

G. I. White.

Stop Motion.

N^o: 60,101.

Patented Nov 27, 1866.

Fig: 1.

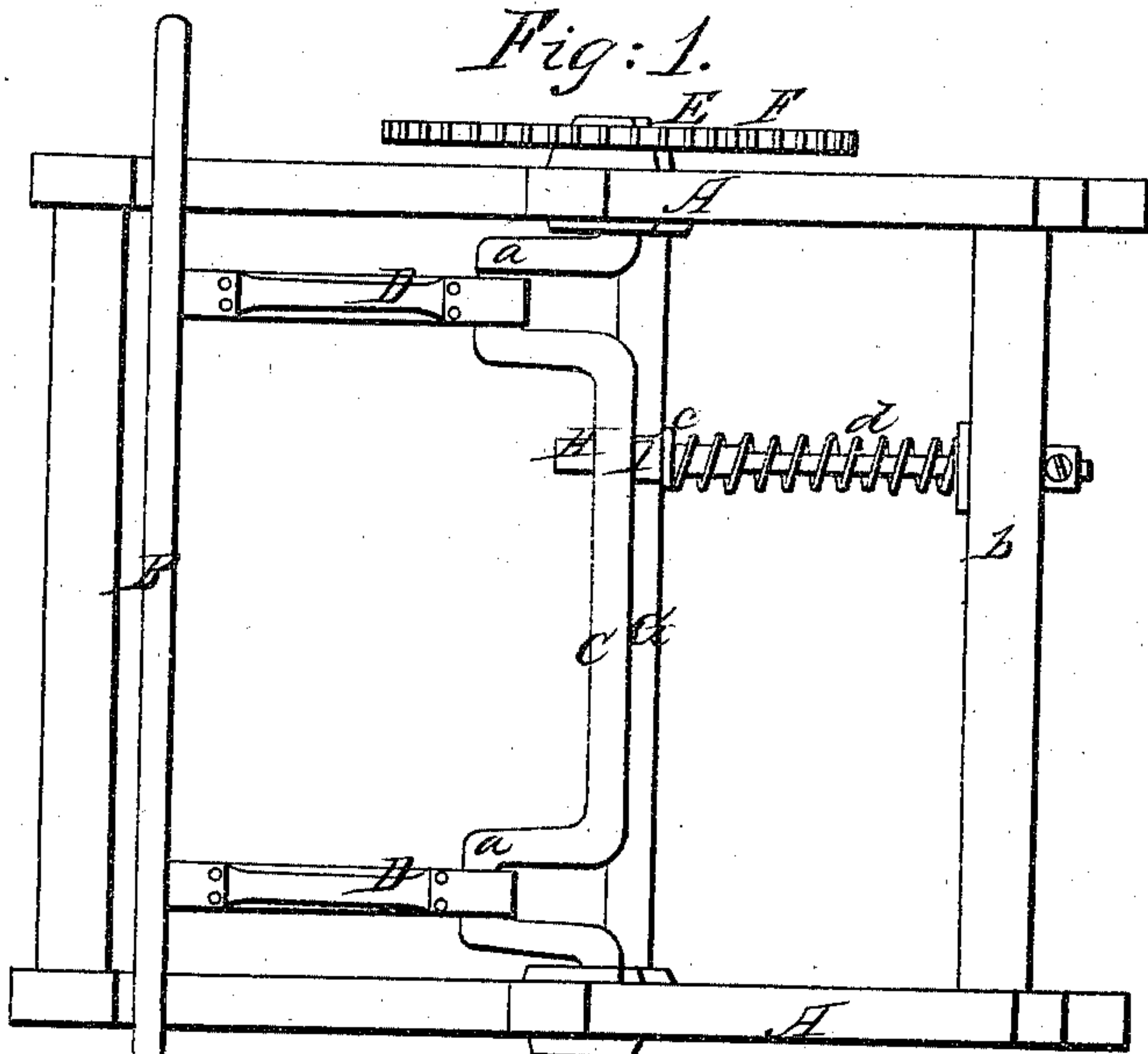
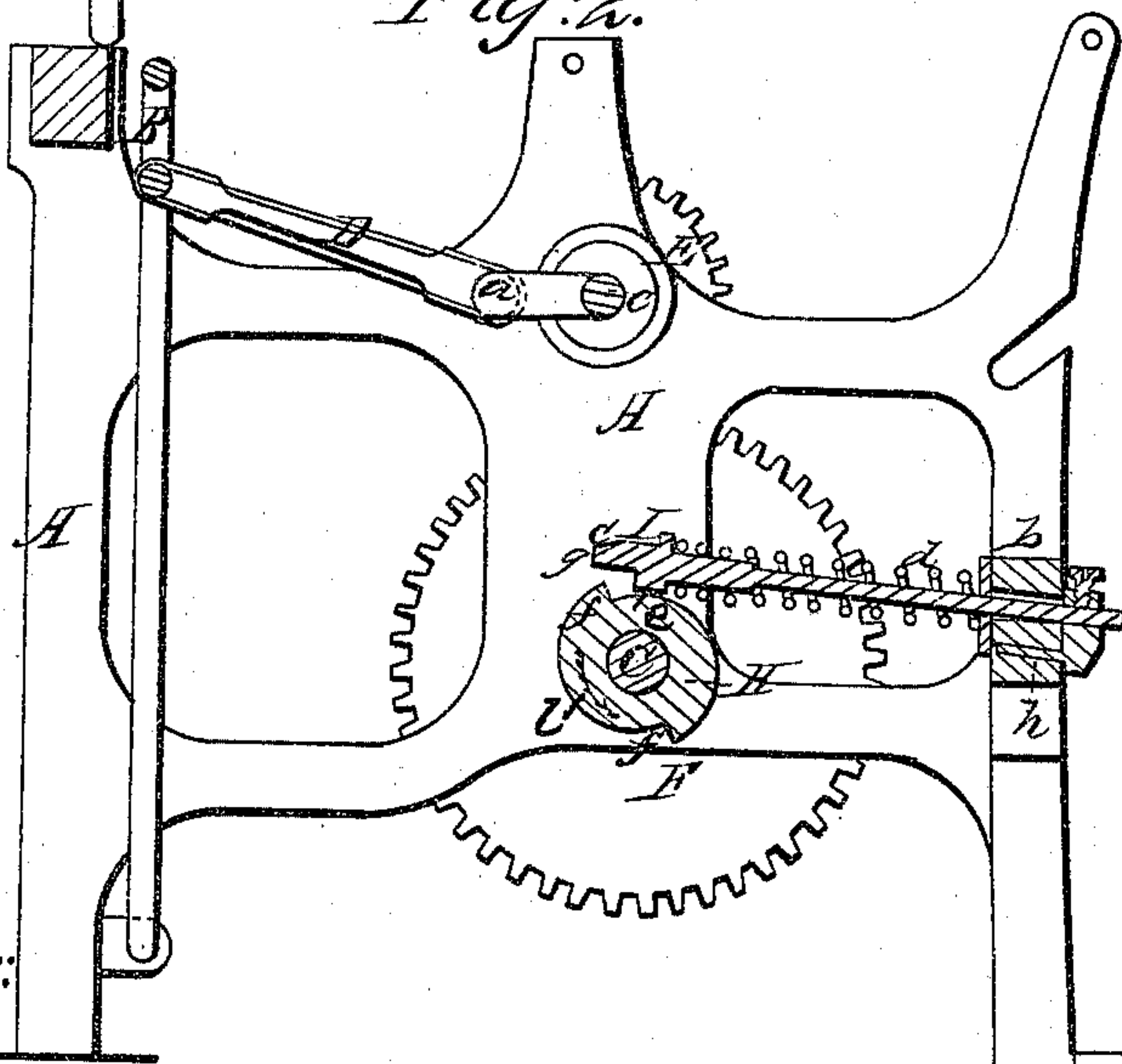


Fig: 2.



