

(No Model.)

2 Sheets—Sheet 1.

J. S. RICHARDSON.

PICKER STAFF CHECK FOR LOOMS.

No. 279,597.

Patented June 19, 1883.

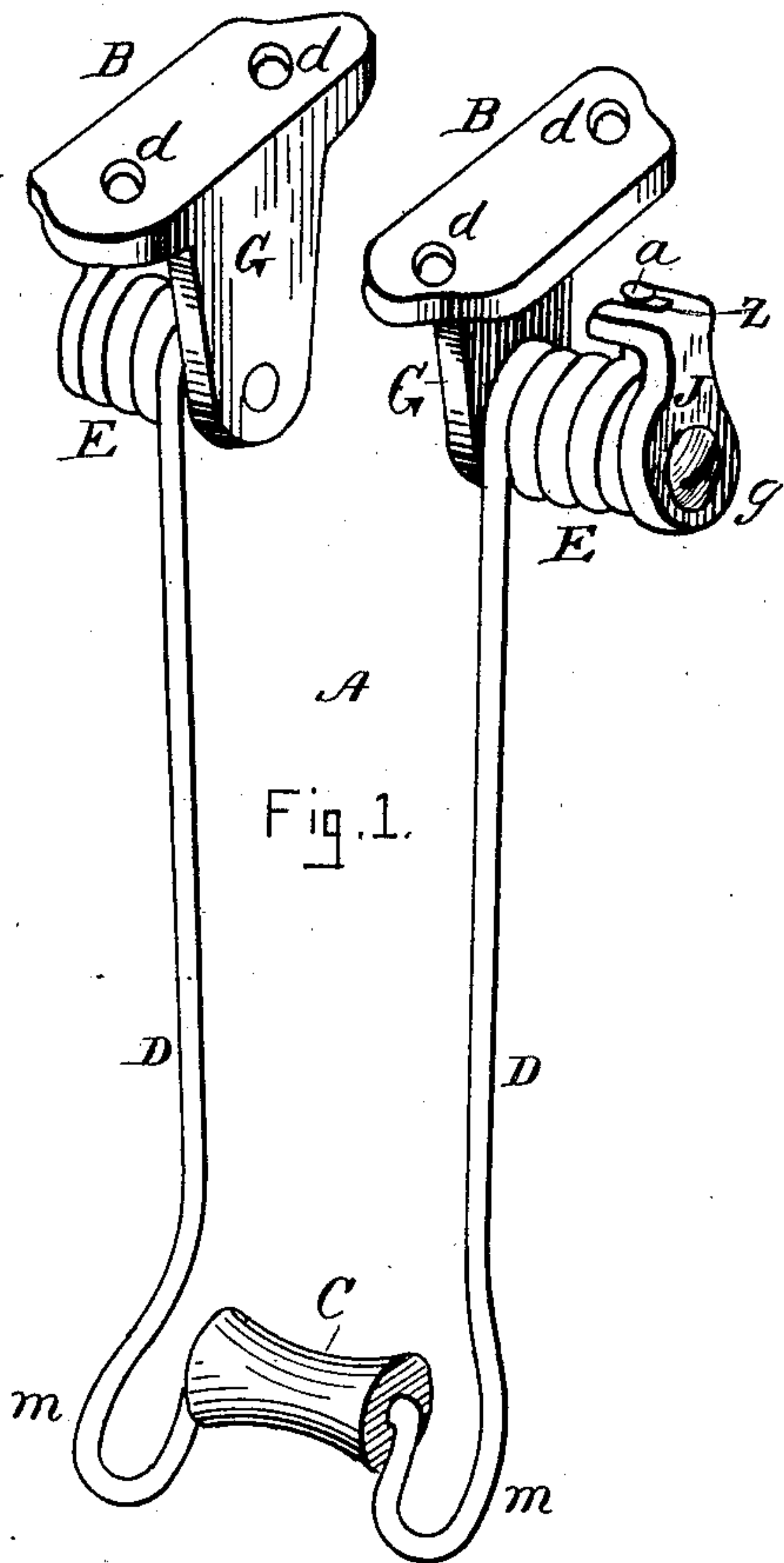


Fig. 1.

