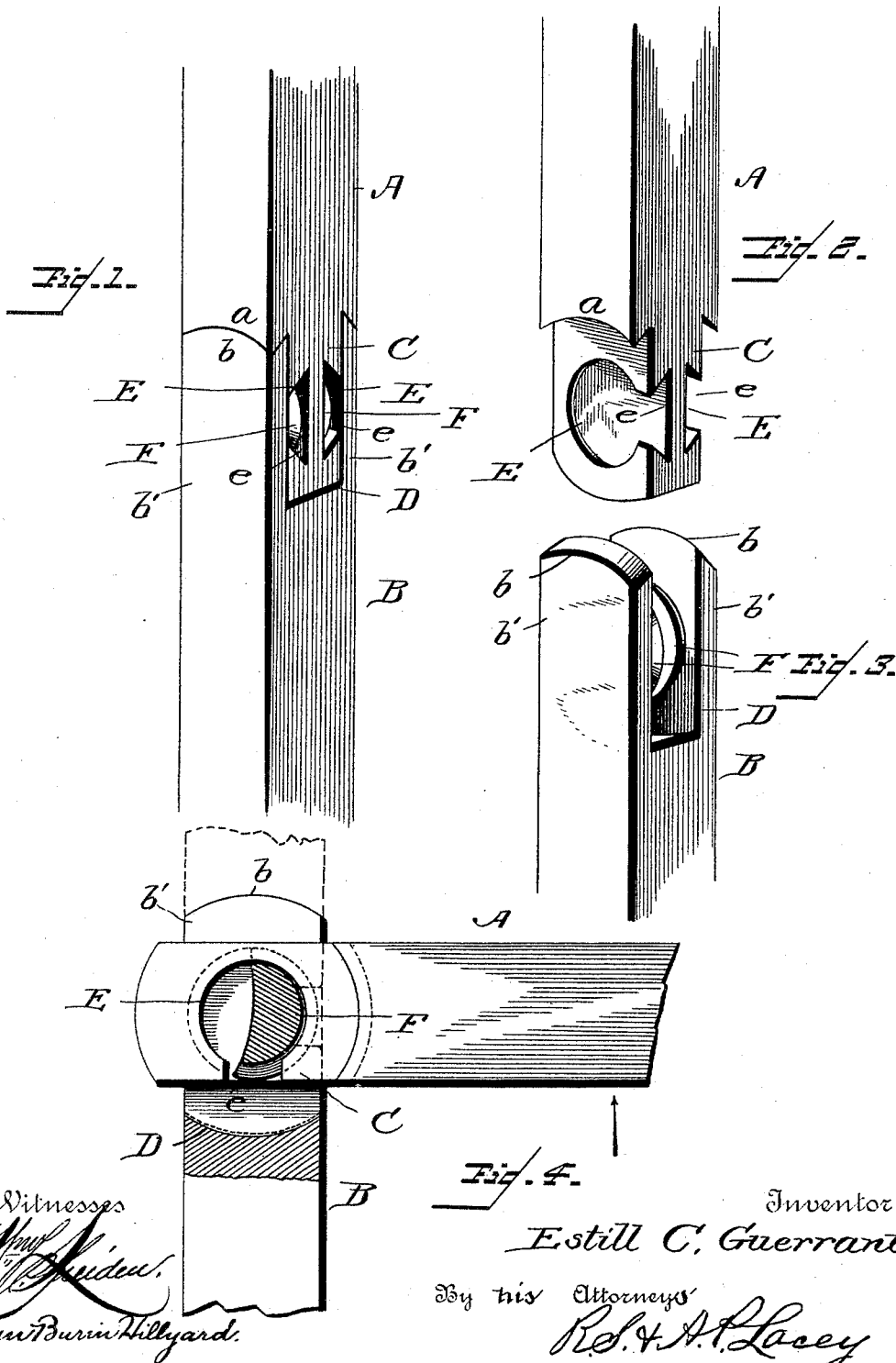


(No Model.)

E. C. GUERRANT.
PUMP ROD COUPLER.

No. 491,551.

Patented Feb. 14, 1893.



UNITED STATES PATENT OFFICE.

ESTILL CURD GUERRANT, OF MEMPHIS, TENNESSEE.

PUMP-ROD COUPLER.

