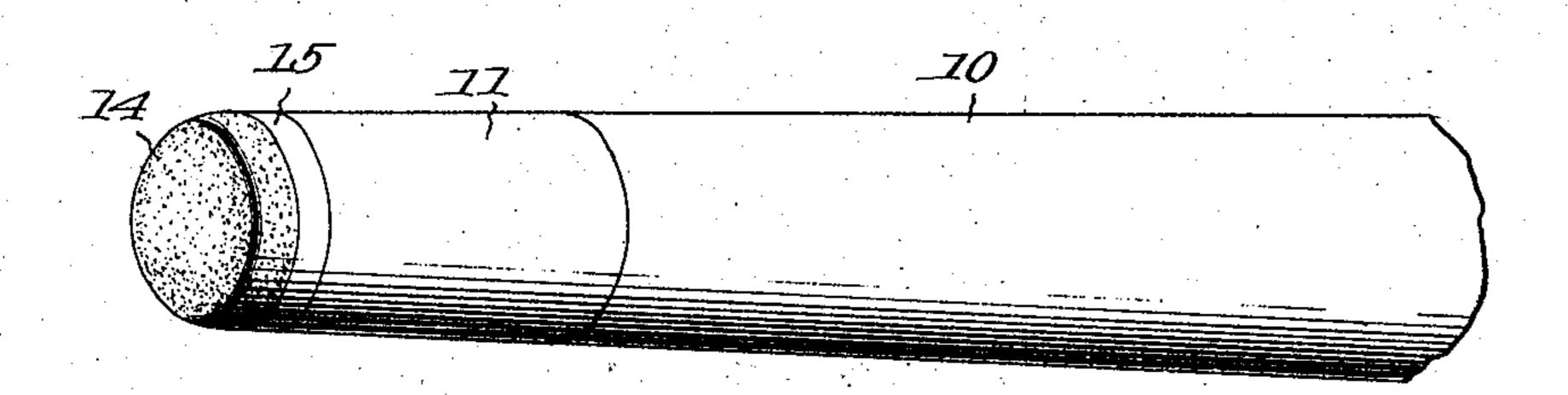
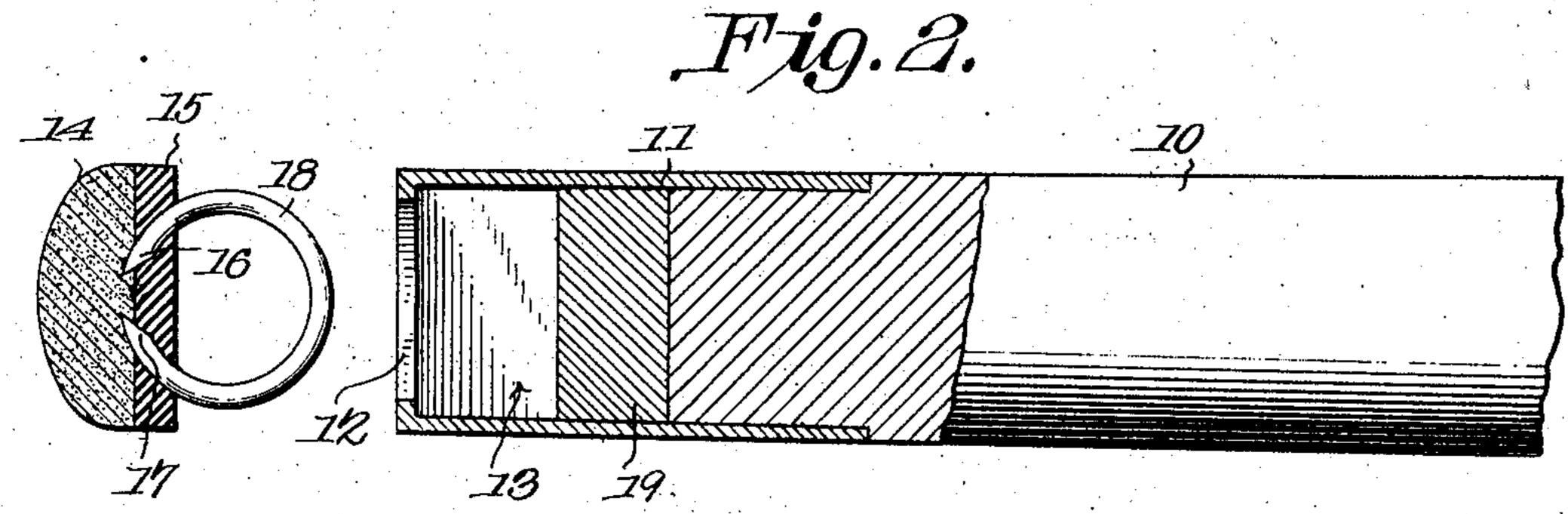
## A. G. BRANDT.

