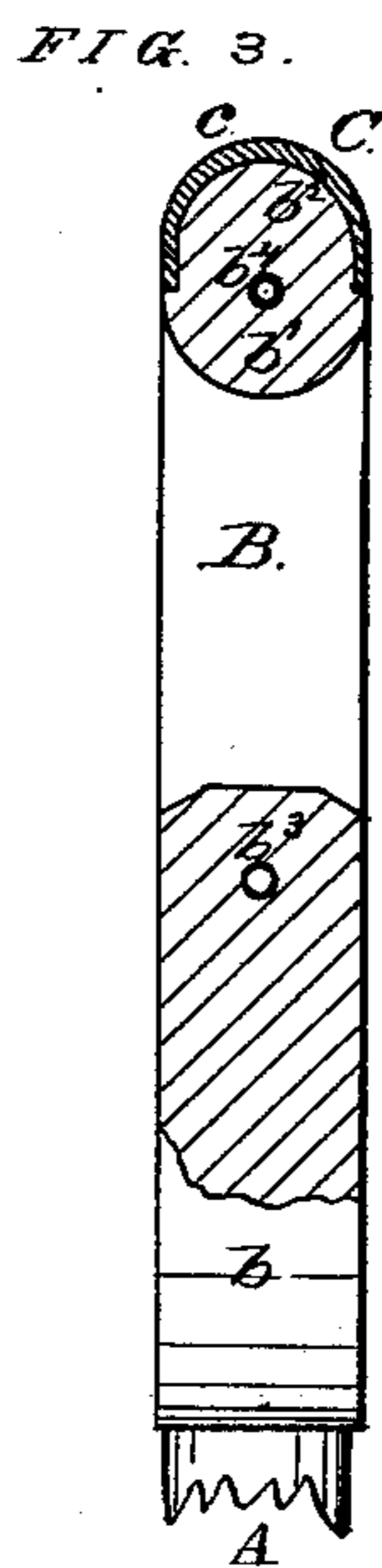
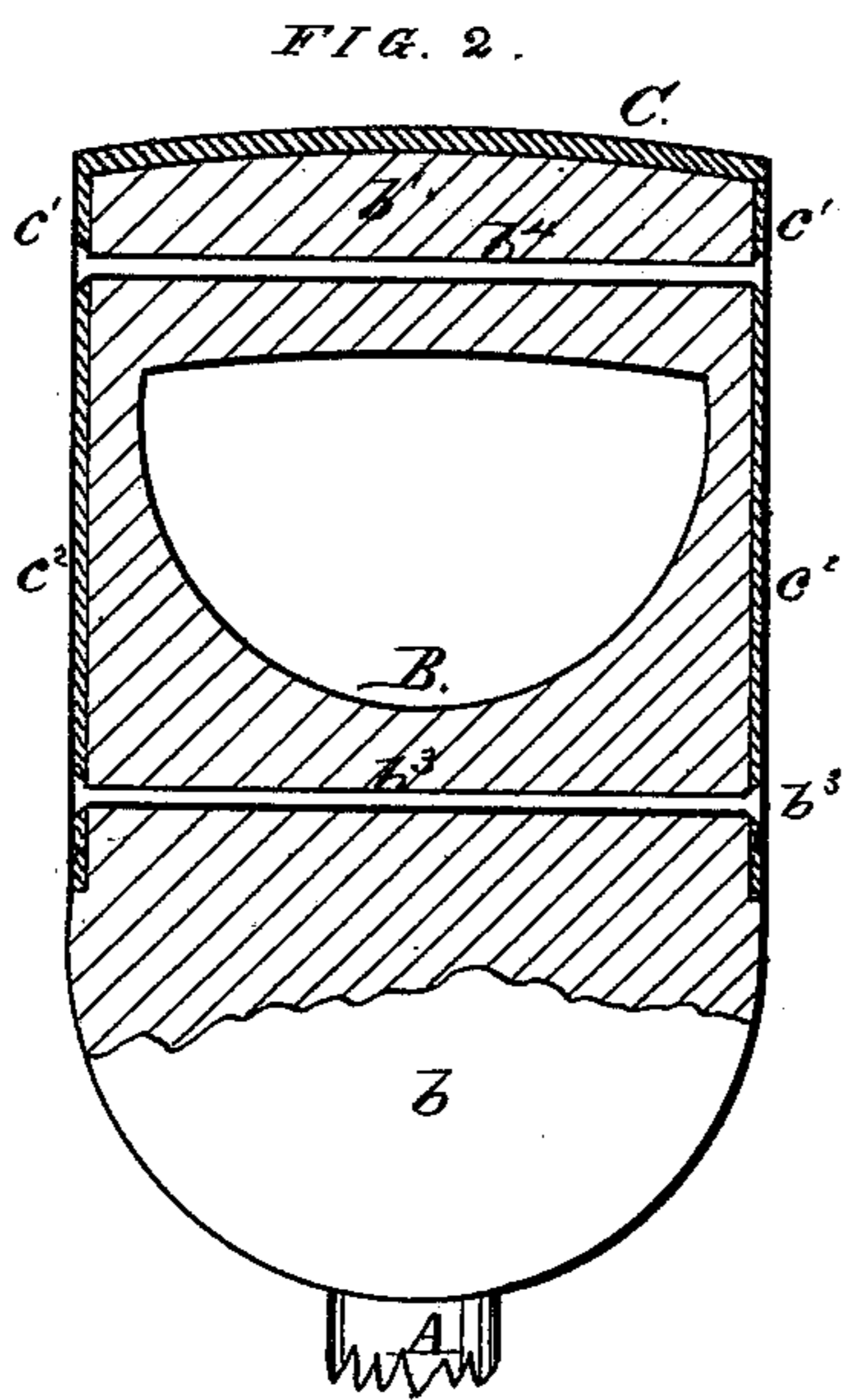
