

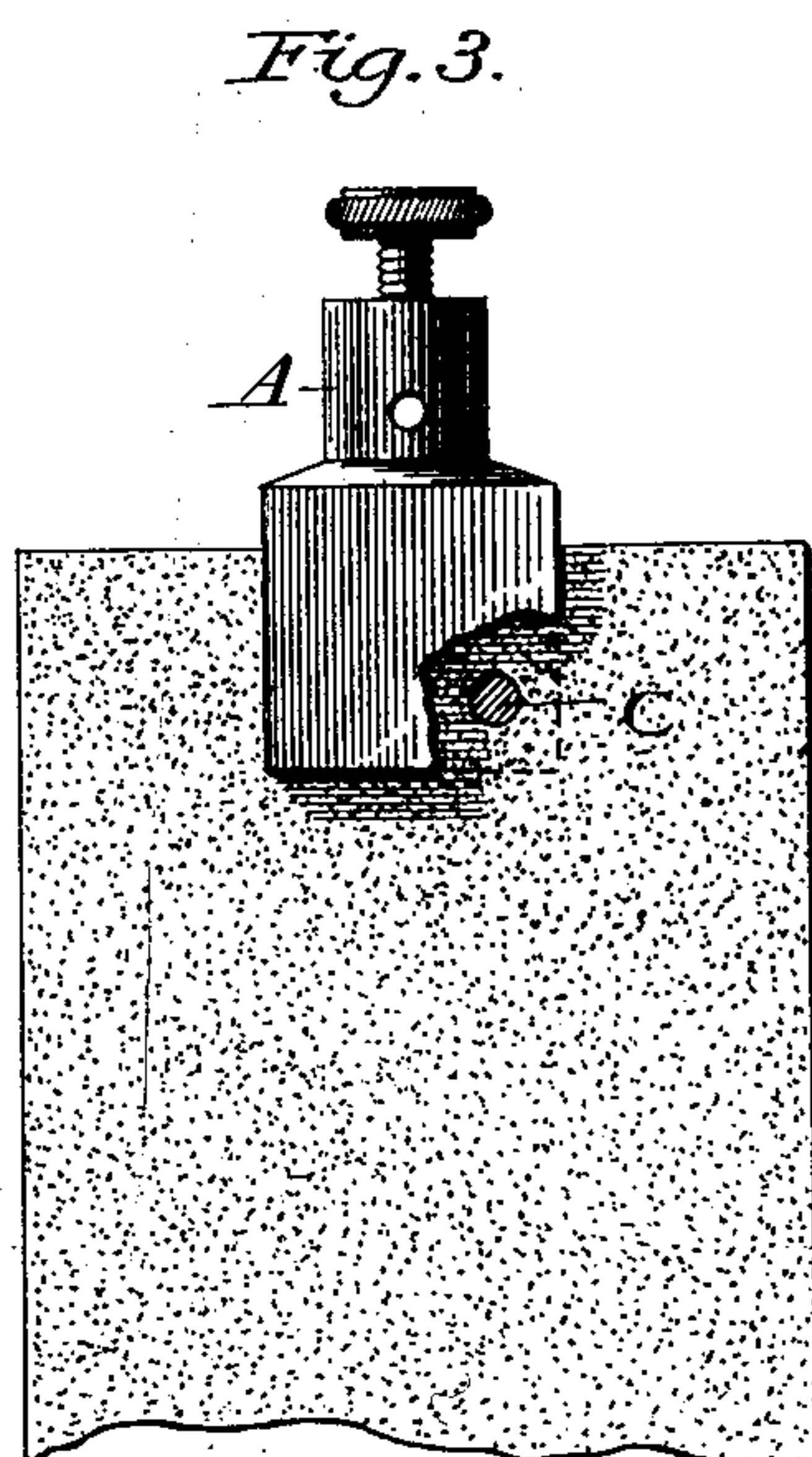
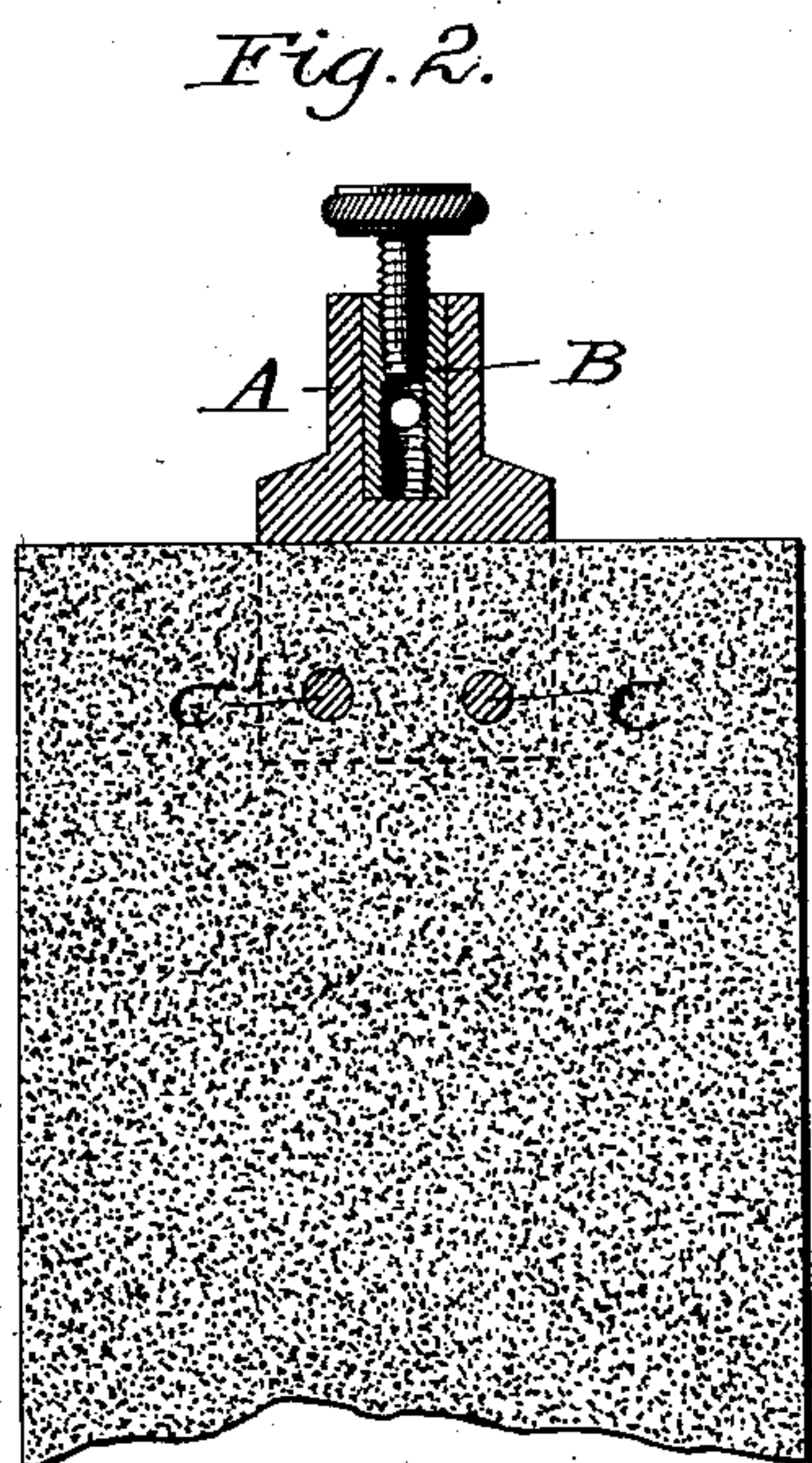
