United States Patent [19]

Fagen et al.

[11] **3,902,731**

[45] **Sept. 2, 1975**

[54] **PORTABLE SEAT**

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[22] Filed: **Jan. 2, 1974**

[21] Appl. No.: **426,095**

[52] **U.S. Cl.** ..... **280/11.37 E;** 5/123; 297/129

[51] **Int. Cl.²** **A63C 11/00**

[58] **Field of Search**..280/11.37 E, 11.37 J, 11.37 R, 280/7.1; 297/217, 5, 6, 129, 463, 452, 118; 5/122, 123, 82; 272/85

[56] **References Cited**

UNITED STATES PATENTS

803,091	10/1905	Brayshaw	5/122
1,190,423	7/1916	Kamrath	248/155.5
1,814,579	7/1931	Ames	5/122
2,062,069	11/1936	Powers	5/123
2,257,831	10/1941	Wood	280/11.37 E
2,670,478	3/1954	Gilfallan	5/82 X

FOREIGN PATENTS OR APPLICATIONS

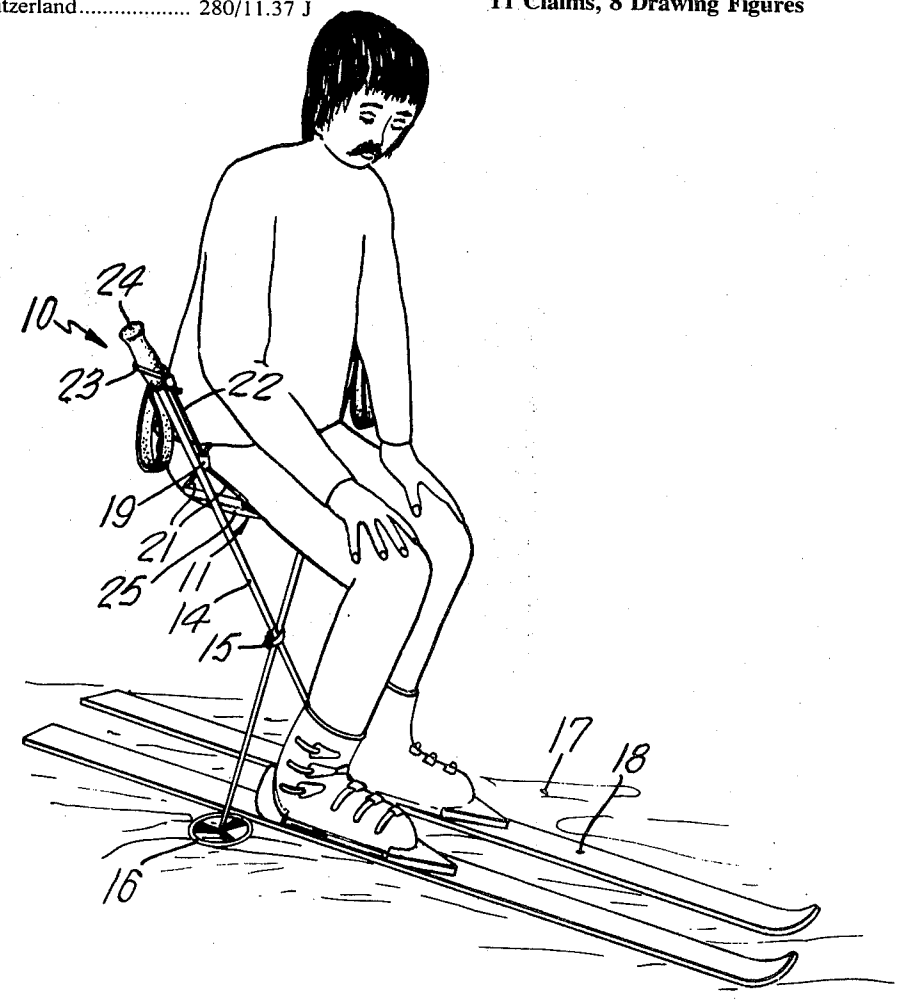
426,174	3/1926	Germany	280/11.37 J
207,539	2/1940	Switzerland	280/11.37 J

