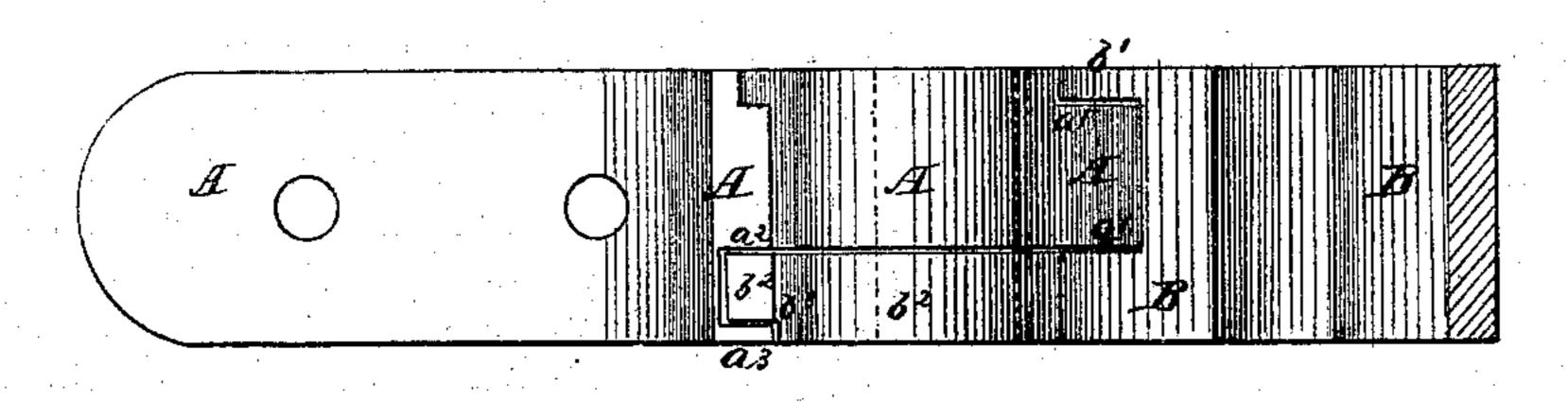
## EDWARD S. ROBERTS.

Improvement in Thill Couplings.

No. 125,486.

Patented April 9, 1872.

Fig.Z.



Ftg. 2.

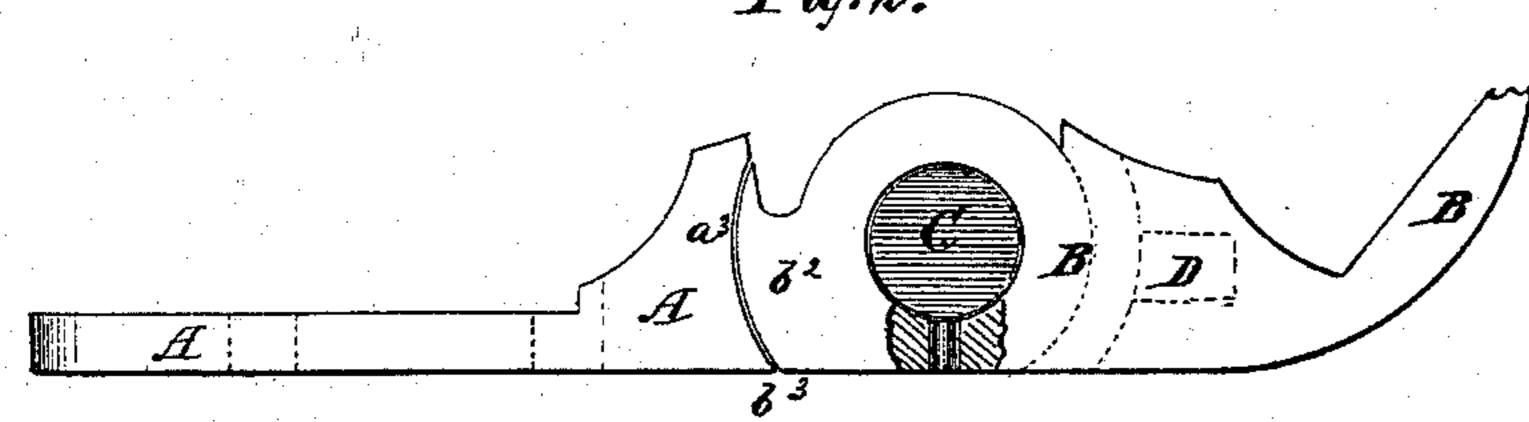
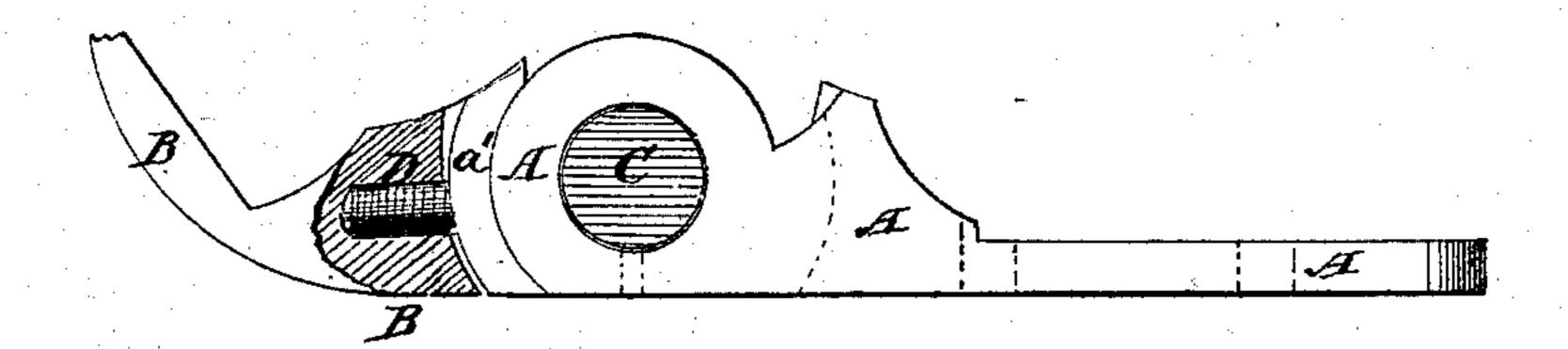


