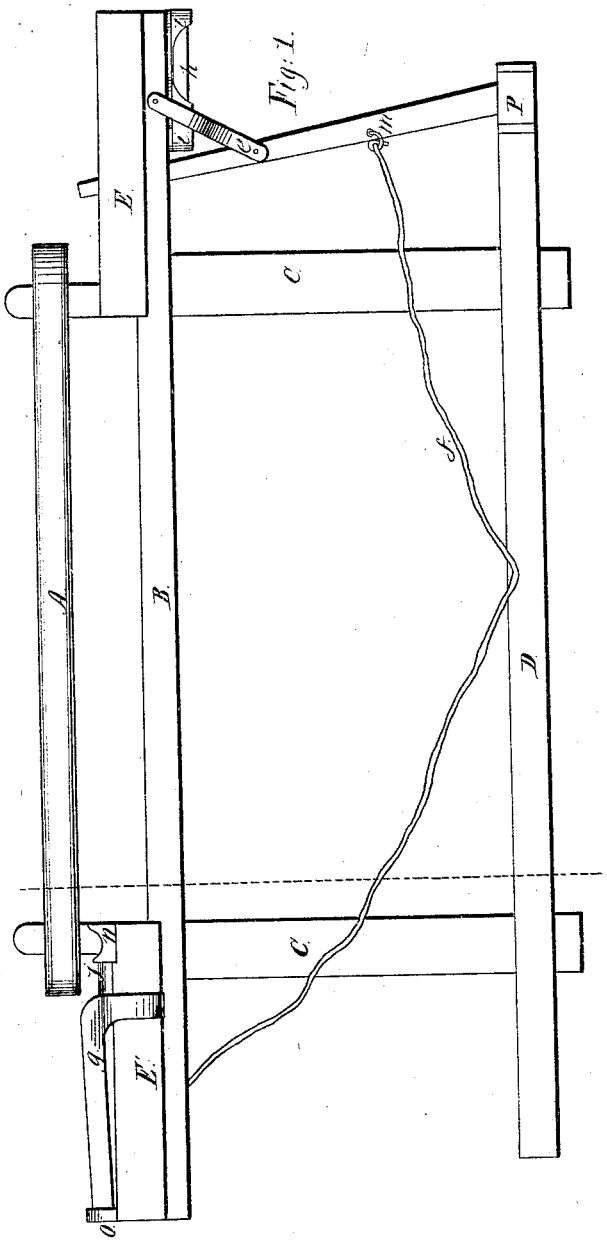
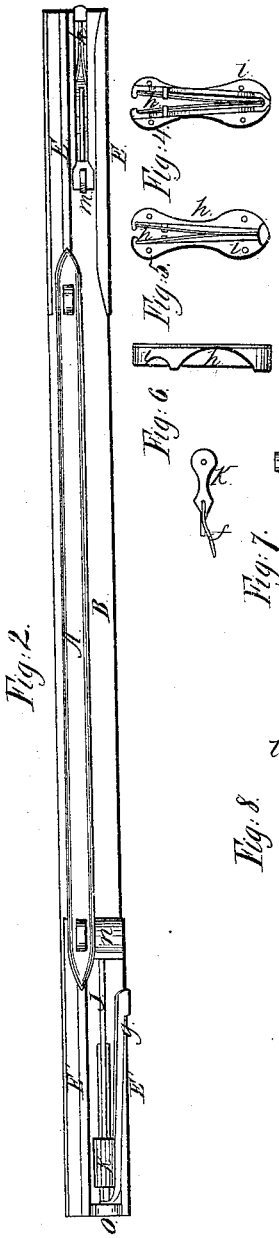
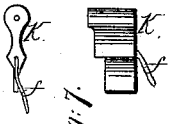
R. W. Andrews.

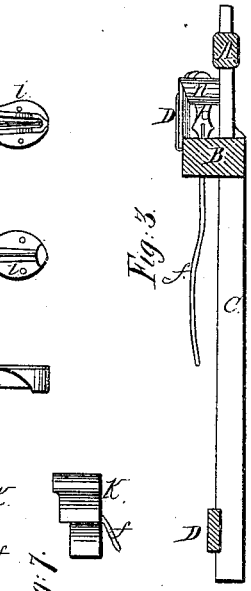
Picker Check.