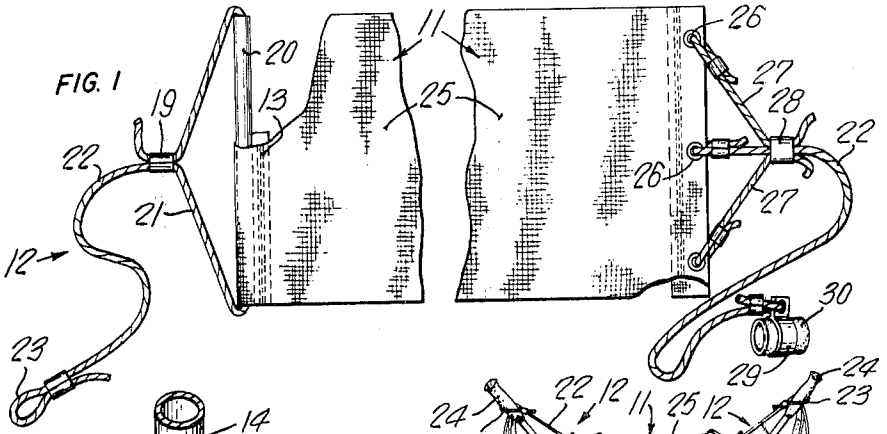
Primary Examiner—David Schonberg
Assistant Examiner—Milton L. Smith

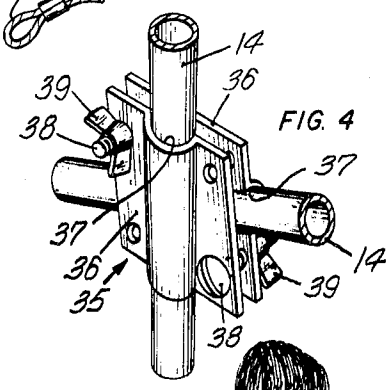
[57] **ABSTRACT**

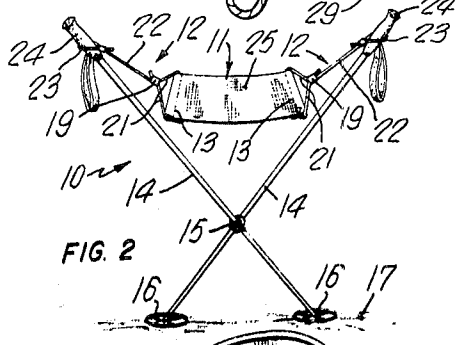
A portable seat for securement between the upper ends of two ski poles having their respective longitudinal axes crossing at an intersecting point to distribute the load on the seat substantially along the longitudinal axes of the ski poles, said portable seat comprising a sheet of flexible material, an elongated cylindrical member retained in each end edge of said sheet, each said end edge having a loop formed therein by overlapping and securing said sheet material, said cylindrical members maintaining said sheet extended widthwise when a load is applied on said sheet and permitting said seat to be folded upon itself for storage in a clothing pocket, a cord like member secured from the ends of respective cylindrical members and connectable between the upper ends of said two ski poles to maintain said sheet extended lengthwise, said cord like member extending a predetermined distance from a respective one of said end edges to its attachment point on said upper end of said two ski poles.

