April 28, 1931. A. D. GARGOLINSKI 1,803,180

CLOTH ROLL MOUNTING

Filed Oct. 25, 1928

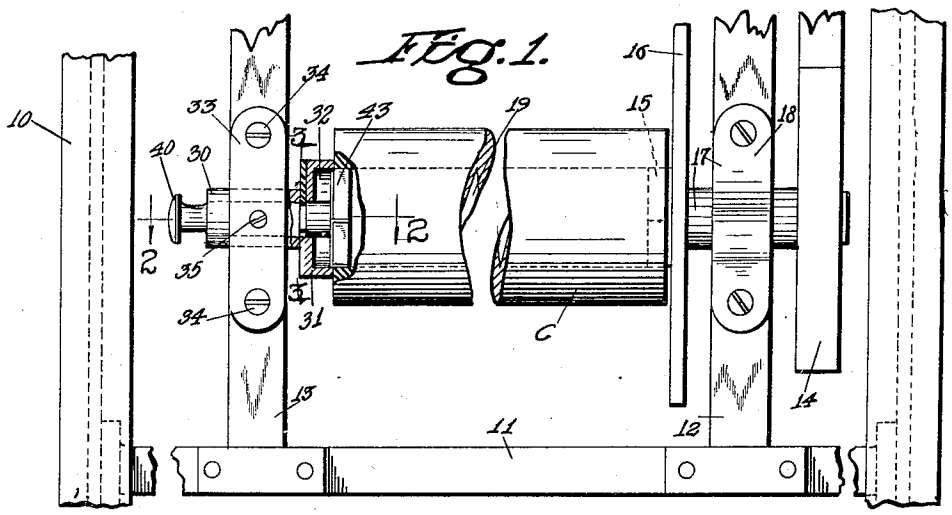


Fig. 1.

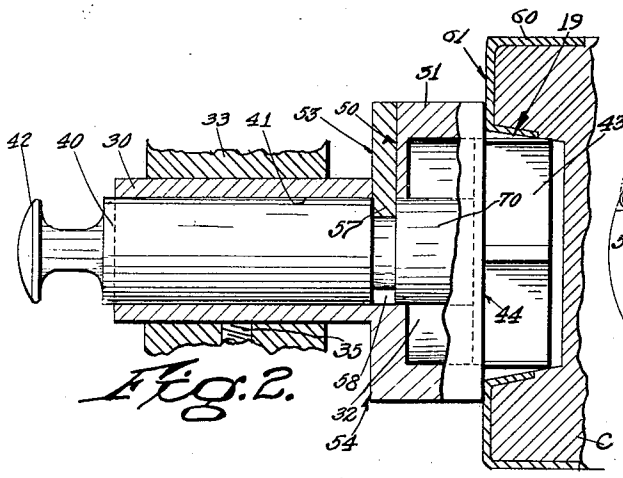


Fig. 2.

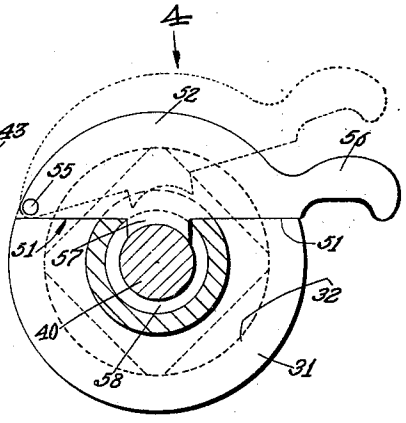


Fig. 3.

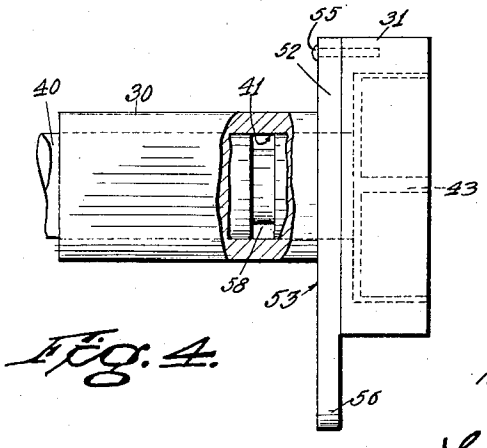


Fig. 4.

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UNITED STATES PATENT OFFICE

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CLOTH-ROLL MOUNTING

Application filed October 25, 1928. Serial No. 315,069.

This invention relates to improvements in the supports for cloth rolls for looms and it is the general object of the invention to provide an improved quickly removable bearing which may be adjusted readily to compensate for varying lengths of cloth rolls.

