Nov. 9, 1926. 1,606,357

G. F. FRENCH ET AL

HEADING TAPE FOR PLAITING AND SUSPENDING CURTAINS AND THE LIKE

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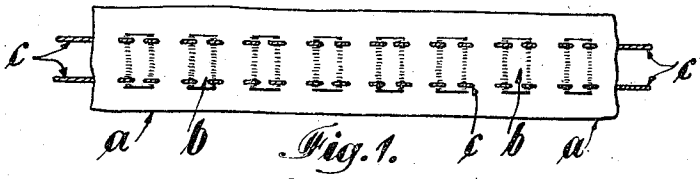


Fig. 1.



Fig. 2.

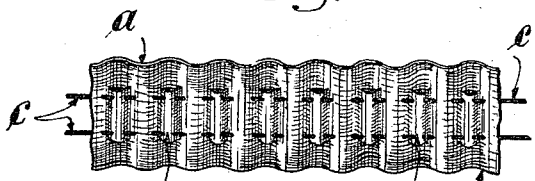


Fig. 3.

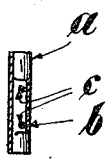


Fig. 4.



Fig. 5.

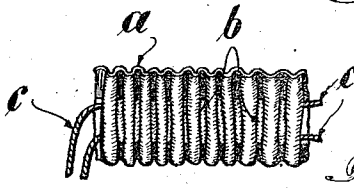


Fig. 6.

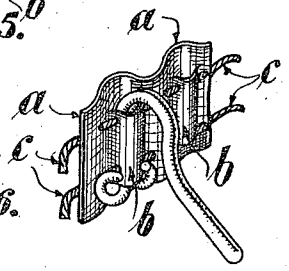


Fig. 7.

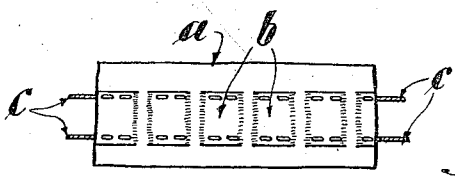


Fig. 8.



Fig. 9.

Inventors:
George Frederick French.
William Henry Pinch
By their Attorney: Walter Gunn.

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Fig. 10.

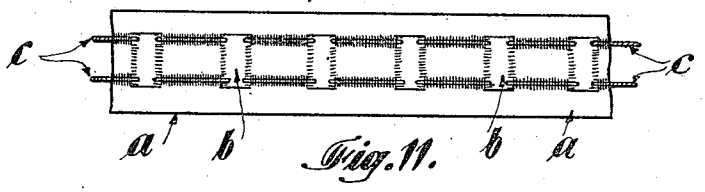


Fig. 11.

Inventors:
George Frederick French.
William Henry Pinch.
By their Attorney: Walker Gunn

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UNITED STATES PATENT OFFICE.

GEORGE FREDERICK FRENCH, OF MANCHESTER, AND WILLIAM HENRY PINCH, OF BIRKENHEAD, ENGLAND.

HEADING TAPE FOR PLAITING AND SUSPENDING CURTAINS AND THE LIKE.

Application filed March 20, 1923, Serial No. 626,430, and in Great Britain March 31, 1922.

This invention refers to heading tapes for plaiting and suspending curtains and the like.

Various forms of heading tapes have been previously proposed for fixing to a curtain and constructed to allow of hooks or the like engaging same at intervals. One of said tapes has been a plaiting tape with metal eyelets spaced apart, another of said tapes has been a plain tape formed at intervals with long narrow loops on one face, another of said tapes has been a plaiting tape with small narrow loops interwoven with the tape but lying on the ridges of the pleats when the tape is plaited, whilst another of said tapes has been a plain tape with draw cords upon or threaded through it, which latter serve both to plait the tape and curtain and to suspend the curtain from the hooks.

In certain of such tapes, the hooks are not firmly held to the tape against relative movement, and allow of accidental detachment of the hooks, especially when same are sharply drawn along the curtain rod. In the case of tapes in which the draw cords are used for suspending the curtain as well as (or instead of) pleating same, the cords pull out under the weight of the curtain and allow the curtain to hang badly. When eyelets are used, although firmly holding the hooks to the tape, they pull out under the weight of the curtain.

One of the objects of this invention is to provide a heading tape of the kind referred to wherein the parts on the tape for the hooks to engage are such as to firmly hold the hooks to the tape against relative movement and against accidental detachment, and will not draw or pull out under the weight of the curtain.

A further object is so to apply the draw cords that the said parts which engage the hooks will lie in or across the channels of the plaits, and will project forwardly from the tape proper and/or the tape proper project rearwardly, thereby facilitating the application of the suspension hooks thereto.

According to the invention, the said parts of the tape for engaging the hooks, which are woven intergrally with the tape, are in the form of short lengths of fabric, which, in conjunction with the tape proper, form open ended tubes or guides, each tube or guide being of a size (diameter and length) suitable for enabling it to fit the straight part of a suspension hook in like manner to a sleeve or sheath. These tubes or guides are hereinafter referred to as "hook tubes."

Above and below the hook tubes are margins for sewing the tape to the curtain.