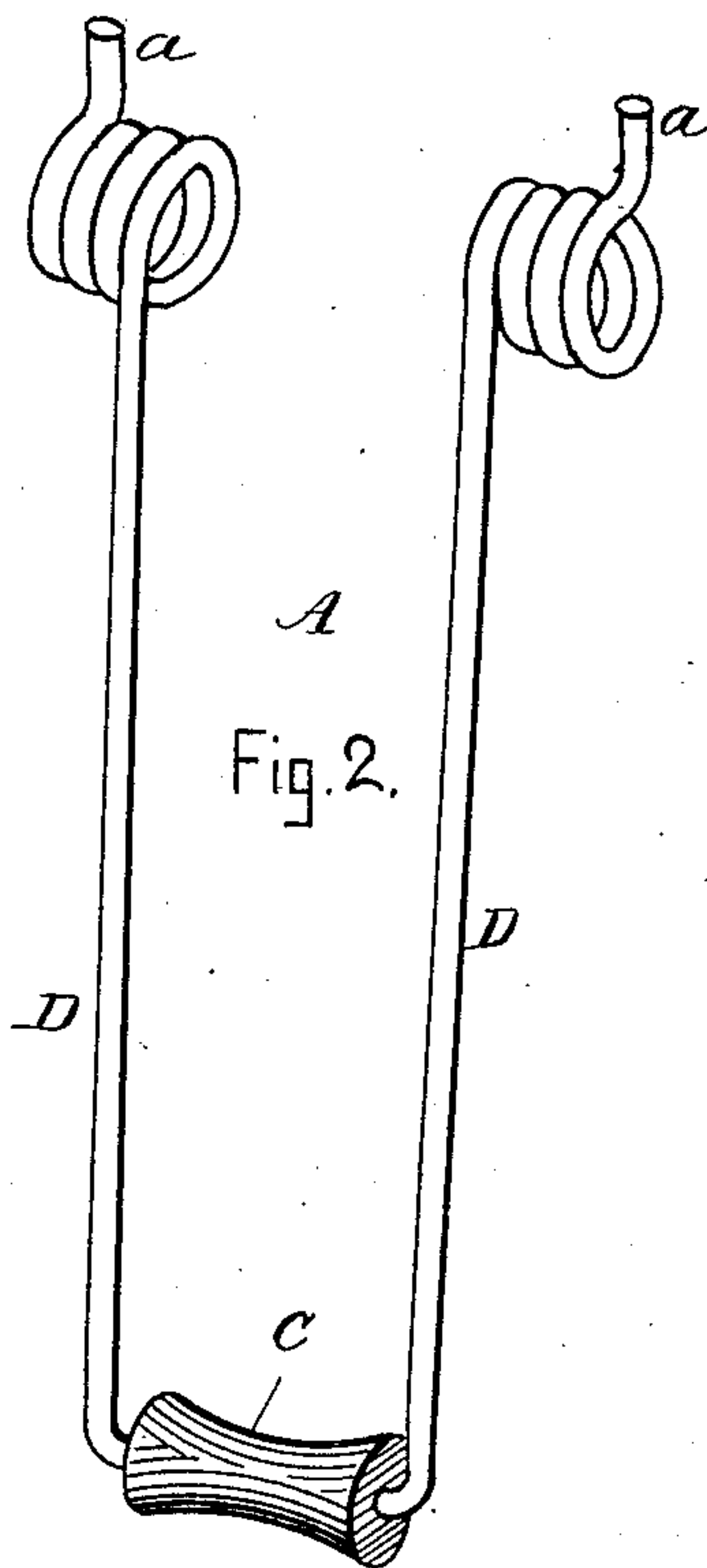


Fig. 2.

