

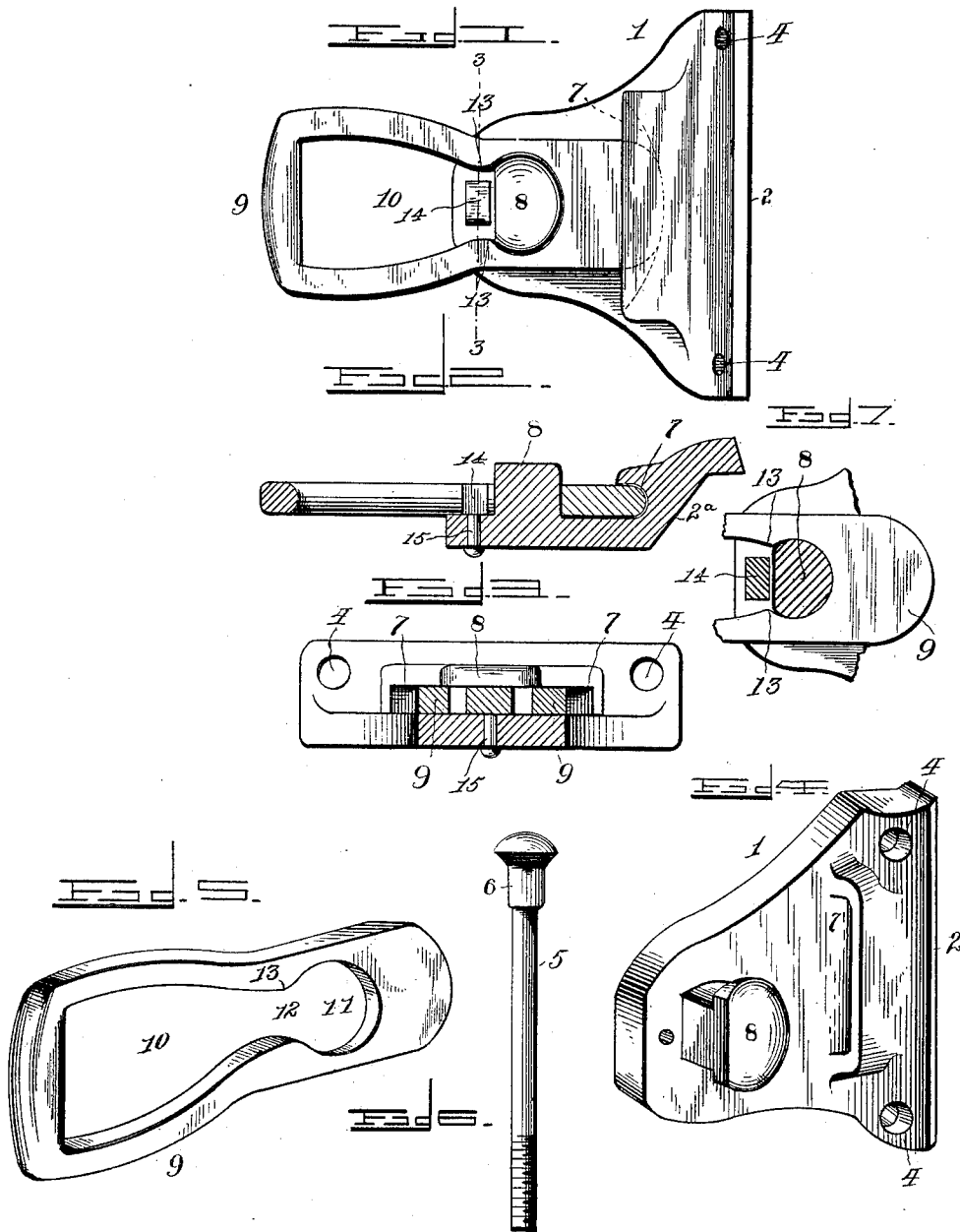
No. 657,683.

Patented Sept. 11, 1900.

S. H. SWEARINGEN.
HAME AND TRACE CONNECTOR.

(Application filed Nov. 4, 1899.)

(No Model.)



Witnesses

Leo S. Donders

J. F. Riley

Samuel H. Swearingen, Inventor

By His Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

SAMUEL H. SWEARINGEN, OF HEDRICK, IOWA.

HAME AND TRACE CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 657,683, dated September 11, 1900.

Application filed November 4, 1899. Serial No. 735,772. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. SWEARINGEN, a citizen of the United States, residing at Hedrick, in the county of Keokuk and State of Iowa, have invented a new and useful Hame-Tug Coupling, of which the following is a specification.

The invention relates to improvements in hame-tug couplings.

