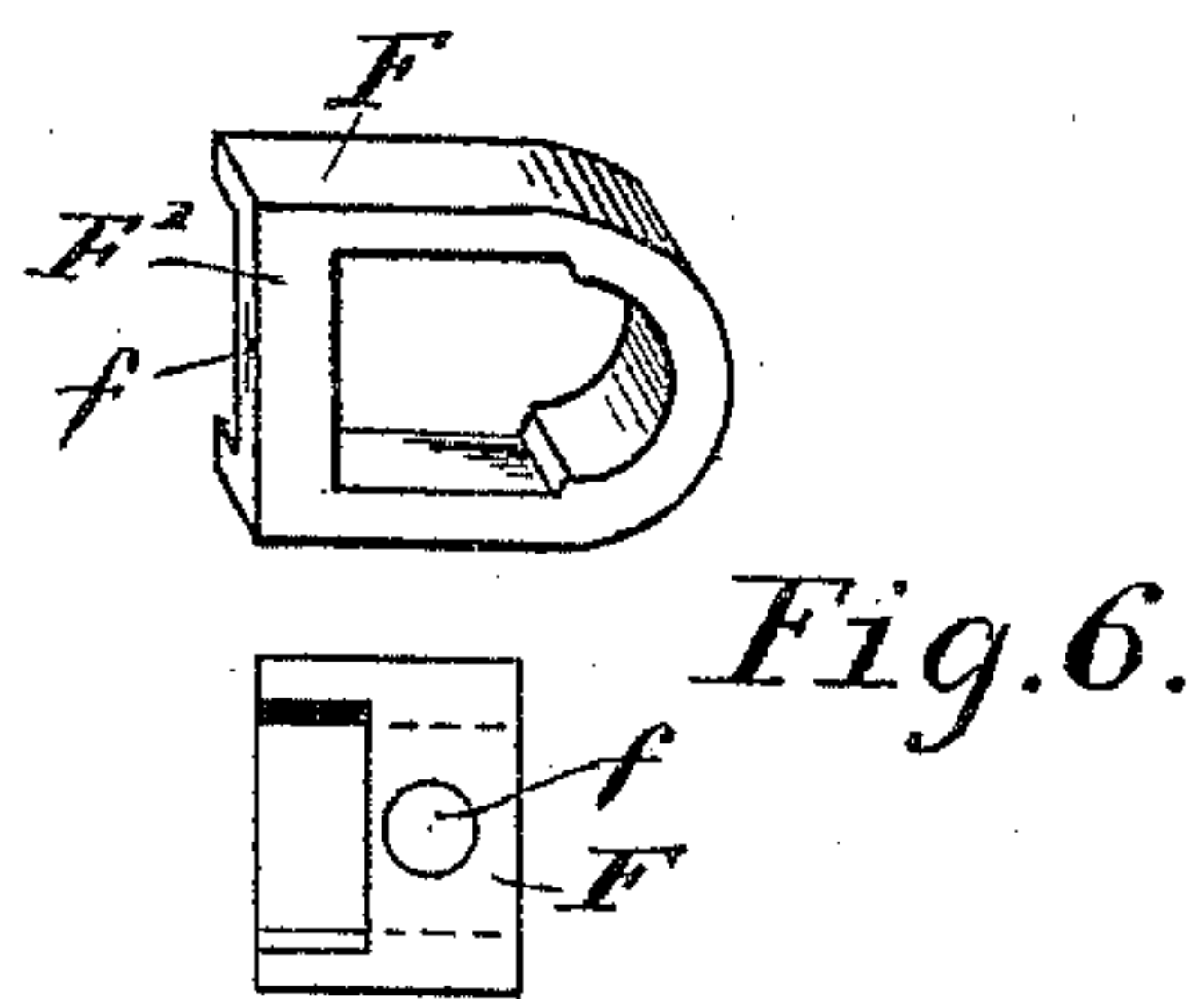
