J. B. JOURDAIN & L. DEXTRAZE.

UNIVERSAL JOINT CONNECTION.

APPLICATION FILED JAN. 7, 1909.

941,928. Patented Nov. 30, 1909.

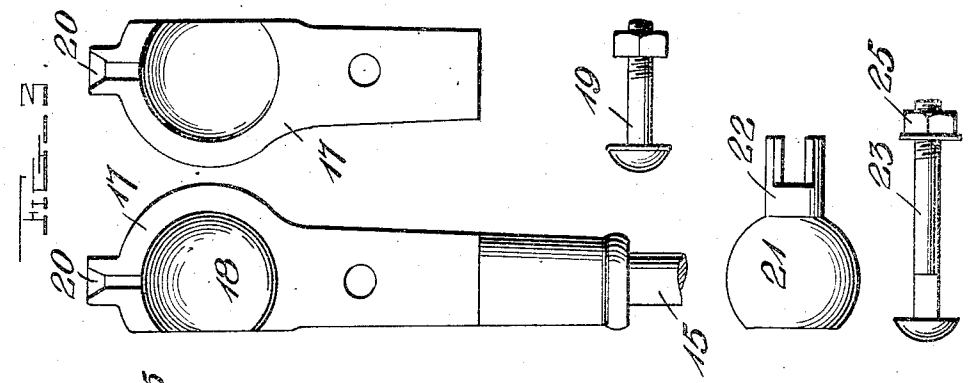
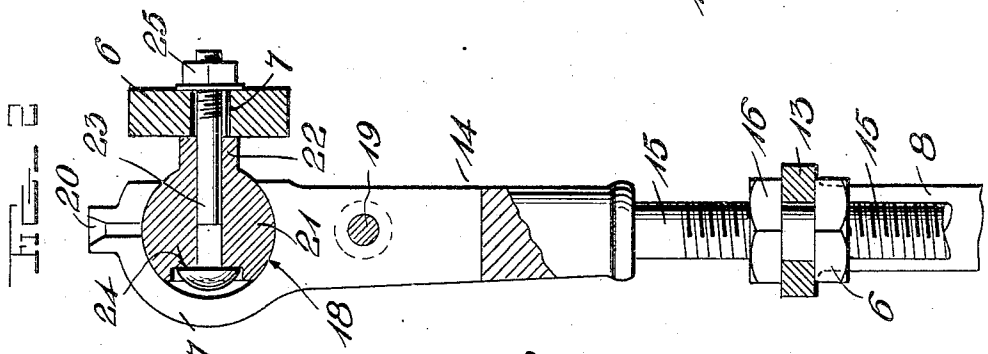


FIG. 2.



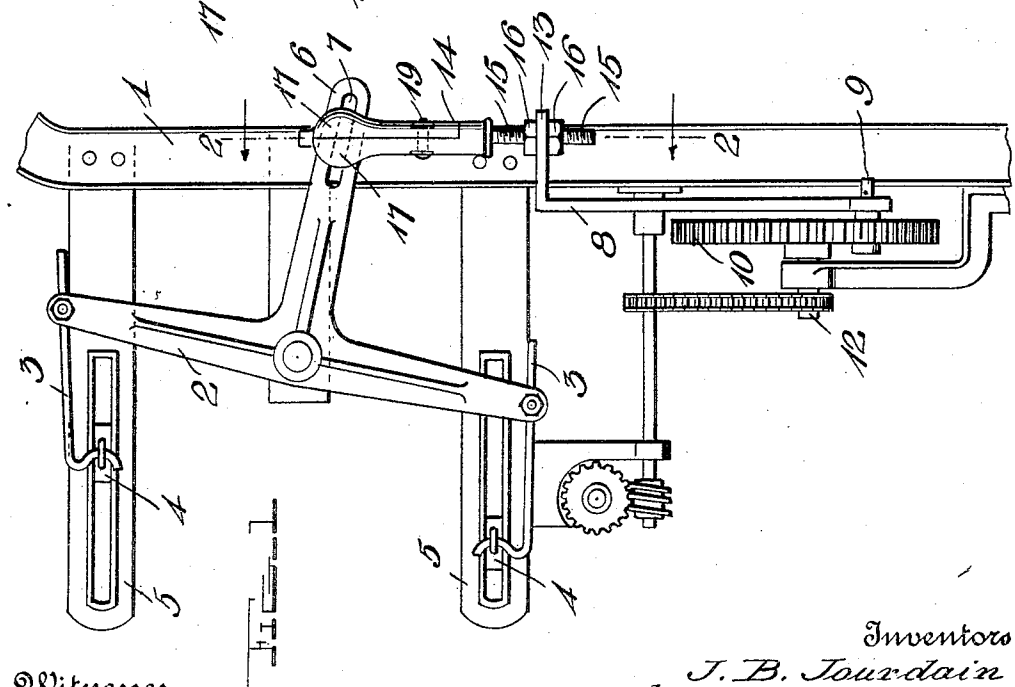


FIG. 1.

Witnesses

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UNITED STATES PATENT OFFICE.