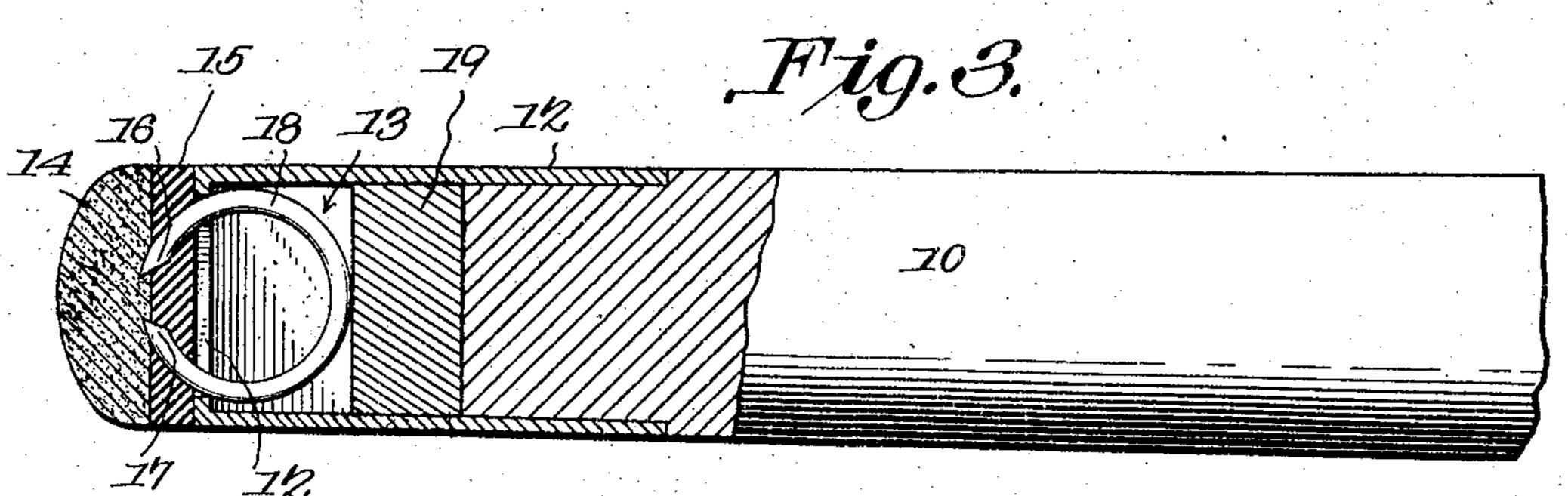
## BILLIARD CUE TIP AND FASTENER.