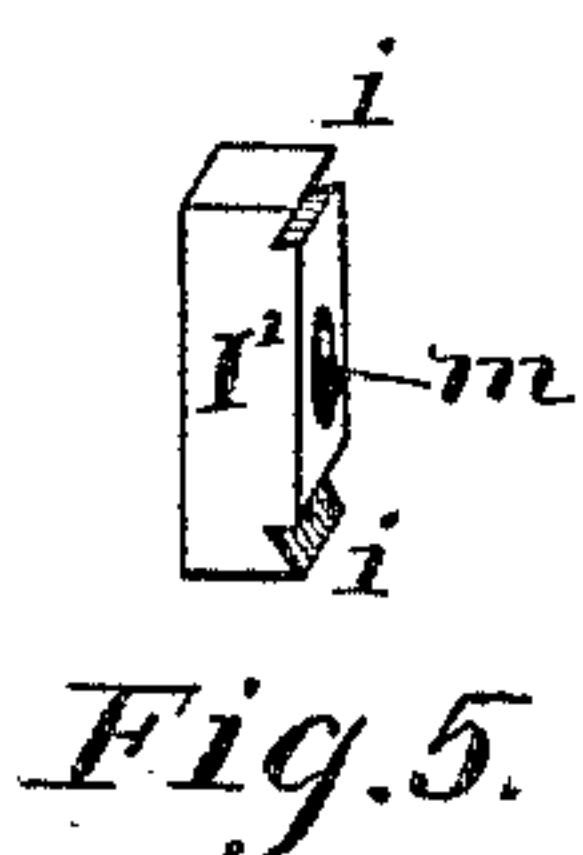
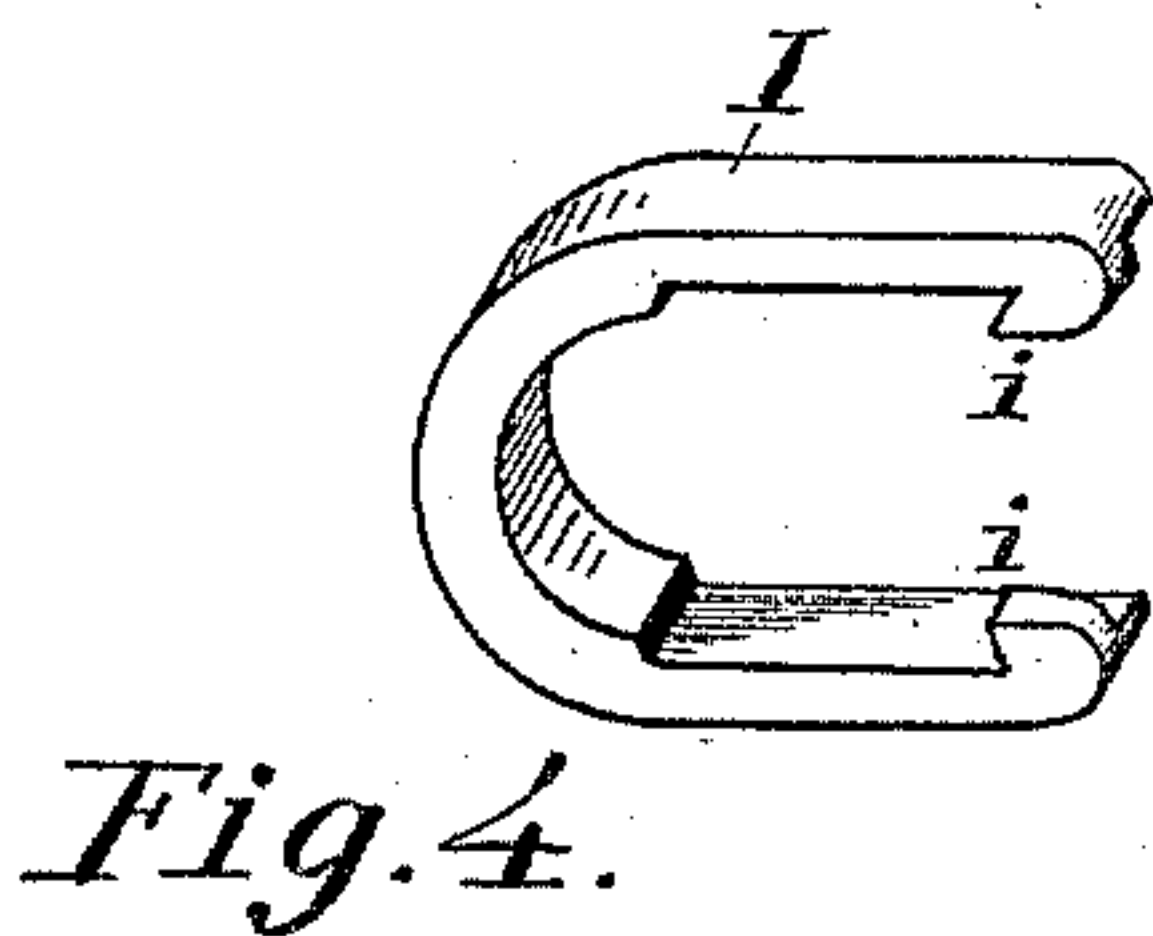
