

No. 644,681.

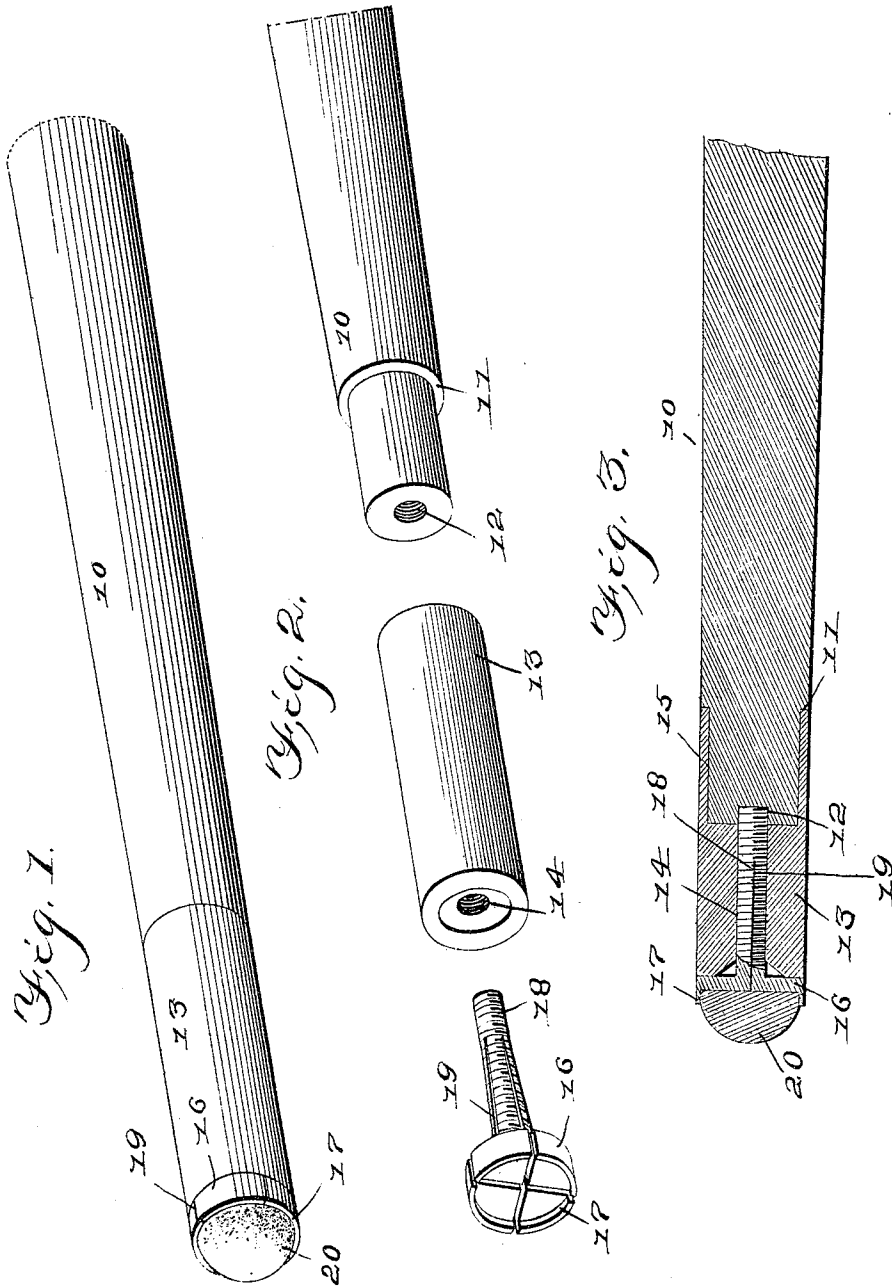
Patented Mar. 6, 1900.