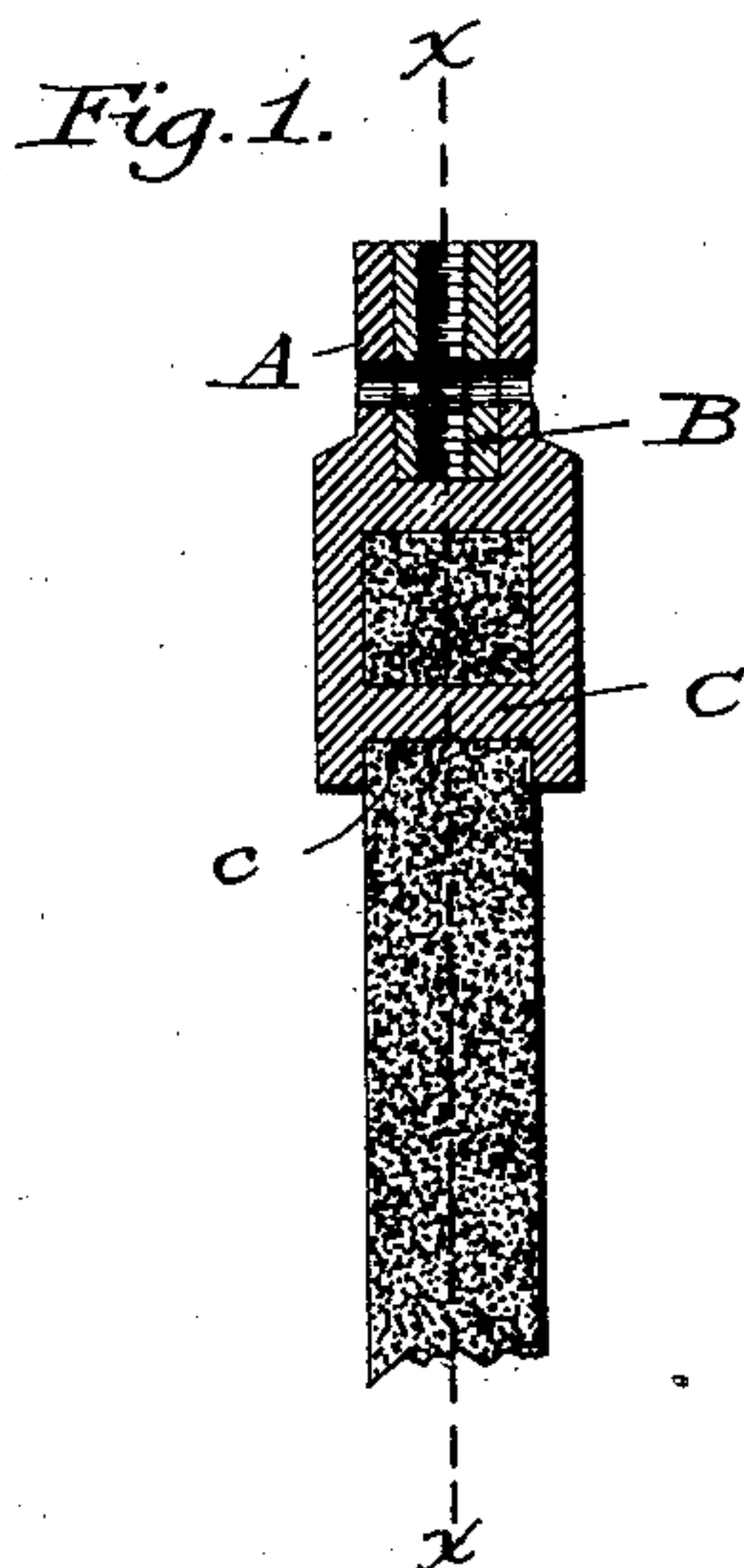
(No Model.)

