

(No Model.)

W. S. SUTTON.
ROLLER BEARING FOR SEWING MACHINES.

No. 580,236.

Patented Apr. 6, 1897.

FIG.1.

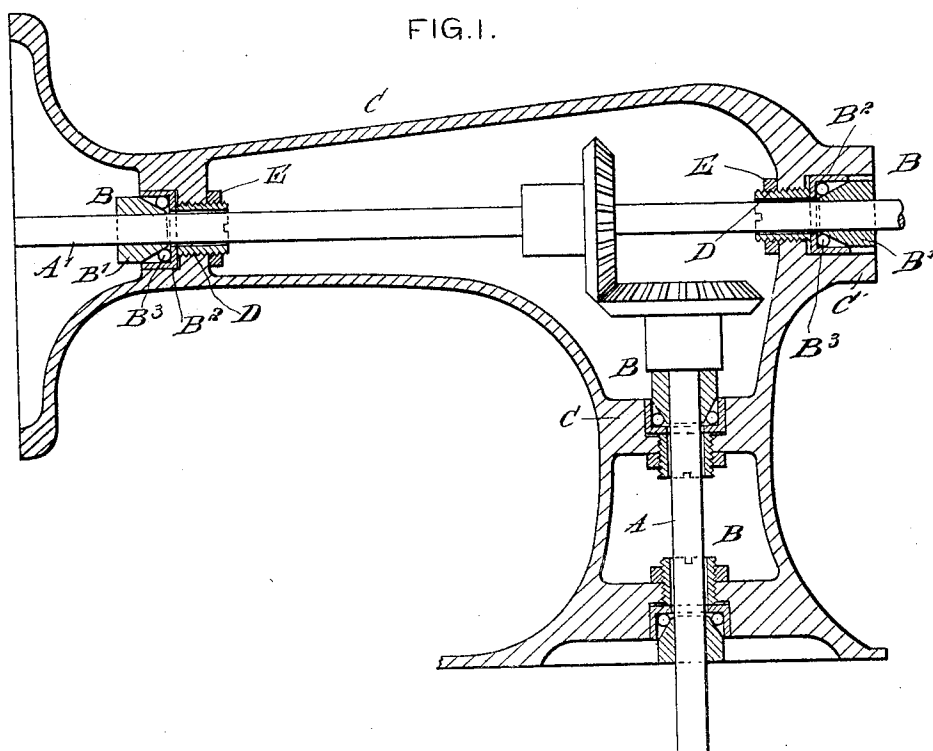
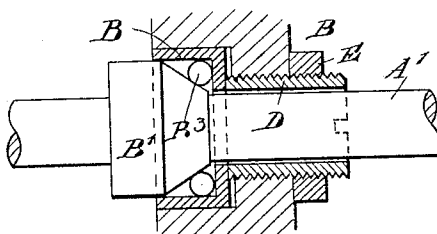


FIG. 2.



WITNESSES.

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WILLIAM SAYRE SUTTON, OF BELVIDERE, ILLINOIS.

ROLLER-BEARING FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 580,236, dated April 6, 1897.

Application filed July 31, 1896. Serial No. 601,132. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SAYRE SUTTON, of Belvidere, in the county of Boone and State of Illinois, have invented certain new and useful Improvements in Roller-Bearings for Sewing-Machines, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in roller-bearings for sewing-machines, whereby the friction of the moving parts is reduced to a minimum and any wear can be readily taken up to maintain the machine at all times in a proper condition.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a sectional side elevation of the sewing-machine arm and shafts contained therein, and Fig. 2 is an enlarged sectional side elevation of one of the adjustable bearings.

The two shafts A and A' are each journaled in ball-bearings B, each of which comprises a cone B', secured on the shaft, a cup B², adjustably held in the frame C, and balls B³, contained in the said cup B² and engaging the surface of the cone B', as plainly indicated in the drawings.

In order to adjust the cup B² relatively to the cone B', so as to take up any wear occurring between the cone, balls, and cup, I provide a threaded sleeve D, screwing in the frame C and concentric with the shaft A or A'. The inner end of the threaded sleeve D engages the cup B², so that by screwing up the sleeve the cup is shifted in the frame C to take up the wear, as above described. A jam-nut E, screwing on the sleeve D, serves to lock the latter in place after the adjustment is made. It is understood that the cup B² is concentric with the shaft A or A' and is formed with a central opening for the passage

of the shaft, the latter not touching the walls of the opening, as indicated in Fig. 2.

By the arrangement described it is evident that the friction of the moving parts of the sewing-machine is reduced to a minimum and any wear can be readily taken up, so as to give life to the machine and maintain the same at all times in proper running condition.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A sewing-machine, provided with ball-bearings each comprising a cup movably held in the frame, a cone held on a revoluble part of the machine and projecting into the cup, a set of balls contained in the said cup and engaging the said cone, and a threaded sleeve surrounding the revoluble part and screwing in the frame of the machine with its inner end engaging the said cup to adjust the latter, substantially as shown and described.

2. A sewing-machine, provided with ball-bearings each comprising a cup movably held in the frame, a cone held on a revoluble part of the machine and projecting into the cup, a set of balls contained in the said cup and engaging the said cone, a threaded sleeve surrounding the revoluble part and screwing in the frame of the machine with its inner end engaging the said cup to adjust the latter, and a nut screwing on the said threaded sleeve, so as to lock the latter in place after adjustment, substantially as shown and described.

3. In a sewing-machine, the combination with the frame and a revoluble shaft, of a cup movably held in the frame and provided with an aperture through which the shaft projects, a cone secured to the shaft and projecting into the cup, balls in the cup, and a threaded sleeve surrounding the shaft and screwing into the frame and into engagement with the cup, substantially as herein shown and described.

WILLIAM SAYRE SUTTON.

Witnesses:

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MAX H. KUNG.