

- [54] **DRAPE CURTAIN OR THE LIKE**
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2,159,734 5/1939 French..... 160/348 X
2,518,301 8/1950 French et al..... 139/387 A

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- [58] **Field of Search**..... 160/348, 388, 387,
160/385, 389

[57] **ABSTRACT**

A drape, curtain or the like, which comprises a carrying strap and a fold forming cord floatingly extending in the upper edge range of the drape. The fold forming cord is bound at the end points of its floating sections corresponding with the length of one of an individual fold, of a fold group and of a frizzing group. At least one passage opening is coordinated to each of the floating sections, and the floating sections are capable of being pulled together selectively in loop shape on the at least one passage opening.

- [56] **References Cited**
UNITED STATES PATENTS
- 2,884,055 4/1959 Scholer..... 160/348
- 1,039,343 9/1912 White..... 139/387 A

17 Claims, 13 Drawing Figures

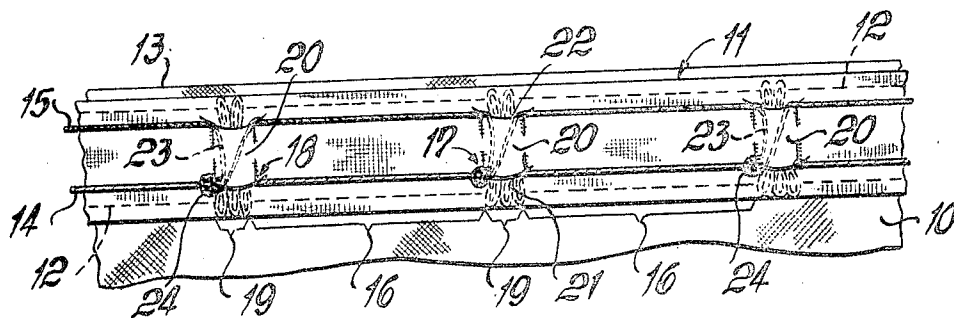


FIG. 1

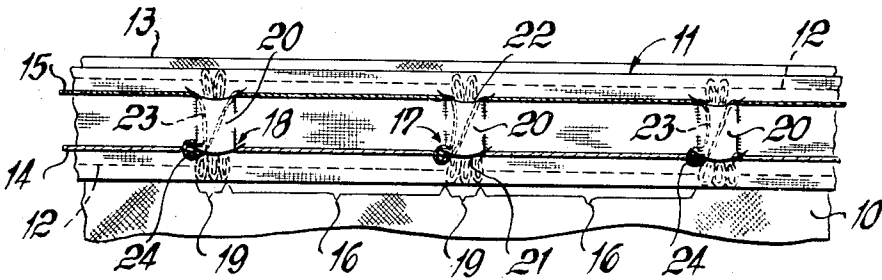


FIG. 2

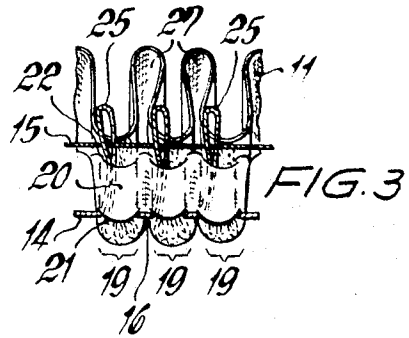
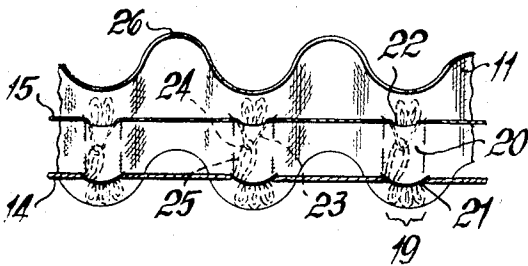
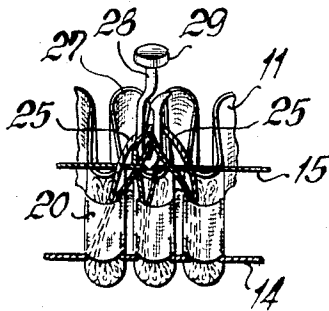


