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R. C. PRATT

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VENETIAN BLIND SLAT AND METHOD OF MAKING

Original Filed July 21, 1932

Fig. 1

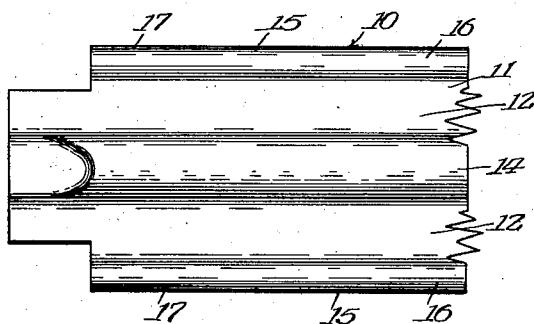


Fig. 2

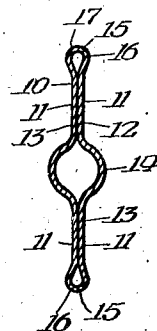


Fig. 3

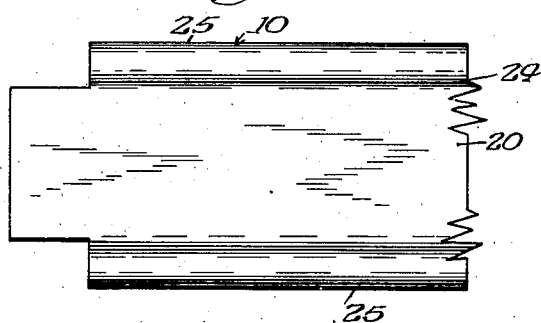


Fig. 4

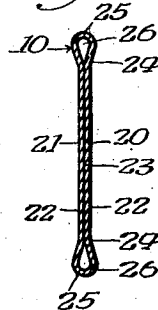


Fig. 5

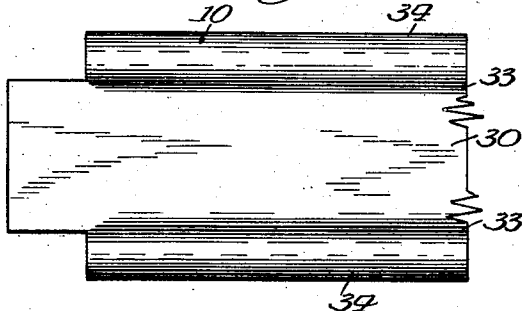
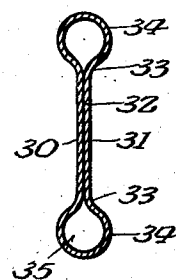


Fig. 6



Inventor

RAYMOND C. PRATT

By Cox & Moore Attys

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VENETIAN BLIND SLAT AND METHOD OF MAKING

Raymond C. Pratt, Chicago, Ill., assignor to H. B. Dodge and Company, Chicago, Ill., a corporation of Illinois

Original application July 21, 1932, Serial No. 623,802. Divided and this application May 10, 1934, Serial No. 724,935

14 Claims. (Cl. 156—17)

This invention relates to Venetian blind slats and the method of making same.

This application is a division of applicant's co-pending application Serial No. 623,802, filed July 21, 1932, for Spring controlled Venetian blinds.

The primary object of the invention is to provide a highly ornamental, inexpensive, metal Venetian blind slat of relatively light weight, and which has a substantially dead sound, so as to overcome the rattle inherent in conventional blind slats.

Another object is to provide a metal Venetian blind slat, which can be made relatively thin and yet have considerable tensile strength, which is capable of having a highly ornamental finish applied thereto, which can be readily and economically manufactured, and which is strong and durable.

A further object of the invention is the provision of a method of making Venetian blind slats which consists in rolling hollow or cylindrical tubes, so that a relatively inexpensive metal blind slat having great strength and capable of receiving a highly polished or ornamental surface is produced.

Numerous other objects and advantages will be apparent throughout the progress of the following specification.

The accompanying drawing illustrates a selected embodiment of the invention, and the views therein are as follows:

Fig. 1 is a detail elevation of one form of the improved Venetian blind slat.

Fig. 2 is a detail transverse sectional view of the slat shown in Fig. 1.

Fig. 3 is a detail elevation of another form of the improved Venetian blind slat, and embodying the invention.

Fig. 4 is a detail transverse sectional view of the slat shown in Fig. 3.

