

(No Model.)

J. MCGINNIS.
PICKER STAFF CONNECTION FOR LOOMS.

No. 405,495.

Patented June 18, 1889.

Fig. 2.

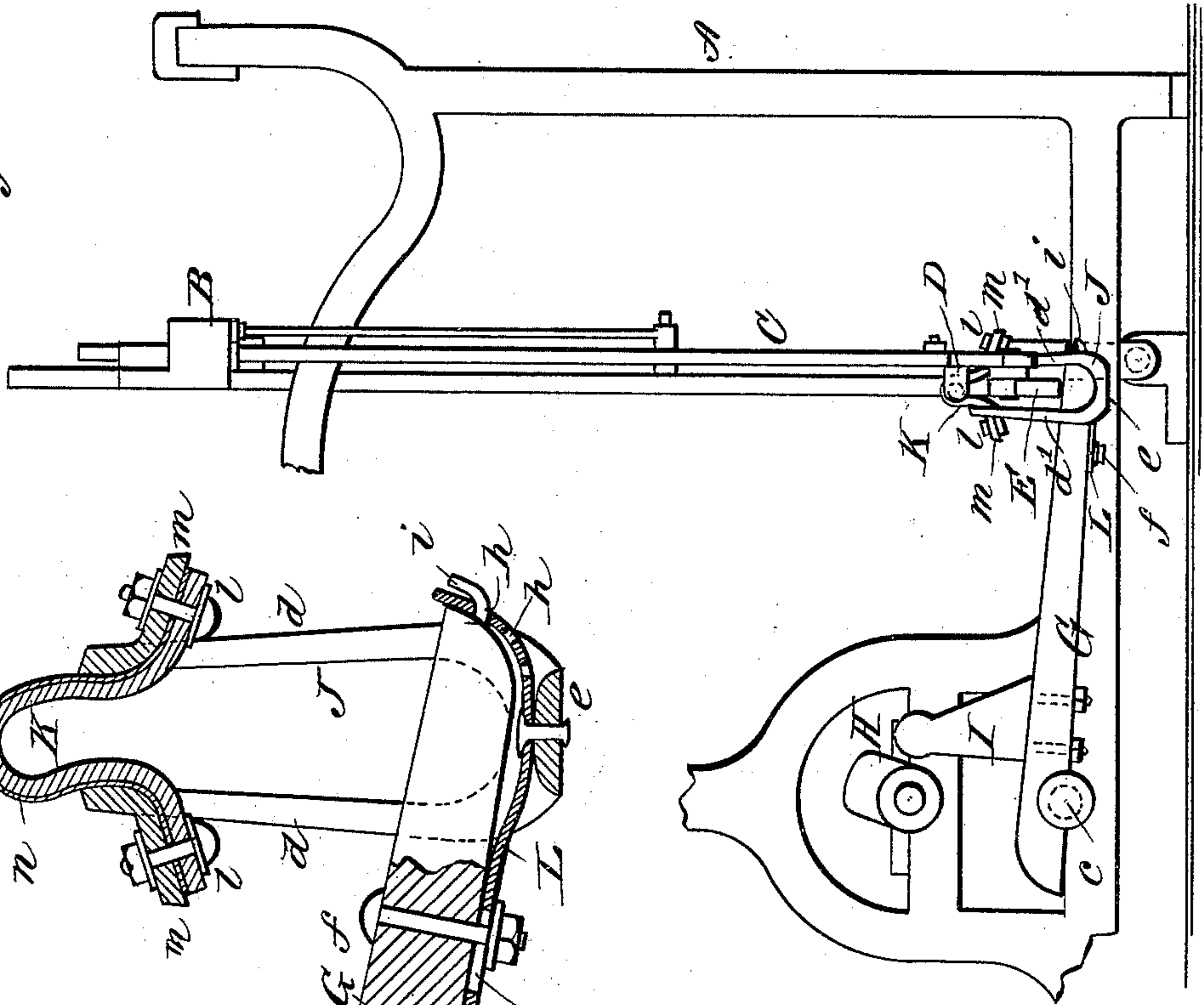


Fig. 3.

