

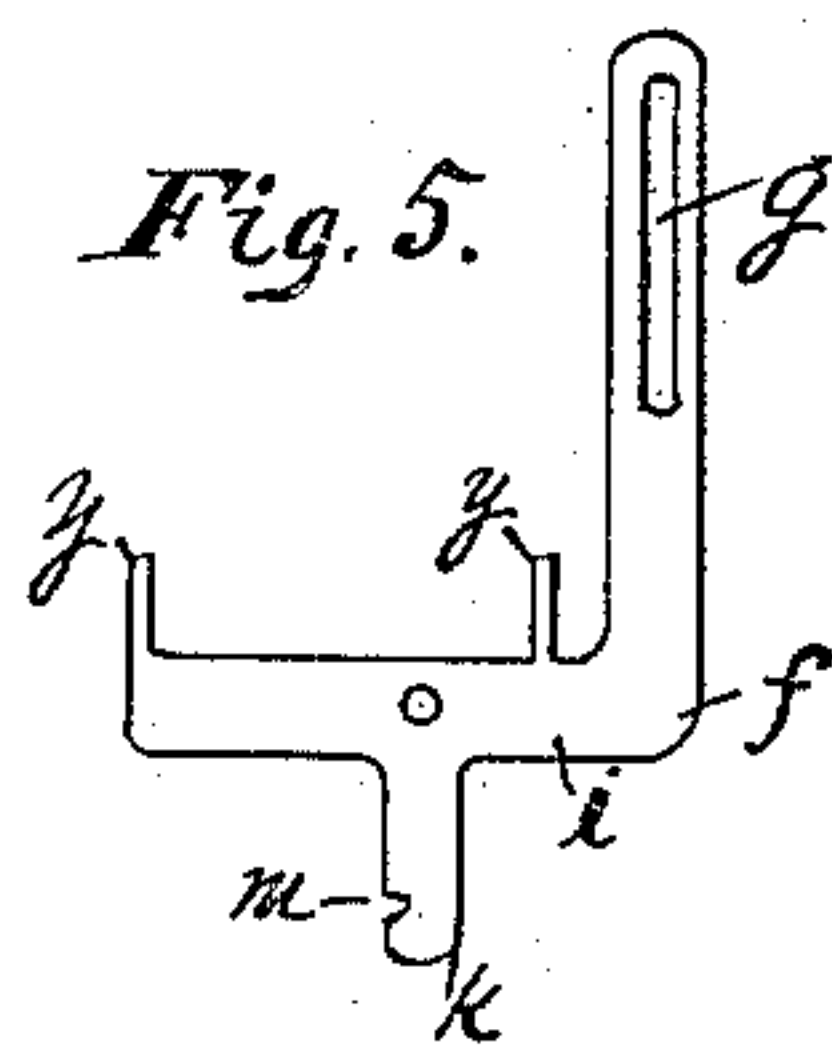
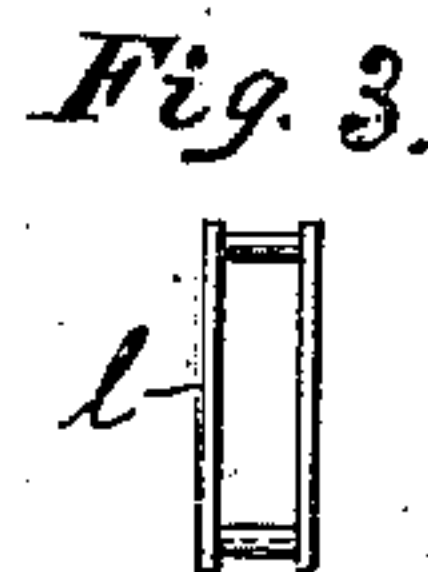
