

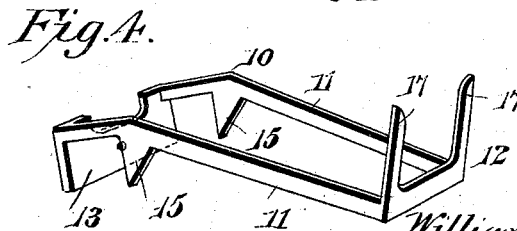
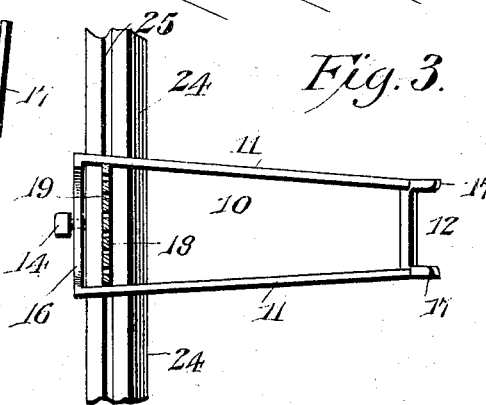
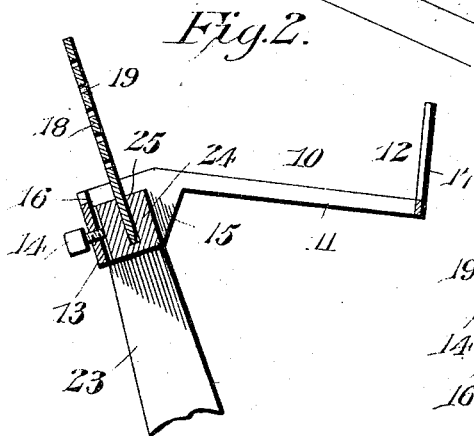
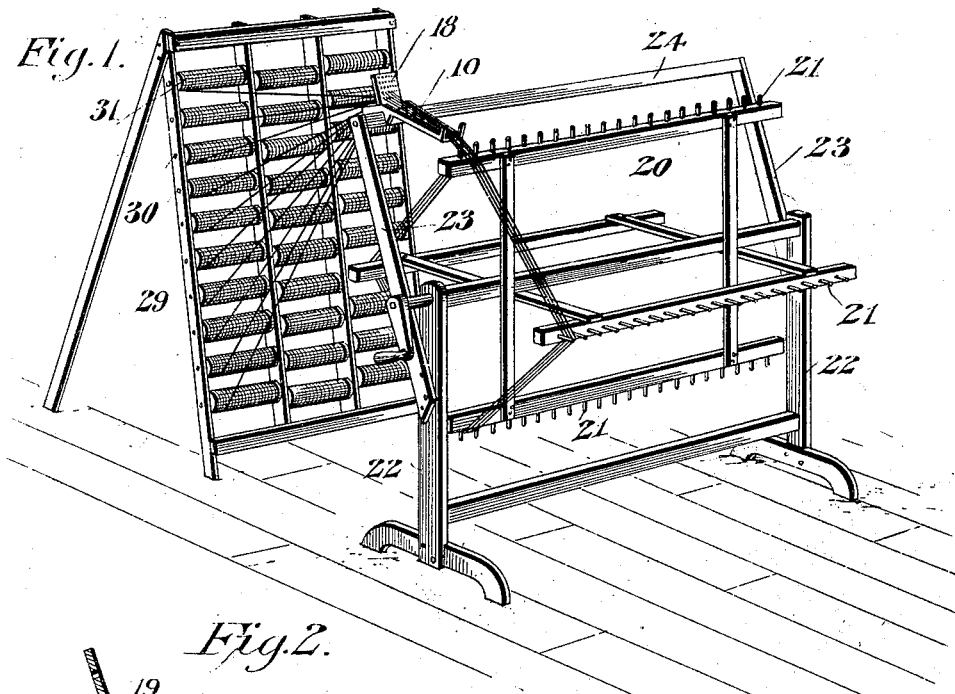
No. 647,065.