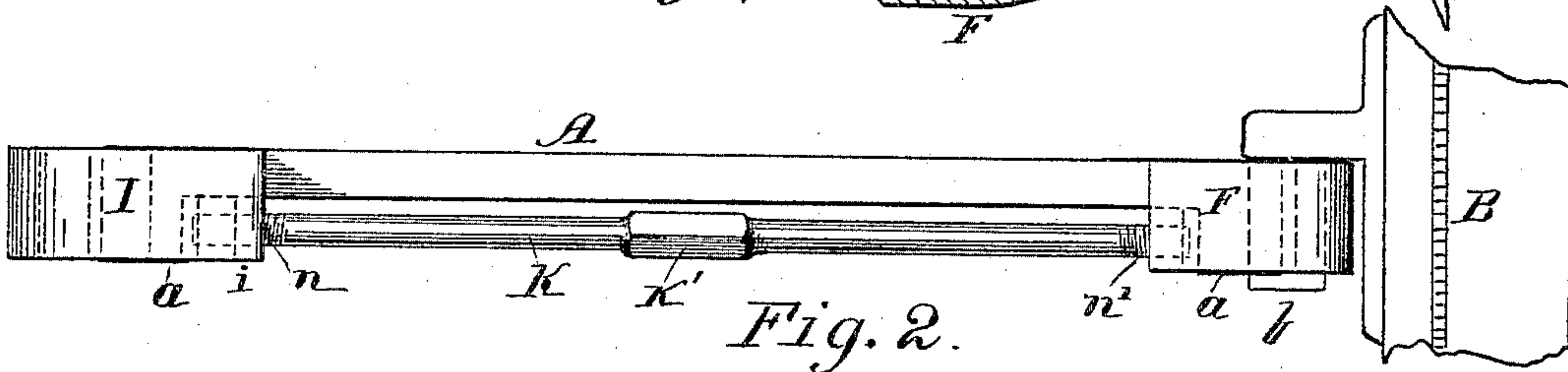