Fig. 5 is a detail elevation of another form of slat, and embodying the invention.

Fig. 6 is a detail transverse sectional view of the slat shown in Fig. 5.

Referring to the drawing, 10 designates a Venetian blind slat which may take any one of a variety of forms. The slat shown in Figs. 1 and 2 is shown in Figs. 22 and 27 respectively of applicant's aforesaid co-pending application, of which this application is a division. The slat shown is flat and is formed of a tubular or cylindrical member which is rolled or flattened to produce a relatively flat slat. During the flattening or rolling of the slat, the tube from which the slat is rolled is pressed inwardly as designated at

11 in Fig. 2, thereby providing flat portions 12 which contact as indicated at 13. The central portion of the slat may be left hollow or cylindrical as indicated at 14, thereby providing a longitudinally extending strengthening rib extending from one end of the slat to the other. The ends 15 of the slat may be spaced apart in the form of beads 16 which run substantially throughout the full length of the slat. The beads 16 are formed by not impinging the extreme outer side edges of the slat, thereby rendering them somewhat hollow, and in effect providing strengthening members. The outer exterior edges 17 of the slat at the outside of the beads 16 are rounded, and present a smooth, clean-cut, ornamental edge for the slat.

The slat shown in Figs. 3 and 4, and which was shown in Figs. 26 and 31 respectively of the aforesaid co-pending application, is also pressed or flattened from a hollow metal tube or cylinder. The slat shown in Figs. 3 and 4 is provided by pressing inwardly at the points indicated at 20 and 21 to provide upper and lower surfaces 22 which are relatively straight and flat. The inner portions of the tube contact as indicated at 23. Near the outer ends of the side edges of the slat, the contacting portion 23 separates as indicated at 24 to provide rounded external beads 25 having hollow centers 26 which extend throughout substantially the full length of the slat. This form of slat is relatively rigid and may be preferred over the slat shown in Figs. 1 and 2. The slat shown in Figs. 3 and 4 is strengthened by the edge beads 25, and in most purposes is preferred, inasmuch as the slats will pile up into a smaller bundle.

The slat shown in Figs. 5 and 6 which is the slat shown in Figs. 24 and 29 respectively in the co-pending application is somewhat along the lines of the slat shown in Fig. 4, but has the outer beads of considerably larger proportions. In Figs. 5 and 6, the slat has central straight opposed surfaces 30 and 31 which contact at 32. The sides 30 and 31 spread apart near the outer edges of the slat as indicated at 33 to provide relatively round tubular portions or beads 34 having hollow centers 35. The beads 34 extend substantially from one end of the slat to the other, and materially strengthen the slat in its entire length. The slat is formed by pressing the tube along the surfaces 30 and 31 until they contact and provide flat straight surfaces inwardly of the outer beads. This form of slat is probably the strongest of any so far shown, and

has advantages in that a slat of this type may be made relatively wide and still be sufficiently strong to prevent bending or twisting of the slat. If desired, the slat shown in Figs. 5 and 6 may be provided with a central tubular section 14 as shown in Figs. 1 and 2. If the central portion 14 is added to the slat shown in Figs. 5 and 6, an exceptionally strong and rigid slat is provided.

10 In carrying out the invention, the slats are provided by flattening tubes. The flattening operation may be done by applying pressure, but in practice it has been found advantageous to pass the tubes or cylinders through pressing 15 rolls. The rolls may be configured to produce any shape of slat desired, and any type of tube may be employed. In explaining the invention, the slats are shown as formed from tubes having a circular cross section, but it is of course 20 understood that tubes of any cross section such as square, rectangular, oval, or any other desirable shape and cross section may be used.

The invention provides the formation of metal slats which can be made in a continuous relative 25 operation. Slats constructed in accordance with the invention are relatively easy to clean and capable of having a highly ornamental polish or finish. The slats are rigid and strong, are relatively non-clattering, will not warp, and 30 are long lasting. The slats are relatively easy to apply in place, and they have no sharp edges. The slats may be formed from tubes and flattened to the desired configuration, and if and when desired, the ends of the slats may be provided with beads in the form of tubes of small 35 diameter extending throughout the length of the slat with a central panel which is flat. The flattened central panel is twice the thickness of the metal from which the original tube was 40 made. If desired, the central tube may be positioned throughout the length of the slat as more clearly shown in Fig. 2.

