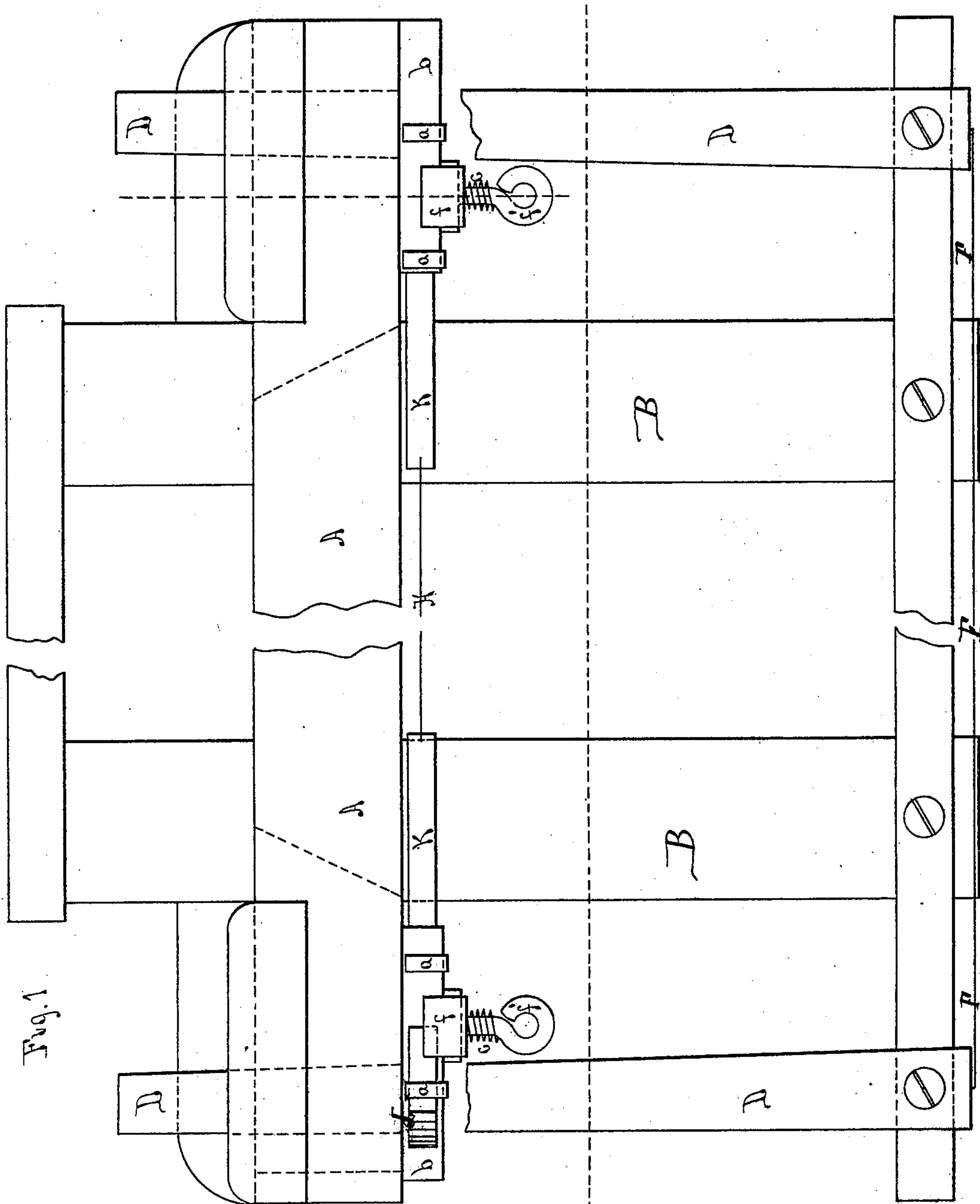


S. GREENWOOD.  
PICKER CHECKS FOR LOOMS.

No. 177,393.

Patented May 16, 1876.



