

E. A. WEEKS.

Sewing Machines.

No. 125,774.

Patented April 16, 1872.

Fig. 1

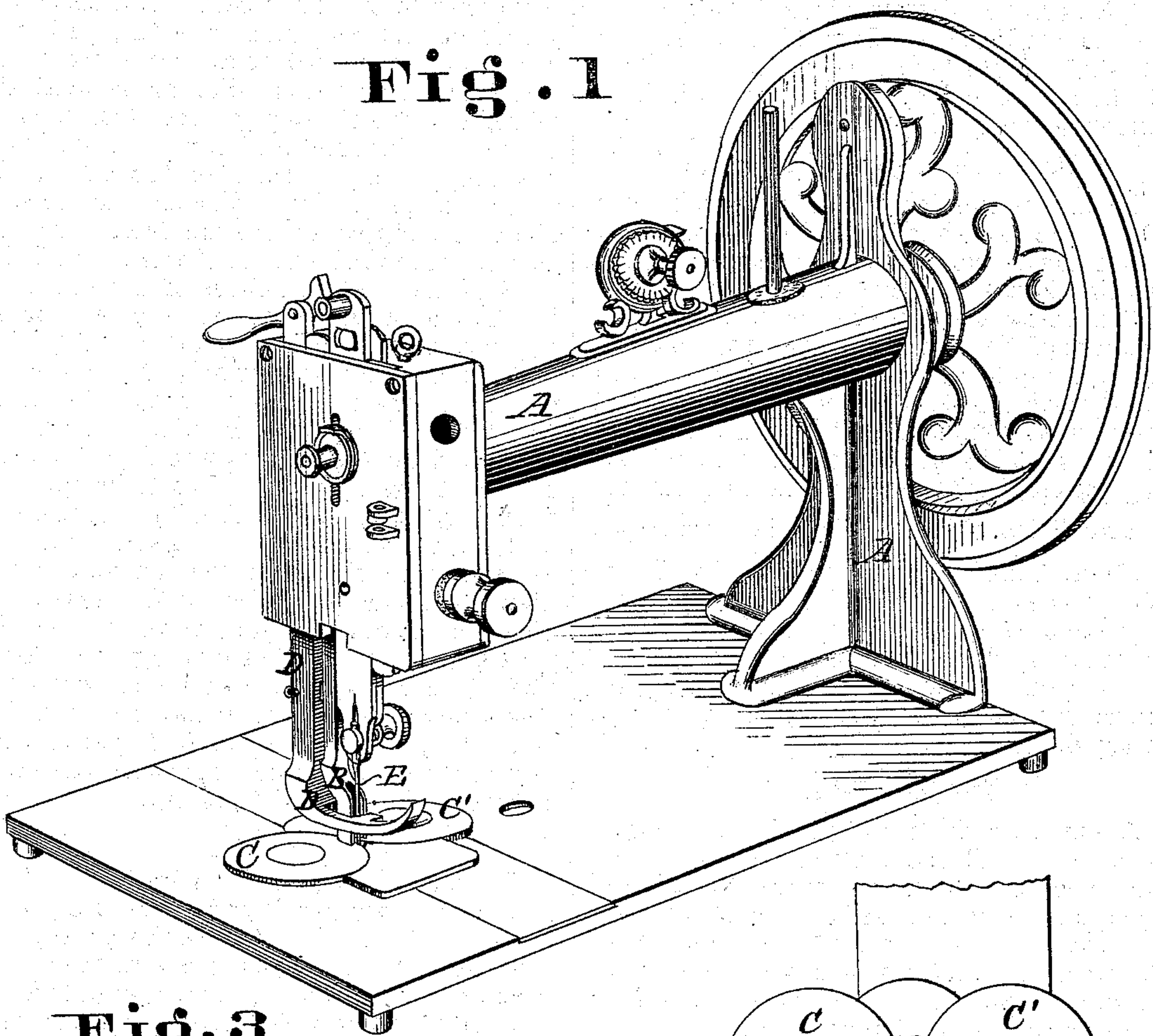


