

E. Burt
Stop Motion.

No. 4,088.

Patented Jun. 20, 1845.

Fig. 1.

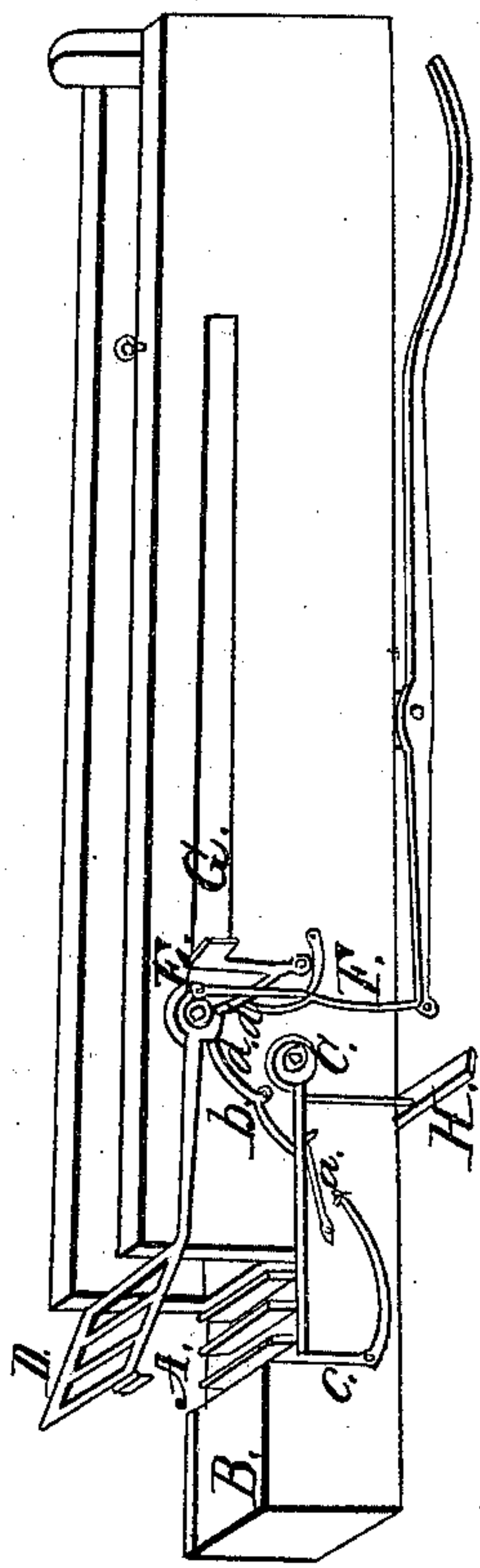
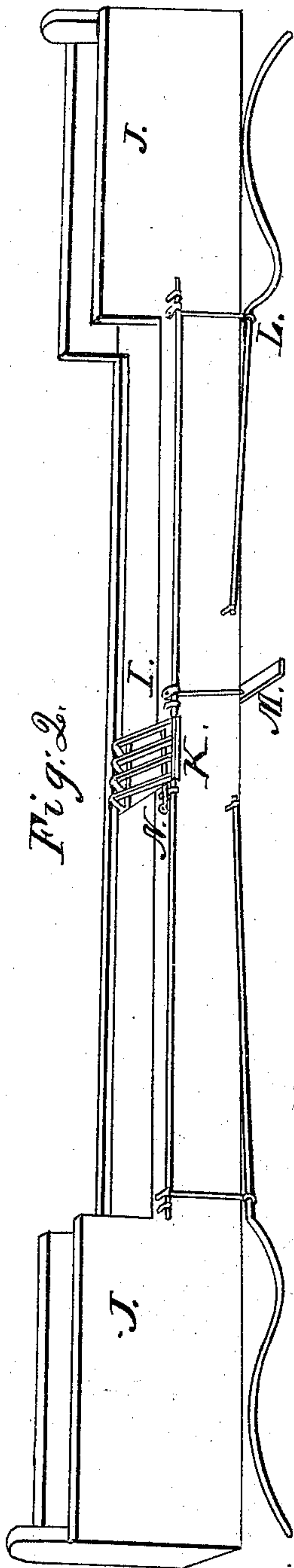


Fig. 2.



UNITED STATES PATENT OFFICE.

ENOCK BURT, OF MANCHESTER, CONNECTICUT.

STOP APPARATUS OF LOOMS.

Specification of Letters Patent No. 4,088, dated June 20, 1845.

To all whom it may concern:

Be it known that I, ENOCK BURT, of Manchester, county of Hartford, and State of Connecticut, have invented a new and useful improvement in stopping power-
5 looms upon the woof-thread breaking or the bobbin becoming empty, of which there are two varieties and of which the following is a full and exact description.

10 Figure 1, represents a section of lay and one shuttle box. In front of the shuttle box nose is the comb, A, falling into a cavity extending across the race B, and hung on the stud, C. This comb is held up, by
15 the spring *a'*, so that its teeth rise a little above the face of the race B. Above this comb, is another, D, hung on the stud E. The teeth of these combs pass freely between each other. The upper comb is raised to
20 the top of the shuttle box nose, while the lower comb is depressed by the lever *b*, and held down by the catch *c*, to permit the shuttle to pass out between them. The upper comb is raised by the lever, F, acted
25 upon by the picker staff, and is held up by the catch, *d*, until the shuttle returns into the box by which the guard G, is forced out, unlocking the catch *d*, upon which the comb D, falls upon the race B, by which the
30 lower comb A, is unlocked, and permitted to rise, meeting the upper comb, and its teeth passing up between those of the latter in case there is no woof-thread passed across between them, and the protecting finger H,
35 is thereby raised, by means of the coupling and strikes the latch of the loom, by which it is stopped, and the belt cast off, in the same manner, and time, as when the shuttle fails to box, but in case the woof-thread is
40 between the combs, it prevents the lower comb from rising, and consequently, finger H, passes below the latch, permitting the loom to continue its motion.

My second variety of woof-protection, is

placed on the race, midway between the two
45 swords, and consists, see Fig. 2, of a comb K, hung on the front of the race I, and extending across the face of the race. That part of the comb that extends across the
50 race, consists of an indefinite number of slips of metal, so thin as to pass freely between the warp threads, and on the face of the race is a cavity, to permit the comb to sink down to a level with face of the
55 race, while the shuttle is passing through the web, as soon as it has passed, the comb K, rises, by means of the spring N, beneath it, and the stops, or teeth of the comb, pass up between the warp threads in case there
60 is no woof-thread to obstruct them, and rises with the protecting finger M, with which it is coupled so that its extremity, comes in contact, with the latch of the loom
as the lay is moving forward to beat up the
65 woof, and stops the loom, before the reed reaches the cloth, and casts off the belt. But in case the woof thread is present, the teeth of the comb are obstructed by it, and the loom, consequently, continues its motion.

In the foregoing described, first and
70 second variety of woof protection I claim as my improvement, and desire the same secured to me accordingly.

The hanging of the combs or limbs before described, upon the race beam itself in such
75 manner as to sink to the face of the race as the lay moves back to admit the shuttle to pass smoothly over it, and rise immediately after, (if there be no woof-thread), bringing the protecting finger in contact
80 with the latch or cast off, arresting the lay, in its first downward progress, and instantly stopping the loom.

ENOCK BURT.

Witnesses:

RALPH R. PHELPS,
MARY PHELPS.