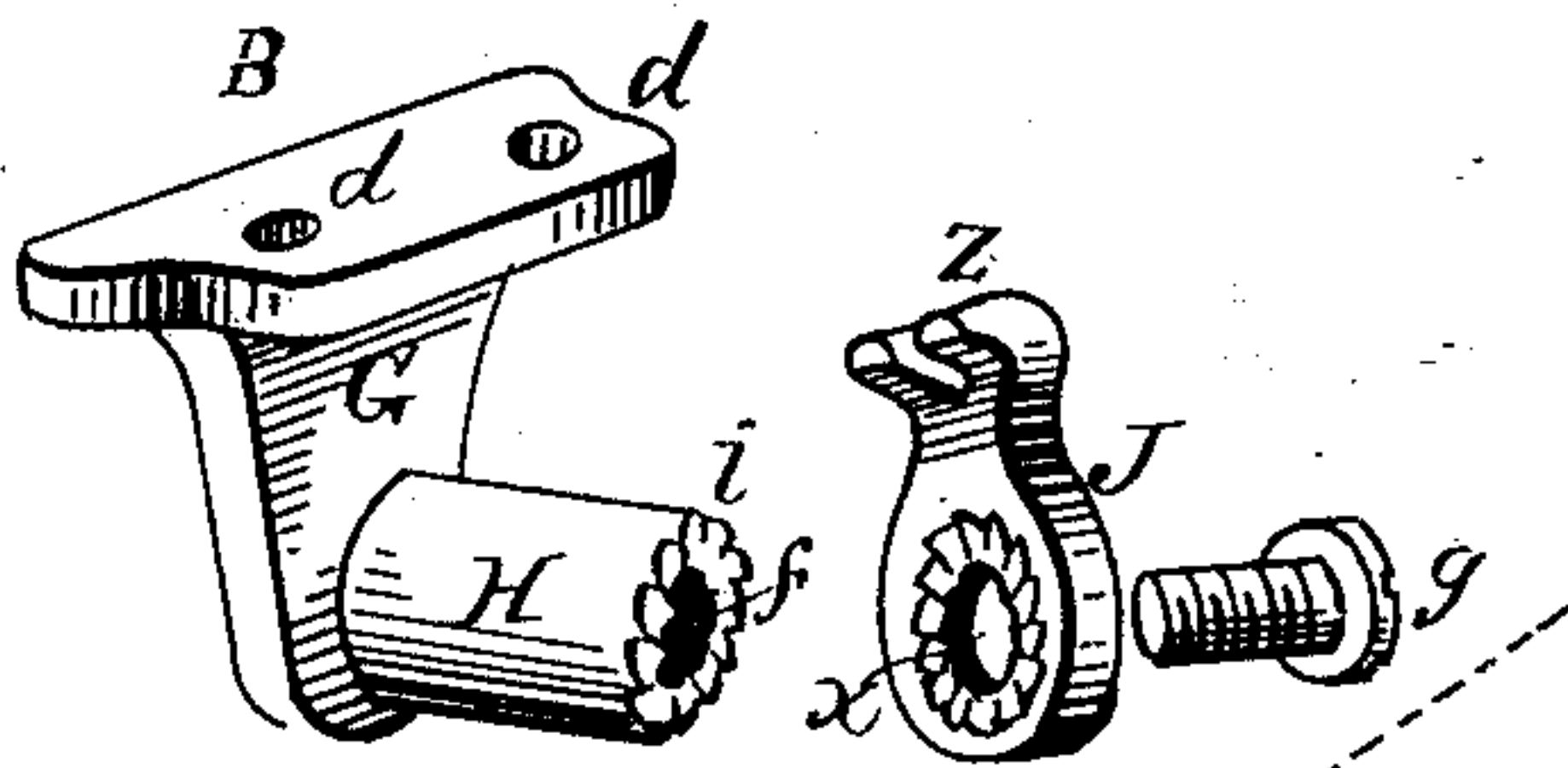


Fig. 3.

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(No Model.)

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Fig. 4.