O. G. PAGE.  
CUE TIP HOLDER.

(Application filed Apr. 6, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:  
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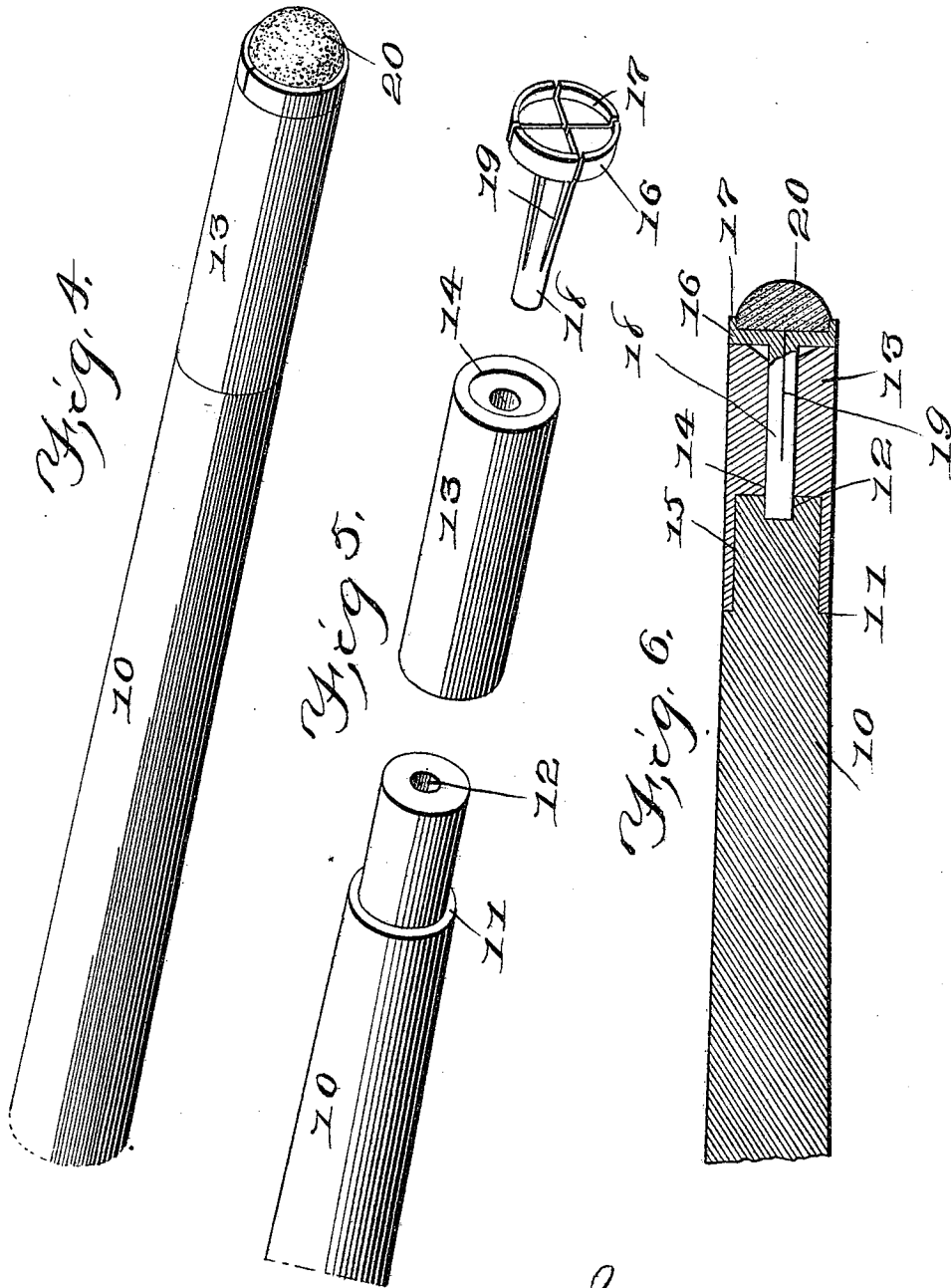
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2 Sheets—Sheet 2



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# UNITED STATES PATENT OFFICE.

ORVILLE G. PAGE, OF DES MOINES, IOWA.

## CUE-TIP HOLDER.

SPECIFICATION forming part of Letters Patent No. 644,681, dated March 6, 1900.

Application filed April 6, 1899. Serial No. 711,985. (No model.)

