

(No Model.)

J. HORSFALL.

Picker Stick and Picker for Looms.

No. 241,016.

Patented May 3, 1881.

Fig. 1.

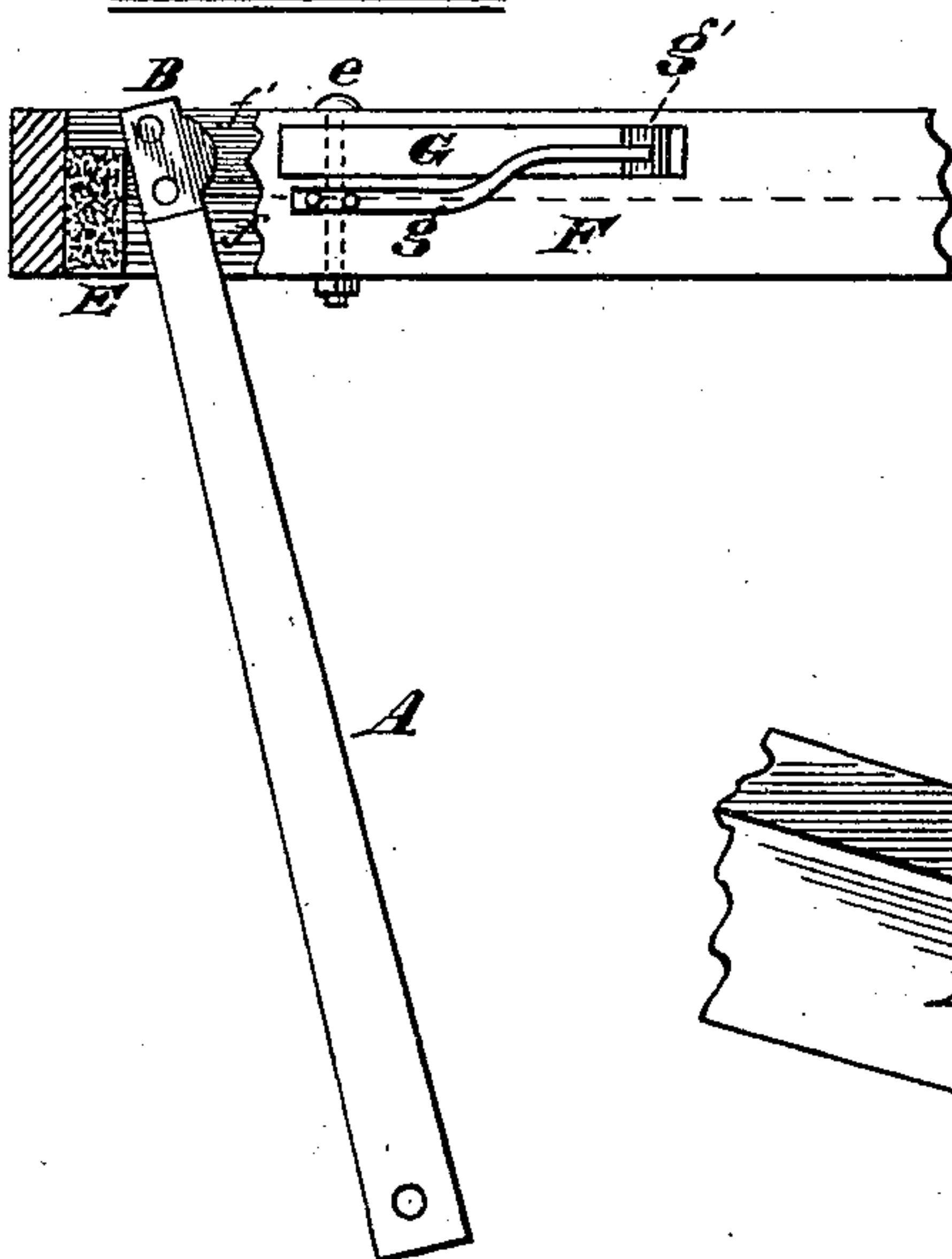


Fig. 2.