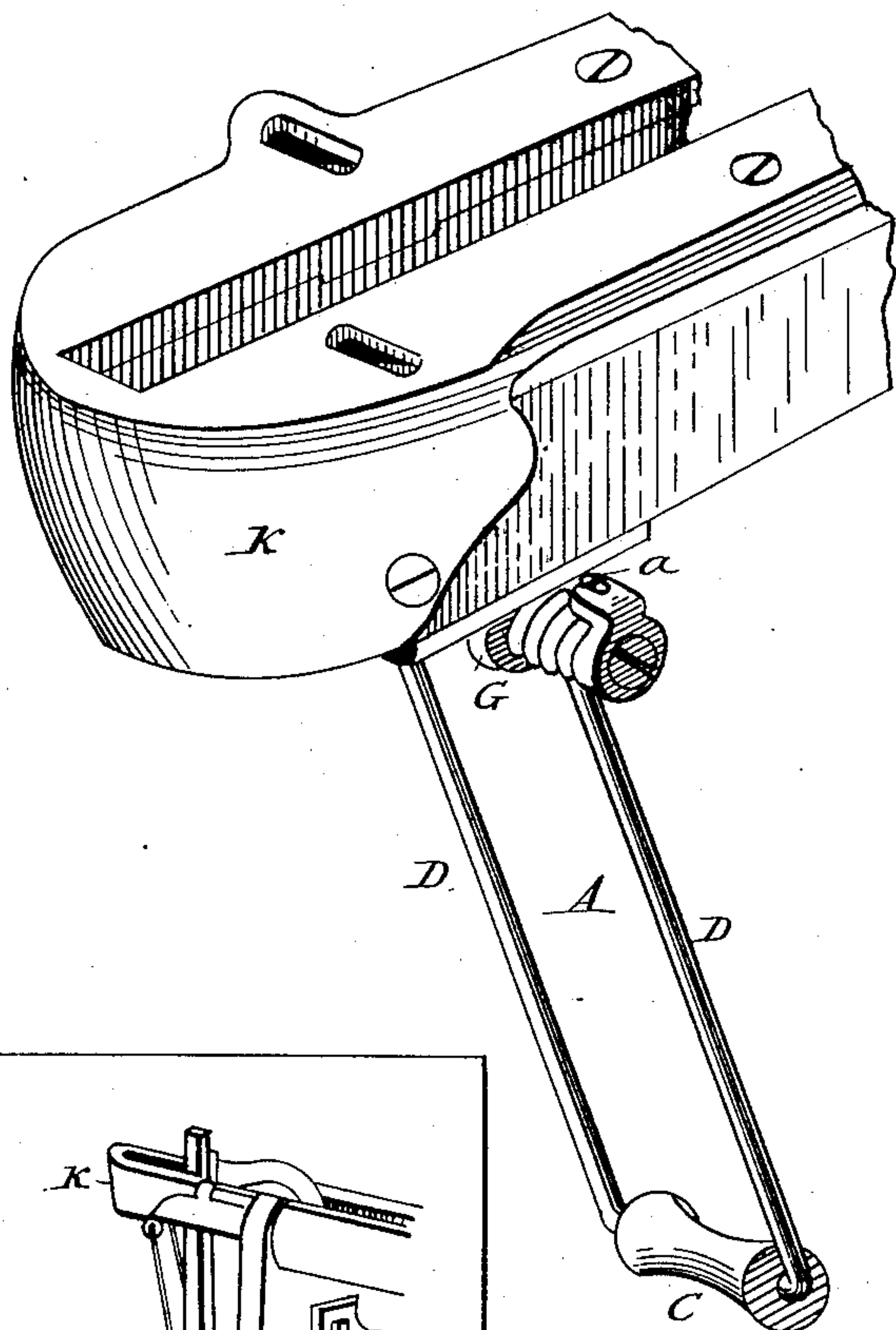


Fig. 5.