FIG. 4



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FIG. 5

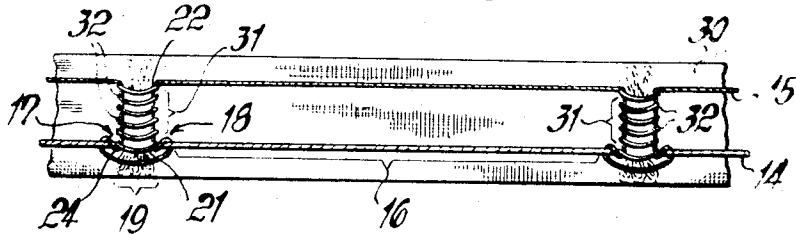


FIG. 6

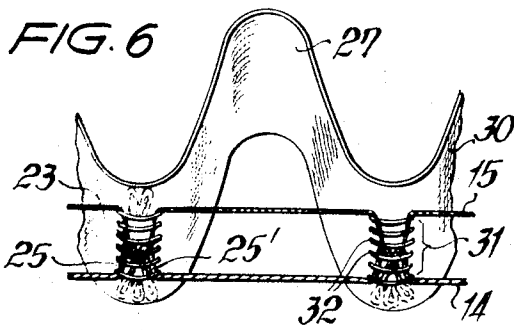


FIG. 7

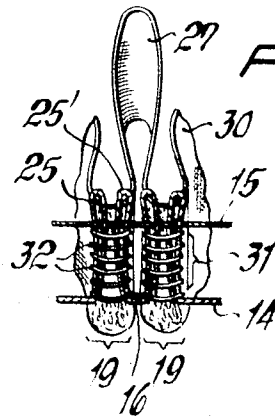


FIG. 8

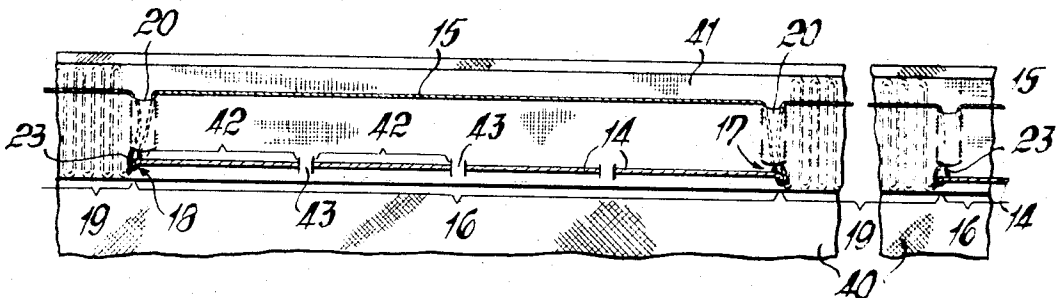
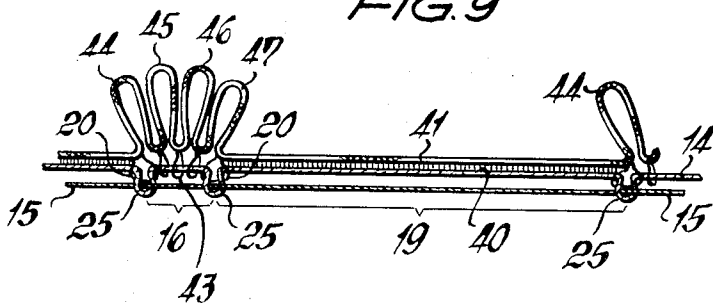


FIG. 9



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FIG. 10

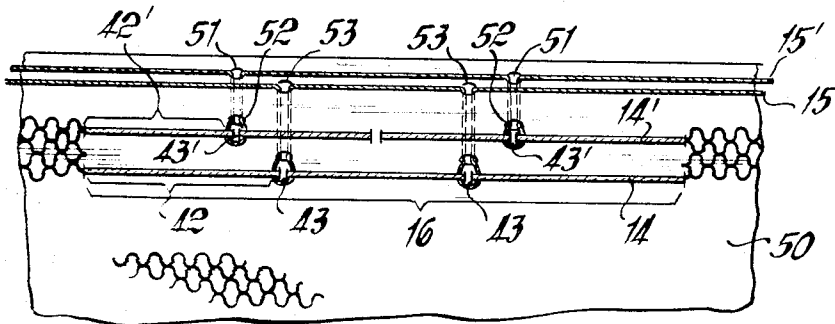
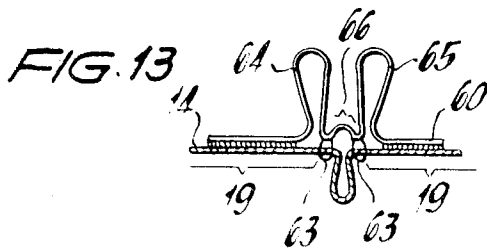
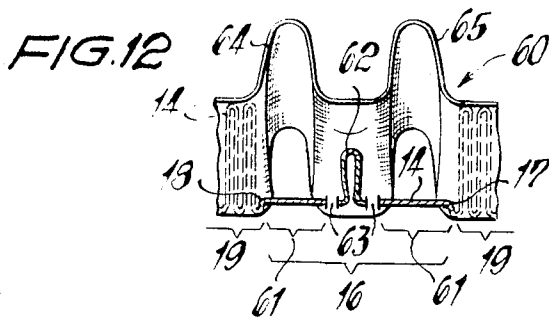
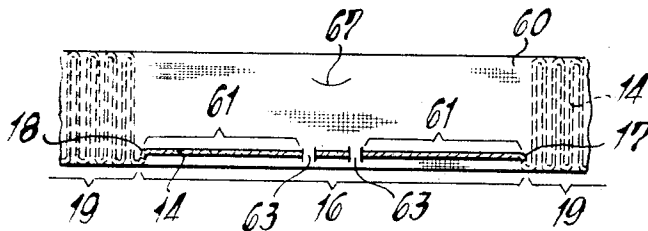


FIG. 11



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DRAPE CURTAIN OR THE LIKE

The present invention relates to a drape, curtain, or the like, particularly with a carrying strap, with a fold-forming-cord extending floatingly in the upper drape edge range.

In the known drapes, the fold-forming cord extends displaceably over the entire fold-forming cord in uniform floatings or in periodically repeating floating sections, which corresponding with the number of the folds to be formed in a fold group have floating part pieces separated from each other by short binding places. The fold-forming-cord extends between the floatings or floating sections a longer or shorter piece along the carrying strap, corresponding with the fold-throw to be found. This displaceability is produced such, that the fold-forming-cord is either inserted in longitudinal channels of the carrying strap or alternately changes from one side of the carrying strap to the other side through openings.

