

(Model.)

F. P. NOURSE.
Thill Coupling.

No. 238,148.

Patented Feb. 22, 1881.

Fig. 1.

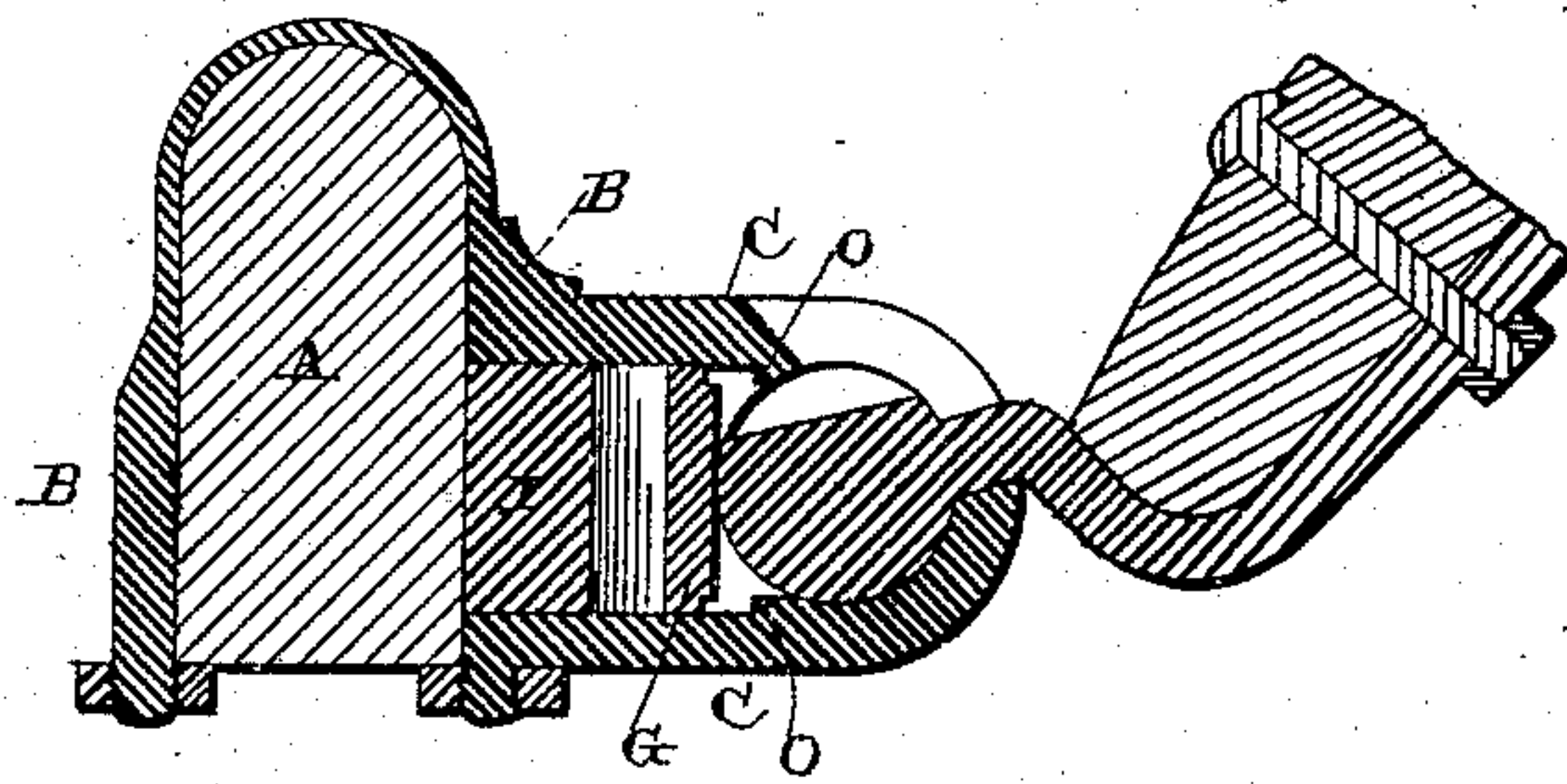


Fig. 2.

