March 20, 1928. 1,663,105

J. M. WALSH

HARNESS CONSTRUCTION

Filed May 11, 1925

Fig 1

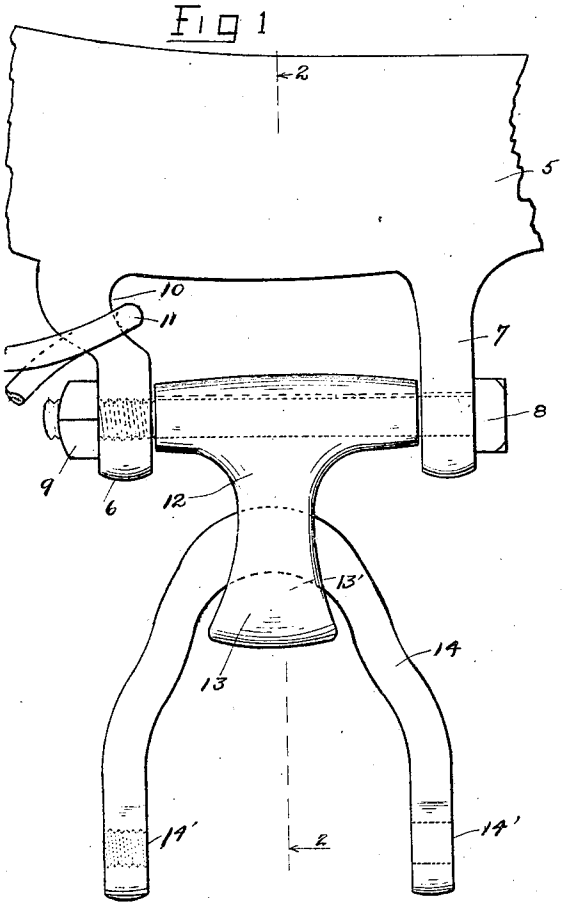
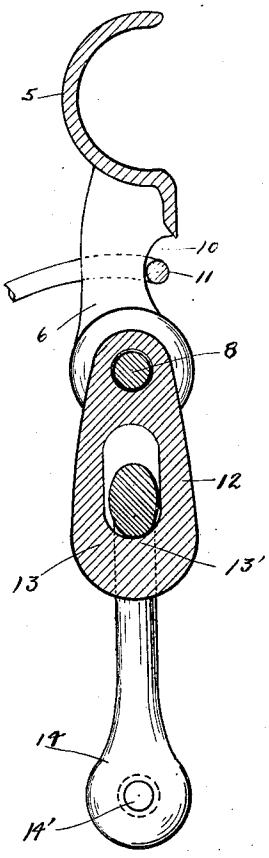


Fig 2



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UNITED STATES PATENT OFFICE.

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HARNESS CONSTRUCTION.

Application filed May 11, 1925. Serial No. 29,528.

This invention relates to improvements in harness construction and more particularly to the trace clip and hame connection.

In the ordinary construction of hames the metal device that connects the breast strap and the hame cannot be removed from the hame post so that if the device breaks or wears out the whole hame is made useless. Also many ordinary hame clips are formed of stamped steel and all portions thereof are of the same thickness and therefore parts subjected to considerable wear cannot be reinforced and wear out quickly.

Furthermore, in the ordinary construction the bolts stand out straight from the hame making it necessary to use a flared ferrule to keep the breast strap casting connected to the hame from rubbing against the trace connector or the collar.

It is one of the objects of the present invention to overcome the before mentioned objectionable features and provide a harness construction in which the trace clip for hame connection is formed integral with the hame member and in which provision is made for reinforcing portions thereof.

A further object of the invention is to provide a harness construction in which the lower post of the hame is shaped to eliminate the use of a ferrule or other metal device to keep the link from wearing on the trace connector or the collar.

A further object of the invention is to provide a harness construction having removable parts to which the breast strap and trace are connected, thus permitting replacement in the event of breakage.

A further object of the invention is to provide a harness connection in which the parts form a universal joint connection between the trace and the hame.

A further object of the invention is to provide a harness construction which is of simple construction, is strong and durable and is well adapted for the purpose described.

With the above and other objects in view, the invention relates to the improved harness connection and its parts and combinations as set forth in the claims, and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views:

Fig. 1 is a side view of a portion of a hame provided with the improved construction; and

Fig. 2 is a transverse sectional view thereof taken on line 2—2 of Fig. 1.

