(No Model.)

A. BURGER.

THILL COUPLING.

No. 454,329. Patented June 16, 1891.

Fig. 1.

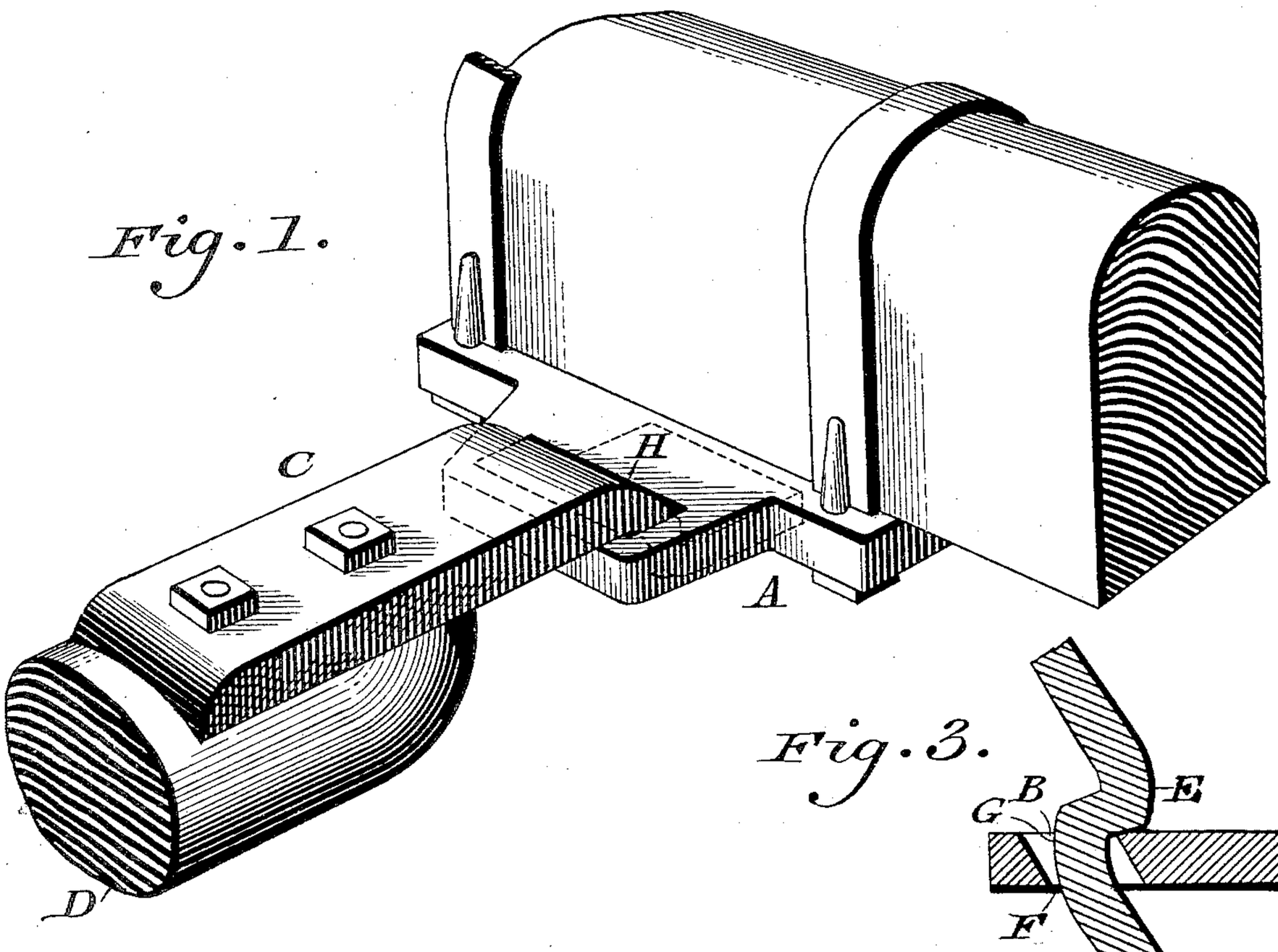
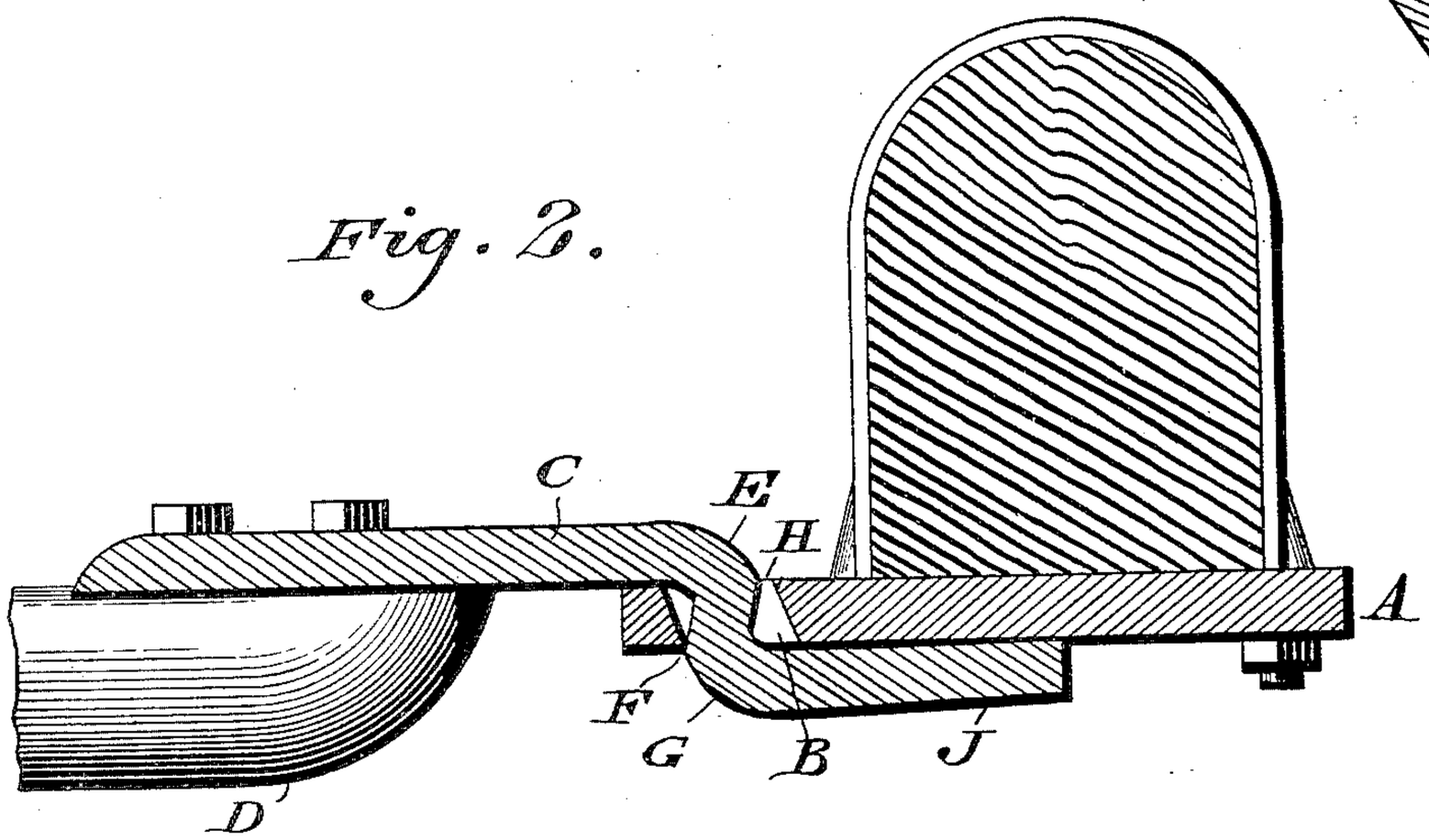


