

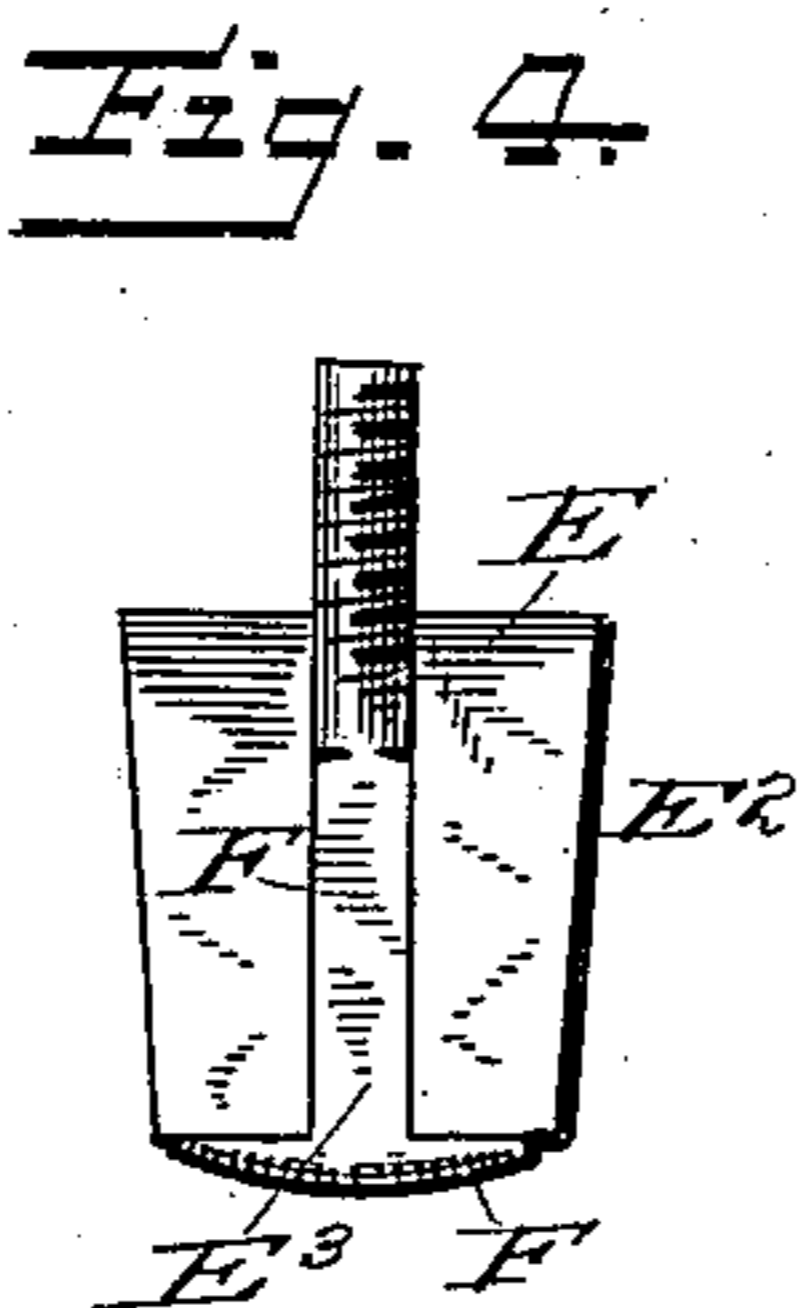