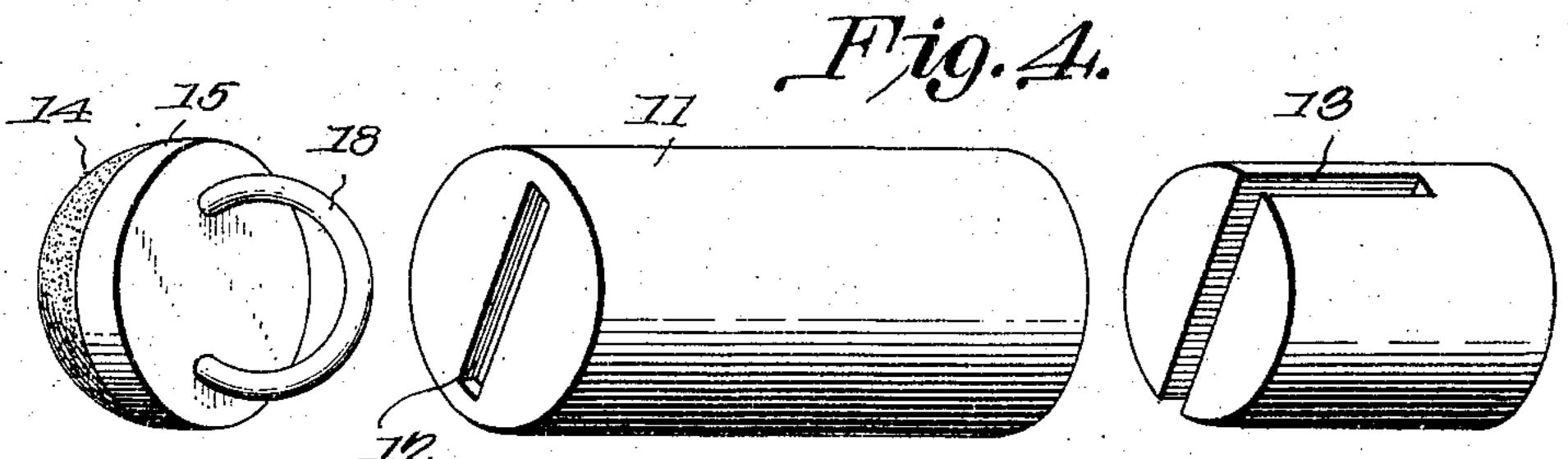
APPLICATION FILED MAR. 10, 1904.

NO MODEL.









Andrew G. Brandt, Inventor.

## United States Patent Office.

ANDREW G. BRANDT, OF SCRANTON, PENNSYLVANIA.

## BILLIARD-CUE TIP AND FASTENER.

SPECIFICATION forming part of Letters Patent No. 772,552, dated October 18, 1904.

Application filed March 10, 1904. Serial No. 197,467. (No model.)

To all whom it may concern:

Be it known that I, Andrew G. Brandt, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented a new and useful Billiard-Cue Tip and Fastener, of which the following is a specification.

This invention relates to improvements in billiard-cue tips and means for connecting the same to the cues, and has for its object to improve the construction and produce a tip having a simple and inexpensive means for detachable connection to the cue.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a 20 part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages, and the right is therefore reserved of making all the changes and modifications which fairly fall within the scope of the invention and the claims made therefor.

In the drawings thus employed, Figure 1 is a perspective view of the "tip" end of a billiard-cue with the improvement applied. Fig. 2 is a sectional elevation of the same with the parts disconnected. Fig. 3 is a similar view with the parts connected. Fig. 4 is a perspective view of the parts disconnected.

Billiard-cues as ordinarily constructed are provided with metal ferrules for holding the leather tip, and the improved attachment is designed to replace this ferrule with another ferrule, 11, of the same size, but with a core 19, preferably of wood, in the outer end and with a transverse recess 13 in the core and a transverse central slot 12 in the otherwise 50 closed end of the ferrule and in alinement

with and conforming to the recess in the core. The ferrule thus constructed, it will be obvious, can be quickly substituted for the usual ferrule of the cue, thus requiring no change in the structure of the cue to apply the im- 55 proved device.

The tip is of the usual form and construction, comprising the outer tip proper, 14, of leather or the like, and backed by a cushion 15, of rubber or similar material, and seated 60 upon the slotted end of the cue-ferrule. Formed in the seat-face of the cushion member 15 are spaced recesses, and engaging these recesses by its spaced ends 16 17 is a mutilated ring 18, the ring when expanded 65 being larger in diameter than the length of the slot in the ferrule. The ends 16-17 of the mutilated ring 18 are reversely inclined transversely to the wire of which the ring is formed, so that they engage the material of 70 the cushion 15 with a dovetail-like grip, as shown in Figs. 2 and 3, so that it can be detached only by forcibly expanding the ring when removed from the tip and cue, and such expansion cannot take place while the device 75 is in operation.