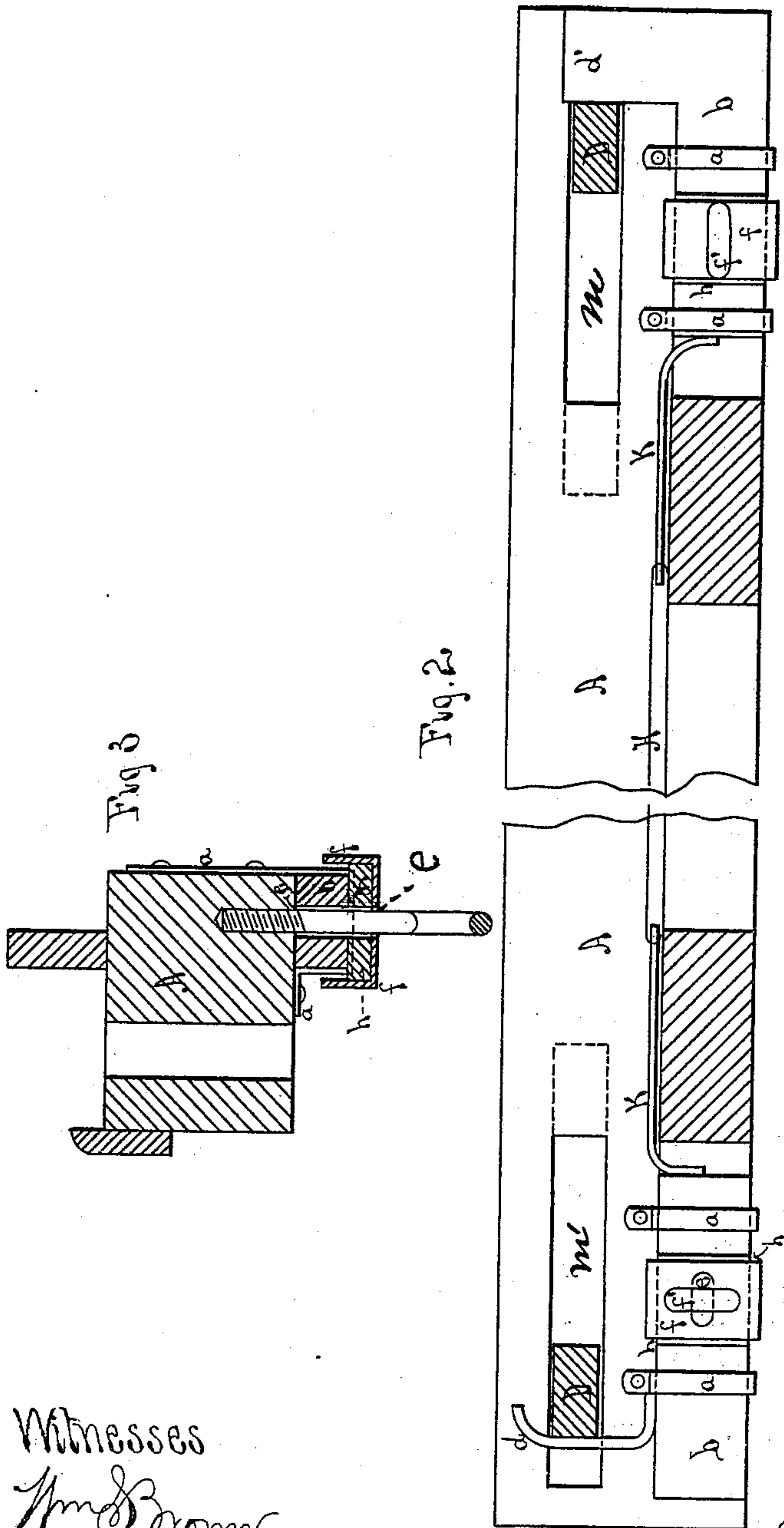
Witnesses  
Amos Brown  
Nathan Brown

Inventor  
Samuel Greenwood  
By his Attorney  
John C. Crane

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Witnesses

*Wm. D. Brown*

*Nathan Brown*

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# UNITED STATES PATENT OFFICE.

SAMUEL GREENWOOD, OF LOWELL, MASSACHUSETTS.

## IMPROVEMENT IN PICKER-CHECKS FOR LOOMS.

Specification forming part of Letters Patent No. **177,393**, dated May 16, 1876; application filed December 22, 1875.

