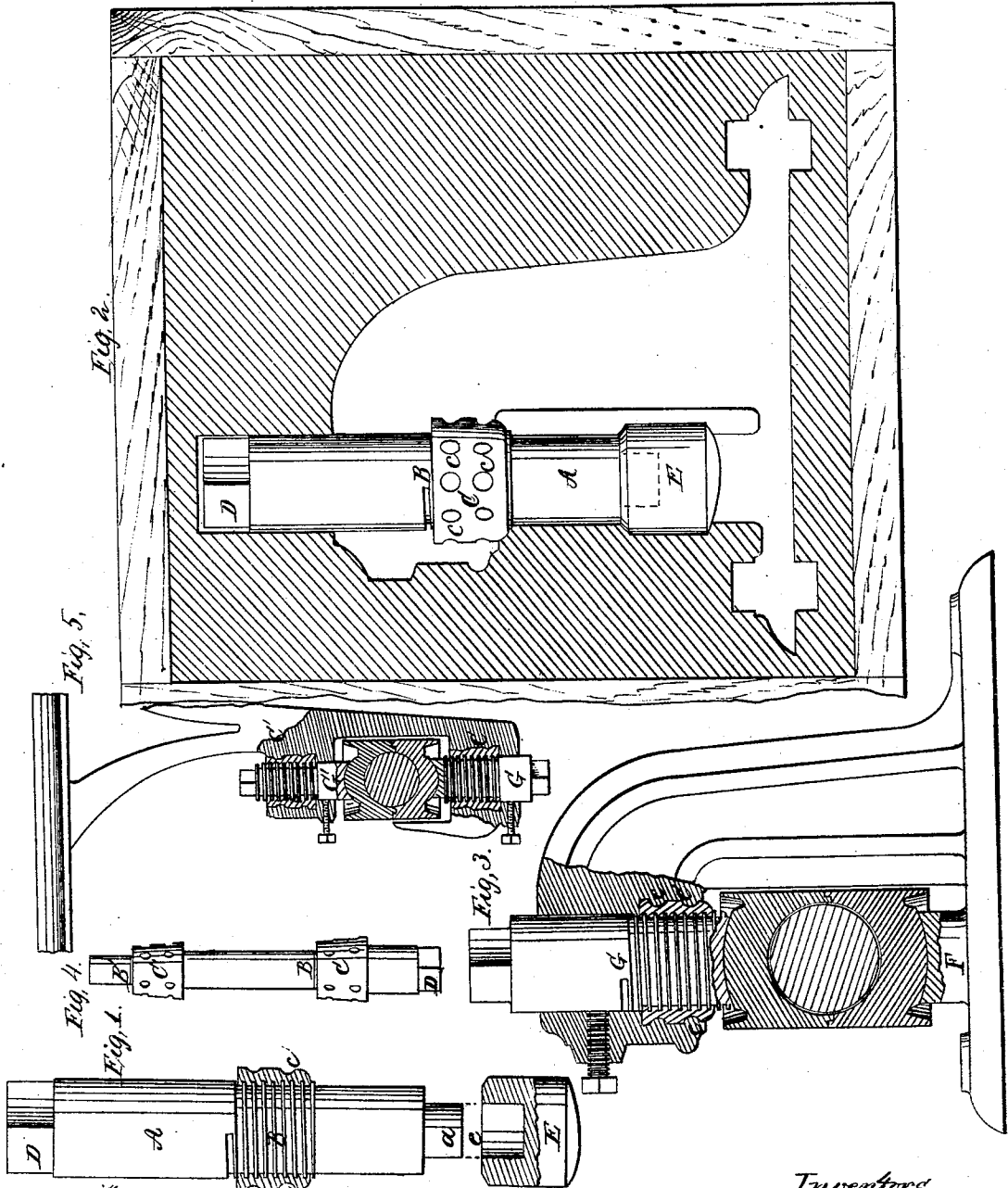


Lane & Myers,

Shaft Hanger.

No. 95,813.

Patented Oct. 12, 1889



Witnesses,
Jas. H. Layman,
Sam. Wright

Inventors,
P. R. Lane }
E. Myers } By Knight & Rogers
Attorneys

United States Patent Office.

PHILANDER P. LANE AND EDWARD MYERS, OF CINCINNATI, OHIO,
ASSIGNORS TO LANE & BODLEY, OF SAME PLACE.

Letters Patent No. 95,813, dated October 12, 1869.

IMPROVEMENT IN HANGERS.

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

To whom it may concern:

Be it known that we, PHILANDER P. LANE and EDWARD MYERS, both of the city of Cincinnati, in the county of Hamilton, and State of Ohio, have jointly invented a new and useful Improvement in the Method of Constructing Hangers, Pedestals, Pillow or Plumber-Blocks, &c., which are employed to support adjustable ball-and-socket journal-boxes; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Our said improvement relates and has special reference to the use of a metallic core, core-bar, or mandrel, within the mould at the time of casting the hanger, pedestal, plumber-block, or device of like character; said core-bar or mandrel, when means of vertical adjustment are not desired, having been previously fitted with a "chill" and nut, and when such means of adjustment are desired, with the necessary nuts or female screws, for the reception of the pintles or adjusting-screws, which form the external or concave portion of the ball-and-socket joint or bearing common to all such devices.

