

H. D. COLMAN.
CONTAINER FOR YARN CARRIERS.
APPLICATION FILED JUNE 7, 1916.

1,255,858.

Patented Feb. 12, 1918.

FIG. 1.

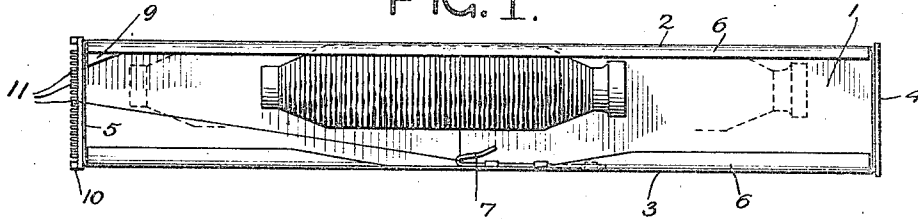


FIG. 2.

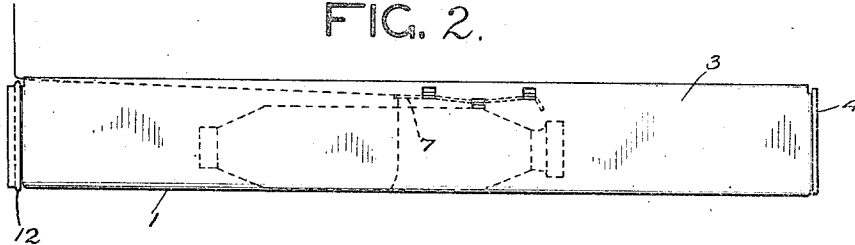


FIG. 3.

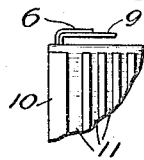


FIG. 4.

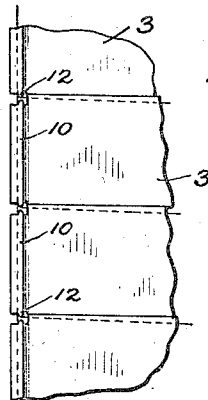


FIG. 5.

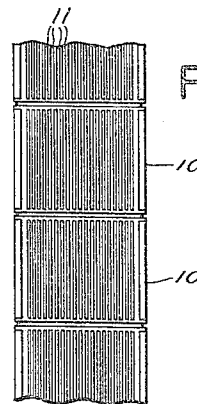
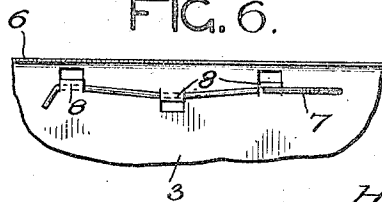


FIG. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

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CONTAINER FOR YARN-CARRIERS.

1,255,858.

Specification of Letters Patent.

Patented Feb. 12, 1918.

Original application filed April 1, 1909, Serial No. 487,347. Divided and this application filed June 7, 1916.
Serial No. 102,124.

To all whom it may concern:

Be it known that I, HOWARD D. COLMAN, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Containers for Yarn-Carriers, of which the following is a specification.

One of the objects of this invention is to produce a support or container for bobbins or the like which shall permit unwinding of the yarn with the least possible resistance and which, when placed in the creel, shall inclose the bobbin and prevent the bobbin from jumping out of place.

Another object of the invention is to produce a support or container for yarn carriers having means for keeping the running thread out of contact with adjacent threads.

This application is a division of application Serial No. 487,347, filed April 1, 1909, (Patent No. 1,191,102, dated July 11, 1916).

In the accompanying drawings, Figure 1 is a plan view of a container embodying the features of my invention. Fig. 2 is a side view of the container. Fig. 3 is a fragmental front end view. Fig. 4 is a fragmental side view of several containers stacked upon one another. Fig. 5 is a front end view of said stack. Fig. 6 is a fragmental view illustrating a means for removably attaching a thread-guide and clearer to the container.