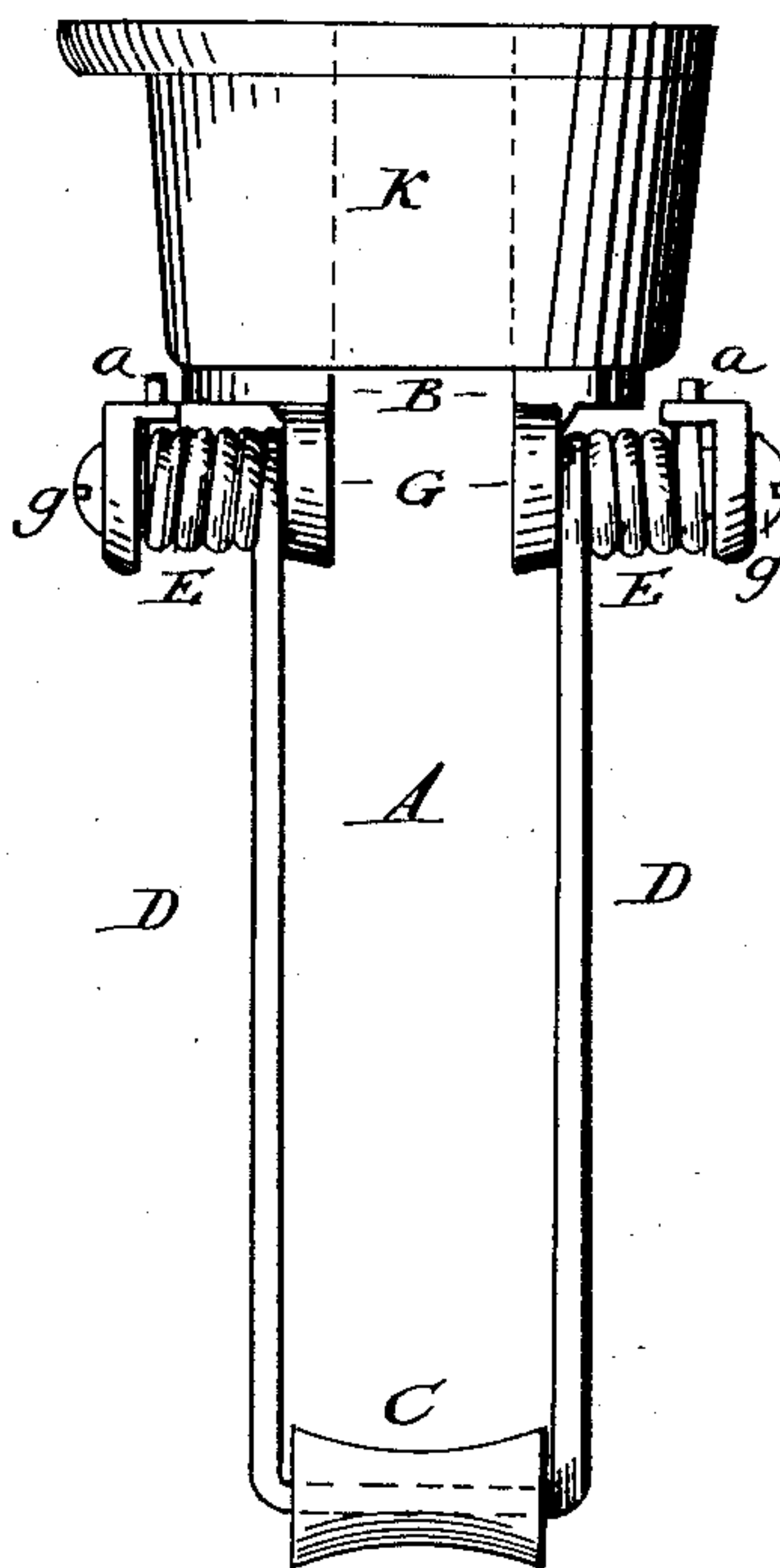
