

(No Model.)

J. POYSER.
BATTEN FOR LOOMS.

No. 566,222.

Patented Aug. 18, 1896.

Fig. 1

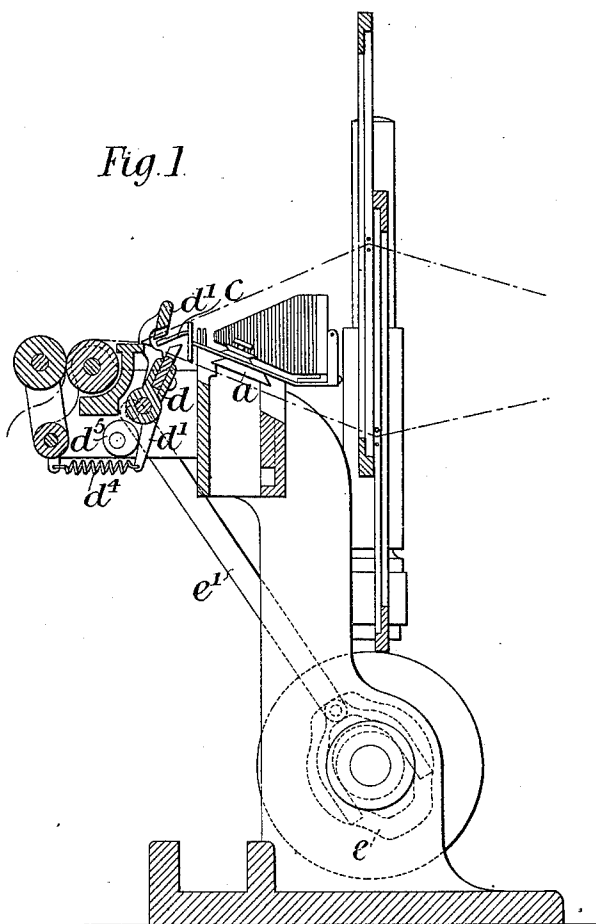


Fig. 3

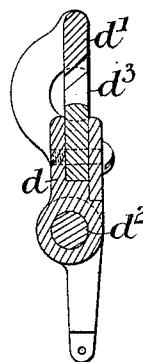


Fig. 4

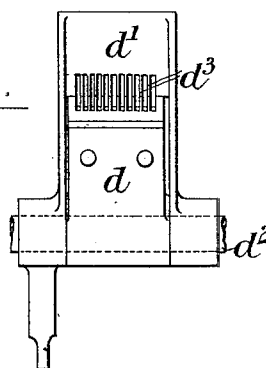
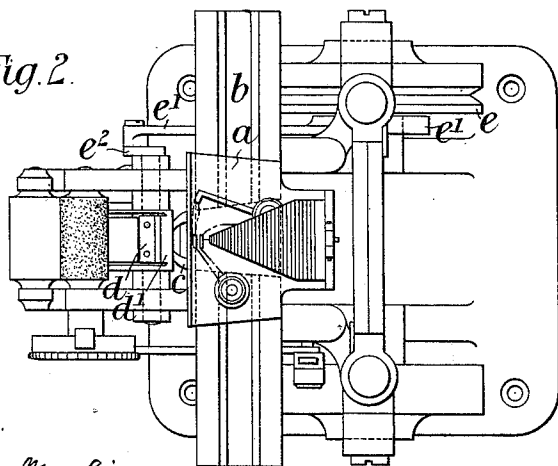


Fig. 2



Witnesses.

E. Dave Mackie
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UNITED STATES PATENT OFFICE.

JOHN POYSER, OF MANSFIELD, ENGLAND.

BATTEN FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 566,222, dated August 18, 1896.

Application filed February 24, 1896. Serial No. 580,462. (No model.) Patented in England January 2, 1895, No. 144; in France July 25, 1895, No. 249,170; in Belgium July 25, 1895, No. 116,704; in Italy September 30, 1895, XXX, 39,439, LXXVII, 227; in Spain October 12, 1895, No. 17,785; in Austria November 21, 1895, No. 45/4,406, and in India November 23, 1895, No. 261.