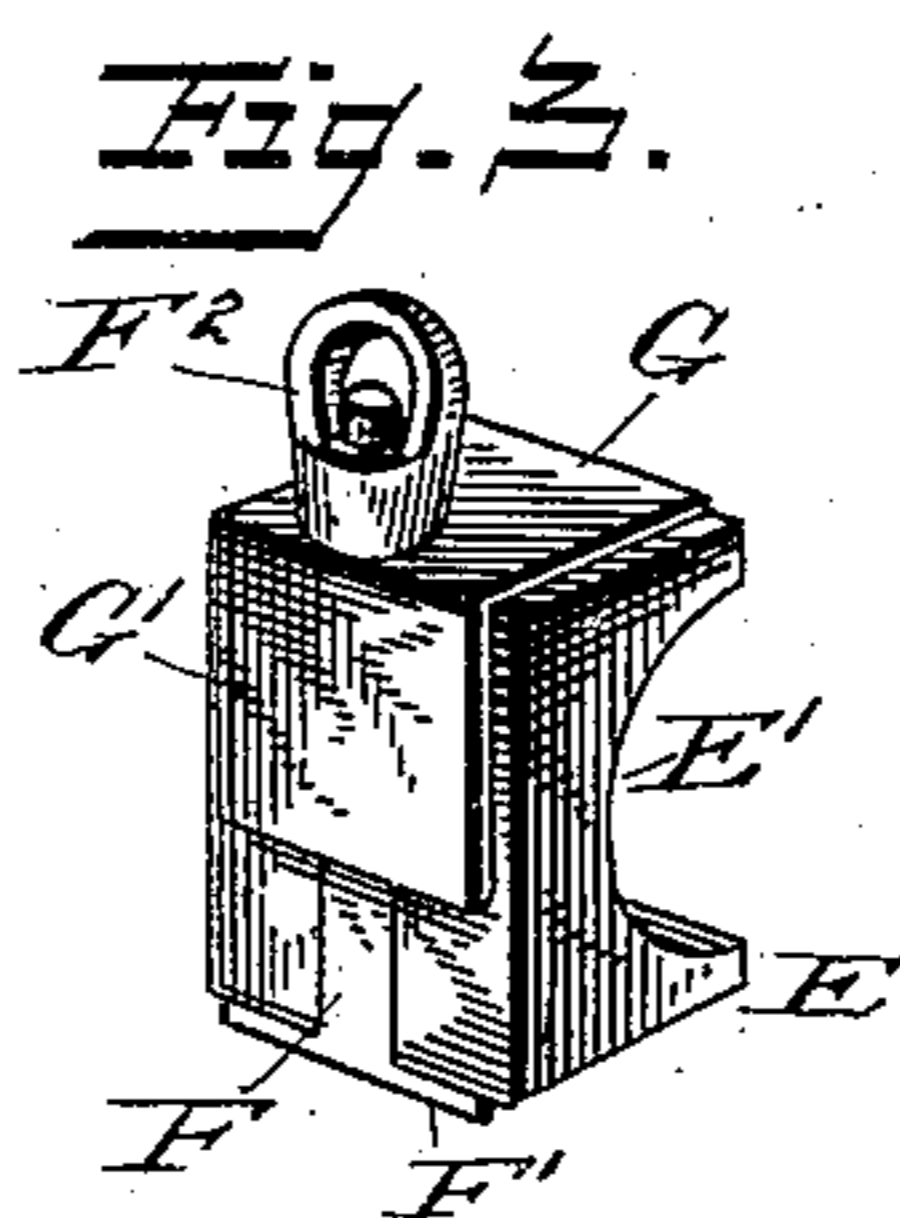
