G. RICHARDSON.

Loom-Picking Mechanisms.

No. 154,086. Patented Aug. 11, 1874.

Fig. 1.

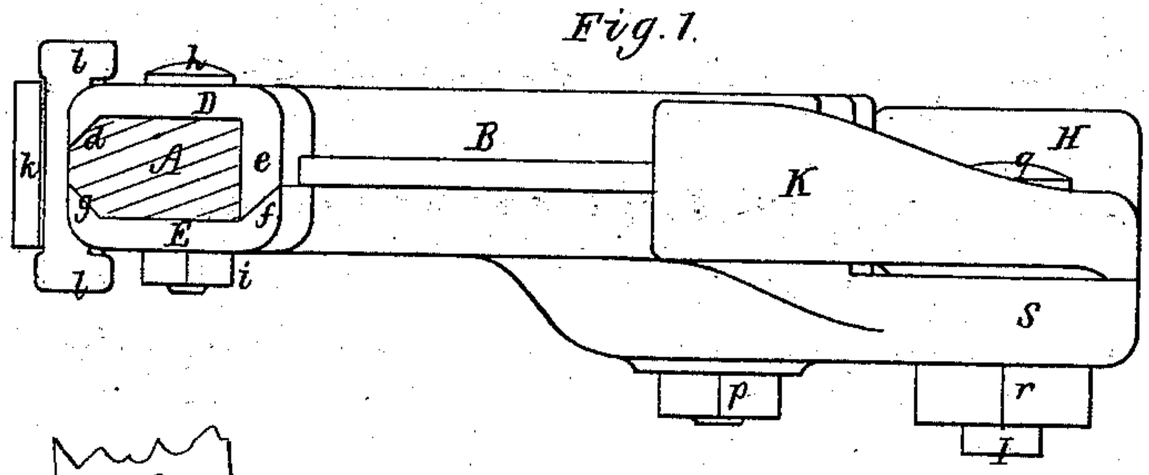


Fig. 6.

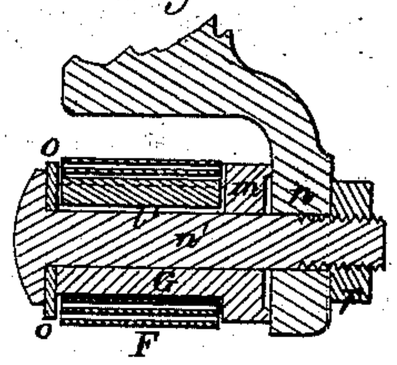


Fig. 2.