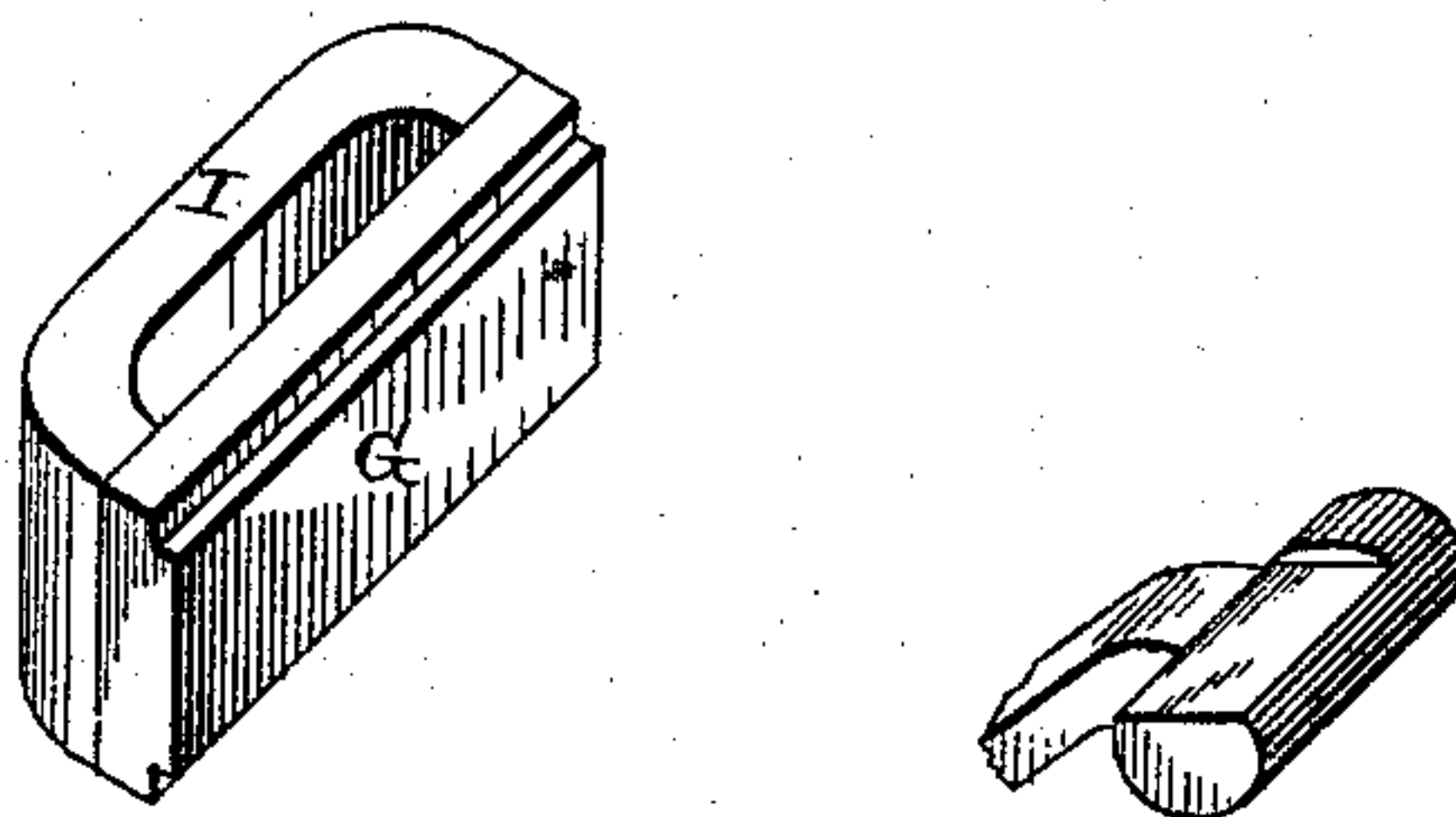
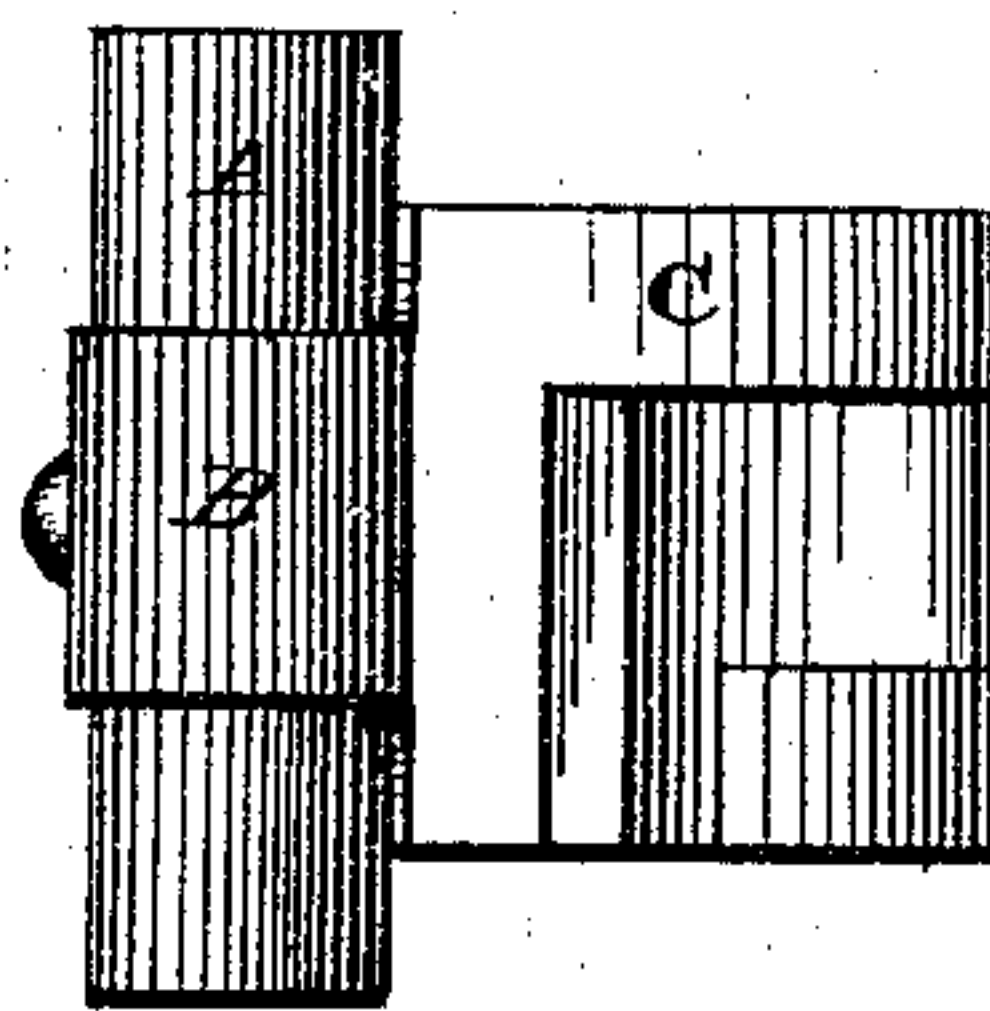


