E. Wood.

Picker Check.

No. 13,284. Patented Jul. 17, 1855.

Fig: 1.

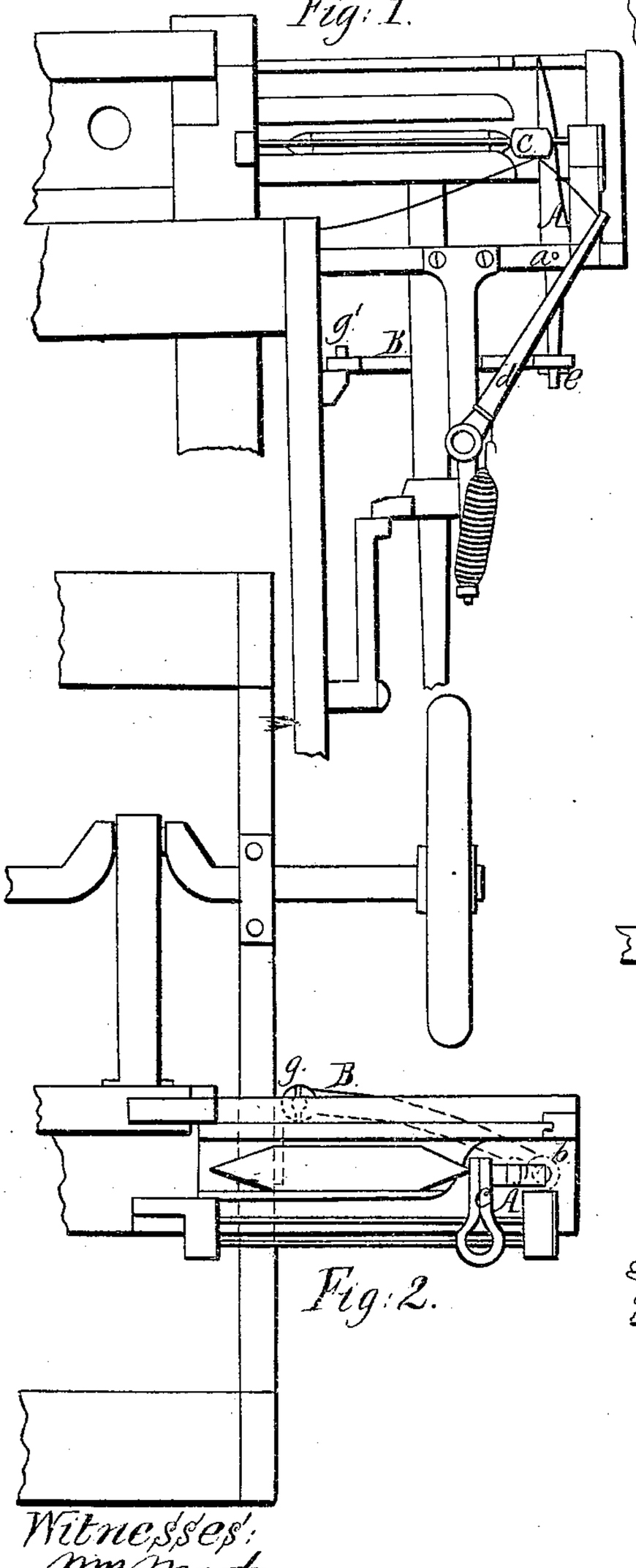


Fig: 2.

Witnesses:
Wm Brod
Morton Luby

Fig: 3.