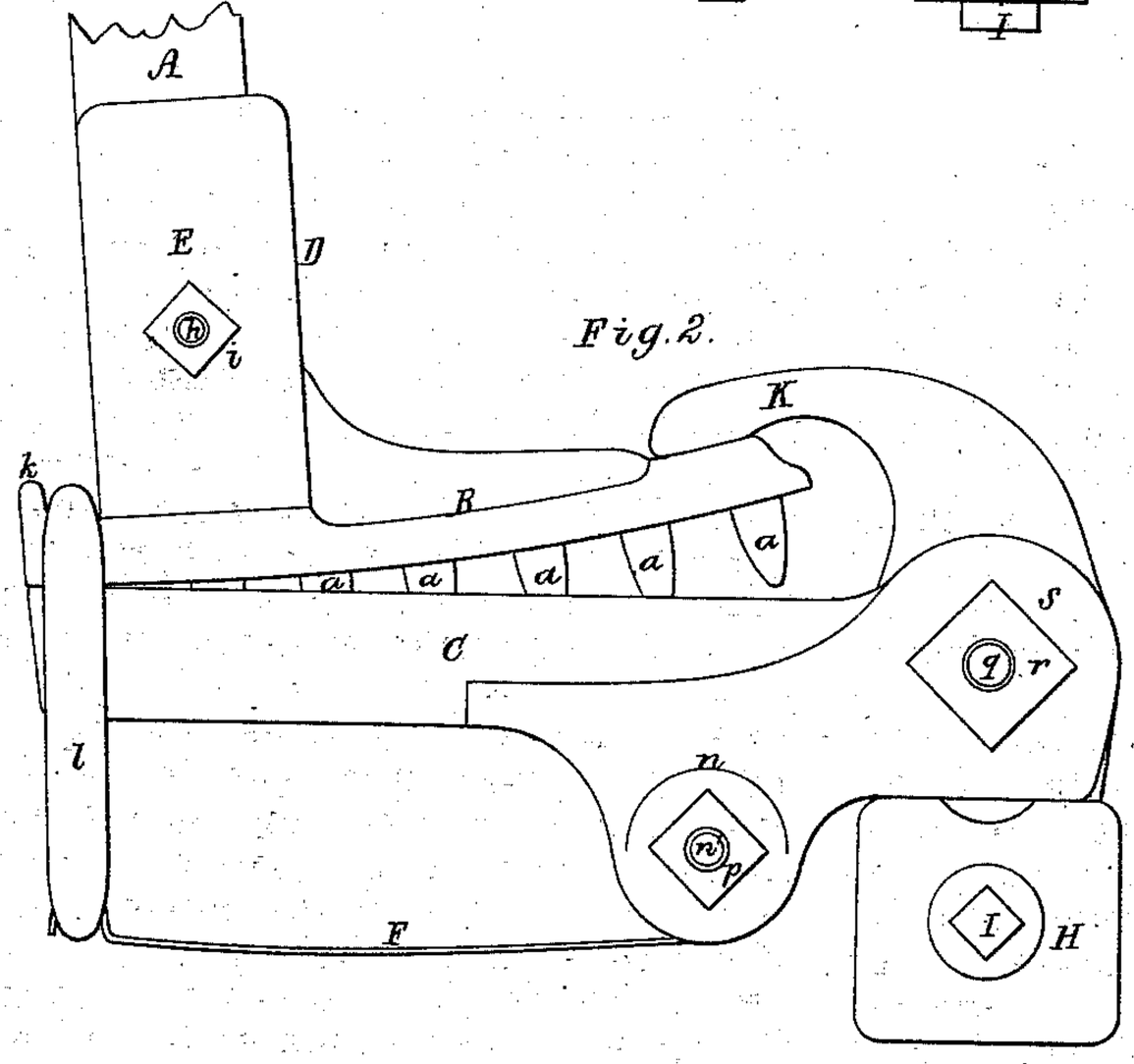


Fig. 4.

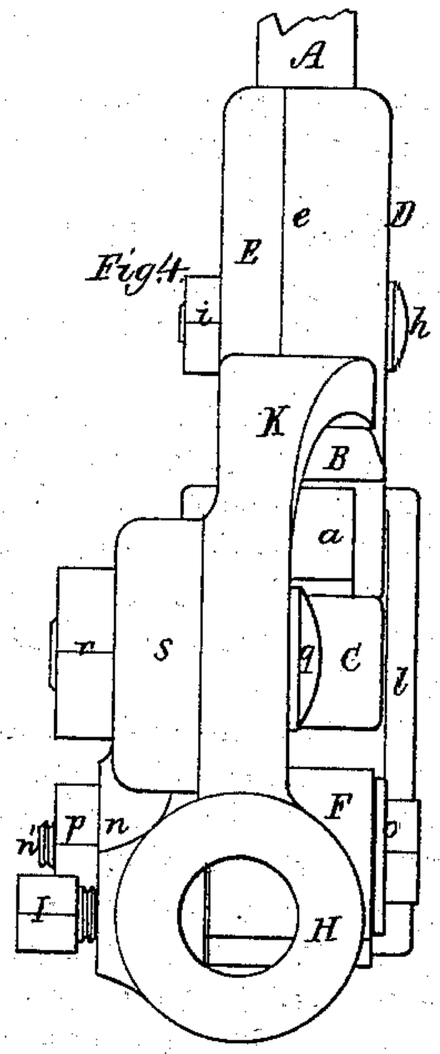


Fig. 3.

