

No. 792,065.

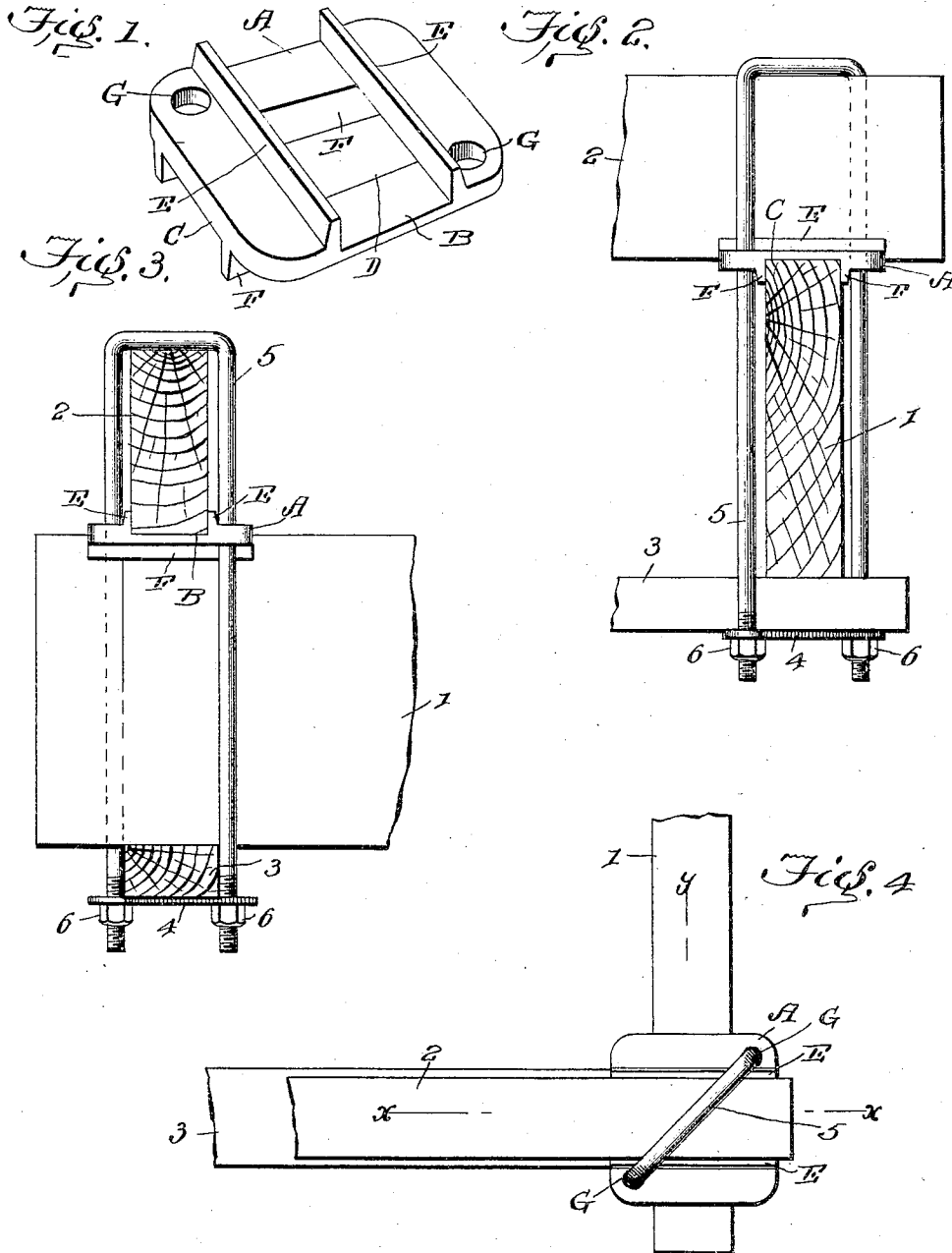
PATENTED JUNE 13, 1905.

P. A. MYERS.

HAY RACK.

APPLICATION FILED SEPT. 28, 1904.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 5.

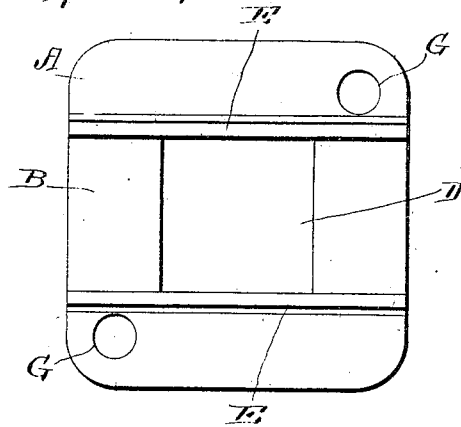


Fig. 6.

