

(No Model.)

A. E. FRANCIS.
SHELL FOR AXLE BEARINGS.

No. 347,931.

Patented Aug. 24, 1886.

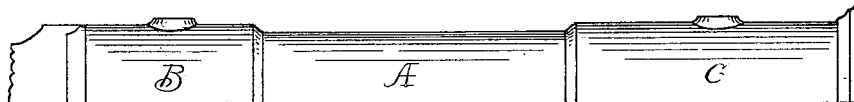


Fig. 1.

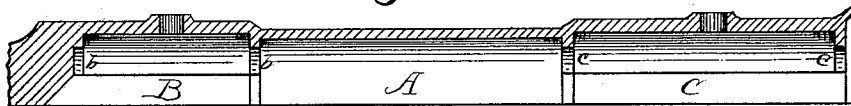


Fig. 2.

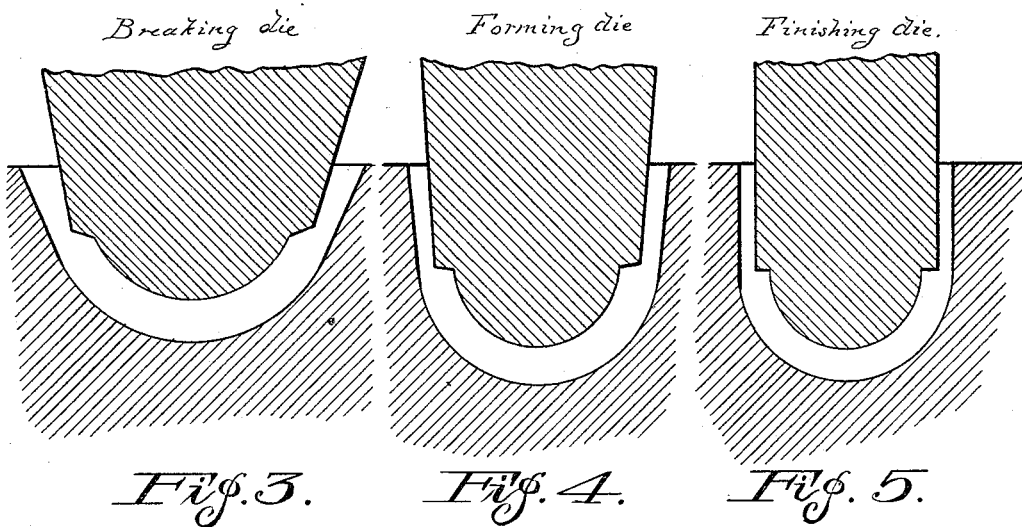


Fig. 3.

Fig. 4.

Fig. 5.

WITNESS,
M. E. Horton.
W. C. Bancroft

INVENTOR
Allan E. Francis.
per Geo. W. Tibbitts
att'y

UNITED STATES PATENT OFFICE.

ALLAN E. FRANCIS, OF CLEVELAND, OHIO.

SHELL FOR AXLE-BEARINGS.

SPECIFICATION forming part of Letters Patent No. 347,931, dated August 24, 1886.

Application filed January 21, 1886. Serial No. 189,389. (No model.)

To all whom it may concern:

Be it known that I, ALLAN E. FRANCIS, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Shells or Sleeves for Axle-Bearings, of which the following is a specification.

This invention relates to the shell or sleeve for containing and supporting the bearings of rotary axles of road-vehicles, the object of which is to provide a suitable shell or housing for containing a rotary axle and its bearings in connection with other parts of an axle-tree.

The invention consists of a wrought-metal shell of the peculiar form and construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a completed shell. Fig. 2 is a longitudinal section, also showing two cross-sections. Figs. 3, 4, and 5 represent three forms of dies used in producing said shells.

A in Figs. 1 and 2 represents the main portion of the shell, B C being enlarged portions. This shell is in horseshoe form in its cross-section in the enlarged portions as well as in the main portion. The enlarged portions have shoulders *b b* and *c c* at the ends of the curved part, and there is also a longitudinal shoulder or offset (seen at B and C, Fig. 2) in the side

walls of said enlarged portions. The enlarged portions are designed to hold Babbitt metal boxes for the rotary axles that said shells are intended to support. Through the curved wall of the said enlarged portions are made holes for the reception of oil-cups for lubricating the said bearings.

The lower half of these shells are to have suitable filling-pieces having concave inside surfaces embracing the lower side of the axle, the ends of said filling-pieces bearing against the longitudinal shoulders B C.

In producing these shells I use drop-dies and forming-dies, Figs. 3, 4, and 5, first bending the metal in the breaking-die, next forming the metal in the second die, and then completing it in the third or finishing die.

Having described my invention, I claim—

As a new article of manufacture, the herein described shell for axle-bearings, consisting of the main portion A, enlarged portions B and C, having the cross-shoulders *b b c c*, and offset B C, the shell being in horseshoe form in its cross-section, substantially as shown and described.

ALLAN E. FRANCIS.

Witnesses.

GEO. W. TIBBITTS,
W. M. HAYDEN.