Fig. 3

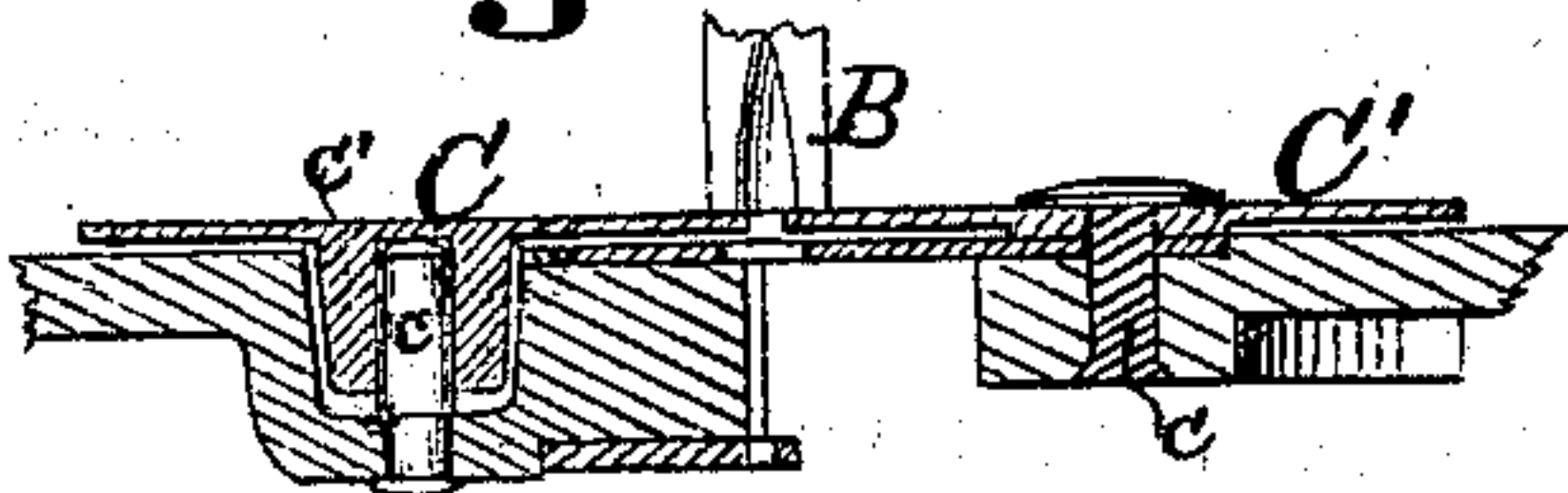
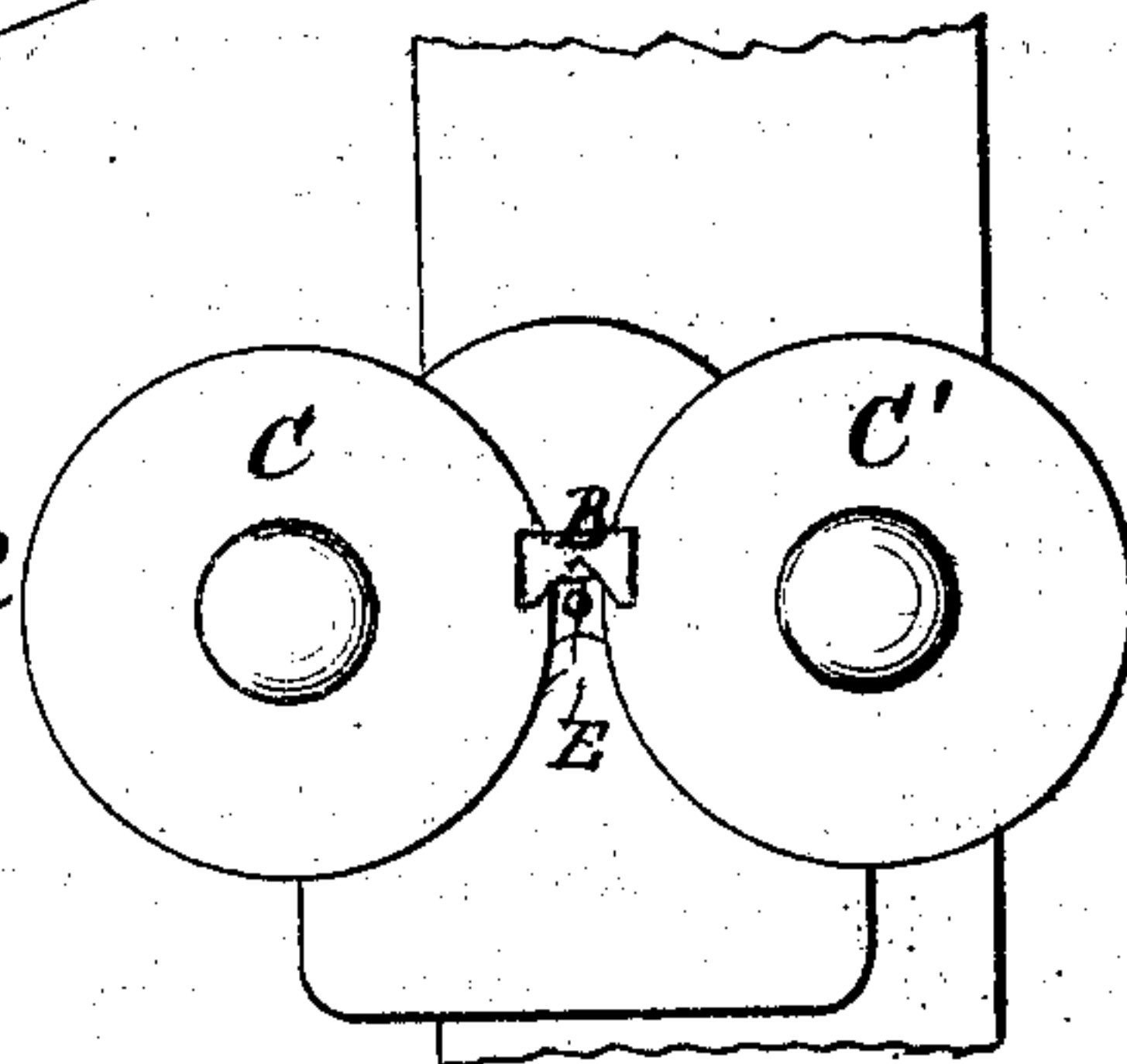


