E. H. GRAHAM.

Picker Staff Motion for Looms.

No. 30,441. Patented Oct. 16, 1860.

Fig. 3.

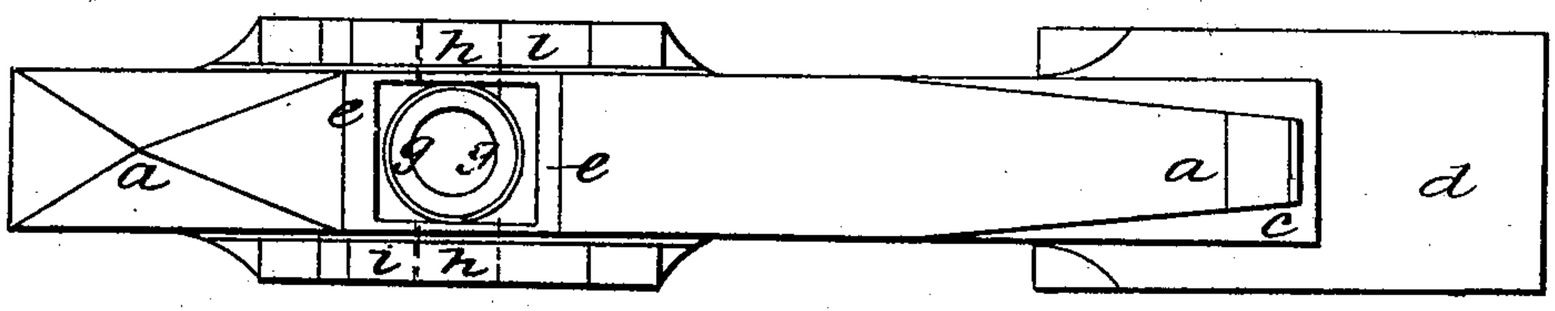

Fig. 2.

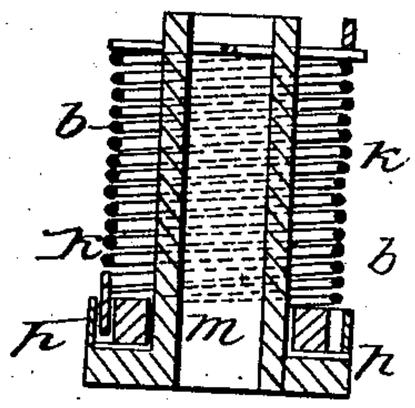

Fig. 1.

Witnesses:
A. W. Brown
Frederic A Sayer.

Inventor:
Edmund H Graham
by his atty
Chas Lincoln

UNITED STATES PATENT OFFICE.

EDMUND H. GRAHAM, OF MANCHESTER, NEW HAMPSHIRE.

PICKER-STAFF MOTION.

Specification forming part of Letters Patent No. 30,441, dated October 16, 1860; Reissued October 2, 1866, No. 2,367.

To all whom it may concern:

Be it known that I, EDMUND H. GRAHAM, of Manchester, in the county of Hillsboro and State of New Hampshire, have invented certain new and useful Improvements in the Parallel or Rocker Motion for Picker-Staves in Looms, and that the following description, taken in connection with the accompanying drawings hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements whereby my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is a central vertical section. Fig. 2 is a detail view. Fig. 3 is a plan or top view of my improvements.

In the devices heretofore commonly employed for producing the parallel or rocker motion for picker staves in looms, the rapid motion to which they are necessarily subjected, in giving the blow to the shuttle, soon causes a disarrangement and "wabbling" of the parts, and as it is essential that the motions should be accurate, repairs and renewals of the machinery are almost constantly required.

The present improvement has for its object, the producing of an accurate and sure motion for picker-staves, by an arrangement of devices which, while giving great accuracy of motion, so guides and holds the rocker shaft in its play back and forth, as to cause it to operate with the least possible friction and lateral disarrangement or "wabbling."

a a in the drawings represents a curved rocker in the socket *b b* of which the picker staff is to be fastened. The rocker *a a* plays upon a horizontal bed-piece *c c* through a socket *d* of which the shaft of the loom passes. The shank *e e* of the rocker *a a* is made hollow or with a suitable box or bearing *f f* into which extends vertically a shaft or bar *g g* which shaft or bar *g g* by means of short journals *h h*, has a bearing in the eyes *i i* formed in the bed piece *c c*. By this arrangement the rocker in its reciprocating movement is kept perfectly true in its bearings, and cannot "wabble," by the shaft or bar *g g* which holds the rocker *a a* always in position in consequence of its long bearing therein, and as the shaft or bar *g g* also turns freely upon its journals *h*, *h* which further serve to steady the rocker laterally, it, the rocker moves with the least possible friction, and with the greatest accuracy, so that the wear and tear is necessarily but very slight.

The rocker *a a* is retracted by means of a spiral spring *k k* wound loosely around a short shaft *l* and attached at one end to a plate *m* which turns freely on the shaft *l*. A strap *n* attached to the plate *m* fits over a hook *o* on the underside of the rocker *a a*. As the spring *k k* is liable to partially lose its force, by the motions of the rocker *a a*, I have provided for this contingency, by forming in the plate *m* a series of holes *p*, *p* &c., into which, successively, one end of the spring *k k* is set, as fast as it loses its elastic force, whereby the spring can be set up at pleasure and its force graduated without the necessity of frequent repairing or renewals.

Having thus described my improvements I shall state my claim as follows:

What I claim as my invention and desire to have secured to me by Letters Patent is—

The arrangement of the rocker *a a* and guiding shaft or bar *g*, *g* traveling in suitable journals or bearings *h*, *h* and operating together substantially as described.

EMD. H. GRAHAM.

Witnesses:

JOSEPH GAVETT,

ALBERT W. BROWN.