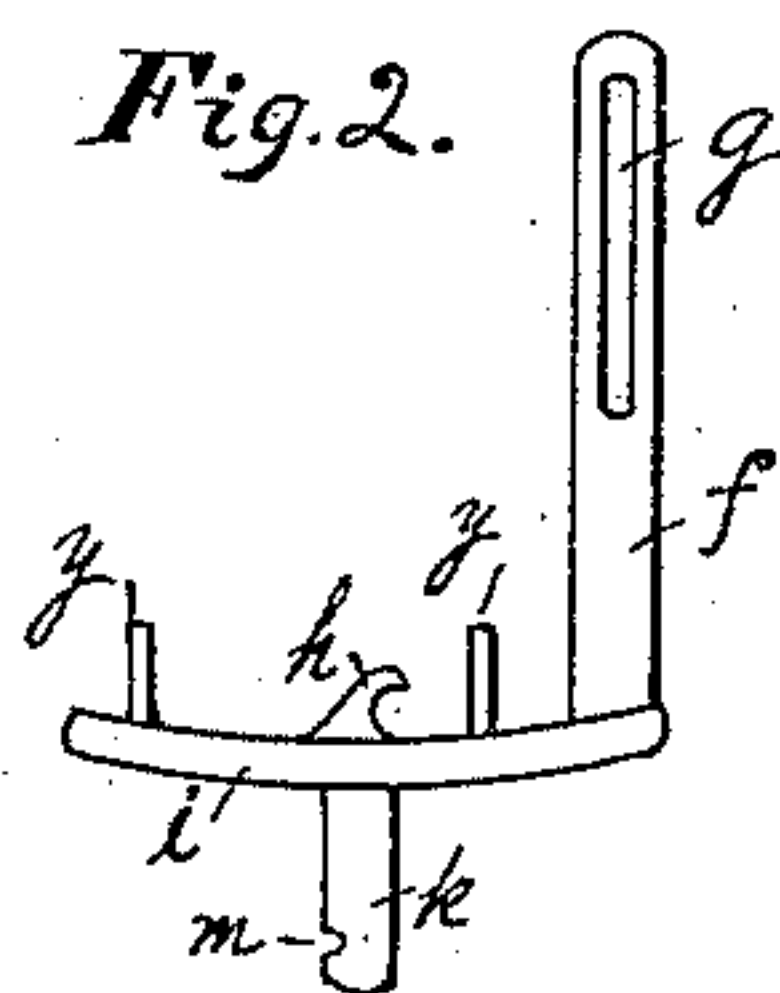
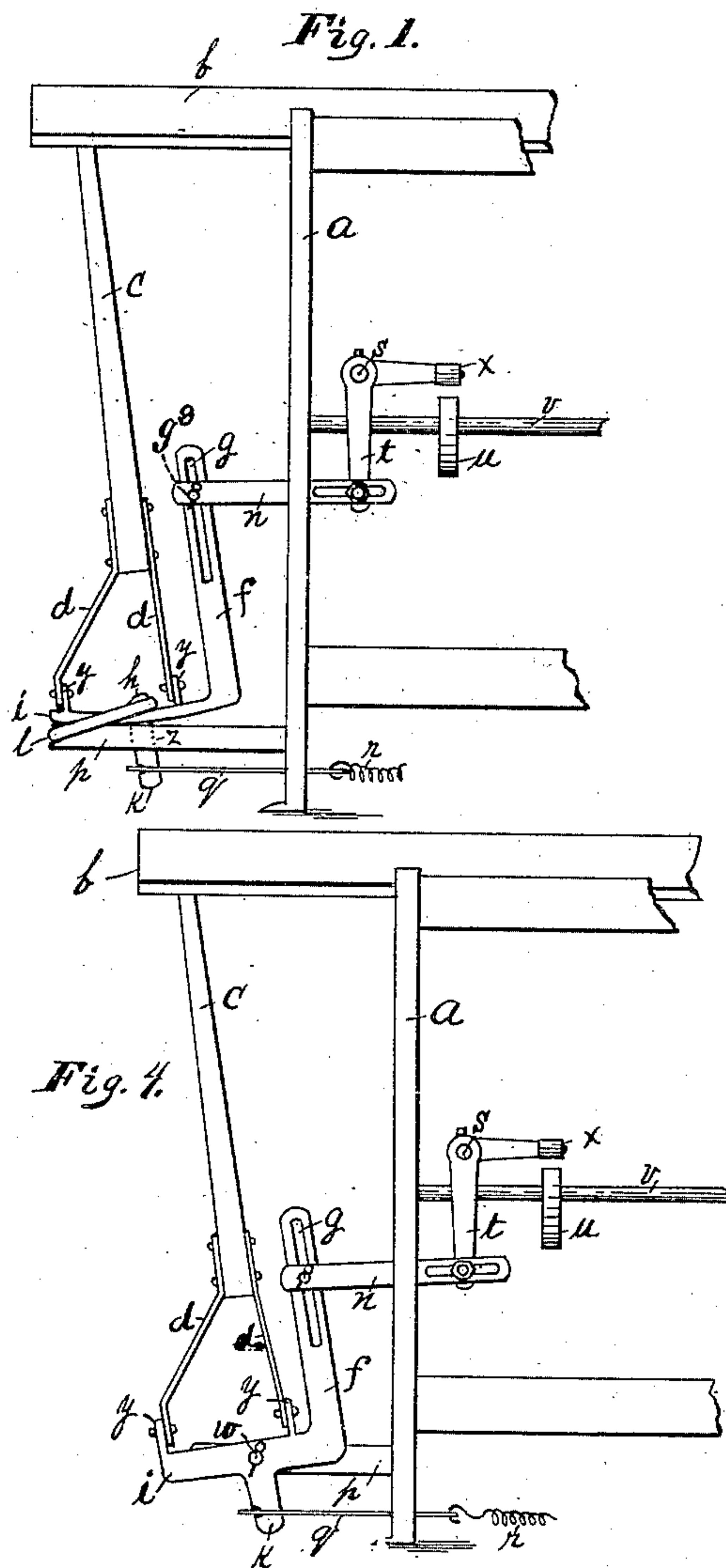
(No Model.)

