

(No Model.)

W. B. NICHOLS.  
HAME AND TRACE CONNECTOR.

No. 471,188.

Patented Mar. 22, 1892.

Fig. 1.

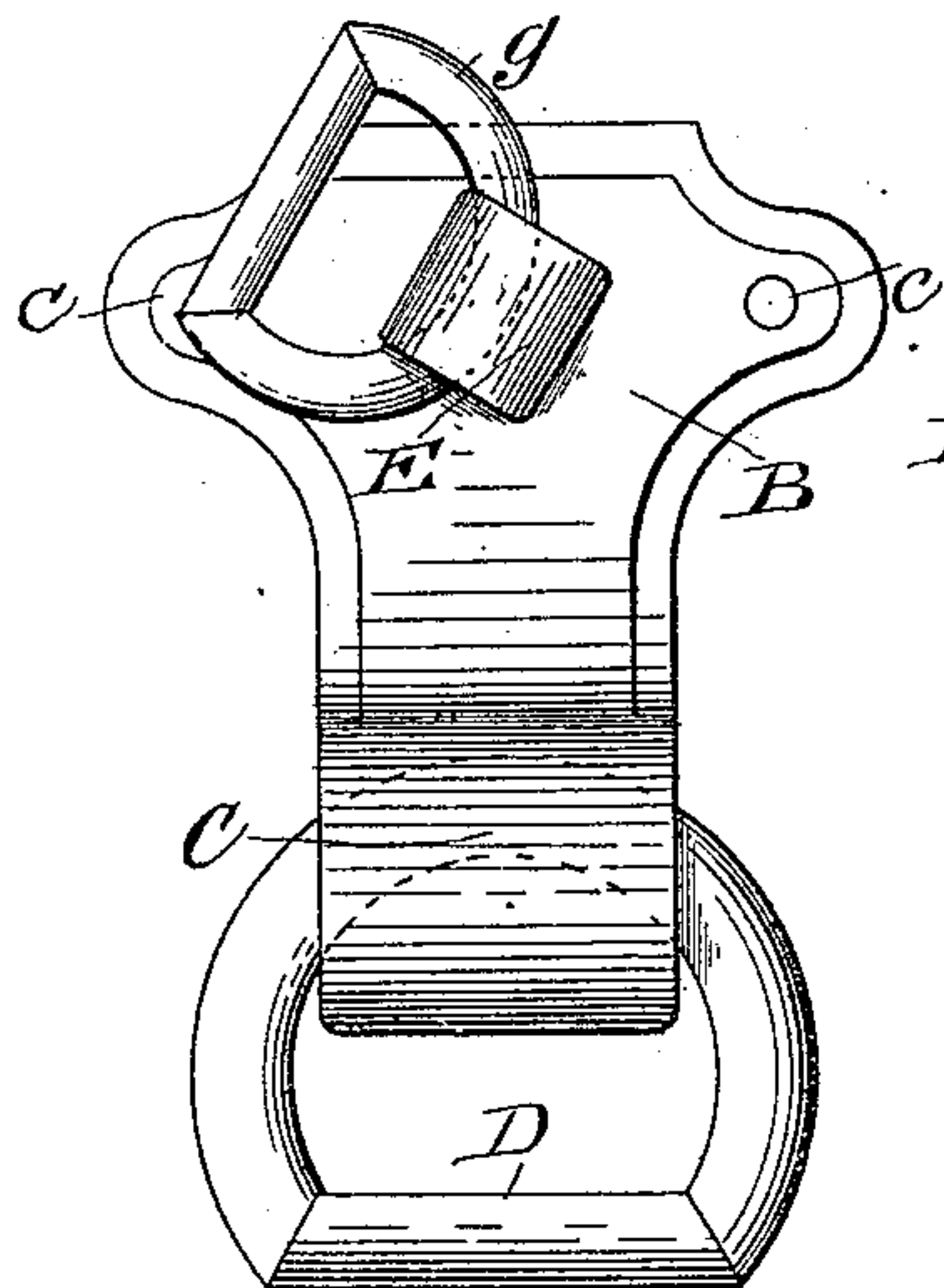


Fig. 2.

