

J. Sparks. *Take-Up Motion.*

N^o 89,445.

Patented Apr. 27, 1869.

Fig. 1.

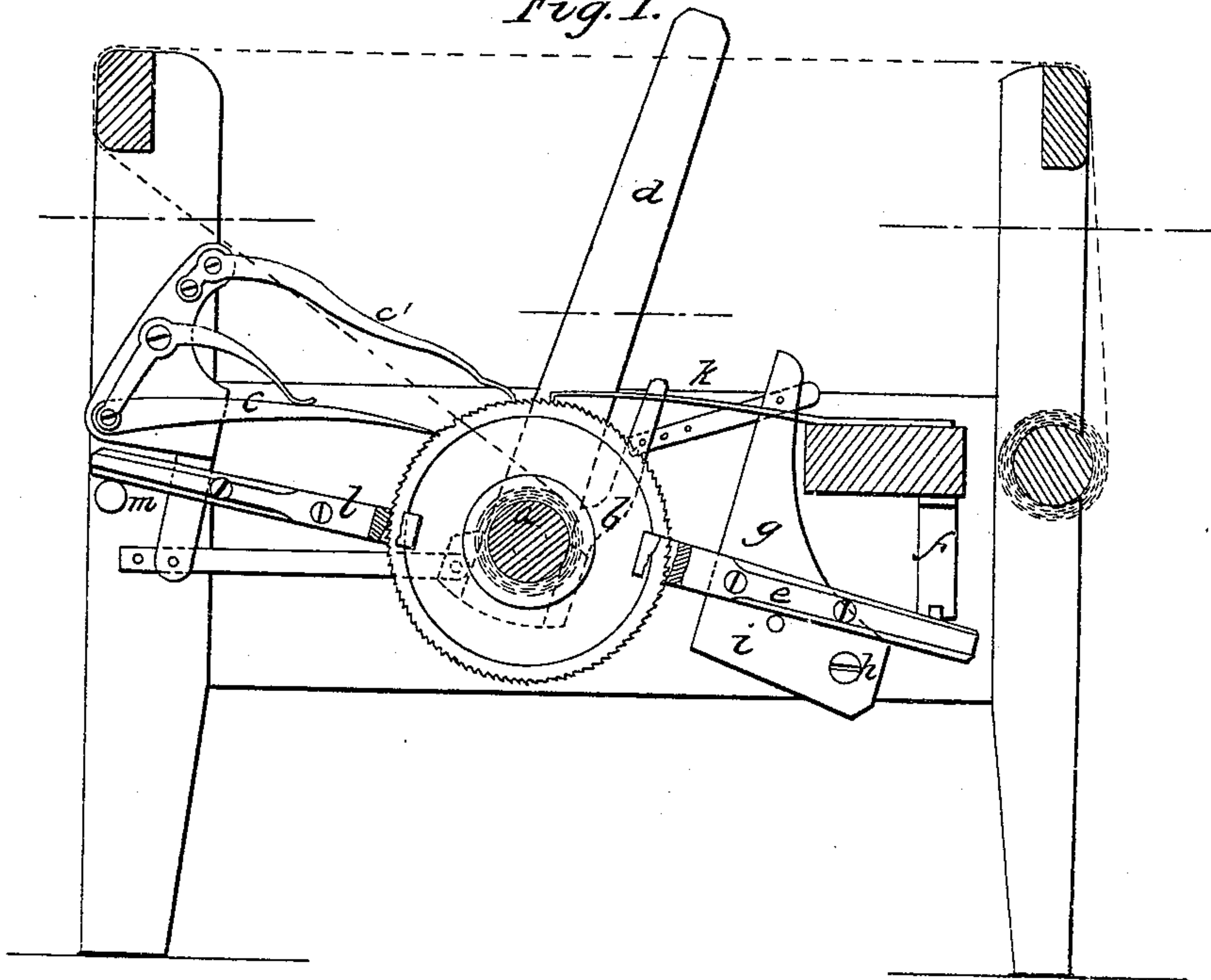
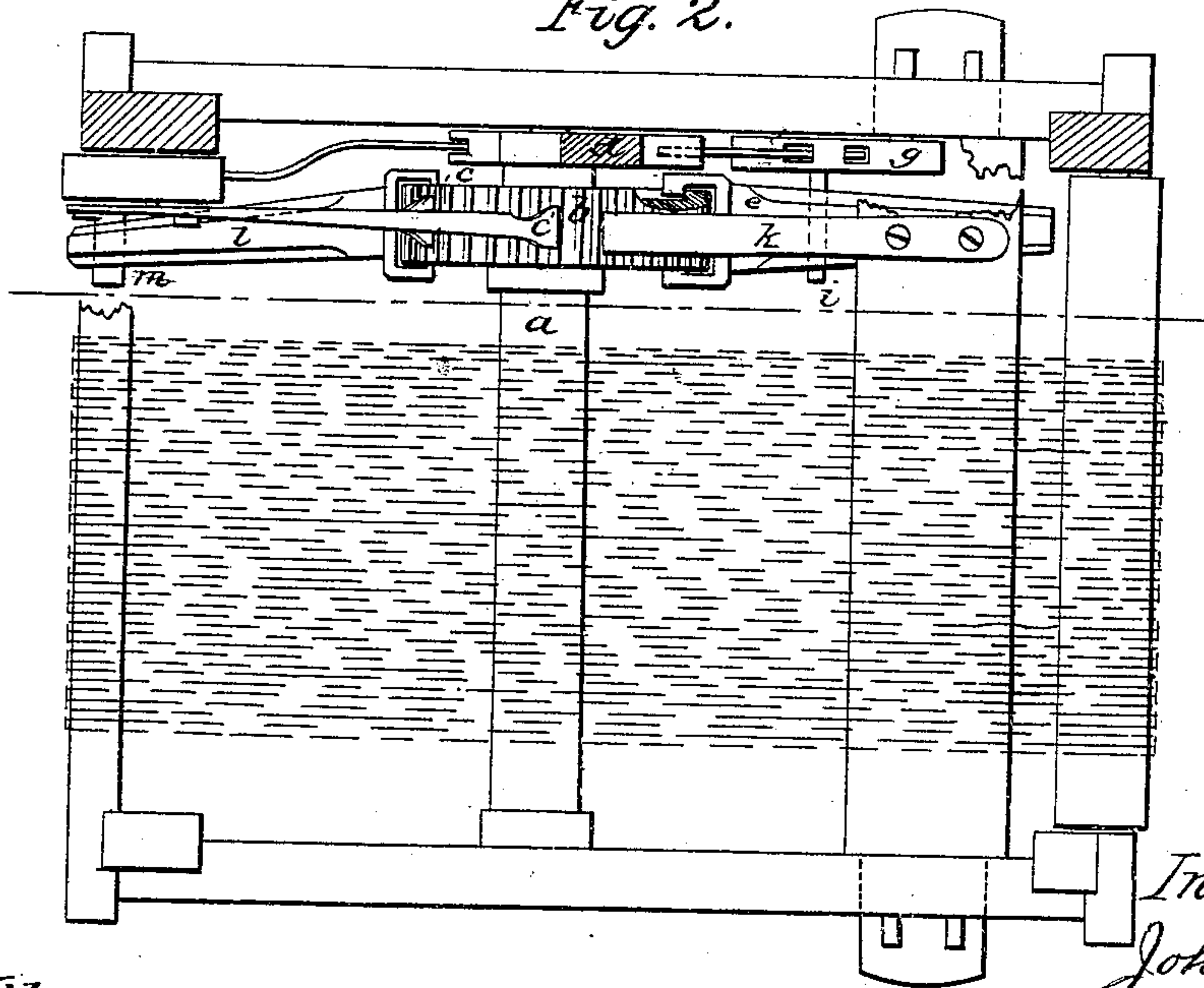