Patented Apr. 10, 1900.

W. H. BARTOLET.  
THREAD GUIDE FOR WARPING REELS.

(Application filed May 4, 1899.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. BARTOLET, OF MARYSVILLE, WASHINGTON.

## THREAD-GUIDE FOR WARPING-REELS.

SPECIFICATION forming part of Letters Patent No. 647,065, dated April 10, 1900.

Application filed May 4, 1899. Serial No. 715,612. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. BARTOLET, a citizen of the United States, residing at Marysville, in the county of Snohomish and State of Washington, have invented a new and useful Thread-Guide for Warping-Reels, of which the following is a specification.

My invention relates to thread-guides for warping-reels designed for use in a position between the reel or "swift" and the spool-frame; and said guide is particularly adapted to prevent the threads from catching on the studs of the reel during the operation of winding the said threads to form a skein.

A further object is to provide a construction which may be easily shifted to variable positions on the cross-bar of the reel-frame for alining with different series of studs on the reel in order to wind different skeins thereon and also to secure a firm clamping engagement of the guide to the reel-frame for holding said guide in place.

With these ends in view the invention consists in the novel combination of devices and in the construction and arrangement of parts, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of a warp-reel and spool-frame with my guide in proper relation thereto. Fig. 2 is an enlarged sectional view through the cross-bar of the reel-frame, showing the guide applied. Fig. 3 is a plan view of the parts represented by Fig. 2. Fig. 4 is a detail perspective view of the guide-frame.

The same numerals of reference are used to indicate like and corresponding parts in each of the several figures of the drawings.

The guide of my invention is indicated in its entirety by the numeral 10, and it consists of the side bars 11, a head 12, and a binding-plate 13. These parts may all be cast in a single piece of metal for simplicity and strength of construction; but, if desired, the parts enumerated may be made in separate pieces and assembled in proper relation, as shown by Fig. 4, so that they may be secured firmly together. The binding-plate 13 at one end of the guide is provided with a threaded aperture to receive a clamping-screw 14. The side bars 11 of said guide are preferably, although not essentially, of the angular form

shown by Fig. 2 of the drawings, and said side bars are provided with lugs 15, which are disposed parallel to the binding-plate 13, so that the lugs and the plate form a recess or space adapted to receive a cross-bar of the reel-frame when the guide is applied in proper position. The plate 13 at one end of said guide is provided in its upper edge with a recess 16, and the head 12 at the opposite end of said guide is forked to form the spaced prongs 17, the space between said prongs being alined with the recess 16 of the binding-plate.

In connection with the guide 10 and the cross-bar of the reel-frame I employ a drawing-plate 18, the width of which is equal to the space between the bars 11 of the guide 10. This drawing-plate is provided with a plurality of transverse apertures 19, arranged in parallel rows one above the other, and said drawing-plate is adapted to fit between the side bars of the guide, so as to assume a position on the reel-frame which will direct the threads from the plurality of spools into proper relation to the studs on the swift or reel. This swift or reel 20 is of the ordinary construction familiar to those skilled in the art, and it is provided with a number of pins or studs 21, which are arranged in series on the bars of said reel and with the studs of one bar disposed in the same vertical plane as corresponding studs on each of the other bars of the reel. The studs or pins of the reel are properly spaced apart to permit of the winding of the threads on the cross-bars of the reel to produce skeins on said reel, and the different skeins are separated by the series of pins or studs 21. The reel or swift has its shaft journaled in proper bearings on the frame 22 to permit said reel to rotate freely therein, and to the reel-frame are firmly secured the inclined arms 23, which extend in a forward and upward direction from the standards that carry the bearings for the reel-shaft. These inclined arms support the cross-bar 24, which is disposed in a horizontal position above the reel-shaft and parallel thereto, and in this cross-bar I form a longitudinal groove 25, which is adapted to receive the lower edge of the perforated drawing-plate 18, as will hereinafter appear.

