

United States Patent Office.

GEORGE S. FAULKNER, OF STAFFORDVILLE, CONNECTICUT.

Letters Patent No. 66,818, dated July 16, 1867.

IMPROVEMENT IN CAM FOR LOOMS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE S. FAULKNER, of Staffordville, in the county of Tolland, and State of Connecticut, have invented a new and improved Treadle and Cam for Looms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation of my invention.

Figure 2 is a horizontal sectional view of the same, the plane of section being indicated by the line *x x*, fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new device for operating the heddles on a loom, and consists in a novel construction of the cam, by which the required motion is imparted to the treadle; also in the arrangement of a block, which is secured to the treadle, and which is worked by the flanges and side of the cam. The parts are so arranged that the heddles are held in the required position while the shuttle is being thrown.

A represents an upright treadle, which is pivoted by a pin, *a*, to the frame of the loom, and which is connected by means of cords *b b* with one of the heddles. B is a horizontal shaft, which receives motion from suitable mechanism. C is the cam, which is mounted on the cylinder, and which consists of two segmental pieces, *b* and *c*. The former is an almost semicircular disk, having a continuous flange, *d*, around its periphery, on its inside, (see fig. 2.) The portion *c* is an irregular quadrant, having one straight side and one curved side, as is clearly shown in fig. 1. A continuous flange, *e*, is arranged on the outside of the periphery and curved side of this cam *c*, and a flange, *f*, on the straight, radiant side of the same, the latter flange not quite reaching to the periphery of the cam, as is clearly shown in fig. 1. D is a plate, which is secured to the outside of the treadle, and which has a pin, *g*, projecting from its extremity towards the inside, as shown in fig. 2, and by dotted lines in fig. 1. When the pin *g* is in the cam *c* so as to fit over the flange *e* on the curved side of the same, as shown in fig. 1, and when then the shaft B is turned in the direction of the arrow, in fig. 1, the harness will be raised, and will be held raised while the pin *g* is held on the periphery of the cam *c*, and until it slips off the cam *c* through the opening between the flanges *e* and *f*. The lower edge of the cam *b* will then press upon the upper inclined surface of the block D, and will gradually lower the harness by forcing the whole length of the block *d*, between the flange *d* and shaft B, so that the end of the block and the pin *g* rests against the shaft B. The harness is then down, and will be kept down until the cam *c* takes hold of the pin *g* again by means of its flange *e*, and brings the pin *g* to the periphery of the cam *c*, whereby the harness is raised. When the pin *g* rests against the shaft B it is, as soon as the cam *b* has passed, brought between the end of the flange *b* on the curved side of the cam *c* and the shaft B, and the curved side of the cam *c* presses then upon the inclined upper side of a triangular projection, *h*, from the treadle, thereby gradually moving the treadle off the shaft and raising the harness. Fig. 1 shows the curved side of the cam *c* acting upon the triangle *h*, and moving the lower arm of the treadle in the direction of the arrow 2. For each heddle should be arranged a treadle, A, and a cam, C.

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

The double-faced cam C, when arranged on a shaft, B, and when provided with flanges *d*, *e*, and *f*, in combination with the inclined blocks D on the treadle, the latter being provided with a pin, *g*, as set forth.

GEORGE S. FAULKNER.

Witnesses:

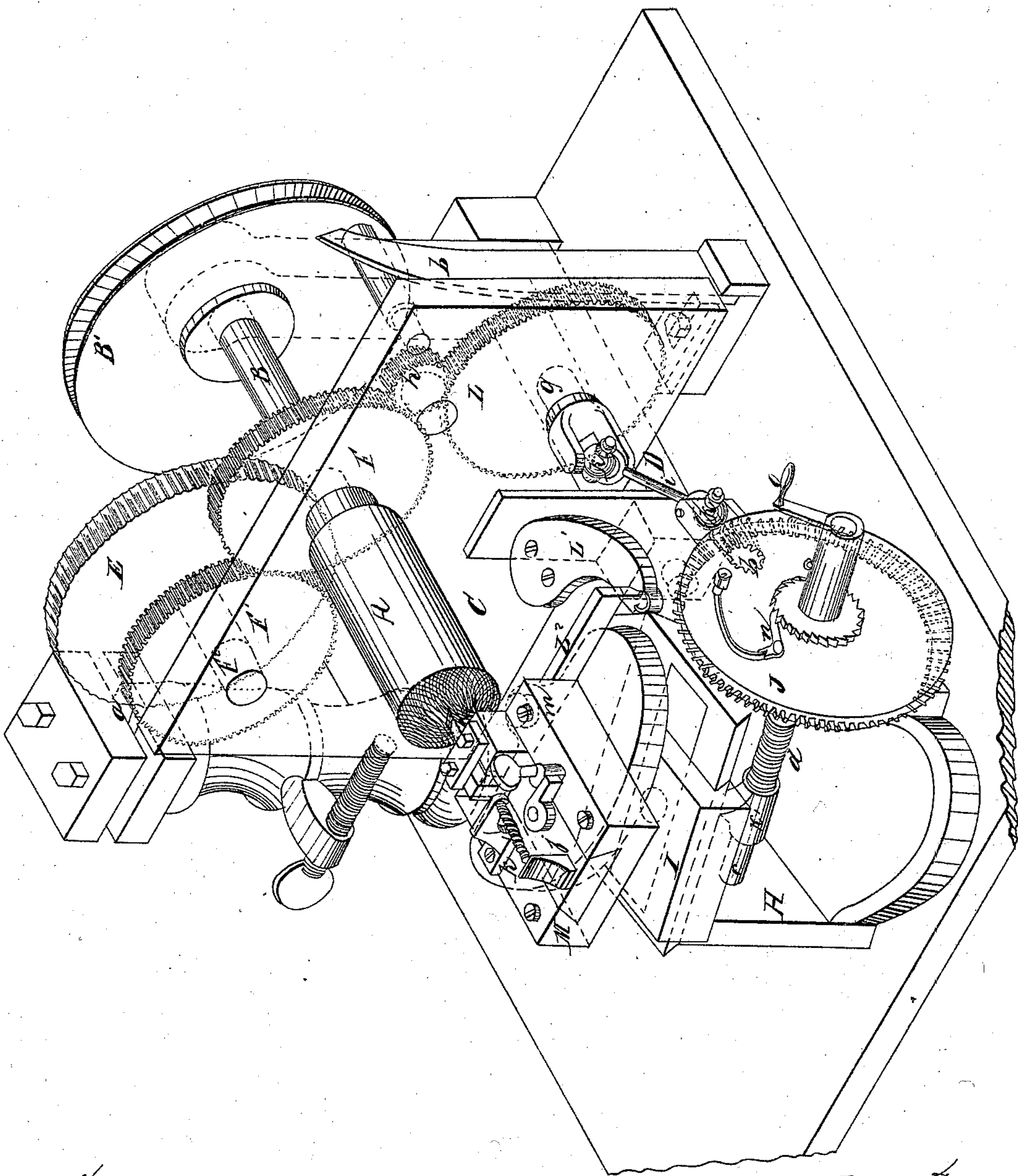
E. A. CONVERSE,
P. HOWE.

C.H. Field,

Engraving Machine,

No 66,819,

Patented July 16, 1867.



Witnesses:
Ben F. Houston
William W. Rickard

Inventor:
Charles H. Field.