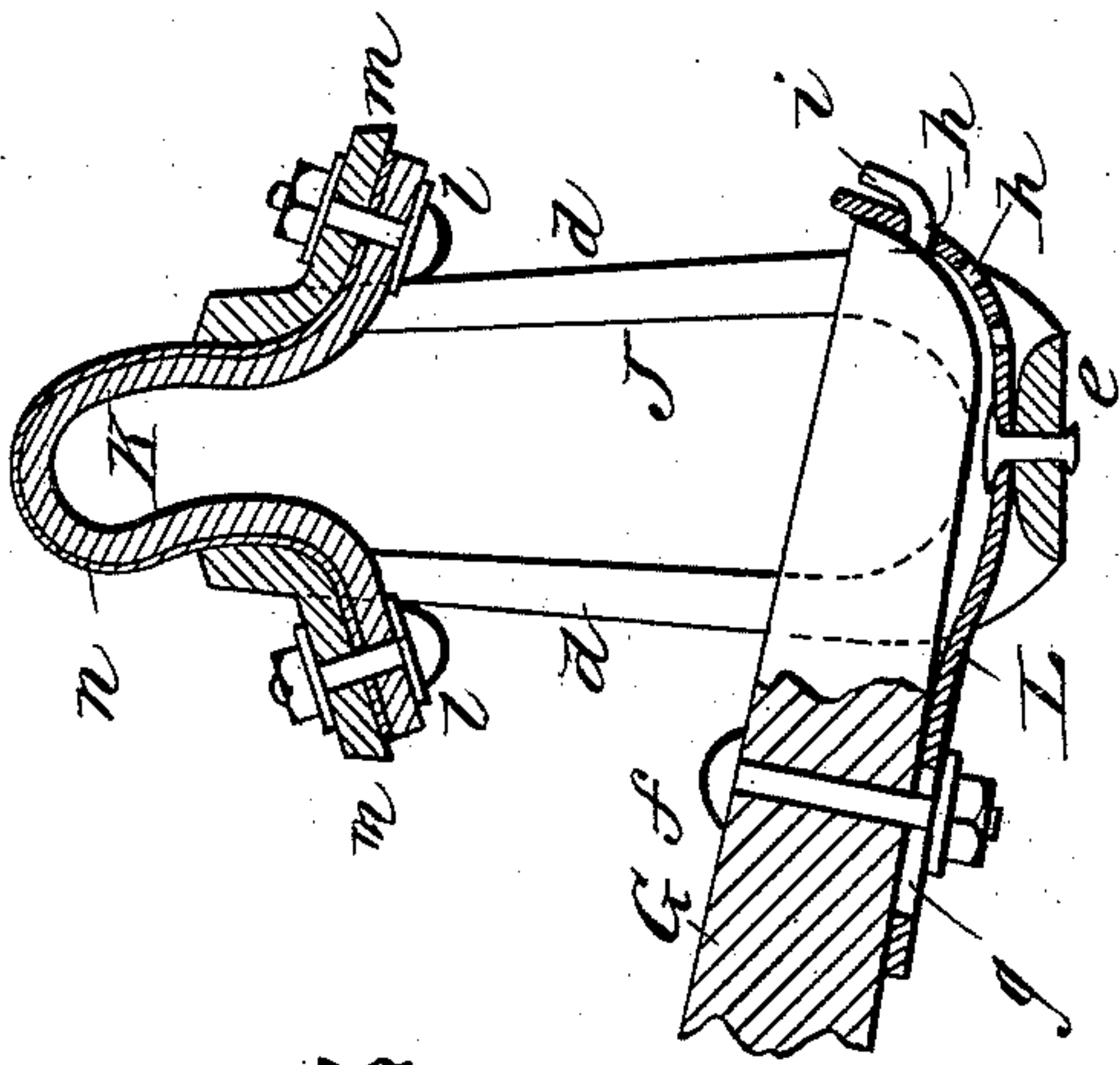