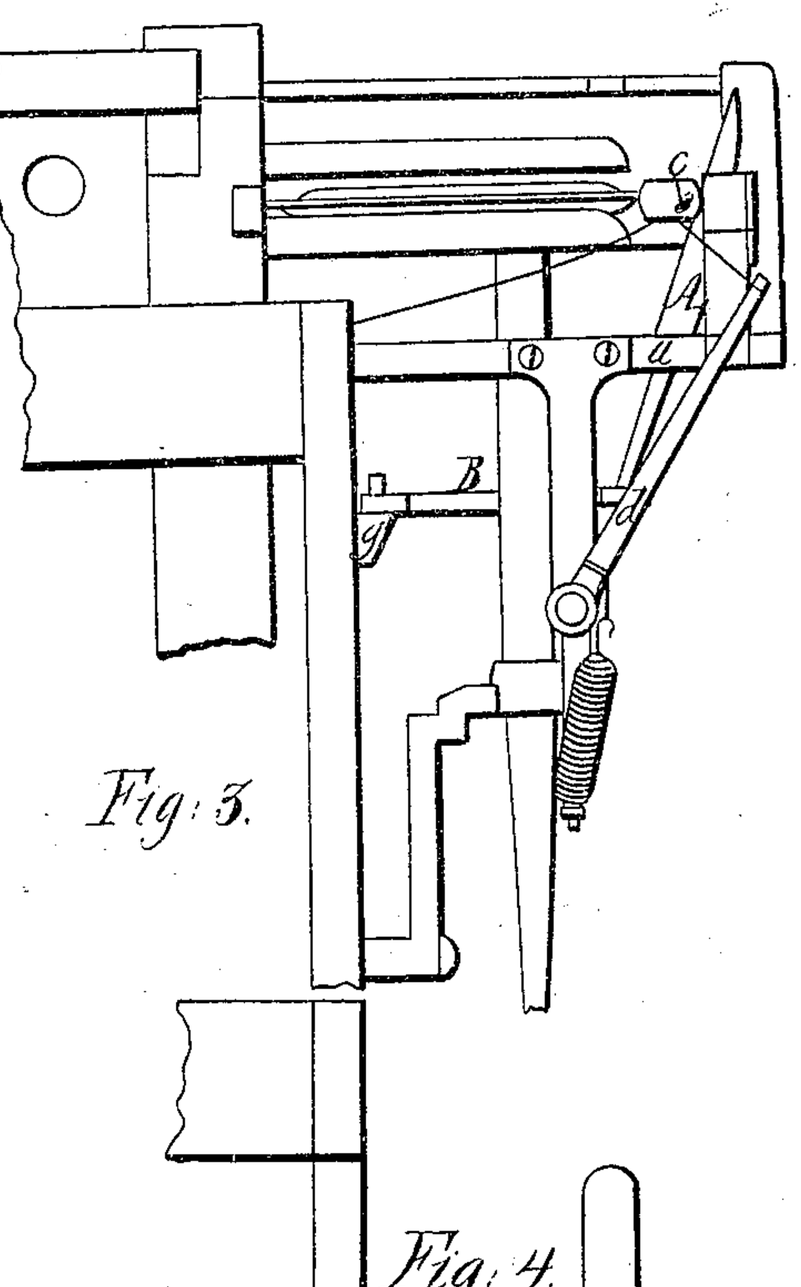
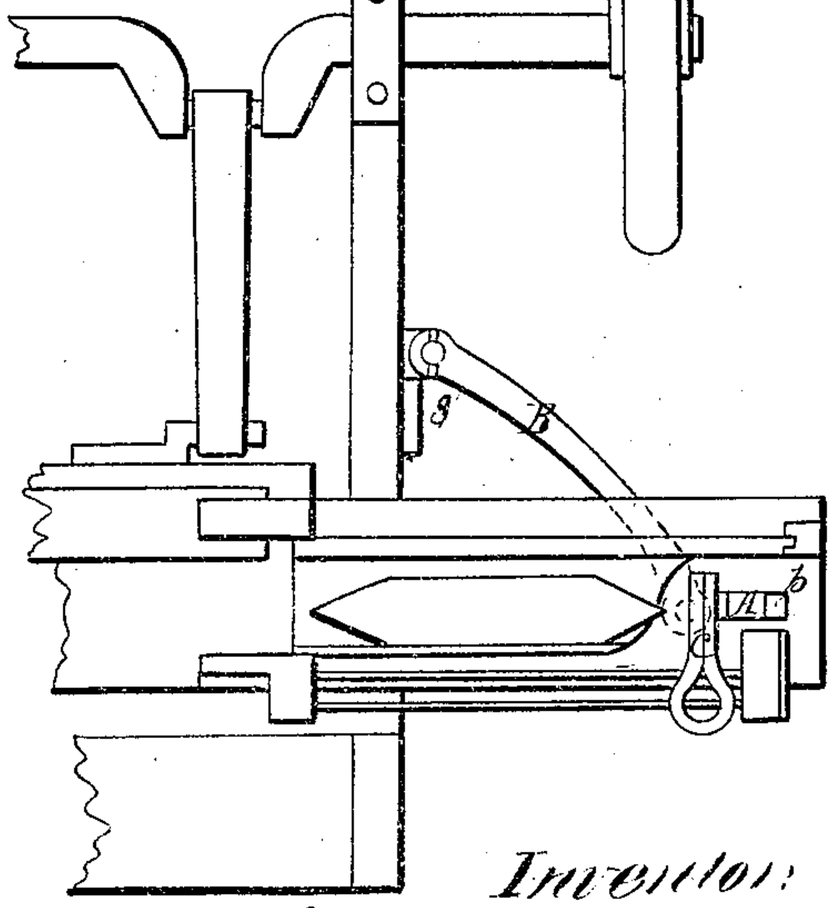


Fig: 4.



Inventor:
Edward Wood

UNITED STATES PATENT OFFICE.

EDWD. WOOD, OF PHILADELPHIA, PENNSYLVANIA.

LOOM.

Specification of Letters Patent No. 13,284, dated July 17, 1855.

