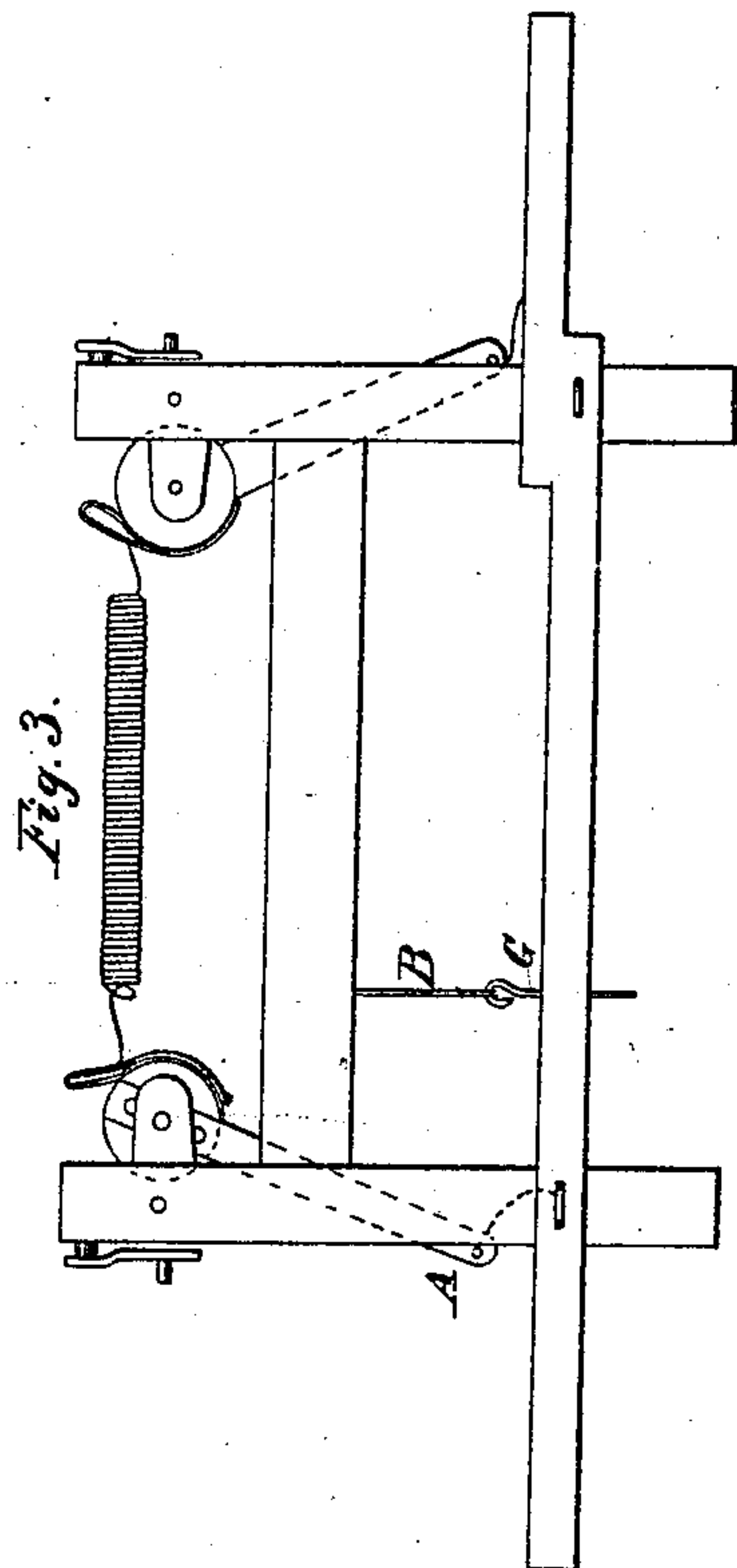
