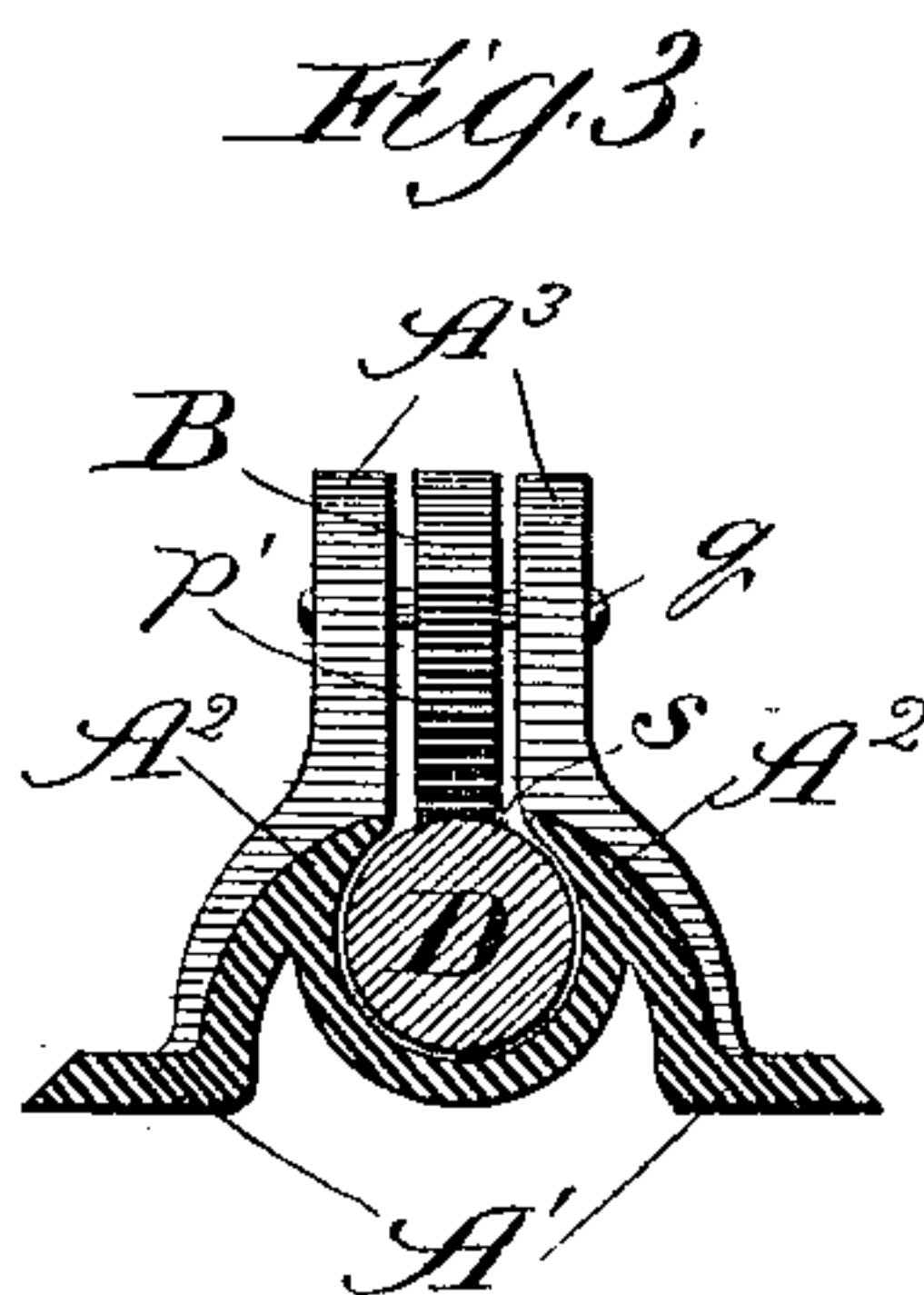
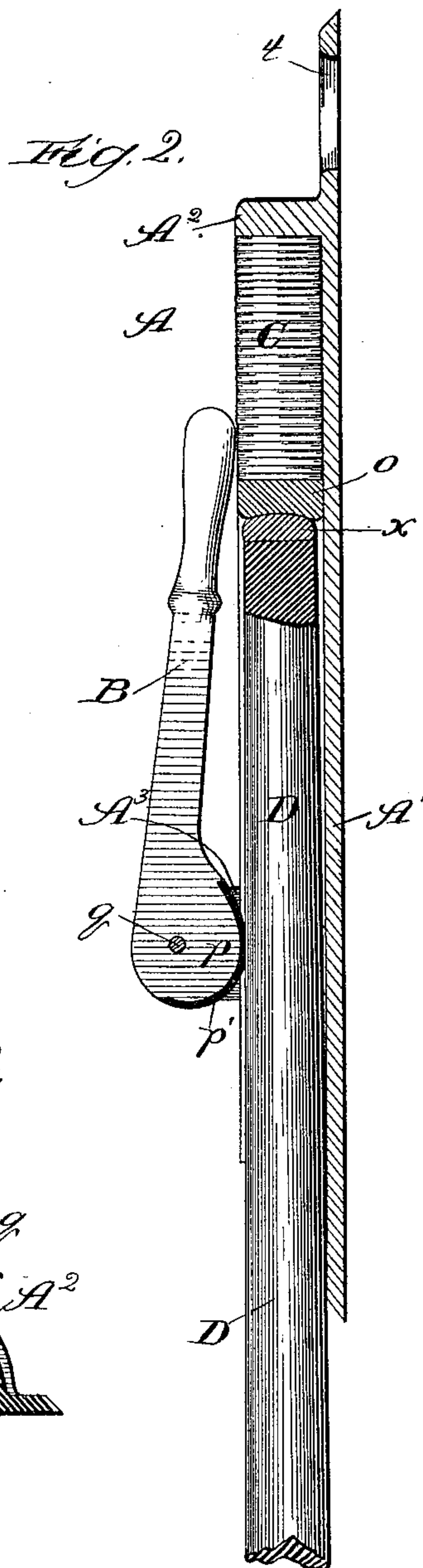