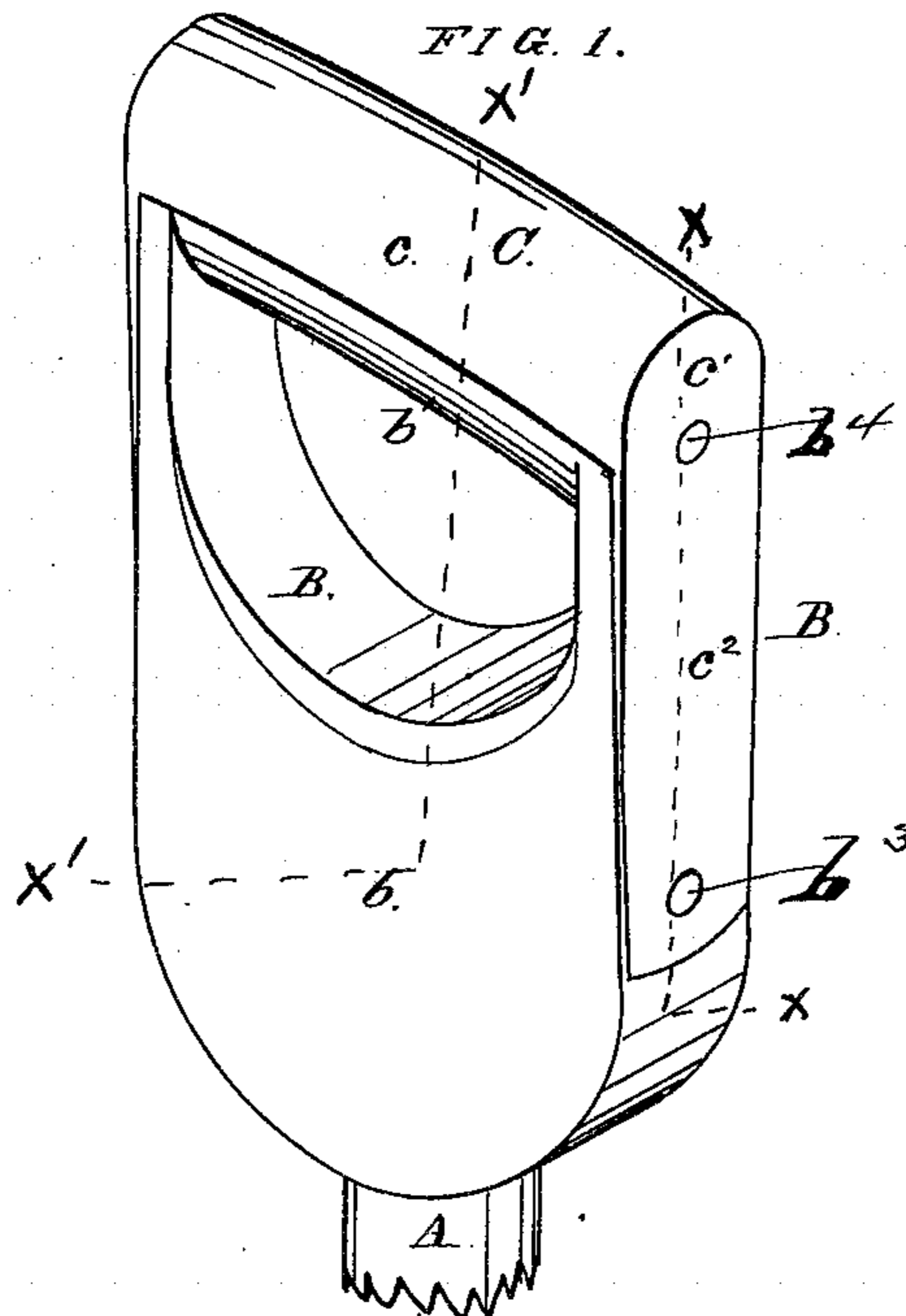