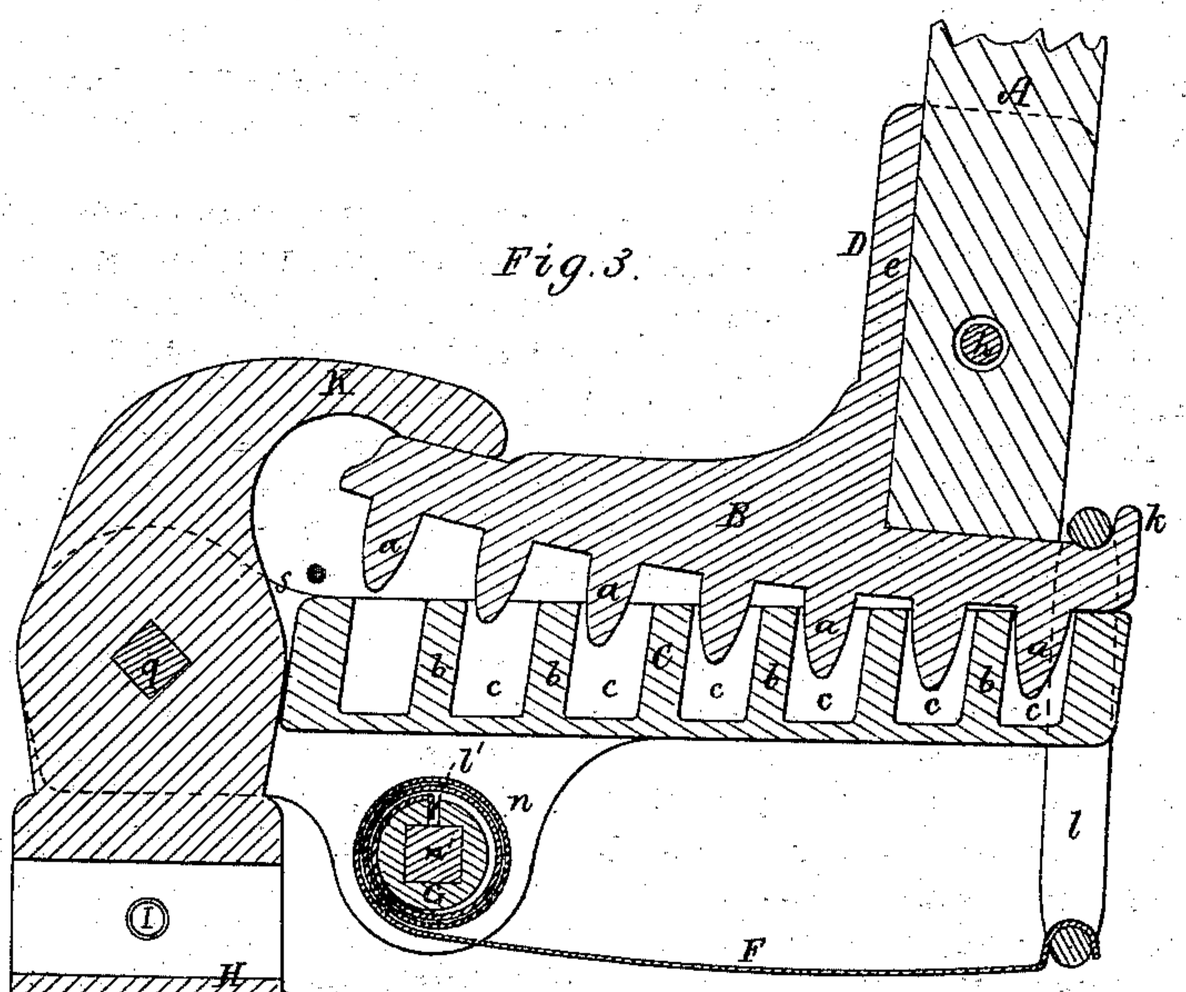
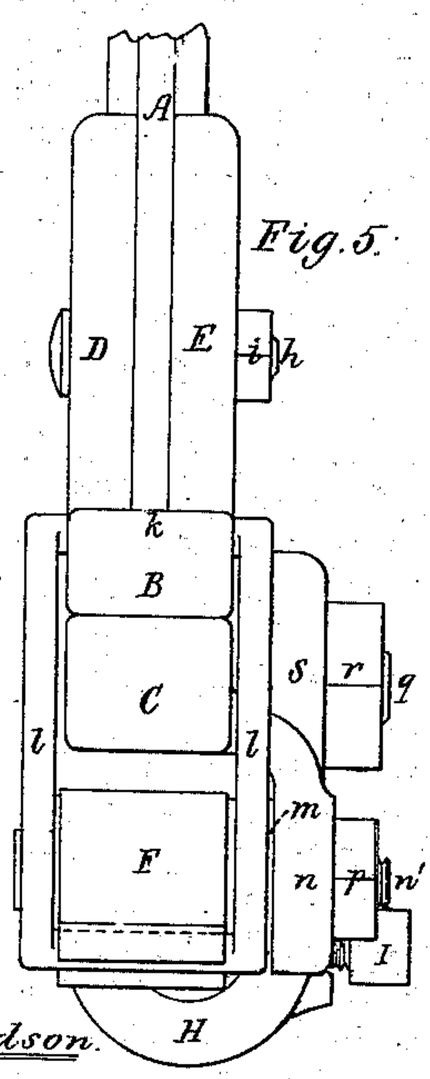


Fig. 5.