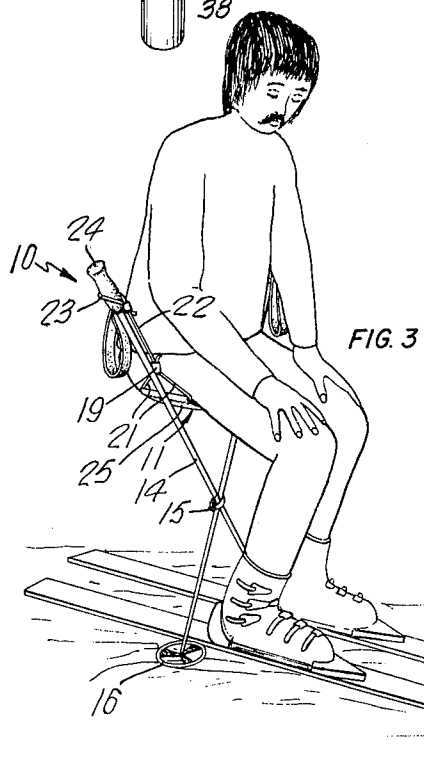
11 Claims, 8 Drawing Figures

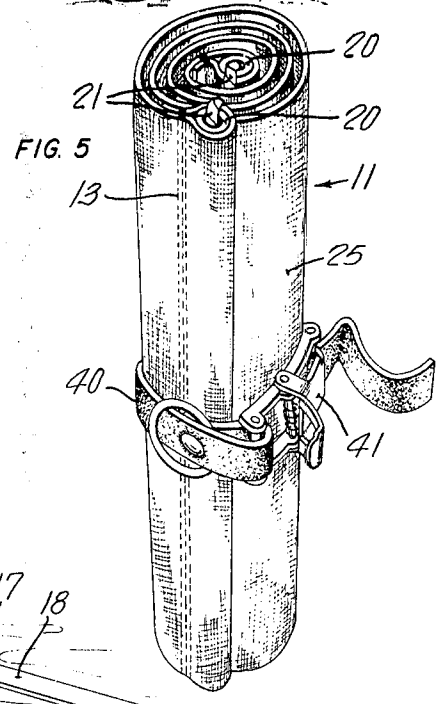



FIG. 1
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FIG. 4
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FIG. 2
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FIG. 3
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FIG. 5
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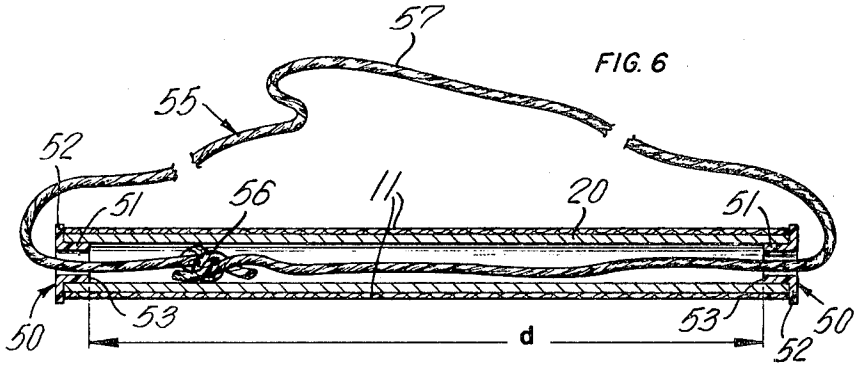


FIG. 6

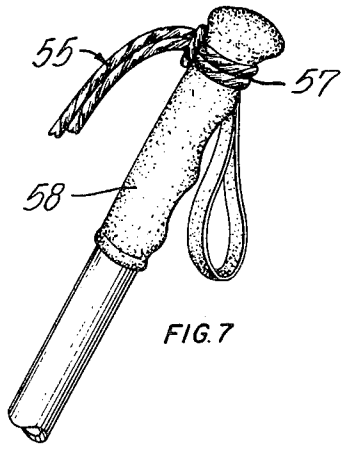


FIG. 7

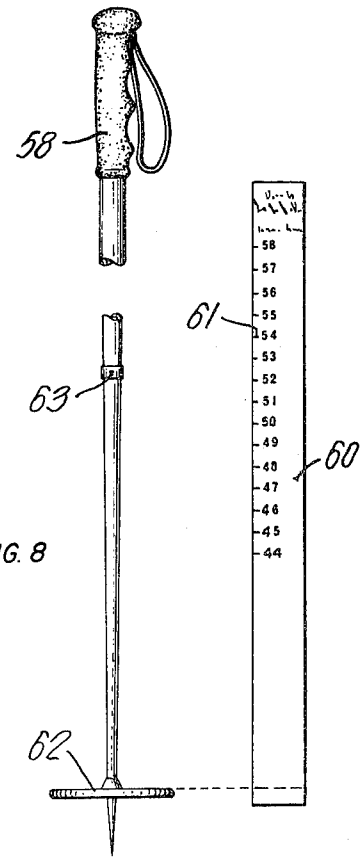


FIG. 8

PORTABLE SEAT

BACKGROUND OF INVENTION

a. Field of the Invention

The present invention relates to a seat structure and more particularly to a portable seat that can be carried on a person, for example, in a pant or jacket pocket and easily assembled.

b. Description of the Prior Art

Many seat structures of the foldable and portable type are known. However, the majority of these require specially designed framework hinged together in order to fold upon itself and provide rigidity to support a person. Most of these structures also have four legs, arms and a backrest or various combinations of these elements. Because of the construction of the framework, such structures are not portable on a person for example in a pant or jacket pocket whereby the person may carry the seat without inconvenience and assemble it quickly when required.

