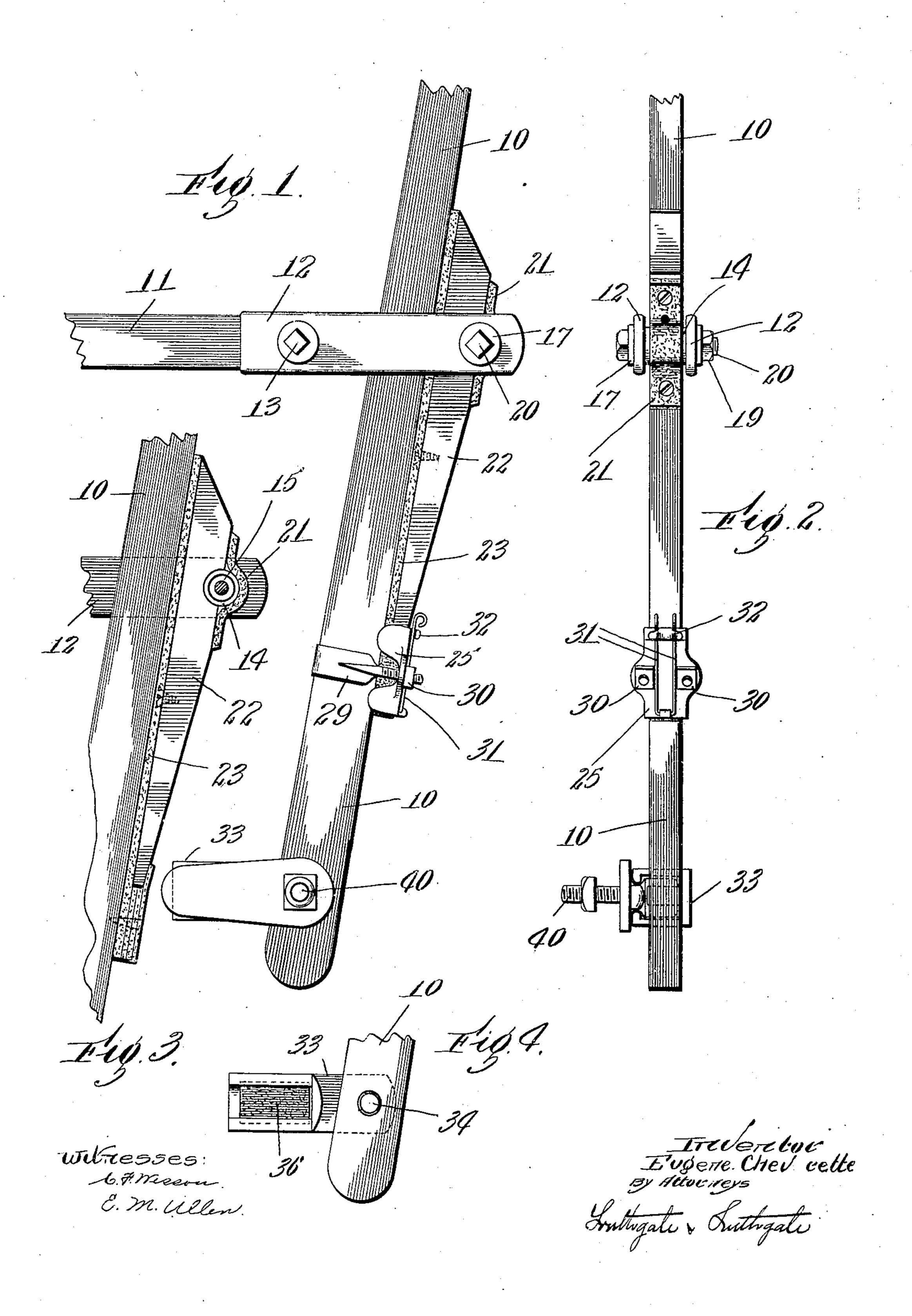
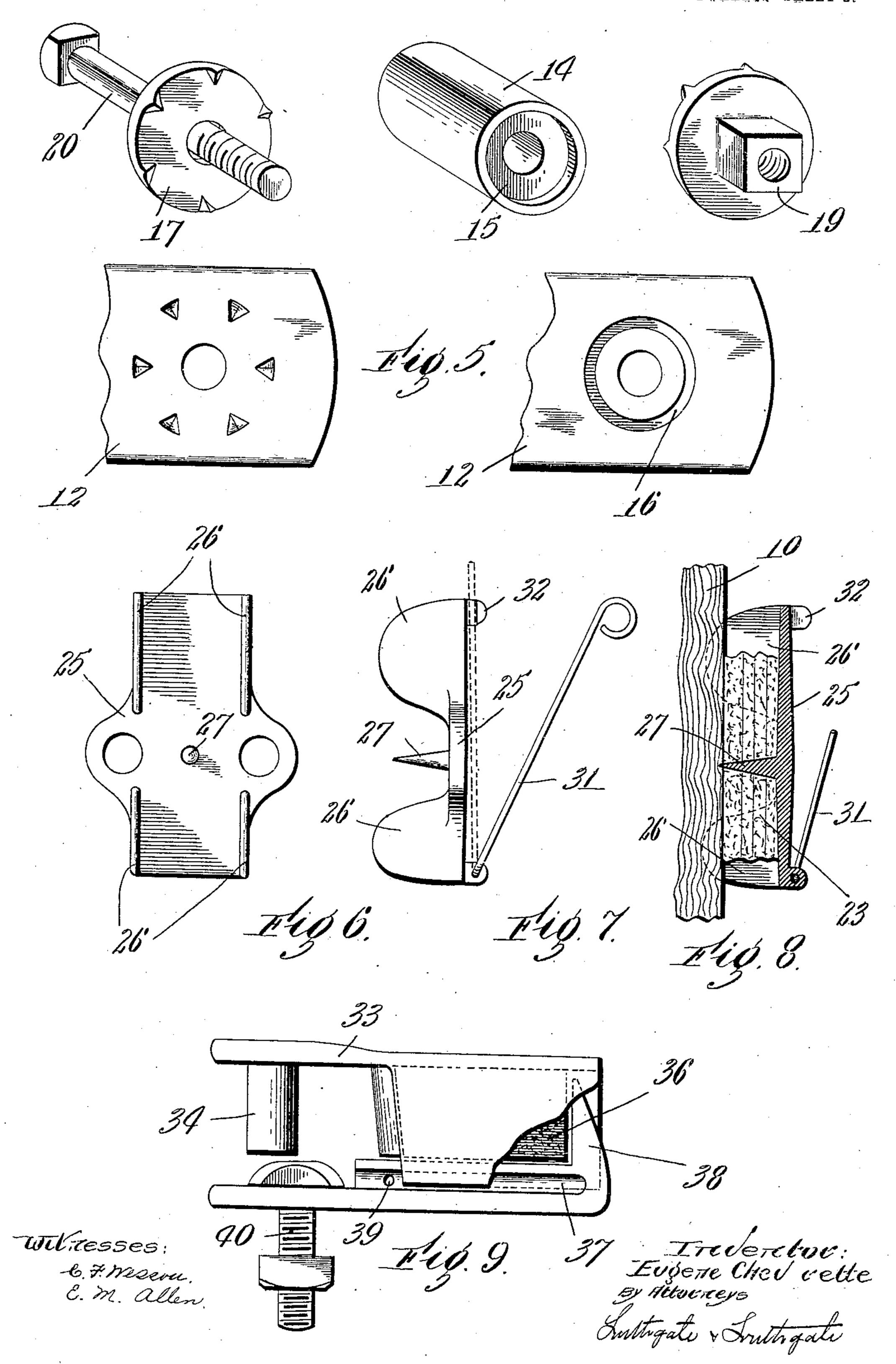
## E. CHEVRETTE. LOOM PICKER STICK. APPLICATION FILED JUNE 14, 1905.

