Aug. 26, 1952 W. D. HOWARD 2,608,188

ARCHERY BOW

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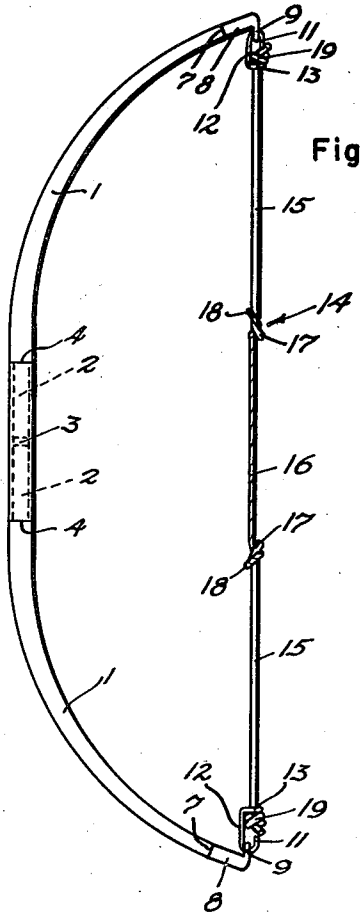


Fig_1

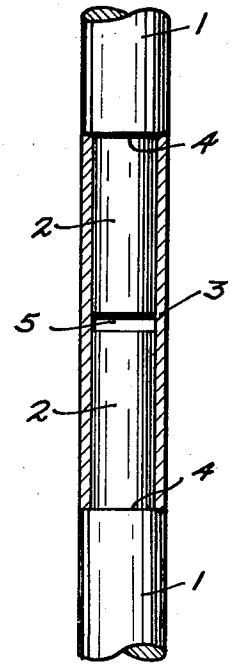


Fig_2

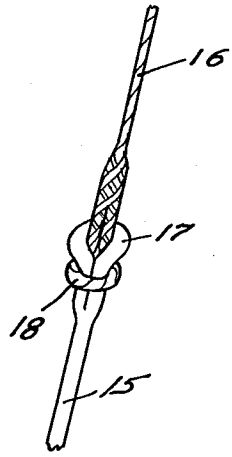


Fig_4

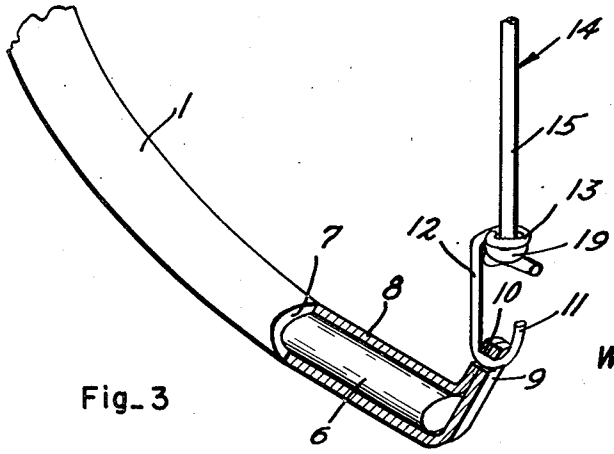


Fig_3

William D. Howard

Inventor

By William L. Fish

Attorney

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ARCHERY BOW

William D. Howard, Smelterville, Idaho

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3 Claims. (Cl. 124—23)

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This invention relates to a bow of the weapon type and it is one object of the invention to provide a bow which is formed of sections which are detachably connected so that when the bow is not in use they may be taken apart and thus reduce the bow to such dimensions that it may be conveniently carried from one place to another and also stored in a small space.

Another object of the invention is to provide a bow having its companion sections provided at outer ends with tips or terminal members which are prevented from having turning movement when applied to the bow sections and are of such formation that they may be engaged by hooks at ends of a string.

Another object of the invention is to provide the bow with an improved string having end sections formed of elastic and an intermediate section formed of cord which is strong and will not be worn and broken by engagement with an arrow to be shot from the bow.

Another object of the invention is to provide an improved bow which is of such construction that it may be manufactured at low cost and thus sold at a reasonable price.

The invention is illustrated in the accompanying drawings wherein:

Fig. 1 is a side view of the improved bow.

Fig. 2 is a fragmentary view showing sections of the bow in elevation and a sleeve connecting the same in longitudinal section.

Fig. 3 is a perspective view of a portion of one section of the bow, the terminal member thereof being shown in longitudinal section and engaged with a hook at one end of the bow string.

Fig. 4 is a perspective view showing the manner in which the cord forming the intermediate section of the string is connected with the elastic end sections of the string.