Fig. 3



Witnesses:

Les Frabee

Anventor:

C. S. Roberto

PER

Attorneys.

## UNITED STATES PATENT OFFICE.

EDWARD S. ROBERTS, OF EAST CANAAN, CONNECTICUT.

## IMPROVEMENT IN THILL-COUPLINGS.

Specification forming part of Letters Patent No. 125,486, dated April 9, 1872.

Specification describing a new and Improved Thill-Coupling, invented by EDWARD S. ROBERTS, of East Canaan, in the county of Litchfield and State of Connecticut.

Figure 1 is a top view of my improved thill-coupling. Fig. 2 is a detail view of one side of the same, part being broken away to show the construction. Fig. 3 is a detail view of the other side of the same, part being broken away to show the construction.

Similar letters of reference indicate corre-

sponding parts.

My invention has for its object to furnish an improved thill-coupling, simple in construction, strong, durable, and reliable in use, and which will allow the thills to be readily attached and detached when desired; and it consists in the thill-coupling constructed as hereinafter more fully described.

A is the yoke or bar of the clip, the forward end of which projects in front of the axle. B is the thill-iron, to which the thills are attached, and which is made of the same width as the yoke or bar A. Upon one side of the forward end of the yoke or bar A is formed a rabbet,  $a^1$ , to receive a flange,  $b^1$ , formed upon the side of the thill-iron B. Upon the other side of the end of the yoke or bar A is formed a deep and wide rabbet, a<sup>2</sup>, to receive a long and wide flange,  $b^2$ , formed upon the end of the thill-iron B. The bottom or shoulder of the rabbet  $a^2$ is grooved to form a flange, u³, to enter a rabbet,  $b^3$ , formed upon the outer side of the flange  $b^2$ , as shown in Figs. 1, 2, and 3. C is the pin or pivot by which the thill-iron B is pivoted to the bar or yoke A. The pin C passes transversely through the overlapping parts of the bar or yoke A and thill-iron B, as shown in Figs. 1, 2, and 3, and should be pinned or otherwise permanently attached to one of said parts, preferably to the thill-iron B, as shown in Figs. 2 and 3. By this construction the

guards or flanges  $b^1$   $a^3$  will hold the thills from side movement, and, consequently, from wearing loose and becoming shaky, as they would be liable to without said guards. In a recess formed in the bottom of the groove in one of the parts A B, preferably in the thill-iron B, is placed a rubber block, D, which is compressed when the coupling is coupled, so as to press against the other side of said part, and by its elasticity to take up the wear and prevent all rattling. By this construction the thills cannot become detached when in the working position.

By raising the thills into a vertical position, so as to turn the flanges  $b^1$   $b^2$   $a^3$  out of their respective rabbets  $a^1$   $a^2$   $b^3$ , the thills may be moved laterally, uncoupling the coupling and

detaching the thills.

By this manner of coupling and uncoupling the pin C will not have to be withdrawn and inserted while the parts are subjected to the pressure of the rubber block D, making the operation of coupling and uncoupling very easy.

Having thus described my invention, I claim as new and desire to secure by Letters Pat-

ent-

1. The improved thill-coupling, formed of the parts A and B, provided with the guards  $b^1a^1$  and  $a^3b^3$ , arranged as shown and described, whereby one of said parts may be readily attached to or detached from the other when adjusted at the proper angle, as specified.

2. The combination of the rubber block D with the coupling A  $a^1 a^2 a^3 B b^1 b^2 b^3$ , substantially as herein shown and described, and

for the purpose set forth.

JOHN JUNE.

EDWARD S. ROBERTS.

Witnesses: F. Bronson,