SPECIFICATION forming part of Letters Patent No. 491,551, dated February 14, 1893.

Application filed May 17, 1892. Serial No. 433,179. (No model.)

To all whom it may concern:

Be it known that I, ESTILL CURD GUERRANT, a citizen of the United States, residing at Memphis, in the county of Shelby, State of Tennessee, have invented certain new and useful Improvements in Pump-Rod Couplers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to joints, or couplers for well rods and links and for coupling rods generally where it is desired to unite the parts in an efficient manner and which will admit of the said parts being readily disconnected.

The improvement consists of the novel features and the peculiar construction and combination of the parts which will be hereinafter more fully described and claimed and which are shown in the annexed drawings in which

Figure 1 is a perspective view of my improved joint or coupler. Fig. 2 is a perspective view of one part of the coupler and Fig. 3 is a perspective view of the other part of the said coupler. Fig. 4 is a detail view showing the manner of coupling and uncoupling the parts.

The parts A and B, represent the ends of two rods or links which are designed to be coupled together. The part A is provided with a tongue C which is constructed to enter the corresponding recess D provided in the ends of the part B. The tongue C is provided in its opposite side with circular recesses E. These recesses extend through and open out on one edge of the part as shown at *e*. The inner or opposing sides of the part B, bordering on the recess D, are provided with approximately semi-circular projections F which extend lengthwise of the said part B and are designed to engage with and enter the circular recesses E and form a pivotal and positive connection between the said parts A and B. The ends *b* on the separated parts *b'* are formed on an arc of a circle whose center corresponds with the center of the semi-circular projection F. That portion of the part A at the base of the tongue C is formed on an arc of a circle having its center co-incidental with the center of the circular recesses E. When the parts

A and B are coupled together the portions *a* and *b* will form a snug joint. The end of the tongue C is curved and obtains a purchase on that portion of the part B located at the inner end of the recesses E. which portions may also be curved.

In assembling the parts they are placed relatively at right angles to one another as shown in Fig. 4, and the tongue C is advanced laterally into the recess D, care being observed to have the projections F enter the recesses E through the openings *e*. After the tongue C has been pressed into the recess D as far as it will go the parts A and B are turned to bring them into alignment, when the projections F will close the openings *e* and have their ends engage with the sides of the recesses E and securely hold the said part together. To prevent the separated parts *b'* and *b'* from spreading the sides of the circular recesses E openings *e* and the shoulders *a* are undercut and the parts F and *b* are correspondingly beveled to fit under the said undercut portions. In order that the openings *e* may be comparatively narrow the projections F are curved on their inner edges or formed crescent shaped.

Having thus described my invention, what I claim, and desire to secure by Letters Patent is;

1. The combination with the parts A and B having at their respective ends a tongue and a recess, the said tongue having circular recesses in its opposite sides and openings in co-incidental relation leading from the said recesses through one edge of the said part, of approximately semi-circular projections on the opposing sides of the portions of the other part bordering on the said recess to enter the said recesses in the tongue through the said openings to couple the parts together, substantially as set forth.

2. A joint or coupling, comprising the parts A and B which have a tongue and recess at their respective ends, the tongue having circular recesses in its opposite sides, and having openings leading from the said recesses through one edge of the tongue, and semi-circular projections provided on the opposing sides of that portion of the part B bordering on the said recess and adapted to enter the circular recesses, the sides of the recesses and

openings being undercut and the edges of the semi-circular projections being correspondingly beveled, substantially as and for the purpose set forth.

5 3. The herein shown and described coupler comprising the parts A and B, the part A having tongue C, and having circular recesses E in its opposite sides and openings *e* leading from the said recesses, and having the end of
10 the tongue and the shoulders *a* at the base of the said tongue formed on a circle whose center coincides with the center of the circular recesses E, and the part B having semi-circular projections F on the opposing sides of the

separated parts *b'* and *b'*, and having the ends 15 of the said parts *b'* and *b'* formed on the arc of a circle whose center corresponds with the center of the said projections F, the sides of the recesses E, openings *e*, and shoulders *a* being undercut, and the corresponding sides 20 of the parts F and *b* being beveled, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ESTILL CURD GUERRANT.

Witnesses:

H. BENSDORF,

A. LICHTENSTEIN.