

N. CHAPMAN.
TEMPLE BARS FOR LOOMS.

No. 177,373.

Patented May 16, 1876.

Fig. 1.

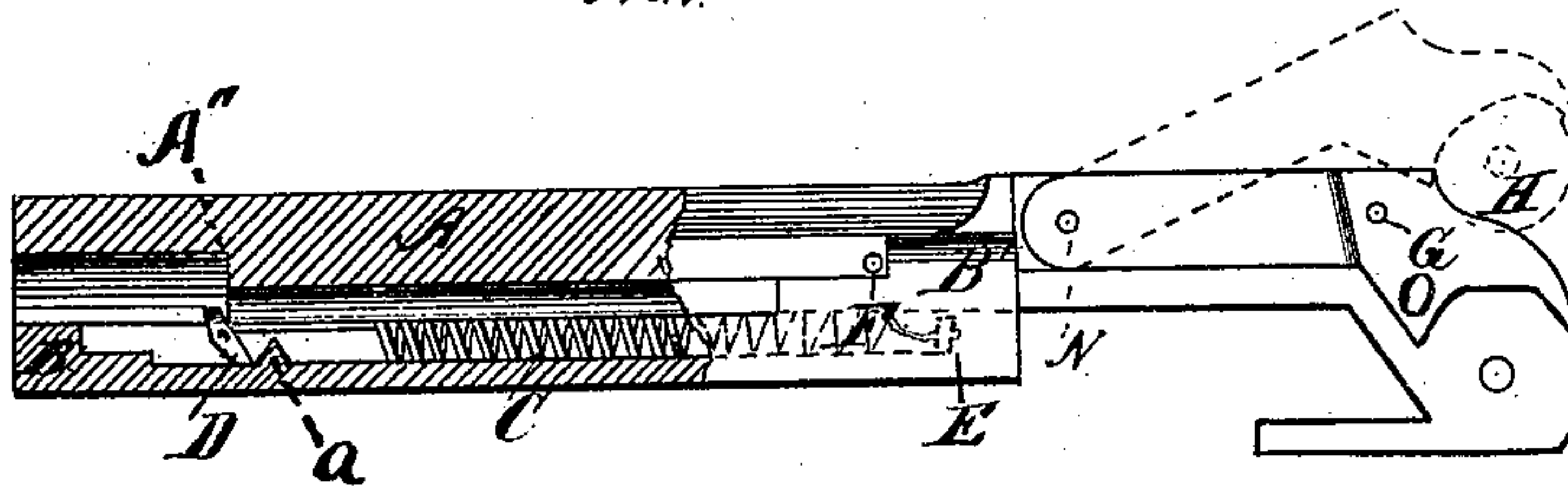


Fig. 2.

