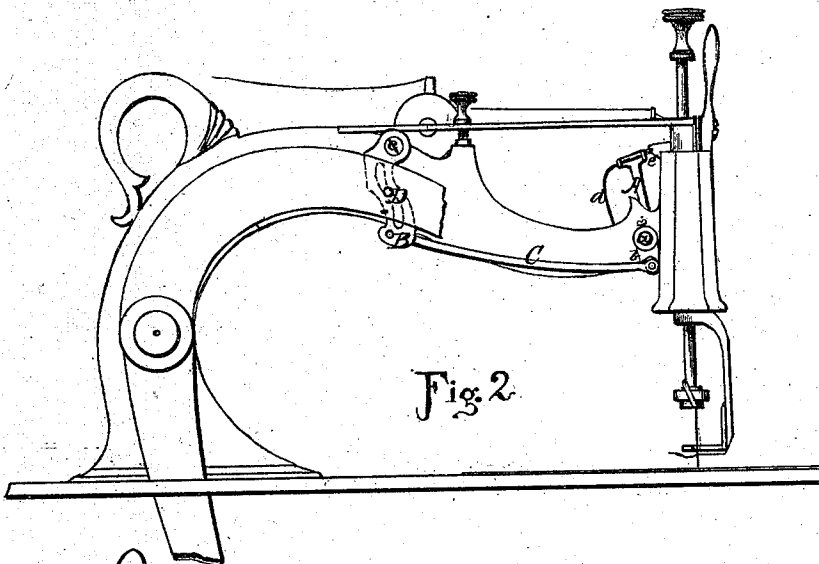
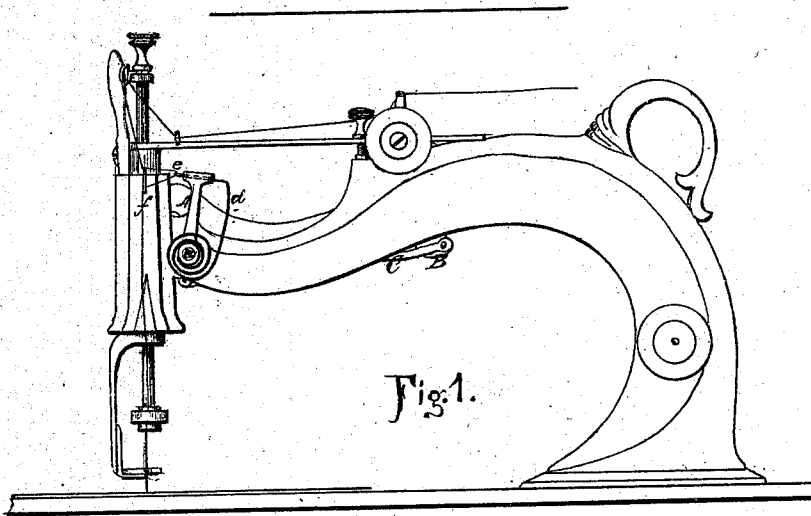


C. B. TRUE.  
Sewing Machine.

No. 105,741.

Patented July 26, 1870.



Witnessed } *J. P. Leonard* }  
              } *Edward O. Leborn,* }  
              } *C. B. True* } *Inventor*  
              } *By J. C. [unclear]* }

Fig. 3

# United States Patent Office.

CYRUS B. TRUE, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 105,741, dated July 26, 1870.

## IMPROVEMENT IN SEWING-MACHINE.

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

I, CYRUS B. TRUE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Sewing-Machines, of which the following is a specification.

### *Nature and Objects of the Invention.*

My invention consists in a novel combination and arrangement of parts for controlling the needle-thread of a sewing-machine, as will be fully set forth hereafter.

### *Description of the Drawing.*

Figure 1 is a front elevation of a sewing-machine with my improvement attached.

Figure 2 is a view from the opposite side, or the back of the machine.

Figure 3 is a view of the controller detached from the arm of the machine.

### *General Description.*

My invention consists, principally, of a rocking arm, A, secured upon a shaft, *a*, having bearings in the supporting arm of the machine in close proximity to the needle-bar; it is operated by the cam B, the connecting-rod C, and the crank *b* secured upon the shaft *a*; and the motion necessary to actuate it is communicated from the needle-operating arm to the cam B by the pin D.

The character and extent of the movement of the arm A are governed by the shape of the slot in the cam B.

The movement of the arm should be such that it will hold back the slack of the needle-thread while

the needle is descending, and until it is entering the goods, and then release the thread, for the formation and distension of the loop through which the shuttle passes; and, when the shuttle has passed nearly through the loop, it will draw up the slack of the needle-thread off the heel of the shuttle, and hold it until the needle-bar has nearly completed its upward movement, when it again moves forward and releases the thread while the stitch is being tightened.

The arm, A, is further arranged to work with a coil spring, *d*, so that the motion of the arm will be imparted to the thread gradually when the quality of thread used is very fine, so that the danger of its being broken, when the arm is thrown back, is entirely removed.

The end of the wire *d* passes through holes in the arm, and is bent into an eye, through which the thread passes, as clearly illustrated in the drawing.

### *Claims.*

1. The thread-controller herein described, consisting of the rocking arm A, crank *b*, connecting-rod C, cam B, pin D, and staple *f*, constructed and operating substantially as described and specified.

2. The combination, with the rocking-arm A, of the spring *d*, provided with the eye *e*, constructed and operating substantially as described, and for the purpose specified.

CYRUS B. TRUE.

Witnesses:

A. W. ADAMS,  
CHAS. B. C. ADAMS.