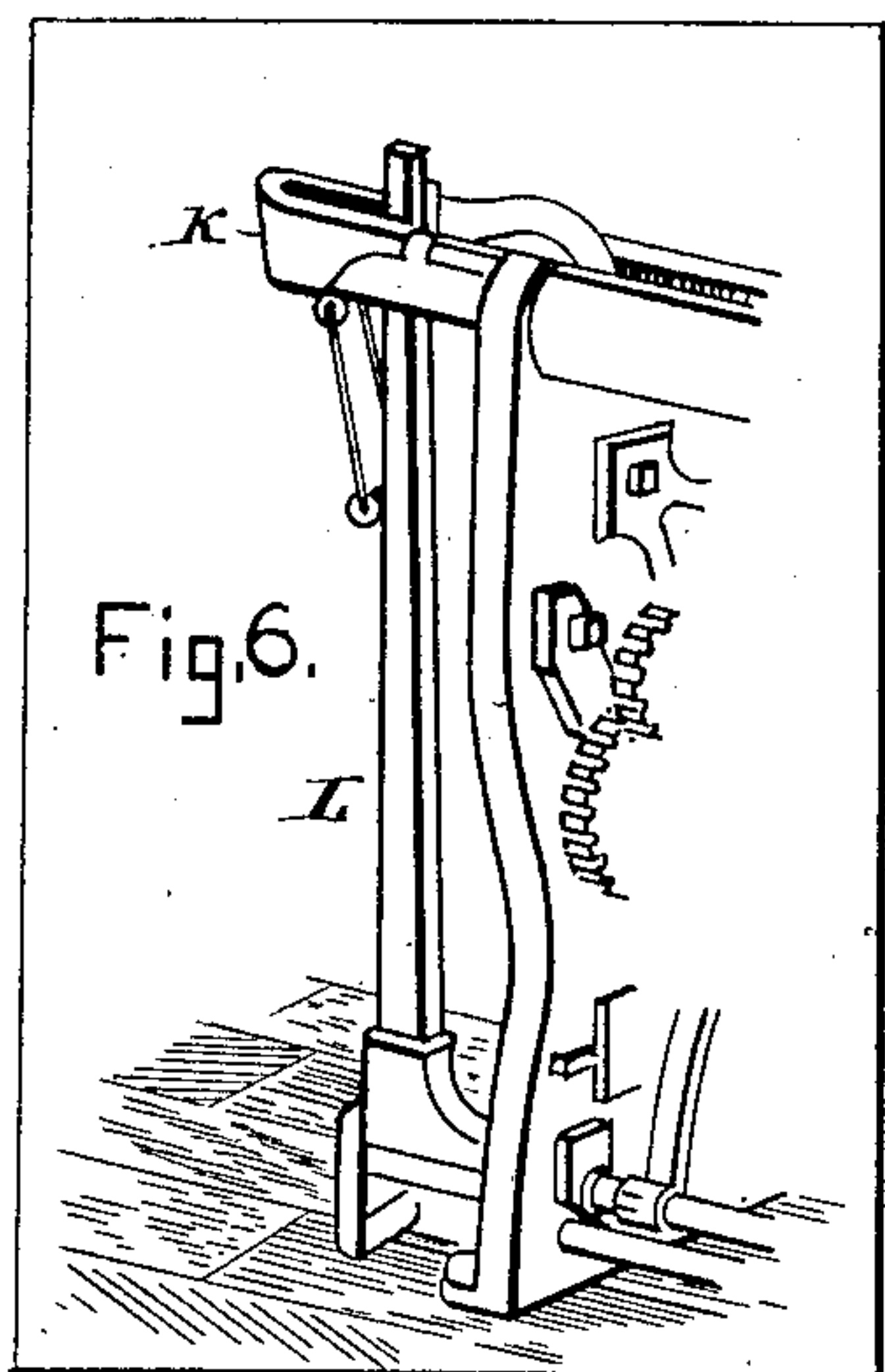