SUMMARY OF INVENTION

It is a feature of the present invention to provide a portable seat which can easily be carried on a person and without inconvenience.

It is a further feature to provide a portable seat structure which is economical, very light and providing easy assembly.

A still further feature is to provide a portable seat for securement between the upper ends of two ski poles having their respective longitudinal axes crossing at an intersecting point to distribute the load on the seat substantially along the longitudinal axes of the ski poles, said portable seat comprising a sheet of flexible material, an elongated cylindrical member retained in each end edge of said sheet, each said end edge having a loop formed therein by overlapping and securing said sheet material, said cylindrical members maintaining said sheet extended widthwise when a load is applied on said sheet and permitting said seat to be folded upon itself for storage in a clothing pocket, a cord like member secured from the ends of respective cylindrical members and connectable between the upper ends of said two ski poles to maintain said sheet extended lengthwise, said cord like member extending a predetermined distance from a respective one of said end edges to its attachment point on said upper end of two ski poles.

BRIEF DESCRIPTION OF THE DRAWINGS

A preferred embodiment of the present invention will now be described with reference to the accompanying drawings in which:

FIG. 1 is a fragmented plan veiw of the seat portion of the portable seat structure;

FIG. 2 is a perspective view of an example of the seat structure;

FIG. 3 is a perspective view illustrating the use of the seat structure;

FIG. 4 is a perspective view of a clamp;

FIG. 5 is a perspective view of the seat portion in its portable form;

FIG. 6 is a fragmented sectional view of the securement means;

FIG. 7 is a perspective view of a portion of a ski pole showing the attachment of the seat; and

FIG. 8 is a fragmented view of a ski pole and the intersection scale.

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to the drawings and more particularly to FIGS. 1 to 3, there is shown generally at 10 the portable seat structure of the present invention. The portable seat structure 10 comprises a seat portion 11 of flexible material and having securement means 12 attached at the opposed ends 13 of the seat 11 for detachably securing the seat 11 between two elongated, pole-like, support members 14, hereinshown as ski poles. To provide a sufficiently rigid structure, the support members 14 intersect one another and are secured at their intersection with suitable interlocking means 15. As can be seen in FIG. 3, the lower ends 16 of the poles 14 are implanted in the surface of the snow or ground 1. Further, a person skiing can assemble the seat structure 10 without removing the skis 18 from his feet as illustrated in FIG. 3. Thus, the seat structure may be easily assembled anywhere.

As shown in FIG. 1, the seat portion 11 is made of a sheet of canvas and may be overlapped and stitched at the opposed parallel ends 13 about a tubing 20 for receiving a cord like member, herein a nylon cord 21, through the tubing 20. The cord 21 is clamped at 19 to form a loop about the tubing and extends along a preferred length 22 therefrom to a rigid loop end 23. The loop end 23 receives a portion of the cord length 22 to form a sliding loop end connector which can be secured adjacent the top end of the elongated support members or poles 14. As shown in FIG. 2, the sliding loop is secured about the ski pole handles 24. The tubing 20 is preferably formed of light material, such as aluminum and plastic, and maintains the seat section 25 fully extended along its width, that is to say, it prevents the seat section 25 from folding widthwise and making it uncomfortable to sit on.

To the right of FIG. 1, there is shown a different embodiment of the seat portion 11. As shown, the end 13 is overlapped and a plurality of stitched seams are made to reinforce the edge 13. Two or more reinforced holes 26 are provided adjacent the edge 13 to which is attached a section 27 of cord. The sections are clamped at 28 and the free end of the cord length 22 is attached to a connector cup 29 having a cavity 30 sufficient diameter to receive the top ends of the support members 14.