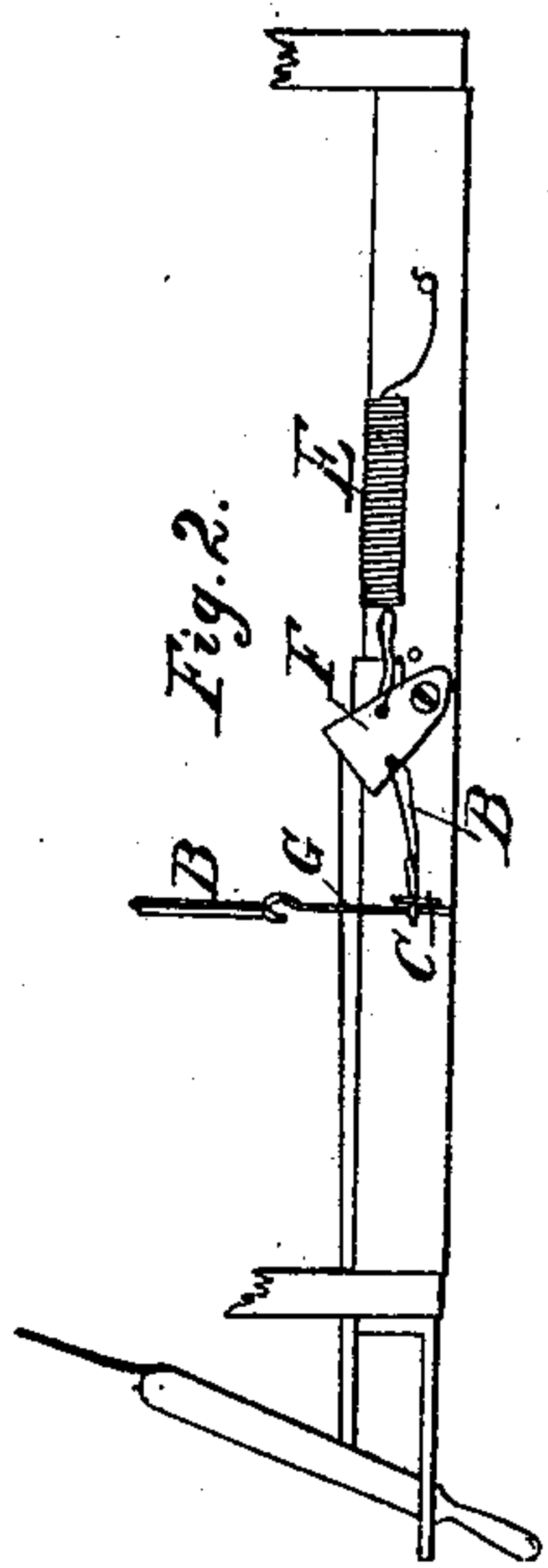
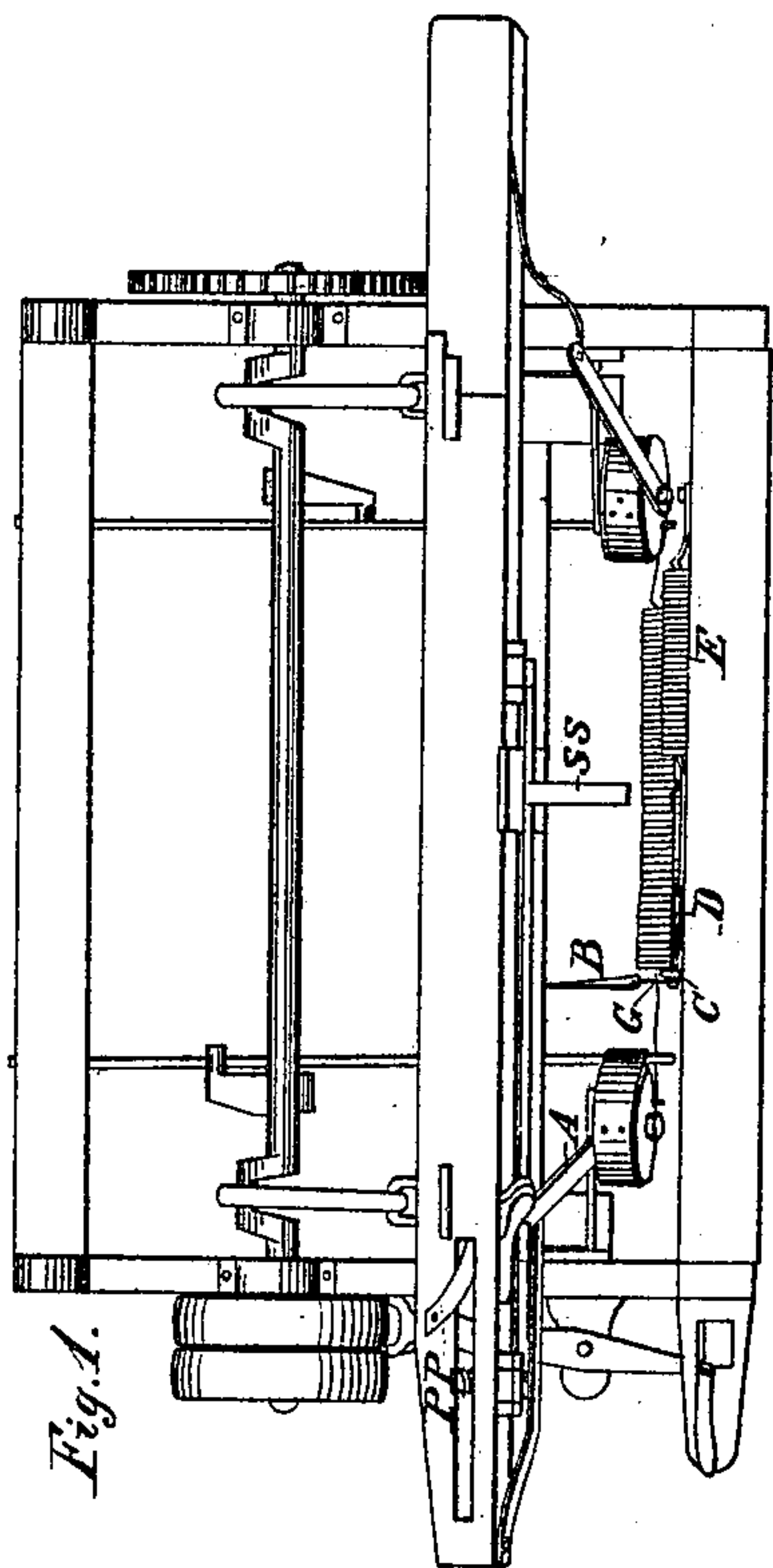
