Apr. 3, 1923. 1,450,646

F. SADENWATER

BASEBALL BAT

Filed May 1, 1920

Fig. 1.

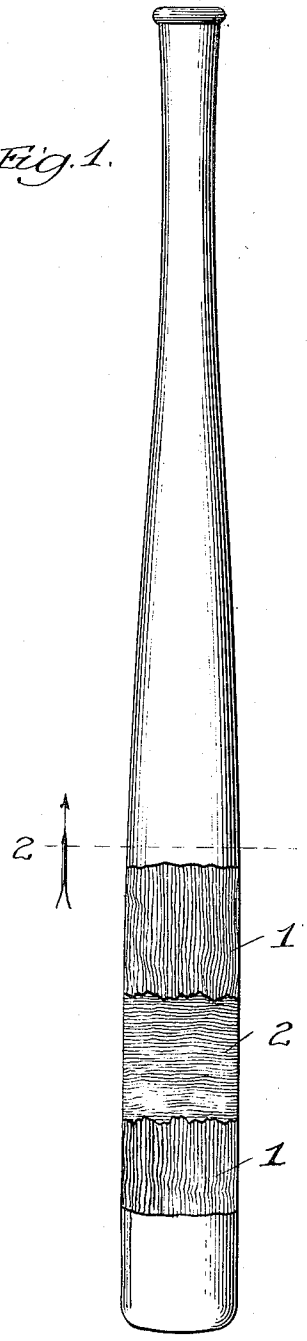


Fig. 2.

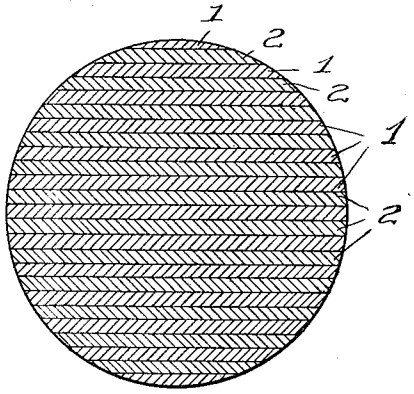
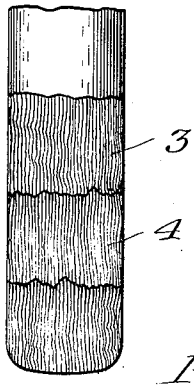


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANK SADENWATER, OF MICHIGAN CITY, INDIANA.

BASEBALL BAT.

Application filed May 1, 1920. Serial No. 376,062.

To all whom it may concern:

Be it known that I, FRANK SADENWATER, a citizen of the United States, residing at Michigan City, in the county of Laporte and State of Indiana, have invented a new and useful Improvement in Baseball Bats, of which the following is a specification.

This invention pertains particularly to base-ball bats; and the primary object is to provide a bat possessing greater strength and better driving qualities than bats now upon the market.

The invention is illustrated, in its preferred embodiment, in the accompanying drawing, in which—

Fig. 1 represents a plan view of a bat embodying the invention, some of the laminations being broken away; Fig. 2, a cross-sectional view on an enlarged scale, taken as indicated at line 2 of Fig. 1; and Fig. 3, a broken plan view illustrating a modification.

In the preferred form illustrated in Figs. 1 and 2, the bat is shown as comprising laminations 1 which have the grain extending longitudinally of the club, and laminations 2 which alternate with the laminations 1 and have the grain extending transversely of the club. The club is formed by joining together laminations of wood, by means of glue or other suitable adhesive. The laminated structure is then turned to the form of a bat in the ordinary manner, and the club is then provided with a coating of shellac, varnish, or the like, to render it weather-proof.

By making the bat of a laminated structure in the manner described, the bat may be used without danger of splitting, regardless of the manner in which it happens to be grasped in the hands. That is, the natural grain of the wood renders a bat likely to be split when in use and this defect is obviated by employing the laminated structure in the manner described. It is to be noted that the employment of alternate laminations having the grain extending crosswise of the bat possesses two advantages. One of these advantages is that there can be no general trend of the grain diagonally across the club, such as is the most usual cause of the splitting of clubs formed from a natural stick of wood. A second advantage is that the end edges of alternate laminations are presented at two sides of the club, and an improved driving effect may be obtained by so holding the bat that these end edges are presented to the ball in the batting operation. This insures a better driving impact, and at the same time lessens the danger of splitting the club. However, owing to the fact that there can be no general trend of all of the grains in a generally diagonal course across the bat, the bat may be grasped in the hands without attention to the direction of the laminations, and may be employed with little danger of splitting the bat.

The use of laminations may serve a further purpose by enabling bats of a given size to be produced with different weights. For example, alternate layers of birch wood and gum-wood would make a heavier bat than alternate layers of mahogany and gum-wood. This feature, as well as the feature of destroying any possible natural general trend of the grain diagonally across the bat may be attained, not only in the manner illustrated in Fig. 1, but also in the manner illustrated in Fig. 3. In Fig. 3 the bat is shown as comprising laminations 3 extending longitudinally of the bat and alternating with laminations 4 extending longitudinally of the bat, these laminations preferably being composed of two different kinds of wood, joined together by a suitable bond.

The bonding agent between the plies of wood may be of any suitable substance, such as shellac, glue, a phenolic condensation product, or, in general, any suitable adhesive which will serve to bind the laminations securely together and possessing sufficient strength and weather-resisting qualities to prevent any possibility of the laminations becoming separated.

It will be readily understood that the plies

of wood should be of thoroughly seasoned material, and that the club should be suitably weather-proofed.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claim should be construed as broadly as permissible in view of the prior art.

What I regard as new and desire to secure by Letters Patent is—

A ball bat comprising flat, parallel laminations of wood having the grain extending longitudinally of the bat and alternating laminations of wood having the grain extending crosswise of the bat, such laminations being joined by a bonding agent.

FRANK SADENWATER.