For the formation of the fold throw strictly preset by the run of the fold-forming-cord, the fold-forming-cord is pulled at the end of the drape and the carrying strap is pushed together with the drape. Already in case of low drape widths, the pushing together of the drape is made difficult by high friction forces. Furthermore at the drape end a great length of the fold-forming-cord brought about by the pushing together can be recognized, which must be secured in form of a ball visibly at the upper edge of the drape, since upon washing or cleaning of the drape a pulling apart of the folds and thus the original length of the fold-forming-cord is required. Since a drape is narrowed by the fold formation to about one third of its original width, an overflow-length of about the double of the finally folded drape width results for the pulled-out fold forming cord collected at the end of the drape. Due to appreciable friction resistances upon pulling of the fold-forming-cord at the drape end a uniform fold formation cannot be achieved over the entire length of the drape. Rather the fold throw must be equalized afterward by hand in a painful correction work, which makes itself unfavorably recognized in particular with wide drapes or with frizzing of the drape.

It is, therefore, one object of the present invention to provide a drape, curtain, or the like, which has a carrying strap within the range of the upper edge, the fold formation of which is obtained by cost-saving, producing means in a simple manner, which is easily handled.

It is another object of the present invention, to provide a drape, curtain or the like, wherein the fold-forming-cord is immovably bound at the end joints of its floating sections corresponding with the length of an individual fold, fold group, or a frizzing group, respectively, and at least one passing opening is coordinated to each floating section, on which opening the floating section in loop-form can be selectively pulled together.

A first apparent criterion of the present invention resides in the fact, that the fold-forming-cord is not displaceable throughout over the entire width of the drape, rather has fixed binding points on the drape corresponding with the length of the fold group, frizzing-group-or-fold. Each floating section, which determines a period in the fold throw of the drape, is thus secured at its ends immovably on the drape or its carrying strap, prior to forming the next corresponding floating section. As a further particularity of the invention at least

one passage opening is coordinated to each floating section, on which opening this section is pulled together in loop-form, if in this part-piece of the drape the formation of a fold group or frizzing group is to be obtained. The surplus-length of the fold-forming-cord resulting from fold formation in this section of the drape will be recognized merely in a short loop, which can store at least double of the length of the fold-forming-cord, as is gained by the pulling together during the fold formation, due to the loop-shape in the simplest case. By the length of the loop one can determine, whether wide open or narrow pulled-together forms are obtained in this section. Since only short sections of the drape, corresponding with the length of the floating sections, are frizzed, no resistances are experienced during the fold formation. One can arrange even intentionally with a strong friction the fold forming cord in this short floating section, in order to retain the loop form after the pulling together process by friction in the passage openings. The loop form can be obtained also by securing of their short ends on the drape, for which purpose the loop can be suspended by suspension members disposed above the drape.

It is particularly advantageous to subject the loops of the fold-forming-cord to a further useful function, namely to use the latter for a suspension of the drape itself. While in one case it is possible to connect the loops directly with a carrying rail for the drape, to use the loops as hang-up eyes for the reception of drape-hangers, which serve directly for the suspension and slidable guide of the drape along the carrying rail. Finally, it would also be possible to use the loops for the non-displaceable arrangement of the drape by means of securing elements.

An apparent overflow length on the fold-forming-cord, is not to be expected, particularly on the drape end. The drape has over its entire width a unitary pretty appearance. Since by the individual pulling together of a floating section the fold throw is created, a clean, non-movable fold laying is to be expected at each point. Since the loop form of the fold forming cord can be secured in the pulled-together state in a different manner, as has been mentioned already, a smoother working material can be used for the fold forming cord, by example a monofil wire of synthetic material, as polyamide, which takes care for an easily moving displacement of the drape within the floating sections.

By dropping individual loops, thus lacking pulling together of individual floating sections, the flow throw can be varied individually without difficulties, without requirement, that the folds of the remaining floating sections must be varied or displaced.

It is known, to obtain drape folds by complicated suspension elements equipped with stiffening rods, hooks, or the like, which determine and fix preferably fold groups on a drape. Compared with that, the present invention has the great advantage of a fold-laying- and suspension-device to be handled much simpler and to be produced much more economical. Furthermore by the omission of the cumbersome suspension elements much space is saved on the drape.

The above mentioned passage openings on the drape of the invention or on its carrying strap, where the fold-forming-cord can be pulled together, can be formed in different manners, each of which has inherent its particular advantages. In the simplest case two passage openings are provided in form of short binding places

on the carrying strap or on the drape, between which extends a short floating section of the fold-forming-cord, which is pulled to a loop for the purpose of fold formation, by example by hanging of a drape hanger. The two passage openings are disposed here in alignment with the floating arrangement of the fold-forming cord.

While in the previously mentioned case, the loop of the fold-forming-cord is created between two passage openings separated from each other by a short floating part piece, it is advantageous, to provide for the loop of the fold-forming-cord merely a single channel-like passage opening, through which the loop is threaded as a double thread. This channel-like passage-opening is oriented with its entrances and exits suitably in suspension direction of the drape. The channel-like passage opening can have an appreciable height, which assumes an essential part of the width of the carrying strap, in case a carrying strap is used. In this case, as well as in the case of a drape without carrying straps, the fold-forming-cord is arranged in such design at a distance from the upper edge of the drape, while the exits of the passage openings terminate essentially in the upper range of the drape and its carrying strap, respectively. By the passing through of the loop through the pocket for an appreciate length and the arrangement of a hanger in the loop one obtains a support in the upper marginal range of the drape and its carrying strap, respectively, which saves additional measures, which have to be applied otherwise, in order to prevent a tipping of the upper drape range. These passage openings can have the configuration of a pocket, as holes of slots or as eyes of thread loops.