Fig. 2.



Witnesses.

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JOHN SPARKS, OF CONCORD, KENTUCKY.*

Letters Patent No. 89,445, dated April 27, 1869.

IMPROVEMENT IN TAKE-UP MECHANISM FOR LOOMS.

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

To all whom it may concern:

Be it known that I, JOHN SPARKS, of Concord, in the county of Lewis, and State of Kentucky, have invented a new and useful Improvement in Looms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The object of this invention is to provide an improved take-up mechanism for looms, which may be so graduated in its action, as to maintain the same tension on the cloth at all times.

It consists in the combination with a positive ratchet-and-pawl mechanism for actuating the beam through a certain part of its movement, of a spring-actuated pawl, which bears on the ratchet of the cloth-beam, pulling it against the strain of the cloth. The pawl is set at every beat of the lay.

Figure 1 represents a sectional elevation of a loom provided with my improvement; and

Figure 2 represents a horizontal section of the same.

Similar letters of reference indicate corresponding parts.

a represents the cloth-beam, which is provided with the ratchet-wheel *b*, and the actuating-pawls *c c'*, which are actuated by the lever *d*, suitably connected to the lay, and to the vibrating-block, to which the pawls are connected.

By this mechanism, the beam is intended to be operated through only a part of the distance necessary for winding on the cloth.

e represents a spring-pawl, connected to the ratchet-wheel at one end, and by the other to the spring *f*.

g represents a vibrating-block, pivoted to the frame at *h*, and arranged to be actuated by the lever *d*, and provided with a pin, *i*, underneath the pawl *e*.

When the lever *d* is moved back by the lay to retract the pawl *c*, the pawl *e* will be raised on the wheel and against the spring *f*, by action of the vibrating-block *g*, so that when the lever *d* moves in the forward direction, to cause the pawl *c* to act on the wheel, the pawl *e* will be left by the pin *i* of the block *g* to catch on the wheel, and be borne down by the spring *f*, whereby the wheel and cloth-beam will be moved from the point at which they are left by the pawl *c*, until the tension of the cloth is overcome by the action of the spring, when the beam will be turned by the pawl *e*, and in this way the winding of the cloth is regulated without reference to the size of the roll on the cloth-beam.

k is a spring-holding-pawl; and

l, a holding-pawl, suspended from the wheel and the pin *m*, in a manner similar to the arrangement of the pawl *e*.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a ratchet-and-pawl take-up mechanism, of the spring-actuated pawl *e*, substantially as and for the purpose described.

2. The combination with the pawl *e* of the oscillating-block *g*, provided with a pin *i*, or its equivalent, substantially as and for the purpose described.

JOHN SPARKS.

Witnesses:

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