

(No Model.)

F. E. KAUFFMANN.
PIPE COUPLING.

No. 594,536.

Patented Nov. 30, 1897.

Fig:1.

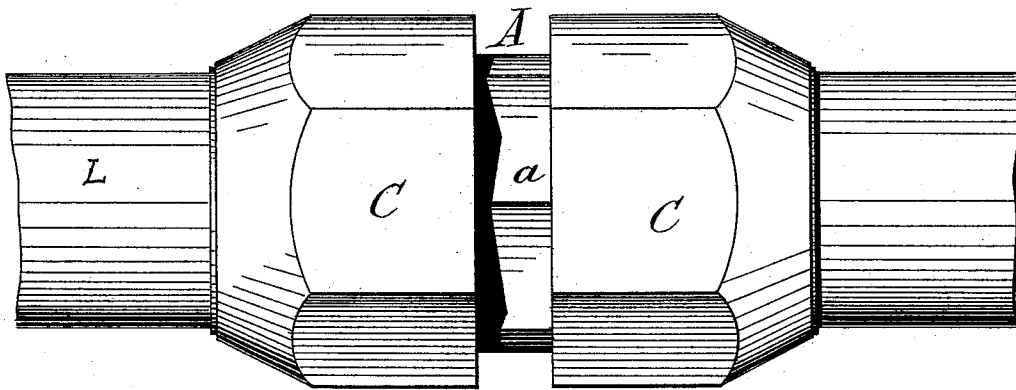


Fig: 2.

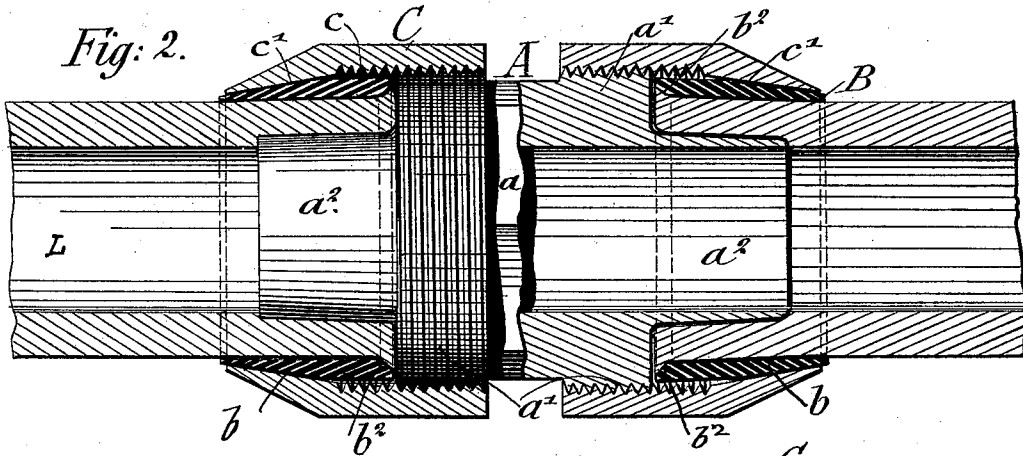


Fig:3.

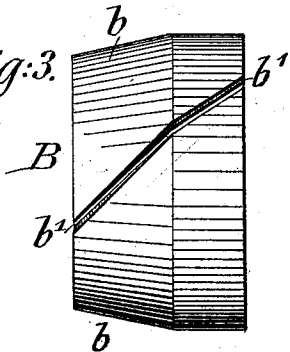
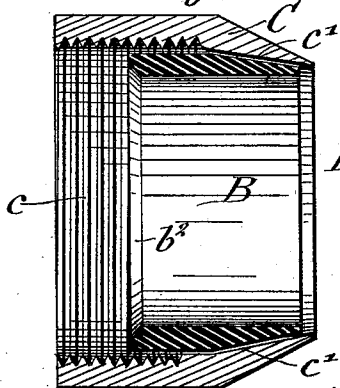


Fig:4.



