

Jan. 3, 1956

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2,728,993

VENETIAN BLIND TAPE MEASURING DEVICE

Filed May 10, 1951

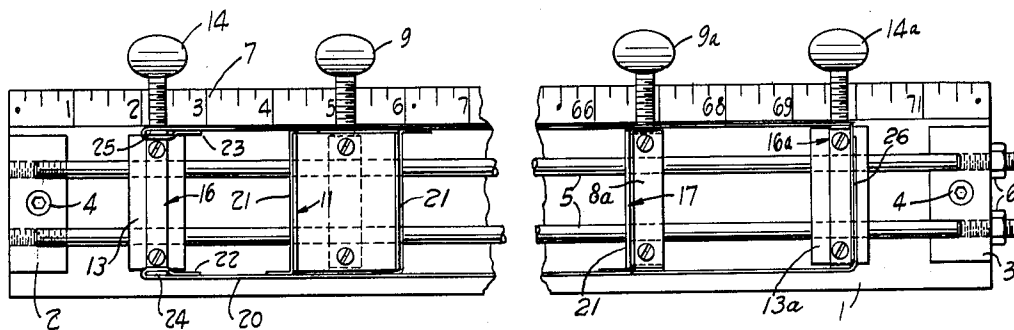


FIG. 1

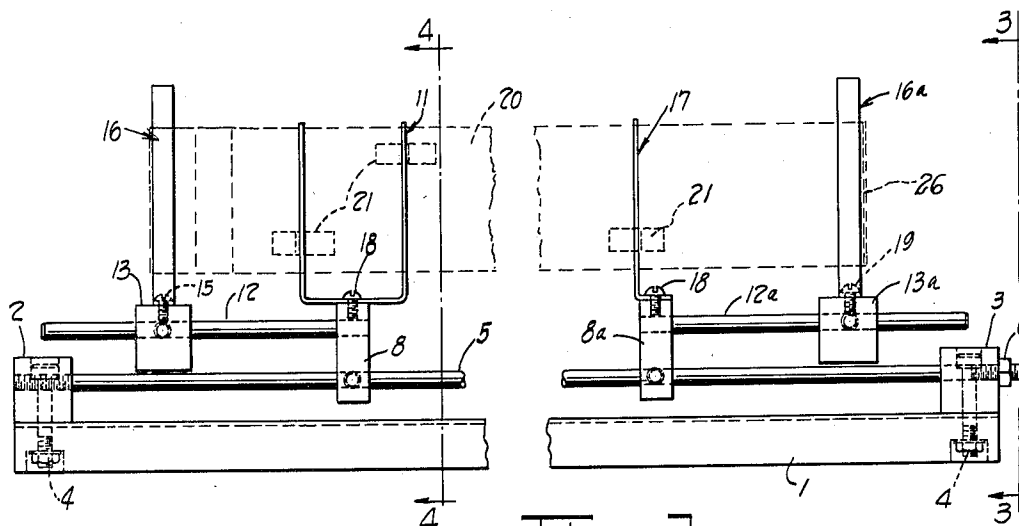


FIG. 2

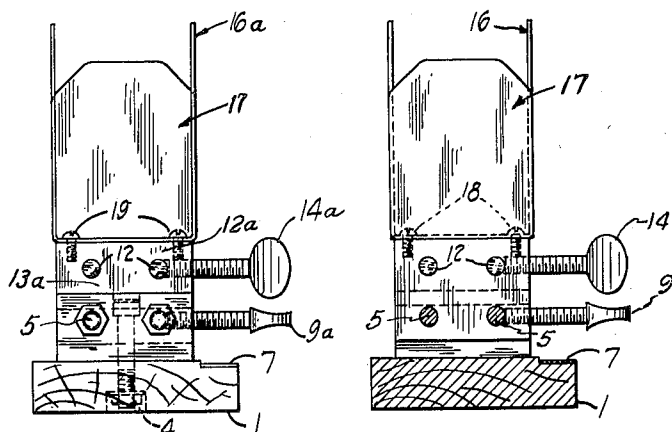


FIG. 3

FIG. 4

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VENETIAN BLIND TAPE MEASURING DEVICE

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Application May 10, 1951, Serial No. 225,502

9 Claims. (Cl. 33—174)

This invention relates to a Venetian blind tape measuring device, and more particularly to such a device which is intended to provide means to cut tapes on which slats are supported in a Venetian blind, to uniform lengths, and facilitate the assembly of blinds in which the slats will assume level position as respects the window or other place in which the Venetian blind is installed.