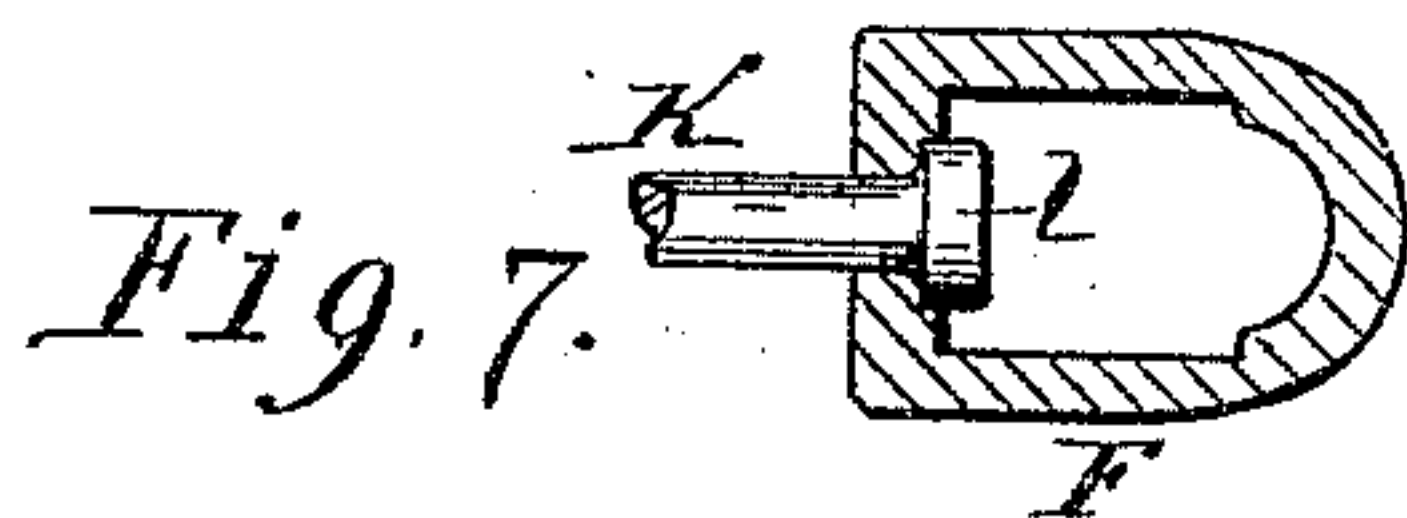
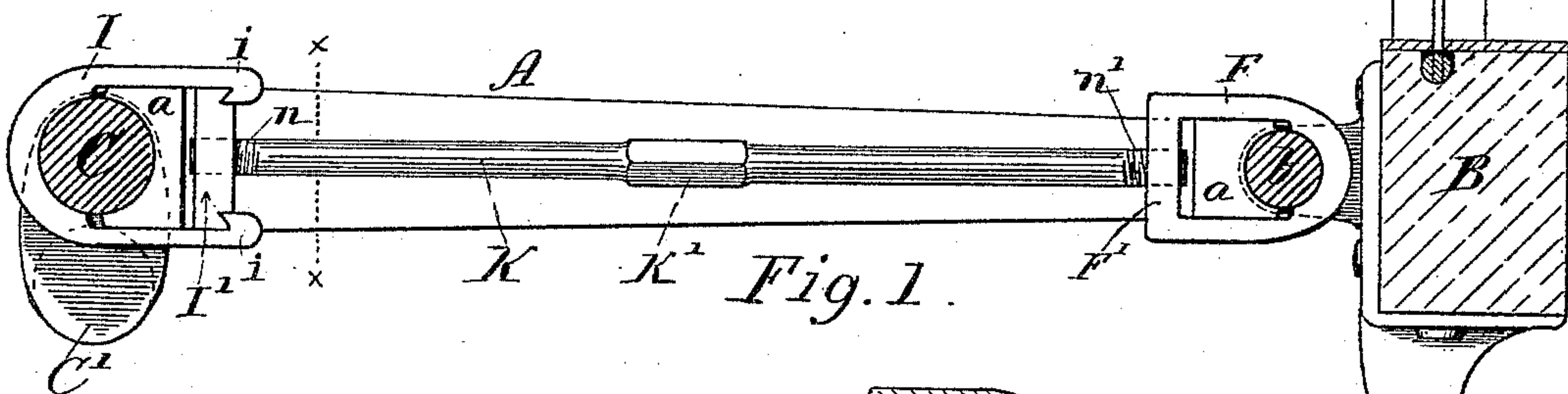
