

F. Haigh. Loom.

N^o 71480

Patented Nov. 26, 1867.

Fig. 1.

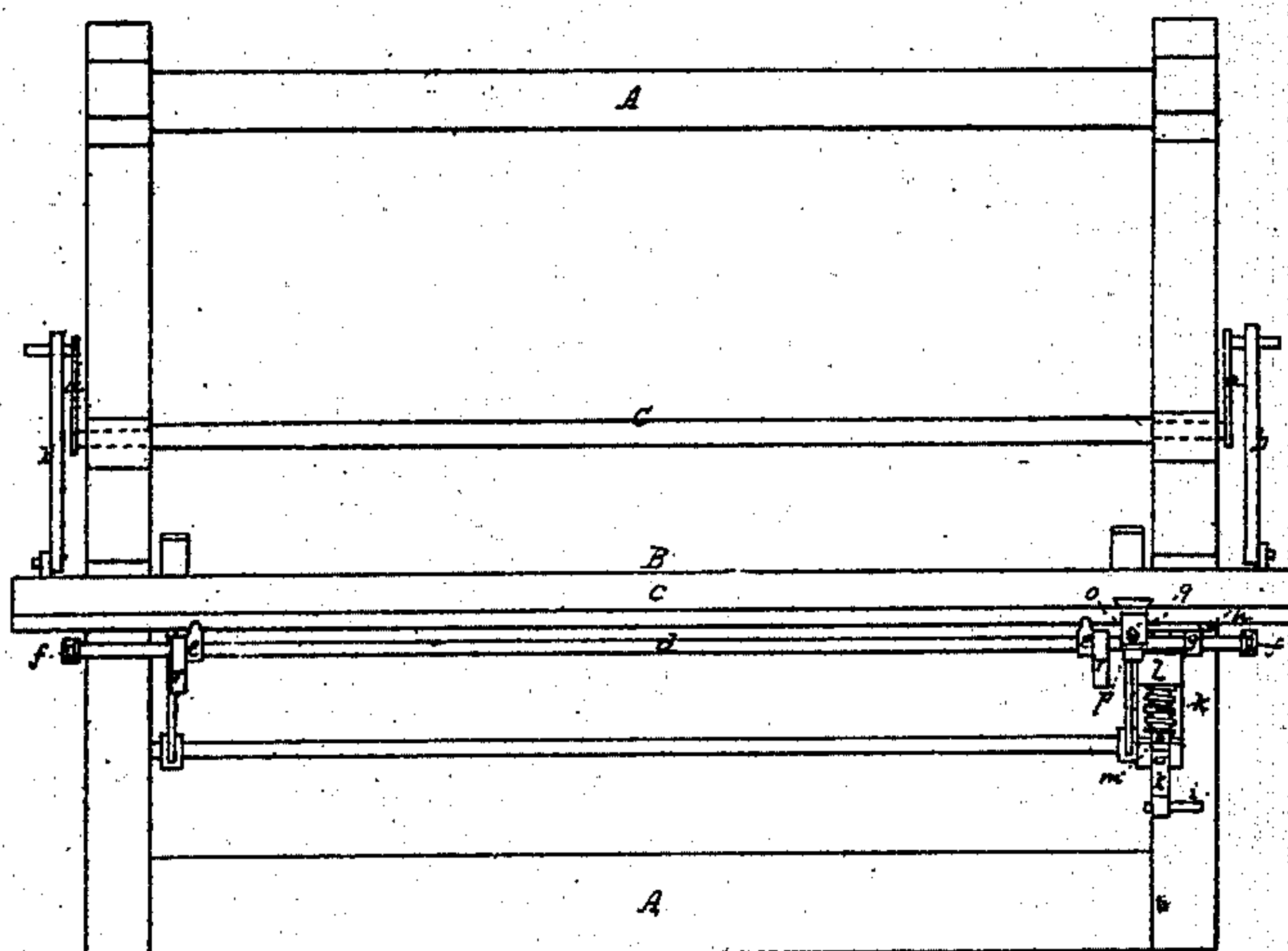
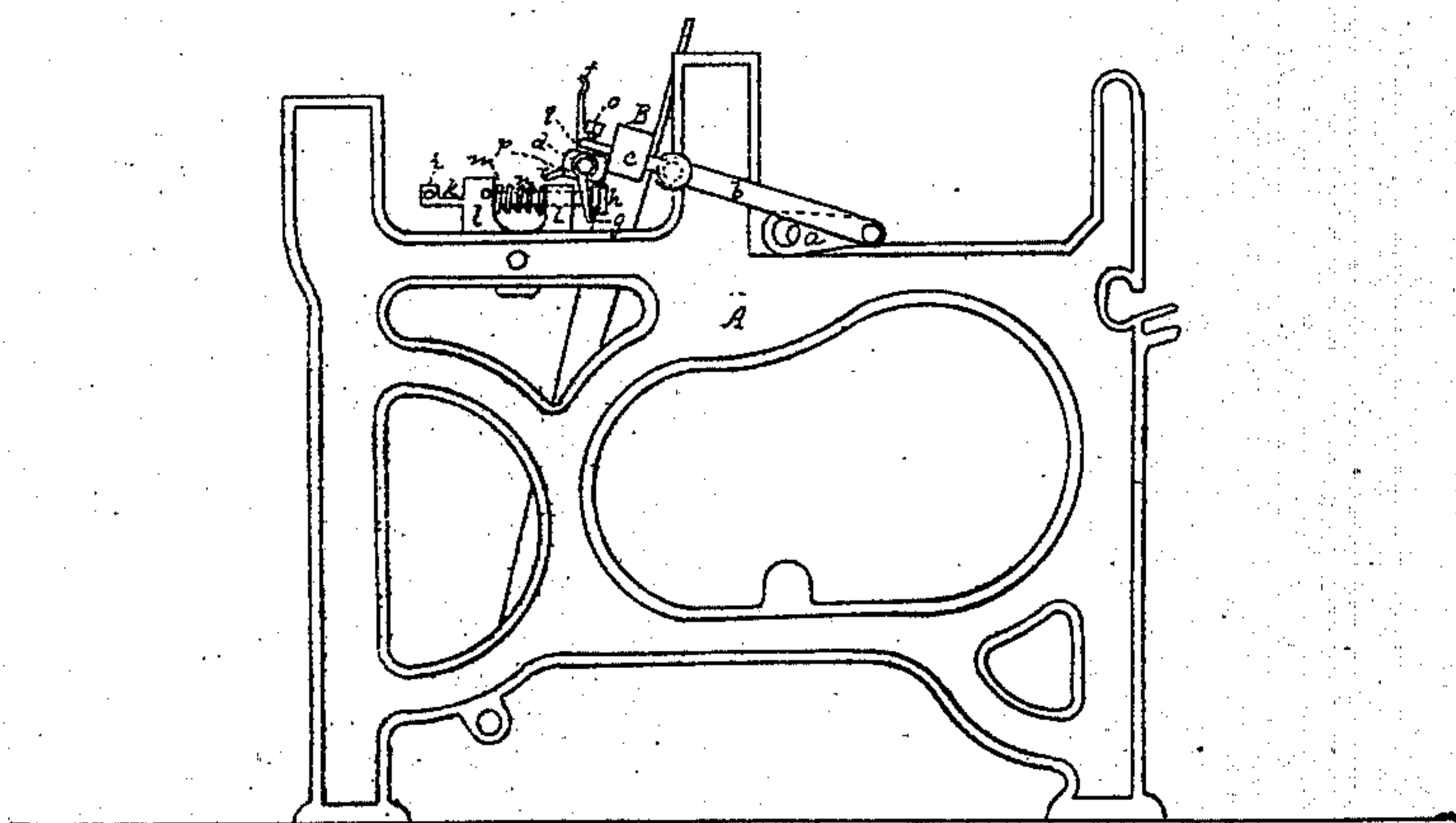


Fig. 2.