It will be understood that the resiliency of the spring-ring 18 will maintain the ring connected to the tip, and when the ring is being forced through the slot 12 of the ferrule it 80 will be compressed or elongated sufficiently to permit of the ring being forced through the slot, after which it is capable of expanding to its normal diameter, so as to lap the ends of the slot, and thereby constitute a head 85 or stop to prevent outward accidental displacement of the ring through the slot. The tip can be removed by inserting the blade of a penknife or other suitable implement between the tip and the outer end of the ferrule 90 and prying off the tip. The slot or seat 13 is of a width to snugly embrace the ring 18, and thereby press the latter against twisting strains and insure a rigid connection of the tip with the cue.

An important feature of this invention resides in the provision of the plug or core 19, for the reason that the latter occupies the outer end portion of the ferrule, so as to leave the inner end portion open to constitute a 100

socket for the reception of the forward end of the cue, and by providing the seat or slot 13 in the core or plug it is not necessary to provide a slot in the cue-stick, wherefore the present attachment is complete in itself and may be fitted to any ordinary cue-stick without altering or changing the same in any manner whatsoever. By having the seat 13 in the core or plug instead of in the cue-stick a uniformity may be preserved between the width of the seat and the rings of different tips which could not be had if it were necessary to cut a slot or bifurcation into the end

It will here be explained that the ring is not held in place by frictional engagement with the walls of the ferrule; but by its lapping contact with the ends of the slot in the ferrule the depth of the seat 13 is just sufficient to permit of the ring engaging the back of the seat when assembled with the ferrule, thereby to prevent looseness of the ring within the ferrule. The principal strains are inward or longitudinally of the cue and to a certain extent laterally, especially when applying the chalk, and the spring-ring when positioned in the slot 12 will effectually support the tip from lateral movement.

By this simple means a very effective se-3° curing means is produced by which the tip may be connected to the cue and all the parts of the fastening means entirely concealed from view when applied. No metal parts are therefore exposed to view to present an un-35 sightly appearance or to endanger the billiardballs or cushions by coming in contact therewith.

Having thus described the invention, what I claim is—

1. A device of the class described comprising a ferrule which is open at one end for the reception of a cue-stick and closed at its opposite end, the closed end having a slot therein, and a tip having an elastic attaching-ring projected from the back thereof and of a diameter slightly greater than the length of the slot and capable of becoming elongated when forced through the slot and expanding to lap the ends of the slot after it has been forced therethrough.

2. A device of the class described comprising a ferrule which is open at its inner end for the reception of a cue-stick and closed at its outer end with a substantially diametrical

slot in said closed outer end, a filling within 55 the outer end of the ferrule and provided with a substantially diametrical seat communicating with the slot and projected beyond the ends thereof, and a tip having an elastic ring projected from the back thereof and of 60 an external diameter greater than the length of the slot and capable of being forced through the slot and into the seat, the width of the seat being substantially equal to the thickness of the ring to snugly receive the latter and 65 brace the same against twisting strains.

3. The combination with a cue-stick, of a ferrule fitted thereto and provided in its outer end with a substantially diametrical slot, the cue-stick being provided with a substantially 7° diametrical terminal seat communicating with the slot and projected beyond the opposite ends thereof, and a tip having an elastic ring projected from the back thereof and of an external diameter greater than the length of 75 the slot and capable of being forced through the latter into the seat and expanding within the seat to lap the ends of the slot, said seat being of a width to snugly embrace the ring and brace the same against twisting strains.

4. The device herein described comprising a ferrule for engagement with a cue end and having a core extending partially therethrough and with a transverse recess, said ferrule having a slot in its otherwise closed 85 end conforming to and communicating with said recess, a cue-tip having spaced recesses, and a mutilated resilient ring for frictional engagement in said slot and recess and with its divided ends for engaging the recesses in 90 said tip.

5. A ferrule for cue-sticks having a filling within the outer closed end thereof and terminated short of the open end of the ferrule to form a socket for the reception of a cue- 95 stick, the closed end of the ferrule having a diametric slot terminating short of the sides of the ferrule and the filling having a diametric slot registered with the slot in the ferrule and projected beyond the ends of the lat- 100 ter slot.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ANDREW G. BRANDT.

Witnesses:

LEWIS B. CARTER, CHAS. C. SWISHER.