Referring to the drawing the numeral 5 indicates a portion of a hame shown on its side which is preferably formed of cast steel and provided with two laterally projecting eyed arms 6 and 7 which extend outwardly at right angles to receive a hame bolt 8. Said bolt extends loosely through the eye of the upper arm 7 and has a threaded engagement with the eye of the lower arm 6 and is provided with a lock nut 9 at its lower end. The lower arm 6 adjacent the side portion of the hame is curved outwardly and downwardly to form a link recess 10 to receive the upper link 11 forming part of the breast strap of the harness. The said link extends around the arm 6 and is held out of engagement with the hame member by the recess 10 so that it will not rub and wear against the side portion of the hame or the collar when in use. A T-shaped connector member 12 is journaled on the bolt 8 between the two arms 6 and 7 and is formed with an outwardly projecting eyed stem portion 13 to receive the U-shaped trace yoke 14 extending through the eye thereof. The eyed portion 13 in the direction of strain is reinforced or made thicker as indicated by the numeral 13′ and the corresponding bearing part 14′ of the trace yoke 14 is also made thicker at its point of contact with the thickened part 13′ of the connector member 12 to prolong the life of said parts. The end portions of the trace yoke 14 are provided with bolt holes 14′ to permit fastening a trace thereto.

From the foregoing description it will be seen that the harness construction provides a very simple means for attaching the parts together in a manner to eliminate or minimize wear on the parts.

What I claim as my invention is:

1. A harness construction, comprising a hame member having spaced projecting arms, one of said arms having a recessed portion spaced from the hame, a breast strap link engaging the recessed portion of the recessed arm, a T-shaped connector member extending between and swingingly connected to the arms and having a projecting stem with an eyed portion, and a trace member loosely extending through the projecting

eyed stem portion of the connector member and freely movable therein in two directions.

2. A harness construction, comprising a hame member having spaced projecting eyed arms, one of said arms having a recessed portion spaced from the hame, a breast strap link engaging the recessed portion of the recessed arm, an eyed T-shaped connector member extending between the arms and having a projecting stem with an eyed portion, a member extending through the eyed arms and the eye of the connector member to swingingly connect the connector member to the hame member, and a trace member extending loosely through the projecting eyed stem portion of the connector member and freely movable therein in two directions.

3. A harness construction, comprising a hame member having integral spaced projecting eyed arms, one of said arms having a recessed portion spaced from the hame, a breast strap link engaging the recessed portion of the recessed arm, a bolt extending through the eyed arms, a T-shaped connector member extending between the arms and journaled on the bolt and having a projecting stem with an eyed portion, and an eyed trace member extending loosely through the projecting eyed stem portion of the connector member and freely movable therein in two directions.

4. A harness construction, comprising a hame member having integral spaced projecting eyed arms, one of said arms having a recessed portion spaced from the hame, a breast strap link engaging the recessed portion of the recessed arm, a bolt extending through said arms, an eyed T-shaped connector member journaled on the bolt between the arms to swing laterally with respect to the hame and having a projecting stem portion provided with an eye in parallel alinement with the bolt, and a trace member extending loosely through the eyed stem portion of the connector member and movable in a line parallel to the movement of the connector member and also at right angles thereto.

5. A harness construction, comprising a hame member having spaced projecting eyed arms, one of said arms having a recessed portion spaced from the hame, a breast strap link engaging the recessed portion of the recessed arm, a bolt extending through said arms, a T-shaped connector member journaled on the bolt between the arms to swing laterally with respect to the hame and having a projecting stem portion provided with an eye in parallel alinement with the bolt, and a trace member extending loosely through the eyed stem portion of the connector member and movable in a line parallel to the movement of the connector member and also at right angles thereto, said connector and trace members being of increased thickness at their points of engagement.

6. A hame clip comprising a body portion having an aperture therethrough for the reception of a pintle pin, said body portion having an elongated aperture therethrough provided with a rear curved wall concaved in cross section, and a trace receiving member having a curved part passing through said elongated aperture and contoured both longitudinally and transversely to fit the curved rear wall of said aperture, the center of the curved trace receiving member being located rearwardly of the body portion, whereby such member may be rocked laterally of said body portion.

7. A hame clip comprising a body portion having an aperture therethrough for the reception of a pintle pin, said body portion having a solid rear portion provided with an elongated aperture therethrough having a rear curved wall concaved in cross section, and a trace receiving member having a curved part passing through said elongated aperture and contoured both longitudinally and transversely to fit the curved rear wall of said aperture, said member having both vertical and lateral pivotal motion with reference to said body portion while maintaining an extensive bearing contact with said body portion.

In testimony whereof, I affix my signature.

JAMES M. WALSH.