A. STOCKWELL.

Loom Picking-Machines.

No. 136,786. Patented March 11, 1873.

Fig. 1.

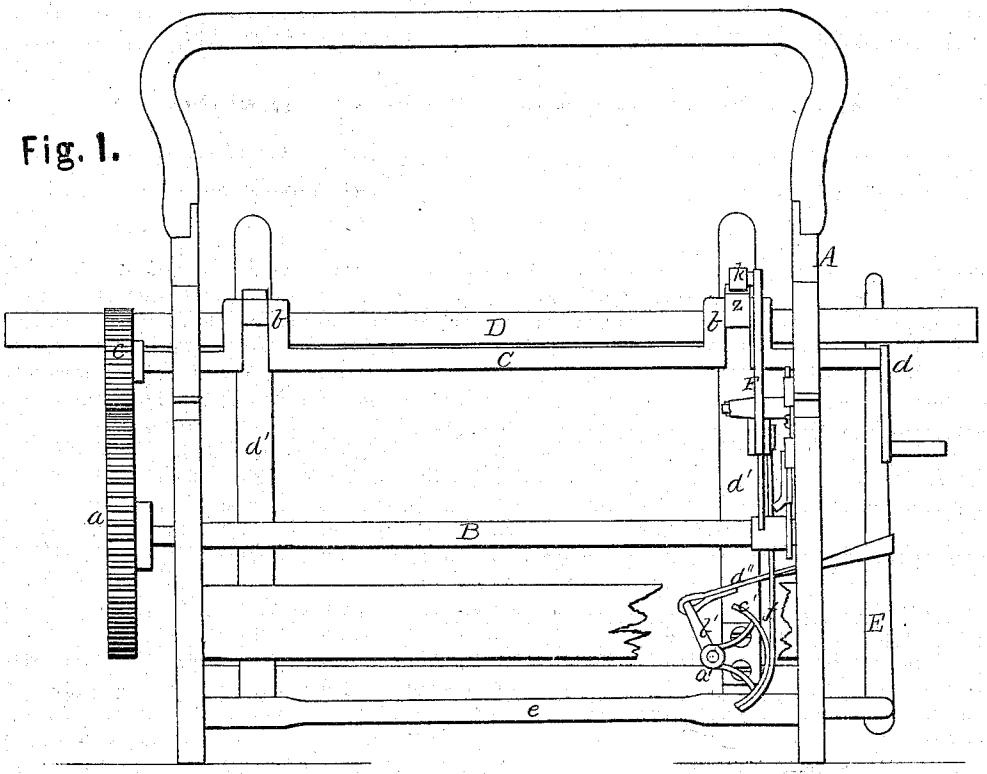
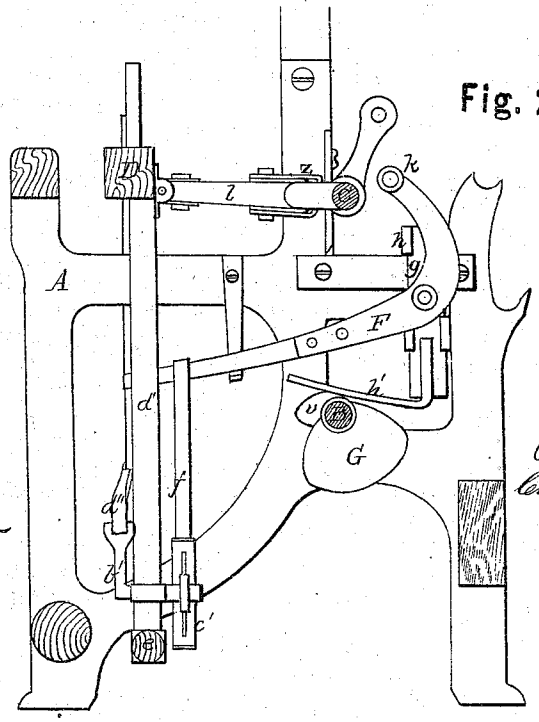


Fig. 2.



WITNESSES.

Geo. E. Upham,

A. D. Foner

INVENTOR.

A. Stockwell,

Chipman & Fosmer & Co,

attys.

AM. PHOTO-LITHOGRAPH'G CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

ALBERT STOCKWELL, OF WOONSOCKET, RHODE ISLAND.

IMPROVEMENT IN LOOM-PICKING MECHANISMS.

Specification forming part of Letters Patent No. **136,786**, dated March 11, 1873.

To all whom it may concern:

Be it known that I, ALBERT STOCKWELL, of Woonsocket, in the county of Providence and State of Rhode Island, have invented a new and valuable Improvement in Looms; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a front elevation of my invention. Fig. 2 is a cross-section of my invention.

This invention has relation to means for operating the picker-stick in loom mechanism, as hereinafter set forth.

In the accompanying drawing, the letter A designates the frame-work of a loom; B, the lower shaft with its gear-wheel *a*; C, the upper shaft with its cranks *b b* and gear-wheel *c*. Power is applied to this shaft at *d*. D represents the race with its standards *d'* and rock-shaft *e*. E represents one of the picker-sticks. To the inner face of each standard *d'* is pivoted a short rock-shaft, *a'*, carrying at one end an arm, *b'*, and at the other a segment-wheel, *c'*. To the arm *b'* is attached the picker-strap *d''*, which may be made sufficiently stiff to return the stick to its original position after the stroke. To the lower end of the segment is secured a band, *f*, connecting the latter with the bent lever F, which is pivoted to the sliding bar *g*, which works in the bearing *h* attached to the loom-frame. To the end of the upper or curved arm of the lever F is pivoted an anti-friction roller, *k*, opposite the crank-joint connection between the upper shaft and the arm *l* of the race. This arm is provided at its end with a toe or bunter, *z*, which, at every second revolution of the shaft, comes in contact with the roller *k*, and operates the picker-stick through the bent lever F. To the lower end of the slide *g* is attached an arm, *h'*, for engagement with a cam, *v*, on the lower shaft, designed to lift the slide, and the bent lever F at every second revolution of the upper shaft, thus raising the anti-friction roller *k* at such times sufficiently to clear the bunter *z*. Thus the bunter is arranged to strike said roller at every second revolution, the shuttle being returned at every alternate revolution of the shaft through the medium of similar mechanism in connection with the picker-stick at the other end of the race. G represents a large cam secured to the lower shaft under the bent lever F, and designed to hold said lever up to the front or inner end of the shuttle-box during the return of the shuttle in order to prevent the operative from introducing two shuttles into the loom at the same time.

The advantages of the mechanism described may be stated as follows: I am enabled to apply power to the crank-shaft instead of the lower shaft, and thus to avoid undue wear of the gearing. A degree of durability hitherto unattained is thought to be secured, and the loom is rendered capable of being run at increased speed.

In the arrangement described the lower shaft will only operate the harness and filling-cams.

What I claim as new is—

1. The combination, with the bunter *z* and bent lever F, of the slide *g* and cam *v*, substantially as specified.

2. The combination, with the bunter *z* and picking-lever F, of the holding-cam G, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALBERT STOCKWELL.

Witnesses:

EDWIN ALDRICH,

WILLIAM H. JENCKES.