*To all whom it may concern :*

Be it known that I, SAMUEL GREENWOOD, of Lowell, and State of Massachusetts, have invented a new and useful Improvement in Looms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a front-side view; Fig. 2, a bottom plan of the lay-sill and other elements partly in section. Fig. 3 is a cross-section on the line 4 of Figs. 1 and 2.

This invention relates to a new improvement in looms, which consists in attaching to the sill of the lay thereof slotted sliding weights or blocks adapted to absorb and cushion the blow of the shuttle, whereby, when heavy machinery is thrown out of gear, the speed of the loom is caused to increase from, say, one hundred and twenty to two hundred picks per minute. The extra blow required to move these weights or blocks in a shorterspace of time absorbs all the extra blow or power given to the shuttle by reason of this increased speed, thereby preventing the rebounding of the shuttle from the shuttle-box; and it also prevents the upsetting or separating of the cop or filling in the shuttle.

This invention consists of slotted sliding weights or blocks of metal, wood, or any suitable substance, applied to the under side of the lay-sill, and secured so as to slide by straps or other suitable devices, and held in proper position as left by the shuttle while passing from one box to the other by friction created by a packing of leather or other suitable substance pressed against its under side by a plate, and by a small spring between the plate and the head of a screw or pintle passing through the slotted weights or blocks and into the under side of the lay-sill.

These sliding weights or blocks are provided with offsets or hooks, either cast whole in connection with said blocks or attached by screws or other suitable devices, said hooks or offset ends being adapted to engage with picker-staffs, and moved forward by the blow of the shuttle on the picker-staffs. These slotted sliding weights or blocks, one at each end of the lay-sill, are connected to each other by a wire, rod, cord, or leather strap, so that the

shuttle striking, in connection with the picker-staff, the weight on one end of the lay-sill, the block at the opposite end always acts the part of a drag-weight, whereby the blocks, in connection, cushion and perfectly arrest the blow of the shuttle at either box.

In the said drawing, let A represent the sill of the lay, and B the swards, as usual. The picker-staffs D D are pivoted at their lower ends to the projecting ends E of a bar, or to other common supports, and their lower ends are operatively connected by a common cord or rod, F. To the under side of the lay-sill A, and near the ends thereof, I apply the slotted sliding weights or blocks *b*, secured for their sliding movement by straps *a* fastened to the sill, and extending over the edges and the under side of said blocks. The outer ends of blocks *b* are provided with offsets or hooks *d d*, which extend forward or outside of the outer edge of each staff D so as to move the blocks by the blow of the shuttle on the picker-staffs. Each weight or block *b* has a slot, E, which is either partly or wholly covered by a plate, *f*, and a leather or other suitable friction-packing, *h*, which are pressed against the under side of the blocks by a spring, C, placed between the under side of the plate *f* and the head *f'* of a screw or pintle passing through the plate, packing, and block into the under side of the sill A. This friction device is necessary to hold the blocks from moving out of position and to adjust the weight by adding or lessening the friction, so as to equalize the exact blow of the shuttle. The inner ends of the opposite weights or blocks are operatively connected by a wire, rod, cord, or leather strap, H, attached by ears, screws, eyes, or any suitable device, whereby, when the blow of the shuttle affects either weight or block through the medium of the picker-staff, the opposite weight is dragged along with it, and the weights having been adjusted by means of the friction device to exactly equalize the blow of the shuttle, thereby cushion and save the shuttle and picker-staff from injury, and prevent the upsetting or separating of the cop or filling, substantially as described.

I claim as my invention—

1. The slotted sliding weights or blocks *b*, provided with offsets or hooks *d d*, as described,



and attached one at each end of the lay-sill of the loom, and in combination with and operated by the picker-staffs D.

2. The slotted weights or blocks *b* provided with offsets or hooks *d d*, as described, in combination with the wire, rod, cord, or leather strap H, whereby the blocks are connected and operated by the picker staffs D, as described.

3. The combination of the slotted weights

or blocks *b*, provided with offsets or hooks *d d*, connection K, the straps *a*, whereby the blocks are secured to the sill A, plates *f*, packing *h*, screws or pintle *f'*, and spring C, whereby friction is produced upon the blocks *b*, as shown and described.

SAMUEL GREENWOOD.

Witnesses:

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