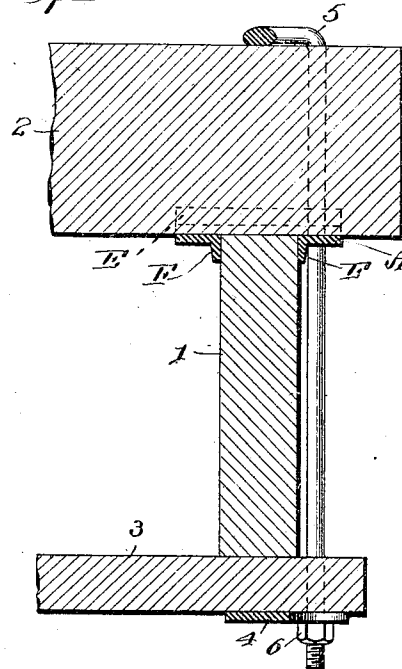


Fig. 7.

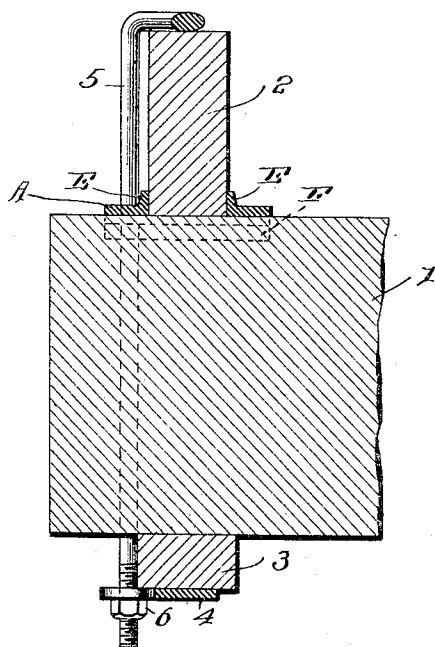
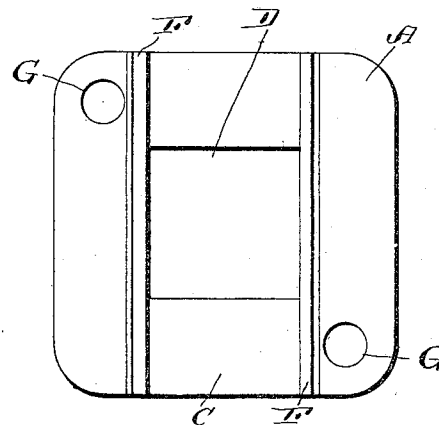


Fig. 8.



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UNITED STATES PATENT OFFICE.

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HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 792,065, dated June 13, 1905.

Application filed September 28, 1904. Serial No. 226,319.

To all whom it may concern:

Be it known that I, PHILIP A. MYERS, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Ohio, have invented certain new and useful Improvements in Hay-Racks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to hay-racks, and more particularly to the fittings or clamping devices by which the longitudinal and transverse beams, of which the bed of the hay-rack is composed, may be securely and easily united and as easily disconnected.

The essential feature of the invention lies in a saddle, by which several results are obtained—namely, the holding of the beams of the rack which cross each other in a firm and rigid manner, so that they cannot shift relatively to each other when undergoing strains in use, the bringing of the beams into wood-to-wood contact notwithstanding the presence of the saddle where the beams overlap each other, and the furnishing of a guide for the clamping-bolt, so that it will keep its position relatively to the beams notwithstanding any strains which they may undergo, all as hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a detail perspective view of the saddle detached from the other parts; Fig. 2, a rear view of the side sill and of the top beam and bottom beam of a hay-rack with my improved clamping device in elevation; Fig. 3, a side view of the sill and an end view of the top cross-beam and bottom cross-beam, also showing my clamping device in elevation. Fig. 4 is a plan view of what is shown in Fig. 2; Fig. 5, a detail plan view of the saddle detached; Fig. 6, a vertical sectional view on the line *xx* of Fig. 4; Fig. 7, a vertical sectional view on the line *yy* of Fig. 4, and Fig. 8 a detail inverted plan view of the saddle detached.