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UNITED STATES PATENT OFFICE.

FERDINAND E. KAUFFMANN, OF ELIZABETH, NEW JERSEY.

PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 594,536, dated November 30, 1897.

Application filed January 25, 1897. Serial No. 620,520. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND E. KAUFFMANN, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Pipe-Couplings, of which the following is a specification.

My invention relates to an improvement in pipe-couplings, and has for its object to produce a simple, compact, and effective device for coupling two lead pipes or a lead pipe and an iron pipe, to be used in place of the so-called "wipe-joint."

The invention consists of a pipe-coupling comprising a coupling-piece having a squared center portion, a threaded portion on the end of the center portion, and a reduced extension, a split ring beveled on its outer surface and having a short bevel on its inner edge, and a threaded outer sleeve provided with a bevel on its inner surface.

In the drawings, Figure 1 is a side elevation of my improved pipe-coupler. Fig. 2 is a longitudinal central section of Fig. 1. Fig. 3 is a view of the split ring, and Fig. 4 is a central section of one of the outer sleeves and the split ring in operative position.

Similar letters of reference indicate corresponding parts.

The coupling-piece A has a squared central portion *a* and a threaded portion *a'* upon either side of said central portion, the thread of each of said side portions being inclined in the same direction. The coupling-piece terminates at each end in a reduced extension *a²*, which is slightly tapered and is of a size to closely fit the interior of the pipes to be coupled.

The split ring B is preferably made of brass and is of a size to closely fit the exterior of the pipe to be coupled. This split ring is beveled, as at *b*, for a suitable distance upon its outer surface and is provided with a split *b'*, preferably inclined, through one of the sides. At the opposite inner end of the split ring is provided a short bevel *b²*, for a purpose to be explained.

The exterior sleeve C is squared on a portion of its outer surface for the application

of a wrench and is suitably trimmed down, as shown, to present a neat appearance. The outer sleeve is threaded on a portion of its inner surface to correspond with the thread upon the coupling-piece. The threaded portion terminates at the beginning of a beveled portion *c'*, which corresponds in inclination with the bevel on the split ring. In applying my coupling to the end of the lead pipe L the exterior sleeve C is first slipped upon the end of the pipe to be coupled, then the split ring B, over which the sleeve C is placed. The interior of the pipe end is then slightly reamed out by means of a suitable reaming-tool. The reduced extension of the coupling-piece is then inserted in the reamed-out end of the pipe and the exterior sleeve is forced to its seat by the application of a wrench to the squared portion thereof. The beveled surface of the exterior sleeve rides up the beveled surface of the split ring, forcing the separated portions of said ring together, and thereby clamping the pipe with great force. The metal of the soft pipe is forced into the slit of the split ring, as well as into the short bevel *b²* of the split ring, thus effectually keying the parts together.

The split ring will be prevented from turning upon the pipe because of the greater friction between them than there is between the split ring and the exterior sleeve and because there will be a small portion of the lead pipe squeezed up between the edges of the split in the split ring.

When a lead pipe and an iron pipe are to be coupled together, the coupling-piece A has the threaded portion *a'* and extension *a²* at one end only, while the other end is adapted to be coupled in the well-known manner with the iron pipe.

Having thus described my invention, what I claim is—

In a pipe-coupling, the combination with a coupling-piece having a threaded portion and a reduced and beveled extension at its end, of a split ring having a cylindrical portion and a beveled portion and provided with a short bevel upon its interior edge adjacent to the threaded portion of the coupling-piece,

and an outer sleeve threaded on a part of its
bore to correspond with the threads on the
coupling-piece and being conical for the re-
mainder of its bore to coöperate with the
5 bevel of the split ring, substantially as set
forth.

In testimony that I claim the foregoing as

my invention I have signed my name in pres-
ence of two subscribing witnesses.

FERDINAND E. KAUFFMANN.

Witnesses:

GEO. W. JAEKEL,
MAX WURTZEL.