In applying the draw cords to the tape, they are arranged so as to pass in and out of the tape at points adjacent to each side of a hook tube, and so that over the width of each hook tube the cords and the front portion of the hook tube are on the same side of the tape proper. The effect of thus arranging the cords is that the hook tubes, when the tape is plaited, lie in, or across the plaits. The cords also pass behind or through the front wall of each hook tube and thereby cause the tape proper and the front portions of the hook tubes, when the tape is plaited, to separate and open the hook tubes, making them easily seen and ready to receive the hooks.

There will preferably be a hook tube for each plait but the hook tubes may be spaced two or more plaits apart.

The weaving of the tape may be effected in any suitable manner. In one method it is woven by a single shuttle in a jacquard, dobby or smallware loom, the shuttle first weaving the tape proper for a distance equal to half or the whole of the width of a hook tube and then, with the take-up roller stationary weaving a narrower length of fabric of the complete width of the hook tube, afterwards taking up the weaving of the tape proper at the point where it left off. In another method, the weaving of the improved tape is effected by means of two shuttles, weaving all the warps at one time into a single thickness, and at other times weaving two thicknesses, one of which forms the front of the hook tube and the other the back of same.

Upon the accompanying drawings—

Fig. 1 illustrates a face view of a short length of heading tape made according to one example of the invention.

Fig. 2 illustrates, to a larger scale, a plan or edge view of a portion of the same tape. In both views, the tape is shown as it appears before being plaited.

Fig. 3 illustrates a face view of the tape as it appears after being plaited.

Fig. 4 illustrates a vertical cross sectional elevation of Figure 3.

Fig. 5 illustrates, to a larger scale, a plan or edge view of a portion of the plaited tape.

Fig. 6 illustrates a face view of the tape shown in Figure 3, but more closely plaited.

Fig. 7 illustrates in perspective a hook applied to the improved tape.

Fig. 8 illustrates a face view of a length of heading tape made according to another example of the invention.

Fig. 9 illustrates a plan (drawn to a magnified scale) of the same tape plaited.

Figs. 10 and 11 illustrate face views respectively of further examples of the improved tape.

Referring to Figures 1 to 7, *a* is the tape proper, and *b*, *b* the hook tubes formed by the additional woven fabric and the tape proper, the whole being produced by weaving in a smallware loom. *c*, *c* are the draw cords for plaiting the tape, said draw cords being applied to the tape during the weaving operation, and in the example shown passing in and out through the tape from back to front and vice versa.

The distance the draw cords pass in and out of the tape determines the "pitch" of the plaits, and the arrangement of the draw cords according to this invention is such that those portions of the cords on the front side of the tape extend from points adjacent to each side and lie behind the portion of a hook tube, so that on plaiting the tape, the hook tubes lie in or across the channels of the plaits. The arrangement of the draw cords is also preferably such that they pass twice through the front portion of each hook tube, and thereby cause such front portion to project forwardly when the tape is plaited, see Figure 5. Alternatively the cords may pass several times in and out of such front portion, see Figure 9. In either case, the effect of plaiting the tape is to cause the front and back portions of each hook tube to separate, or the back portion to separate from the front portion, and thereby hold the hook tube open ready to receive the suspension hook.

With the hook tubes projecting forwardly, or lying level with the front folds of the plaits, they are readily findable or easily seen when the tape is plaited, see Figure 6.

There will preferably be a hook tube in each plait, so that the tape can be cut-off to any length while always leaving a hook tube near each end.

In Figure 10 those portions of the draw cords between hook tube and hook tube are enclosed in tubular parts of the tape, as in known gathering tape, the cords passing behind or through the front portion of each hook tube so as to cause it to project forwardly.

In Figure 11, those portions of the draw cords between hook tube and hook tube are interwoven with the tape, instead of passing in and out of the tape or through tubes, the weaving being sufficiently slack to allow of the tape being gathered along the cords when requiring to plait the same. In both these last named examples, no part of the draw cords is available for engagement by the hooks, which must of necessity be applied to the hook tubes.

There are preferably two draw cords arranged one near each end of the hook tubes, but there may be one only running centrally across the hook tube, or there may be three cords at even distances apart.

In addition to serving for suspending a curtain, the hook tubes especially when of a colour different from that of the tape, also serve to ornament the tape, or relieve it of a flat appearance.

What we claim is:

1. A heading tape for plaiting and suspending curtains and the like, comprising a woven tape, broad bands of tape material interwoven therewith and forming, in conjunction with one side of the tape, a series of tube-like loops, draw-cords passing in and out of the tape and adapted to allow of the tape being gathered or plaited, the draw cords passing behind the tape, then in front of the tape and through the walls of the tube-like loops, and then back through the tape, with consecutive plaits, the loops lying across the channels of the plaits, and on engaging the suspension hooks, holding the curtain heading erect, as set forth.

2. A heading tape for plaiting and suspending curtains and the like comprising a woven tape, broad bands of tape material on the face of the tape, and in conjunction with the tape forming long tube-like protuberances across the tape, leaving only small sewing edges along the tape, and two draw cords, passing in and out of the tape, and one near to each end of the tube-like protuberances, and after passing from behind the tape, passing through the walls of the protuberance, and then passing to the back of the tape for consecutive plaits, as set forth.

In testimony whereof we have signed our names in this specification.

GEORGE FREDERICK FRENCH.
WILLIAM HENRY PINCH.