(No Model.)

J. W. SHERWOOD.

BILLIARD CUE.

No. 364,680. Patented June 14, 1887.

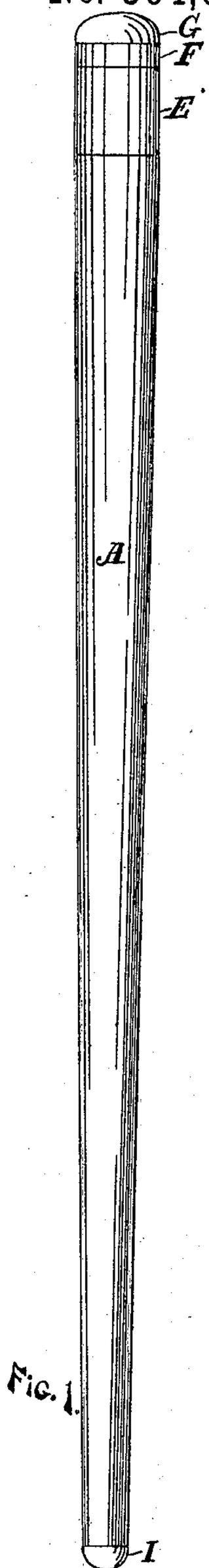

Fig. 1.

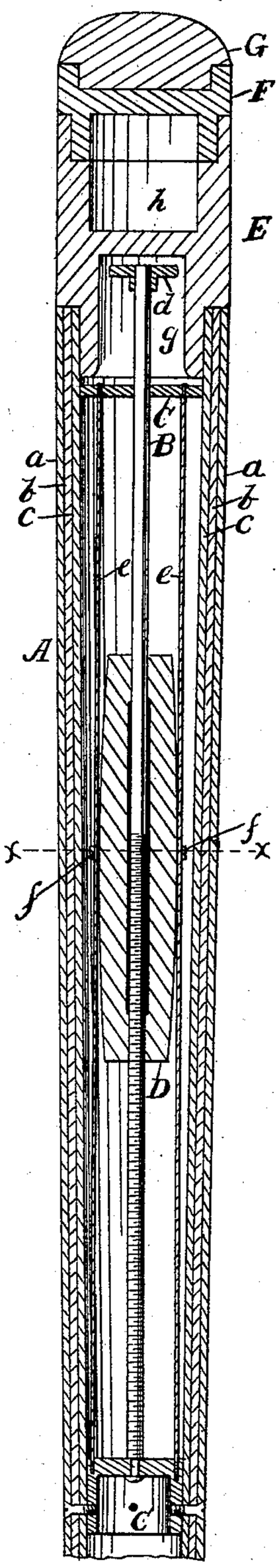

Fig. 2.

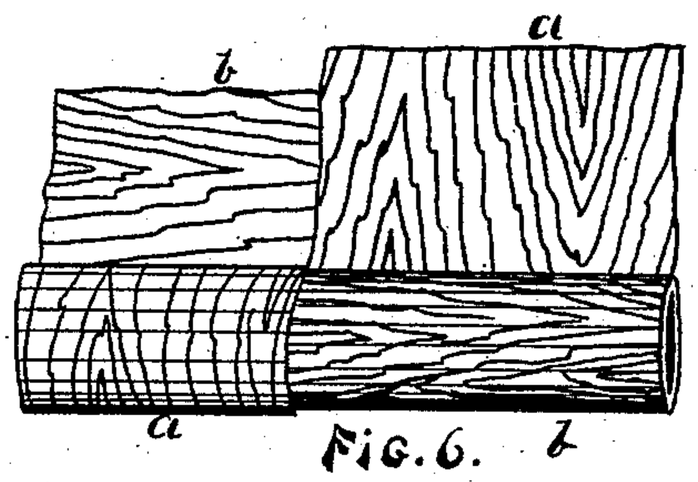

Fig. 6.

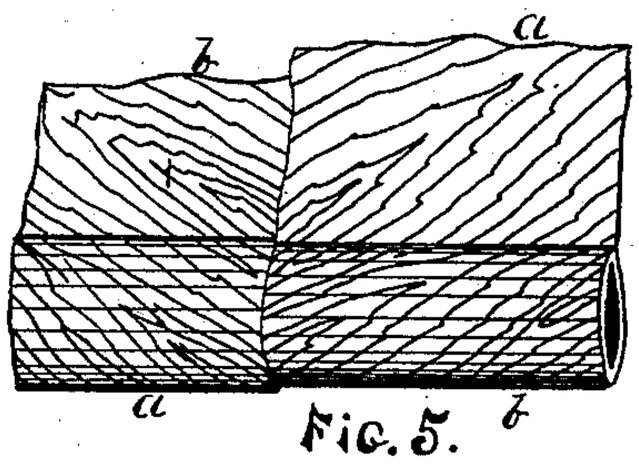

Fig. 5.

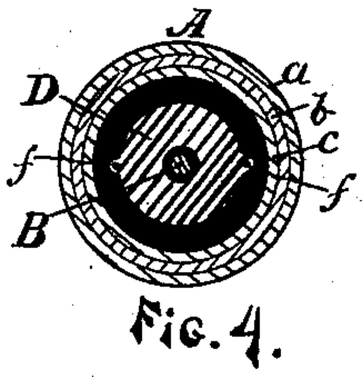

Fig. 4.

