July 1, 1924. 1,499,995

C. W. MERRITT

QUILL CAN SUPPORT

Filed Oct. 7, 1922

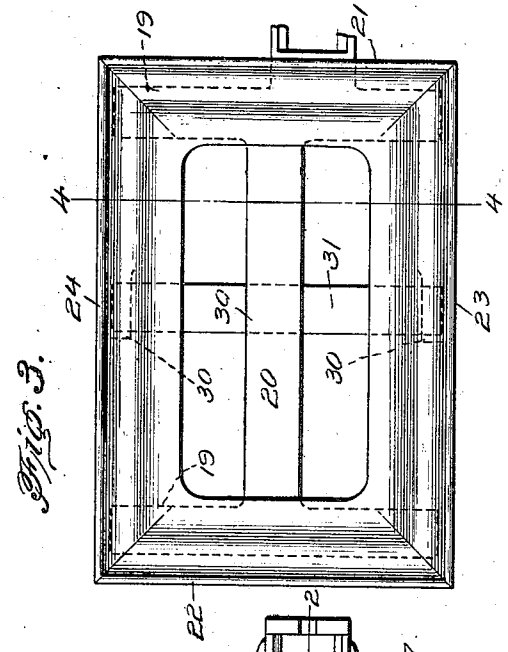


Fig. 3.

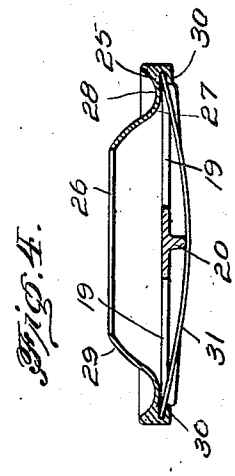


Fig. 4.

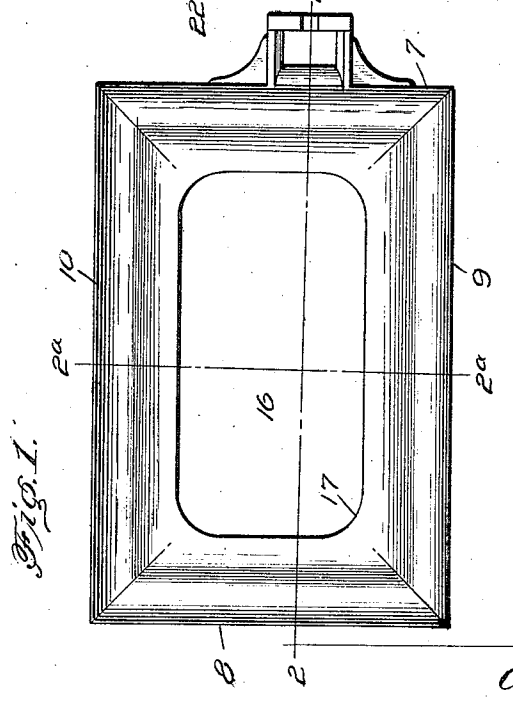


Fig. 1.

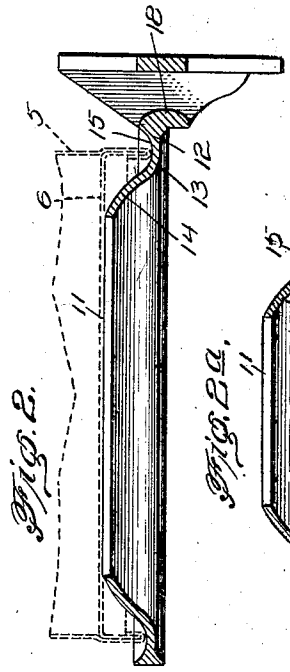


Fig. 2.

Fig. 2a.

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UNITED STATES PATENT OFFICE.

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QUILL-CAN SUPPORT.

Application filed October 7, 1922. Serial No. 593,039.

To all whom it may concern:

Be it known that I, CHARLES W. MERRITT, a citizen of the United States, residing at Walhalla, in the county of Oconee and State of South Carolina, have invented certain new and useful Improvements in Quill-Can Supports, of which the following is a specification.

This invention relates to a quill can support, designed primarily for use in connection with looms, but it is to be understood that the support can be employed for any purposes wherein it is found applicable, and the invention has for its object to provide a support of such class, in a manner as hereinafter set forth, with means to overcome, when the can is supported thereby, the wearing of openings in the bottom of the can, under such conditions increasing the life of the can, and furthermore to provide a can support whereby the can can be conveniently removed from and replaced therein when occasion so requires.

