

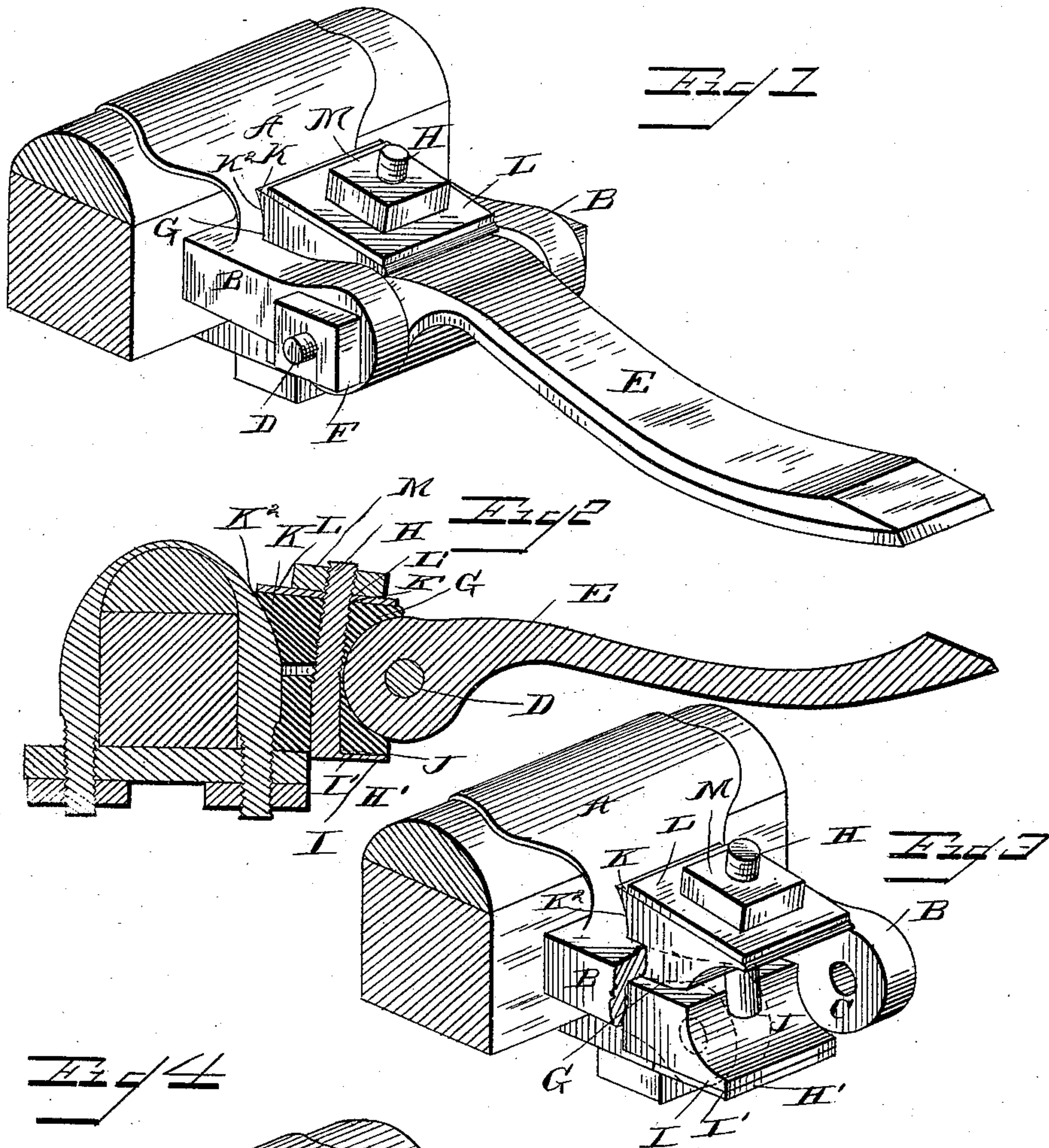
(No Model.)

G. W. HYATT & W. DICK.

THILL COUPLING.

No. 378,840.

Patented Feb. 28, 1888.



WITNESSES  
F. L. Olin  
Benj. G. Cook

George W. Hyatt,  
William Dick.

INVENTORS,

By Louis Daggert  
Attorney.



# UNITED STATES PATENT OFFICE.

GEORGE W. HYATT AND WILLIAM DICK, OF THREE MILE BAY, NEW YORK.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 378,840, dated February 28, 1888.

Application filed September 17, 1887. Serial No. 249,949. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE W. HYATT and WILLIAM DICK, both residents of Three Mile Bay, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Thill-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our new and improved thill-coupling. Fig. 2 is a central vertical sectional view of the same. Fig. 3 is a perspective view showing the elastic blocks in position within the clip, with the thill-iron removed; and Fig. 4 is a perspective detail view showing the several parts separated from each other.

