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L. DA C. GÓMEZ

2,254,606

SPOOL BOBBIN

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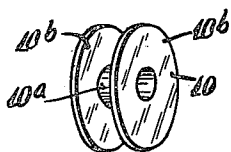


Fig. 1.

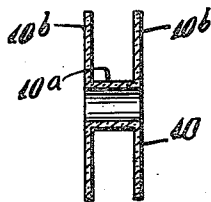


Fig. 2.

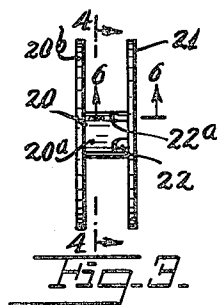


Fig. 3.

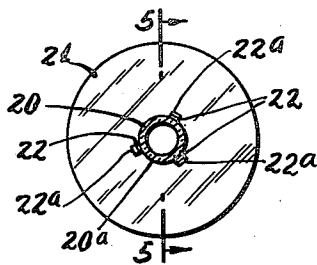


Fig. 4.

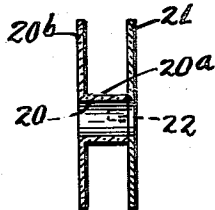


Fig. 5.

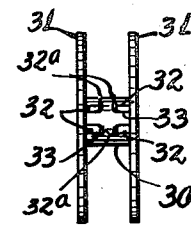


Fig. 7.

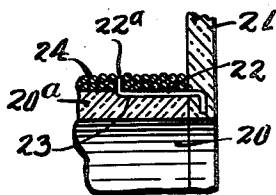


Fig. 6.

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2,254,606

SPOOL BOBBIN

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Application September 12, 1940, Serial No. 356,488

1 Claim. (Cl. 112—251)

This invention relates to new and useful improvements in a Celluloid or the like spool bobbin for sewing machines.

Still further the invention proposes the construction of a spool bobbin for sewing machines characterized by a one-piece body having a hollow cylindrical shank with flanges on the ends thereof to permit thread to be wound thereon in the conventional manner.

A further object of this invention proposes to construct the bobbin of Celluloid or other cheap composition plastic materials for eliminating the necessity of rewinding the bobbins, by supplying each workman with a supply of Celluloid bobbins constructed in accordance with this invention, and having the threads wound thereon and which are adapted to be thrown away when the threads are used up.

Still further it is proposed to form the bobbin with a removable end flange provided with a means for holding the same in position upon the shank of the bobbin for causing the flange to drop off when the bobbin is completely emptied of the thread wound thereon in a manner to prevent the bobbin from being rewound, except with the use of special equipment.

Still further it is proposed to construct a bobbin with a pair of removable end flanges mounted upon a shank portion in a manner to prevent the spool from being rewound.

A further object of this invention is to construct a Celluloid spool bobbin which is simple and durable and which may be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a perspective view of a Celluloid spool bobbin constructed in accordance with this invention.

Fig. 2 is a vertical sectional view of Fig. 1.

Fig. 3 is an end elevational view of a Celluloid spool bobbin constructed in accordance with a modification of this invention.

Fig. 4 is a sectional view on the line 4—4 of Fig. 3.

Fig. 5 is a sectional view on the line 5—5 of Fig. 4.

Fig. 6 is an enlarged horizontal sectional view taken on the line 6—6 of Fig. 3.

Fig. 7 is a view similar to Fig. 3 but illustrating a still further modification of the invention.

The Celluloid or the like spool bobbin for sewing machines according to this invention includes a one-piece plastic body 10 having a hollow cylindrical shank portion 10^a and a pair of end flanges 10^b. The end flanges 10^b are integrally formed upon the ends of the shank 10^a. The one-piece body 10 is preferably formed of Celluloid or other cheap composition plastic materials so that a workman may be supplied with a number of these bobbins having the thread already wound thereon for eliminating the bothersome necessity of rewinding the bobbin each time the thread is completely unwound therefrom. If bobbins of this construction are used, they may be thrown away when the threads are completely unwound therefrom.

According to the modification of the invention as shown in Figs. 3 to 6 the spool bobbin according to this invention includes a one-piece plastic body 20 having a hollow cylindrical shank portion 20^a integrally formed with an end flange 20^b on one end thereof.

A flange 21 is positioned adjacent the other end of the cylindrical shank 20^a and a means is cooperative with the thread wound upon the spool for holding the removable flange 21 in position upon the end of the shank 20^a. The removable flange 21 is also formed of a plastic material. The means for holding the removable flange 21 comprises a plurality of spaced inwardly extending lug members 22 which have one of their ends directly molded into the removable flange 21 shown in Fig. 6. The lugs 22 extend inwards and engage into complementary recesses 23 formed in the face of the shank 20^a.

The grooves 23 extend inwards from the end of the shank 20^a and are of a depth to accommodate the thickness of the lugs 22 so as to cause the exposed face of the lugs 22 to be flushed with the outside face of the shank 20^a (see Fig. 6). The lugs 22 have their inner ends bent outwards as indicated by the reference numeral 22^a so as to be caught between the adjacent coils of the threads 24 wound upon the shank 20^a for preventing the flange 21 from being removed from the shank 20^a while threads still remain wound thereon. However, when the thread 24 is completely unwound from the shank 20^a the construction permits the removable flange 21 to drop off the shank 20^a in a manner to prevent the thread from again being rewound upon the bobbin.

According to the modification of the invention shown in Fig. 7 the spool bobbin is characterized by a hollow cylindrical shank 30 of plastic material. Flanges 31 also constructed of plastic material are positioned adjacent the ends of the shank 30. The flanges 31 are provided with a means in the form of inwardly extending lugs 32 mounted upon the inner faces of the flanges 31 and which are cooperative with the threads wound upon the shank 30 for holding the flanges removably in position upon the ends of the shank. These lugs 32 slidably engage slots 33 extended inwards from the ends of the shank 30 and have their ends 32^a directed outwards to be caught between the adjacent coils of a thread wound thereon to hold the flanges in position upon the shank.

While I have illustrated and described the preferred embodiments of my invention, it is

to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claim.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

In a Celluloid or the like spool bobbin having a cylindrical shank for receiving turns of thread and a flange adjacent one end of said shank for the ends of the layers of said turns of thread to rest against, lugs mounted on said flange and engaging in grooves on said shank, and said lugs having their free ends directed outwards so as to be caught between certain of said turns of thread.

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