

(No Model.)

H. M. HANSON.

POLE COUPLING.

No. 413,056.

Patented Oct. 15, 1889.

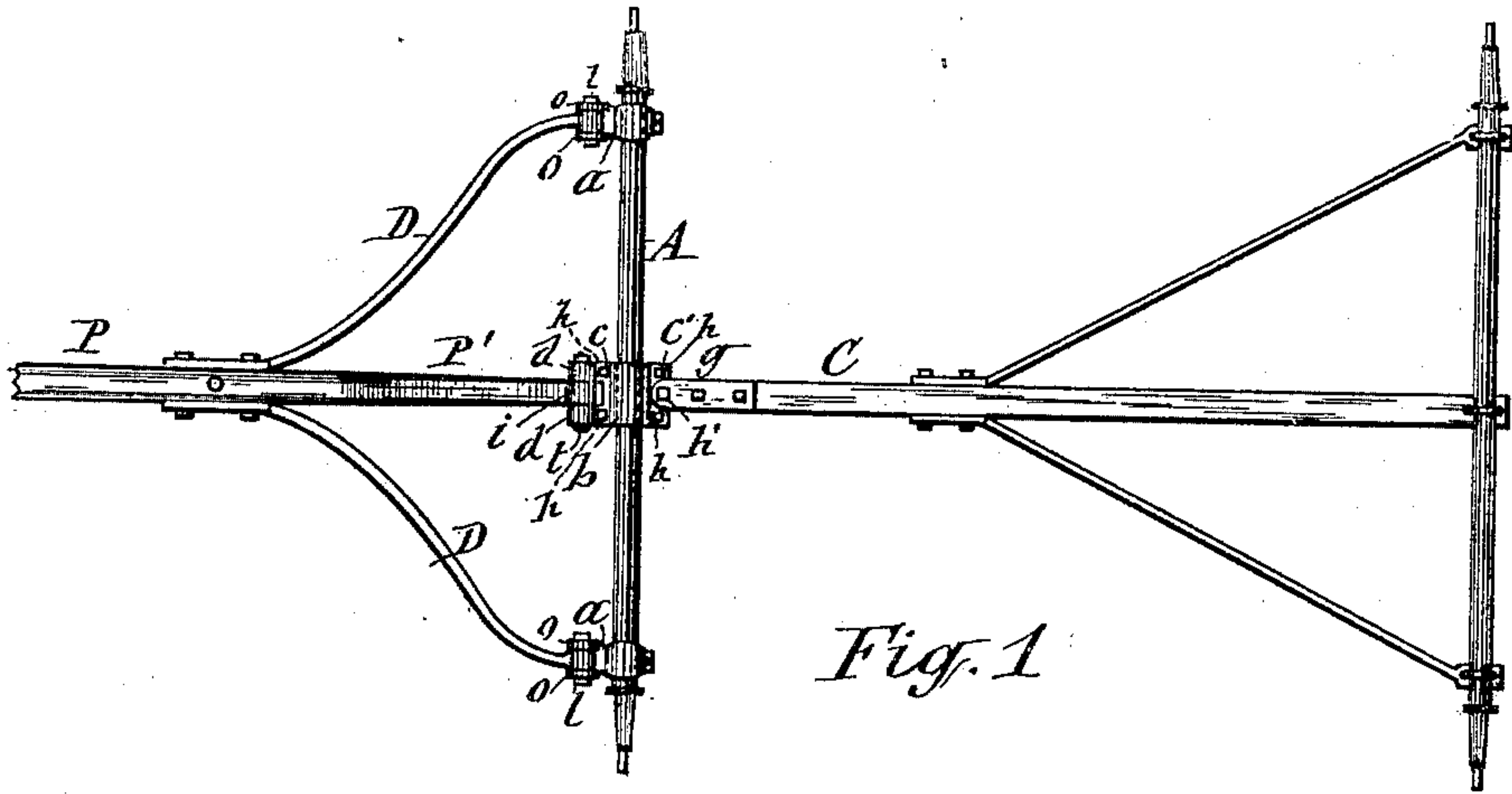


Fig. 1

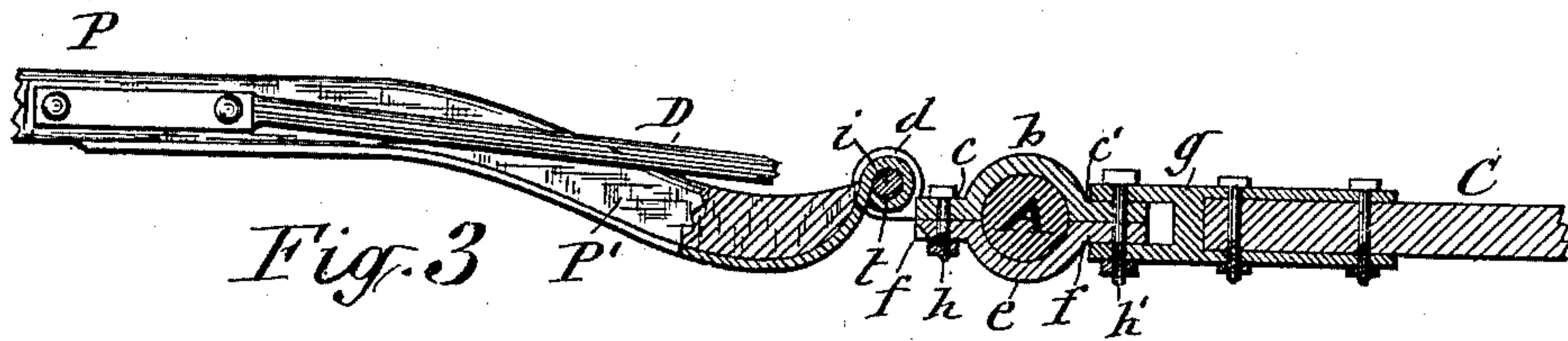


Fig. 3

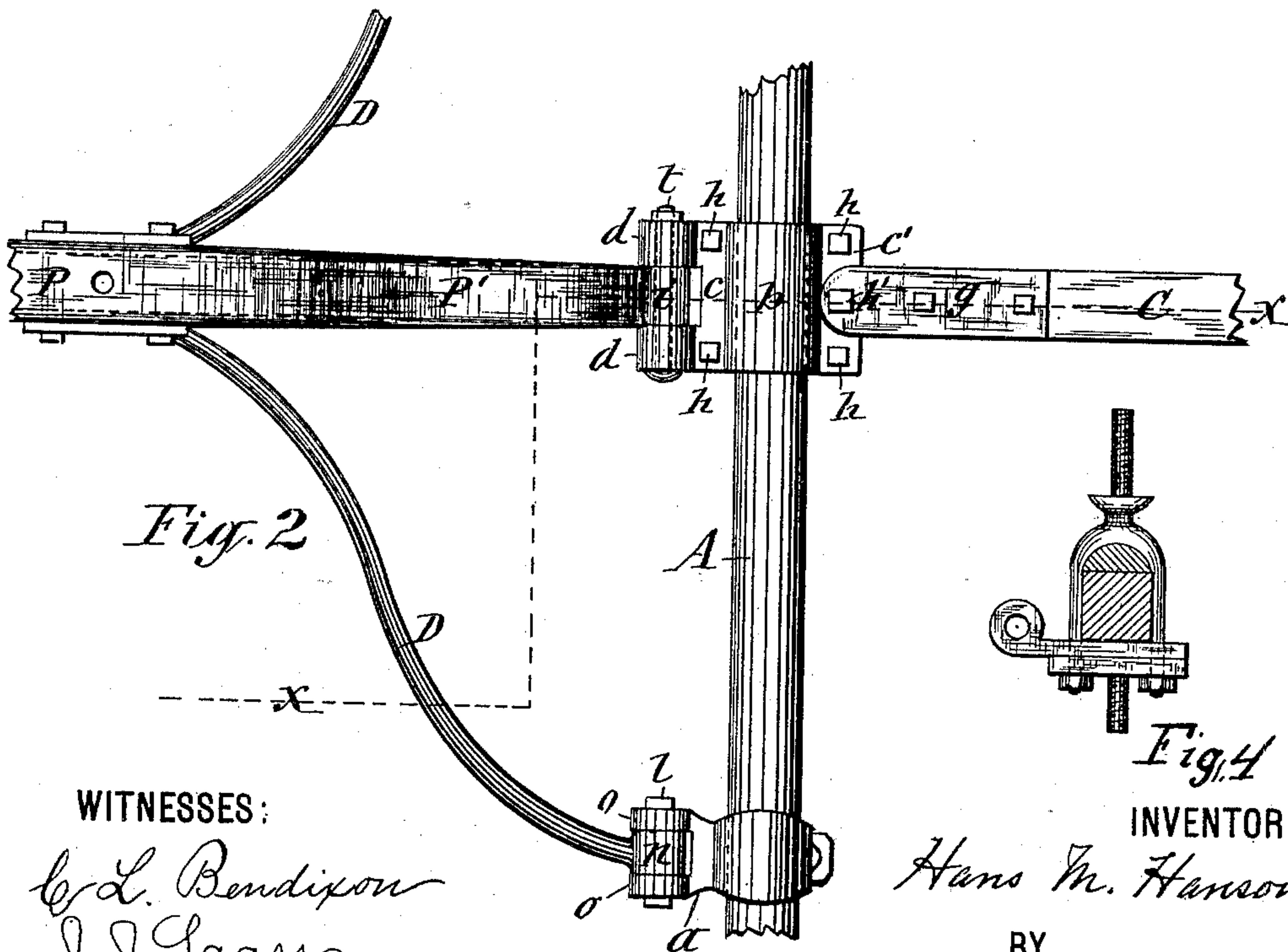


