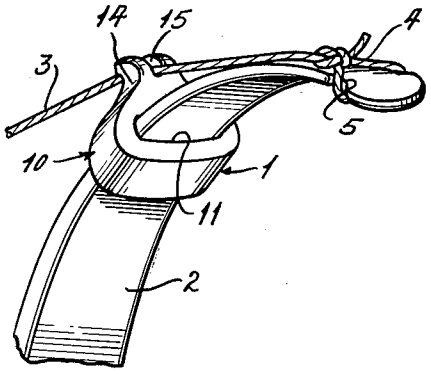
Dec. 12, 1961 W. M. ALLEN 3,012,552

BRUSH DEFLECTOR

Filed Jan. 21, 1959

FIG. 1



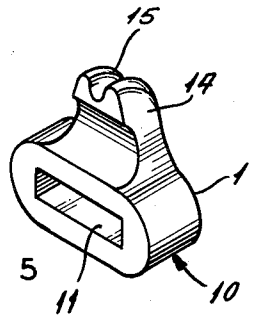


FIG. 5

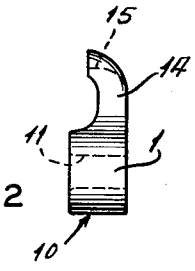


FIG. 2

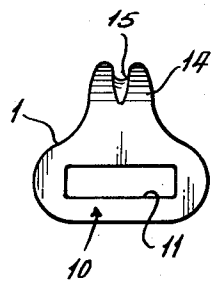


FIG. 4

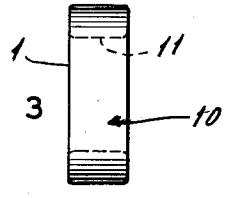


FIG. 3

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3,012,552

BRUSH DEFLECTOR

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Filed Jan. 21, 1959, Ser. No. 788,156
3 Claims. (Cl. 124—23)

This invention relates to brush deflectors for archers' bows.

Brush deflectors for bows have been used for some time. An example of such a device is shown in Roemer Pat. No. 2,617,402. The disadvantage of a string-mounted brush deflector is that its being mounted in the string makes it somewhat difficult to put into place, renders it liable to movement down the string with repeated use of the bow, and requires that a deflector be put onto each new string.

One of the objects of this invention is to provide a brush deflector for a bow, which exhibits no tendency to loosen with use, need not be changed with the string, does not interfere with the action of the bow, is easy to install, inexpensive, and effective to deflect brush, and which also functions to retain the string in a convenient position when the string is loosened from its notch at one end of the bow.

Other objects will become apparent to those skilled in the art in the light of the following description and accompanying drawing.

In accordance with this invention, generally stated, a brush deflector for a bow is provided, which fits snugly on the bow itself and is provided with a string-receiving part which bridges the space between the bow and the string, and prevents brush from being caught between the string and the bow. The brush deflector of this invention is also arranged to hold the string conveniently when the string is loosed from its notch.

In the drawings:

FIGURE 1 is a view in perspective of a brush deflector constructed in accordance with an illustrative embodiment of this invention, mounted on one end of a bow;

FIGURE 2 is a view in side elevation of the brush deflector of FIGURE 1, unmounted;

FIGURE 3 is a view in rear elevation of the brush deflector of FIGURE 2;

FIGURE 4 is a top plan view of the brush deflector of FIGURE 2; and

FIGURE 5 is a view in perspective showing the underside of the brush deflector of FIGURE 2.

Referring now to the drawing, reference numeral **1** indicates a brush deflector constructed in accordance with one illustrative embodiment of this invention.

In FIGURE 1, the brush deflector **1** is mounted on an archer's bow **2**, on which a bow string **3** is stretched. The bow string **3** is provided with a loop **4** at its end, seated in a notch **5** near the end of the bow **2**.

The brush deflector **1** has a body or collar section **10**, through which a rectangular passage **11** extends. In the embodiment shown, a lug or finger **14** extends from a side of the body **10** adjacent one of the long sides of the rectangular opening **11**. At its outer end, the finger **14** is provided with a string-receiving groove **15**.

In common with practically all bows, the bow **2** tapers convergently toward its end. The brush deflector **1** is slipped over the end of the bow **2** before the string **3** is put on. The string **3** is then put on the bow **2** in the usual fashion, except that it is led into the groove **15** of the finger **14** of the brush deflector **1**.

Any tendency of the string **3** to push the brush deflector **1** towards the center of the bow is counteracted by the forces resulting from the divergent taper of the bow in that direction. Conversely, any tendency of the brush deflector **1** to move towards the end of the bow **2** in response to the forces resulting from the convergent taper of the bow toward its end, is counteracted by the pressure of the string **3** in the opposite direction.

It can be seen that when the loop **4** of the bow string is released from the notch **5** in the bow, to loosen the string, the loop will be prevented by the brush deflector **1** from falling to the other end of the bow. The string **3** will be held in a convenient place and in a convenient position for tightening.

The brush deflector **1** is preferably made of a resilient material such as springy rubber. Its use does not interfere with the action of the bow. The distortion of the bow string, shown in FIGURE 1, is exaggerated in that figure. In practice, the bow string is disaligned only a negligible amount. The arrangement of the string in the groove **15** is such as substantially to eliminate the possibility of getting brush caught between the string and the bow or between the string and the brush deflector.

The brush deflector **1** is easy to install and remove. However, it can be seen that once the brush deflector is installed, it need not be removed when the string is replaced.

Thus it can be seen that a simple but effective brush deflector is provided, which eliminates the disadvantages of brush deflectors known heretofore.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:

1. In combination, an archer's bow having a tip at its end with a notch slightly remote therefrom, the notch being adapted to receive and hold a bow string and said bow being bent at its end so that the bow string forms, with the end of the bow, an acute angle when the bow is strung but undrawn; and a brush deflector on said bow, the brush deflector being formed of resilient, elastic material, having a body embracing and frictionally engaging the said bow near the apex of the angle between the bow and string at the said end, and having a part, integral with said body, projecting from said bow toward said string, and means, including said projecting part, for retaining said string in loosed position on the bow, said projecting part engaging said string and being compressed between the said string and the said bow when said bow is strung but undrawn, said brush deflector being mounted in a position sufficiently remote from the bow notch to permit the bow string to be loosed from the bow notch and retained, in its loosed position, about said bow, by the bow string retaining means on said brush deflector.

2. The combination of claim 1 wherein the part projecting from the body of the brush deflector is a lug, cut away axially of the bow intermediate the ends of the lug on its side away from the tip, to provide additional flexibility axially of the bow, said lug being sufficiently wide transversely to be stable transversely under the compressive load between the string and bow.

3. In combination, an archer's bow having a tip at its end with a notch slightly remote therefrom, the notch being adapted to receive and hold a bow string and said bow being bent at said end so that the bow string forms, with the end of said bow, an acute angle when the bow is strung but undrawn, and said end being tapered toward said tip; and a brush deflector on said bow, the brush deflector being formed of resilient, elastic material, having a body embracing and frictionally engaging the said bow near the apex of the angle between the bow and string and within the tapering portion of said end of said bow, and having a part projecting from said body, toward said string, and means, including said projecting part, for re-

taining the bow string in loosed position on the bow, said projecting part engaging said string and being compressed between said string and said bow when the bow is strung but undrawn, whereby a tendency of the string to force the brush deflector away from the said tip is opposed by a tendency of the taper of the bow to force the brush deflector toward said tip, said brush deflector being mounted in a position sufficiently remote from the bow notch to permit the bow string to be loosed from the bow notch and retained, in its loosed condition, about said bow, by the bow string retaining means on said brush deflector.

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