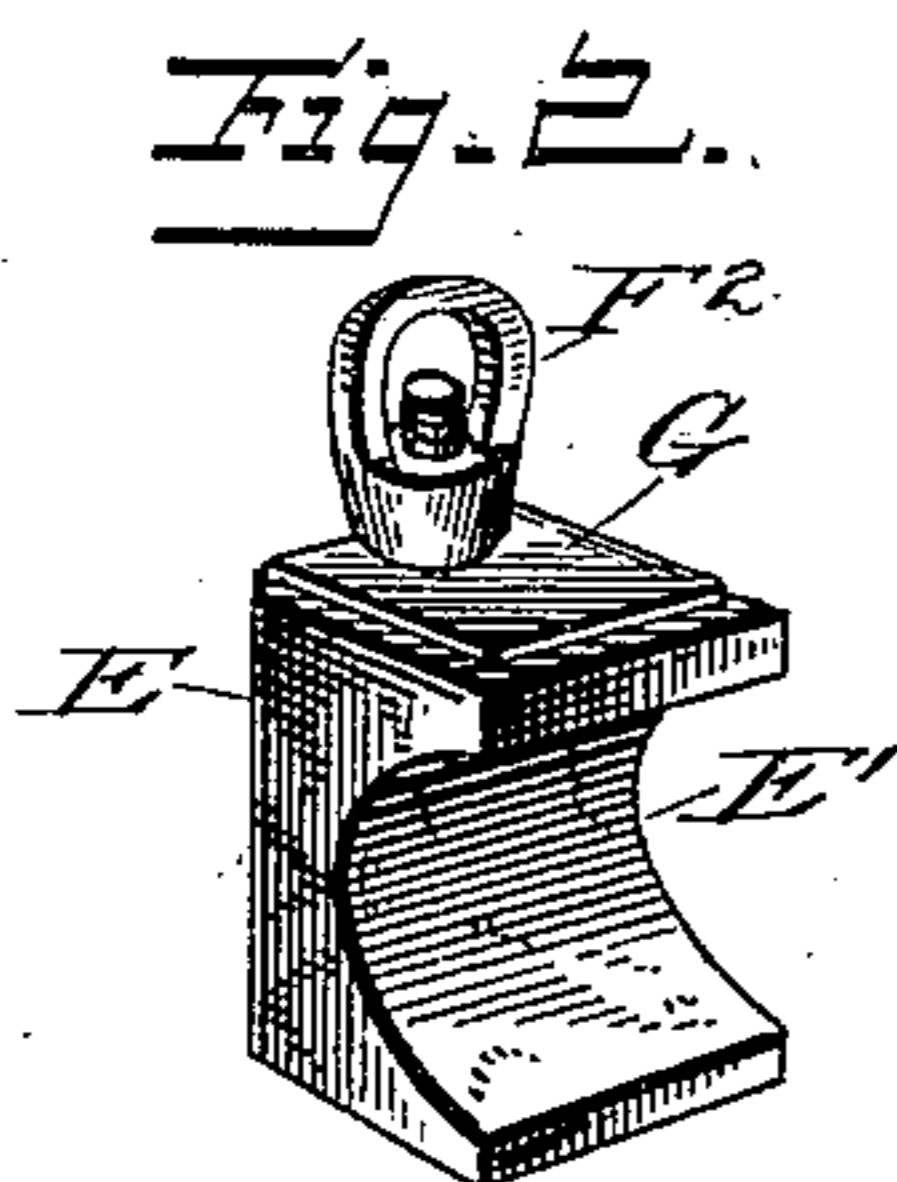
