

C. E. SMITH.
Picking Mechanism.

No. 133,493.

Patented Nov. 26, 1872.

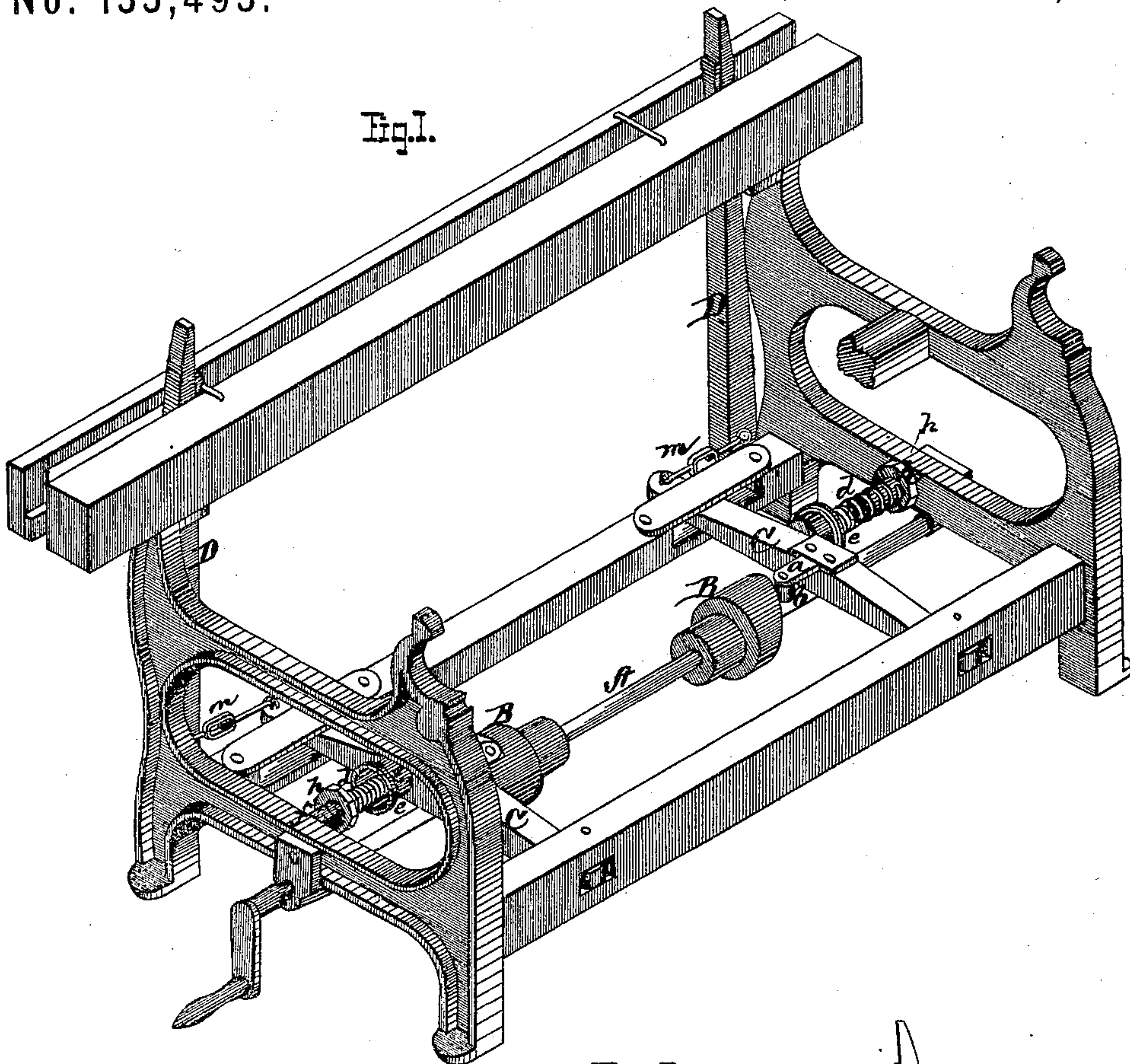
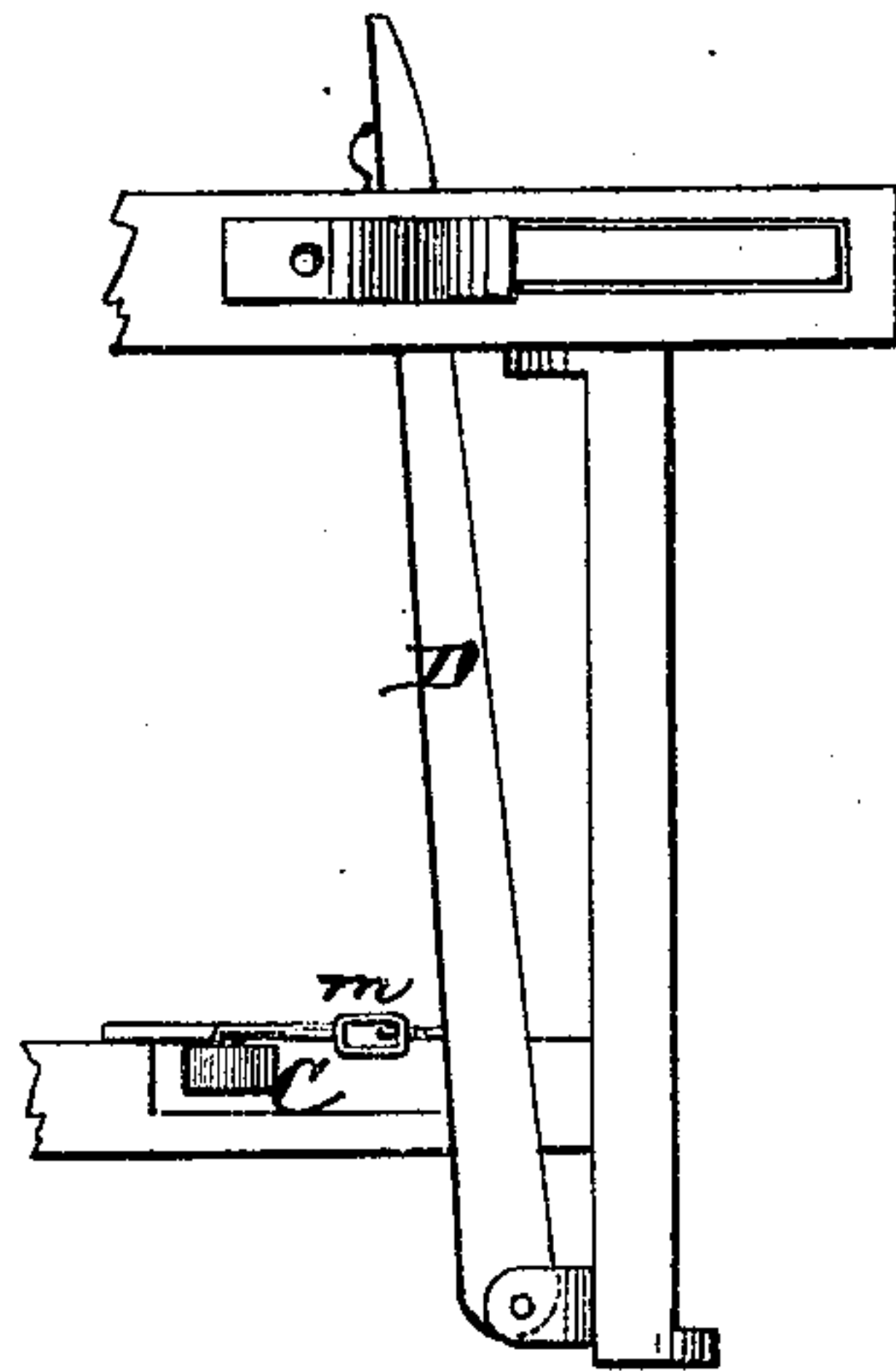
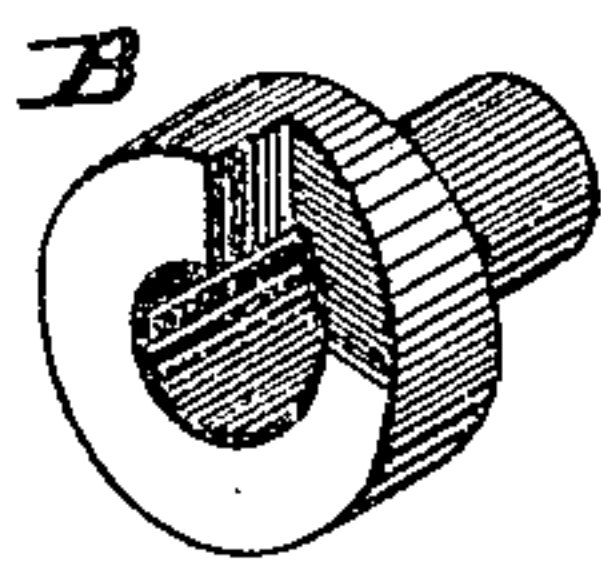


