

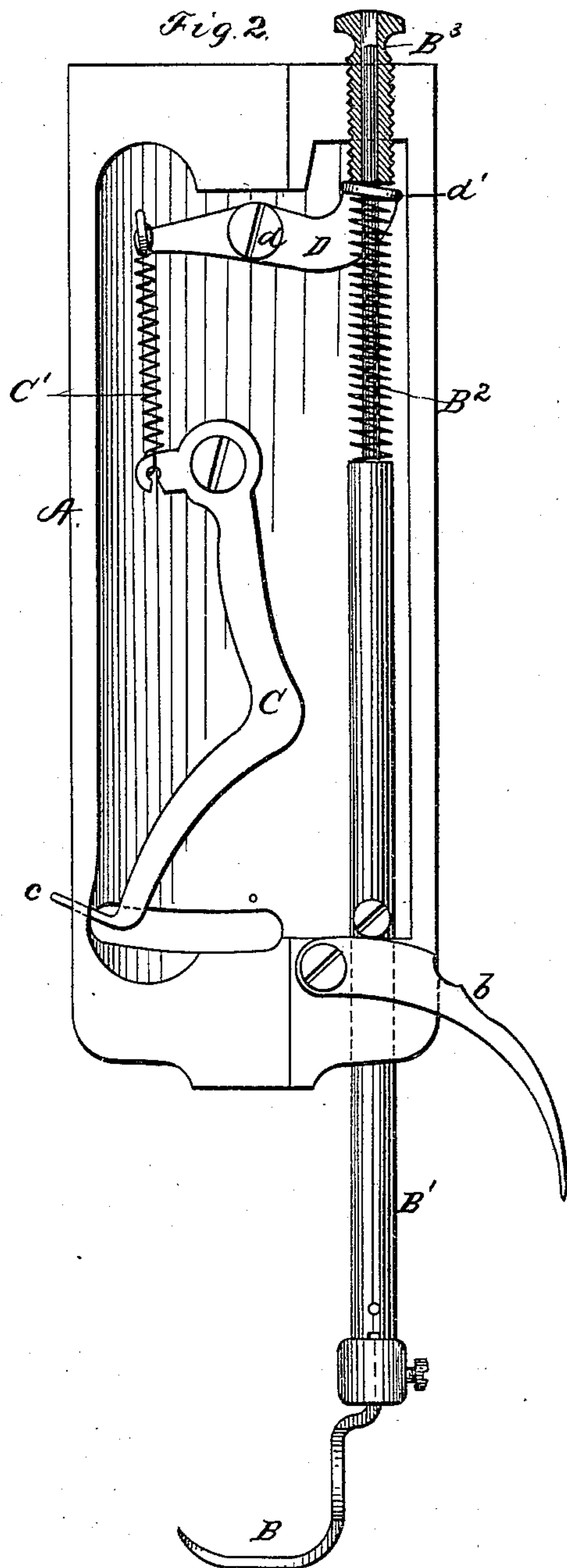
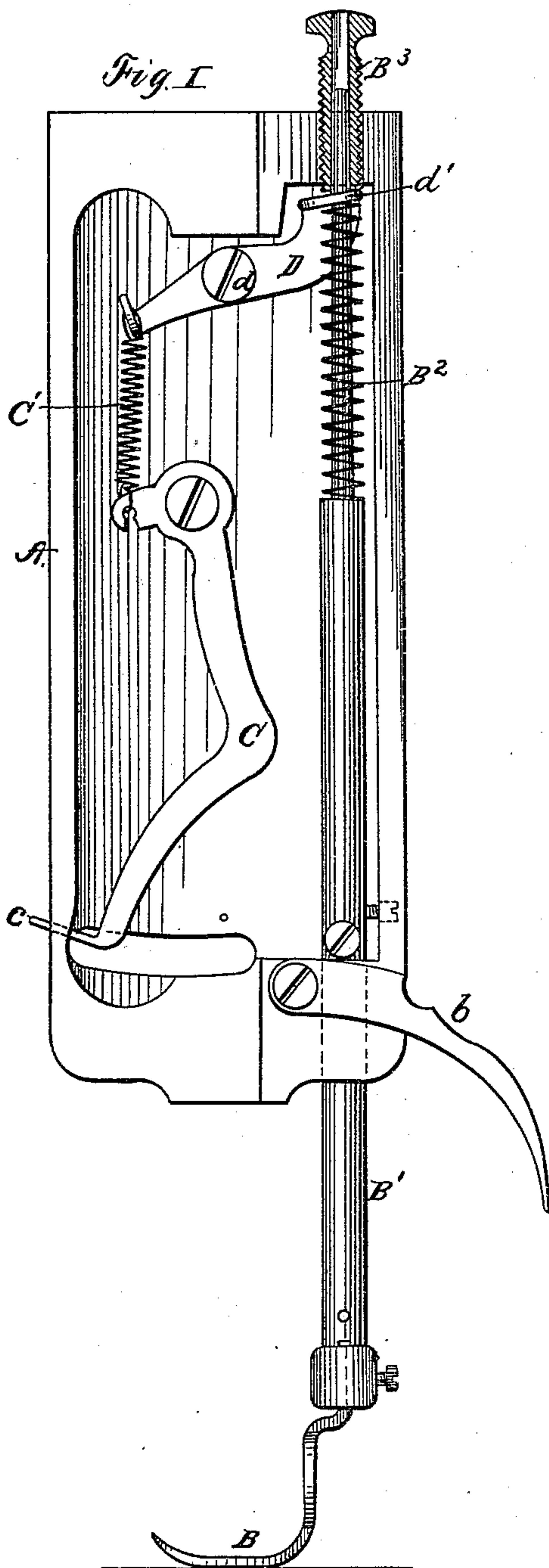
(No Model.)

