

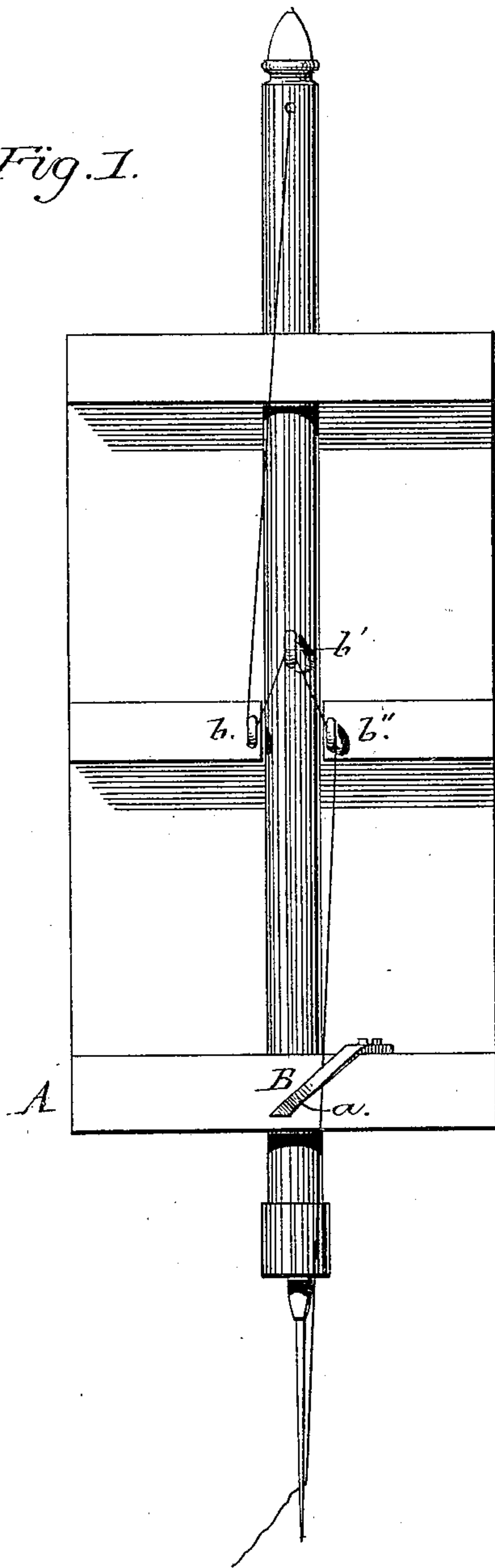
(No Model.)

W. WENDELL.  
SEWING MACHINE.

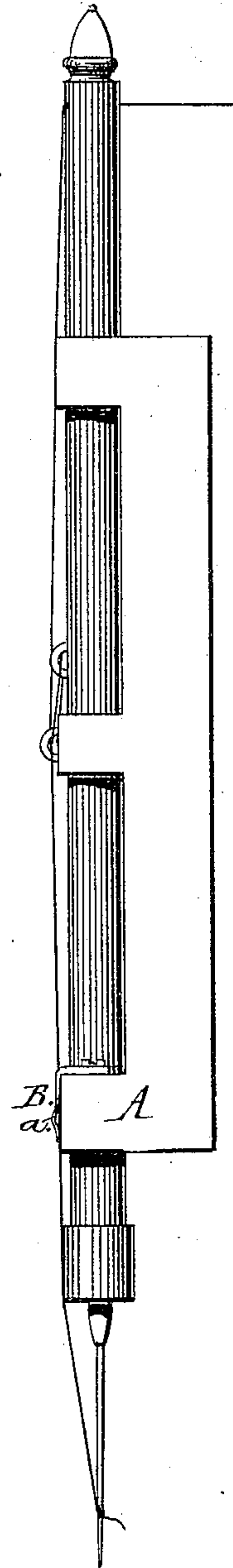
No. 253,248.

Patented Feb. 7, 1882.

*Fig. 1.*



*Fig. 2.*



*Witnesses:*  
*Willmer Chusman*  
*Lawler Boston*

*Inventor:*  
*Washington Wendell.*  
*per Edw W. Dunn*  
*Atty.*

# UNITED STATES PATENT OFFICE.

WASHINGTON WENDELL, OF ORANGE, ASSIGNOR OF ONE-HALF TO GEORGE F. NEWELL, OF GREENFIELD, MASSACHUSETTS.

## SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 253,248, dated February 7, 1882.

Application filed February 26, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WASHINGTON WENDELL, of Orange, in the county of Franklin and Commonwealth of Massachusetts, have invented a new and Improved Attachment to a Sewing-Machine, of which the following is a true and full specification.

My invention consists in providing a spring having a curvature near its lower end placed upon the face-plate of a sewing-machine, to be used in connection with a take-up composed of three loops, two of which are fixed on the said face-plate and a third on the needle-bar, all of which will be fully set forth hereinafter.

The accompanying drawings illustrate my invention.

Figure 1 is a front view of the face-plate, showing the form of the spring, and marked A. B is the spring. Fig. 2 is an edge view of the face-plate marked A with the spring B in position as used.

Passing diagonally across the front end of the face-plate, through which the needle-bar plays, and secured at its upper and rear end upon the face-plate A, is a spring, B, which is so constructed that its lower or front presses against the end of the face-plate, but so loosely that the thread may be drawn under it, passing into an enlarged space, *a*, under the spring. This spring is so made that the thread shall not readily draw out at the lower or front end; but the rear end of this opening or curvature of the spring is gradually and gently drawn down to the surface of the face-plate, to which it is secured, so as to afford a slight gradual tension, enough to hold the thread as it is drawn into it by the upward motion of the needle-bar. This spring is so made and fastened to the face-plate that when the thread is drawn taut by the thrust of the needle-bar it is under the highest point in the open space of the spring and in a direct line with the take-up and the eye of the needle. The object of this is to prevent slack in the thread at the needle from the time the needle starts down until the eye of the needle has reached the work, and also allowing the thread to pass with but slight tension under the spring, keep-

ing said thread under control till the loop is formed for the shuttle, thereby preventing the possibility of kinking in the thread or the formation of false loops. Now, as the needle-bar is raised the thread is drawn up under the inclined part of the spring, where it is held till the return of the needle down. This is accomplished by making the spring of the form as described, and essentially by placing the spring diagonally to the line of motion of the thread, whereby the thread, when drawn up, follows the inclined face of the spring to the extent of the upward motion of needle, and easily draws back on the return motion of the needle. This it will be perceived could not be accomplished by a spring bar or guide placed horizontally on the face-plate.

I am aware that a plain plate or pad attached to the face-plate has been used in connection with a sewing-machine take-up to keep the thread taut between it and said take-up, and to such broadly I make no claim.

I use for a take-up, preferably, with my spring-pad B, three loops, *b b' b'*, two of which are fixed upon a bar which forms a part of the face-plate, and the third, *b'*, is secured to the needle-bar and moves with it to take up the thread. In the movement of the needle-bar the thread, under the influence of said take-up, has a lateral movement by reason of the changing of the angle between the eye of the needle and the loop *b''*, from which the thread extends under the spring B, and in this movement the advantages of my spring device with its peculiar formation are apparent.

What I claim is—

In a sewing-machine having a face-plate provided with a broken or slotted middle bar, the take-up composed of three loops, *b b' b'*, the first two being on said bar and the latter on the needle-bar, in combination with the spring B, attached to said face-plate, provided with a curvature, *a*, substantially as and for the purpose set forth.

WASHINGTON WENDELL.

Witnesses:

R. D. CHASE,  
H. G. NIMS.