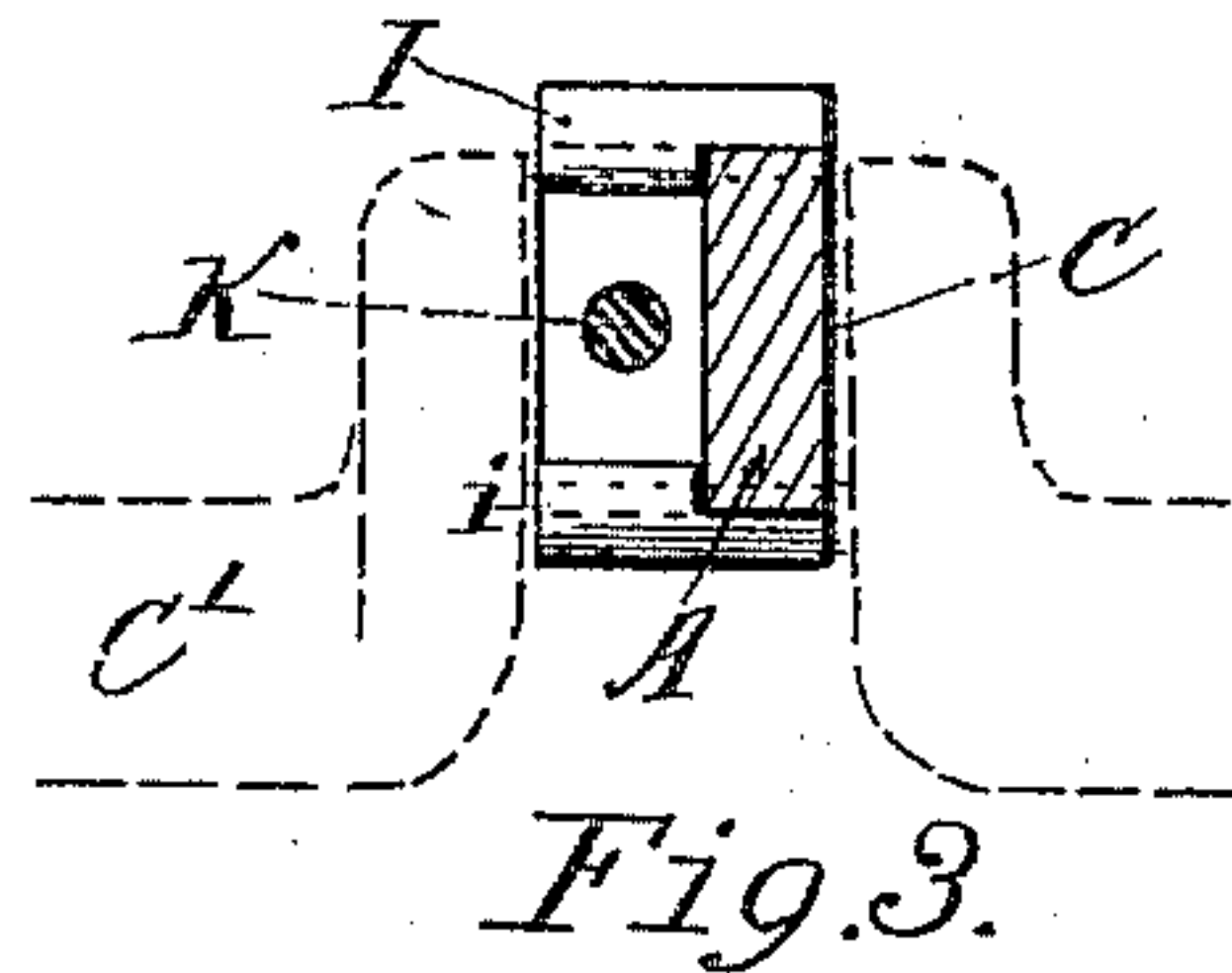