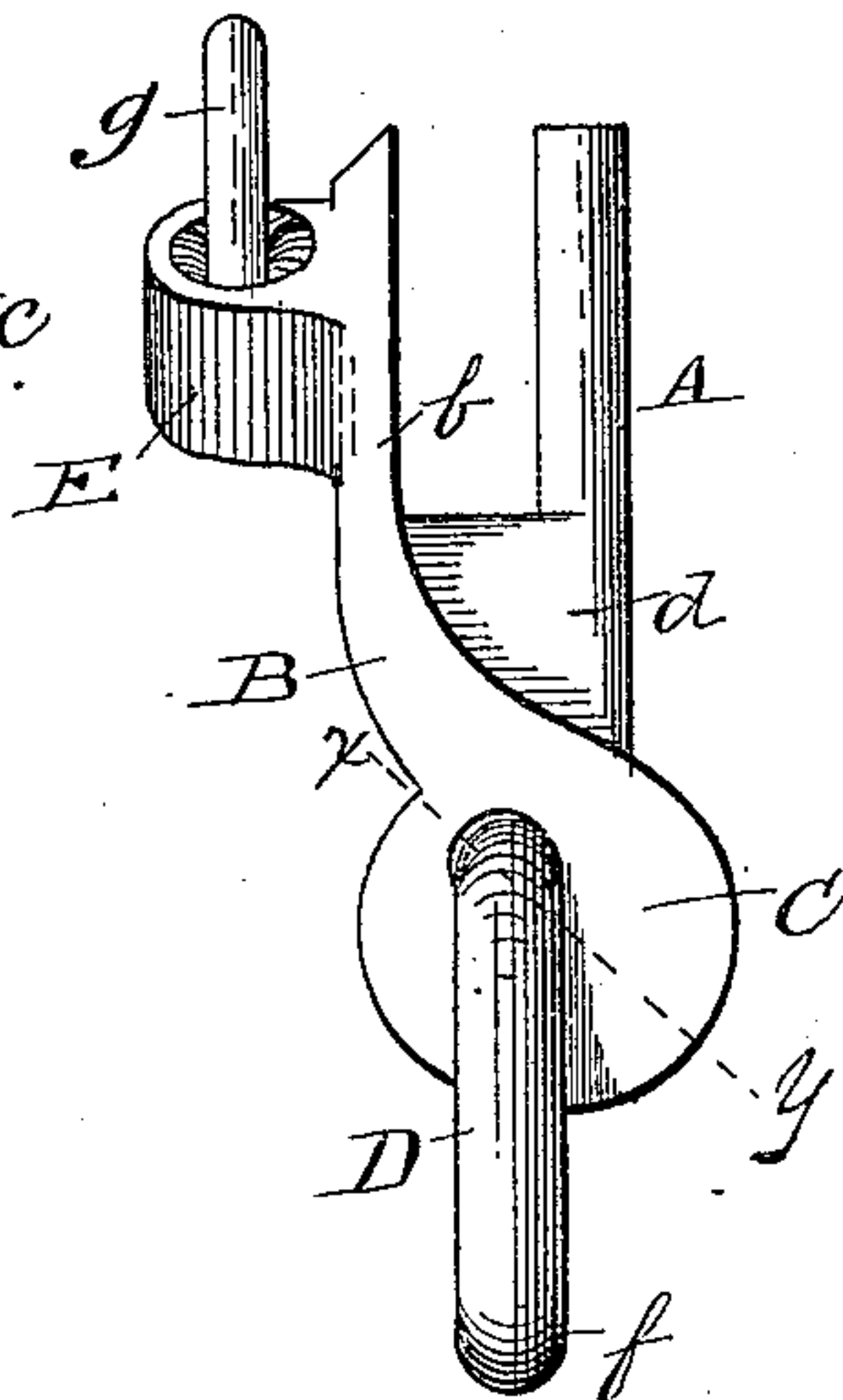


Fig. 3.