2 SHEETS-SHEET 1.



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2 SHEETS-SHEET 2.



## UNITED STATES PATENT OFFICE.

EUGENE CHEVRETTE, OF FITCHBURG, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO A. HORACE LA RUE, OF FITCHBURG, MASSACHUSETTS.

## LOOM PICKER-STICK.

No. 865,680.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed June 14, 1905. Serial No. 265,166.

To all whom it may concern:

Be it known that I, Eugene Chevrette, a citizen of the United States, residing at Fitchburg, in the county of Worcester and State of Massachusetts, have 5 invented a new and useful Loom Picker-Stick, of which the following is a specification.

This invention relates to an improved means for mounting and operating a picker-stick.

The especial object of this invention is to provide a construction in which the sweep-stick imparts a positive forward motion to an intermediate point of the picker-stick without relief or lost motion and in which a cushioning action is provided by a yielding support at the bottom of the picker-stick.

Further objects of this invention are to provide an improved jointed construction between the rocker and side pieces carried by a sweep-stick to provide an improved pivot piece supporting the lower end of the rocker without cutting into or materially marring the picker-stick; to provide a special rubber cushioned pivotal support for the lower end of the picker-stick and generally to improve and simplify the construction of devices of this character.

In the accompanying two sheets of drawings, Figure 1 is a side view of sufficient parts of a loom pickerstick to illustrate the application of this invention thereto. Fig. 2 is a rear view of the same. Fig. 3 is a fragmentary view with one of the side pieces of the sweep-stick removed. Fig. 4 is a detail view showing the mounting of the lower end of the picker-stick. Fig. 5 shows the detail views of detached parts which coöperate to form a pivotal connection with the rocker. Fig. 6 is a front view of the pivot piece for supporting the rocker. Fig. 7 is a side view thereof. Fig. 8 is a sectional view partly broken away showing the pivot piece in place on the picker-stick, and, Fig. 9 is a plan view partly broken away of a construction for supporting the pivot of the picker-stick.

In the older looms employed in weaving cotton 40 cloth or for similar purposes, the picker-sticks are connected by leather straps to the sweep-sticks which give the striking or shuttle throwing strokes. In the use of such looms and particularly where the looms. are operated at high speeds, it has been found that the 45 sweep-stick straps frequently give out and break. To overcome this objection many different picker-stick connections have been devised. This invention relates especially to a class of picker-stick connections which instead of employing a leather strap or other 50 yielding action between the sweep-stick and pickerstick, employs a special connection which imparts a positive non-yielding striking stroke to the pickerstick, and in which lost motion if any be required is provided by a yielding or cushioned support for the 55 pivot at the lower end of the picker-stick. In the

form of construction in which I now prefer to embody my invention, I employ wooden side pieces fastened rigidly to and extending from the end of the sweepstick. Carried by the side pieces is a bushing or cross which is seated in recesses in the inner face of the side 60 pieces. Coöperating with the bolt which fastens the bushing in the side pieces are a washer and nut which may have prongs which prevent the parts from working loose. The bushing connects with the rocker by a special pivotal box or connection, and the lower 65 end of the rocker is connected to the sweep-stick by a special form of pivot piece having a pin which pierces the extending lower end of the leather face of the rocker and also preferably indents itself slightly in the rear face of the picker-stick. The nuts of the 70 clamp which hold the pivot piece in place are preferably fastened by nut-locking wires and the support of the pivot of the picker-stick is preferably provided with a rubber block which is inclosed and mounted to provide the desired yielding effect.

Referring to the accompanying drawings and in detail, 10 designates the usual or ordinary picker-stick. A sweep-stick 11 is employed for operating the pickerstick in the usual way. Bolted onto the sides of the sweep-stick 11 and projecting beyond the end thereof, 80 are wooden side pieces 12. Clamped in place by a bolt 13 between the ends of the wooden side pieces 12 is a bushing 14. The construction of the bushing 14 and the way it is fastened between the wooden side pieces 12 is most clearly shown in Fig. 5. As shown 85 in this figure, the bushing 14 preferably consists of a metal tube or pipe having a somewhat shorter wooden core 15. The ends of the pipe or bushing 14 are preferably seated in annular sockets 16 in the inner faces of the wooden side pieces 12. I have adopted this 90 construction as I have found in practice that the bushing will thus be firmly held so that the wood side pieces do not ordinarily split under the hammer of a continual operation. At the rear of the picker-stick is another bushing 14 of the same construction. To clamp this 95 bushing in place, I provide a bolt 20 passing through a washer 17 and a nut 19 on opposite sides of the side pieces 12 respectively. The washer 17 and nut 19 are both provided on their inner faces with spurs or prongs which seat themselves in the wooden side pieces and 100 prevent the parts from working loose.

The rear bushing 14 is mounted in a special box or pivot bearings at the rear of the rocker. As shown in Figs. 1 and 2, a wooden rocker piece 22 is mounted on the back of the picker-stick and provided at its rear 105 face with a half bearing which receives the bushing 14. The bushing 14 is held in place therein by a leather strap or cap 21 fastened by top and bottom screws. Secured to the front of the wooden rocker piece 22 is a leather facing 23. At its lower end the 110

leather facing 23 is provided with a number of intermediate pieces and with a back piece forming a socket to receive the lower end of the rocker.

I preferably employ the extension of the leather face 5 23 to connect the rocker to the picker-stick. The pivot piece which I employ for this purpose is shown most clearly in Figs. 6 to 8 inclusive and comprises a plate 25 having side flanges 26 and a fastening spur or pin 27. When the pivot piece is clamped in place at 10 the rear of a picker-stick, this spur 27 pierces the leather of the rocker and also slightly penetrates into the wood of the picker-stick as shown in Fig. 8.

To clamp the pivot piece in place I employ a strap 29 as shown in Figs. 1 and 2 having the usual bolts 15 which extend through corresponding holes in the pivot piece. Threaded onto the bolts of the strap 29 are nuts 30. The nuts 30 are preferably locked and held from turning by lock wires 31 which are in the form of a yoke pivoted in an ear of the pivot piece. 20 The lock wires 31 engage the sides of the nuts 30 and ends of the lock wires are snapped or sprung into place below a catch piece 32.