For the pulling together of the floating section of the fold-forming-cord in loop form, in particular, however, for its threading through a passage opening, a freely extending auxiliary twine is provided in the upper marginal range of the drape, which twine in turn is passed through in loop form through the passage openings, yet in relation to the later loop arrangement of the fold-forming-cord in opposite direction. The auxiliary twine winds around thereby with its loop the fold-forming-cord. By pulling the auxiliary twine, a pulling together of the floating sections of the fold-forming-cord and thereby the desired fold-form of the drape. If a deviation of the fold-form is desired, merely the formed loops of the fold-forming-cord do not require a setting on those points, where no folds are desired. If the loops are used for the reception of drape hangers, the previously mentioned variation of the fold-throw are obtained simply such, that the hangers are suspended only in selected loops of the fold-forming-cord.

The auxiliary twine can be pulled out after formation of the loops of the fold-forming-cord. Suitably the auxiliary twine assumes also further important functions in the drape. Since the auxiliary twine serves the formation of the loops of the fold-forming-cord, it passes through the loops, after suspension of the drape by means of the loops, is also retained at the loops without danger of loss, yet disposed displaceably relative to the loops. This auxiliary twine is used, according to the present invention, as a pulling cord for the movement of the drape along a carrying rail. Compared with the conventional pulling cords for the drape movement, the auxiliary twine of the present invention has the advantage, not to sag unpleasantly like a suspension girder along the suspended drape; rather the auxiliary

twine is supported, as mentioned, by the loops of the fold-forming-cord in its entire length.

The auxiliary twine will ordinarily wind around merely on one side the fold-forming-cord relative to its end points and binding places, respectively, in its floating arrangement, which causes, that upon pulling of the auxiliary twine, a loop of the fold-forming-cord at this point. It is advantageous, however, to permit that the auxiliary twine winds about the fold-forming-cord on both sides of its floating arrangement to one of its fixed end points or to the binding positions, respectively, permitting a displacement, because in this case a double loop is created. During threading through a channel, two loops are created simultaneously with the auxiliary twine, which can store a large surplus length on the fold-forming-cord. This means, that even in case of a great fold depth or in case of a longer floating section for the formation of a larger fold group, the formed loops do not get too long, though a great length is gained thereby on the fold-forming-cord; this length divides itself into both loops.

In the simplest case the floating section consists of a single floating part piece of the fold-forming-cord, which is bound immovably at its both end points on the drape or its carrying strap. The two rigidly bound end points can be disposed thereby quite close to each other. If now a passage opening for loop-like threading through of the fold-forming-cord is coordinated to each individual end point, one obtains thereby a universal formation of the drape on its carrying strap, respectively, which permits many variations in the fold throw. By collecting several loops during the suspension of the drape, one obtains tightly close fold groups, at places, at which no folding is desired, the loop and its passage opening remains unused.

On the other hand the possibility exists to divide the floating section of the fold-forming-cord into a plurality of part pieces corresponding with the number of the individual folds of the fold group or the frizzing group, which are displaceably connected with each other by binding places on the drape or its carrying strap. Upon pulling together the floating section in loop form the entire foldgroup is created. With this formation, which permits also still deviations, especially the final fold laying of the drape is predetermined.

In some cases it is desirable to provide fold-free sections between the individual floating sections of the fold forming strap, which lead to the fold formation of the drape, which fold-free sections take care of the stretched arrangement of the drape. The fold forming cord, in accordance with the present invention, can now be used usefully for the purpose, to be bound in these fold free sections, in order to stiffen additionally these sections, without requiring particular measures therefor. Beyond that, the fold forming cord can exercise further useful functions in the non-floating part pieces. If the formation, is chosen namely such, that the passage opening is aligned with one of the end points in the floating run of the fold forming cord, the latter can be used for production at the end points of its floating run the passage openings extending as a channel in the suspension direction of the drape. The fold forming cord can be introduced namely at the end of its floating for the creation of the fixed end joints as a weft onto the carrying strap or the drape, respectively. The fold forming cord can thereby during its binding produce by example the rear carrying strap textill wall of a passage

opening designed as a pocket. If a monofil material is used for the fold forming cord, which has been pointed out before, in this case one obtains even desired stiffening characteristics of this one wall of the pocket. The same valued stiffening characteristics of the fold forming cord are exploited, if the above mentioned rigid binding sections are produced between two floating sections by working of the monofil wire of synthetic material of the fold forming cord.

A passage opening can be coordinated advantageously to a plurality of end points or binding places, respectively, of a floating section of the fold forming cord, so that the fold- or frizzing- group is suspended on a loop or double-loop, respectively, which is laid through the passage opening. Suitably the loops of this group are received by a drape hanger, if the same is used for securing of the drape.

Instead of using the loops of the fold forming cord for the suspension of the drape, also particular suspension means can be provided on the drape or its carrying strap, respectively, in order to be applied directly or by means of drape hangers on carrying rails or the like. Means for this purpose, as slots, pockets or loops are known.

It is of advantage to coordinate a plurality of fold forming cords disposed parallel to each other to the drape. In the simplest case they are formed extending equally to each other, in order to support each other in the formation of the fold throw. Since, however, a single fold forming cord is sufficient, as practice shows, for the fold formation, it is desirable from other view points to coordinate a plurality of fold forming cords to the drape or its carrying strap, respectively. If one leaves these fold forming cords differently in their floating length and/or in its floating place, it is possible to obtain selectively the one or another fold formation of the drape by use of the one or another fold forming cord, which fold formation is predetermined by the floatings of the individual fold forming cords and their passage openings. If an auxiliary twine is coordinated to each of the fold forming cords, by pulling one or another twine, which is set off suitably colored relative to each other, the one or another fold throw of the drape can be obtained.