(No Model.)

E. WRIGHT.
PITMAN CONNECTION FOR LOOMS.

No. 444,738.

Patented Jan. 13, 1891.



Witnesses.

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PITMAN-CONNECTION FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 444,738, dated January 13, 1891.

Application filed September 25, 1890. Serial No. 366,159. (No model.)

To all whom it may concern:

Be it known that I, EDWARD WRIGHT, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Pitman-Connection for Looms, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

This invention has for its object the production of a pitman-connection for the lay or beater of looms, whereby any backlash or looseness of the bearings can be efficiently and conveniently taken up, and wherein the bearings at both ends of the pitman-bar are simultaneously and equally adjusted.

To this end my invention consists in the pitman mechanism described, and in the combination of the same with the crank-shaft and lay in a loom.

In the drawings, Figure 1 is a side view of my improved pitman or connecting-bar for looms. Fig. 2 is a top view of the same. Fig. 3 is a transverse section at line $x x$. Fig. 4 is a perspective view of the crank-strap separately. Fig. 5 is a view of the strap-binder nut separately. Fig. 6 shows a perspective and inner end of the strap for hinging the bar to the stud on the lay or beater-beam. Fig. 7 shows a modification of the rod end.

My improved pitman-connection is constructed with a bar A, preferably of cast-iron, the ends of which are provided with semi-circular recesses or bearing-surfaces, respectively adapted one to fit the crank-wrist C on the loom-shaft C' and the other to fit the hinging-stud b, that is attached to the lay or beater B. The ends of the bar A near the bearing-recesses are best made of greater thickness than its central portion, and extend outward at one side or the other, as at a, and loops or bearing-straps F and I are arranged over the ends of the bar, in the manner shown. Said straps are adjustable longitudinally on the ends of the bar A, and form the outer portion of the pitman-bearings, their inner surface being rounded to match the surfaces of the stud b and crank-wrist C. The strap F is formed with a solid cross-piece or

inner end, as at F', in which is a screw-threaded opening f. (See Fig. 6.) The strap I for embracing the crank-wrist is best provided with a removable cross-piece or nut I', the strap and cross-piece being connected by interlocking ends, as at i, that engage in the direction for drawing the strap against the bearing. This cross-piece or nut I' is provided with a screw-threaded opening m. A tension rod or bolt K, having its respective ends fitted with right-and-left screw-threads $n n'$, connects the two straps one with the other, one of the screw-threads engaging the inner end of the strap F and the other engaging the cross-bar or nut I', that forms the inner part of the strap I. The center of the rod is fitted with a squared portion K' to receive a wrench, or otherwise shaped so that it can be conveniently turned by means of a wrench or spanner.

When rotated in one direction, the straps F and I are simultaneously drawn toward each other, and when rotated in the other direction said straps are adjusted away from each other. Hence the tension of the bearings at the crank-wrist C and the stud b can be tightened or to take up backlash or looseness, and to give just the proper degree of closeness required for holding the connections with firmness and so as to operate freely. The adjacent surfaces between the straps and ends of the bar are fitted together in a manner to give rigid lateral support while permitting endwise adjustment of the straps. The strap I being made open with the interlocking ends i admits of the strap being passed over the crank-wrist C, and the connection or pitman can be put on or taken off when the shaft C' is in its place in the loom.

While I prefer to make the connecting-rod K with a right-hand screw-thread at one end and a left-hand screw-thread at the other end, it can in some instances, if desired, be made with a head l at one end and a screw-thread at the opposite end, the head being arranged in connection with the opening in the strap F, as indicated in Fig. 7, in lieu of connecting therewith by a screw-thread.

If in any instance it is desired to employ the pitman-connection in a loom where the

bearings C and b at the respective ends of the bar are not in line with each other, then the lateral bosses a can be formed on opposite sides of the bar A, said bar being curved
5 to accommodate the offset of the bearings, and the tension-rod may be passed through an opening formed through the bar A at or near the center thereof, so as to connect the straps F and I direct.

10 I am aware that pitman-connections have heretofore been made with adjustable straps for taking up back-lash of the bearings. I do not, therefore, herein broadly claim an adjustable strap for a pitman; but my in-
15 vention resides in the peculiar construction of the mechanism, as illustrated and described, and in the combination of parts, as hereinafter defined, whereby such mechanism is adapted for convenient and practical
20 use for the purpose of operating the lay or beater of looms.

I claim as my invention herein, to be secured by Letters Patent—

1. The within-described pitman, composed
25 of the rigid bar A, having the laterally-offset ends a, with transverse bearing-surfaces, straps F and I for the outer part of the bearings, fitted to and adjustable upon the respective ends of said bar, the inner end F' and
30 removable cross-bar or nut I' on the respective straps, extending across the bar A back

of the lugs a, and having screw-threaded openings therein, and the tension-rod K, having at its respective ends a right-hand and a left-hand screw-thread that screw into
35 the threaded openings in said cross-pieces, thereby connecting one strap directly with the other, in the manner set forth.

2. The combination, with a crank-shaft and a wrist or hinging stud on a part to be op-
40 erated, of the pitman-connection consisting of a bar having at its respective ends bearing-surfaces that fit the crank-wrist and the hinging-stud, the strap F, adjustably fitted to one end of said bar and embracing the hing-
45 ing-stud, the strap I, adjustably fitted to the opposite end of said bar and embracing the crank-wrist C and provided with the removable cross-bar or nut I', and a tension-rod ex-
50 tending from one strap to the other and connecting the same by screw-threads, in the manner described, whereby simultaneous ad-
justment of the bearings at both ends of the pitman can be effected, substantially as set
55 forth.

Witness my hand this 19th day of September, A. D. 1890.

EDWARD WRIGHT.

Witnesses:

CHAS. H. BURLEIGH,
ELLA P. BLENUS.