Fig. 2



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# UNITED STATES PATENT OFFICE.

EUGENE A. WEEKS, OF CINCINNATI, OHIO.

## IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 125,774, dated April 16, 1872.

I, EUGENE A. WEEKS, of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Feed Mechanism for Sewing-Machines, of which the following is a specification:

### *Nature and Objects of Invention.*

My invention relates to sewing-machines in which the feed-bar is located and operated above the fabric to be operated upon; and consists in the provision of rotating disks or plates below the feed-bar, which resist the pressure of the feed-bar, between which disks and the feed-bar the fabric to be sewed is located, the disks being adapted to rotate in unison with the forward motion of the feed-bar, and thus enable the bar to feed, without slippage, thick, heavy material, such as leather.

### *Description of the Accompanying Drawing.*

Figure 1 is a perspective view of a "Davis vertical-feed sewing-machine" embodying my invention. Fig. 2 is a plan, showing a plan of the rotary feed-disks. Fig. 3 is a cross-section of the rotary disks and feed-bar, showing the fabric in position between the feed-bar and rotary disks.

### *General Description.*

A represents the frame of a "Davis" sewing-machine, and B the vertical feed-bar. This bar, as shown, is adapted to press downward upon the goods, and while so pressing has a forward movement imparted to it, which feeds the fabric the length of a stitch. When this forward movement is completed, the bar is elevated so as to be detached from the fabric at the same time that the presser-foot D is forced down to retain the fabric in position, and when so elevated has a backward movement imparted to it, which carries it to the point necessary to commence the next feed. In the action or operation of this class of ma-

chines heretofore it has been found difficult to feed thick material, such as leather, or in fact any fabric calculated to adhere to the table, owing to the degree of adhesion between the fabric and table being greater than that between the fabric and feed-bar, and resulting in the slippage of the bar over the goods. To remedy this objection and render this class of machine adapted to operate freely upon all classes or kinds of material, I attach two disks, C C', to the table, the faces of the disks being horizontal and in the same plane, the periphery of each so closely approaching that of the other as to admit only of the free operation of the needle E between the disks. The width of the feed-bar B is sufficient to overlap the disks, as shown in Figs. 1, 2, and 3, so that the cloth or leather to be operated upon may be held while feeding between the feed-bar and the faces of the disks. Both the disks are journaled, as shown, on studs c, and they are made preferably with sleeves c' to give considerable depth of bearing on the journals, and thus avoid canting or sticking. The disks are designed to rotate when the goods move forward under the feeding action of the feed-bar, and in so rotating enable the feed-bar to carry the goods forward the exact prescribed distance without slip.

### *Claim.*

The combination of the vibrating and reciprocating feed-bar B and disks C C', when the faces of the disks receive the pressure of the feed, and rotate in unison with the action of the feed-bar, substantially as specified.

In testimony of which invention I hereunto set my hand.

EUGENE A. WEEKS.

Witnesses:

FRANK MILLWARD,  
J. L. WARTMANN.