The possibility presents itself, however, to coordinate a plurality of auxiliary twines to one fold forming cord, which auxiliary twines are laid, by example, in different manner through the passage openings and cause thereby different fold formation of one and the same fold forming cord. Furthermore it would be also possible to assign further functions to the additional auxiliary twines, as by example, the securing of the fold tops for the formation of the so-called flat-folds of the drape. Finally, it is also advantageous to coordinate a plurality of fold-forming cords, which can be used selectively and cause thereby a multiple variation in the fold throw of the drape.

Thus the present invention makes possible an unexhaustible large number of variations of the fold laying, without the use of expensive means or that the used means are complicated and difficult to handle. Multiple changes and combinations are possible under the given solution means. At first the length of the floating section can be differently chosen. Further the individual length of the floating part pieces as well as the number of these individual part pieces can be chosen differently and at random. A further variation offers the auxiliary

twine. The appearance of the fold throw depends at first upon the winding order of the auxiliary twine on the fold forming cord. Furthermore, also the number of the windings of the auxiliary twine within the range of the end joints and of the binding places is of importance, to which attention has been called already. If, namely, one side only of the floating arrangement is wound about, an individual loop is created upon pulling together, if, however, concerning a fixed end point both adjacent floating part pieces are wound about by the auxiliary twine, a double loop is formed at this point. A last means for variation results, if the loops of the fold forming cord are used simultaneously for the suspension of the drape. The fold throw is determined decisively from the fact, whether a formed loop is used or not used for suspension. If drape hangers are used for the suspension of the drape on carrying rails, it depends again, whether one or a plurality of loops are provided on one hanger.

With these and other objects in view which will become apparent in the following detailed description, the present invention, which is shown by example only, will be clearly understood in connection with the accompanying drawings, in which:

FIG. 1 is an elevation of a first embodiment of a drape designed in accordance with the present invention, indicating the stretched state over a part piece in the upper edge range of the drape, which carries a carrying strap;

FIGS. 2 to 4 are fragmentary elevations of the drape indicating the different states during the fold formation, whereby for reasons of clarity the drape suspended by the carrying strap has been omitted;

FIGS. 5 to 7 indicate a second embodiment in connection with a supporting strap for the fold formation in accordance with the present invention, in different working steps;

FIGS. 8 and 9 are elevations indicating in the upper edge range another embodiment of the drape with a carrying strap and, in particular, in its stretched state in a top plan view and in a schematic showing likewise in a top plan view on the formed folds;

FIG. 10 is an elevation indicating the upper edge range of a drape with a plurality of auxiliary twines and fold forming cords, respectively, where no particular carrying strap is provided; and

FIGS. 11 to 13 are a schematic showing of a carrying strap indicating another embodiment of the present invention in the stretched state of the carrying strap, in partly fold formation and in the end state of the form fold.

Referring now to the drawings, and in particular to FIG. 1, this figure shows an upper part piece of a drape on the one side of which is provided a carrying strap 11 secured by seams 12. The carrying strap 11 has a fold forming cord 14 extending parallel to the upper drape edge 13, which is shown in a thick line, as well as in an auxiliary twine 15 extending likewise parallel at a distance thereto in sections; which auxiliary twine 15 is then thinly painted for the purposes of differentiation.

The fold forming cord 14 extends in the sections 16 of the carrying strap 11 floatingly over the side of the supporting strap visible in FIG. 1. On both end points 17 and 18 in the floating section 16 is the fold forming cord 14 bound immovably with the carrying strap 11. The binding takes place in the present case by a web-like arrangement of the cord 14 as can be recognized

from the meander-shaped arrangement of the cord 14 on the binding places 19. On each binding place 19 is worked in a pocket 20 into the carrying strap 11 in the direction of the suspension of the drape, thus crosswise to the longitudinal direction of the carrying strap, which carrying strap 11 provides a channel passage with a lower entrance opening 21 and an upper exit opening 22.

While, as already mentioned, the fold forming cord is rigidly bound at the end points of the floating sections 16 periodically with the carrying strap, which is brought about in the present woven carrying strap by binding in form of a web, the auxiliary twine 15, extending freely over the carrying strap 11, is inserted as a particular part, even the insertion is suitably done during the weaving process. The auxiliary twine 15 extends likewise in a floating manner and, in particular, from pocket 20 to pocket 20. The auxiliary twine 15 is threaded through in loop shape 23 through the channel inside of each pocket 20, as can be recognized from the dotted line within the range of the pockets 20, and in particular from the upper opening 22 of the pocket to the lower opening 21. The auxiliary twine 15 is bound with its loop top 24 around the bound end 18 in the floating section of the fold forming cord 14. For reasons of clarification, the meander-shaped arrangement of the bound fold forming cord 14 in the area of the carrying strap 11 covered up by the pockets 20 is not shown, merely the ends of the bound cord 14, which ends appear above and below the pocket of the bound cord 14, are shown in the carrying strap zone 19.

Referring now again to the drawings, and in particular to FIGS. 2 to 4, the process of the fold formation of the drape 10 is more clearly shown. For reasons of clarification, the drape 10 is however, not shown, rather merely the carrying strap 11 connected therewith. It is understood, that the fold arrangement of the carrying strap 11 also determines the fold arrangement of the drape 10.

In FIG. 2 on the auxiliary twine 15 at the end of the drape a pull has been exerted. By this activity the loops 23 pull through on the pockets 20 upwardly to the opening 22 of the pocket.

Since the loops 23 of the auxiliary twine 15 wind around with their top 24 the fold forming cord 14, during this pull movement the fold forming cord 14 is pulled in turn in form of a loop 25 into the pockets, and in particular in opposite direction, from the lower opening 21 of the pocket 20 to the upper opening 22. Since now the fold forming cord 14 is immovably rigidly secured in sections 16 on the carrying strap 11, during the creation of the loop 25 a shortening of the floating section 16 of the cord must result, whereby the carrying strap 11 starts to slide together in fold form, as can be recognized from FIG. 2. Here is shown an oblique view of the carrying strap 11 in the direction towards the upper carrying strap edge 26.

