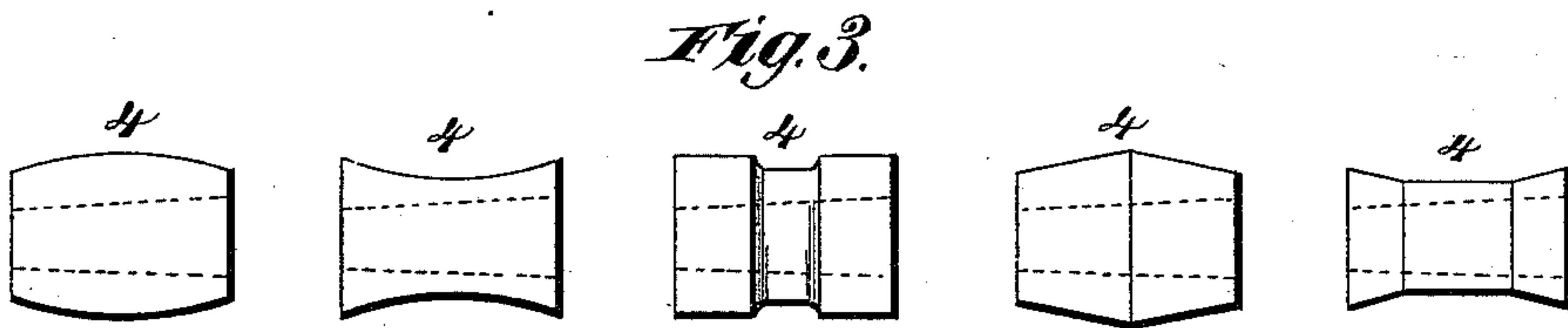
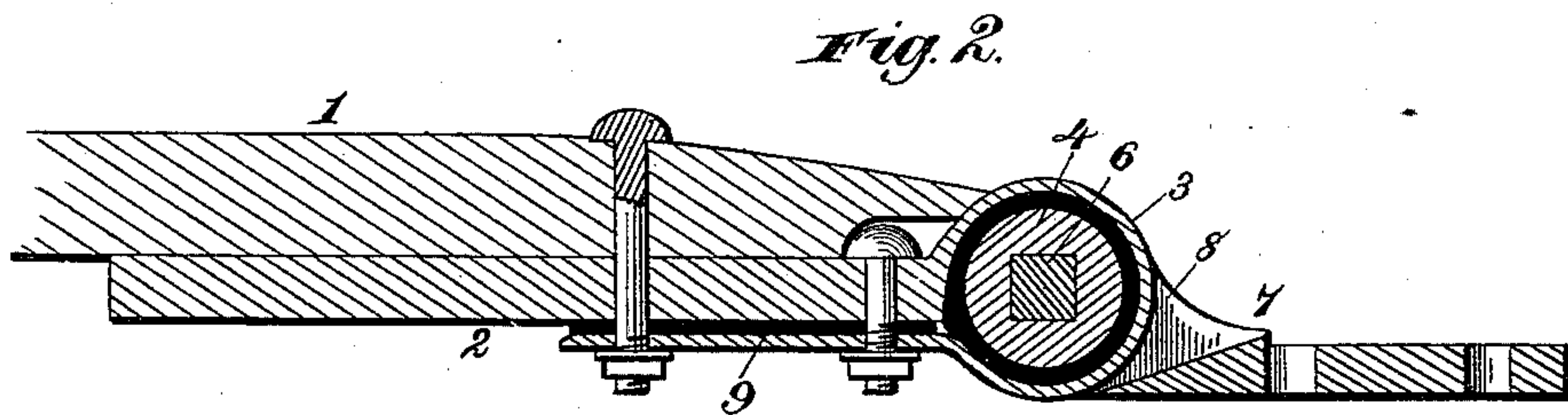
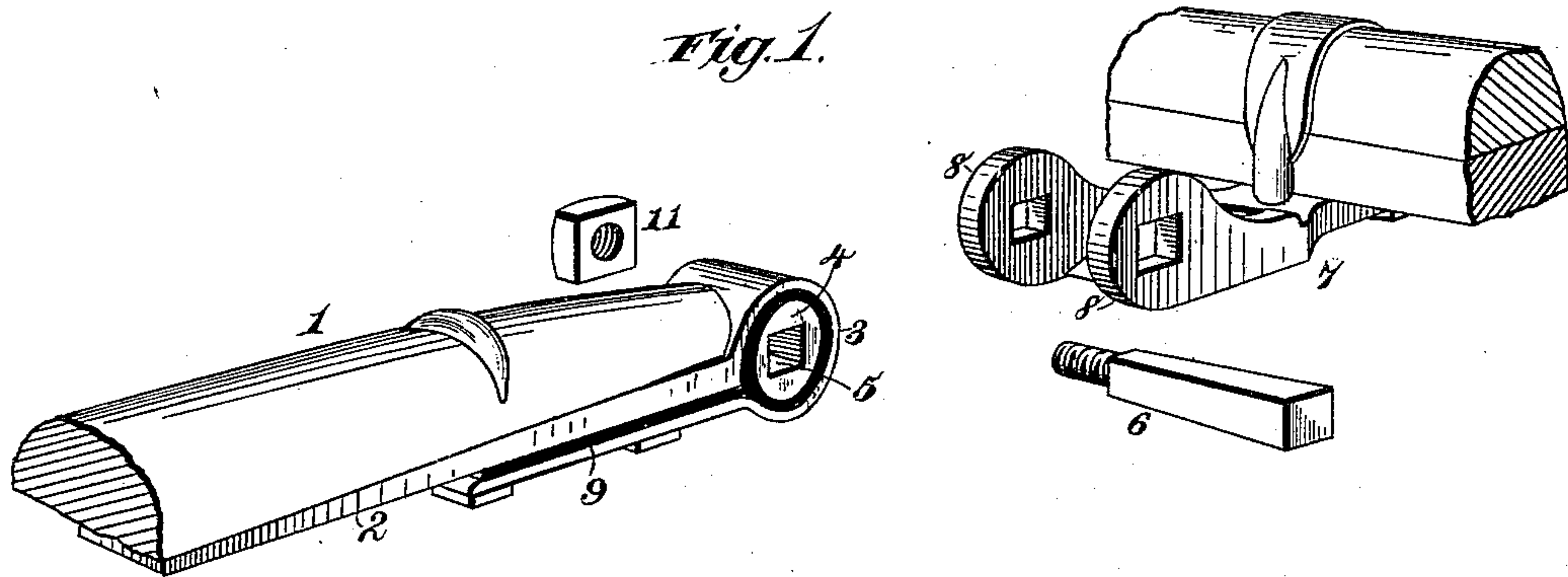