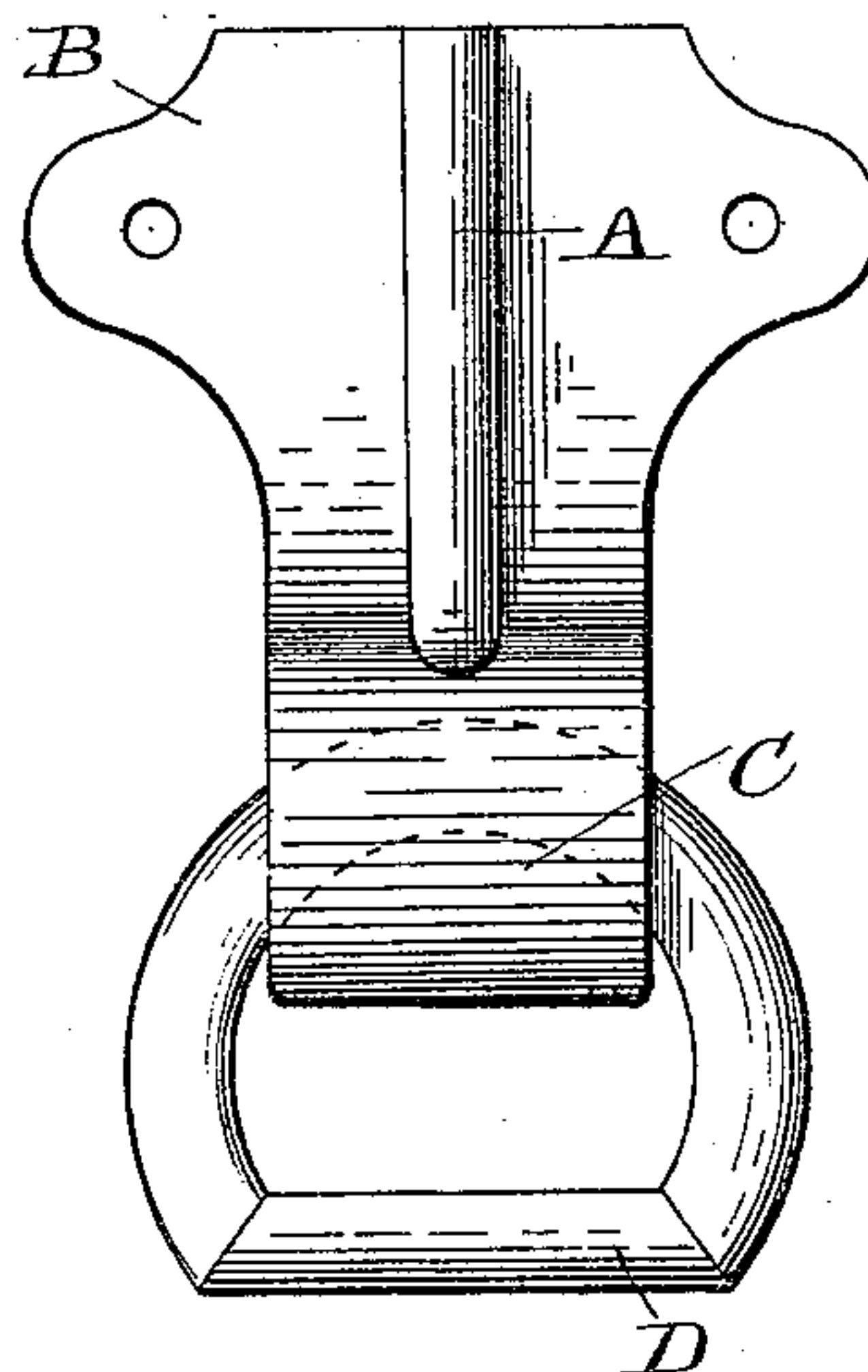


Fig. 4.