Fig. 2

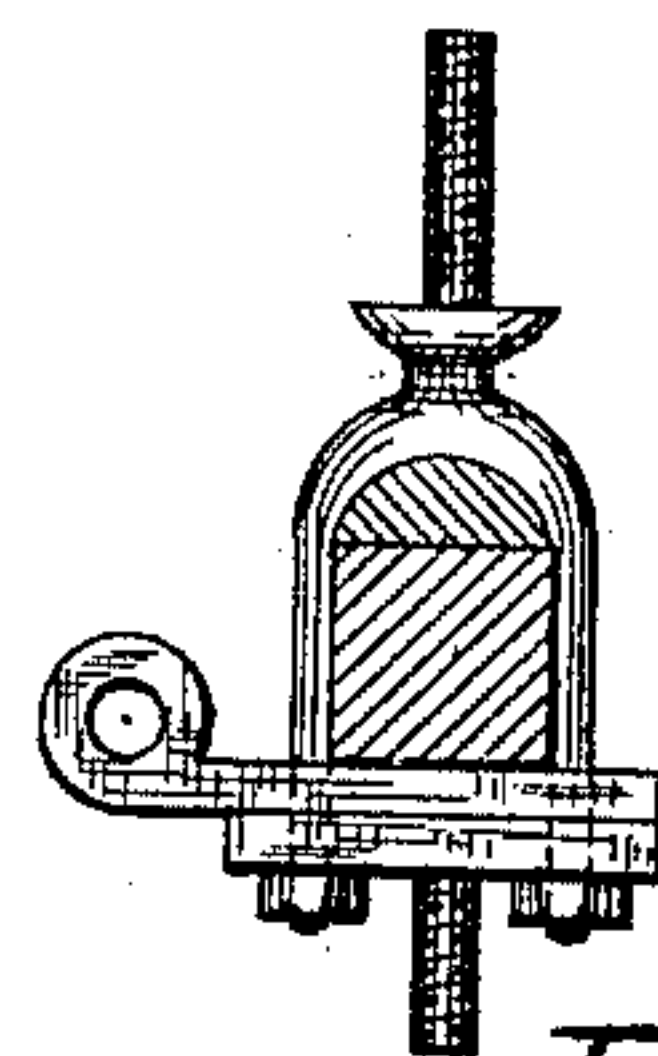


Fig. 4

WITNESSES:

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# UNITED STATES PATENT OFFICE.

HANS M. HANSON, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-HALF TO  
JOHN H. KENNEDY, OF SAME PLACE.

## POLE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 413,056, dated October 15, 1889.

Application filed January 7, 1889. Serial No. 295,598. (No model.)