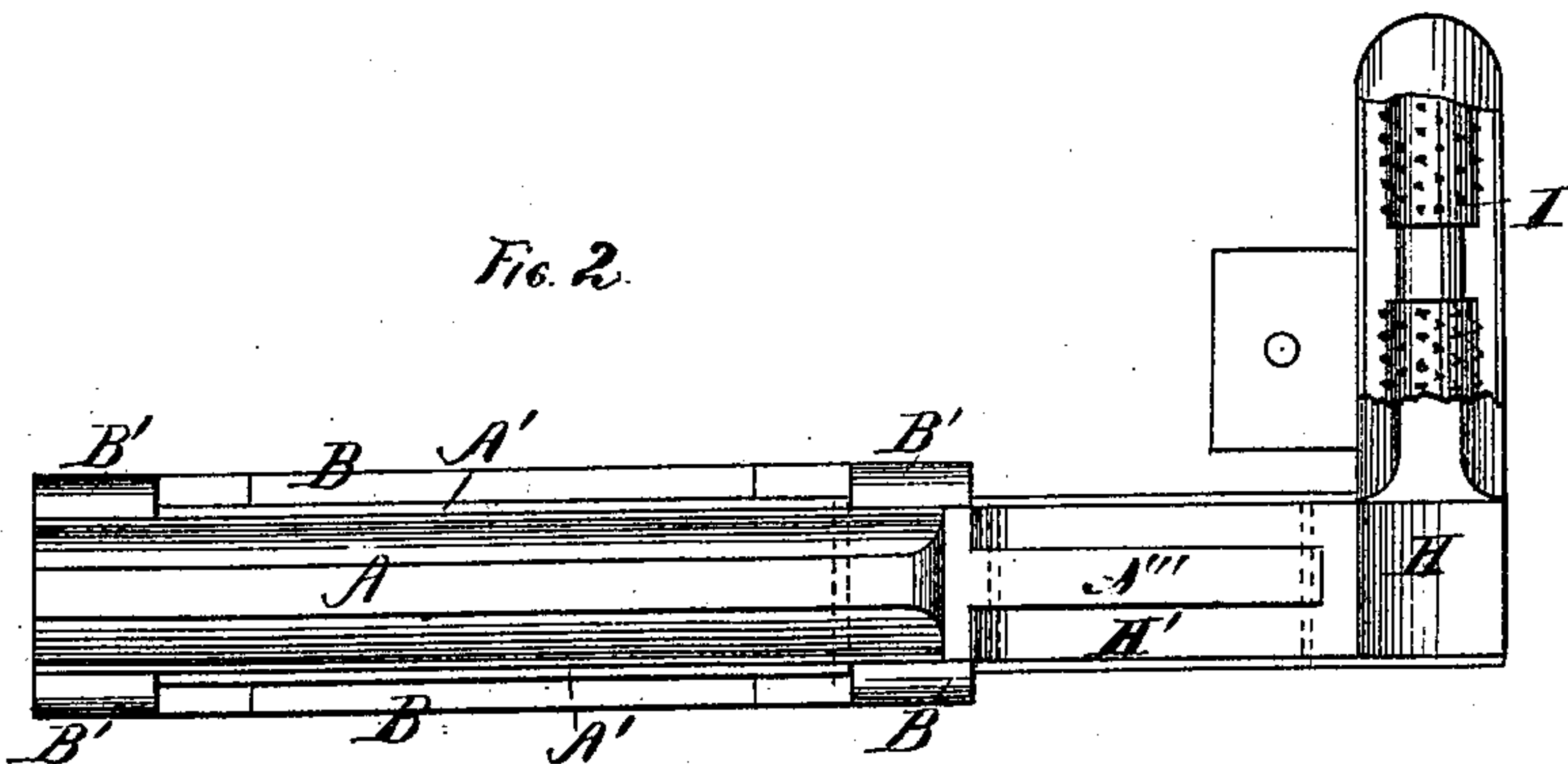


Fig. 3.

