

(No Model.)

W. F. BEARDSLEE.

TRIMMING ATTACHMENT FOR SEWING MACHINES.

No. 295,897.

Patented Apr. 1, 1884.

Fig:1.

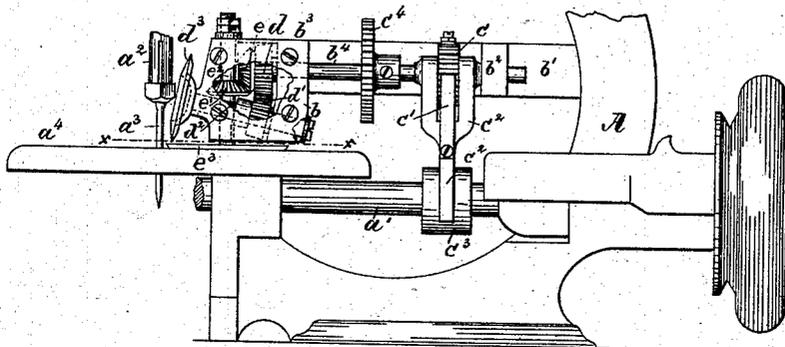


Fig:2.

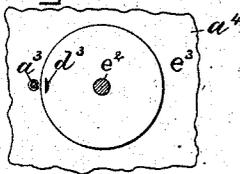


Fig:3.

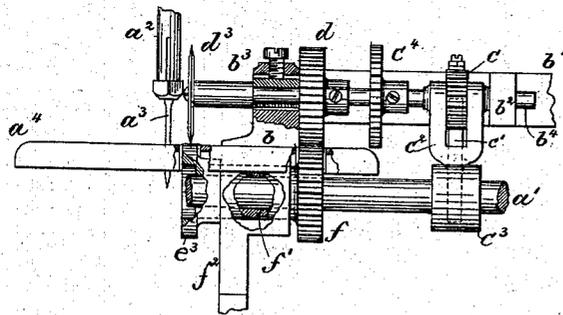
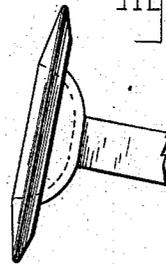


Fig:4.



Witnesses.  
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Inventor.  
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# UNITED STATES PATENT OFFICE.

WILLIAM F. BEARDSLEE, OF BOSTON, MASSACHUSETTS.

## TRIMMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 295,897, dated April 1, 1884.

Application filed September 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. BEARDSLEE, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Trimming Attachments for Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a trimming mechanism having a rotating disk the edge of which runs against a part of a rotating work-supporting surface which is broad enough to support the material each side of the line upon which it is to be severed, the blunt or dull edge of the disk acting by its pressure, rather than by incision, against the material resting upon the rotating supporting-surface, to effect the severance or separation thereof.

In another application, No. 100,971, filed by me July 16, 1883, I have represented devices substantially such as herein shown, except that in that application the edges of the disks are sharp, to cut the fabric or other material, as do usual shears.

Figure 1 is a broken side elevation of a sufficient portion of a Willcox & Gibbs sewing-machine with my improved trimming mechanism added to illustrate the operation of the same. Fig. 2 is a section on the line  $xx$ , Fig. 1, looking downward, to show the upper side of the rotating supporting-surface. Fig. 3 represents a modified form of trimming mechanism; and Fig. 4 is an edge view of the cutter, enlarged three diameters over the other figures of the drawings.

The frame-work  $A$ , hook-shaft  $a'$ , needle-bar  $a^2$ , needle  $a^3$ , and cloth-plate  $a^4$  are common to the Willcox & Gibbs sewing-machine; and in practice the shaft  $a'$  will be provided with a rotating hook, and with the usual sewing mechanism of the said machine will be employed a suitable four-motioned feed.

I provide the sewing-machine with which my trimming mechanism is to be used with a frame,  $b b'$ , which at its rear end will be adjustably pivoted or connected with the frame  $A$ . The frame  $b b'$  has bearings  $b^2 b^3$  for the

shaft  $b^4$ , having fast upon it a ratchet,  $c$ , which is engaged and moved intermittingly by the pawl  $c'$  of the pawl-carrier  $c^2$ , which is acted upon by the cam or eccentric  $c^3$ . The shaft  $b^4$ , (see Fig. 1,) besides having upon it a hand-wheel,  $c^4$ , has fast upon it a pinion,  $d$ , and a bevel-gear,  $e$ . The pinion  $d$  engages a pinion,  $d'$ , on an inclined shaft,  $d^2$ , having at its outer end a blunt-edged rotating substantially circular disk,  $d^3$ , the blunt non-cutting or dull periphery of which bears against the rotating surface  $e^3$ , which supports the material to be trimmed at each side of the line upon or along which it is to be severed, by reason of the pressure exerted upon it by the blunt periphery of the disk  $d^3$  while the material is supported and carried forward by the said rotating supporting-surface  $e^3$ . In Fig. 1 the supporting-surface is shown as a horizontally-placed disk on a vertical shaft,  $e^2$ , having upon it a bevel-gear,  $e'$ , which is engaged and rotated by the bevel gear  $e$ , referred to, the shaft  $e^2$  having its bearings on the frame  $b$ .

Referring to Fig. 3, the blunt-edged disk  $d^3$  is connected directly with the shaft  $b^4$ , prolonged beyond the frame  $b$ , and the pinion  $d$  is made larger and directly engages a pinion,  $f$ , fast upon a sleeve,  $f'$ , having its bearing in the part  $f^2$  of the frame  $A$ , the said sleeve also surrounding the hook-shaft and serving as a bearing for it, as shown and claimed in another application, No. 106,679, of like date, filed by me. The sleeve  $f'$  has fast upon it the rotating supporting-surface  $e^3$  for the material. This surface  $e^3$  is shown in Fig. 3 as a wheel of sufficient thickness to support the material at each side of the line of pressure against it of the blunt but narrower edge of the disk  $d^3$ .

I am aware that trimmers having an oscillating movement, and having a pivoted blade or blades to open and close with relation to each other, as do shears, have been used with blunt edges.

The disk  $d^3$  and the surface  $e^3$  have their acting-surfaces hardened.

I claim—

The improved trimming attachment for sewing-machines, the same comprising a frame for connection with the frame of the machine,

a substantially circular blunt or non-cutting trimming-disk, a shaft therefor driven from the sewing-machine, a fabric-support beneath said disk, and gearing connecting the shaft of  
5 the said disk and the fabric-support, to impart rotary motion to the same, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM F. BEARDSLEE.

Witnesses:

G. W. GREGORY,  
W. H. SIGSTON.