A further object of the invention is to provide a quill can support, in a manner as hereinafter set forth, with means arranged interiorly and exteriorly with respect to the bottom of the can for holding the latter firmly in place, as well as to cause the proper positioning of the can when mounted in the support.

A further object of the invention is to provide a quill can support, in a manner as hereinafter set forth, with means for uniformly supporting the can in case the lower edges thereof are irregular or become worn.

A further object of the invention is to provide a quill can support, in a manner as hereinafter set forth, with means for not only supporting the can from the lower edges thereof, but also from the bottom thereof.

A further object of the invention, is to provide a quill can support, in a manner as hereinafter set forth, with an inner concavo-convex portion for positioning as well as affording an inside support for the can when mounted in position.

A further object of the invention, is to provide a quill can support, in a manner as hereinafter set forth, with means for supporting the can from the extreme bottom edge thereof, under such conditions insuring an equal distribution of weight, and at the same time increasing the life of the can.

A further object of the invention is to provide a quill can support, in a manner as hereinafter set forth, with means for holding the can firmly in position and always directly beneath the battery, thus preventing seconds and wastes from filled bobbins being thrown out onto the floor instead of into the can when the latter is not properly positioned.

A further object of the invention is to provide a quill can support, in a manner as hereinafter set forth, with means to constitute an inclined supporting surface, as well as a concavo-convex supporting surface, so disposed with respect to each other whereby the bottom of the can is interposed between said surfaces and the can maintained in proper position.

A further object of the invention is to provide a quill can support, in a manner as hereinafter set forth, with means to provide for the supporting of cans of different heights and different dimensions.

A further object of the invention is to provide a quill can support, in a manner as hereinafter set forth, which is comparatively light in weight, and narrower with respect to the support now in general use, under such conditions affording greater space in the weaver's alley.

Further objects of the invention are to provide a quill can support, which is extremely simple in its arrangement and construction, strong, durable, efficient and convenient in its use, readily set up, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts, as hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claim hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:—

Figure 1 is an end view of a quill can support in accordance with this invention,

Fig. 2 is a section on line 2—2 of Fig. 1,

Fig. 2^a is a section on line 2^a—2^a of Fig. 1,

Fig. 3 is a top plan view of a modified form of quill can support in accordance with this invention,

Fig. 4 is a section on line 4—4 of Fig. 3.

Referring to Figures 1, 2 and 2ª, of the drawings, a portion of a quill can is indicated in dotted lines in Fig. 2, and is indicated by the reference character 5. The body of the can 5 projects below the bottom 6 thereof, or in other words, the bottom 6 is inset with respect to the lower edges of the body of the can 5. The general form of quill can employed is of the construction referred to, that is to say with an inset bottom, and the can is adapted to be positioned directly beneath the battery of the loom, so as to receive empty or filled quills when they are discharged from the battery.

The quill can support, in accordance with this invention, is rectangular in contour, and formed from a single casting, of the desired weight, and which is adapted to be connected to the loom, at a point so as to support the can directly beneath the battery. The body portion of the support, includes a pair of ends 7, 8, and a pair of sides 9, 10. The outer edge of the body portion is squared and disposed vertically. Extending inwardly from the ends 7, 8, and sides 9, 10, is a rectangular web referred to generally by the reference character 11. The inner sides of the ends 7, 8, and sides 9, 10, is formed with a downwardly curved portion 12 which terminates in the web 11. The web 11 at its point of mergence with the curved portion 12 is upwardly curved as at 13 and further upwardly curved as at 14, but of reversed curvature with respect to the portion 13.

The web 11 extends upwardly, that is to say, the sides of the web 11 extend upwardly and the ends thereof extend upwardly, and with the sides projecting toward each other, and a like arrangement is had with respect to the ends of the web. As the sides, as well as the ends of the web are curved in the manner as stated, that is to say each side or each end formed of two curved portions, one reverse with respect to the other, or in other words, each side and each end being of compound curvature, the web not only in longitudinal section is concavo-convex, but also in transverse section. As the ends of the web, and sides of the web, are spaced from each other, the support is provided with a rectangular opening 16. The wall of the opening 16, has rounded corners, as indicated at 17. The height of the web 11, is such as to project above the ends 7, 8 and sides 9, 10, of the body portion of the support.