Fig. 3.



WITNESSES.
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per
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UNITED STATES PATENT OFFICE.

FRANK P. NOURSE, OF CENTRALIA, WISCONSIN.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 238,148, dated February 22, 1881.

Application filed December 16, 1880. (Model.)

To all whom it may concern:

Be it known that I, FRANK P. NOURSE, of Centralia, in the county of Wood and State of Wisconsin, have invented certain new and useful Improvements in Thill-Couplings; 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 pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in thill-couplings; and it consists in forming in the rear side of the socket a recess to receive a plate and a rubber spring, the plate being prevented from moving too far forward by means of flanges or stops, and the spring being made to exert its pressure against the cam ends of the shaft-irons after the shafts have been lowered into position, as will be more fully described hereinafter.

The object of my invention is to construct a shaft-iron that will automatically take up all of its wear, and thus prevent any rattling or noise.

Figure 1 is a vertical section of my invention. Fig. 2 is a perspective of the spring and plate and of the thill-iron, these parts being detached from the others. Fig. 3 is a plan view of the axle, clip, and socket.

A represents the axle, and B the clip, having the socket C formed with or secured to it in any suitable manner. This socket has a circular hole bored longitudinally through it in a line with the shaft, and cut into its front edge is a suitable opening or recess, between the sides of which the shaft-iron catches after the shaft has been lowered into a nearly horizontal position ready for use. Formed on the rear side of this socket is an opening or recess, into which is inserted a plate, G, and back of this plate a suitable rubber spring, I. This spring is forced forward against the plate by means of the axle, and the plate bears against the rear edge of the shaft-iron after the shafts have been lowered from a vertical into a horizontal position. This plate is forced forward so as to fill up a portion of the horizontal opening which is made through the socket in a line with the axle, and to enable the shaft-iron to be inserted into this hole. One side of the shaft-iron is cut away,

as shown in Fig. 2. In order to insert the shaft-irons into this socket the shafts have first to be raised in a vertical position, so as to bring the flat side of the shaft-iron into a line with the front side of this plate, and after the shaft-irons have been inserted into the sockets the shafts are allowed to drop downward to a horizontal position, which brings the round portion of the shaft-iron against the plate. Along the front edge of this socket is made a flange, O, and in the front edges of the plate is made a corresponding recess or offset, whereby this plate is prevented not only from being forced out of its socket when the shaft-iron is moved, but is enabled to move forward a much greater distance, so as to take up all wear, and thus prevent rattling until the plate is almost entirely torn away. Were this flange and offset not made, the plate would be soon worn away at or near its center, where the round portion of the shaft-iron bears against it, and then the spring would cease to have any further effect upon the plate. Where the offset is made around the edge of the plate it will move forward as rapidly as its central portion is cut away, and thus enable a much greater amount of wear to be obtained from it.

A rubber spring of a semicircular form is here shown, and which is sufficiently large to fill the opening back of the plate as fully as possible when the clip is pressed down in place over the top of the axle, and thus the plate is kept pressed so tightly against the shaft-iron that rattling is impossible.

Having thus described my invention, I claim—

In a thill-coupling, the combination of the clip with the socket C, having the flange O, the flat plate G, having an offset made around its edges to correspond to the flange, a rubber spring, and shaft-iron cut away upon one side, the parts being arranged and combined to operate substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of December, 1880.

FRANK P. NOURSE.

Witnesses:

C. O. BAKER,
W. A. PEESO.