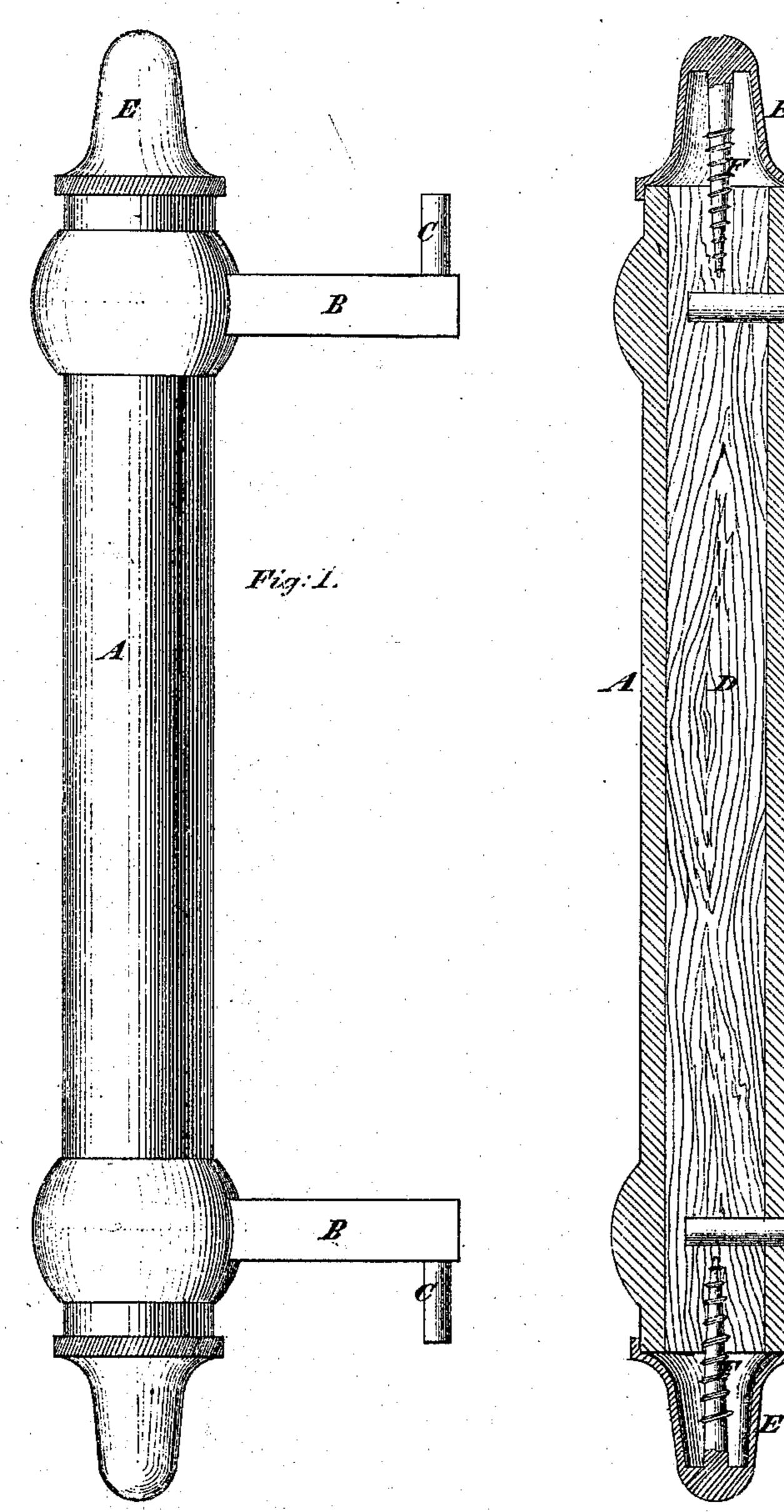
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Fatented Mar. 1. 1870.



Witnesses: Mice: Haynes Rikkabeau

James J. Ray Jer Amon Combos & Athoneys

## Anited States Patent Office.

## JAMES S. RAY, OF EAST HADDAM, CONNECTICUT.

Letters Patent No. 100,445, dated March 1, 1870.

## IMPROVEMENT IN COFFIN-HANDLES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, James S. Ray, of East Haddam, in the county of Middlesex, and State of Connecticut, have invented a new and useful Improvement in Lifting-Handles for Coffins and other articles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates to swinging handles; and

It consists in a novel construction of the bar and mode of combining the arms or levers and the pivots therewith, whereby facility is obtained for properly casting the bar and arms in one piece, and of securing the pivots, and a handle of great strength is obtained from the softer metals and alloys at small expense.

Figure 1 in the drawings is a front view of a handle

constructed according to the invention.

Figure 2 is a central longitudinal section of the same.

Similar letters of reference indicate corresponding parts in both figures.

A is the bar, the exterior of which consists of a tubular casting; and

B B are the arms, consisting of projections cast upon the bar.

C C are the pivots formed by the extremities of wires C' C', which are bent at a right angle, and which pass through the arms into the tubular socket, and which serve to give the necessary strength to the arms, and to form a strong connection of the pivots with the bar.

D is a wooden core inserted permanently through the entire length of the tubular bar, and having the wires C' C' inserted into it.

E E are the caps forming the heads of the screws F

F, which are screwed into the ends of the wooden core D.

In making the handle, the wooden core is prepared of the proper size, and a little longer than its proper length, and holes are bored transversely into it at a suitable distance from its ends for the reception of the pivot wires C' C', which are inserted thereinto a suitable distance, care being taken to bring the pivots C C in line with each other.

The mold having been made from a pattern representing the bar, arms, and pivots, and with suitable core prints at the ends of the bar, the core, with the attached pivot wires, is placed in it, and it is then closed. Melted metal is then poured into the mold, to produce the tube A and arms B B.

When the casting has been removed from the mold and "finished up," and the ends of the core trimmed off, the handle is completed by screwing the screws of the caps into the wooden core.

The wooden core not only serves to strengthen the bar and enable it to be made of a thinner tube of soft metal, but also forms a strong connection of the arms and pivots by the insertion of the pivot wire, and serves as a means of attaching the caps. It further serves to keep the pivot wires C' C' in place in the mold before and during the casting, and to insure the said wires being kept in the center of the arms.

What is here claimed, and desired to be secured by Letters Patent, is—

The combination of the tubular casting A, its attached arms B B, the permanent wooden core D, and the pivot wires C'C', substantially as herein described.

JAS. S. RAY.

Witnesses:

J. ATTWOOD, AHERNS D. WHEELER.