This improved bow companion sections 1 which may be formed of wood, metal, or other suitable material. The two sections 1 are curved longitudinally and have their inner end portions 2 reduced in diameter and removably fitted into a metal sleeve 3 through opposite ends thereof. Ends of the sleeve have abutting engagement with shoulders 4 about the inner ends of the reduced portions, and as confronting ends of the two sections are spaced from each other, as shown at 5, the reduced end portions may be fully thrust into the sleeve and fit tightly therein to prevent the said sections from accidently slipping out of connected relation to each other. When the bow is not in use the two sections 1 may be withdrawn from the sleeve and disposed in side by side relation to each other, thus reducing the length of the bow and allowing the sleeve and the two sections to be tied in a compact group and readily carried from one place to another or stored in a small space or container.

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Outer end portions 6 of the two sections 1 are reduced in diameter, and referring to Figure 3 it will be seen that the outer end portions 6 are elliptical in cross section and each has its inner end surrounded by a shoulder 7. Tips 8, which are formed of metal tubes, fit snugly about the outer end portions 6 of the bow sections and when applied thereto have their inner ends abutting the shoulders 7. Since the tips are elliptical in cross section and fit snugly about the end portions 6 they will be prevented from having turning movement. The tubes from which the tips are formed are of greater length than the reduced outer end portions 6 and have their outer ends pressed together and bent to form ears 9 which are of double thickness and formed with openings 10 to receive the bills 11 of hooks 12. The hooks are of such size that they may be readily grasped and their bills passed through the openings 10 and as the bills project from ends of the ears quite a distance, as shown in Figure 3, they will not be liable to accidently slip out of the openings during use of the bow. The hooks are formed from strands of stiff wire and at opposite ends of the hooks from the bills 11 the strands are bent to form eyes 13 disposed transversely of the hooks at right angles to the bills.

The hooks 12 constitute attaching members for a bow string 14. This string consists of end sections 15 and an intermediate section 16. The end sections 15 of the bow strings are formed of elastic material, such as rubber or the like, and at their inner ends are formed with loops or eyes 17. Similar loops or eyes 18 are formed at opposite ends of the intermediate section 16, which is formed of strong cord, and as the loops 17 are disposed about the looped ends of the intermediate section and the end sections then passes outwardly through loops 18 the three sections forming the bow string will be securely held together but may be taken apart when renewal of one of the sections is necessary. Outer end portions of the end sections 15 of the bow string are passed through the eyes 13 of the hooks 12 and then formed with knots 19 of such size that they may not pass through the eyes. Therefore the hooks 12 will be held in engagement with ends of the bow string 14 and pull upon the bow string exerted during use of the bow will not cause ends

of the bow string to become detached from the hooks.

When this improved bow is in use it is assembled as shown in Figure 1 and the bow held by gripping the sleeve 3 in one hand. The arrow is applied to the bow in the usual manner with its feathered end engaged with the cord forming the intermediate section of the bow string. Pull is then exerted to draw the arrow rearwardly and during this rearward pull upon the arrow the end sections of the bow string are stretched and propel the arrow forwardly when the arrow is released and the elastic string sections contract and return to the normal position. When the bow is not in use the hook at one end of the bow string is detached from the ear of the companion tip 8 and the bow sections may then be easily withdrawn from the sleeve 3 and disposed in side by side engagement with each other and the sleeve placed next to the bow sections longitudinally thereof or left upon one of the bow sections. The string may then be wrapped about the bow sections and the sleeve to secure them in a group and the collapsed bow put away until it is again to be assembled and used.

Having thus described the invention, what is claimed is:

1. A bow comprising sections having inner ends detachably connected and having reduced outer end portions and shoulders about inner ends thereof, the said outer end portions being elliptical in cross section, tips for the bow formed of stiff metal tubes fitting snugly about and conforming to the transverse outline of the reduced outer end portions of the bow sections and having outer end portions projecting therefrom and pinched together and bent to form transversely disposed ears projecting inwardly of the bow towards each other and formed with openings, and a bow string extending between outer ends of the bow sections and at its ends detachably secured through the openings in the ears of said tips.

2. A bow having rearwardly extending end portions, tips at ends of said bow having ears extending laterally therefrom inwardly of the bow, a bow string, and hooks at ends of said bow string having eyes at their inner ends through which ends of the bow string are passed and knotted to prevent detachment of the hooks from the bow string, outer ends of the hooks having bills passed through openings in the ears and detachably connecting the bow string with said tips.

3. A bow, tips at ends of the bow having ears extending inwardly of the bow and formed with openings, a bow string, and hooks each formed from a strand of stiff wire bent to form the hook with a shank having a bill at its outer end and an eye at its inner end disposed transversely of the shank and the bill, said bow string having ends passed through the eyes of said hooks and knotted to hold the hooks upon the string, and the bills of said hooks being passed through the openings in the ears and detachably connecting the hooks with said tips.

WILLIAM D. HOWARD.

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