The attachment means 15 may be a short section of strapping having a suitable fastener (not shown) to prevent the strap from slipping. Alternatively, a clamp 35 (see FIG. 4) may be provided to secure the member 14. As shown, the clamp 35 consists of two metal or plastic clamp sections 36 having angulated channel 37 formed in a surface. The sections 36 are adjustably secured by means of bolts 38 and wing nuts 39 whereby the channels 37 face each other at an angle to secure the members 14 at an intersection point.

As shown in FIG. 5, when the portable seat structure 10 is dismantled, the seat portion 11 is rolled on itself from one of its ends 13 to form a roll. The roll may then be secured in this position by attaching the cord from the top end 13 thereabout. Alternatively, when the attachment means is in the form of a strap 40 having a lock buckle 41, the strap 40 is secured about the rolled seat portion 11 to form a small roll suitable for carrying in the pocket of a pant or jacket.

In use, with the securement means **23** attached to the members **14**, the cord length **22** extends substantially along the axis of the support member **14** whereby the load on the seat portion **11** is distributed downwardly along the members **14**. The poles or members **14** must be constructed of suitable material to support the load placed on the seat portion **11**. Also, it is within the ambit of the present invention to provide a sheet **11** which is of an oval shape with narrow opposed ends **13**. Further, the sheet **11** may have triangular shaped ends **14**. In a still further embodiment the sheet **11** may be formed of strips of flexible material webbed transversely and secured between end members to maintain the sheet extended in its widthwise direction. Still further, the sheet **10** may be molded of plastic material with the attachment means preformed therein.

Although in the preferred embodiment the support members **14** are ski poles, it is quite conceivable that other suitable elongated, pole-like members may be used. For example, when hiking, camping, etc., the members may be formed by two wooden poles or branches, or any other suitable members.

In the preferred embodiment, the seat portion is formed of canvas material and is approximately 6½ inches wide and **17** inches long. The cord secured to the opposed ends of the seat portion extends to approximately 12 inches beyond the edge **13**.

Referring now more particularly to FIGS. **6** and **7** there is shown a further embodiment of the construction of the seat. Hereinshown the hollow tube **20** which is secured in a respective end edge of the canvas seat **11** is provided with a nylon bushing **50** in each end thereof. The bushing has a tubular portion **51** having an outer diameter for tight fit in the end of the hollow tube **20**. A circumferential flange **52** is formed integrally with an end of the tubular portion **51**. As shown in FIG. **6**, the flange extends above the outer surface of the tube **20** and prevents the canvas, secured about the tube **20**, from slipping out of engagement with the tube.

To secure the seat, there is provided a cord **55** which passes through the hollow tube **20** and is securely knotted at its ends. Before the knot **56** is made, the bushings **50** are positioned on the cord **55** so that the knot **56** may be positioned within the hollow tube **20**. The bushings **50** are then secured in their respective end of the tube **20**. The inner end **53** of each bushing **50** constitutes an abutment end to prevent the knot **56** from slipping out of the tube **20**. As can be seen, the knot **56** can be displaced within the tube along a distance *d*. This permits an adjustment of the seat after the attachment end portion **57**, of the cord **55** has been secured to the pole handle **58**. This is done by looping the end portion **57** in the manner illustrated in FIG. **7**. After the loop is secured the position of the seat can be adjusted by displacing the tubing over the cord portions between the knot **56** along distance *d*.

The nylon bushings **50** also protect the cord from metal contact with the tube which would wear the cord.

In order to minimize stress on the support members or ski poles **14**, it is important that the weight or load on the seat pushes the poles **14** straight into the ground. This is achieved by having the poles intersect at a proper intersecting point. Seeing that there are various lengths of ski poles to suit people of different heights and different types of skiing, the intersecting point of the poles will vary. To locate the proper intersecting point there is provided a chart **60**, herein a strip of paper which can be folded and easily stored away, on which there is provided a scale **61** indicating various lengths of ski poles. The scale is positioned in alignment with the ski pole basket **62** and the intersecting point is determined as the area of the pole adjacent the number in the scale **61** corresponding to the length of the pole. An adhesive identification band **63** is then secured to the pole to indicate the intersecting point. This band is secured to both poles **14**.