*To all whom it may concern:*

Be it known that I, ORVILLE G. PAGE, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Billiard-Cue-Tip Holder, of which the following is a specification.

The object of this invention is to provide a tip-holder for billiard-cues of simple, strong, durable, and inexpensive construction in which the collet that holds the leather tip serves also to connect the several parts of the cue together.

My invention consists of certain details of construction of a collet, a collar, and a billiard-cue and their combination and relation to each other, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a billiard-cue fitted out with my improved tip-holder. Fig. 2 shows in perspective, arranged in the order in which they would be placed, the collet, the collar, and the billiard-cue. Fig. 3 is a central longitudinal sectional elevation of my improved tip-holder attached to a billiard-cue. Fig. 4 is a perspective view of a billiard-cue fitted out with a modified form of my invention. Fig. 5 shows in perspective, arranged in the order in which they would be placed upon the cue, the different parts of my invention in a modified form. Fig. 6 is a central longitudinal sectional elevation of a modified form of my invention.

Referring to the accompanying drawings, the reference-numeral 10 is used to indicate a billiard-cue having at its forward end a shoulder 11 and an internally-screw-threaded opening 12.

The numeral 13 indicates a collar having an internally-screw-threaded opening 14 and an enlarged opening 15 to admit the end of a cue.

The numeral 16 indicates a collet having an enlarged head which is flat on its outer surface and flanged at 17, said flange extending forwardly and designed to fasten upon a leather tip. To the rear of the head is a shank 18, which is adapted to extend through the collar 13 and into the end of the cue at 12, said shank being screw-threaded along its

entire surface. The head and shank of the collet are traversed by two longitudinally-extending channels at right angles to each other, which extend to very near the end of the shank. The collet is made of spring metal, and in its normal position is spread apart from the ends of the channels 19, so that the head of the collet is large enough to admit of a leather tip within the flange 17. The collet is then screwed into the collar at the opening 14.

It is obvious that when the expanded portion of the shank 18 comes in contact with the walls of the opening 14 they will be forced together, thus forcing the flange on the head of the collet against the sides of the tip 20, thus clamping it securely.

In the modified form illustrated in Figs. 4, 5, and 6 the construction and operation of the various parts are exactly similar to the construction and operation of my invention as illustrated in Figs. 1, 2, and 3, except that the shank 18 is not screw-threaded, and I depend on the strength of the spring to hold the collet securely in place within the collar 13.

In practical use the collar 13 is placed in position on the end of the cue in such manner that the end of the collar 13 butts against the end of the cue at the shoulder 11, thus making a flush joint. The leather tip is then placed in position within the flange 17 on the collet 16, and the shank 18 is screwed into and through the opening 14 in the collar 13 and into the end of the cue at 12. Obviously when the expanded shank 18 is screwed into the opening 14 the walls of the shank will be forced together, thus forcing the flanged head within which the tip is placed to contract, thus securely fastening the tip to the collet.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination with a billiard-cue, having a shoulder near its smaller end, and a screw-threaded opening located centrally in its smaller end, a collar having a central screw-threaded opening to coincide with the opening in the cue and designed to overlap the cue and engage said shoulder, a spring-metal collet having an enlarged head, a flange on the collet to project forwardly and designed to admit a cue-tip, a shank at the rear end of the

collet, screw-threaded and designed to pass through the opening in the collar and into the opening in the cue, said collet being traversed from its head to a point near the rear end of its shank by two slots, being arranged at right angles to each other substantially as and for the purposes stated.

2. The combination of a billiard-cue, having a shoulder near its smaller end, and an opening located centrally in its smaller end, a collar having a central opening to coincide with the opening in the cue and designed to overlap the cue and engage said shoulder, a spring-metal collet having an enlarged head,

a flange on the collet to project forwardly and designed to admit a cue-tip, a shank at the rear end of the collet, designed to pass through the opening in the collar and into the opening in the cue, said collet being traversed from its head to a point near the rear end of its shank by two slots, being arranged at right angles to each other, substantially as and for the purposes stated.

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Witnesses:

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