Fig. 3.

Fig. 2.



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THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 454,329, dated June 16, 1891.

Application filed February 16, 1891. Serial No. 381,571. (No model.)

To all whom it may concern:

Be it known that I, ANDREAS BURGER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Shaft or Thill Couplings, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a shaft or thill coupling formed of a slotted plate and a neck adapted to be engaged therewith, said neck being disconnectible by manipulating the same, so that it leaves its seat in the plate, and may then be entirely removed from the plate.

Figure 1 represents a perspective view of a shaft or thill coupling embodying my invention. Figs. 2 and 3 represent longitudinal sections thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a plate which is secured by clips to an axle and formed with a slot or recess B.

C designates an iron or plate which is secured to the shaft or tongue D and having a bend E intermediate of its ends, the same forming a neck which occupies the recess B. The walls of said recess are inclined or oblique from top to bottom rearward, so that the bottom of the front wall forms a projection F, with which the front wall of the neck E contacts, said wall having below its place of contact with the projection a swell G, which is accordingly underneath the bottom of the recess. It will be noticed that the recess is of greater dimensions in the direction from front to rear than that of the neck in the same direction, whereby when the plate C is in operative position a space H exists between the rear of the neck and the wall of the rear recess, whereby the neck may have a certain play in said recess in the direction from front to rear, for a purpose to be hereinafter explained. It will also be seen that a rear portion of the plate C forms a tongue J, which is beneath the plate A rearward of the recess, while the portion of said plate C in front of the recess is above the plate A and forward of said recess.

The operation is as follows: The tongue is inserted into the recess and pushed downward and rearward therethrough, so that the plate C is located as in Fig. 2, the recess, owing to its dimensions, permitting the neck and swell to pass through the same. As the neck is seated on the projection F, it may rock thereon, due to the motions of the tongue or shaft D, and it is prevented from upward displacement, owing to the swell G, when the tongue D is raised, the tongue J also limiting the downward motion of the tongue or shaft D, thus preventing the rising of the neck in the recess, the plates thus being reliably connected.

When the parts are to be separated or uncoupled, the plate C is moved rearward, so that the neck E reaches the rear wall of the recess B, or approximately so, whereby said plate may be raised in front. Then by proper manipulation the plate assumes the position shown in Fig. 3, the neck being in the main clear of the recess, and the tongue J is substantially parallel with said recess, consequently said tongue may be easily withdrawn therefrom, the plate C thus being entirely disconnected from the plate A.

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

1. A shaft or thill coupling consisting of a plate with an opening therein having oblique walls, and a plate with a neck intermediate of its ends to engage said opening, substantially as described.

2. A shaft or thill coupling consisting of a plate with an opening therein and a plate having a portion thereof depressed and connected with the other portion of said plate by a neck adapted to have bearing in said opening in the first plate, substantially as described.

3. The plate A, with the recess B, having the projection F on its front wall, and the plate C, having the neck E, which occupies said recess and is seated on said projection, said recess being adapted to permit the neck to play longitudinally therein, the plate C having at the rear of the neck a tongue which occupies a position beneath said plate A, substantially as described.

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Witnesses:
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