10 The object of the present invention is to improve the construction of hame-tug couplings, more especially that shown and described in Patent No. 633,401, granted to me September 19, 1899, and to provide a simple
15 and comparatively-inexpensive one which will possess great strength and durability and which will be capable of a limited vertical oscillatory movement to accommodate itself to horse motion and at the same time prevent any lateral movement which might interfere with a straight draft.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated
25 in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is an elevation of a hame-tug coupling constructed in accordance with this invention. Fig. 2 is a central longitudinal sectional view. Fig. 3 is a transverse sectional view on line 3-3 of Fig. 1. Fig. 4 is a detail perspective view of the hame-plate. Fig. 5 is a similar view of the coupling-plate. Fig. 6 is a detail view of one of
30 the fastening devices. Fig. 7 is a detail view illustrating the construction of the shank of the headed stud and the coupling-plate.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a hame-plate having its front portion 2 arranged at an angle to its rear portion and recessed at its inner face, at 2^a, to conform to the configuration of a hame, and it is
45 provided on the exterior of its front portion with a socket or recess 7. The front portion is provided near its upper and lower edges with perforations 4 for the reception of fastening devices 5, which secure the hame-plate to the hame, and these fastening devices, as
50 clearly illustrated in Fig. 6 of the accompany-

ing drawings, are provided adjacent to their heads with enlarged portions 6 and are tapered at the terminals thereof, the perforations 4 conforming to the configuration of the fastening devices. The enlarged portion of the fastening device is arranged in the perforation of the hame-plate, and the rest of the bolt or fastening device is reduced in diameter to avoid weakening the hame by a large perforation.

The socket or recess 7 is segmental, and the front wall thereof is concentric with the stud 8, formed integral with the rear portion of the hame-plate and provided with a head, and the said socket or recess 7 is adapted to receive the front end of a coupling-plate 9. The coupling-plate 9 is provided with a longitudinal opening 10 to receive the head of the stud, which has the front and rear edges of its head flush with the adjacent faces of the shank. The side portions of the head, which lie at the top and bottom of the shank, project beyond the same and are adapted to engage the coupling-plate when the latter is in a horizontal position. The coupling-plate is arranged in a vertical position to engage it with the headed stud, and it is partially rotated to bring it to a horizontal position. Its front portion 11 is contracted and rounded and is connected with the enlarged rear portion of the opening by a neck 12. The stud is rounded at its shank and its rear portion is cut away, so that its thickness from front to rear is less than its width, and when the coupling-plate is turned to a horizontal position the shoulders 13, formed by the contracted portion or neck of the opening of the coupling-plate, engage the back of the stud, as clearly illustrated in Fig. 7 of the accompanying drawings, whereby the coupling-plate is prevented from jumping forward. The front end of the coupling-plate is rounded and bears against the front wall of the recess, as clearly illustrated in Fig. 2 of the accompanying drawings.

The coupling-plate is capable of a vertical oscillatory movement to accommodate itself to horse motion, and it is securely held by the socket and the headed stud against any lateral movement which might interfere with a straight draft. In order to limit the vertical

oscillatory movement, a block 14 is provided, and this block, which is mounted on the rear portion of the hame-plate at the back of the headed stud, as clearly illustrated in Fig. 1 of the accompanying drawings, is arranged between the sides of the coupling-plate and forms a stop for the latter. The block is provided with a shank 15, arranged in a perforation of the hame-plate and preferably secured to the same by riveting, but any other suitable means may be employed to effect this result.

It will be seen that the hame-tug coupling is simple and comparatively inexpensive in construction, that it possesses great strength and durability, and that the coupling-plate, which is held against lateral movement, is capable of a limited vertical oscillatory motion to accommodate itself to the horse motion. It will also be seen that the block, which is arranged centrally of the hame-plate in rear of the headed stud, is adapted to be engaged by the upper and lower sides of the coupling-plate and that it forms an efficient stop for limiting the vertical oscillatory movement.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. A device of the class described comprising a hame-plate provided at its front portion with a recess and having a stud at its rear portion, a coupling-plate fulcrumed between its ends on the stud and having its front end arranged in the said recess, and a block mounted on the rear portion of the hame-plate and limiting the oscillatory movement

of the coupling-plate, substantially as described.

2. A device of the class described comprising a hame-plate provided with a headed stud, a coupling-plate having its front end engaged with the hame-plate and provided with an opening to receive the stud and interlocked therewith, and a stop mounted on the hame-plate in rear of the stud and located within the opening of the coupling-plate, whereby the oscillation of the same is limited, substantially as described.

3. A device of the class described comprising a hame-plate having a headed stud cut away at its back, a coupling-plate having an opening with a reduced rounded front portion receiving the shank of the stud and providing shoulders for engaging the back of the same, whereby the plate is prevented from jumping forward, and a stop located in rear of the stud and arranged between the sides of the coupling-plate and limiting the oscillation thereof, substantially as described.

4. A device of the class described comprising a hame-plate provided at its front with a recess, a headed stud cut away at the back arranged at the back of the hame-plate, a coupling-plate having an opening with a reduced front portion to receive the headed stud and having its front end arranged in the said recess, and a block having a shank secured to the hame-plate at the back of the stud, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL H. SWEARINGEN.

Witnesses:

A. M. BARTOW,
C. H. WHITE.