By the use of this device for cutting tapes of uniform lengths, proper tilting operation of the slats is further-more assured.

Heretofore, when slat supporting tapes have been cut for Venetian blinds, the practice has been to use a convenient measuring means and scissors or the like, without other means to assure uniformity, and thus reliance has been placed chiefly on the person who is performing the cutting operation, which is clearly subject to variation.

In the device of this invention, there are provided means for cutting tapes of greatly varying lengths, and this is particularly useful where a large number of blinds are required in which the tapes are intended to be of precisely the same length.

Furthermore with the device of this invention, the tapes commonly of fabric or the like are adapted to be suitably provided at opposite ends with means for fastening the tapes to the tilting portion of the Venetian blind, and also with the bottom rail of such a blind, thereby facilitating further ready assembly of blinds in which great uniformity of the slats in relation to the opening in which the blind is intended to be hung may be effected.

It is therefore an object of this invention, to provide a simple Venetian blind tape measuring device which will enable the ready provision of tapes of uniform lengths, the lengths to be provided being variable within substantial limits.

It is a further object of this invention to provide unique means for supporting the tape upon the measuring device, preliminary to the cutting operation, which means may be variable in the device, and suitably fixed in various positions in carrying out the objects herein set forth.

It is a still further object of this invention to construct a device for measuring Venetian blind tapes, which may be comprised of relatively few parts, the latter being of simple construction and yet effectuate suitable positioning of the same to properly provide tapes of uniform lengths.

Other and further objects of this invention will be set forth in the annexed specification, and disclosed in the drawing attached hereto wherein:

Figure 1 is a top plan view of the tape measuring device, a portion thereof being broken away and disclosing a Venetian blind tape in place upon the device.

Figure 2 is a side elevation of the device, somewhat foreshortened, likewise illustrating the tape as having been mounted thereon, the latter being shown in dotted lines.

Figure 3 is an end view taken from about the line 3—3 of Figure 2 looking in the direction of the arrow.

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Figure 4 is a sectional view taken about on the line 4—4 of Figure 2.

Referring now to Figure 1, the device is shown as comprising a base member generally designated 1 of relatively narrow width and comparatively greater length, the base member 1 being provided at opposite ends with rod supporting blocks 2 and 3. The blocks 2 and 3 may be fastened as by means of the nut and bolt members 4 at opposite ends, of the base member, the said blocks being further provided with longitudinal openings therein. The openings in the blocks 2 are threaded, so as to receive the longitudinally extending main guide supporting rods 5 therein, opposite ends of the rods 5 being likewise threaded and suitably fastened in place in the blocks 3 by means of the nuts 6 thereon. It will be noted that the guide and supporting rods 5 are slightly spaced from the upper face of the base member 1, for purposes which will be hereinafter set forth. At one side edge of the base member 1 suitable indicia are provided indicated at 7, the latter being either in the form of a tape or engraved upon the surface of the base member 1. If a tape, the same is suitably affixed to the edge of the base as indicated.

The main guide and supporting rods 5 are adapted to support for movement there along a suitable slidable bracket support 8, the latter being provided with the necessary openings in which the rods are to be received and in addition, a set screw 9, threadedly engaged in the bracket support, so as to fix the same and prevent movement of the support, by engagement by the end of the set screw with one of the rods 5. Suitably fastened at the upper portion of the bracket support 8 by means of the screws 10 is a tape tensioning bracket 11. This bracket 11 as is more clearly shown in Figure 3 taken in conjunction with Figure 2, is comprised of a substantially U-shaped body portion, the upright members of which are flat plates spaced longitudinally as respects the base member 1 of the device, for purposes which will be hereinafter set forth.

Suitably fixed to the bracket support 8 are the secondary guide rods 12, the latter extending above and parallel to the main guide rods and being of relatively short lengths. These secondary guide rods 12 support an adjustable tape holding end gauge block 13 thereon, the block 13 having suitable openings therein to permit sliding adjustment upon the rods 12. A set screw 14 is provided and is adapted to engage one of the rods 12 in order to maintain the block 13 in position relative to the bracket support 8. Suitably fastened at the upper side of the gauge block 13 by means of screws 15, is a tape end supporting member 16, the same being of substantially U-shaped construction, and including relatively narrow side members or strips extending upwardly from the gauge block 13. It should be noted that the members 11 and 16 are mounted on their respective supports, in what may be termed a right angle position as respects one another, as seen particularly in Figures 2 and 3.