The same letters of reference indicate corresponding parts in all the figures.

Our invention consists in a new and improved thill-coupling for preventing the thill-iron from rattling in the clip, and which will be hereinafter fully described and claimed.

Referring to the several parts by letter, A indicates the clip, which is secured in the usual manner on the fore axle, as shown, and which is formed with the forwardly-projecting parallel ears B B, which are formed with the registering apertures C, through which passes the bolt D, on which the end of the thill-iron E is pivoted, this bolt having on its threaded end the usual nut, F, so that it may be removed when desired to remove the thills. These ears B B are of sufficient length to leave a space, G, behind the rounded pivoted end of the thill-iron.

H indicates the bolt, which extends up behind the end of the thill-iron through the space G, the lower end of this bolt being formed with the broad flat head H', which forms, practically, a base-plate, on which the lower rubber block rests. This bolt H is likewise formed with a slight curvature, to conform somewhat to the curvature of the rounded end of the thill-iron, behind which it extends, this curvature depending somewhat on the width of the space behind the thill-iron, and if there is sufficient space behind the thill-iron this bolt may

be left perfectly straight. The upper portion of this bolt is screw threaded.

I indicates the lower rubber block, the rubber or cushion of my new and improved thill-coupling being in two pieces—a lower and upper block. This lower block is nearly three-cornered in general outline, and is formed with a central vertical aperture, J, through which the bolt H passes, the block being forced down on the bolt, so that its lower flat side, I', rests squarely upon the broad flat head H' of the bolt. In placing the device in operative position the threaded portion of the bolt is then pushed up back of the thill-iron through the space G until the slightly-curved beveled forward side of the lower rubber block presses up against the lower inner part of the rounded pivoted end of the thill-iron. The upper rubber block, K, is then placed on the upper part of the bolt H. This upper rubber block is also nearly three-cornered in outline, and is formed with a central vertical aperture, K', through which the bolt H passes, and when this upper block is pushed down on the upper part of the bolt above the thill-iron its slightly-beveled rear side, K<sup>2</sup>, will conform to the shape of the upper part of the clip A, against which it presses, while its forward under side is curved to fit the upper inner side of the rounded end of the thill-iron, against which it bears. The upper rubber block being thus placed in position on the bolt H, a flat thin metal plate, L, having a central aperture, L', is placed upon the upper end of the bolt, so as to rest upon the flat top of the upper rubber block, and the lower side of this plate is formed with about four downwardly-projecting points or teeth, L<sup>3</sup>, which stick into the flat top of the rubber block and hold the plate in place, preventing it from turning on the top of the rubber block when the tightening-nut is screwed down to bind the rubber blocks in operative position. Above this plate L a nut, M, is screwed down upon the upper end of the bolt H, bearing down upon the plate L, which thus diffuses the pressure over the top of the upper rubber block, and it will be seen that by thus screwing down the top nut, M, the lower and upper rubber blocks are drawn together, so as to press firmly against the pivoted rounded end of the thill-iron, and thus effectually prevent all rattling; and as the rubber wears and



permits rattling all that is necessary is to screw down the top nut, M, on the bolt H to make the coupling as tight and free from rattling as before. A space is left between the inner ends of the two blocks to permit of this adjustment.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of our invention will be readily understood. It will be seen that our new and improved thill-coupling is simple and strong in construction and will not get out of order. By the construction shown and described we obtain a direct and even pressure against the thill-iron. The rubber upper and lower blocks may be constructed, as set forth, with the space between their inner ends; or their inner end portions may be made tapering or beveled and overlap, which would effect precisely the same results. The bolt H can be straight or slightly curved, as required or desired, and its size may vary according to the size of the space back of the thill-iron.

It will be seen from the foregoing that our new and improved thill-coupling is simple and strong in construction and exceedingly efficient in its operation. It can be applied easily and in a few moments by merely passing the headed bolt with the lower block of rubber on it up back of the thill-iron, then placing the upper rubber block in position, putting the pressure-plate L on, and screwing down the retaining

and tightening nut M, the device being thus placed in position without removing the thill-iron from the clip A.

Our device is the only one which can be used successfully on a platform wagon by making the rubber blocks large enough.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States, is--

In a thill-coupling, the combination of the clip provided with the forwardly-projecting parallel ears formed with registering apertures, the thill-iron of ordinary construction, and the pivotal bolt with apertured rubber blocks, the upper one of which is formed with flat upper and lower and curved forward and rear portions, while the lower one is formed with a curved forward and flat upper, lower, and rear portions, the curved threaded bolt having at its lower end the flat plate, upon which the flat base of the lower rubber block is seated, the perforated plate having the points or teeth upon its lower face, and the retaining and adjusting nut.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

GEORGE W. HYATT.  
WILLIAM DICK.

Witnesses:

ALBERT FISH,  
ALBERT D. CURTIS.