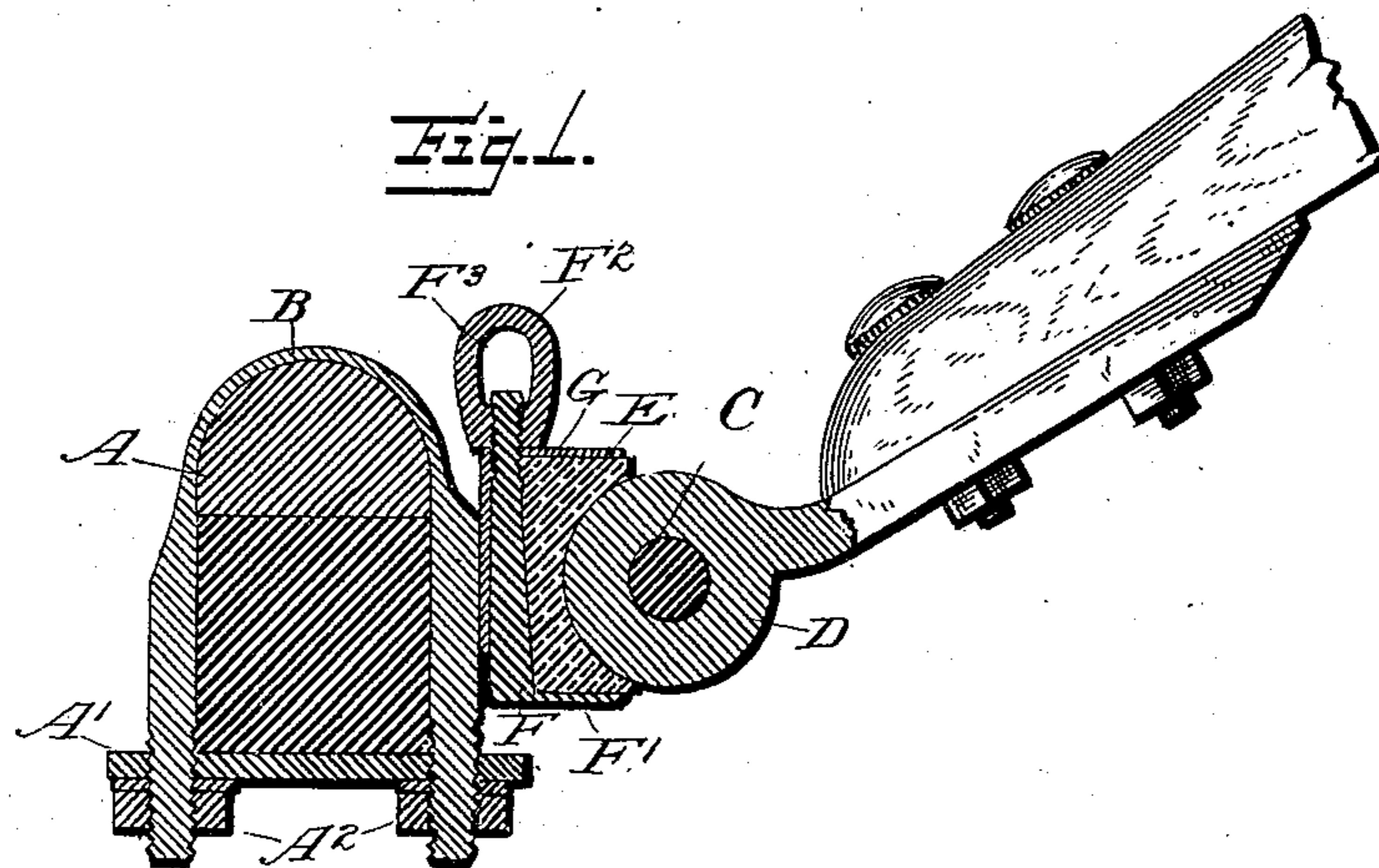
(No Model.)