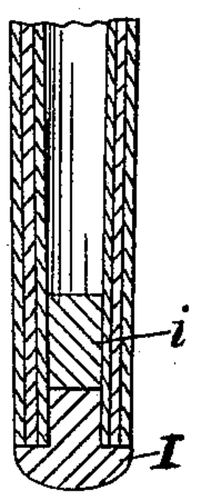

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

JOSIAH W. SHERWOOD, OF GRAND RAPIDS, MICHIGAN.

BILLIARD-CUE.

SPECIFICATION forming part of Letters Patent No. 364,680, dated June 14, 1887.

Application filed October 7, 1886. Serial No. 215,619. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH W. SHERWOOD, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Billiard-Cue, of which the following is a specification.

The objects of my invention are to provide a light and durable structure having means for adjusting its center of gravity and for preventing noise and damage consequent upon striking the large end of the cue upon the floor or bringing it in contact with the furniture; also, to provide means for keeping the chalk used on the end of said cue in a place convenient for use.

My invention consists in making the cue of a tapered tube composed of veneer, as hereinafter described, having various appliances attached thereto, as will more fully appear in what follows.

In the accompanying drawings, Figure 1 is an elevation of my improved billiard-cue; Fig. 2, an enlarged longitudinal section of the large end of the same; Fig. 3, the same of the small end of the same; Fig. 4, a transverse section on the line *x x* of Fig 2; Fig. 5, a broken portion of the tube, showing the alternate spiral layers of veneer of which it is composed; Fig. 6, the same showing circumferential and longitudinal alternate layers of veneer.

Like letters refer to like parts in all the figures.

A represents the body of my device, which consists of a tapered tube composed of numerous layers of veneer, *a b c*, well secured with glue or other suitable cement, the alternate layers of which cross each other at an angle, as shown in Fig. 5 or 6. Within the axis of the tube A is supported a rod, B, of suitable length, one end of which projects a short distance beyond the large end of the tube and has a milled head attached. This rod B is supported by the diaphragms C C, to which it is attached in such a manner as to admit of rotation without allowing end motion of said rod. At opposite sides of and parallel to the rod B are two other rods, *e e*, which are attached to the said diaphragms, and placed at sufficient distance from the same to admit the weight D between them, the axis of which weight is coincident with that of the rod B, and is adjusted longitudinally upon the same by means of a screw-thread upon said rod B engaging with a similar thread in the weight D. At opposite sides of the weight D are lugs *f f*, having holes through which the rods *e e* pass, said rods thus serving to prevent rotation of the weight D when the rod B is turned, and also to assist in steadying the weight within the tube A.

E is a plug fitted into the large end of the tube A, having the same external diameter as the said tube, and an inner chamber, *g*, to inclose the end of the rod B and the milled head *d*, and an outer chamber, *h*, to receive chalk for applying to the small end of the cue. The chamber *h* is closed with a cap, F, having attached a rubber buffer or cushion, G. These various parts may be fitted so as to adhere to each other by friction, or may be attached by screw-threads, as most convenient.

I is a suitable tip attached to the small end, which may be backed by a plug, *i*, if desirable. In operation my device, being of the construction described, will not spring or vibrate laterally as much as a solid stick, and will always keep straight.

The weight D by its inertia serves to give added force to the blow, and, being adjustable, by turning the milled head and rod B, the center of gravity of the device can at all times be brought within the hand of the operator or at any point desired. By placing the chalk in the chamber *h* it is always near at hand when wanted. The cushion G, being soft and elastic, prevents noise when the large end of the cue comes in contact with the floor, as is often the case; it also prevents indentation of the floor or furniture by contact with the same.

I am aware that tubular structures made of veneer, with the grain of the alternate layers crossing at an angle, are not new; also, that an elastic cap or end attached to a billiard-cue is old.

What I claim and wish to secure is as follows:

1. In a billiard-cue, the tube A, constructed as described, in combination with the adjustable weight D, substantially as described.

2. In a billiard-cue, a tubular body, in combination with a weight within said tubular

body supported by a rod having a screw for adjusting said weight, substantially as described.

3. In a billiard-cue, a tubular body, A, in combination with the weight D, rods B and *e* *e*, and diaphragms C C, substantially as described.

4. In a billiard- cue, a tubular body having within its axis a rod supporting an adjustable weight and projecting from said tubular body, in combination with a plug or cap for closing the end of said tube having a cavity to inclose the end of said rod, substantially as described.

5. In a billiard-cue, a tubular body constructed as described, in combination with a plug for closing its larger end having a chamber therein, said chamber closed with a cap, substantially as described.

6. In a billiard-cue, a tubular body constructed as described, having attached the tip I and plug *i*, substantially as described.

7. In a billiard-cue, the combination of the tube A, constructed as described, with the plug E, having the cavity *h*, and the cap F, having attached the pad or buffer G, and the tip I, substantially as described.

8. In a billiard-cue, in combination with the tube A, the weight D, supported and adjusted by the rods B and *e* *e*, and the diaphragms C C, the plug E, having the chambers *g* and *h*, and the cap F, having the pad G, and the tip I and plug *i*, substantially as described.

JOSIAH W. SHERWOOD.

Witnesses:
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