Witnesses:

Samuel G. Piper.
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United States Patent Office.

IMPROVEMENT IN LOOMS.

GEORGE L. WHITE, OF WOONSOCKET, RHODE ISLAND.

Letters Patent No. 60,101, dated November 27, 1866.

SPECIFICATION.

TO ALL PERSONS TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, GEORGE L. WHITE, of Woonsocket, in the county of Providence, and State of Rhode Island, have invented a new and useful Improvement in Looms for weaving cloth; 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 is a top view; and

Figure 2 a transverse section of a loom frame and lay, as provided with my invention, the purpose of which is to hold the lay from falling back, or retaining it in a convenient position for an operative to effect the piecing up or repair of the thread of a warp.

It is well known that an attendant on a loom has generally, by manual power, to hold the lay more or less forward, or nearly up into a vertical position, while he or she may be in the act of "piecing" up a warp thread, and that the operation of so holding the lay is one not only inconvenient, but frequently requiring much exertion. My invention causes the lay to be firmly sustained in its proper position at such times, and enables it to operate without check at others, and also releases it when forced back to its rearmost position.

In the drawings, A represents a loom frame, B its lay, C the cranked shaft of the lay, and D D the pitmen or rods, by which the bell-cranks, *a a*, and the lay are connected. On one end of the shaft, C, is a pinion, E, which engages with a gear, F, fixed in another shaft, G, extending across the lay, and duly supported so as to be capable of being revolved on its axis. On the shaft, G, is a stop-cam, H, which, formed as shown in figure 2, operates with a spring bolt, I, extending from the loom frame. This bolt slides freely through a cross girt, *b*, of the frame, and is so applied to the frame as to be capable of vibrating a little in a vertical plane. The bolt has a head or stop, *c*, fixed on it near its outer end, and it has a spring, *d*, applied to it for throwing it forward or toward the stop-cam. A projection, *e*, on the bolt rests on the periphery of the stop-cam, and serves to arrest the cam when either tooth or part, *f*, of the said cam brings up against the said projection. This projection is not arranged at the extreme inner end of the bolt, but at some distance in rear of it, the part, *g*, of the bolt in advance of such projection, serving as a means of enabling the cam while in revolution to disengage a tooth, *f*, from the projection. A bent arm, *h*, extending from the head, *c*, and into a hole made in the girt, serves to guide the bolt during its movements, and to keep it from working laterally off the stop-cam. When the lay is in operation to beat up the filling into the warps, the stop-cam will be in revolution in the direction of the arrow, *l*, marked thereon, (see fig. 2,) and the teeth of the stop-cam will readily pass the projection of the bolt, but on the lay being stopped and allowed to fall back, the rotary motion of the stop-cam will be reversed, so as to carry one of the teeth of the cam against the side of the projection of the bolt, and thereby arrest the lay in its vertical or nearly vertical position. On pressing the lay down so as to bring the connecting rods on the dead centres of the crank, the bolt will be forced back by and thrown out of engagement with and by the stop-cam, which, by pressure on the projection, will force the bolt back, and by pressure upwards against the part of the bolt in advance of the projection, will so elevate the bolt as to disengage the tooth and projection, and allow the bolt to be shot forward by its spring. The mechanism for imparting to the lay its vibratory movements consists of the shaft G, the gears E F, the crank shaft, and its connecting rods, as hereinbefore described.

What I claim as my invention, is the combination of the stop-cam and the spring bolt, constructed, arranged, and to be applied as specified; and the combination of the same or their equivalents with the lay, and its operative mechanism, substantially as described, the purpose and mode of operation of such mechanism being as hereinbefore explained.

GEO. L. WHITE.

Witnesses:

R. H. EDDY,

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