J. M. SIMPSON.

THILL COUPLING.

No. 332,843.

Patented Dec. 22, 1885.



WITNESSES:

L. C. Wells,
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INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN M. SIMPSON, OF MALTAVILLE, NEW YORK, ASSIGNOR OF ONE-HALF
TO SEYMOUR TOMS, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 332,843, dated December 22, 1885.

Application filed November 5, 1885. Serial No. 181,896. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. SIMPSON, a citizen of the United States, residing at Mal-
taville, in the county of Saratoga and State of
5 New York, have invented certain new and
useful Improvements in Thill - Couplings, of
which the following is a specification, refer-
ence being had to the accompanying draw-
ings.

10 This invention relates to anti-rattlers for
thill-couplings; and the object in view is to
provide a device to be inserted between the
clip and shank-iron of a shaft, whereby wear
may be taken up and rattling prevented, and
15 it is desired to provide an article complete in
itself and capable of being applied to any ve-
hicle without change of construction of the
parts, and so made as to retain itself in oper-
ative position when detached.

20 Referring to the drawings, Figure 1 is a cen-
tral vertical longitudinal section of a wagon-
axle provided with my anti-rattler, and Figs.
2, 3, and 4 are details showing the detached
device in different positions.

25 Like letters of reference indicate like parts
in all the figures.

A represents the axle of a vehicle, which is
provided with the usual clip, B, mounted
thereon, and secured thereto by means of a
30 suitable tie-bar and bolts, A' A², respectively,
and which is provided with the well-known
brackets or ears, perforated for the reception
of the bolt C, which connects the shank-iron D
thereto.

35 E represents a rubber cushion, which is con-
cave at its front edge, as at E', to adapt the
same to fit over the cylindrical portion of the
shank-iron of a shaft, and which is tapered
from top to bottom, as clearly shown at E²,
40 Fig. 4, for a purpose hereinafter specified.
The back of the cushion is formed with a ver-
tically-tapering groove, E³, for the reception
of a screw-threaded stud or rod, F, the lower
end of which is bent, as at F', at a right angle
45 to its body portion, thus forming a seat or
head for said cushion E.

As shown in Fig. 1, the stud or rod F is ta-
pered from bottom to top, adapted to fit the
groove E³ in the cushion E, and is provided at
50 its top with a thumb-nut, F², adapted to be
screwed thereon.

Interposed between the thumb-screw F² and
the cushion E is a plate, G, bent to form a
right angle, and extending down in rear of
said cushion, as at G', and resting upon the 55
rear flat surface of the bolt F, whereby a metal
bearing-surface exists between the bolt and
the plate. It will thus be seen that by reason
of the taper in the cushion E the device as a
whole is adapted to be inserted into the space
between the clip and shank-iron of any ordi-
nary shaft, and that said device may be manu-
factured and sold separately, to be afterward
inserted for use. It will also be seen that as
the rubber portion E² becomes worn, by rea- 65
son of the constant wear occasioned by the
shank-iron, the same may be readily tightened
and bound to said shank-iron by means of the
stud F and nut F², the operation being simply
to insert a pin in the eye F³ of said nut, and 70
turn the same, which draws upon the plate;
and in connection with the tapered rod or
stud the rubber is pressed tightly against said
iron, the plate G being depressed and bearing
against the clip B at one side and against the 75
flat back of the bolt F at the other side, thus
giving a metal bearing, which is formed to
offer a minimum resistance to the downward
movement of the plate.

It will be noticed that the rubber cushion E 80
is thicker at the upper end of its concave face
than at the lower. The purpose of this con-
struction will be apparent when it is stated
that the lower thinner edge of the cushion, in-
terposed between the seat F' on the bolt and 85
the shank-iron D, serves to practically pre-
vent any upward movement of said seat F', so
that the entire compression of the cushion
takes place from above, by reason of the de-
pression of the plate G, and of the said sub- 90
stantial lack of motion upon the part of the
seat F'.

The device is exceedingly simple, compact,
and durable, and can be manufactured at a
nominal cost, there being no need whatever of 95
any special fitting to adapt the same to any
ordinary thill.

Having described my invention and its op-
eration, what I claim, and desire to secure by
Letters Patent, is—

1. An anti-rattler to be inserted between
the clip and shank-iron of a shaft, consisting

of a rubber cushion, as E, concaved, as at E', and provided with a tapering groove, as E³, and having a tapered stud or rod, as F, bent to form a seat or head, as F', for said cushion,
5 and provided with a bearing-plate, as G, arranged to slide upon the back of the bolt, and a thumb-screw, F², substantially as shown and described.

10 2. The combination of the cushion E, tapered, as at E², and concaved, as at E', provided with the tapering groove E³, and having the stud or rod F, bent to form a seat or head, F', the plate G, bent, as at G', and the thumb-nut F², with the shank-iron D and clip A, sub-
15 stantially as shown and described.

3. The combination, with the tapered bolt F, having the seat or head F' and nut F², of the plate G, mounted and arranged to slide upon said bolt, with a rubber cushion, E, tapered, as at E², and having the thicker upper 20 portion above its concave E', substantially as shown and described.

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

JOHN M. SIMPSON.

Witnesses:

S. W. PEARSE,
W. J. SIMPSON.