Application Serial No. 487,347 hereinbefore referred to, discloses a creel in which each bobbin is contained in an individual box, the boxes being stacked on top of one another to form a plurality of vertical tiers or columns of bobbin boxes. Each box comprises a bottom wall 1, side walls 2 and 3, and end walls 4 and 5. The upper side of the box is open, save for the intumed flanges 6 on the upper edges of the side walls 2 and 3. These flanges serve to stiffen the walls 2 and 3, and also provide a seat for the next higher box in the stack. At one side of the box is a yarn guide and clearer 7 to receive the yarn as it comes from the bobbin. The guide and clearer 7 may be removably secured to the box in order that the guide and clearer may be readily replaced by a new guide and clearer or one of different size. Herein the device 7 is shown as secured in

place by means of tongues 8 struck up from the side wall 3. The yarn guide and clearer 7 is located midway of the length of the side wall 3. In order that the bobbin may slide longitudinally into the positions where its winds of yarn may pass to the guide 7 with the least resistance, the box is preferably at least twice as long as the bobbin.

At the top of the box and adjacent to the junction of the walls 2 and 5 is a horizontally-extending finger 9.

Attached to the outer side of the end wall 5 is a plate 10 having a suitable number of vertical thread-guiding grooves 11 in its outer face. The grooves are the same in number as the active bobbins which each stack is intended to contain. Twenty grooves are herein shown. When the boxes are stacked one upon another, the grooves 11 of the boxes will be alined to form twenty continuous individual passageways for the yarn extending from the boxes. The threads are thus properly spaced apart and prevented from crossing or touching one another.

As shown in the drawings, the plate 10 is provided at its lower edge with a rib 12, which extends sufficiently far below the bottom wall 1 so that the thread from the next lower box shall be held out of contact with the flanges 6 and finger 9 of such next lower box and out of contact with the bottom of the box above such thread. The upper edge of the plate 10 is sufficiently far below the top of the box so that there shall be a space between the plates 10 of two adjacent boxes in a stack to permit the thread to leave the lower one of such boxes.

In use, the operative places a bobbin in the box, leads the thread of the bobbin through the yarn guide and clearer 7 and beneath the finger 9, and secures the end of the thread in a suitable clamp (not herein shown). When the box settles in the stack, the finger 9 serves to carry the thread down with the box, as fully explained in said application Serial No. 487,347. When winding commences, the thread moves laterally (toward the side 3 of the box) into contact with the detector (not herein shown), and is thus positioned so that when the box settles still further the thread enters the proper groove 11 of the next higher box.

As thread is drawn from the bobbin, the latter slides longitudinally so as to keep that portion of the bobbin from which the thread extends approximately directly opposite the guide 7, thereby enabling the thread to be unwound with less resistance than if the bobbin were held against endwise movement.

I claim as my invention:

1. A bobbin-box for winders having a thread guide at one side, a thread-engaging finger at the opposite side of the box and near one end of the box; and a plurality of thread-guiding devices upon the outer side of said end of the box, said finger being adapted to permit a thread to slip toward said thread-guiding devices.

2. A bobbin-box for winders, said box being adapted to contain a single bobbin extending lengthwise of the box, said box having a bottom wall, side walls and end walls, the top of the box being open, a thread-guiding hook upon one side of and within the box, the closed end of the hook being directed toward one end of the box, and parallel thread-guiding grooves upon the exterior of said end of the box.

3. A bobbin-box for winders having a bottom wall, side walls and end walls, the top of the box being open, a thread guide on the box at a point between the ends of the box, and parallel vertical thread-guiding grooves upon the exterior of one end of the box.

4. A bobbin-box for winders, a thread-guiding hook upon one side of the box, the

closed end of the hook being directed toward one end of the box, and parallel thread-guiding grooves upon the exterior of said end of the box.

5. A bobbin-box for winders, said box having a bottom wall, side walls, and end walls, one of said end walls having upon its outer side a plurality of parallel thread-guiding grooves.

6. A bobbin-box for winders having a bottom wall, side walls and end walls, a thread guide on one of the side walls, a thread-engaging finger at the opposite side of the box and near one end of the box, and a plurality of thread-guiding devices upon the outer side of said end of the box.

7. A bobbin-box for winders having a substantially flat bottom and vertical side walls having substantially straight upper edges to support the bottom of a similar box, and a thread guide on one of said side walls substantially midway of the length of the box, said box being of such length that the bobbin may reciprocate longitudinally within the box to bring the part of the bobbin which is being unwound substantially opposite said guide.

8. A bobbin-box for winders, said box being elongated and having parallel thread-guiding grooves upon the exterior of one end of the box.

In testimony whereof, I have hereunto set my hand.

HOWARD D. COLMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."