Referring to Figs. 4 and 9 for an understanding of the pivotal support for the lower end of the picker-25 stick, the piece 33 which carries the pivot pin 34 for the picker-stick is provided with a pocket containing a block of rubber 36. The pocket is open at its front end, and sides of the pocket extend over and run in ways 37 of a rocker piece having stop or projection 38 30 engaging the front end of the rubber block 36. The rocker piece is fastened in place in the rocker of a loom in any ordinary manner, for example, by the use of a bolt 40. If desired a pin may be inserted in the hole 39 of the rocker piece to prevent the pivot of the 35 picker-stick from being displaced rearwardly, although in practice I have found that there is but little tendency for this to happen.

In the use of a complete picker-stick mechanism as thus constructed, it will be seen that a positive for-40 ward motion without substantial yield or flexibility is imparted by the sweep-stick to an intermediate point of the picker-stick and that the required cushioned action or yielding effect is secured by the rubber cushion at the bottom of the picker-stick.

I am aware that numerous changes may be made in applying my invention to different styles and types of looms and that certain features of my invention may be omitted and used in different locations without departing from the scope of my invention as expressed in the claims. I do not wish, therefore, to be limited to the particular construction I have herein shown and described, but

What I do claim and desire to secure by Letters-Patent of the United States is:-

1. In a construction of the class described, the combination of a picker-stick, a rocker carried by the picker-stick, a sweep stick having inner annular sockets, a bushing for pivotally connecting the sweep stick and rocker, said bushing having its ends seated in the sockets in the sweep 60 stick, and means for clamping the bushing in place.

2. In a construction of the class described, the combination of a picker-stick, a rocker carried by the picker-stick, a sweep-stick, wooden side pieces extending from the sweep-stick, a bushing for pivotally connecting the side pieces and rocker and having its ends seated in sockets in 65. the wooden side pieces, and means for clamping the bushing in place.

3. In a construction of the class described, the combination of a picker-stick, a rocker, a leather facing secured on the rocker and extending down therefrom, a pivotal 70 piece for fastening the rocker to the picker-stick having a projecting pin piercing the leather and means for clamping the pivot piece to the picker-stick.

4. In a construction of the class described, the combination of a picker stick, a rocker carried thereby, a leather 75 facing secured on the rocker and extending down therefrom, a pivot piece having a pin piercing the leather and penetrating the wood of the picker-stick, and means for clamping the pivot piece in place.

5. In a construction of the class described, the combina- 80tion of a picker-stick, a rocker, a leather facing secured to the rocker, a pivot piece, means for clamping the pivot piece to the picker-stick consisting of a yoke and nuts threaded on to the arms of said yoke and a nut locking wire for preventing the nuts from loosening.

6. In a construction of the class described, the combination of a picker-stick, a rocker carried thereby, a pivot piece, means for fastening the pivot piece to the pickerstick, consisting of a yoke, nuts threaded onto the arms of said yoke, and means for locking the nuts consisting 90 of a U shaped lock wire pivoted in an ear of the pivot piece so that the ends of the wire may be sprung into place below a fastening piece.

- 7. In a construction of the class described, the combination of a picker-stick, a rocker carried thereby, a leather 95 facing fastened on said rocker and extending beyond the end thereof, a pivot piece having a pin piercing the leather and wood of the picker-stick, and means for clamping the pivot piece onto the picker-stick, consisting of a yoke and nuts threaded onto the arms of the yoke and 100 a nut locking wire for fastening the nuts, consisting of a U shaped piece of wire pivoted at its middle in the pivot piece and having its free ends adapted to be sprung into engagement with a fastening piece.

8. In a construction of the class described, the combina- 105 tion of a picker-stick, a rocker carried thereby, a pivot piece having a pin piercing the picker-stick and connecting the picker-stick with the rocker, and means for clamping the pivot piece onto the picker-stick, comprising a yoke having arms, nuts threaded on the arms of the yoke, and 110 a nut-locking U-shaped wire for fastening the nuts, pivoted at a point intermediate of its ends on the pivot piece and having its ends adapted to be sprung into engagement with the fastening piece.

9. A yielding support for the lower end of a picker-stick 115 comprising a pivot-pin, a piece on which said pivot-pin is mounted, said piece having sides, a yielding block located between said sides, and a rocker-piece adapted to be connected with the loom and having ways with which said sides engage, whereby the yielding block 120 is substantially interposed between three walls of the pivot-pin piece and one wall of the rocker-piece, said rocker-piece having a stop at the end of the block for limiting the relative motion between the rocker-piece and the pivot-pin piece.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

EUGENE CHEVRETTE.

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Witnesses:

PHILIP W. SOUTHGATE, E. M. ALLEN.