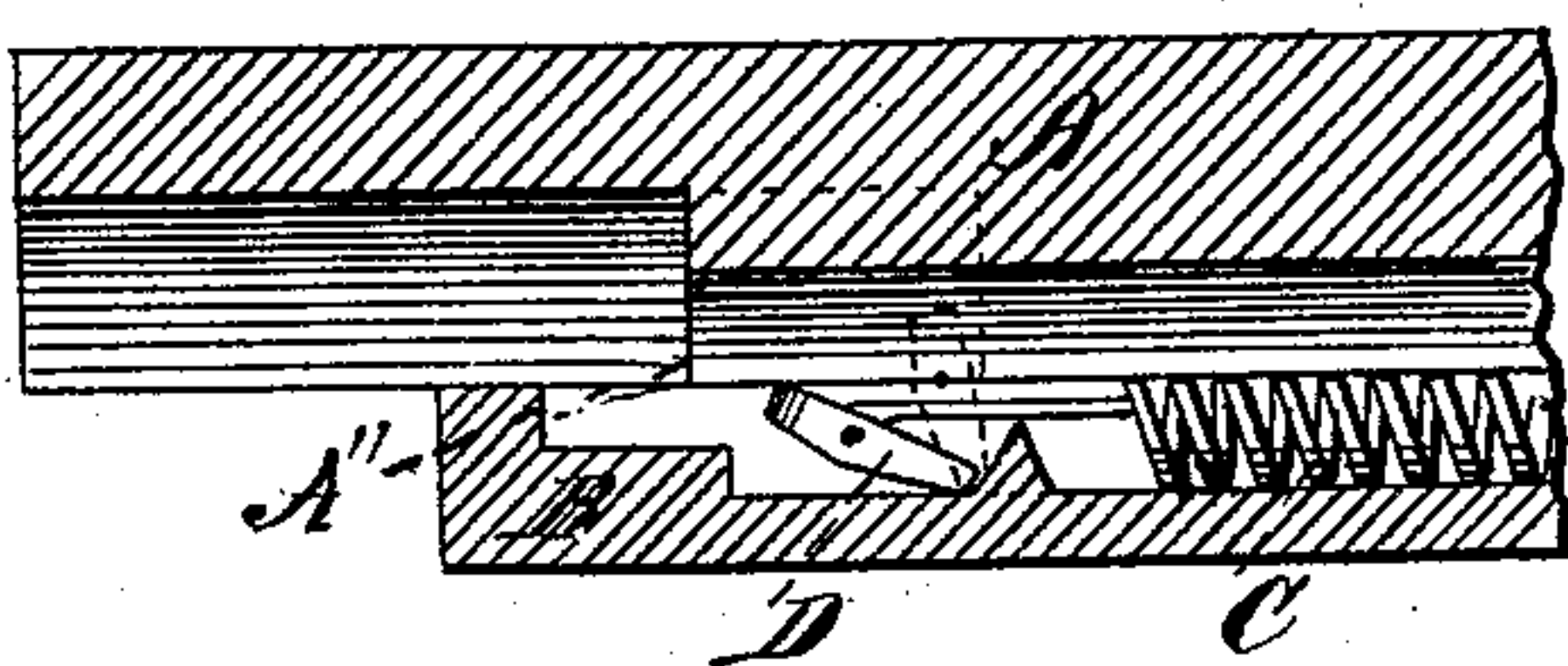


Fig. 4.

