April 23, 1940.

L. G. HOUGER

2,198,114

SKEIN REEL

Original Filed May 6, 1938

2 Sheets-Sheet 1

Fig. 1.

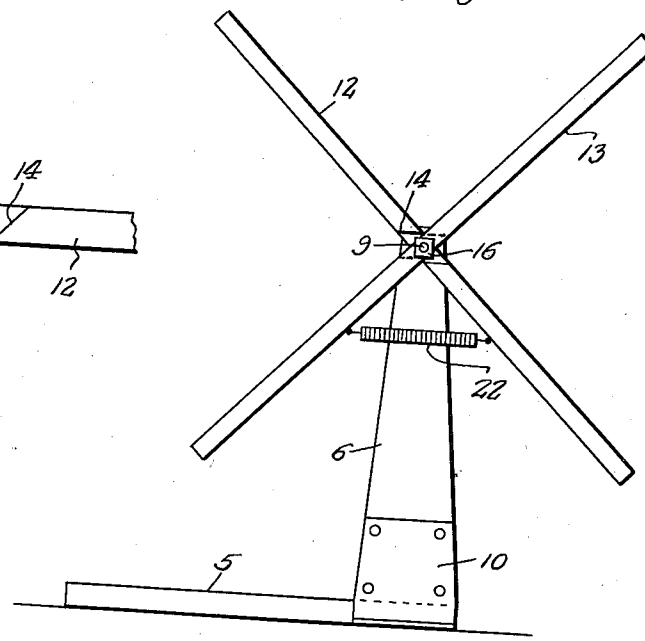


Fig. 6.

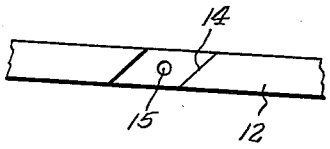


Fig. 8.

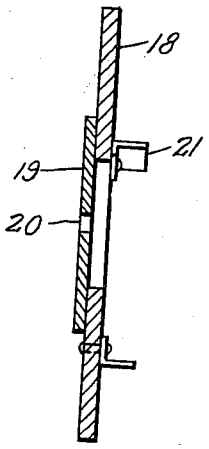
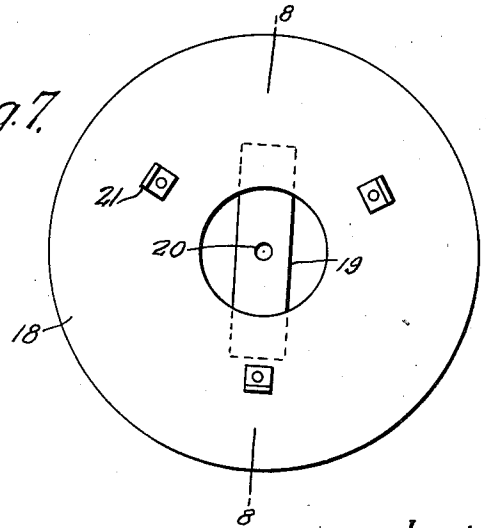


Fig. 7.



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2 Sheets-Sheet 2

Fig. 3.

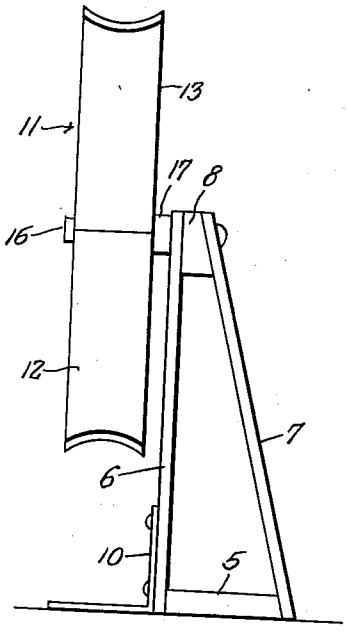


Fig. 2.

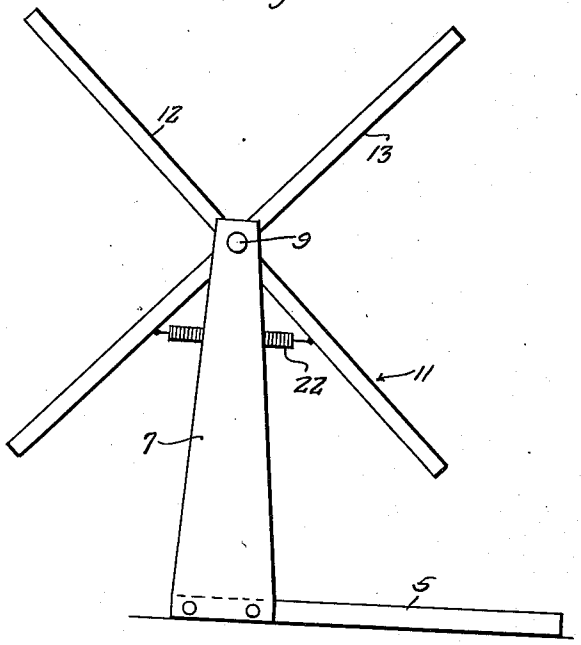


Fig. 4.