(No Model.)

H. TEMPLE.
THILL COUPLING.

No. 279,043.

Patented June 5, 1883.



Witnesses.

Robert Everett.

J. A. Rutherford.

Inventor.

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Atty.

UNITED STATES PATENT OFFICE.

HENRY TEMPLE, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR OF ONE-HALF TO
WILLIAM H. McCREADY, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 279,043, dated June 5, 1883.

Application filed March 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY TEMPLE, a citizen of the United States, residing at Grand Rapids, Kent county, Michigan, have invented
5 new and useful Improvements in Thill-Couplings, of which the following is a specification.

This invention relates to improvements in thill-couplings, and has for its object to provide simple and efficient means for preventing
10 the connecting parts from rattling, while permitting of the convenient detachment of the thill and attachment of a pole, should such be desirable.

The object of my invention I accomplish
15 through the medium of a metallic barrel constructed with an angular socket for the passage of the bolt which connects the thill to the clip, whereby the barrel is held stationary and prevented from rotating, combined with a sleeve
20 of flexible material encircling the periphery of the barrel, and a thill-strap secured to the thill and passed around the flexible sleeve to form an eye for confining the sleeve and its inclosed metallic barrel in proper position at the rear
25 end of the thill, all in such manner that the thill-strap and the flexible sleeve can turn on the barrel while the latter stands stationary, the sleeve providing a tight joint between the barrel and the thill-strap to prevent rattling.