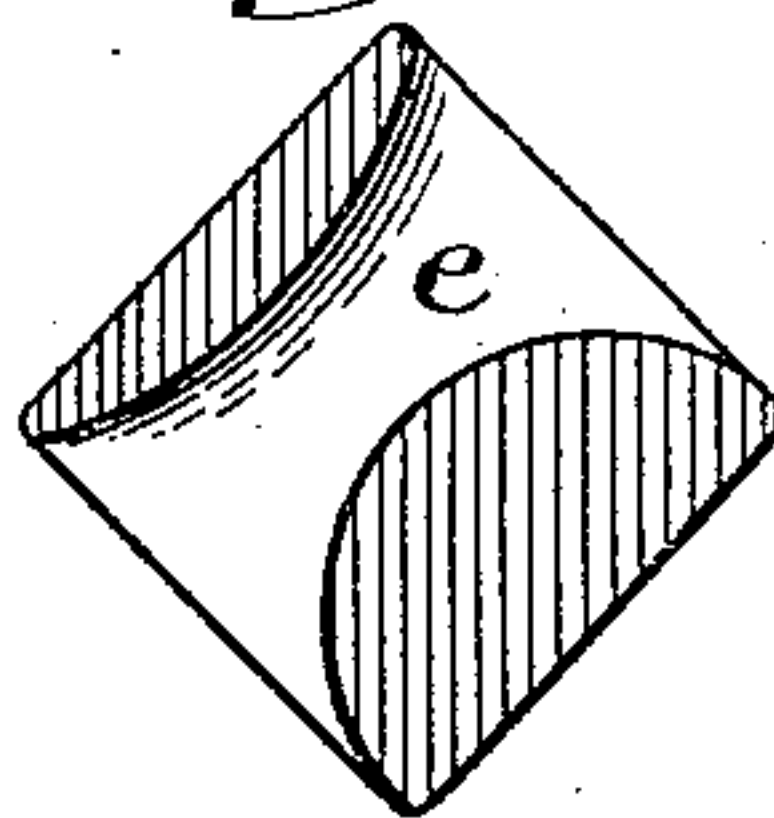
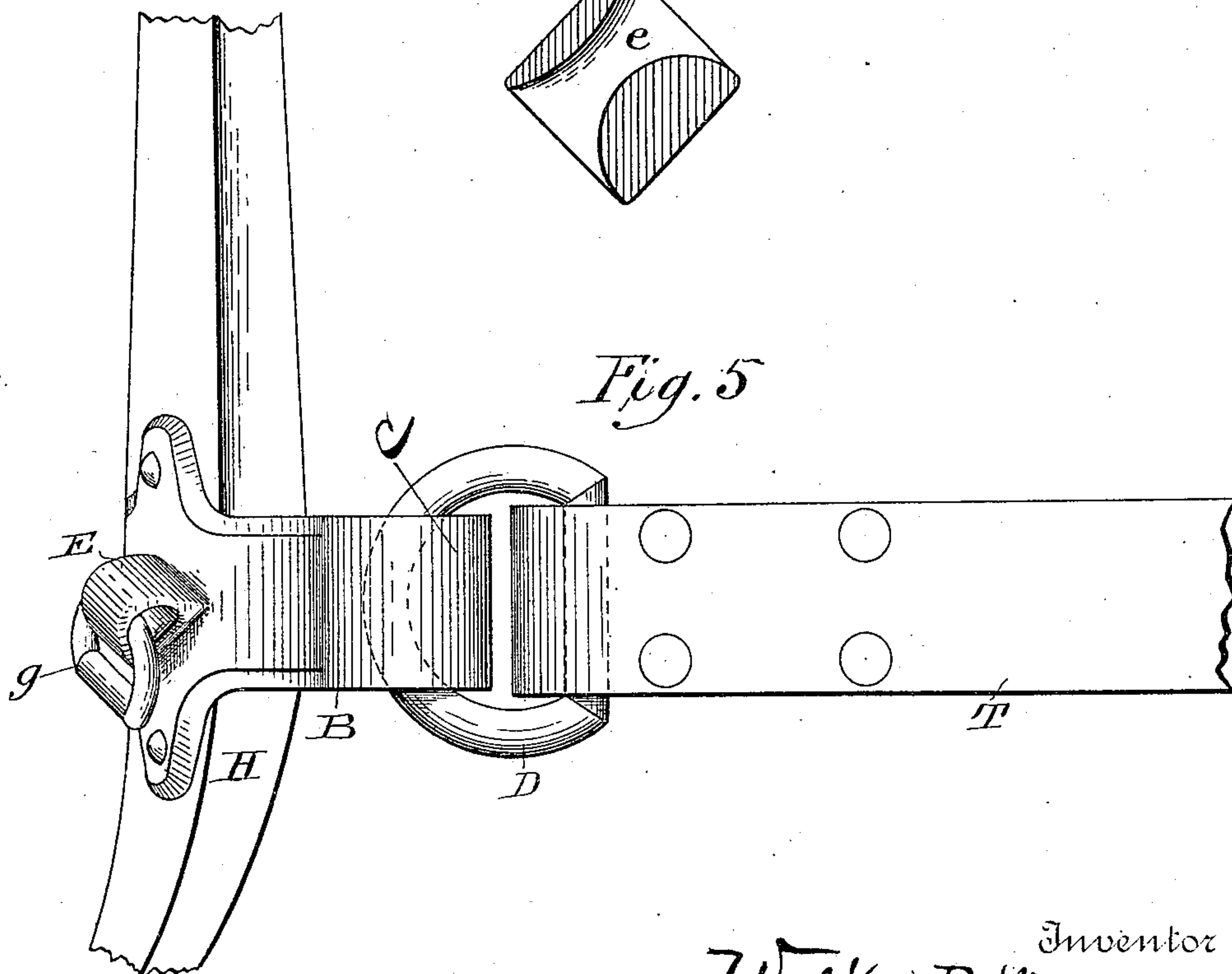


Fig. 5.



Witnesses

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Inventor

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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. 471,188, dated March 22, 1892.

Application filed April 17, 1891. Serial No. 389,389. (No model.)

*To all whom it may concern:*

Be it known that I, WALKER B. NICHOLS, a citizen of the United States of America, 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 specification, reference being had therein to the accompanying drawings.

My invention relates to harnesses, and more especially to an improved harness attachment designed for connecting the trace to the hame. Heretofore many devices for this purpose have been proposed; but all are more or less defective by reason of the number of their parts, their tendency to soon wear out, and their failure to work effectively in practice. Furthermore, with the devices heretofore used a flexibility of the whole harness has been difficult to obtain.

