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E. W. ENTRIKEN

WORK MEASURING ATTACHMENT FOR SEWING MACHINES

Filed Sept. 5, 1922

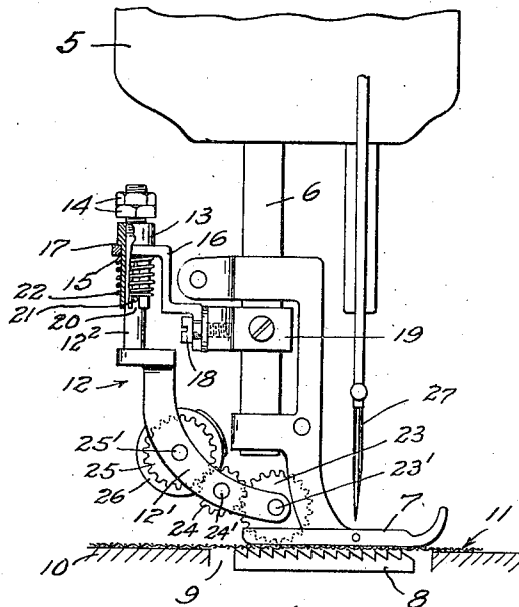


Fig. 1.

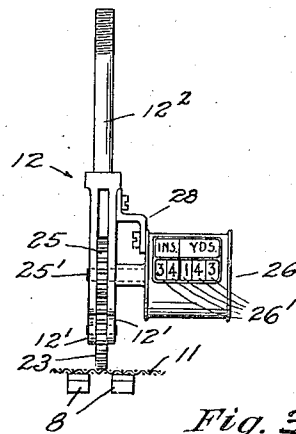


Fig. 3.

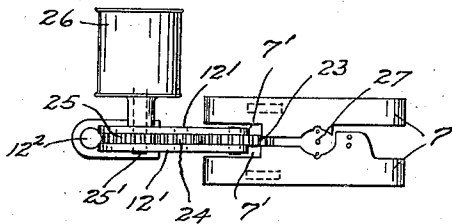


Fig. 2.

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## UNITED STATES PATENT OFFICE.

EMMETT W. ENRIKEN, OF SEATTLE, WASHINGTON, ASSIGNOR OF EIGHTEEN PER CENT TO ELEANOR MADIEUX, OF SEATTLE, WASHINGTON.

## WORK-MEASURING ATTACHMENT FOR SEWING MACHINES.

Application filed September 5, 1922. Serial No. 586,128.

*To all whom it may concern:*

Be it known that I, EMMETT W. ENRIKEN, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Work-Measuring Attachments for Sewing Machines, of which the following is a specification.

This invention relates to apparatus which is adapted to be applied to a sewing machine, more especially to a hemstitching machine, to facilitate the measuring of the work produced by the machine.

More specific objects and advantages of the invention will appear in the following description.

The invention consists in the novel construction, adaptation and combination of devices hereinafter described and claimed.

In the accompanying drawings,—

Figure 1 is a view partly in side elevation and partly in vertical section of an embodiment of my invention applied to a hemstitching sewing machine. Fig. 2 is an underside plan view of the machine presser-foot and my devices associated therewith. Fig. 3 is a front elevation of the measuring devices and the work feeding bars.

Referring to the drawing, the numeral 5 represents a portion of the arm member of a sewing machine in which is mounted for vertical movements a foot-bar 6 which carries the presser foot 7. 8 represents spaced serrated feed bars which operate in and above a slot 9 provided in the table 10 upon which the cloth, as 11, is supported and intermittently fed by said feed bars. 27 represents the machine needle. All of the machine parts, above mentioned, are or may be of any suitable or known construction.

According to the present invention, I provide a frame 12 having a bifurcated lower portion to afford branch elements 12<sup>1</sup> depending from a cylindrical shank 12<sup>2</sup>. This shank extends through a vertically disposed sleeve 13 and has its upper end screw threaded for the reception of nuts 14 which serve as an adjustable stop with respect to the upper end of the sleeve to limit the downward movement of said frame.