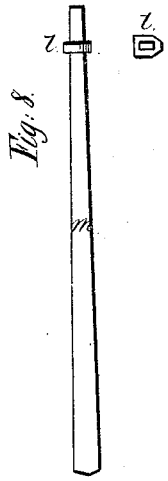
No. 50,215. Patented Oct. 3, 1865.











Witnesses:
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D. C. Connolly

Inventor:
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F. C. Robbins

UNITED STATES PATENT OFFICE.

R. W. ANDREWS, OF STAFFORDVILLE, CONNECTICUT.

IMPROVEMENT IN LOOMS.

Specification forming part of Letters Patent No. **50,215**, dated October 3, 1865.

To all whom it may concern:

Be it known that I, R. W. ANDREWS, of Staffordville, in the county of Tolland and State of Connecticut, have invented a new and useful Improvement in Looms; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, which forms a part of this specification.

The looms which have heretofore been constructed, without an exception, so far as my knowledge extends, can only be run at a limited rate of speed, for the reason that when a higher than the prescribed rate of speed is imparted to said looms it produces such sharp recoils of the picker-staffs (or their equivalents) as will throw the shuttles out of the shuttle-boxes.

The object of my present invention is to remedy the aforesaid objection, and this I do by such an arrangement of certain elastic friction-surfaces, in connection either with the shuttle-boxes or with the picker-staffs, (or their equivalents,) or with both the shuttle-boxes and the picker-staffs, as will cause the said picker-staffs to be so gradually brought to the termination of their respective outward movements that there will not be any reaction or recoil at the termination of said movements, or, if any, not enough to throw the shuttles out of the shuttle-boxes.

In the accompanying drawing, *m* is a picker-staff, which is combined with the vibrating frame A, B, C, C, and D, and may have the usual vibratory movements imparted to it by any of the well-known methods.

The apparatus represented in the drawing for gradually arresting each outward movement of the picker-staff *m* consists of two elastic plates, *h h*, and the cast-metal holder *i*, the said spring-holder being of such a shape as to bring the outer ends of the elastic plates *h h* in contact with each other, while it retains the inner ends of said plates at such a distance from each other as to freely allow the picker-staff to pass between them. The said spring-holder *i* is bolted to the under side of the shuttle-box E in the manner represented in the drawing. It will therefore be perceived that each outward movement of the picker-staff will be gradually arrested by the increasing friction which will be exerted by the elastic plates *h h* upon the sides of said picker-staff, however violently it may be thrown between the converging sides of said plates; but it will readily be perceived that precisely the same effect can be produced by the action of a single elastic friction-plate upon one side of a picker-staff at the same time that a counteracting polished surface is placed upon the opposite side of the picker-staff; or the said single elastic friction-plate may be combined with the shuttle-box in such a manner that it will act upon the upper end of the picker-staff; or the said elastic friction-plate may be so arranged as to act upon a shoulder projecting from one side of the picker-staff; or the said elastic friction-plate may be so arranged as to act upon a curved elastic friction-plate secured to one side of the picker-staff.

The shuttle-box E′ is represented in the accompanying drawing as being supplied with a rawhide picker-block, *k*, the said picker-block being placed upon a rigid rod, *j*, which passes longitudinally over the shuttle-box, and which is secured in said position by means of the elevated heads *o n* of the shuttle-box, which receive the ends of the said rod. The necessary inward movements are imparted to the said picker-block by means of the cord *f* and the auxiliary mechanism which is usually employed for effecting similar movements in other looms. Each outward movement of the said picker-block *k* is gradually arrested by the friction exerted upon the same by the elastic pressure-plate *g*, which is combined with the shuttle-box E′ in such a manner that the friction which is exerted upon the picker-block by inward pressure of the said plate *g* will steadily increase in force from the commencement to the termination of each outward movement of said block. The aforesaid friction pressure-plate *g* may be so combined with the shuttle-box E′ as to cause it to act upon the top or either side of the picker-block *k;* or two pressure-plates may be combined with the said shuttle-box in such a manner as to cause them to simultaneously act upon both sides of the picker-block *k*.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of one or more elastic friction-plates or their equivalents with the shuttle-boxes of looms in such a manner with relation to the picker-staffs or the picker-blocks of said looms as to produce the within-described desirable results, and in substantially the manner herein set forth.

R. W. ANDREWS.

Witnesses:

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C. B. FAIRMAN.