The object, therefore, of my invention is to provide a device for connecting the hames and traces which shall be simple in construction, comparatively inexpensive to manufacture, and more durable than those heretofore used, which shall avoid the rigidity of the ordinary harness, so that in handling the trace may be relieved of the strain caused by its own weight, and which shall enable me to dispense with the ordinary thickening of the trace at and just below the hame and trace connection.

My invention therefore consists, first, in a connection between the trace and hame, comprising a metallic piece or plate secured at one end to the outside of the hame and having a stud or pin passing into or through the hame and a suitable connection at the other end of said plate, to which the trace is secured.

The invention further consists in a metallic piece or plate forming a connection between the trace and hame, secured at one end to the outside of the hame and having a stud or pin passing into or through the hame, the trace being suitably secured to the opposite end of said plate, and a lug or piece secured upon the outside of the plate, provided with suitable means for attaching the neck-yoke strap.

The invention consists, further, in a metallic plate or piece for connecting the hames and traces of harnesses, having a flattened end secured to the hame, a projecting stud parallel

with the flattened end and passing through the same, the opposite end of said piece or plate being rounded and having an opening 55 through it for the reception of a D-ring or other swinging connection, to which the trace is secured, said plate or piece having formed upon the exterior surface of its flattened end a lug or projection, to which is pivoted a D- 60 ring or connection for the neck-yoke strap.

The invention consists, finally, in certain details of construction hereinafter described, and referred to in the appended claim. My invention is illustrated in the accompanying 65 drawings, in which—

Figure 1 is a front view of my improved connection. Fig. 2 is a side view, and Fig. 3 a rear view, of the same. Fig. 4 is a section on line *xy* of Fig. 2. Fig. 5 is a view showing 70 the position of my improved connecting device when in use.

In the drawings, B represents a plate or casting of metal, having a rounded thick portion at one end, (marked C,) the part *b*, extending from said rounded portion a considerable 75 extent, being flattened and provided near its end upon either side of its exterior surface with rivet-holes *cc*, through which are adapted to pass screws or rivets for securing the flattened portion of the piece B to the hame H. 80 The metallic piece B is formed with a shoulder or projection *d* upon the underside, and from one end of this projects a shank A, substantially parallel with the flattened portion B 85 and preferably beneath the longitudinal medial line thereof. This shank A is adapted either to be driven into the hame or to be inserted through an opening formed therein and secured by a nut upon the opposite side 90 or by riveting. The enlargement or rounded part C is hollowed out from the edges inward in the manner shown in Fig. 4, the opening *e* being curved and shaped so that its sides form a true bearing-surface for a D-ring *f*, to which 95 the trace T is attached. This opening is wider at the two ends than in the middle, thus giving a large bearing-surface and allowing the ring *f* to play freely and accommodate itself to the various positions of the trace in handling the harness, thus permitting the traces 100 to hang down, thereby avoiding the strain caused by a rigid connection. Owing to the shape of the opening, it will be seen that the



enlargement C is thickened in the direction of the pull on the traces, making a very strong and durable construction.

5 As a further and special improvement in devices of this character I form upon the piece or casting B near the extremity of its flattened portion *b* a lug or projection E, having an opening through it similar in shape to the opening *e* for the reception of a D-ring *g*, to  
10 which the neck-yoke strap is adapted to be connected. It will be understood that the lug or projection E is preferably set diagonally on the plate B, this being more convenient for the adaptation of the neck-yoke strap.

15 I am aware that devices for the same purpose as this form of connection have been heretofore known and used; but never, so far as familiar to me, has such a connection been made in the same manner as mine or of the  
20 same features of construction, my invention residing not only in the form of the device, but in the fact, also, that the various parts are all made or cast at the same time and in one piece.

25 Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

A connection for hames and traces, comprising a metallic piece or casting B, having an enlarged rounded portion C, provided with a  
30 curved opening to afford a bearing-surface for a D-ring *f*, to which the trace is attached, said portion C being thickest upon that side of the opening from which the strain comes, a flattened portion *b*, secured to the exterior  
35 of the hame and having an integral lug E, provided with a D-ring, to which the neck-yoke strap is secured, and a shank A, projecting from the piece or casting parallel with the flattened portion *b* and passing through  
40 and secured to the hame, the parts *b*, C, E, and A all being formed in one piece, substantially as described.

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

WALKER B. NICHOLS.

Witnesses:

P. B. CASTLE,

B. J. CASTLE.