We are aware of the fact that hangers, and devices of like character, have heretofore been constructed, involving the ball-and-socket principle, but they have, prior to our invention, been first cast, and then bored and chased or tapped, by a laborious and expensive process, involving the use of costly machinery, provided specially for the purpose. By our improved method of construction, we claim to obtain an accurate and perfect mechanism, and at a much less expense.

Figure 1 is a side elevation of the core-bar or mandrel, with the nut and chill in section, the chill being detachable from the bar, for the purpose of facilitating its removal after the casting is made.

Figure 2 is a section of the mould in the plane of its parting, showing the core-bar, nut, and chill, in position.

Figure 3 is a side elevation, partly in section, of a pedestal or plumber-block, with the prepared nut, pintle, or adjusting-screw, chilled cup, and journal-box, in position.

(All the foregoing drawings have special reference to the use of a chill, in connection with a single nut and pintle or adjusting-screw, under circumstances where means of vertical adjustment are unnecessary.)

Figure 4 is a side elevation of a core-bar or mandrel, with two screws upon it, for the reception of as many nuts.

Figure 5 shows a hanger, with said nuts in position within it; this latter drawing also showing two pintles, one above and the other below the journal-box, thus rendering said box adjustable in a vertical direction.

A, fig. 1, is a metallic core, core-bar, or mandrel, a portion of whose periphery, B, is threaded to enter a nut, C, which has been previously tapped or chased, to correspond with the said threaded portion.

The core-bar or mandrel terminates at one end in a square head, D, to enable it to be removed from the nut, (or nuts, in case two be used,) after the casting of the body into which they are inserted, and when but one screw is employed, is, at its other end, prolonged, so as to form a tenon, with which to connect it with a convex-spherical chill, E, the purpose of said chill being to form a corresponding concave chilled seat or bearing, F, (fig. 3,) for the reception of the lower spherical portion of the journal-box E, but where two adjusting-screws or pintles are employed, the said other end has another and smaller screw-thread, B', (fig. 4,) to receive a second nut, C'.

The form shown in fig. 3, receives one screw, G, and that shown in fig. 5, receives two screws or pintles, G G', having the necessary concave spherical cups to fit the convex portion of the cap and box.

Our mode of construction is as follows:

A pattern, with its appropriate core-prints, having been employed to form the mould, the core-bar or mandrel, with its nut and chill, fig. 1, or with its two nuts, as in fig. 4, having been first provided with a coating of black lead, (plumbago,) clay, or other non-combustible substance, to prevent its adhesion to the casting, is placed in the mould, and the latter being closed, the metal of the hanger, pedestal, pillow, or plumber-block, as the case may be, is poured into it, when the core-bar, being subsequently withdrawn, the nut and chilled cup, or the two nuts, (if that form be used,) are left permanently embedded in the substance of the casting, perfectly secure, in line, and ready for the insertion of the adjusting-screws or pintles.

In order to effectually secure the nut or nuts within the casting, a number of small indentations, c, figs. 1, 2, 3, 4, and 5, should be provided, into which the metal may flow, and thus prevent any possibility of its turning or becoming loose in case the adhesion of the nut to the body of the casting should become defective.

We have selected, for illustration, the form successfully introduced by us, but reserve the right to vary the same as cases or circumstances may suggest; for example, we do not consider the thread upon the mandrel as indispensable, or of vital importance to the successful use of our invention, as in many cases the nuts may be simply placed upon a plain, unthreaded mandrel, said mandrel having been previously turned so as to properly fit the internal or smaller diameter of the nut, and a shoulder left upon it to form a guide by which to bring the nut or nuts into proper position.

The core-bar or mandrel A, and chill E, are preferably made of cast-iron, that metal contracting and expanding most uniformly with the metal of the casting, but in point of durability, wrought-iron or steel may

be preferred, especially for the lighter class of castings. Either of those metals will, however, answer the purpose.

We expressly disclaim any right, as inventors, to any part of the device known in mechanics as the ball-and-socket or self-adjusting joint or bearing, but confine our claims exclusively to the application of the metallic core, core-bar, or mandrel, either with or without a thread upon it, and its insertion with its nuts, or with its nut and chill, into the mould, previous to casting, in such manner as to bring said nut or nut and chill truly into line, and ready for the reception of the adjusting-screws and journal-box without subsequent fitting.

We do not claim securing previously-prepared parts of a metallic structure by laying the same in a mould and casting other portions about them, the same being, as a mode or method of casting, well known among founders; but

We claim, as a new and useful manufacture of pedestals and hangers for shafting—

1. The arrangement, in the mould, of a core, core-bar, or mandrel, A, provided with the necessary nuts, in proper position and adapted to be withdrawn from the finished casting, leaving said nuts therein, substantially as described.

2. The combination, with the core, core-bar, or mandrel A, of the convex-spherical chill E, substantially as set forth.

In testimony of which invention, we hereunto set our hands.

P. P. LANE.
E. MYERS.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.