The cloth as it is woven in a loom moves forwardly to a cloth roll which is driven by constantly moving means to wind up the cloth. From time to time it becomes necessary to remove cloth from the loom and to permit this operation it is customary to provide quickly removable mountings for the cloth rolls. The rolls are provided with square openings into which may be fitted the squared end of a supporting stud. It is an important object of my present invention to provide a cloth roll support having a sleeve slidable in a fixed bearing of the loom in a direction parallel to the axis of the cloth roll.

It is a further object of my present invention to provide the sleeve with a housing sufficiently large to receive the squared end of the stud and so positioned as to engage the end of the cloth roll and position the latter, said housing being movable with the sleeve to be adjustable when varying lengths of cloth rolls are employed.

It is a further object of my present invention to provide a lock which is movable with the sleeve so that when the latter is adjusted the lock will automatically be adjusted at the same time. In this connection it is to be noted that the sleeve and housing engage one portion of the cloth roll and their position is to be determined by this part of the cloth roll, whereas the squared end of the stud which is related to the lock engages another portion of the cloth roll. By providing the lock as set forth herein the proper position of the housing and the square end of the stud relatively to the roll is maintained. In this way the cloth roll will be accurately positioned independently of any variation which may be found in the depth of the square recess in the cloth roll which receives the square head of the stud.

It is a more detailed object of my present invention to pivot the lock on the housing so that the same may move about a center which is eccentric relatively to the axis of the cloth roll, the lock and its pivot together with the stud and sleeve being formed as a unit which can be readily inserted into and removed from the fixed bearing in the loom.

With these and other objects in view which will appear as the description proceeds, my invention resides in the combination and arrangement of parts hereinafter described and set forth in the claims.

In the accompanying drawings wherein one form of my invention is shown.

Fig. 1 is a front elevation of the lower portion of a loom having my invention applied thereto, certain parts being shown in section and other parts being broken away for the sake of clearness.

Fig. 2 is an enlarged horizontal section on line 2—2 of Fig. 1,

Fig. 3 is an enlarged vertical section on line 3—3 of Fig. 1, and

Fig. 4 is a top plan view in the direction of arrow 4, Fig. 3, certain parts being removed and other parts being in section.

Referring to Fig. 1, the loom frame 10 may be provided with a lower girt 11 which supports a pair of vertical stands 12 and 13 located respectively at the right and left hand sides of the loom. Driving gearing indicated generally at 14 is provided for rotating the cloth roll from the take-up roll or any other regularly moving part of the loom. The right hand end of the cloth roll may be supported on a head 15 non-circular in cross section, being suggested herein as square, said head being associated with a hand wheel 16 by which the cloth roll may be rotated and being mounted on a stud 17 operatively connected to the gearing 14. Said stud extends through a bearing 18 fixed on the right bracket 12. There is a sliding connection between the head 15 and the internal bore 19 of the roll which will permit the roll to be moved to the left while the head 15 remains at rest. The matter thus far described may be of any approved form and of itself forms no part of my present invention.

My invention relates to the mounting for the left hand side of the roll as viewed in Fig.

1 and in carrying my invention into effect I provide a sliding sleeve member 30 having formed preferably integral therewith an enlarged housing 31 which is provided with an internal bore 32 preferably cylindrical in form. The sleeve 30 extends through a bearing 33 supported by the left hand bracket 13. The bearing is held in position by screws 34 and is provided with an adjusting set screw 35 adapted for engagement with the sleeve 30 to hold the latter in adjusted position relatively to the bearing 33.

Extending through the sleeve is a stud member 40 having a body which preferably has a close fit with the internal bore 41 of the sleeve 30. The left hand end of the body may be provided with a hand hold 42 while the right hand end may be provided with a head 43. Said head may be substantially square as shown in Fig. 3 and is proportioned to fit into the bore 32 of the housing 31 and the bore is sufficiently deep to receive the head 43 so that the latter will not project beyond the front end face 44 of the housing.

The upper portion of the housing 31 is cut out as at 50 to define upwardly facing shoulders 51. A locking member 52 is received in the cutaway portion and has its left face 53 in substantially the same plane as the left face 54 of the housing. The locking member is mounted on a stud 55 which projects into the housing 31, said stud extending across the cut-out portion 50 and extending into that portion of the housing lying outside the bore 32. The lock normally rests on the shoulders 51 and may have a handle portion 56 by which it may be lifted.

The lock member has a depending portion 57 adapted to pass into an annular groove 58 cut into the body of the stud 40. The groove 58 is so located that it will receive the lock when the head 43 is located in the recess 19 of the cloth roll C. The cloth roll may be provided with a metallic cap 60 which projects partly into the bore 19. The cap has a vertical face 61 extending across the end of the cloth roll to abut the right hand surface 44 of the housing 31.