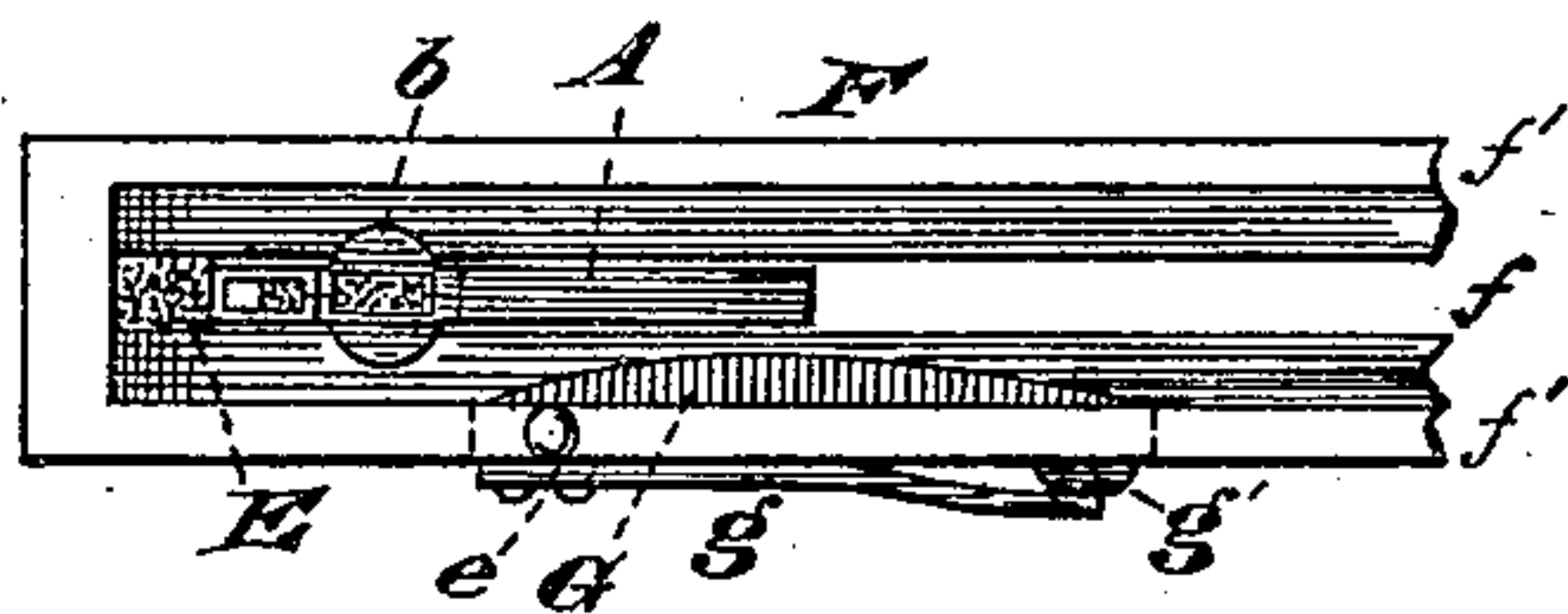


Fig. 3.