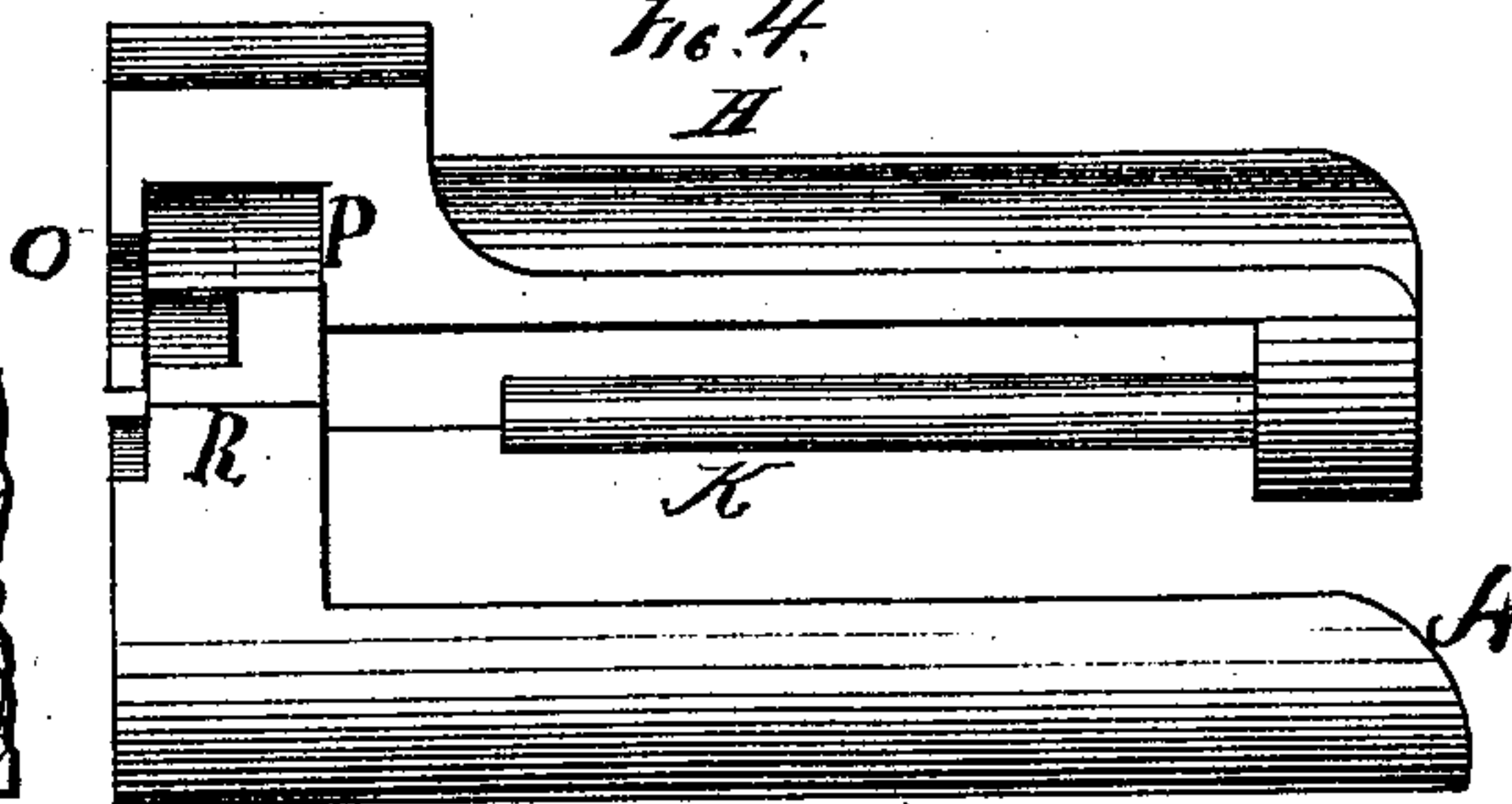
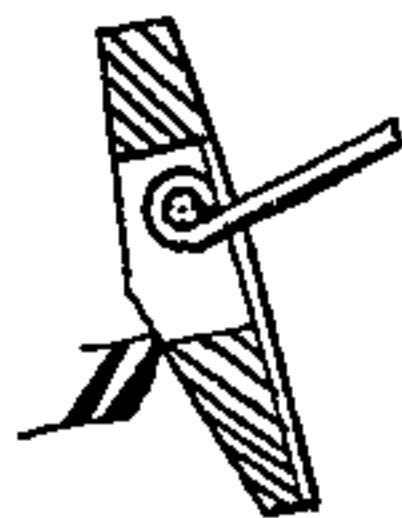


Fig. 5.



WITNESSES
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IMPROVEMENT IN TEMPLE-BARS FOR LOOMS.

Specification forming part of Letters Patent No. **177,373**, dated May 16, 1876; application filed January 6, 1876.

To all whom it may concern:

Be it known that I, NATHAN CHAPMAN, of Hopedale, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Loom-Temples, of which the following is a full, clear, and exact description, sufficient to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

In the accompanying drawings, Figure 1 is a side view of my improved temple-bar. Fig. 2 is a top view, with part of the cap cut away to show the position of the roll. Fig. 3 is a partial longitudinal section through the carrier, a top view of which is shown in Fig. 2. Fig. 4 is a front view with the cap raised to show the roller-supporting spindle. Fig. 5 is a detached view, showing the spring and temple-carrier connector.