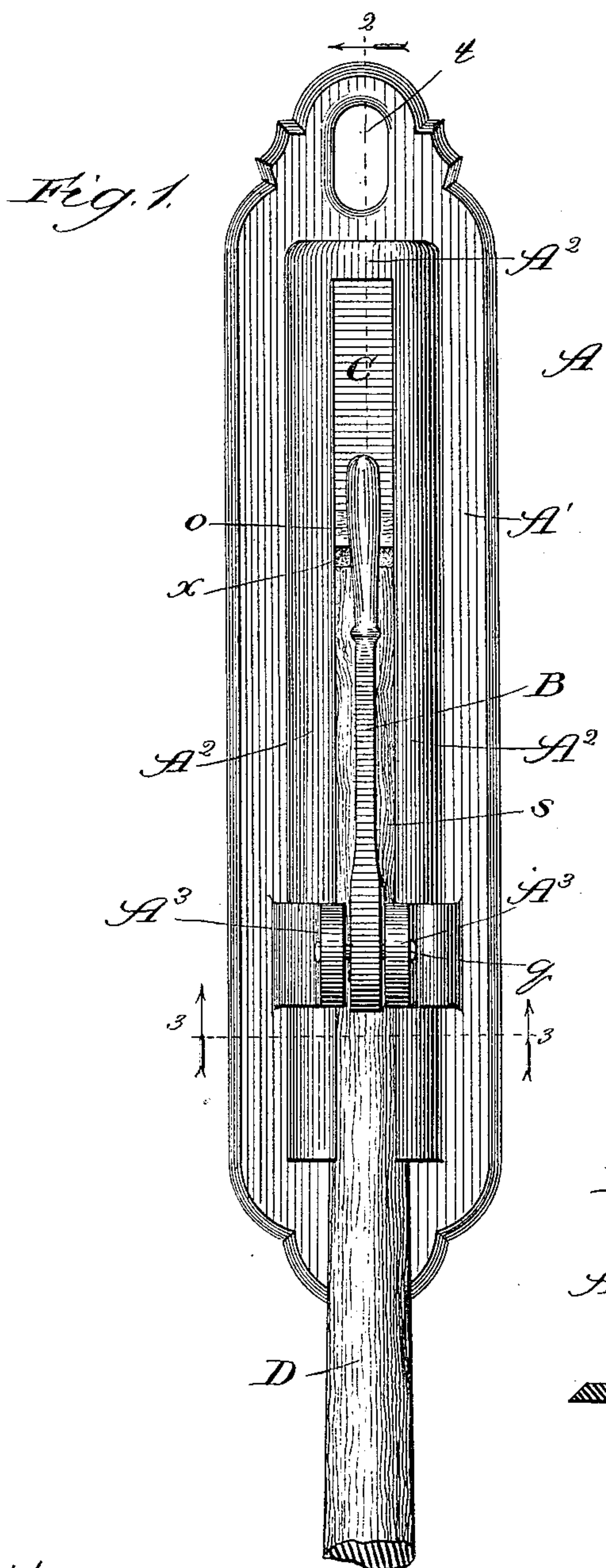