Referring to the saddle *per se*, its construction is best understood from Figs. 1, 5, and 8. It consists of a frame A, grooved at B on the upper side and grooved at C on the lower side, the grooves extending at right angles to each

other and the bottom of the grooves being in the same plane, resulting in making the structure open in the center, as shown at D. Thus when a beam of a hay-rack is laid in the groove B and another beam is laid in the groove C the two beams will come together with wood-to-wood contact at their point of intersection or where they overlap each other. This is an important feature, because it enables the tension exerted on the fastening device or U-bolt to be resisted by surfaces which to some extent are yielding, thus making the union very intimate and preventing the rattling or loosening of the parts, as this or the tendency to it is taken up by the reacting spring in the wood, of which the beams are composed. Then the grooves B and C hold the beams in absolutely rigid right-angle relation, so that when strains come upon the hay-rack these beams cannot shift and throw the rack out of square. The saddle is further provided with raised ledges E on the top and similar ledges F on the bottom, which ledges act to increase the depth of the grooves, as also to stiffen and strengthen the saddle itself. At diagonally opposite corners the saddle is provided with apertures G to receive the fastening bolt or device.

Referring now to the clamping device as a whole, attention is directed to the other figures in the drawings, in which it will be seen that the longitudinal side sill 1 of the rack has placed upon it one of the saddles A at a point where a top cross-beam 2 is to be secured. The sill enters the groove C, and the top cross-beam enters the groove B. The walls of these grooves, aided by the ledges E and F, serve, as before stated, to maintain the sill and beam in fixed relation as to their angle. The bottom cross-beams 3 are placed against the side sills immediately under the top cross-beams, and a clip-plate 4 is placed diagonally under this bottom cross-beam to correspond with the position of the apertures in the saddle. A fastening device in the nature of a U-bolt 5 is then placed over the top cross-beam, through the apertures in the saddle, down alongside of the sill, past the front and rear sides of the bottom cross-beam, and

through the clip-plate 4. By the application of nuts 6 the parts are drawn rigidly together, the wood-to-wood contact of the several wooden pieces causing them to intimately combine together and to act, as before stated, by their natural spring to prevent the loosening of the parts by jarring.

I regard myself as the first to produce a clamping device wherein a saddle is utilized to maintain the parts to be united in a fixed angular relation and which at the same time permits a wood-to-wood contact or a contact of the parts to be united one against the other, and all this without resorting to holes or apertures in the parts so united. I wish to be understood, therefore, as laying broad claim to a saddle of the character indicated, as also to this saddle combined with a suitable clamping device *per se*, one form of which—namely, the U-shaped bolt—I have shown and described.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a clamping device, a saddle having guiding-surfaces to hold the parts to be united in a fixed angular relation and cut away in its central portion to permit said parts to come in immediate contact.

2. In a clamping device, a saddle having upper and lower grooves at an angle to each other and its central portion open to permit the parts to be united to come into immediate contact.

3. In a clamping device, a saddle having upper and lower grooves bordered by ledges, the grooves being at an angle to each other, and the central portion of the saddle being open to permit the parts to be united to come into immediate contact, and a plurality of its corners provided with apertures.

4. In a clamping device, the combination, with a saddle having its central portion open to permit the parts to be united to come into immediate contact and having upper and lower guiding-surfaces standing at an angle to each other, a sill and a cross-beam fitted to the saddle and held by said guiding-surfaces, and

a fastening device proper engaging with the parts to be fastened and acting to draw them together and into the saddle.

5. In a clamping device, the combination, with a saddle having its central portion open to permit the parts to be united to come into immediate contact and having upper and lower grooves at an angle to each other, a sill fitted into one groove, a cross-beam in the other, and another cross-beam fitted against the sill, of a fastening device proper engaging with the two cross-beams and acting to draw the parts together and to hold the sill and cross-beam in the saddle.

6. In a clamping device, the combination, with a saddle having its central portion open to permit the parts to be united to come into immediate contact and having upper and lower guiding-surfaces at an angle to each other and apertures in diagonal corners, a sill and a cross-beam fitted between the respective upper and lower guiding-surfaces, and a lower cross-beam fitted to the sill, of a fastening device proper engaging with the cross-beams and extending through the apertures in the saddle and acting to clamp the parts together.

7. In a clamping device, the combination, with a saddle having an upper groove with ledges, a lower groove with ledges, the grooves being at right angles to each other, apertures in diagonal corners, and open in the center, a sill fitted to the lower groove, a cross-beam to the upper groove, another cross-beam below the sill, and a U-shaped clamping-bolt passing over the upper cross-beam, through the saddle-apertures and down past the lower cross-beam, a clip-plate diagonally across the lower beam, and nuts on the bolt to draw the parts together, the parts in the saddle being in immediate contact where the central opening occurs.

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

PHILIP A. MYERS.

Witnesses:

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F. B. KELLOGG.