Said sleeve fits within an aperture 15 provided in a bracket 16 and has a peripheral shoulder 17 to rest upon the upper surface of the bracket. The bracket is secured as

by means of a clamping screw 18 to a collar 19 which is rigidly secured to the foot-bar 6 of the machine.

The sleeve 13 below its connection with the bracket 16 is slotted as at 20 to serve as a guide way for a pin 21 which extends diametrically through the frame shank 12<sup>2</sup> to afford vertical movements to the frame 12 independently of the foot-bar 6 to which my devices are attached.

The pin 21 also serves to receive the lower end of a helical spring 22 whose upper end bears against the bracket 16, said spring functioning to yieldingly retain the frame 12 in its lowermost position subject to the adjustment of the stop nuts 14. Provided between the branch elements 12<sup>1</sup> of the frame is a train of spur gear wheels 23, 24, and 25 arranged as shown. The axes 23<sup>1</sup> and 24<sup>1</sup> of the respective gears may be secured as by riveting in the respective frame elements 12<sup>1</sup>. The wheel 25, however, is fixedly mounted upon a shaft 25<sup>1</sup> which is journaled in bearings provided in said frame and protruding laterally therefrom for operating the mechanism of a counter 26 which is of any suitable or known construction. The counter 26 is rigidly secured by means of an arm 28 to the frame 12.

The apparatus is applied to the machine as illustrated and has the tracker or prime mover 23 of the train of gear wheels positioned in recess 7<sup>1</sup> formed or provided in the members 7 of the presser foot so as to be located in proximity of the needle 27 and between the feed bars 8.

In operation the progressive feed movements of the cloth act to impart rotary motion to the tracker gear-wheel 23 whence motion is transmitted through the intermediate gear wheel 24 to the gear wheel 25 to rotate the shaft 25<sup>1</sup> whereby the indicating wheels 26<sup>1</sup> of the counter 26 are actuated to designate the measurement of the sewing or stitching done by the machine.

Said indicating wheels are provided about their peripheries with measurement scales desirably denoted in inches and yards.

By securing the frame 12 to the foot-bar 6 the measuring apparatus is raised or lowered with the presser foot. The spring 22, moreover, provides limited vertical movements independently of the presser foot to the frame and the parts carried thereby

to accommodate different thickness of cloth and ensure frictional contact of the tracker wheel 23 with the cloth.

What I claim is,—

8 1. The combination with a sewing machine, of measuring apparatus comprising a bracket adapted to be secured to the presser-foot bar of the machine, a frame supported by said bracket for vertical movements relative thereto, a counter carried by said frame, a tracking wheel carried by the frame and adapted for peripheral engagement with the cloth to be measured, and operative connection between the said wheel  
10 and the indicating mechanism of said counter.

2. The combination with a sewing machine, of measuring apparatus comprising a bracket adapted to be secured to the  
20 presser-foot bar of the machine, a frame supported by said bracket for vertical movements relative thereto, means to limit the downward movement of said frame with respect to said bracket, a spring for yieldingly  
25 retaining said frame at its lowermost position, a counter carried by said frame, a track-

ing wheel carried by the frame and adapted for peripheral engagement with the cloth to be measured, and operative connection between the said wheel and the indicating  
30 mechanism of the counter.

3. The combination with a sewing machine having a presser-foot provided with a recess in its rear end, of measuring apparatus having a frame member, means to  
35 connect said frame to the machine foot-bar for vertical movements relative thereto, said frame having a bifurcated lower portion, a counter connected to said frame, and a train of gears located between the branches of said  
40 frame and operatively connected to the indicating mechanism of said counter, the driving wheel of said train extending into the presser-foot recess to engage against cloth below the latter.

Signed at Seattle, Washington, this 12th day of August, 1922.

EMMETT W. ENTRIKEN.

Witnesses:

PIERRE BARNES,  
ELEANOR MADDIEUX.