The Venetian blind slats shown in Figs. 1 to 6 may have their outer ends notched to be received within metal tilting and operating mem- 45 bers, or the ends of the slats may be left square in the manner shown in conventional wooden slats, there being suitable attaching mechanism provided for fastening the slats to suitable tubes or bands. One form of tape or band is shown 50 in the aforesaid co-pending application, there being a pivotal connection between the ends of the slats and the tapes or bands. Another form of tape which may be used commercially, is the 55 conventional linen or fabric tape, whereby the slats may be mounted on the cross supporting members or strips connecting the front and rear portions of the tape. The present invention, however, does not refer to the assembly or oper- 60 ation of a Venetian blind, but only to blind slats and the method of making the slats from hollow tubes.

Changes may be made in the form, construction and arrangement of the parts, and the 65 method may be varied within certain degrees without departing from the spirit of the invention or sacrificing any of the advantages thereof, and the right is hereby reserved to make all such changes as fairly fall within the scope of 70 the following claims.

The invention is hereby claimed as follows:

1. A Venetian blind slat comprising a metal tube having flat opposing sides, and a longitudinal tubular central portion extending 75

throughout substantially the full length of the slat.

2. The method of making Venetian blind slats which comprises flattening a hollow metal tube to position the opposite flattened sides in substantial parallelism and in contact with each other. 5

3. The method of making Venetian blind slats which consists in flattening a hollow metal tube to bring opposing surfaces thereof into contacting relationship and forming a plurality of longitudinal tubular portions therein. 10

4. The method of making Venetian blind slats which consists in configuring a hollow metal tube to bring opposing surfaces thereof into contacting relationship to provide a slat having flat surfaces and a hollow longitudinal tubular portion extending longitudinally of the slat. 15

5. The method of making Venetian blind slats which consists in configuring a hollow metal tube to bring opposing surfaces thereof into contacting relationship to provide a slat having flat surfaces and hollow side beads at the side edges of the slat. 20

6. A Venetian blind slat formed of a transversely closed, continuous sheet of metal, said slat being hollow and having flat opposed sides substantially parallel with each other. 25

7. A flat metallic Venetian blind slat formed of a transversely closed, continuous sheet of metal, said slat being hollow and having generally parallel, flat opposed sides and a longitudinally extending, integral, enlarged tubular portion centrally thereof to form a longitudinally extending bead. 30 35

8. A relatively flat metallic Venetian blind slat having a substantially uniform cross-section generally throughout its length, said slat at each section comprising a hollow closed sheet of metal with two generally parallel, flat opposed sides substantially in contacting relationship, and a longitudinally extending integral bead formed along a side edge thereof. 40

9. A relatively flat metallic Venetian blind slat having a substantially uniform cross-section generally throughout its length, said slat at each section comprising a hollow closed sheet of metal with two generally parallel, flat opposed sides substantially in contacting relationship, and a plurality of longitudinally extending beads integrally formed on the edges of the slats and connecting the opposite sides. 45 50

10. A relatively flat metallic Venetian blind slat having a substantially uniform cross-section generally throughout its length, said slat at each section comprising a continuous sheet of metal with two generally parallel, flat opposed sides substantially in contacting relationship, and a longitudinally extending integral bead formed along a side edge thereof and substantially the full length of the slat. 55 60

11. A relatively flat metallic Venetian blind slat having a substantially uniform cross-section generally throughout its length, said slat at each section comprising a hollow closed sheet of metal with two generally parallel, flat opposed sides substantially in contacting relationship, and a longitudinally extending bead formed integrally on each side and extending outwardly therefrom to form a reinforcing rib. 65 70

12. A flat metallic Venetian blind slat formed of a transversely closed, continuous sheet of metal, said slat being hollow and having two generally parallel, flat opposed sides and a plurality of longitudinally extending, integral, enlarged 75

tubular portions forming beads adjacent the edges thereof.

13. A metal slat for Venetian blinds having a generally flat, tubular cross-section with flat upper and lower walls connected by curved side walls presenting a smooth outer surface, said curved side walls being arcuate in cross-section,

said flat upper and lower walls arranged in parallelism in a closely spaced relationship.

14. A metal slat for Venetian blinds having a flattened tubular cross-section with rounded lateral edges.

RAYMOND C. PRATT.