In operation the parts will be assembled as shown in Fig. 1, the gearing 14 serving to give the cloth roll periodic angular movements to take up the cloth as the latter is woven. When sufficient cloth has been wound on roll C to require removal the lock 52 will be swung upwardly around its pivot stud 55 to move the locking portion 57 out of the groove 58. By means of the hand hold 42 the stud may then be moved to the left to withdraw the head 43 from the bore 19. The left hand end of the cloth roll may then ordinarily be moved forwardly to a position where the cap will clear the housing 31, after which the cloth roll may be moved endwise to clear the head 15. Should the housing 31 be set too far to the right to permit this, however, the screw 35 may be loosened and the sleeve moved to the left to provide ample clearance for the removal of the cloth roll. When the stud 40 is moved to the left that portion of the body indicated at 70 which lies between the groove 58 and the head 43 will support the lock 52 and hold the latter in raised position. Should it be found on changing cloth rolls that a variation exists the sleeve 30 can be moved longitudinally in the bearing 33 so that the housing 31 and head 43 may be properly located with respect to the cloth roll.

From the foregoing it will be seen that I have provided a mounting for cloth roll wherein the sleeve 30 may slide in a direction substantially parallel to the axis of the cloth roll to accommodate slight variations in the lengths of cloth rolls and also to facilitate removal of the cloth roll when a cut of cloth is to be taken from the loom. It will further be seen that the housing 31 which receives the head 43 serves to position the cloth roll irrespective of the head 43, the latter being received in the bore 32 so as not to interfere with the removal of the cloth roll from the loom. It will also be seen that the lock 53 is supported by the housing and therefore moves with the sleeve to all adjusted positions of the latter, provision being made in this way to insure the proper relation between the head 43 and the housing 31 for all longitudinal positions of the sleeve 30.

Having thus described my invention it will be seen that changes and modifications may be made therein by those skilled in the art without departing from the spirit and scope of the invention and I do not wish to be limited to the details herein disclosed, but what I claim is:

1. In a loom having a cloth roll mounting, a fixed bearing adjacent one end of the roll, a sleeve mounted in the bearing normally fixed but capable of longitudinal and angular movements therein, a stud extending through the sleeve and having provision for supporting one end of the cloth roll, and means defining a locking connection between the stud and the sleeve, said connection moving with the sleeve relatively to the bearing.

2. In a loom having a cloth roll mounting, a bearing having its axis substantially in alignment with the axis of the cloth roll, a sleeve normally fixed but capable of sliding movement in the bearing, a stud slidably mounted within the sleeve and having provision for supporting one end of the cloth roll, and means moving with the sleeve to hold the sleeve and stud against relative longitudinal movement.

3. In a loom having a cloth roll mounting, a bearing having its axis substantially in alignment with the axis of the cloth roll, a sleeve normally fixed but capable of sliding

movement in the bearing, a stud slidably mounted within the sleeve and having provision for supporting one end of the cloth roll, and means moving with the sleeve requiring said sleeve and stud to move together longitudinally with respect to the bearing.

4. In a loom having a cloth roll mounting, a sleeve extending substantially co-axial with the cloth roll, a fixed bearing to support the sleeve and with respect to which the sleeve may assume any one of a plurality of positions longitudinally of the cloth roll, a stud slidable within the sleeve and having a head to engage and support one end of the cloth roll, a surface on the stud transverse of the axis thereof, and a lock mounted on the sleeve and having engagement with the transverse surface of the stud to prevent longitudinal movement of the latter relatively to the sleeve.

5. In a loom having a cloth roll with a recess in one end thereof, means defining a fixed bearing co-axial with the cloth roll, a sleeve normally fixed but capable of sliding movement slidably mounted in the bearing, a housing rigid with the sleeve to engage that portion of the cloth roll lying outside the recess, a stud slidably mounted within the sleeve and having a portion to enter the recess, and locking means mounted to move longitudinally of the cloth roll with the sleeve to prevent relative longitudinal movement of the stud relatively to the sleeve in any longitudinal position which the sleeve may assume relatively to the bearing.

6. In a loom having a cloth roll mounting, a fixed bearing adjacent one end of the roll, a sleeve movable longitudinally in said bearing, a stud slidably mounted in said sleeve to engage the cloth roll and limit longitudinal movement thereof, and means movable with the sleeve to engage and hold the stud in operative relation with the cloth roll in any of the positions the sleeve assumes.

7. In a loom, a cloth roll, a fixed bearing opposite one end of the roll, a sleeve mounted in the bearing and movable to a plurality of longitudinal positions, means to hold the sleeve in any one of various longitudinal positions, a stud movably mounted in said sleeve to be operatively related to the roll, and a locking device mounted on the sleeve and movable therewith to engage and hold the stud in operative relation with respect to the roll in any of the said positions of the sleeve.

In testimony whereof I have hereunto affixed my signature.

ANTHONY D. GARGOLINSKI.