Witnesses

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FREDERICK HAIGH, OF METHUEN, MASSACHUSETTS.

Letters Patent No. 71,480, dated November 26, 1867.

IMPROVEMENT IN LOOMS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, FREDERICK HAIGH, of Methuen, in the county of Essex, and State of Massachusetts, have invented a new and useful Improvement in Looms for weaving fabrics; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 denotes a top view of a loom-frame and its lay, as provided with my invention.

Figure 2 is an end elevation of the same.

The purpose of my invention is to arrest the shuttle in its box after, and to release it preparatory to, each throw, the same being to prevent a rebound of the shuttle; also, injury to the pickers and their staves; also, the displacement of the bobbin in the shuttle.

In the drawings, A denotes the loom frame; B, the lay; C, the driving-shaft of the lay, such shaft being applied to the lay by cranks *a a* and connecting-rods *b b*, arranged in the usual manner. Alongside of the race-beam *c* of the lay, and about on a level with its lower edge, I arrange a long rocker-shaft, *d*, parallel with the lay, and support it in bearings *e e*, extended from the race-beam. An arm, *f*, is to project up from each end of the shaft *d*. In the front side of the shuttle-box of the lay there should be a passage or opening, to allow the said arm to enter the box and be borne against the shuttle. Another arm, *g*, extends downward from the shaft *d*, and between two studs, *h i*, extending from a slider, *k*, that slides transversely through a puppet, *l*, arranged on the loom-frame, in manner as represented. The slider has a collar or stop, *m*, which, when forced back against one of the puppet-heads by a spring, *n*, (placed on the slider, and so as to bear against the said stop and the other head of the puppet,) serves to arrest the movement of the slider in one direction.

While the lay may be in the act of falling back, and the shuttle is being thrown, the arm *g* will be carried against the back-stud of the slider *b*. The resistance offered by the slider and its spring will cause the arm to turn the rocker-shaft *d*, and force the arm *f* against the shuttle, so as to arrest its motion and hold it firmly, in a manner to relieve the picker from the momentum of the shuttle before or just previous to the bringing up of the picker against the stop or staff thereof. The degree of pressure of the arm *f* against the shuttle may be regulated by means of an adjusting stop-screw, *o*, and a cross-piece, *p*, the latter being fixed on the rocker-shaft transversely thereof, as shown in the drawings. The stop-screw *o* screws through an arm, *q*, extended from the lay, the whole being as represented.

During an advance of the lay, in order to beat up the filling into the warps, the arm *g* will be carried against the forward stud of the slider. This will cause the rocker-shaft to be turned, so as to relieve the shuttle from contact with the arm *f* preparatory to the next throw of the shuttle.

The shaft *d* has one or two other arms, *r r*, extended from it, they being intended to put in action the stopping mechanism of the loom whenever the shuttle may not be thrown into its box, for, in such case, the rocker-shaft would be turned so much as to elevate the arm or arms *r* to a position high enough for such arm or arms to be carried by the lay into contact with that or those parts of the loom-stopping mechanism which serve to actuate the said mechanism in a manner to cause it to effect a stoppage of the loom.

I claim the combination of the shaft *d*, and its arms *f g*, with the puppet *l* and the slider *k*, its studs *h i*, spring *n*, and collar *m*, the whole being applied together as and for the purpose or objects specified.

I also claim the combination of such mechanism, or its equivalent, with the loom-frame and lay, to operate with the shuttle as specified.

I also claim the combination of the stop-screw *o* and cross-piece *p*, with the shaft *d* and its arms *f g*, the puppet *l*, the slider *k*, its studs *h i*, spring *n*, and collar *m*, or the equivalents thereof.

FRED. HAIGH.

Witnesses:

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