30 The manner of carrying out my invention is illustrated by the accompanying drawings, in which—

Figure 1 represents perspective views of portions of a thill and a clip, the thill and clip
35 being disconnected; Fig. 2, a longitudinal central sectional view, with all the parts connected. Fig. 3 represents modification in the form of the metallic barrel.

In the drawings, the number 1 indicates the
40 rear portion of a thill, to which is firmly bolted a thill-iron, 2, in the form of a strap, which is bent to form a circular eye, 3, the end of the strap so bent being laid back on the body of the strap and secured by the bolts which con-
45 fine the said body to the thill.

The metallic barrel 4 shown in Figs. 1 and 2, is in the form of a cylinder; but its peripheral surface may be concave, convex, or inclined from each end toward the middle, as
50 illustrated in Fig. 3. The barrel is provided

with an angular socket, 5, extending through it, preferably square and tapering, for the passage of the tapering square bolt 6, which serves to connect the thill with the clip 7, which latter is provided with perforated ears 8
55 for such purpose, as usual. The metallic barrel is located in the eye of the thill-iron; and between the peripheral surface of the barrel and the inner surfaces of the eye is arranged a flexible sleeve, preferably made from a strip
60 of rawhide, but which may be of some other suitable flexible material as to constitute a packing, and thus provide a tight and snug joint between the barrel and the eye in such
65 manner that the rattling of the barrel and eye is prevented. To further guard against rattling of the parts, a flat strip, 9, of rawhide, leather, or similar flexible packing material, is arranged between the two parts of the thill
70 iron or strap 2, such parts being tightly clamped together by the nuts 10 of the bolts employed to secure the thill and thill-strap together.

The clip 7 may be constructed or provided in any suitable or well-known manner with the
75 perforated ears 8, and the barrel and its packing being in proper position within the eye of the thill-strap, said eye is placed between the ears of the clip and the bolt 6 passed through the same and secured by the nut 11. The bolt
80 serves to lock the barrel in a fixed or stationary position, and hence the eye of the thill and the flexible packing-sleeve can be turned upon the barrel while the latter remains stationary. The packing-sleeve, being located between the
85 inner surface of the thill-eye and the periphery of the barrel, provides a tight joint between these parts, whereby rattling of the same is effectually prevented and a smoothly-working coupling is obtained; and, further than this,
90 the friction-surfaces provided by the flexible packing-sleeve serve to retain the barrel within the thill-eye when the thill is detached from the clip, thereby preventing the barrel from falling out or being accidentally displaced
95 when the thill is not in use on a vehicle.

If the barrel be constructed with a peripheral surface such as in any one of the forms illustrated in Fig. 3, it will be obvious that the thill-strap at its eye portion will be so
100

constructed as to adapt it to the periphery of the barrel.

I do not confine myself to the construction of square socket and bolt for holding the barrel in a fixed position, as this can be effected by other means.

By my invention I avoid the use of a rubber block for bearing on the thill-eye to prevent rattling. I provide a more perfect coupling, in that rattling is avoided by more simple and efficient means, and in attaching the thills or a pole it is not necessary to press back a rubber block to bring the thill-eye into proper position to receive the bolt which passes through the ears of the clip.

Having thus described my invention, what I claim is—

1. A thill-coupling composed of a suitable clip having perforated ears, a thill strap or iron having a circular eye, a barrel held in a

stationary position by the bolt which passes through the clip-ears, and a packing-sleeve located between the periphery of the barrel and the inner surface of the thill-strap eye, substantially as described.

2. The combination, with the thill-iron having the circular eye, of the solid unslotted metallic barrel, having an angular socket through it for the passage of an angular bolt to lock it in a stationary position, and the packing-sleeve located between the periphery of the barrel and the inner surface of the eye, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY TEMPLE.

Witnesses:

FRED C. TEMPLE,
CHAS. G. GODFREY.