To all whom it may concern:

Be it known that I, JOHN POYSER, a subject of the Queen of Great Britain, residing at Mansfield, England, have invented new and useful Improvements in Battens for Looms, (for which patents have been granted to me in Great Britain, No. 144, dated January 2, 1895, and in India, No. 261, dated November 23, 1895, and to myself jointly with James Haywood and Francis Edward Dyke Acland in France, No. 249,170, dated July 25, 1895; in Belgium, No. 116,704, dated July 25, 1895; in Italy, Vol. XXX, No. 39,439, Vol. LXXVII, No. 227, dated September 30, 1895; in Spain, No. 17,785, dated October 12, 1895, and in Austria, No. 45/4,406, dated November 21, 1895,) of which the following is a specification.

This invention relates to battens for looms, especially applicable to high-speed looms of the kind described in the specification of former Letters Patent No. 547,130, dated October 1, 1895.

In the accompanying drawings, Figures 1 and 2 are respectively a partial side sectional elevation and a plan of a high-speed loom provided with my improved batten. Figs. 3 and 4 are respectively a side sectional elevation and a front elevation of the improved batten drawn to an enlarged scale.

a is the shuttle of the loom, working in the raceway *b*, and *c* is the finger of the shuttle for laying the weft in front of the batten.

According to my invention, instead of having the upper part of the batten fixed and the lower part oscillating, as described in the specification before referred to, the upper and lower parts are both arranged to oscillate.

d d' are the two parts of the batten, both being mounted upon a spindle *d²*, the part *d* being connected to the spindle while the part *d'* is free to turn thereon. The surfaces of the plates or teeth *d³* of the two parts of the batten, adapted to come into contact, are formed at an angle and in such a direction that when the lower part *d* is moving forward it moves the part *d'* with it when in contact against the pressure of a spring *d⁴*. The part *d* is actuated by a cam *e*, rod *e'*, and lever *e²*, Fig. 2, attached to the spindle *d²* in a man-

ner similar to the batten described in the said former specification. The two parts *d d'* have a differential movement, so that when the batten is in its forward position, beating up the weft-thread, the two parts are in contact with each other, after which the two parts move backward together until the warps have crossed. The upper part *d'* of the batten then comes against and is arrested by a variable stop *d⁵*, and the lower part *d* continues to move backward, thus leaving between the parts a space for the passage of the weft-finger *c* of the shuttle *a*, which finger passes through, laying the weft in front of the batten, after which the lower part *d* moves forward until it again comes in contact with the upper part, when the whole of the batten moves forward together to beat up the weft just laid.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination in a loom, the shuttle, and the sectional batten comprising the movable upper and lower parts and means for opening and closing said sections during the operation of the loom, substantially as described.

2. In combination in a loom, the shuttle and the batten comprising the lower part fixed to a spindle held in the frame and the upper part oscillating on the said spindle and means for opening and closing said parts during the operation of the loom, substantially as described.

3. In combination in a loom, the spindle a sectional batten comprising the upper part under spring tension journaled on said spindle, and the lower part fixed to the spindle and the variable stop, for limiting the movement of the upper part, said upper part being engaged and moved forwardly by said lower part, substantially as described.

4. In a loom, in combination, the batten comprising the upper and lower parts, the contiguous faces of the said parts being correspondingly beveled whereby the lower part will control the upper part in its forward

movement, and will disengage itself from the same in its rearward movement, the means for operating the lower part, the spring for holding the upper part of the batten in a rearward position, and the variable stop to
5 limit the movement of the said part, substantially as described.

5. In combination in a loom, the batten

comprising the upper and lower movable parts, the dents or pins thereof being adapted to meet and separate and the means for operating the same, substantially as described.

JOHN POYSER.

Witnesses:

E. DAVIE MACKIE,

T. B. COX.