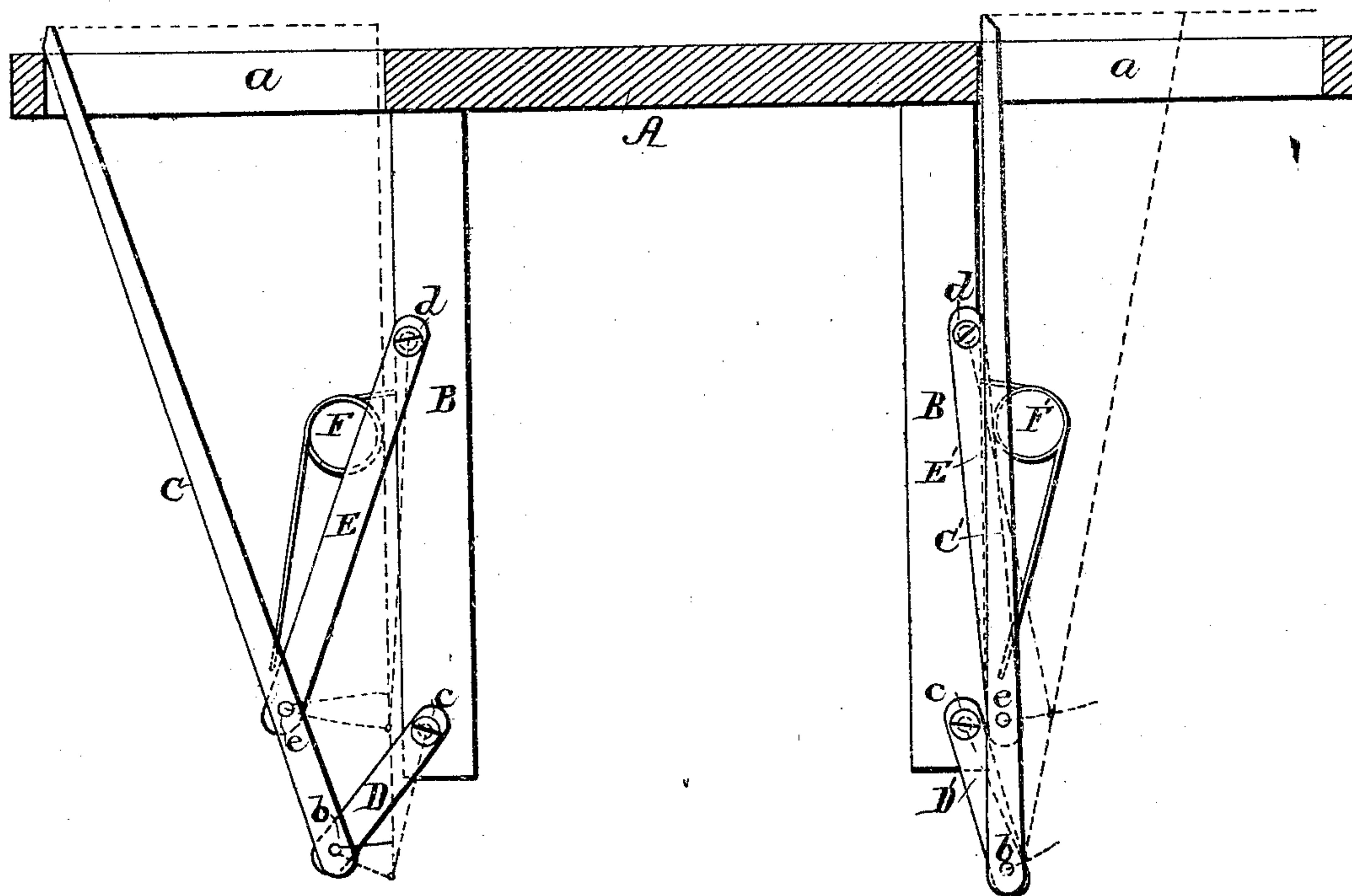


*G. W. Perry.*  
*Picker Motion for Loom.*

*N<sup>o</sup> 8,506.*

*Patented Nov. 11, 1851.*



# UNITED STATES PATENT OFFICE.

GEORGE W. PERRY, OF THOMPSON, CONNECTICUT.

## SHUTTLE-MOTION OF LOOMS.

Specification of Letters Patent No. 8,506, dated November 11, 1851.

*To all whom it may concern:*

Be it known that I, GEORGE W. PERRY, of Thompson, in the county of Windham and State of Connecticut, have invented certain  
5 new and useful Improvements in the Mode of Hanging the Picker-Staffs of Looms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

The drawing represents the lay of a loom with the picker staffs attached to the swords, the lay being shown in section and the view  
15 being taken at the front side.

My invention consists in hanging the picker staves each on two radius rods which are attached to fixed centers on the swords or frame of the lay, being connected by joint  
20 pins one at the lower end and the other at a suitable distance from it. The effect produced by this arrangement being to cause the end of the staff which acts upon the shuttle to move in a right line parallel to the raceway, the two radius rods producing  
25 a parallel motion without the aid of any other device for guiding or controlling it.

A, represents the lay; *a*, the slots through which the pickers work; B, the swords  
30 which carry the lay.

C, is one of the picker staffs, D, is the radius rod to which its lower end is attached by a pin *b*, the radius rod being hung on a center C, which is fixed in the sword. E, is  
35 the other radius rod which should be as long as convenience will allow, it is hung on a fixed center *d*, in the sword and is attached to the picker staff by a pin *e*, at a distance from *b*, equal to the distance between *b*, and  
40 *c*, the rod itself being equal in length to the distance between *c*, and *d*.

F is a spring placed between the sword and the picker staff to throw back the staff.

C', is the other picker staff, on the opposite side of the lay, it is connected by other radius rods D', and E', similar to D, and E, and is provided with a similar spring F'.

Motion may be communicated to the

picker staffs for the purpose of throwing the shuttle by cams and weights or springs, or  
50 by any suitable means, and such motion at the upper end of the picker must—provided the radius bars and the distances of their centers are properly set out—be in a right line parallel to the raceway, the whole  
55 length of the picker staff moving toward or from the center of the lay.

In the drawing the picker C, is represented thrown back ready to come into operation and C', is thrown forward supposed  
60 to have just thrown the shuttle, C, being shown in the same position in red lines, C', is also shown at half stroke in red lines. The dotted red lines represent the motions described by the points *b*, and *e*, and also  
65 by the end of the picker staff.

The principal advantage derived from this improved picker motion, is that the end of the pick is made to describe a rectilinear motion by a very simple contrivance inexpensive in construction and working with  
70 very much less friction than any other description of guide, and requiring less power than where the lower end of the staff rests against or moves on a stationary fulcrum.

Having thus described my invention, I do not claim hanging the picker staff on a radius rod, as I am aware that it has been so hung, and by the aid of other devices in connection, a motion parallel to the race-  
80 way has been produced; but

What I do claim and desire to secure by Letters Patent is—

Hanging the picker staff or staffs upon radius rods D, and E, having two distinct  
85 radial motions, substantially as herein set forth, for the purpose of causing the end which operates upon the shuttle to describe or make a rectilinear motion parallel with the raceway and with less power than has  
90 heretofore been done.

GEORGE W. PERRY.

Witnesses:

H. JOHNSON,  
LUCIAN CARPENTER.