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UNIVERSAL-JOINT CONNECTION.

941,928. Specification of Letters Patent. **Patented Nov. 30, 1909.**

Application filed January 7, 1909. Serial No. 471,167.

To all whom it may concern:

Be it known that we, JEAN B. JOURDAIN and LOUIS DEXTRAZE, citizens of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Universal-Joint Connections; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in universal joint connections.

The object of the invention is to provide an attachment of this character especially adapted for use in connection with a dobby rocker of the loom shedding mechanism whereby said rocker is operated and controlled, and whereby the old well known form of rocker operating mechanism is greatly improved, and a steady motion imparted to the rocker and lifting knives of the shedding mechanism, thus preventing misweaving.

A further object is to provide an attachment of this character so constructed as to prevent the spattering of oil on the cloth as frequently occurs in the usual construction of rocker operating mechanism.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side view of a portion of a loom showing the application of the invention thereto; Fig. 2 is a vertical sectional view of the controlling and operating attachment and a portion of the rocker arm on the line 2—2 of Fig. 1; and Fig. 3 is a plan view of the attachment showing the parts separated.

Referring more particularly to the drawings, 1 denotes a portion of the loom frame in which is arranged the shedding mechanism. Pivotally mounted on the frame 1 is a rocker head 2, which is here shown as of the usual T-shape and which is connected at its opposite upper and lower ends by suitable links or rods 3 to the shedding knives 4 which are slidably mounted in slotted arms 5 of the shedding frame. These parts may be of the usual or any suitable construction and do not form a part of our invention.

In the outer end of the laterally projecting arm 6 of the rocker head is an elongated aperture or slot 7 which is connected to the rocker operating and controlling mechanism which embodies our invention. The lower portion of the operating mechanism comprises a pitman rod or bar 8, the lower end of which is pivotally connected to a wrist pin 9 which is eccentrically secured on an operating gear 10 mounted on a suitable driving shaft 12, the operation of which is properly timed to effect the proper operation of the shedding knives by the rocker head.

On the upper end of the rod 8 is formed a right angular, apertured arm or lug 13 and to said lug is secured the lower end of a universal joint connection 14 comprising a threaded rod 15 which is inserted through the apertured lug 13 and has arranged thereon clamping nuts 16 which are adapted to be screwed into engagement with the opposite sides of the lug 13 thereby adjustably securing the rod to the lug and to the pitman rod 8. On the upper end of the rod 15 is secured a head 17 in the upper end of which is arranged a socket 18. The head 17 is preferably formed in longitudinal separable sections which are bolted together by clamping bolts 19, as shown.

In the upper end of the head 17 is formed an aperture 20 through which a suitable lubricating material may be introduced. Engaged with the socket 18 is a ball 21 having projecting from one side a tubular bearing sleeve 22 which is provided with oppositely disposed flattened exterior faces adapted to be engaged with the sides of the slot 7 in the arm 6 of the rocker head to prevent turning of the arm 6 relatively to the sleeve 22. The ball 21 is provided with a centrally disposed passage which communicates with the tubular sleeve 22 and through said passage and sleeve is inserted an attaching bolt 23, the head of which is preferably rounded and seated in a recess 24 formed in one side of the ball as shown. On the opposite threaded end of the bolt is screwed a retaining nut 25, by means of which the sleeve portion of the ball is held in operative engagement with the arm 6 of the rocker head, and permitted to slide freely in the slot 7 therein.

By providing a universal joint connection of this character a steady even motion is imparted to the rocker head by the pitman rod

8 thus preventing misweaving of the fabric. In a connection of this character tallow or similar material may be employed as a lubricant thus preventing damage to the cloth which frequently occurs from splashing of the lubricating oil when applied to connections usually employed between the operating rod and the rocker head. The use of tallow or a similar lubricant in a connection such as herein shown and described obviates the necessity of frequently oiling the parts, as one application of the tallow has been found to be sufficient for an extended period of time.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described and ascertained the nature of our invention, what we claim as new and desire to secure by Letters-Patent, is:—

1. The combination with a sliding member of a rod screw threaded at one end and provided at its other end with a socketed head, a ball operable in the socket of said head and having a laterally extending tubular arm provided with oppositely disposed flattened exterior faces, the flat faces of said arm being adapted to engage the sides of the slot in said sliding member to prevent turning of the member relatively to the arm, a bolt extending through said ball, tubular arm and slotted member and provided on its free end with a securing nut.

2. The combination of a rod provided at one end with means for detachable connection to a member to be connected and provided at its other end with a longitudinally separable head having a ball socket therein with an opening through one wall thereof, a ball operable in said socket and having a laterally extending tubular arm or sleeve, said ball having an angular bore extending therethrough and communicating with said sleeve and a bolt extending through said bore and sleeve and projecting beyond the latter, said sleeve having oppositely disposed flattened exterior faces.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JEAN B. JOURDAIN.
LOUIS DEXTRAZE.

Witnesses:
GEORGE L. MAYNORD,
JOSEPH LAVELLER.