Witnesses.
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L. B. Hollen

Geo. Richardson.
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N. L. Eddy.

UNITED STATES PATENT OFFICE.

GEORGE RICHARDSON, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN LOOM PICKING MECHANISMS.

Specification forming part of Letters Patent No. **154,086**, dated August 11, 1874; application filed June 10, 1874.

To all whom it may concern:

Be it known that I, GEORGE RICHARDSON, of Lowell, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Mechanism Pertaining to Loom Picker-Staves; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a front elevation, Fig. 3 a longitudinal section, and Figs. 4 and 5 end views, of the mechanism embodying my invention. Fig. 6 will be hereinafter described.

My invention consists in an adjustable stop and collar connected together, arranged with the rocker and its supporter, and combined with the latter by means as hereinafter explained, one purpose of the improvement being to regulate the extent of retreat of the picker-staff from time to time, as occasion may require. My invention not only acts as a stop for the picker-staff, but to prevent it from striking hard against the outer end of the staff-slot in the shuttle-box of the lay.

In the drawings, A denotes the lower portion of a picker-staff, and B its rocker. C is the supporter of the rocker. The said rocker B has a range of teeth, *a a a*, projecting down from it, and engaging with a similar range, *b b b*, extending across and within the supporter C. The spaces *c* between the teeth are closed at the bottom and ends of each, so as to constitute so many oil holders or receivers, all of which, if preferable, may open at bottom into a common oil-receptacle formed in the supporter, so as to extend along underneath the said spaces *c*, which not only serve to hold oil to lubricate the teeth, but prevent it from dropping down upon the floor. The said rocker B has extended up from it an abutment or standard, D, having a right-angular recess to receive the picker-staff, and support one side and one edge of it. The abutment is beveled at one end, as shown at *d*, and at the other it terminates in a beveled lip or flange, *e*, all being as represented. The picker-staff, beveled on its two outer corners, rests within the abutment, and is held thereto by a cap or plate, E, provided with two beveled jaws, *f g*, extending from it, all being arranged as represented. A screw-bolt, *h*, going through the abutment, the picker-staff, and the cap-plate, and provided with a nut, *i*, serves to draw the cap-plate closely to the abutment and the picker-staff, in a manner to cause the staff to be forced up to the abutment, simultaneously, in two directions, at right angles to each other. The bolt-hole in the picker-staff should have a diameter somewhat larger than that of the bolt. The staff-holding mechanism or socket is thus one that is contractile in two directions at once, and, by simply setting up the nut, can be tightened upon the staff from time to time, as such may become worn or contracted when in such socket. There projects from the heel of the rocker a hooked projection, *k*, upon which is hung a link, *l*, also hooked to the free end of a spring, F. The spring extends underneath the rocker-supporter, and is coiled around a barrel or cylinder, G, and at its inner end is inserted in a groove, *l'*, made in the periphery of such barrel.

Fig. 6 is a vertical and transverse section of the picker-staff mechanism, the said section being taken through the said barrel or cylinder G, whose head, *m*, rests against an ear, *n*, projecting downward from the supporter C. A screw-bolt, *n'*, having a prismatic shank, goes through a corresponding hole in the barrel, and also through a washer, *o*, and the ear *n*, and receives a nut, *p*, all being arranged as shown.

By revolving the screw-bolt, the barrel may be turned on its axis, so as to either wind up or let out the spring, in order to cause it to act with the required tension. By setting up the nut, the barrel may be drawn tightly against the ear, so as to be held in position and from accidentally revolving.

H is a tube or collar, provided with a clamp-screw, I. It is designed to receive or fit upon the loom-lay shaft, and to be fastened thereto by the screw I. From this tube or collar a curved arm or stop, K, extends, and

is formed in manner as represented. It, by means of a screw-bolt, *q*, and nut *r*, is secured to another ear, *s*, extending from the supporter C at its inner end. The supporter thus becomes adjustable with reference to the arm and collar, and, therefore, while the arm answers as a stop to arrest the backward movement of the picker-staff, the parts may be so adjusted as to prevent the staff from striking hard against the outer end of its slot in the shuttle-box of the lay. A picker-staff being more or less elastic, it is desirable to so adjust its supporting devices as to prevent such staff from bringing up hard against its back support of the shuttle-box.

In the above-described picker-staff mechanism, I claim as my invention as follows:

The adjustable stop K and collar H, connected together, arranged with the rocker B and its supporter C, and combined with the latter by means substantially as specified.

GEO. RICHARDSON.

Witnesses:
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