S. TURNER.

SHUTTLE OPERATING MECHANISM FOR LOOMS.

No. 445,682.

Patented Feb. 3, 1891.



Witness
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UNITED STATES PATENT OFFICE.

SAMUEL TURNER, OF NEW BEDFORD, MASSACHUSETTS.

SHUTTLE-OPERATING MECHANISM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 445,682, dated February 3, 1891.

Application filed July 2, 1890. Serial No. 357,480. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL TURNER, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Shuttle-Operating Mechanism for Looms, of which the following is a specification.

My invention relates to that part of the mechanism of a loom which drives the shuttle, and has for its object to produce a mechanism for the same which will be more durable in its parts and less liable to get out of order, and by means of which the throw of the picker-stick is more easily and certainly adjusted.

To this end my invention consists in the combination of a picker-stick having a forked lower end with a base having a pivotal motion in the plane of the lay of the loom, to which base said fork is pivoted, whereby the upper end of the picker-stick is allowed free motion with the lay, a standard projecting upward from said base and alongside of the picker-stick, adapted to be adjustably connected with the sweep-bar of the loom, whereby a greater or less throw is given to the picker-stick, and means to retract the picker-stick to its normal position.

The accompanying drawings illustrate my invention, in which—

Figure 1 represents a front view of a portion of a loom supplied with my improvement. Fig. 2 represents a side view of the base to which the picker-stick is pivoted. Fig. 3 represents a plan view of the means whereby the base is pivoted to the loom. Fig. 4 represents a front view of a portion of a loom supplied with my improvement and showing the base to which the picker-stick is secured pivoted to the loom in a different manner than that shown in Fig. 1. Fig. 5 represents a side view of said base.

Similar letters refer to similar parts throughout the several views.

a represents a portion of the frame of a loom.

b represents the "lay."

c represents the picker-stick, having bolted to it the arms *d d*, said arms being pivoted to the ears *y y* on the base *i*, whereby the top

of the picker-stick is allowed to have a reciprocating motion with the lay *b*.

f represents a standard rising from the base *i* and provided with the slot *g*, to which stand-ard the sweep-bar *n* is pivoted by a wrist-pin *gⁿ*, which is adjustable up or down in the slot *g*, whereby a greater or less throw is given to the picker-stick.

In Fig. 1 the base *i* is pivoted to the projection *p* of the loom by means of the link *l*, one end of which rests in a notch in the end of the projection *p* and the other in the hook *h* of the base *i*, which base is provided with a projection *k*, having notch *m*, which passes loosely through a mortise represented by the dotted lines *z* in the projection *p*.

In Fig. 4 the base *i* is represented as pivoted to the projection *p* by a bolt at *w*. The shaft *s*, provided with the arms *t* and *x*, and the shaft *v*, provided with the cam *u*, by means of which the required motion is imparted to the picker-stick, are the same as commonly used in ordinary looms. When the cam *u* has operated on the arm *x* to give the requisite motion through the arm *t* and sweep-bar *n* to the picker-stick *c* to throw the shuttle, the strap *q* and spiral spring *r* operate to cause the picker-stick to resume its normal position.

What I claim, and desire to secure by Letter Patent, is—

1. The combination of a picker-stick having a forked lower end with a base having a pivotal motion in the plane of the lay, to which base said fork is pivoted, whereby the upper end of the picker-stick is allowed free motion with the lay, a standard projecting upward from said base and alongside of the picker-stick, adapted to be adjustably connected with the sweep-bar of the loom, whereby a greater or less throw is given to the picker-stick, and means to retract the picker-stick to its normal position, all as shown and described.

2. The combination of the picker-stick *c*, provided with the arms *d d*, the base *i*, provided with standard *f*, having slot *g*, the ears *y y*, to which the arms *d d* are pivoted, the hook *h*, and the projection *k*, having notch *m*, the projection *p*, having mortise *z*, the link *l*, the sweep-bar *n*, provided with wrist-pin adapted to be adjusted in the slot *g*, whereby a greater or less throw is given to the picker-

stick, means for operating said sweep-bar, and means to retract the picker-stick to its normal position, all as shown and described.

3. The combination of the projection *p*, the
5 base *i*, pivoted to said projection and provided with the ears *y y*, projection *k*, and standard *f*, having slot *g*, the picker-stick *c*, provided with arms *d d*, pivoted to the ears *y y*,
10 whereby the upper end of the picker-stick is allowed free motion with the lay, the sweep-

bar *n*, provided with wrist-pin adapted to be adjusted in the slot *g*, whereby a greater or less throw is given to the picker-stick, means for operating said sweep-bar, and means to retract the picker-stick to its normal position, 15 all as shown and described.

SAMUEL TURNER.

Witnesses:

THOS. M. JAMES,
HENRY W. MASON.