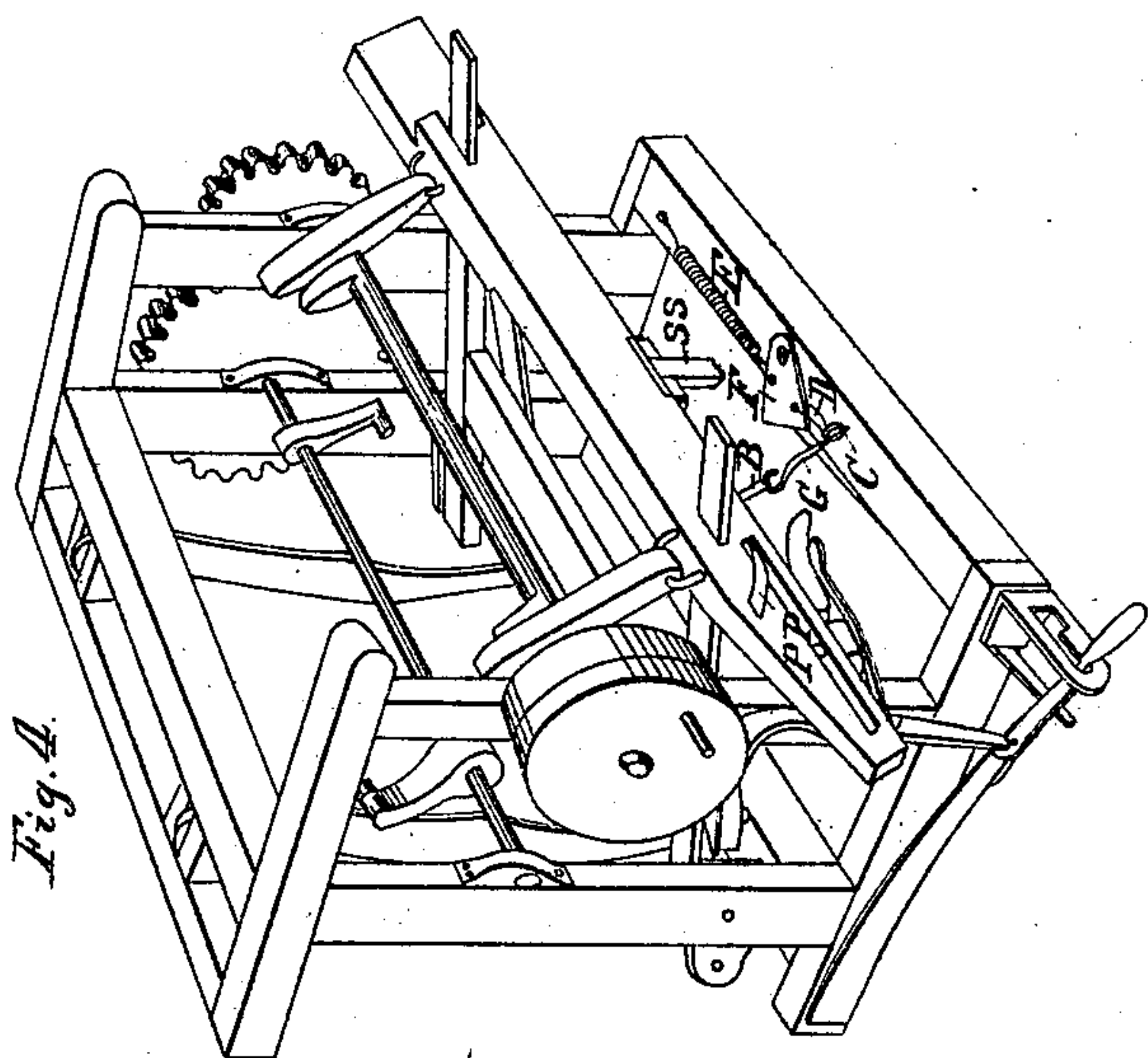


