and be removably secured thereto.

Another object of the invention is the provision of means associated with the covering and roll whereby the covering may be wrapped about the roll in a taut and unbuckled condition and easily and quickly secured thereto.

Other objects and advantages of the invention will be observed from the following description of the invention which for purposes of disclosure is illustrated by the accompanying drawings in which:

Fig. 1 is an elevational view of a roll having a longitudinal slot therein for receiving the ends of the covering.

Fig. 2 is an enlarged partial cross sectional view through the roll showing certain features of the invention.

Referring to the drawings in detail the novel features of the invention will now be described. R represents a roll of ordinary form for use in a plating or finishing machine and is provided with a longitudinal slot S in the periphery thereof for receiving opposite ends of the roll covering. The cross section of the slot is irregular in that a shoulder 2 is provided as shown in Fig. 2 which is formed by a recess in the lower part of the slot. The upper walls of opposite sides of the slot are preferably rounded to provide a smooth surface for the end portions of the covering C.

A plurality of threaded openings are provided in the lower side of the slot for receiving clamping bolts 4 which pass loosely through suitable openings in a clamp bar B. The bar B is provided with a shoulder 10 on one side thereof as shown for the purpose later to be described.

The covering C for performing the plating or finishing operation may comprise a sheet of metal or the like which preferably is bendable for wrapping around the periphery of the roll and has secured to its opposite end portions reinforcing strips which may take the form of substantially rigid bars 6 and 8 as shown.

The length of the covering will of course be such as to properly cover the roll so that the reinforcing bar 8 thereof at one end may underlie the shoulder 2 of the slot while the other bar 6 of the other end will enter the slot of said roll. The covering and roll are assembled in the following manner: With the bar 8 of one end of the covering below the shoulder 2 of the roll slot the bar B is inserted in the slot so that the shoulder 10 thereof bears upon the upper side of the reinforcing bar 6 at the other end of the covering. Then the bar B is moved towards the bottom of the slot by means of the screws. The bar B forces the bar 6 of the covering downwardly of the slot to thereby pull the covering around the roll so that it is in a taut and flat unbuckled condition.

With the structure described it is not only possible to tension the covering to the desired degree but by means of the novel arrangement a covering may be easily and quickly applied to or removed from the roll to thereby facilitate the changing of coverings as may be desired.

The invention is adapted for broad application whenever it is desired to provide a covering for a plater roll or the like which is removable therefrom. Many changes may be made in the form of the invention

without departing from the spirit and scope thereof and I prefer therefore to be limited by the appended claims rather than by the foregoing description.

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

1. A roll and removable covering therefor in combination with means for securing them together comprising, a shoulder extending longitudinally of said roll, reinforcing bars at opposite ends of said covering one of which is adapted to engage beneath said shoulder and a clamp bar movable radially of said roll for engaging the other of said bars of the covering and drawing said covering tightly around said roll.

2. A roll and removable covering therefor in combination with means for securing them together comprising, the said roll being provided with a slot longitudinally thereof having a recess in the lower side thereof, bars carried at opposite ends of said covering one of which is adapted to lie in said recess, while the other lies in said slot, a clamp movable radially of said slot for engaging the last named bar whereby the covering is pulled taut around said roll and means for actuating said bar.

3. A roll and removable covering therefor in combination with means for securing them together comprising, the said roll being provided with a longitudinal slot on the periphery thereof having a recess in the lower side thereof forming a shoulder extending throughout the length of said slot, bars carried at opposite ends of said covering, one of said bars being adapted to engage beneath the said shoulder and the other for lying in said slot, a clamp bar for engaging the upper side of said last named bar which is movable in said slot for tensioning the covering about said roll and means for securing the said bar in place on said slot.

4. A roll and removable covering therefor in combination with means for securing them together comprising, the said roll being provided with a longitudinal slot in the periphery thereof having its upper side walls curving outwardly, a shoulder formed by a recess in one wall of said slot, bars on opposite ends of said covering, one of said bars adapted to engage beneath said shoulder so that the covering may be extended upwardly therefrom and around the roll so that the other bar may lie in said slot and a clamping bar for engaging said last named bar for tensioning said covering about said roll.

5. A roll and removable covering therefor in combination with means for securing them together comprising, the said roll being provided with a longitudinal slot in the periphery thereof which has upwardly and outwardly curving walls, a shoulder in a wall of said slot, the said covering having bars at opposite ends thereof, one of said bars being engaged beneath said shoulder and the covering extending upwardly therefrom over the curved wall of the slot and around the periphery of the roll with the opposite end of said covering and its bar disposed on said slot, and a clamp bar in said slot having its under side in abutment with said last named bar for tensioning the covering about said roll.

6. A roll and removable covering therefor in combination with means for securing them together comprising, the said roll being provided with a longitudinal slot in the periphery thereof having its upper side walls curving outwardly, a shoulder formed by a recess in one wall of said slot, bars on opposite ends of said covering, one of said bars adapted to engage beneath said shoulder so that the covering may be extended upwardly therefrom and around the roll so that the other bar may lie in said slot and a clamping bar for engaging said last named bar for tensioning said covering about said roll and means for clamping said bar in place in said slot to maintain said covering in its tensioned condition.

7. A roll and removable covering therefor in combination with means for securing them together comprising, the said roll being provided with a slot in the periphery thereof and disposed longitudinally thereof, a recess in a side wall of said slot at the lower side thereof providing a longitudinal surface disposed transversely of said slot and extending from a side thereof, bars at opposite ends of said covering, one of said bars adapted to enter said recess and abut said surface and a clamp bar in said slot provided on the lower side with a recess for receiving the bar at the other end of said covering whereby the covering may be tensioned around said roll.

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