The scale **61** on the chart has been predetermined by experimentation. For example, for Alpine ski poles the intersecting point for a 44 inch pole is approximately 9½ inches from the top of the basket. For a 58 inch pole, the intersecting point is approximately 23½ inches from the basket. Each marking in the scale is spaced 1 inch apart.

For cross-country ski poles the range starts at 8 inches from the basket and extends from 44 inches to 62 inches with the inch markings spaced ¾ inch apart.

By identifying the intersecting point of the poles it may not be necessary to attach the poles at this point with a strap **15** as shown in FIG. **2** as the weight is distributed substantially along the longitudinal axis of the poles.

We claim:

1. A portable seat for securement between the upper ends of two ski poles having their respective longitudinal axes crossing at a predetermined intersecting point to transfer and distribute the load of a person sitting on the seat substantially along the longitudinal axes of the ski poles, said intersecting point being located below said seat, said portable seat comprising a sheet of flexible material, a tube retained in each end edge of said sheet, each said end edge having a loop formed therein by overlapping and securing said sheet material, each said tube maintaining said sheet extended width-wise when a load is applied on said sheet and permitting said seat to be folded upon itself for storage in a clothing pocket, a cord like member passing through each tube and extending from opposed ends thereof and connectable to the upper end of a respective one of said two ski poles and depending therefrom to said tube that it is connected to whereby to maintain said sheet extended lengthwise between said two ski poles, said cord like member extending a predetermined distance from its associated tube to its attachment point on said upper end of said ski pole.

2. A portable seat as claimed in claim **1** wherein said cord like member is provided with an end connector formed as a sliding loop at the free end of said cord.

3. A portable seat as claimed in claim **1** wherein said end connector is a cup member secured at the free end of said cord.

4. A portable seat as claimed in claim **1** wherein said cord like member is an elongated cord passing through a respective one of said tubes and secured at both ends to form a knot, a bushing secured in a respective end of each said tubes, said knot being positioned within said tube and slidingly retained therein between said two bushings whereby said seat can be adjusted, after said cord is secured between said ski poles.

5. A portable seat as claimed in claim **4** wherein said bushing is provided with a circumferential flange extending above the outer surface of said tube to prevent said loop of said flexible material from sliding off said tube located in said loop.

6. A portable seat structure as claimed in claim 1 wherein said intersecting point is determined by a chart having a scale thereon indicating the location of said intersection point in relation to the length of said ski pole.

7. A portable seat structure as claimed in claim 6 wherein said chart is aligned with a basket provided on the lower end of the ski pole, said scale having a gradient for ski poles in the range of from 44 to 58 inches, each inch marking in said range being spaced one inch apart with said 44 inch marking located approximately 9½ inches from the upper edge of said basket.

8. A portable seat structure comprising a seat formed from a sheet of flexible material, said seat comprising a sheet of flexible material, an elongated cylindrical tube retained in each end edge of said sheet, each said end edge having a loop formed therein by overlapping and securing said sheet material, said cylindrical member maintaining said sheet extended widthwise when a load is applied on said sheet and permitting said seat to be folded upon itself for storage in a clothing pocket, an elongated cord passing through a respective one of said tubes and secured at both ends to form a knot, a bushing secured in a respective end of each said tubes, said knot being positioned within said tube and slidingly retained therein between said two bushings whereby said seat can be adjusted, said cord being connectable between the upper end of a respective one of said two ski poles and depending therefrom to maintain said sheet extended lengthwise between said two ski poles, said cord extending a predetermined distance from a respective one of said end edges to its attachment point on said upper end of said two ski poles, said two ski poles intersecting each other at an intersection point below said seat so that said support members are spaced apart at their upper ends and lower ends whereby the load on the seat is distributed downwardly along the longitudinal axis of the ski poles.

9. A portable seat as claimed in claim 8 wherein said poles are attached together at said intersection point by a strap-like attachment means.

10. A portable seat structure as claimed in claim 9 wherein each said cord terminates in a free end connector for attachment to the upper end of the ski pole.

11. A portable seat as claimed in claim 8 wherein said bushing is provided with a circumferential flange extending above the outer surface of said tube to prevent said loop of said flexible material from sliding off said tube located in said loop.

* * * * *