The curved portion 12 of the ends 7, 8, and sides 9, 10, is disposed downwardly, and merges in the curved portion 13 of the ends and sides of the web, and the said curved portion 13 extends upwardly, and in connection with the curved portion 12, provides a pocket in which is mounted the lower edges of the bottom or rather body portion of the can 5. As the bottom 6, of the can 5, is inset, the upwardly directed web 11, provides a support for said bottom, as the web 11 will extend up into the body portion of the can 5, as is clearly shown in Fig. 2. By this construction, the can is supported from two points, one at the lower edges of the body portion of the can, and the other at the bottom 6 of the can. The width of the pocket 16, is such as to provide for cans of different widths, and the length of the pocket 16 is such, as to provide for cans of different lengths.

By providing the upwardly directed supporting web 11, a means is set up whereby the can can be properly positioned and supported, if the lower edges of the body portion of the can are irregular. Furthermore, the upwardly directed web provides for the proper positioning of the can on the support, so that the mouth of the can will be arranged directly beneath the battery of the loom.

The end 7, of the body portion of the support, is provided with a coupling element 18, of known construction, for connecting the support to the loom.

In the modified construction shown in Figs. 3 and 4, a support is set up, provided to perform the same function as the form illustrated in Figs. 1 and 2 have, but the modified form is so set up, that it can be detachably secured to a quill can support of a type which is now in general use. The form of quill can support, which is now in general use, and shown in Fig. 4 of the drawing, comprises what may be termed an H-shaped body, having the ends thereof indicated at 19, and the arm at 20. The head 19 is connected to the loom, by a coupling element similar to that shown in Fig. 2, and the arm 20 is disposed at right angles with respect to the arm 19, and projects centrally thereof. The arm 19, as well as the arm 20, is T-shaped in cross section. The modified form of quill can support illustrated by Figures 3 and 4 is stamped or made of cast iron from a body of sheet metal and comprises end members 21, 22 and side members 23, 24. Each of the side and end members is provided with an inwardly extending downwardly disposed curved flange 25, which merges into an upwardly directed web 26. The flange 25 is continuous and the lower portion of the web 26 is upwardly curved as at 27, and the flange 25, in connection with the curved portion 27, provides a pocket 28 for the same purpose as the pocket 15, and the pocket 28,

in cross section, is similar in contour to the pocket 15. The upwardly curved portion 27, of the web 26, terminates in an upwardly extending curved portion 29, but the curved portion 29 is reversed with respect to the curved portion 27, thereby providing the ends and sides of the web 26 of compound curvature, and further providing a web which is concavo-convex in longitudinal section and further concavo-convex in transverse section.

Each of the side members 23, 24, has its inner face formed with an inwardly extending lug 30, which are engaged by a transversely extending flat holding spring 31, the latter extending under the arm 20, as shown in Figure 4, and which holds the body portion of the support firmly in place. The lugs 30 are arranged opposite each other and the holding member, formed by the spring 31 can be readily removed and positioned when desired.

The contour of the support shown in Figs. 3 and 4, is the same as that shown in Figs. 1, 2 and 2^a, and performs the same function as that carried out by the construction shown in Figs. 1, 2 and 2^a.

As before stated, the construction shown in Figs. 3 and 4, can be detachably secured to the ordinary form of quill can support without detaching the latter from the loom.

From the foregoing description, taken in connection with the accompanying drawings, a quill can support is set up, whereby cans of different sizes can be properly supported and positioned with respect to the loom, and although the drawings illustrate the preferred embodiment of the invention, yet it is to be understood that changes in the details thereof can be made without departing from the spirit of the invention.

What I claim is:—

A quill can support comprising a body portion provided with an opening, said body portion being curved in cross section to provide a pocket surrounding said opening and further having the inner part thereof extending above the outer part, the wall of said pocket being shaped to form a continuous seat for supporting the bottom edges of the body of quill cans of varying sizes, the upper terminus of the inner part of said body portion forming a support for the bottom of the quill can and means for securing said body portion in position to support a quill can relative to the bobbins of a loom to receive the seconds and wastes from the bobbins.

In testimony whereof, I affix my signature hereto.

CHARLES W. MERRITT.