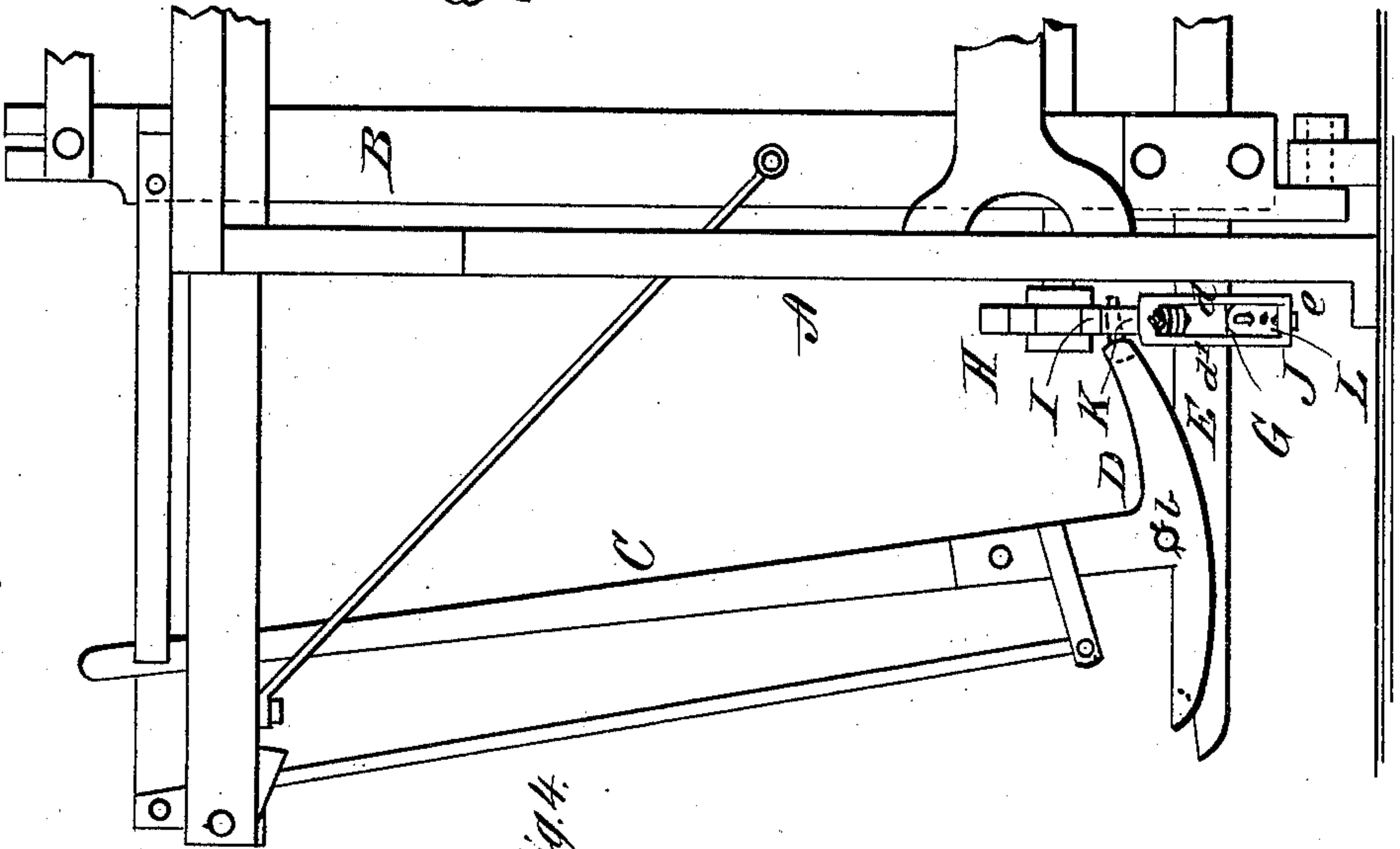