At the ends of the rods 5 opposite those carrying the bracket support 8 is another bracket support 8a of the same construction as the bracket support 8 previously described. This latter bracket support 8a is in turn provided with a set screw 9a for similarly fixing the support relative the rods 5. In this instance however the tape tensioning bracket 17, shown in Figures 2 and 3 is comprised of an L-shaped body portion suitably fastened by screws 18 at the upper portion of the bracket support 8a. It will be noted that each of the tape tensioning brackets 11 and 17 is shown as having the upper corners thereof bevelled for purposes which will be apparent, namely, to facilitate downward engagement of spaced tape portions with said brackets 11 and 17.

Suitably fastened to the bracket support 8a are the secondary guide rods 12a, the latter being similar to

the rods 12 previously mentioned. The rods 12a are adapted to support thereon a gauge block 13a, of similar construction to the block 13 previously mentioned, and adapted to be maintained in position for adjustment with respect to the rods by means of a set screw 14a. Suitably supported on the upper portion of the blocks 13a as by the screws 19 is a tape end supporting member 16a, of construction like that of the previously mentioned supporting member 16.

In Figures 1 and 2, a Venetian blind tape 20, of the usual construction, being of fabric or similar flexible material and including what are known as ladders 21 which connect the respective side members of the tape, is shown as having been positioned upon the measuring device. It will be noted that the tape tensioning bracket 11 is shown as having emplaced thereover the tape 20 at opposite sides in such a manner that the bracket 11 is disposed between adjacent ladders 21 of the tape 20. Spaced therefrom the other tape tensioning bracket 17 is shown as being in position so as to similarly engage the tape 20 and also engage one of the ladders 21. It will be apparent that suitable prepositioning of the respective bracket supports 8 and 8a will thus determine substantially the length of the tape to be cut. It is clear that these members are positioned so as to place the tape carried thereby in sufficient tension for properly measuring the same.

In order to more particularly explain the use of the tape-measuring device of this invention, the example illustrated in Figure 1 will be available of at this point. When the desired length of tape is known, there are also certain other measurements which are critical as respects proper operation of the Venetian blind, particularly the spacing of the top slat as respects the tilt bar from which the tapes normally depend. By way of example, and referring to Figure 1, it has been determined that the top slat shall rest at a position $4\frac{1}{4}$ " below the head bar of the finished blind and therefore the bracket support 8 is adjusted so as to bring a ladder 21 in a position at the $4\frac{1}{4}$ " mark. Further it has been determined that the tape shall be fastened to the tilt bar at a position $2\frac{1}{4}$ " from the top slat, and therefore the tape end supporting member 16 is set at the $2\frac{1}{4}$ " mark on the scale. Further, the distance from the lower face of the head bar to the bottom slat has been determined as being 67", and therefore the bracket support 8a is set so as to bring the bracket 17 at the 67" mark. Furthermore with the bracket support 8a in position the lower face portion of the bottom rail of the blind has been determined as being 70" from the lower face of the head bar, and therefore the gauge block 13a is set so as to bring the tape end supporting member 16a at the 70" mark.

With the respective members just herein above described in position as set forth it will be readily apparent that the tape 20 may be placed upon the tensioning brackets, the tape usually being furnished in long rolls, and thereafter cut as at the ends 22 and 23, allowing sufficient material whereby the ends 22 and 23 may be folded back upon the body of the tape 20 at the respective opposite sides thereof and suitably sewn or stapled or otherwise fastened thereto. This will provide suitable loops 24 and 25 receiving the sides of the supporting member 16 whereby the tapes may be suitably fastened to the tilt rail of the blind. At the opposite end the same procedure may be followed, or if desired the tape ends may be overlapped as shown at 26 in Figure 1, and suitably fastened together instead of looping the same around the supporting member 16a.

In view of the foregoing description, it will be apparent that successive tapes may be cut and prepared for assembly in a Venetian blind, which tapes will be absolutely uniform in length, by reason of the presetting of the respective portions of the device. It will also be apparent that wide variation in lengths of tapes may be provided as set forth.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. A tape measuring device of the class described comprising in combination, a base, spaced movable tape tensioning means supported on said base, locking means for said movable means, a tape end gauge block carried by each of said tensioning means and movable relative thereto, means for locking said blocks, and tape end supporting members on said blocks, said tensioning means being supported on said base intermediate said gauge blocks, and a measuring scale on the base co-operative with said blocks and at least one of the tape end supporting members.