W. P. KOOKOGHEY.

CONNECTION FOR CARBON ELEMENTS IN GALVANIC BATTERIES.

No. 360,532.

Patented Apr. 5, 1887.



Witnesses:

James F. Duhamel
Walter S. Dodge.

Inventor:

William P. Kookogey,
Edwin M. Fox, Atty.,
by Kodgeron,
Associate Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM P. KOOKOGEY, OF NEW YORK, N. Y.

CONNECTION FOR CARBON ELEMENTS IN GALVANIC BATTERIES.

SPECIFICATION forming part of Letters Patent No. 360,532, dated April 5, 1887.

Application filed April 24, 1886. Serial No. 200,058. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. KOOKOGEY, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Connections for Carbon Elements in Galvanic Batteries of which the following is a specification.

My invention relates to primary galvanic batteries, and more especially to an improved head or connection for the carbon elements of a primary battery.

Prior to my invention great difficulty has been experienced in making an electrical connection with carbon that would not corrode and at the same time would offer but little resistance to the passage of the electric current, which is considered very difficult, owing to the capillary attraction in carbon, which permitted the battery solution (always an acid) to creep up and corrode the connections.

My invention consists, essentially, of a lead head molded around on the top of the carbon, the carbon having one or more holes drilled through it at a point near the top. The lead connection is provided with a brass or other metal plug, which may be drilled and tapped or otherwise conveniently formed into a binding-post, to receive the wire or other connection.

In the accompanying drawings, which are made a part of this specification, Figure 1 shows a vertical sectional view of my improved carbon, and Fig. 2 a sectional view through the line X X of Fig. 1. Fig. 3 is a carbon plate having the head, a portion thereof being broken away to show the mode of securing the head to the carbon.

One or more holes, *c*, having been drilled through a carbon plate, A, at a point near its top, the carbon is then placed in the mold, the mold having been first provided with a metal plug, B, and the metal poured in the mold and around the carbon to about the height shown. The mold is then removed, which leaves the lead head in the form shown. The metal plug B is then tapped and drilled and provided with a thumb-screw, and practically forms a binding-post. As the metal is poured into the mold a portion of it passes through the holes *c* of the carbon, and on cooling contracts and forms rivets C, which makes a firm connection

with the carbon at all points. The dimensions of the lead head being large, offers practically no resistance to the passage of the current. The reason for using the plug B is that if the lead is tapped it takes but a slight pressure to break the thread, and thus render the head valueless. The plug should sink deeply into the head, but not deep enough to bring it in contact with the carbon. A head and connection thus formed possess the advantages of high conductivity and firmness and will not corrode, and with no liability of breaking the thread, as no other part except the metal plug is tapped.

I am aware that lead heads have been put on carbon elements of a battery, but have been comparatively useless, owing to the manner of connecting them to the carbon and the weakness of the thread; and I am also aware that it has been proposed to provide such a head with a brass plug, and to these features, *per se*, I lay no claim. My head is secured to the carbon element by the material cast upon the carbon, passing through the holes in the latter; and this feature is new with me so far as I am aware.

What I claim is—

1. In combination with a carbon body provided with a hole near one end, a soft-metal head cast thereon and held in place by the material entering the hole in the carbon, and provided with an upwardly-extending neck, a plug of brass or similar material embedded in the neck and threaded internally to receive a binding-screw, the neck and the plug being provided with a hole or perforation passing entirely through them from side to side.

2. The combination, substantially as set forth, of a carbon body provided with a hole or holes near one end, a soft-metal head cast upon the body clasping said end and passing through the hole or holes, and a plug of brass or like metal embedded in the soft-metal head and tapped to receive a binding-screw, substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 17th day of December, A. D. 1885.

WM. P. KOOKOGEY.

Witnesses:

F. SPECHT,

H. E. CLIFFORD-KEMP.