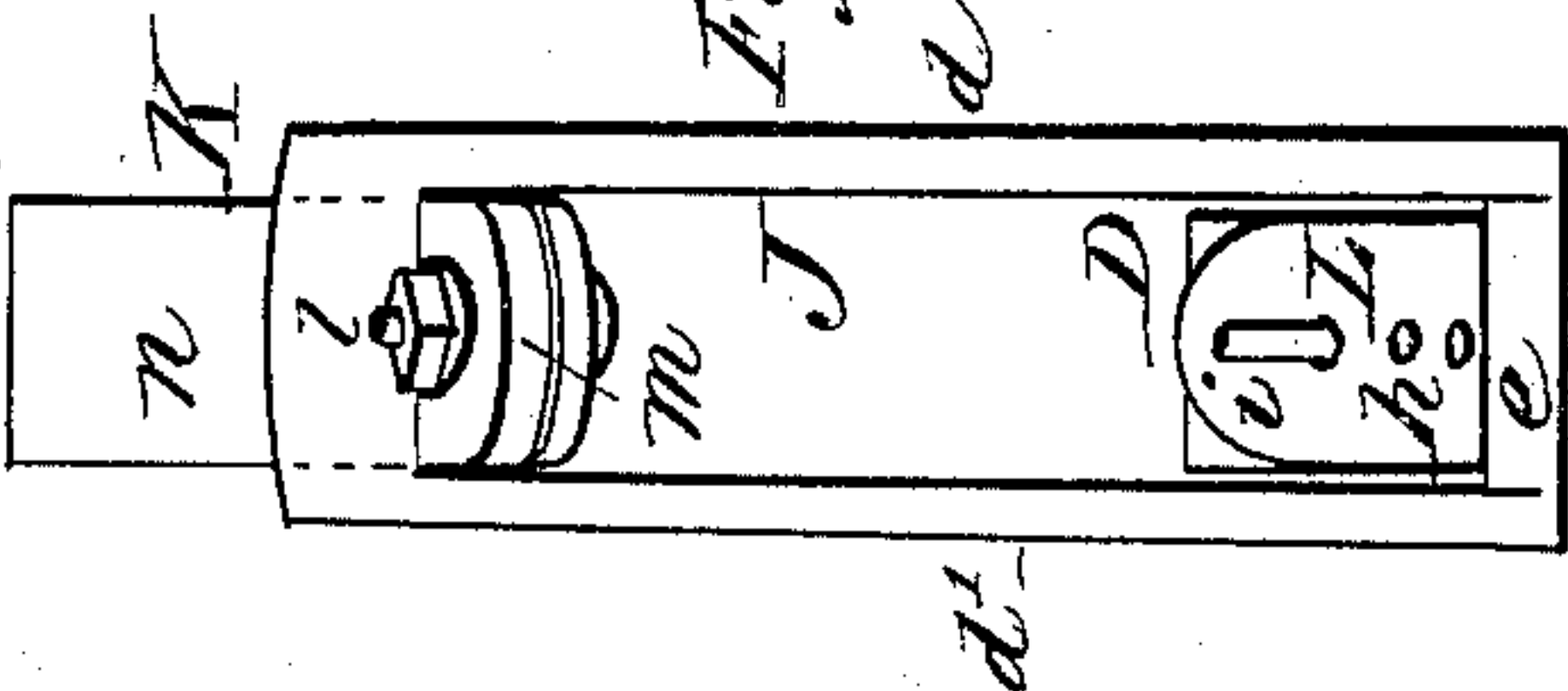
Fig. 1.