Referring now again to the drawings, and in particular to FIGS. 3 and 4, a similar top plan view of the carrying strap 11 is disclosed. In FIG. 3 the loops 25 of the fold forming cord 14 have reached their end state obtained during the pulling through the pockets 20. The loops 25 extend with their free ends from the exit opening 22 of the pockets. The floating arrangement within the range of the previous sections 16 of the fold forming cord 14 is now extremely shortened, since it comes namely in an occasional engagement of the carrying

strap zones 19, on which the cord 14 is wound. This carrying strap zones 19 determine the rear foot points of the folds 27, which bow from this point in forward direction. This carrying strap zone 19 carries the bound fold forming cord 14. Since in the present case the fold forming cord 14 consists of monofil wire of synthetic material, in the carrying strap zones 19 a stiffening of these carrying strap zones 19 is obtained by the binding of the cord 14 for the formation of rear wall of the pocket 20, which carrying strap zones 19 offers a good support for the folds 27 bowing in forward direction. The auxiliary twine 15 has now reached a stretched position, and extends in the middle through the loop 25 of the fold forming cord 14.

In FIG. 4 a further function of the formed loops 25 of the fold forming cord 14 is shown. Here the loops 25 serve simultaneously for the reception of the securing means of hangers 28, which take care of a displaceable provision of the drape along a carrying rail. In the present case always three loops 25 are connected with a single hanger 28, whereby a bushel-kind joining of the folds 27 results, which are disposed between the jointly suspended loops. In the present case the hanger 28 is shown as a slider, which enters with its slide head 29 in the U-shaped rail, while as a securing element a hook serves as a hanger 28. It is to be understood, that hangers of other types can be used by example hangers equipped with rollers which are suspended in T-rails.

In FIGS. 5 to 7 in a showing corresponding with that of the first embodiment, a variation of a carrying strap 30 adapted for the variation of a folding of a drape is shown, where, for reasons of clarification of the showing, the corresponding drape has been omitted. For the indication of equal parts the same numerals are applied as in the first embodiment.

In FIG. 5 the stretched state of the carrying strap prior to the fold laying is shown. Here the floating section 16 is appreciably longer than in the first embodiment, in spite of the fact that as can be recognized from the end state in FIG. 7, which corresponds with FIG. 3 in the first embodiment, the created loops 25 and 25' are not formed longer than in the first embodiment. This is based on a particular guidance of the auxiliary twine 15.

In alignment with the carrying strap zone 19, where the fold forming cord 14 is bound in the carrying strap, is disposed here also a channel shaped arrangement 31, extending cross wise to the carrying strap 30, through which arrangement 31 at first, as in the first embodiment, only the auxiliary twine 15 extends in loop form. The passage channel 31 is in the present case, however, in its upper wall visible in FIG. 5 not designed as a textile material, rather consists merely of thread loops 32 of web threads guided adjacent each other floatingly, which web threads at this point emerge from the carrying strap 30. These thread loops form eyes, which can be aligned with each other and produce then the passage channel 31. The auxiliary twine is now bound about the fold forming cord 14 at the lower opening 22 of the channel 31 not only at the place 24 at one end point 17 of the floating section about the fold forming cord 14, rather prior to reentrance into the channel 31 at the other end point 18 of the next floating section 16 wound about the cord 14 in proper manner, prior to the return of the auxiliary twine 15 again in opposite direction to the upper opening 22 in order to have arranged

again up to the next channel 31 freely over the carrying strap 30.

The difference of the previously mentioned measure in comparison with the first embodiment results from FIG. 6, if the latter figure is compared with FIG. 2. During pulling of the auxiliary twine 15 are created by the double winding of the fold forming cord 14 simultaneously two loops 25 and 25' which are pulled in jointly from the one loop 23 of the auxiliary twine into the channel 31. In corresponding manner as in the first embodiment, the carrying strap 20 and with it the drape slider together in fold form in corresponding manner, as can be recognized from the creation of the fold 27 in FIG. 6. In FIG. 7 the end state of the loop is reached where the carrying strap zones 19 stiffened by the binding of the fold forming cord do touch each other again, while the floating section 16 of the fold forming cord has shortened thereby to a minimum. Since the overflow length of the fold forming cord 14 serves during sliding together the formation of two loops 25 and 25', can in case of pre-given desired loop length, the floating section 16 resulting from the stretched state of the drape can be doubly as long as in the first example.

The loops 25 and 25' can be used for the suspension of hangers, as shown in the first embodiment. In this case the auxiliary twine 15 is left in its arrangement through the loops 25 and 25' release and can be applied to a valued further function, namely, a pulling cord for the movement of the drape along the carrying strap. In this case the twine 15 serving as a pulling cord at the forward most hanger of the drape and upon exertion of a pull at the other end of the twine 15 a joint sliding of the drape to one end of the rail is obtained, while in case of pulling arrangements on the opposite other free end of the twine a displacement of the drape in opposite direction takes place. The performance of the twine 15 by the loops 25 and 25' prevents a non-picturesque suspension hanging through the pulling twine.

In the embodiment of FIG. 8, for the naming of equal parts the same numerals as in the previously provided embodiments are used. FIG. 8 shows the upper edge of a drape 10 with a carrying strap 41 secured thereto. A particularity of this embodiment in comparison with the previously mentioned results in the fact, that the floating section 16 is composed of a plurality of floating part pieces 42, which are connected by short binding places 43 on the carrying strap displaceably with each other. Two channel-like pockets 20 are merely in alignment with the end points 17 and 18 of the floating section 16 of the cord 14. Here also the twine 15 winds in its stretched state of the drape in accordance with FIG. 8 the cord 14 in loop shape 23.