J. F. MILLIGAN.
Tamping-Cap for Tool-Handle.

No. 206,814.

Patented Aug. 6, 1878.



WITNESSES:
Geo. H. Knight.
Walter Allen

INVENTOR:
John F. Milligan
By Knight & Co.
Atty

UNITED STATES PATENT OFFICE.

JOHN F. MILLIGAN, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF HIS
RIGHT TO EZRA H. LINLEY, OF SAME PLACE.

IMPROVEMENT IN TAMPING-CAPS FOR TOOL-HANDLES.

Specification forming part of Letters Patent No. **206,814**, dated August 6, 1878; application filed
March 27, 1878.

To all whom it may concern:

Be it known that I, JOHN F. MILLIGAN, of the city of St. Louis, and State of Missouri, have invented a certain new and useful Improvement in Tamping-Caps for Shovel-Handles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This improvement relates to shovels intended specially for use by track-fixers on railways, by whom the handle of the shovel is used for tamping the earth beneath the ties; and my improvement consists in covering the outer face of the grasp or hand bar of the handle with a metallic cap, whose ends extend down the two narrow sides of the head, the whole plate being secured to the head by rivets passing through the hand-bar and through the flat part of the head of the handle, and thus covering the outer face of the hand or grasp bar of the handle and the two narrow sides of the head, and leaving the wood of which the head is made exposed on the two flat back and front surfaces and on the interior face of the grasp-bar. By this means, while the outer end and sides of the head are fully protected, the exposed surface of the hand-opening in the head permits a ready grasp being had at all times without the discomfort to the fingers of the user which would result were the entire head sheathed in metal.

In the drawings, Figure 1 is a perspective view of the handle. Fig. 2 is a section at $x x$, Fig. 1. Fig. 3 is a section at $x' x'$, Fig. 1.

A is part of the shank or handle of the shovel. B is the handle proper, made of the usual form, with a flat portion, b , and a hand bar, b^1 . C is the cap, having a concavo-convex portion, c , fitting the outer side of the hand-bar b^1 , or a recess, b^2 , made therein to receive the portion c of the cap.

The part c has closed ends c^1 , that cover the ends of the hand-bar b^1 , and from the ends c^1

extend plates c^2 , that cover the edges of the handle, as shown, and through the ends of these plates passes the rivet b^3 , and by this the cap C is held on the handle. The plates fit the edges of the handle, as shown, and are preferably rounded off to make a smooth rounded surface.

It will be seen that my cap protects the whole portion of the handle that is liable to injury when used for tamping, and that there is no thin edge exposed beneath which the earth can be forced by the blows of the shovel-handle against it.

b^4 is a rivet passing through the bar b^1 and the end plate c^1 .

I am aware that shovels have heretofore been constructed with a flat metal plate or cap covering the whole of the head of the handle. Such construction, however, makes no provision for grasping the shovel-handle with ease and safety, and such construction is not well adapted for use in shoveling and throwing dirt, stones, &c. I do not, therefore, broadly claim the idea of applying a tamping-cap to the head of a shovel-handle; but

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

The tamping-cap for shovel-handles consisting of the metal plate C, whose concavo-convex portion fits the outer face of the hand-bar b^1 , the ends c^1 of said cap being extended to form the plate c^2 for protecting the two narrow sides of the head, said plate and extensions being secured to the handle by rivets b^3 , passing, respectively, through the hand-bar and through the flat part of the handle, the wooden inner face of the hand-bar remaining uncovered to permit of its being grasped without injury or discomfort to the fingers, substantially as set forth.

JOHN F. MILLIGAN.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.