

W. H. ELMER.
Apparatus for Casting Shaft-Couplings.

No. 208,383.

Patented Sept. 24, 1878.

Fig. 1.

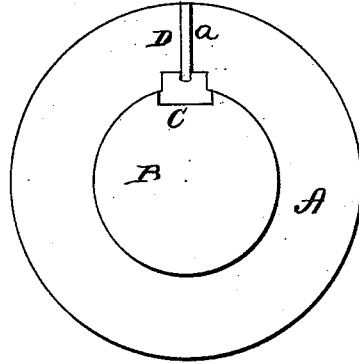
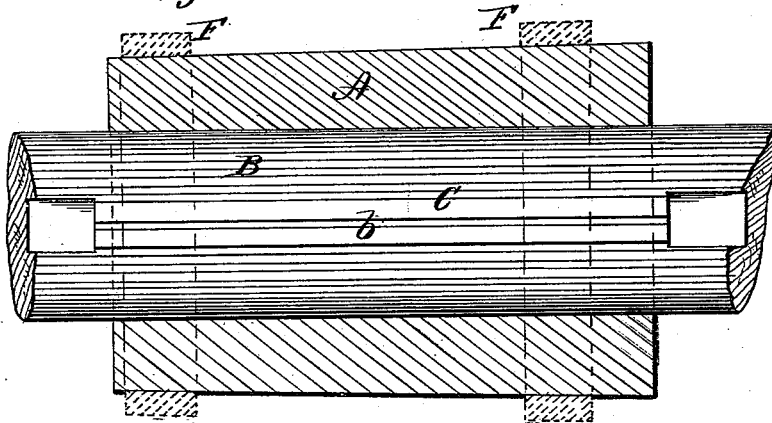


Fig. 2.



WITNESSES
Frank L. Curran
J. J. Murphy

INVENTOR
Wm H. Elmer
BY *Alexander Watson*
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM H. ELMER, OF BERLIN, WISCONSIN, ASSIGNOR OF ONE-HALF HIS
RIGHT TO JUSTUS P. LUTHER.

IMPROVEMENT IN APPARATUS FOR CASTING SHAFT-COUPINGS.

Specification forming part of Letters Patent No. **208,383**, dated September 24, 1878; application filed
July 25, 1878.

To all whom it may concern:

Be it known that I, W. H. ELMER, of Berlin, in the county of Green Lake and State of Wisconsin, have invented certain new and useful Improvements in the Manufacture of Shaft-Couplings; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention relates to the casting of sleeve-shaft castings; and it consists in the combination of a core, a key, and a split, constructed substantially as herein-after more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is an end view of my invention with the sleeve cast thereon. Fig. 2 is a longitudinal section of the same.

The coupling consists simply of a sleeve, A, of suitable length to connect the two sections of a shaft. This sleeve is made tapering on the outside and cast open on one side, as shown at *a*.

The coupling-sleeve A is cast in a sand-mold on a chill or iron core, B, which is turned the exact size of the shaft. The core B has a key, C, fitted to it while the core is in the mold. This key is provided with a longitudinal groove, *b*, to support a split, D, which is a piece of light band-iron wide enough to cut the casting open on that side.

The coupling A thus comes all perfect when cast, all bored and key-seated, and of standard sizes.

Preparatory to casting, a coat of asphaltum varnish is put on the core B, and the split D is oiled, and molders' facings put on the same. This allows the melted iron to run close to the core without blowing or chilling, and the split D is prevented from melting.

The object of making the coupling open on one side is to get the chill or core out after the coupling is cast. The split D is first taken out and a drift driven into the joint, when the core will come out perfectly easy. This also facilitates the putting on and taking off the coupling from the shaft.

In use the coupling A is provided with two wrought-iron bands, F F, as shown by dotted lines in Fig. 2, which are to be driven tight on the coupling before the keys are driven in in putting the coupling on the shaft.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the core B, key C, and split D, constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of June, 1878.

WILLIAM H. ELMER.

Witnesses:

J. J. MCCARTHY,
C. H. BASSETT.