It is customary in the art to employ a spool-frame 29 in connection with the swift or reel,

and this frame is disposed in an inclined or upright position contiguous to the reel, substantially as shown by Fig. 1. Said frame 29 carries a series of arbors 30, on which are  
5 loosely mounted the series of spools 31, which contain the threads of warp adapted to be wound in skeins on the swift or reel.

The guide 10 and drawing-plate 18 of my invention are used conjointly in connection  
10 with the spool-frame and the revoluble reel for the purpose of directing the plurality of threads from the spools of the frame 29 to said reel, the primary office of the forked head 12 of said guide being to so direct the  
15 threads as to prevent them from catching on the studs or pins of the reel. After the spool-frame shall have been adjusted in proper relation to the reel I arrange the guide and drawing-plate for service on the cross-bar 24. The  
20 guide is fitted to the cross-bar to have the side bars 11 rest thereon, while the plate 13 bears against one side of the bar and the lugs 15 against the opposite side of the bar. The guide extends from the cross-bar 24 toward the reel,  
25 so as to sustain the forked head 12 into close relation to the path of the reel-bars, and this forked head in one adjustment of the guide is disposed in a plane between two adjacent series of pins or studs on said reel. The binding-screw 14 is adapted to impinge against the  
30 cross-bar 24 in order to hold the guide 10 firmly in one position thereon, and the drawing-plate 18 is fitted between the side bars 11 of said guide for the lower edge of said drawing-plate to be seated in the groove 25 of the  
35 cross-bar. The threads from the desired number of spools on the frame 29 are conducted through the openings in the drawing-plate and the forked head 12 of the guide, and said  
40 threads are then wrapped around or connected to the reel between two series of studs thereon. The structure is now in condition for service, and the reel may be rotated by hand for the purpose of drawing the threads from the  
45 spools and winding said threads into a skein on the reel. After one skein shall have been formed the threads are broken or disconnected and the guide 10 and drawing-plate should be shifted on the cross-bar 24 to aline with  
50 the space between another series of studs 21 on said reel. In this adjustment of the guide and plate the binding-screw 14 is released from the bar 24 and the guide slipped sidewise

along the bar 24, and as the guide travels along the bar the drawing-plate 18 is shifted  
55 therewith, so that the edge of the plate will travel in the groove 25, after which the screw 14 should again be tightened in order to hold the guide and drawing-plate in proper position. The swift may now be again rotated to  
60 form another skein, and this operation may be repeated any desired number of times until the reel shall have been wound with the proper number of skeins.

Changes in the form, proportion, size, and  
65 the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what  
70 I claim is—

1. The combination with a reel-frame having a cross-bar, of a thread-guide frame clamped on said cross-bar and provided at one end with a forked head, and a drawing-plate  
75 slidably supported by the cross-bar and shiftable with the thread-guide frame lengthwise of the cross-bar, said drawing-plate being alined with the forked head longitudinally of the thread-guide frame, substantially as described.

2. The combination with a reel-frame having a cross-bar, of a thread-guide frame having a clamp at one end and a forked head at the other end, said clamp engaging with the  
85 cross-bar and supporting the thread-guide frame adjustably thereon, and a drawing-plate seated on the cross-bar and engaging with the thread-guide frame to be shiftable therewith, substantially as described.

3. The combination with a reel-frame having a grooved cross-bar, a reel, and a spool-frame, of a thread-guide frame having a clamp at one end and a forked head, said clamp engaging the grooved cross-bar, and a drawing-plate seated in the groove of the cross-bar and fitted between the sides of the thread-guide frame to be shiftable therewith, substantially as described.

In testimony that I claim the foregoing as  
100 my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM H. BARTOLET.

Witnesses:

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JOHN A. KENNEDY.