S. SADLER.

SHUTTLECOCK.

APPLICATION FILED NOV. 17, 1910

1,011,856.

Patented Dec. 12, 1911.

Fig. 1.

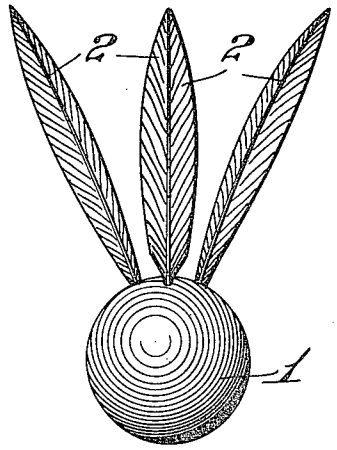
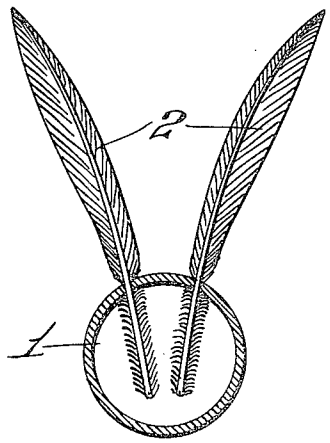


Fig. 2.



Attest:
L. G. Fletcher.
M. C. Hammon

Inventor:
Samuel Sadler.
By Dwight Bro
Attys.

UNITED STATES PATENT OFFICE.

SAMUEL SADLER, OF ST. LOUIS, MISSOURI.

SHUTTLECOCK.

1,011,856. Specification of Letters Patent. Patented Dec. 12, 1911.

Application filed November 17, 1910. Serial No. 592,825.

To all whom it may concern:

Be it known that I, SAMUEL SADLER, a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Shuttlecocks, of which the following is a specification.

This invention relates to shuttle-cocks, and has for its primary object to provide an improved combination and arrangement of parts in a device of this character.

Other and further objects will appear in the specification and be specifically pointed out in the appended claims, reference being had to the accompanying drawings exemplifying the invention, and in which,

Figure 1 is a perspective view of the shuttle-cock. Fig. 2 is a diametral section through the ball, parts being shown in elevation.

Referring more particularly to the drawings, the shuttle-cock comprises a hollow ball 1 which is preferably constructed of rubber, and is provided with a plurality of guiding vanes 2 in the form of feathers which project outwardly from the outer surface of the ball 1.

In order to provide convenient and efficient means for securing the feather vanes in position, the spherical wall of said ball is provided with apertures or perforations arranged in order corresponding to the desired arrangement of the feather vanes. And said feathers, after having the bare portions of their quills removed, are inserted base ends foremost into said apertures until said base ends are disposed between the center of said ball and the inner wall thereof opposite said apertures, in the positions shown in Fig. 2 of the drawings. In these positions, the base ends of the quills serve as an abutment which prevents the spherical wall of the ball 1 being so far displaced as will occasion it to be collapsed permanently. From an inspection of Fig. 2, it will be noted that those portions of the vanes of the feathers serve to lock the feathers against displacement.

What I claim is:

1. In a game of the character described, the combination with a rubber ball provided with a plurality of spaced apertures in the spherical wall thereof, and feathers projecting through said apertures into said rubber ball, said feathers having a portion of the vane thereof within the rubber ball to lock them into position therein.

2. In a device of the character described, the combination with a hollow rubber ball provided with spaced apertures in the wall thereof, of feathers having their base ends projecting through said apertures, said feathers having portions of their vanes within the ball to lock them against being retracted and the base ends of said feathers being disposed between the center and the opposite interior wall of said ball to limit the inward deformation in the spherical wall of the ball.

SAMUEL SADLER.

In the presence of—
M. C. HAMMON,
J. B. MEGOWN.