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHARLES E. SMITH, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN LOOM-PICKING MECHANISMS.

Specification forming part of Letters Patent No. 133,493, dated November 26, 1872.

To all whom it may concern:

Be it known that I, CHARLES E. SMITH, of Lowell, in the county of Middlesex and in the State of Massachusetts, have invented certain new and useful Improvements in Looms; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making part of this specification.

The nature of my invention consists in the construction and arrangement of certain devices for operating the picker-staffs for throwing the shuttle in looms, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of so much of a loom as will illustrate my invention, and Fig. 2 represents detached parts of the same.

A represents a horizontal shaft, upon which are secured two cams, B B, for alternately operating the levers C C. These levers are placed horizontally, each being pivoted at one end to a cross-bar in the frame of the loom, and at or near its center provided with an arm, *a*, to the outer end of which a friction-roller, *b*, is affixed, against which roller the cam works. The lever is pressed inward against the cam by means of a spiral spring, *d*, one end of which is placed in a socket, *e*, attached to the lever, and the other end placed around a screw, *f*, fastened to the frame of the loom. On this screw is a nut, *h*, against

which the end of the spring *d* bears, and which nut may be moved out or in on the screw, as desired, to regulate the tension of the spring, thereby giving more or less power for operating the picker-staffs, as occasion may require. The outer ends of the levers C C are connected with the picker-staffs D D by means of adjustable rods *m m*, or rods that may be lengthened or shortened at will, thereby giving more or less throw to the staffs, as may be desired.

By the operation of these devices the shuttle is thrown with equal velocity, however slow or fast the other parts of the loom may be moving.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the levers for operating the picker-staffs of looms, the adjustable springs *d d*, sockets *e e*, screws *f f*, and nuts *h h*, all substantially as and for the purposes herein set forth.

2. The combination of the cams B B, levers C C with arms *a* and friction-rollers *b b*, adjustable springs *d d*, adjustable connecting-rods *m m*, and picker-staffs D D, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of August, 1872.

CHARLES E. SMITH.

Witnesses:

J. S. WHITNEY,
F. E. ROLLINS.