(No Model.)

A. H. DARROW.
BILLIARD CUE TIP FASTENER.

No. 405,950.

Patented June 25, 1889.



Witnesses:
E. & Gaylord,
J. H. Greenfort.

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UNITED STATES PATENT OFFICE.

ALEXANDER H. DARROW, OF CHICAGO, ILLINOIS.

BILLIARD-CUE-TIP FASTENER.

SPECIFICATION forming part of Letters Patent No. 405,950, dated June 25, 1889.

Application filed March 12, 1889. Serial No. 302,950. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER H. DARROW, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Billiard-Cue-Tip Fasteners, of which the following is a specification.

My object is to provide an improved device for use in the operation of cementing tips upon billiard-cues to press the tip, after the cement has been applied, against the end of the cue and maintain it in place while the cement is becoming set and hardened, which device shall be of simple construction and durable and adapted for cues of various diameters.

To this end my invention consists in the general construction of the improved device; and it further consists in details of construction and combinations of parts, as hereinafter more fully described and claimed.

In the drawings, Figure 1 is a plan view of my improved device, showing a cue inserted and broken away; Fig. 2, a sectional view of the same, taken on the line 2 of Fig. 1, looking in the direction of the arrow and showing the cue partly in section and broken away; and Fig. 3, a section taken on the line 3 3 of Fig. 1 and viewed in the direction of the arrows.

A is a block or frame of cast metal, wood, or other suitable material, which may be more or less ornamented and provided with an eye *t*, at which to suspend it. The block A comprises a base portion A', a raised socket portion A², open at one end and closed at the other and having a longitudinal slot *s* on its outer side, and raised ears A³ on opposite sides of the slot *s*, which are perforated to afford bearings for a pin *q*, upon which is fulcrumed a clamp B, which I provide in the form of a lever having a cam *p* at one end.

C is a spring confined within the socket A' and extending normally from the closed end of the latter nearly to the opposite end thereof, and *o* is a block or head at the end of the spring C, which may slide easily within the socket.

To use my improved device a tip *x* is cemented upon the reduced end of a cue D, in the usual manner, and the cue is then introduced at the said end into the socket A' at

the open end of the latter, whereby the tip is brought into contact with the head *o* and forces the latter inward, thereby compressing the spring C as the cue is advanced. The clamp B is so arranged that when the handle is turned outward the cam *p* is caused to recede from the socket A' and permit the cue to pass underneath it, while turning the lever toward the position shown in the drawings causes the cam to engage and clamp the cue in its adjusted position in the socket and hold it against withdrawal. The resilient force of the spring is thus brought to bear against the tip to press and hold it in true position upon the end of the cue, and this pressure is maintained until the cement has become hardened, when by turning back the lever B the cam is caused to disengage the cue and permit its withdrawal from the device.

By means of the eye *t* the cue may be suspended with the device while the cement is becoming hardened. In order that the clamp B may afford the desired friction and at the same time avoid indentation of the cue, I prefer to face the cam *p* with soft rubber *p'*.

The slot in the socket A², while not essential beyond the cam, is desirable, inasmuch as it permits inspection of the tip being secured.

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

1. In a device for use in securing the tips on billiard-cues, the combination of a block provided with a socket to receive the reduced end of a cue, a spring within the socket compressed by the insertion of the cue, and a clamp to hold the cue against the resilience of the spring, comprising a lever having a cam *p* at one end and fulcrumed upon the block, substantially as and for the purpose set forth.

2. In a device for use in securing the tips on billiard-cues, the combination of a block A, provided with a slotted socket A² to receive the reduced end of a cue, a spring C, confined within the socket and having a head *o*, and a clamp B, comprising a lever having a cam *p* at one end and fulcrumed upon the block, substantially as described.

3. A device for securing the tips on billiard-cues, comprising, in combination, a block A,

provided with a slotted socket A^2 to receive
the reduced end of a cue, a spring C, confined
within the socket and having a head o , ears
 A^3 at opposite sides of the slot in the socket,
5 a clamp B, comprising a lever having a cam
 p at one end pivotally supported between the
ears A^3 , and faced with rubber p' , and an eye

t in the block, at which to suspend the device,
substantially as described.

ALEXANDER H. DARROW.

In presence of—

J. W. DYRENFORTH,
M. J. BOWERS.