A further particularity relative to the previous embodiments resides in the fact, that the fold forming cord 14 binds between adjacent floating sections 16 a longer piece in the carrying strap 41, whereby a particularly pronounced wide binding zones 19 is created, which in FIG. 8 is shown only broken up for reason of lack of space. The binding of the cord 14 at this point takes care for a stiffening of these sections, which remain stretched during the folding of the drape, as can be recognized in FIG. 9 which shows a top plan view onto the finally folded drape.

In FIG. 9 the arrangement of the carrying strap 41 with the drape 40 is shown by the thick line guided in fold form. After pulling together of the floating section

of the fold forming cord 14 by means of the auxiliary twine a fold bushel consisting of four individual folds 44, 45, 46, and 47 is created, which corresponds with the four floating part pieces 42 of the cord 14 in the floating section 16. Between the fold bushels 44 to 47 are arranged the stiffened sections 19. On both end points of the fold bushels 44 to 47 are created at both pockets 20 loops 25 of the fold forming cord 14, as can be recognized from the schematic top plan view. By the latter the auxiliary twine 15 is then pulled through upon securing of the loops 25, as by example, by suspension of hangers could also be removed. The arrangement of the cord 14 bound on the carrying strap 41 is indicated by dotted lines. The displaceable binding of the cord at the foot points of the created folds 44 to 47 is indicated in FIG. 9 by a channel like presentation of the particular binding places 43. By a corresponding other following floating length of the fold forming cord in the section 16 and the number and arrangement of the binding places 43 of this section 16 permitting a displacement also other fold forms of any type can be produced.

In the embodiment shown in FIG. 10 merely the upper edge of a piece of a drape 50 is shown, which has been produced by operation on a Raschel-machine. Here no particular carrying strap is provided, rather the fold forming cords 14 and 14' and the corresponding auxiliary twines 15 and 15' respectively are connected directly with the drape edge, which effect is obtained already during the production of the drape. Aside from this particularity, namely the omission of a carrying strap, a deviation relative to the previously described embodiments can be seen also in the fact that two different fold forming cords 14 and 14' and auxiliary twines 15 and 15' are provided, which cooperate together in pairs.

In the present case both cords 14 and 14' have an equally long floating section 16, which coincides even for both cords at the same place of the drape. A displacement of the floating sections could namely occur.

A difference between the two cords 14 and 14' resides however, in the fact, that in one case four floating part pieces 44 are provided, of which the two outer are formed somewhat longer than the two median parts, while in the cord 14 merely three floating sections 42 are provided which also have among each other different lengths. These part pieces are, as in the previous example, shown in FIGS. 8 and 9 connected by a displacement of part pieces among each other permitting short binding places 43 and 43' on the drape.

A further particularity results in the fact, that the cross channels in the present case are formed of two slots 51, 52, 53 and 54, respectively, provided in the drape 50, through which the auxiliary twines 15 and 15' gets for a short time to the opposite side of the drape, which however, applies merely for the stretched arrangement of the drape prior to its fold laying.

The two auxiliary twines 15 and 15' are suitably of different color relative to each other. From the above stated description it is apparent, that upon pulling of auxiliary twine 15', which effects and cooperates with the fold forming cord 14', a fold group is created in this drape section 16 consisting of four individual folds, of which the two outer folds are larger than the two median folds. Furthermore it is recognizable that by the double winding around of the two other adjacent floating part pieces to one of the binding places 43' permitting a displacement a double loop is created in each

slot-pair 51-52 of the fold forming cord 14', which permits to store a larger cord length, without that the individual loop gets too long. The latter applies also for the auxiliary twine 15, which cooperates with the cord 14.

Upon pulling the auxiliary twine 15, however, the same drape 50 is pushed together in the section 16 for the formation of a group of three folds, of which the two outer are somewhat longer than the center fold, as can be ascertained from the different lengths of the floating part pieces 42 of the cord 14. Depending upon which fold throw of the drape 50 is desired, the one or the other pulling twine can be used, one can, however, also at first apply the one pull twine for fold formation and after washing under circumstances the drape can then be brought in a different fold laying by the use of non-used twine for the fold throw. For the securing of the drape on carrying rails above drape hangers, the drape can have particular suspension means of known type. In this case suitably the auxiliary twine binds will be used for the securing of the pulled through loops of the cords 14 and 14', respectively. It is however, also possible without any difficulty, as in the first case, to use the loops of the cord 14 and 14' for the suspension of hangers.

In the embodiment shown in FIGS. 11 to 13, these figures show again a carrying strap 60 which in conventional manner by sewing or glueing or welding is to be connected with a drape. This carrying strap 60 has merely one fold forming cord 14, which is guided periodically in floating sections 16 over the visible side of the carrying strap 60 in FIG. 11. The end points 17 and 18 of the floating section are immovably connected with the carrying rod, in which the fold forming cord 14 is worked in the carrying strap, as shown schematically in FIGS. 11 and 12. In connection with the fixed end points 17 and 18 of the floating section 16 in the present case somewhat longer formed binding zones 19 of the fold forming cord follow.

The fold forming cord 14 has in its floating section 16 three part pieces, consisting of two longer floatings 61 serving the fold formation and a short floating part piece 62, which is connected displaceably relative to the adjacent part pieces 61 by means of a passage opening 63. The two passage openings 63 are aligned relative to each other and coincide in addition with the floating arrangement of the total floating section 16 of the cord 14.