WITNESSES:

Donn Twitchell.
C. M. Clark

Fig. 4.



INVENTOR

John McGinnis

Munn & Co.

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN MCGINNIS, OF VALATIE, NEW YORK.

PICKER-STAFF CONNECTION FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 405,495, dated June 18, 1889.

Application filed January 31, 1889. Serial No. 298,164. (No model.)

To all whom it may concern:

Be it known that I, JOHN MCGINNIS, of Valatie, in the county of Columbia and State of New York, have invented a new and useful
5 Improvement in Picker-Staff Connections for Looms, of which the following is a full, clear, and exact description.

This invention, while applicable to other power-looms, is mainly designed to be used
10 upon the power-loom known as the "Empire Loom," patented to Rensselaer Reynolds on June 1, 1852, No. 8,984, and it will here be represented and described as so applied.

The invention relates to the strap which
15 connects the rocker of each picker-staff with the treadle. This strap in the loom to which I more particularly have reference, and to which, though shown only in part, my invention is represented as applied, is usually a
20 long leather one—say about eighteen inches in length—and as it is subjected to various motions in the working of the loom—as, for instance, one due to the movement of the rocker-rail and another due to the action of the
25 rocker itself—there is great strain and wear upon such strap, which causes it almost invariably to break at one place—namely, on top of the rocker. This breaking of the strap, which is of frequent occurrence, makes fre-
30 quent stopping of the loom necessary, and involves much trouble and expense. To obviate this attempts have been made to substitute for the leather strap a whole metal connection; but as such have been constructed
35 with a series of loose or working joints to accommodate the different motions they have proved very expensive, and almost, if not quite, as objectionable as the leather strap so far as repairs and stoppages are concerned,
40 owing to the wear to which the metallic connection is subjected at its joints. My invention obviates all this; and it consists in a combined metallic stirrup and strap of leather or other like flexible material as the connection between the rocker of each picker-staff
45 and its treadle, substantially as hereinafter described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification,
50 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a front elevation of a power-loom in part similar to the patented one hereinbefore referred to with my invention applied, no more or but little more of the
55 loom being shown than is necessary to explain my invention. Fig. 2 is a further elevation of the loom in part, looking endwise or in a transverse direction to Fig. 1, and showing my invention applied. Fig. 3 is a partly-sectional view in elevation and upon a larger scale of my combined metal-stirrup and leather-strap connection as applied to one of the treadles of the loom, and Fig. 4 is a view in elevation of the same at right angles to Fig. 3.
60

A indicates the frame of the loom in part, and B the lay in part.

C is one of the picker-staffs, and D its rocker, pivoted, as at *b*, to the rail E, which latter is connected with the lay.
65

G is the treadle, pivoted as at *c*, for working said picker-staff; and H, the cam on the usual lower shaft of the loom.
70

I is the tappet-stand, bolted to the treadle G, and upon which the cam H acts to work
75 the treadle.

J is the metal stirrup, and K the leather strap, which combined form my improved connection between the rocker D of the picker-staff and the treadle G. The stirrup J is made
80 with four standards—that is, it has two opposite pairs of side arms *d d'*, connected by a base *e*, so as to draw square on the rocker D without producing side wear. Said metal stirrup is secured below at its base to the treadle
85 G, preferably indirectly to provide for adjustment, as by a piece of leather L, secured at its one end to the under side of the treadle by a bolt *f*, passing through a slot *g* in the leather and through the treadle, and at its other end
90 provided with a series of holes *h*, any one of which may be made to engage with a hook *i* on the end of the treadle. Attached to the upper end of this stirrup J is the leather strap K, which receives the end of the rocker D
95 within it to complete the connection between the treadle and the rocker. This strap, which need not be more than six inches in length, passes between the side arms *d d'*, and is secured at its ends to the upper portion of the
100 stirrup by bolts *l*, which pass through it and through opposite side lugs *m* on the stirrup.

I prefer to make the said strap of linen and leather combined—that is to say, to cement to the outer face of the leather strap a strip of linen *n*, which materially adds to the strength of the leather, that should be well stretched before applying it, so that there will be no stretching afterward in damp weather to affect the operation of the loom. The lugs *m* on the stirrup, to which the ends of the strap *K* are attached, are turned outward sufficiently to give the requisite strength where the bolts *l* pass through, but not so bent as to crack the leather of the strap or break the cement uniting the linen to the leather.

15 This combined metal-stirrup and flexible-strap connection, the stirrup serving for the treadle to rest in and the flexible strap to bear down on the end of the rocker, is easily applied, and is much more durable than

20 either a simple long strap-connection between the treadle and rocker or than a jointed metal connection, and will require little or no trouble to take care of, it being free from loose working joints, and not subject to chaf-

25 ing on the top of the rocker.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the rocker *D* of the picker-staff and the treadle *G*, operating the latter, of the metal stirrup *J*, attached to said treadle, and the flexible strap *K*, attached to the stirrup and adapted to receive the end of the picker-staff rocker within it, substantially as specified. 30

2. The combination, with a picker-staff and its rocker *D* and treadle *G*, operating said staff, of the metal stirrup *J*, the adjustable flexible strip of leather *L*, attached to said treadle and having the stirrup *J*, in which the treadle rests, secured to it, and the flexible-strap connection *K*, secured to the upper end of the stirrup and serving to receive the end of the rocker within it, essentially as shown and described. 35 40

JOHN MCGINNIS.

Witnesses:

JAMES E. SNYDER,
SAML. C. HULBERT.