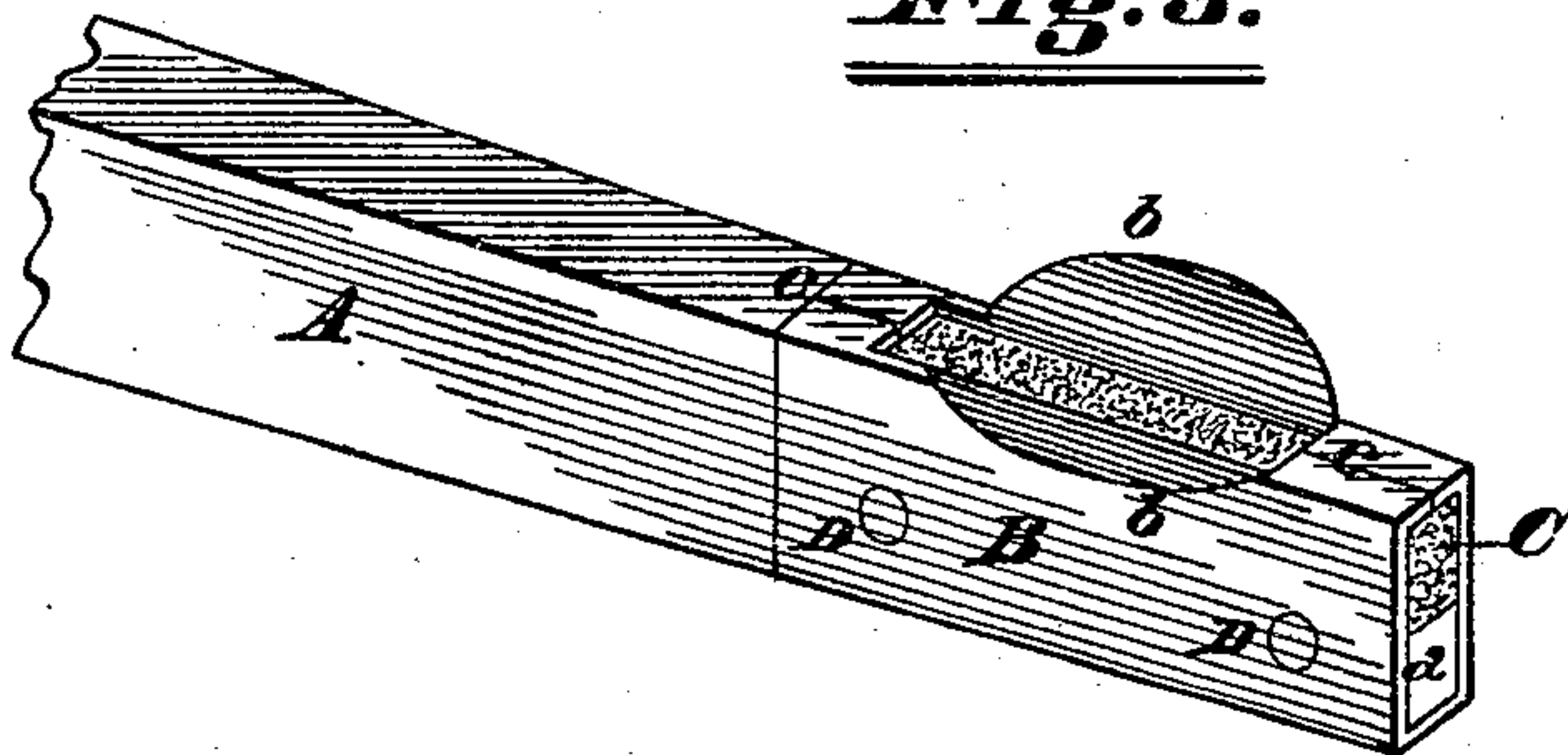
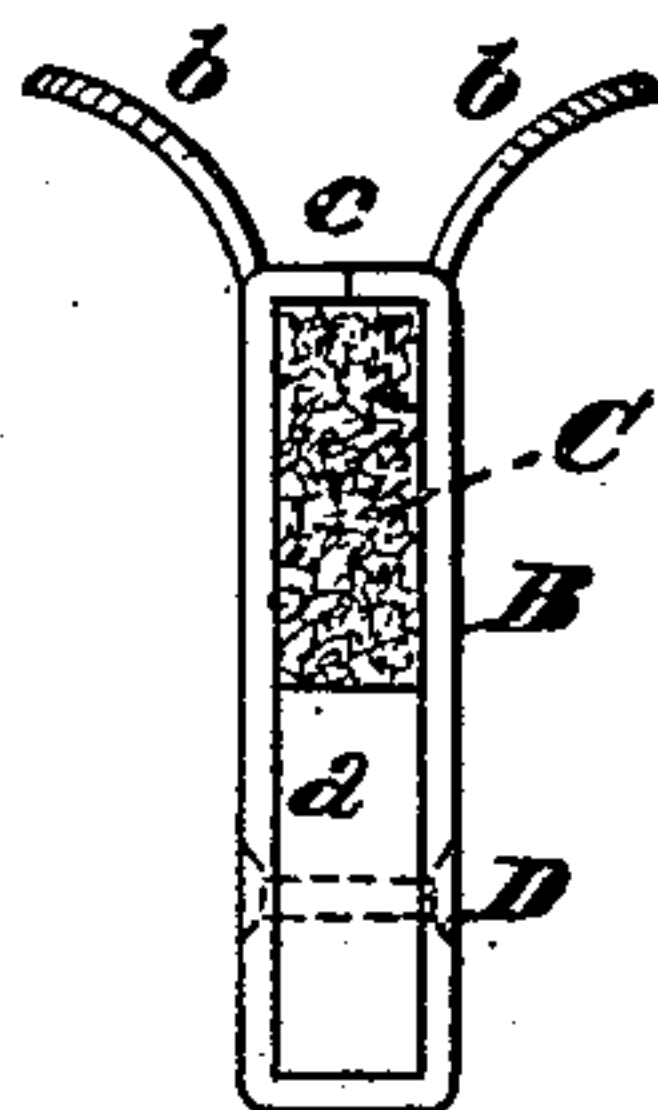