Reciprocating roller-temple-bars moved by the lay, as heretofore constructed, have been provided with springs to throw the temple forward when pushed back in the operation of weaving, and in such temples various plans have been devised to automatically hold back the carrier for the temple-head while the weaver corrected mispicks or other imperfections in weaving, the spring during such time being greatly compressed.

This invention consists in a spring so combined with the carrier as to hold it with the temple-head forward during the regular weaving operation of the loom, so as to be moved with or by the lay, as usual; but when for any reason—as, for instance, to correct imperfections in weaving, or to pick out weft—the carrier is moved back toward the breast-beam farther than usual when weaving, then the carrier is relieved from the action of the spring, and will remain in any position in which it may be placed, and when it is desired to again move the temple-head forward in operative position with reference to the lay, then the carrier, in passing forward to this position, is again automatically placed under control of the spring.

The carrier A for the temple-head (shown as provided with flanges A') is adapted to move with relation to its supporting stand or case B, hooks or lugs B' embracing, in this instance, the flanges. The spring to hold the carrier forward to be moved by or with the lay is shown at C, and as connected at one end with a pin, E, on the stand or case, and at its other end with a releaser, D, (shown as a lever or block,) adapted to rest with its lower end against a holding-stop, a, on the case, and its upper free end (the releaser being subjected to the direct action or strain of the spring) is pressed against the carrier. When the carrier is placed so as to be moved by the lay, then the upper end of the releaser bears against a shoulder, A'', of the carrier, and the spring holds the temple-head forward in operative position, and the carrier is reciprocated under the action of the lay and spring, as usual.

When it is desired to correct imperfections in the weaving, or to remove weft, the temple head and carrier must be moved back toward the breast-beam, to afford access to the warps at the cloth-making point, and then the carrier has been locked either by a holder or by a shoulder on the carrier that engaged a fixed projection. In this instance the carrier is not engaged or held back positively, as heretofore; but, on the contrary, when the carrier is moved back toward the breast-beam far enough to pass its shoulder A'' beyond the end of the releaser, then the releaser bears on the under side of, and acts with an upward pressure against, the carrier, such pressure having no tendency to move the carrier horizontally, and in such position (see full lines, Fig. 3) the carrier will remain at rest without being locked or held back, and when it is again desired to place the temple-head in operative position it (with the carrier) is moved forward, and as the shoulder A'' passes the releaser the carrier is subjected to the action of the spring, as usual. The forward position of the carrier is determined by the pin F and lug B'. The cap H covers the roll I, Fig. 2, supported on the usual spindle K. This cap is hinged to the bar A by means of a pivot, N, Fig. 1, and a slot in the cap embraces a strong rib, A''',

which gives additional strength to the bar at a point where stiffness is required, and at the same time the rib holds the cap tightly in place, and a lip, O, and a shoulder, P, grasp a projection, R, and assist to steady the cap. A locking-pin, G, Fig. 1, holds down the cap H. It will be noticed that this hinge does not interfere with the sliding of the bar A.

I am not aware that a temple-carrier and its spring have ever before been combined, so that in one position the spring presses the carrier toward the lay, and then in another position, nearer the breast-beam, the spring has no tendency to move the carrier, the change in the condition of the spring with relation to its action on the carrier being, in this instance, automatic.

I do not, therefore, desire to limit my invention to the exact devices shown and described, for such devices might be changed or varied without departing from the essential feature of this invention, as hereinabove described.

I claim—

1. The combination of a movable temple-carrier and supporting stand or case with a spring, adapted to press the carrier forward, to be moved by or with the lay, and to be thrown out of action with relation to the carrier when the temple head and carrier are moved back beyond the backward position to which the temple-head is usually moved by or with the lay during the regular operations of weaving, substantially as described.

2. The combination, with the case and carrier, of the spring and the releaser, adapted to operate with the carrier and its shoulder or projection, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

NATHAN CHAPMAN.

Witnesses:

EDWIN ALDRICH,
MOSES HOBURT.