G. A. MAYO.

TAKE-UP REGULATOR FOR SEWING MACHINES.

No. 259,646.

Patented June 13, 1882.



Witnesses.

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# UNITED STATES PATENT OFFICE.

GOODRICH A. MAYO, OF ERIE, PENNSYLVANIA, ASSIGNOR TO GEORGE H. NOBLE, OF SAME PLACE.

## TAKE-UP REGULATOR FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 259,646, dated June 13, 1882.

Application filed March 13, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GOODRICH A. MAYO, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Take-Up Regulators for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters or figures of reference marked thereon.

This invention relates to the take-up mechanism of a sewing-machine; and it consists in providing devices whereby the same can be regulated.

The take-up mechanism of a sewing-machine has to be regulated as to its tension in accordance with the thickness of the cloth being sewed, and this is usually done by an adjusting-screw, which affects the tension of the spring which is attached to the take-up lever. The presser-foot of the machine also has to be adjusted in accordance with the thickness of the cloth being sewed, for thick cloth requires a greater amount of pressure to make it "feed" properly than thin cloth. This regulation or adjustment is also effected by a screw, which adds to or diminishes the tension of the presser-spring. Thus it is that two distinct adjustments have to be made at each change of thickness of the material being sewed. Both of the parts which have to be so adjusted lie contiguous. My invention consists in so connecting these two parts that the adjustment of one will regulate the other. By the construction shown in the drawings the take-up is regulated from the presser-foot bar; but the reverse of this may be effected as easily.

The invention is illustrated in the accompanying drawings, as follows: The parts shown are the face-plate, (which goes on the head of the goose-neck or overhanging arm, the view being from the inside of said plate,) the presser-foot and its bar and connections, the take-up lever and its connections, and my interposed connecting-lever.

Figures 1 and 2 show the parts at different points of adjustment. Otherwise the two figures are alike.

A is the face-plate; B, the presser-foot; B', the presser-foot bar; B<sup>2</sup>, the spring upon the said

bar; B<sup>3</sup>, the screw for adjusting the tension of said spring. C is the take-up lever; c, the hook through which the thread passes; C', the spring which gives the take-up its tension. All the above-named parts are old. They may be differently formed, as they are in many machines; but they generally lie contiguous, and can be connected together, so as to have one automatically adjust the other, substantially as I have shown them in the drawings, which is as follows: A lever, D, is pivoted at d and provided with a face or shoulder, d', in which is a hole through which passes the upper end of the presser-bar B'. This shoulder forms a bearing for the spring B<sup>2</sup> and also for the screw B<sup>3</sup>. The opposite end of the lever is provided with a hook or other means for holding one end of the take-up spring C'. To add to the tension of the spring B<sup>2</sup> the screw B<sup>3</sup> must be screwed down, and this will depress the end of the lever D which is under the said screw and will elevate the other end, which movement will add tension to the spring C', and vice versa.

It is obvious that other forms of connecting-lever, adjusting-screws, or adjusting apparatus, and means for connecting the two parts, may be used without departing from my invention.

What I claim as new is—

1. In a sewing-machine, the combination, with the cloth-pressing device and the take-up devices, of a lever or bar connecting the said devices, in the manner substantially as described, and an adjusting device engaging said bar or lever, whereby said adjusting device is adapted to regulate the tension of said take-up and cloth-pressing device, as set forth.

2. In a sewing-machine, the combination, substantially as shown, of the following elements: the foot B, bar B', spring B<sup>2</sup>, screw B<sup>3</sup>, lever D, spring C', lever C, and hook c, for the purposes mentioned.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of March, 1882.

GOODRICH A. MAYO.

Witnesses:

J. K. HALLOCK,  
W. S. BROWN.