W. BAIRD.
POWER LOOM.

No. 10,290.

Patented Nov. 29, 1853.



UNITED STATES PATENT OFFICE.

WILLIAM BAIRD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO JOHN J. HEPWORTH.

POWER-LOOM.

Specification of Letters Patent No. 10,290, dated November 29, 1853.

To all whom it may concern:

Be it known that I, WILLIAM BAIRD, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Mode of Preventing Smashes in the Drop Box Power-Looms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation. Figs. 2 and 3 are detached views. Fig. 4 is a prospective view.

The nature of my invention consists in an arrangement for immediately arresting the forward motion of the lay of the loom when a picker stop breaks, which arrangement at the same time is made to stop the motion of the loom.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

I construct a metallic plate F one end of which is secured to the breast beam near the top, by means of a screw, so that it may be moved in either direction, parallel with the surface of the breast beam. This plate is suspended in a vertical position directly over the palm of the breast beam lever, and must be made long enough so that it will project over the palm of said lever a short distance, in order to prevent the protector rod fingers, S, S, from passing under the breast beam, which brings said protector rod fingers immediately in contact with the plate F, this plate, thus forced against the palm of the breast beam lever acts on said lever and causes it to shift the belt on to the loose pulley and at the same time prevents the lathe from coming forward far enough to catch the shuttle should it stop in the single box.

Plate F is attached to the staple c, by means of a rod D on the end of which is formed a loop. This loop passes through the staple and is secured in that position while the loom is in operation by means of a pin G, this pin is connected to the cross bar of the lathe by means of a strap B. To the other edge of the plate I attach a spiral spring E, for the purpose of drawing plate F to the desired position in case of accident to the picking strap.

Having thus fully described the construction of my invention I will now proceed to set forth its operation.

In ordinary cases when the loom is in operation the plate F is secured as seen in Fig. 2, but in case of accident or when the picker strap breaks the picker stick strikes the strap B and withdraws the pin G from the loop in the rod D. Thus the plate E is relieved. It is then instantly acted upon by the spring E, which draws it directly over the palm of the breast beam lever where it is stopped by a pin d. This prevents the lathe from coming forward so that it can strike the shuttle and at the same time shifts the belt on to the loose pulley.

I do not claim the mode of shifting the driving belt from the fast pulley to the loose and thus stopping the loom. But

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

The arrangement of the plate F, with its spring, link, staple, and pin, so that when a picker strap breaks the picker staff will relieve the plate and thus immediately arrest the forward motion of the lay in the manner described.

WILLIAM BAIRD. [L. s.]

Witnesses:

J. J. HEPWORTH,
JOHN THORNLEY.