For the fold formation of the carrying strap 60 and of the drape brought together with the latter the short floating part piece 62 is now gripped and pulled out between the passage opening 63 in loop form, whereby the cord length in the floating part piece 62 increases fast at the expense of the cord length in the adjacent floating part pieces 61, as can be recognized from FIG. 12. Correspondingly with the two long floating part pieces 61 a fold group consisting of two individual folds 64 and 65 is created at the place of the floating section 16, which folds consist of two individual folds 62 and 65.

While in FIG. 12 the oblique view on the slowly folding carrying strap 60 can be recognized, in FIG. 13 the view from above to the finished folded carrying strap is schematically shown. One recognizes, that the floating parts 61 shrink to a minimum, so that the end points 17 and 18 of the floating section where the fold free binding zones 19 to the carrying strap 60 start, engage with the center piece 66 of the section within the range

of the formed loop 62. The created loop 62 has obtained its final length and can now be secured in this position, if a fold formation is desired at this point of the carrying strap 60.

For securing of the loop 62 the most different possibilities offer themselves as well in the remaining embodiments. First of all, once the loop 62 can be pulled through an opening disposed at the upper edge range of the carrying strap, as through a loop 67 formed by textile threads of the carrying strap, as can be recognized in FIG. 11. The loop 62 could however, also additionally or instead of performing through the loop 67 be connected with a securing element of a hanger. The securing element of the hanger can, as has been already mentioned, be designed as a hook. A further possibility would be a clamp consisting of two jaws pressable towards each other as a securing element on the hanger of the drape whereby the clamp during gripping of the carrying strap of the drape, respectively, suitably also simultaneously secure the loop 62 formed thereby after the fold formation in its position. For the securing for the loop 62 could finally other means be provided on the carrying strap or on the drape as by example slots or buttons or pockets.

In case of hook shaped securing elements of drape hangers the hook end is equipped with a nose locking the entrance opening into the hook, which nose yields in view of the elasticity of the working material during the passing through of the suspending means on the drapes by itself. As much as the above mentioned loops are used for suspension, it is suitable, to arrange the noses in the hooks of the hangers not within the range of the displacing elements of the hangers rolling and sliding within the range of the carrying rails, rather these noses are displaced more in suspension direction of the drape towards the base of the hook.

While I have disclosed several embodiments of the present invention, it is to be understood that these embodiments are given by example only and not in a limiting sense.

I claim:

1. A drape, curtain or the like, comprising a carrying strap, a fold forming cord floatingly extending in the upper edge range of the drape, said fold forming cord being bound at the end points of floating sections thereof corresponding with the length of one of an individual fold, a fold group and of a frizzing group, at least one passage opening coordinated to each of said floating sections, and said floating sections being capable of being pulled together selectively in loop shape on said at least one passage opening, and said floating section of said fold forming cord is threaded through said passage opening in loop shape.
2. The drape, as set forth in claim 1, which includes an auxiliary twine extending freely in the upper edge range of the drape, said auxiliary twine is threaded through said passage opening in loop shape in a direction opposite to the later loop arrangement of said fold forming cord and winds around said fold forming cord.
3. The drape, as set forth in claim 2, wherein said floating section of said fold forming cord is divided into a plurality of part pieces corresponding

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with the number of the individual folds of one of said fold group and of said frizzing group, and said part pieces are displaceably connected together by binding places on one of the drape and of said carrying strap.

- 4. The drape, as set forth in claim 3, which includes 5
fold-free, stiffened binding sections of said fold forming cord disposed between said floating sections of fold forming cord.
- 5. The drape, as set forth in claim 4, wherein 10
said passage opening is aligned with one of said end points and of said binding places in the floating arrangement of said fold forming cord.
- 6. The drape, as set forth in claim 5, wherein 15
said auxiliary twine winds around said fold forming cord on both sides of its floating arrangement to one of its end points and of its binding places.
- 7. The drape, as set forth in claim 6, wherein 20
said loops of said fold forming cord suspend one of said drape and of said drape hangers.
- 8. The drape, as set forth in claim 7, wherein 25
at least a plurality of loops of one of a coordinated fold group and of a frizzing group are supported by a hanger.
- 9. The drape, as set forth in claim 8, wherein 30
a passage opening is coordinated to each individual end point and a binding place, respectively in said floating section of said fold forming cord.
- 10. The drape, as set forth in claim 9, wherein
said auxiliary twine extends through loops of said fold forming cord serving the suspension of the drape,

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and is adapted as pulling cord for the movement of the drape along a carrying rail.

- 11. The drape, as set forth in claim 10, wherein 5
a plurality of fold forming cords extending parallel to each other, but different at least in their floating length is coordinated to the drape.
- 12. The drape, as set forth in claim 11, wherein
a plurality of auxiliary twines is coordinated to said fold forming cord.
- 13. The drape, as set forth in claim 12, wherein 10
a plurality of fold forming cords is coordinated to said auxiliary twine.
- 14. The drape, as set forth in claim 13, wherein
said fold forming cord extends spaced apart from the upper edge of the drape, and 15
the exits of said passage openings extending in the suspension direction of the drape terminate in the upper end range of the upper edge range of the drape.
- 15. The drape, as set forth in claim 14, wherein
said fold forming cord comprises monofil wire of synthetic material.
- 16. The drape, as set forth in claim 15, wherein
said fold forming cord is introduced into one of said carrying straps and of said drape as a web.
- 17. The drape, as set forth in claim 16, wherein
said fold forming cord has at said end point of said floating section a rear, stiffened carrying strap wall of a passage opening formed as a pocket.

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