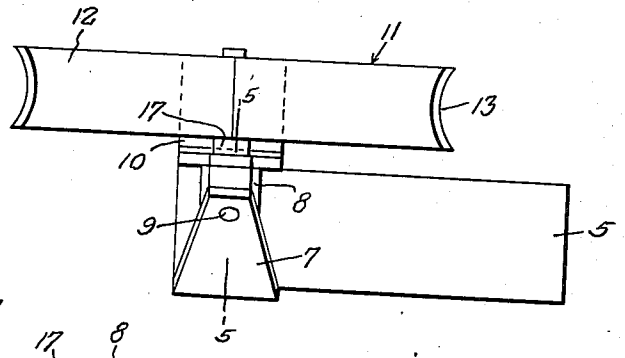
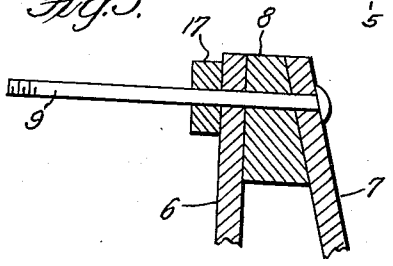


Fig. 5.



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Patented Apr. 23, 1940 2,198,114

UNITED STATES PATENT OFFICE

2,198,114

SKEIN REEL

Leroy G. Houger, Gardiner, Mont.

Application May 6, 1938, Serial No. 206,480
Renewed February 7, 1940

1 Claim. (Cl. 242—127)

This invention appertains to new and useful improvements in skein reels and more specifically to a reel on which threads or yarn can be wound in a quick and convenient manner.

An important object of the invention is to provide a reel of the character stated on which thread and yarn can be wound in a manner which will hold the material taut and will not allow the same to snarl.

Other objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings—

Figure 1 represents a side elevational view of the device.

Figure 2 is a side elevational view of the device looking at the opposite side from that shown in Figure 1.

Figure 3 is an end elevational view.

Figure 4 is a top plan view.

Figure 5 is a vertical sectional view taken substantially on a line 5—5 of Figure 4.

Figure 6 is an enlarged fragmentary elevational view of one of the reel members.

Figure 7 is a side elevational view of a sewing machine wheel attaching plate.

Figure 8 is a sectional view on a line 8—8 of Figure 7.

Referring to the drawings, wherein like numerals designate like parts, it can be seen that the reel consists of the base plate 5 from one end of which rises the uprights 6—7 which engage against opposite sides of the upwardly tapering spacer 8 at their upper end and through this spacer 8 and through the upper end portions of the uprights 6—7 is disposed the shaft 9 on which the reel proper is located. Numeral 10 denotes a right angular shaped brace for the vertical upright 6.

The reel which is generally referred to by the numeral 11 consists of a pair of elongated members 12—13, each of which is provided with a centrally located notch at one edge portion and these notches 14 extend through the edge portion of the member and substantially half through the member and on a plane oblique with respect to the longitudinal axis of the member as illustrated in Figure 6.

Extending through the notched intermediate portions of the members 12—13 are the bores 15 through which the shaft 9 extends and a nut or like member 16 can be provided on the outer end of the shaft while a washer 17 is interposed between the upper portion of the upright 6 and the reel.

Figures 7 and 8 show an attachment for use with a sewing machine hand wheel whereby the reel can be mounted and driven by the sewing machine. In this connection numeral 18 represents an annulus the central portion of which is open but bridged by the strip 19 which has the central opening 20 therein for receiving one end of the shaft of the reel 11 after it has been taken off of its stand. Clips 21 are provided on the opposite side of the annulus 18 and these clips can be engaged with the sewing machine hand wheel so that when the sewing machine is driven, the hand wheel in turning will carry with it the annulus 18 and reel 11.

Connecting the members 12—13 is a coiled extensible spring 22 which normally holds the members in the right angular relation shown in Figure 1. However, in starting to wind the yarn or thread onto the reel, the members are brought together somewhat so that they will extend alignedly with respect to the direction of their notches 14 when several turns of the thread or yarn are taken on the reel, after which it is released and the tension of the spring 22 will serve to draw taut the convolution and always hold the subsequent convolutions somewhat under tension.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is—

A reel of the character described comprising a support, a shaft extending laterally from the support at the upper portion thereof, a rotor mounted for rotation on the shaft, said rotor comprising a pair of elongated substantially wide plates, each formed at its intermediate portion and extending inwardly from one edge thereof with a notch, said notch extending inwardly of the plates for substantially one-half the distance across each plate, said notches being formed in a direction oblique with respect to the longitudinal axis of each plate, said plates being disposed together in interlocking relation at the notched portions thereof with the inner end portion of one notch immediately opposed to the inner end of the other notch and with the longitudinal edges of the plates disposed on a pair of parallel vertical planes, the intermediate portions of the said plates being formed with transverse bores for receiving the said shaft, and a tension spring having its ends connected to the two plates at one side of the shaft for holding the plates in right angled crossed position with certain walls of the plates defined by the notches abutting, said notches being formed to permit contraction of the rotor by contracting the plates against the tension of the spring.

LEROY G. HOUGER.