

J. M. CAYCE.

Improvement in Brake Mechanism for Light Machinery.

No. 128,283.

Patented June 25, 1872.

Fig. 1

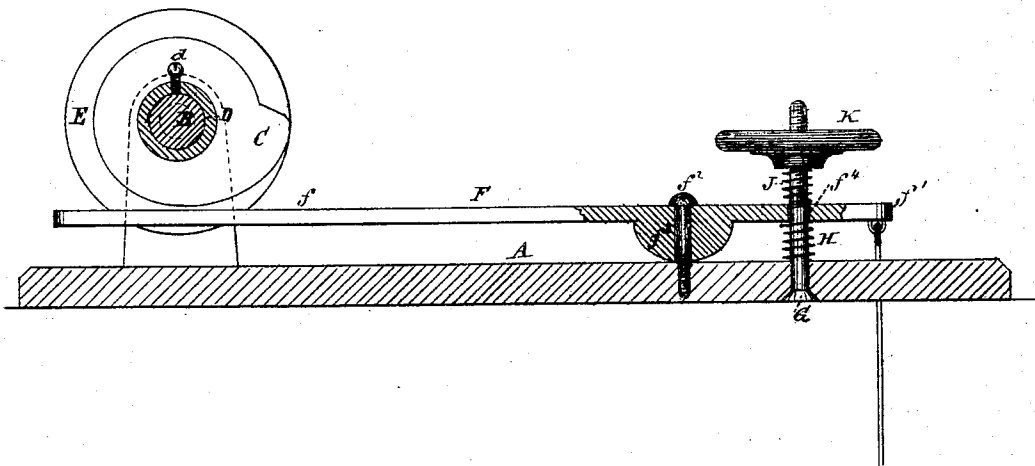
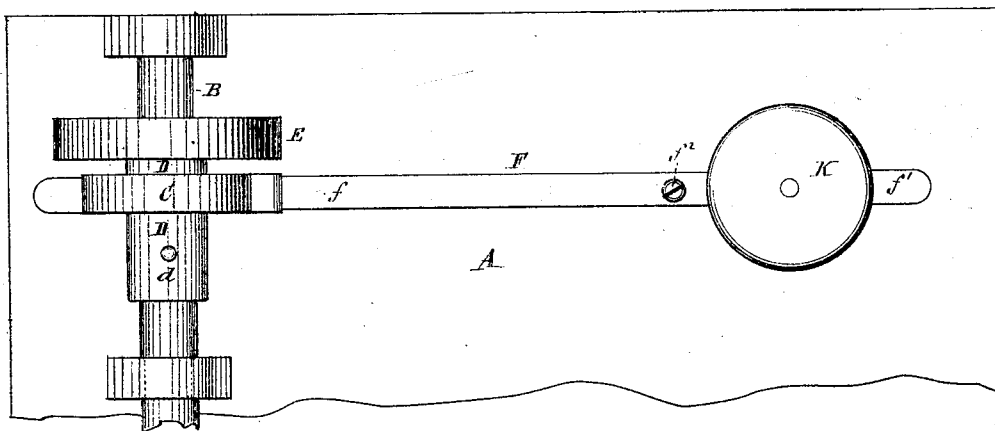


Fig. 2.



Witnesses:

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JOHN M. CAYCE, OF FRANKLIN, TENNESSEE.

IMPROVEMENT IN BRAKE MECHANISMS FOR LIGHT MACHINERY.

Specification forming part of Letters Patent No. 128,283, dated June 25, 1872.

Specification describing a Brake Mechanism for Sewing and other Light Machinery, invented by JOHN MADISON CAYCE, of Franklin, in the county of Williamson and State of Tennessee.

The invention will first be described in connection with all that is necessary to a full understanding thereof and then clearly pointed out in the claim.

Figure 1 is a sectional elevation. Fig. 2 is a top view.

A represents a table, and B the middle shaft of a sewing-machine. C is a suitable cam employed thereon, which I arrange upon a sleeve, D, that is held by a set-screw, *d*, in any position about it. E is a disk or friction-wheel on the same sleeve. F is a lever, having long arm *f* and short arm *f*¹, and loosely attached to the table by screw *f*², which passes through a fulcrum projection, *f*³. G is a screw-bolt, having its threaded end protruding through the table and some distance thereabove. This screw passes through a perforation, *f*⁴, in the lever's short arm. Beneath this arm is located the retraction-spring H, and above it the tension-spring J. K is a hand-nut, which is placed above spring J, so as to be conveniently used in regulating the tension. The brake-lever is combined with the cam for the purpose of giving the whole power on the down stroke, and a retarded movement on the upper stroke. This requires a brake mechanism intermittent, delicate, and easily regulated. The cam is placed upon the sleeve for the purpose of changing its relation to the needle, according as the latter is de-

sired to pause within or without the fabric. The disk E is brought into play against the lever by shifting the sleeve laterally on the shaft, and is used for securing a continuous brake. This, however, may be entirely dispensed with, and constitutes no essential part of my invention. By placing the short end of lever between the tension and retracting spring, and actuating the nut K, an adjustment can be secured which is very delicate and easily graduated to regulate the speed and the period of retardation or to stop the machine. The short arm *f*¹ may be connected under the table with a suitable treadle, by which the operator may apply the brake with sufficient power to suddenly stop the machine.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The cam C on the shaft B, which directly or indirectly operates needle, combined with a spring-lever, F, arranged within reach thereof, as and for the purpose described.

2. In combination with a spring brake-lever, F, a cam, C, attached to a sleeve, D, which is adjustable about a shaft, B, as and for the purpose described.

3. The combination with a brake-lever, F, of the spring on each side thereof, the screw-bolt and the hand-nut, as and for the purpose described.

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Witnesses:

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