Fig. 4.



*Attest*

*for S. Jones*

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# UNITED STATES PATENT OFFICE.

JONATHAN HORSFALL, OF NEWPORT, KENTUCKY.

## PICKER-STICK AND PICKER FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 241,016, dated May 3, 1881.

Application filed July 3, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JONATHAN HORSFALL, of Newport, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Picker-Sticks and Pickers for Looms, of which the following is a specification.

The object of this invention is to prevent the throwing of the shuttle out of a horizontal plane by the picker-stick, the propelling end of which travels in a curved path in giving motion to said shuttles.

It consists in a picker-stick and picker composed of a suitable stick having its outer end surrounded by a metal boxing with a longitudinal oblong opening in its front, the front portion of the stick being cut away to form a chamber within the boxing, in which chamber is located a picker-pad extending the whole length of the opening in the boxing, while from opposite sides of the front of the said boxing curved guides or guard-plates project forward and outward, for the purpose of guiding the shuttle to the pad.

It consists, further, in the combination, with the said boxing and guards, of a picker-stick having its outer end so cut away as to form a chamber between the side walls of said boxing, with its outer end open for the ready insertion and removal of the picker-pad. The curved form of the guards and the extended face presented by the pad allow the parts to move vertically on the end of the shuttle, with but slight tendency to change its straight horizontal direction.

In the accompanying drawings, Figure 1 is a vertical elevation, showing my improvement in connection with the shuttle-box of the loom, part of the shuttle-box being broken away. Fig. 2 is a plan view of the same. Fig. 3 is a perspective view of my improved picker-stick and picker. Fig. 4 is an end view of the same.

The letter A designates a picker-stick, the upper end of which is surrounded by a metallic boxing, B, the front portion of the end of the stick within the boxing being cut away and reduced to a width, as shown at *a*, to form a chamber within said boxing to receive the picker-pad C. A portion of the front wall of

the boxing B is cut away to form a longitudinal oblong opening to expose the face of the pad C, portions *c c* of said wall serving to hold the pad which extends behind them in its chamber.

The letters *b b* indicate the guide or guard plates, which curve forward and outward or laterally from the opposite sides of the pad and boxing, being preferably formed in one piece with said boxing. The general curve of these guides conforms to the taper of the end of the shuttle, and they are sufficiently far apart to allow a slight lateral motion of the same. The curved converging form of the guides is material not only in guiding the shuttle to the pad, but to allow them to move vertically on the end of the shuttle in their curved motion and with but little tendency to rock or lift the shuttle, which is thus enabled to be thrown in a straight line by the picker-stick. The boxing B is secured to the picker-stick by rivets D.

The letter F indicates one of the shuttle-boxes at the end of the lay-beam. G is the shuttle-binder, and *g* its spring. E is an elastic buffer placed at the rear end of the shuttle-box to receive the back-stroke of the picker-stick and prevent shocks.

Having now described the construction and operation of my invention, I claim—

1. A picker-stick and picker for looms, composed of the stick A, open-front metal boxing B, curved converging guards *b b*, and the picker-pad C, constructed and combined substantially as herein set forth.

2. The open-front metal boxing B and curved converging guards *b b*, in combination with the picker-stick having its outer end cut away to form a chamber between the side walls of said boxing, said chamber being open at its outer end and adapted to permit the ready insertion and removal of the picker-pad, substantially as described.

In testimony whereof I have hereunto set my hand this 30th day of June, 1880.

JONATHAN HORSFALL.

Witnesses:

E. E. WOOD,  
WILLIE GAMBLE.