To all whom it may concern:

Be it known that I, EDWARD WOOD, of the city of Philadelphia and State of Pennsylvania, have invented a new and useful 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 accompanying drawings, making a part of this specification, in which—

Figure 1, is a sectional front view of a loom, showing the improvement applied, and its position at the time the shuttle strikes the picker; and Fig. 2, a sectional plan view of the same; Fig. 3, is a sectional front view of the same parts of the loom, showing the position of the improvement just before the shuttle box commences to move; and Fig. 4, a sectional plan view of the same—like letters indicating the same parts when on the different figures.

The nature of my invention consists in the construction, arrangement and operation of the picker-stopper of those looms which require a moving shuttle box, so that it shall always be held in a firm, unyielding or non-elastic condition when receiving the blow of the shuttle on the arrival of the latter within the said box; and also so that it shall be compelled to move out from the point or tip of the said shuttle, so as entirely to relieve the same from all contact therewith, before the shuttle box commences to move, without the use of a rock shaft, cams, springs or other like objectionable and complicated devices for the purpose.

Referring to the drawings—A, is a vertical lever, of the first class, which is placed so as to oscillate upon a fulcrum pin (*a*) fixed across a slot (*b*) made through the bottom part of the lay at a short distance from the outer end of the shuttle box, so as to bring the upper half of the said lever directly opposite to the said outer end of the shuttle box; and so that it may also be made to recede from or approach the said end of the shuttle box.

B, is a rigid link or curved rod of metal, having one of its ends attached, by a joint, to the side of the frame of the loom (as at *g*,) and its other end attached in like manner, adjustably to the lower end of the lever (A). This link or curved rod (B) is made, in length, about a sixth (more or less) greater than the shortest distance which may be between the side of the frame of the loom and the lower end of the said lever (A), when the latter is in a vertical position; and arranged in connection with the frame of the loom so that when the lay is drawn back by the crank shaft, to its greatest distance, the lever (A) is thereby forced into a vertical position, as shown in Figs. 1 and 2; and when the lay is thrown forward, by the said crank shaft, to its greatest distance, the upper half of the said lever (A) is forced to an outwardly inclined position as shown in Figs. 2 and 3. Only when the lay of such looms is in the relative position shown in Figs. 1, and 2, the shuttle arrives in the movable box (being thrown from the opposite end of the lay), and the picker (*c*,) being, at this instant, held in close contact against the upper part of the lever (A), by the usual spring lever (*d*), receives the blow of the shuttle on its arrival within the said box, without the possibility of yielding thereto; and as the lay is then subsequently thrown forward by the crank shaft as before stated, the lower end of the lever (A) is necessarily compelled inward by the link or curved rod (B), so that before the lay has reached its greatest limit forward, the upper part of the said lever (A) has been compelled back sufficiently far to allow the picker to recede entirely from contact with the point of the shuttle which has been thus stopped, and the motion of the box up or down (which is required only during the forward position of the lay) is thus permitted without the possibility of any interference from the picker—as shown in Figs. 2 and 3. And beside the effect of the lever (A) as a picker stopper—it being made long enough to reach up to the highest position of the upper front of the shuttle box—and having an easy, gradual motion toward the said box in every backward motion of the lay, it serves the purpose also of regulating and keeping the boxed shuttles in place, in an admirable manner, thus rendering the guards heretofore required for this purpose, entirely unnecessary. The extent and velocity of the motion of the upper half of the stopper (A) is easily regulated by simply raising or lowering at any time, the link (B) at the point of its connection with the stopper, by means of the pin (*e*) and a series of holes adapted thereto in the cylindrical lower part of the said stopper.

From much practical experience I find that a picker is much more durable when

held by a rigid or non-elastic support or stopper, during the blow of the shuttle, as herein described and set forth, than when held or supported by an elastic or yielding rest of any kind—and that there is no necessity for such an elastic quality in a picker stopper, for the purpose of "preventing the cop being jarred off the spool." The superior utility of my invention is manifested in its perfect adaptation to the purposes described; and in its greater simplicity of construction, arrangement and operation, and consequent durability and cheapness.

I am aware that several combinations of devices are in use for the purpose of operating an elastic or yielding stopper for the picker of looms, and also for allowing the free motion of the shuttle-boxes—which are dependent for their action either upon the shuttle itself, or upon the motion of some part of the loom—I therefore do not claim the application of the principle for arresting the picker by a combination of devices arranged so as to make the stopper elastic or yielding to the blow of the shuttle, and allowing the free motion of the shuttle box up and down; but

What I claim as my invention and desire to secure by Letters Patent is—

The rigid or non-elastic picker stopper (A), constructed and arranged upon the lay substantially as described, and operated by means of the rigid link or curved rod (B) or its equivalent, when in connection with the said stopper (A) and the frame of the loom, substantially and for the purposes as herein described and set forth.

EDWARD WOOD.

Witnesses:
WM. WOOD,
MARTIN LUTZ.