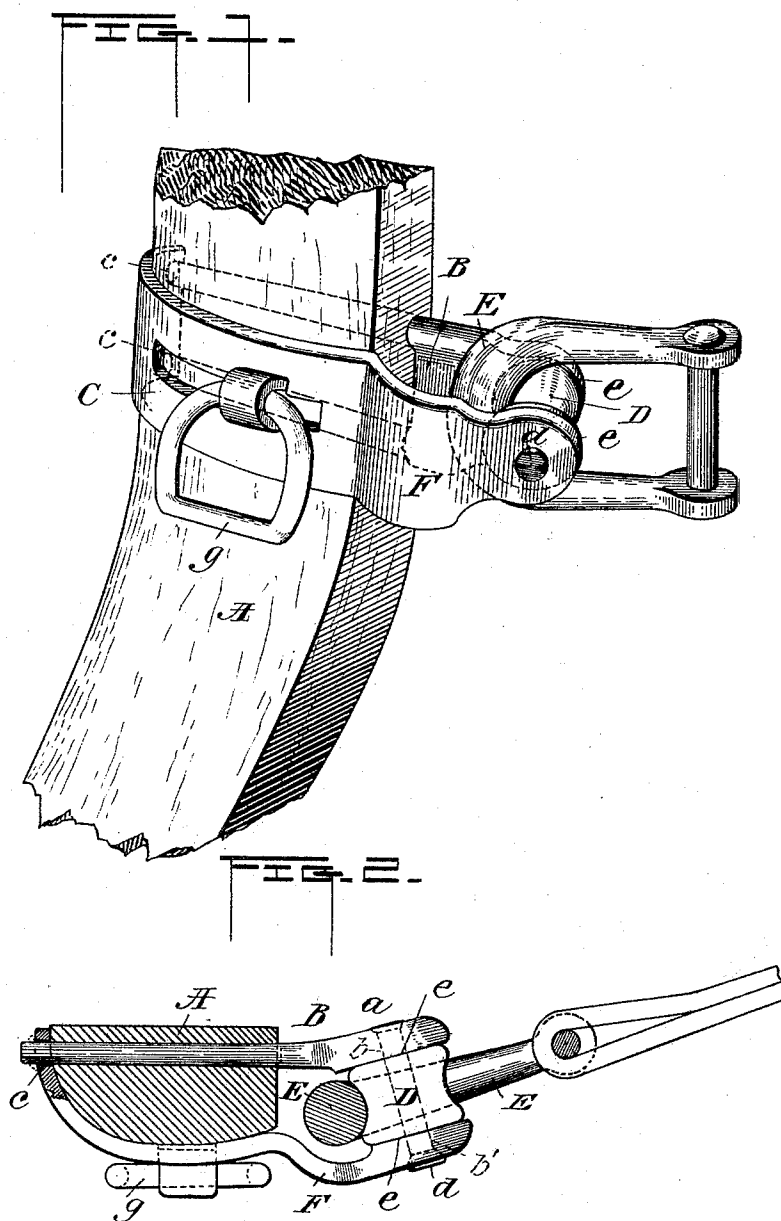


(No Model.)

W. B. NICHOLS.
HAME AND TRACE CONNECTOR.

No. 495,560.

Patented Apr. 18, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

WALKER B. NICHOLS, OF BLACK RIVER FALLS, WISCONSIN.

HAME AND TRACE CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 495,560, dated April 18, 1893.

Application filed August 10, 1892. Serial No. 442,661. (No model.)

To all whom it may concern:

Be it known that I, WALKER B. NICHOLS, a citizen of the United States, residing at Black River Falls, in the county of Jackson and State of Wisconsin, have invented certain new and useful Improvements in Hame and Trace Connectors, of which the following is a description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention is an improved connection between the hames and traces of harness. Heretofore in devices for this purpose there have been objectionable features, these features consisting principally in a too great rigidity of the connection so that under increased strain the parts are liable to break. To overcome this objection it has been proposed to insert an additional piece or pieces forming a brace to increase the strength of the parts. This, however, has served to increase the weight of the connector and of course add to the cost.

The object of the present invention is to provide a connector for hames and traces which overcomes the above disadvantages and which is simple in construction, and therefore inexpensive to manufacture, but durable and very effective in operation.

The invention consists in the matters hereinafter described and referred to in the appended claims.

In the accompanying drawings Figure 1 is a side elevation of my invention; and Fig. 2, a sectional plan of the same.

In the drawings, A represents the hame proper which consists of the usual shaped wooden body constructed in a well known manner and provided with the necessary reinforcing ring, staples, &c.

B represents a staple preferably curved as shown in Fig. 2 adapted to pass through holes formed in the hame. This staple has a thickened end *a* provided with an opening *b* and is flattened on one side to afford a suitable bearing surface as hereinafter referred to.

C is a plate curved as shown in the drawings to conform to the surface of the hame. This plate is provided with holes *c*, *c*, which, when in position, register with the holes formed in the hame and when the staple and arched plate are placed in position the prongs

of the staple pass through the holes in the hame and plate, and upon said prongs being upset, the plate and staple are firmly held together, the plate acting as a washer for the staple. At its opposite end the plate C is provided with an opening *b'* corresponding to that in the thickened end of the staple. Through these openings a rivet *d* is passed which serves to unite the staple and plate on the inner side of the hame. Upon this rivet is placed a thick concaved washer D upon which is pivoted the D-bearing E to which the trace is connected. The thickened end of the arched plate is preferably flattened as shown at *e* to correspond with the flattened portion of the staple, and against these flat surfaces the ends of the concaved washer bear, thereby reducing the friction. The plate C is arched as shown at F to allow for side movement of the part E to which the trace is attached. The breast ring *g* is attached to an eye which is secured within a slot formed in the arched plate, said slot having an enlarged opening through which the eye passes, the lower end of said eye being clinched against the under side of the slot.

In operation the prongs of the staple are passed through the holes in the hame, the arched plate is placed over said prongs and the ends thereof secured in position. The rivet with the concaved washer thereon is then passed through the holes in the thickened ends of the staple and plate and upon being upset the device is in condition for use upon the insertion of the D-ring for the trace, the breast ring eye having, of course, been inserted prior to the riveting together of the ends of the staple and plate.

By this construction it will be seen that a very strong and durable hame and trace connector results, the parts being secured together in such a manner that there is a sufficient amount of flexibility to the joints to prevent any undue strain upon the parts.

It will be readily understood that various minor changes may be made in the construction of my connector without departing from the spirit of my invention.

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

1. A hame and trace connector comprising

a suitable staple, an arched plate embracing the hame, said plate being connected at one end to the staple, and an additional member connecting the opposite end of the plate with the staple, said connection affording a bearing for the trace.

2. A hame and trace connector comprising a staple having prongs passing through the hame, an arched plate having openings at one end fitting over said prongs, a rivet passing through the opposite ends of said staple and plate, a concaved washer on said rivet to which the trace is connected; substantially as described.

3. A hame and trace connector comprising a staple passing through the hame, an arched plate having openings fitting over the prongs of said staple, said plate and staple having their inner ends thickened and provided with

openings, a rivet passing through said openings, a concaved washer on said rivet, a D-ring attached to the washer, and a suitable breast ring attached to the arched plate; substantially as described.

4. A hame and trace connector comprising a suitable staple a connection for the trace an arched plate embracing the hame and connected at both ends with said staple, said arched plate having a longitudinal slot and a breast ring eye passing through said slot and clinched upon the under side thereof, substantially as described.

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

WALKER B. NICHOLS.

Witnesses:

B. J. CASTLE,
P. B. CASTLE.