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN S. RICHARDSON, OF LOWELL, MASSACHUSETTS.

PICKER-STAFF CHECK FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 279,597, dated June 19, 1883.

Application filed January 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. RICHARDSON, of Lowell, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Picker-Staff Checks for Looms, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, representing my improved check; Fig. 2, a modification of the same; Fig. 3, a view of a bracket and its spring adjusting devices detached. Fig. 4 is a perspective view, showing the check attached to the end of the lay of a loom. Fig. 5 is an end view, showing the check attached to the lay; and Fig. 6 is a perspective view of part of a loom, showing my improved picker-staff check in use.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simpler, cheaper, and more effective picker-staff check is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation, the extreme simplicity of the invention rendering an elaborate description unnecessary.

In the drawings, A A represent the body of the check; B B, the holders or supporting brackets, and C the roll. The body is composed of spring steel or other suitable wire, bent as shown in Fig. 1, or so as to form the two parallel sides DD, guides *m m*, and springs or coils E, the free or upper ends being arranged vertically, as best seen in Fig. 2.

The holders consist of the brackets G, provided, respectively, with laterally-projecting arms H and with screw-holes *d*, for the admission of the screws, (not shown,) by which they are attached to the loom.

The arms H are respectively drilled and

tapped at their outer ends, as shown at *f*, to receive the screw *g*, and provided with a detachable lever, J, having a hole, *x*, corresponding in size with the body of said screw *g*. The outer ends or faces of the arms H are serrated, as shown at *i*, a corresponding series of serrations or teeth being formed around the hole *x* on the inner face of each lever J. The outer or free end of the lever is bifurcated, as shown at *z*, being adapted to receive and hold the free end *a* of the body wire, the lever J, provided with the teeth *x*, in combination with the screws *g* and serrated arms H, constituting devices for regulating the tension of the check.

Between the guides *m m* there is a friction-roll, C, preferably composed of green hide and arranged to rotate freely on the wire of which the body is formed.

In the use of the improvement the coils E are placed upon their respective arms H and secured in position by means of the screws *g*, the ends *a* being inserted in the slots *z* and the levers arranged to give the proper position or "tension" to the body A. The check is then secured under the shuttle race or lay K, as shown in Fig. 4, one check being placed at each side of the loom by means of screws passing through the holes *d*, the body A of the check being arranged in the path of the picker-staff L, so that the impact of the shuttle against the picker-staff at the end of the flight of the shuttle from the opposite side of the lay will carry the staff against the roll C, thereby retarding or checking the speed of the shuttle as it approaches the end of the box at either side of the loom in a manner which will be readily obvious without a more explicit description. It is desirable that the shuttle should be stopped as near the end of its box as possible, and that its "throw" or speed should be gradually checked after it has passed through the web, which are accomplished perfectly by means of my improvement, the arms or levers J enabling the check to be adjusted to offer any degree of resistance desired.

In the modification of my improved check shown in Figs. 2, 4, and 5 the guides *m* are omitted, these not being essential unless there is considerable vibration to the picker-staff; but it will be understood that the brackets and levers shown in Fig. 1 are to be used with both

forms. It will also be obvious that the check requires no oiling, thereby making an important saving in that respect.

Having thus explained my invention, what I claim is—

1. The improved picker-staff check described, the same consisting of the body A, composed of a single piece of wire, and having the guides *m*, springs E, ends *a*, and roll C, in combination with the brackets B, provided with the arms H, levers J, and screws *g*, combined and arranged to operate substantially as set forth.

2. A picker-staff check for looms, having a body composed of a single piece of wire, provided with a friction-roll at its outer or loop end and with a spring or springs at its inner

or attaching end, said spring or springs being integral with the body of the check, in combination with means for attaching it to the lay of a loom, and with devices for regulating the tension of said check, substantially as described.

3. A picker-staff check for looms, consisting of a body composed of a single piece of wire, provided with a friction-roll at its outer end and with guides for guiding the picker-staff to the roll, a spring or springs integral with said body at the inner end thereof, and means for attaching said body and springs to the lay of a loom, substantially as described.

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