2. A tape measuring device of the class described comprising a relatively long narrow base member, a rod supporting block at each end of the base member, rod means fixed to and extending between said blocks, a pair of tape tensioning means comprising supporting members including at least one longitudinally movable supporting member on said rod means said member being adjustable to vary the distance between the pair of means, a device for locking said movable supporting member relative to said rod means, parallel tape tensioning brackets on said supporting members and extending therefrom, a tape end gauge block mounted for movement with respect to each said supporting member said supporting members being intermediate said blocks, a device for locking each gauge block relative to its supporting member, and a tape end supporting member fixed to each gauge block and extending therefrom parallel to said brackets.

3. A device as claimed in claim 2, wherein the tape end gauge blocks are mounted on secondary rod means extending from said supporting members and parallel to the rod means fixed to said supporting blocks.

4. A device as claimed in claim 2, wherein the rod means comprise a pair of parallel rod members, the tape supporting movable member is slidable on said rod members, the locking device is a set screw seated in said supporting member and adapted to engage one of said rod members, the tape tensioning bracket is substantially vertically U-shaped, each tape end gauge block is slidably mounted on a pair of secondary rod members extending from its supporting member parallel to the rod members first mentioned, the locking device for said gauge blocks comprises a set screw seated in said block and adapted to engage one of said secondary rod members, and the tape end supporting members are substantially vertically U-shaped.

5. A tape measuring device of the class described, comprising in combination, a base, a pair of parallel supporting rods carried by said base, a pair of movable support members on said rods, means for locking said members to the rods, tape tensioning brackets extending upwardly from said support members, a tape end supporting means carried by each of said support members, and adjustable toward and from the same, said support members being mounted intermediate said tape and supporting means, and means for locking said tape end supporting means relative to said members.

6. A tape measuring device for facilitating making of Venetian blind tapes of accurate predetermined lengths comprising a base, a measuring scale extending longitudinally of the base, a pair of spaced longitudinally aligned bracket support members adjustably mounted on said base, means to fix said support members in relative adjusted positions on the base by cooperation of said members with said scale, tape tensioning brackets supported on said bracket supports adapted to be received between sides of a length of tape, and tape end supporting members adjacent to the bracket supports, one at the outer side of each bracket support, said tape end supporting members being of U-form and disposed transverse to the base adjacent the said scale to co-operate with the latter.

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7. A tape measuring device for facilitating making of Venetian blind tapes of accurate predetermined lengths comprising a base, a measuring scale extending longitudinally of the base, a pair of spaced longitudinally alined bracket support members adjustably mounted on said base, means to fix said support members in relative adjusted positions on the base by co-operation of said members with said scale, tape tensioning brackets supported on said bracket supports adapted to be received between sides of a length of tape, and tape end supporting members adjacent to the bracket supports, one at the outer side of each bracket support, said tape end supporting members being of U-form and disposed transverse to the base adjacent the said scale to co-operate with the latter, and means on the bracket support members adjustably supporting the tape end supporting members.

8. A tape measuring device for facilitating making of Venetian blind tapes of accurate predetermined lengths comprising a base, a measuring scale extending longitudinally of the base, a pair of spaced longitudinally alined bracket support members adjustably mounted on said base, means to fix said support members in relative adjusted positions on the base by co-operation of said members with said scale, tape tensioning brackets supported on said bracket supports adapted to be received between sides of a length of tape, and tape end supporting members adjacent to the bracket supports, one at the outer side of each bracket support, said tape tensioning bracket being a flat plate disposed in planes rectilinear to the base and engageable with ladder members on the tape, said tape end supporting members being of U-form and disposed at right angles to the base.

9. A tape measuring device for facilitating making of Venetian blind tapes of accurate predetermined lengths

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comprising a base, a measuring scale extending longitudinally of the base, a pair of spaced longitudinally alined bracket support members adjustably mounted on said base, means to fix support members in relative adjusted positions on the base by co-operation of said members with said scale, tape tensioning brackets supported on said bracket supports adapted to be received between sides of a length of tape, and tape end supporting members adjacent to the bracket supports, one at the outer side of each bracket support, the said tape end supporting members being of U-form and disposed transverse to the base adjacent the said scale to co-operate with the latter, and means on the bracket support members adjustably supporting the tape end supporting members, the last mentioned means comprising at least one rod carried by each bracket support member, to support an adjacent tape end supporting member, and a part on such last tape end supporting member co-acting with the rod to adjustably connect the tape end supporting member to the rod.

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