*To all whom it may concern:*

Be it known that I, HANS M. HANSON, of St. Paul, in the county of Ramsey, in the State of Minnesota, have invented new and useful  
5 Improvements in Pole-Couplings of Vehicles, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention consists in an improved construction of the connection of the pole to the  
10 central portion of the axle and to the reach, as hereinafter fully described, and specifically set forth in the claims.

In the annexed drawings, Figure 1 is a plan  
15 view of a vehicle running-gear embodying my improvements. Fig. 2 is an enlarged plan view of the couplings of the pole with the axle and reach. Fig. 3 is a vertical longitudinal section on line *xx*, Fig. 2; and Fig. 4 is a trans-  
20 verse section of an axle equipped with my improved pole-coupling formed with the king-bolt.

Similar letters of reference indicate corresponding parts.

25 A represents the forward axle, to the end portions of which are attached the couplings *a a*, consisting of clips fastened to the axle and provided with perforated ears *o o* for the attachment of the braces *D D* of the pole *P*,  
30 which braces are formed with eyes *n*, entering between the ears *o o*, and secured thereto by bolts *l*, passing through the same in the usual manner. To the central portion of the axle I attach a shackle consisting of perforated  
35 ears *d d*, formed either on a saddle or clip *b*, as shown in Figs. 1, 2, and 3 of the drawings, or on the clip-tie *e*, as shown in Fig. 4 of the drawings.

On coach-axles I secure the saddle *b* in its  
40 position on the axle by forming said saddle with forwardly and rearwardly extending flanges *c c'* and the clip-tie *e* with corresponding flanges *f f*, all of which flanges are perforated vertically for the reception of bolts *h h*,  
45 by which the clip and clip-tie are attached to each other and clamped onto the axle. When the said central shackle is to be applied to an ordinary carriage-axle or a square bed-axle, I form the clip *b* with the king-bolt *t*, and pref-

erably form the shackle-ears *d d* on the clip-tie *e*, as shown in Fig. 4 of the drawings.

The pole *P* is formed with a rearward extension *P'*, terminating with a shackle *i*, which enters between the ears *d d* and is coupled thereto by a bolt *t*, passing through said ears  
55 and intervening shackle-eye.

When the shackle is fastened to the axle by a clip of the form shown in Figs. 1, 2, and 3 of the drawings, I attach to the front end of the reach *C* a coupling-iron *g*, which is bi-  
60 furcated horizontally and embraces the rearwardly-extending flanges *c'* and *f*, and is pivotally connected thereto by a bolt *h*, passing vertically through said parts, the draft being thus transmitted directly to the reach without  
65 exerting any strain on the axle. It will be observed that by the embracement of the aforesaid flanges by the bifurcated coupling-iron *g* the connection of the rear portions of the saddle *b* and clip-tie *e* and their hold upon the  
70 axle are rendered more secure.

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

1. In combination with the forward axle and pole-couplings *a a*, attached to the end portions of said axle, the saddle *b*, placed astride the central portion of the axle and formed with forwardly and rearwardly extending flanges *c* and *c'* and with perforated ears *d d*  
75 on the flange *c*, the clip-tie *e*, embracing the bottom portion of the axle and formed with flanges *f f*, tie-bolts *h h*, passing through the flanges of the saddle and clip-tie, the reach coupled to the rear flanges of the aforesaid  
85 parts, the pole *P*, formed with the extension *P'*, terminating with the shackle-eye *i* between the ears *d d*, and a coupling-bolt passing through said ears and intervening eye, substantially as described and shown.

2. In combination with the axle *A* and reach *C*, the saddle *b*, placed astride the central portion of said axle and formed with the forwardly and rearwardly extending flanges *c c'* and with the perforated ears *d d*, the  
95 clip-tie *e*, embracing the bottom portion of the axle and formed with flanges *f f*, tie-bolts *h h*, passing through the flanges of the saddle and

clip-tie, and the coupling-iron *g*, attached to the reach and having its forward end bifurcated and embracing the rearwardly-extending flanges of the aforesaid saddle and clip-tie and pivotally connected thereto, substantially as described and shown.

3. In combination with the forward axle and pole-couplings *a a*, attached to the end portions of said axle, and the pole *P*, formed with the extension *P'*, terminating with the shackle-eye *i*, the clip *b*, placed astride the central portion of the axle and having the king-bolt integral with it, the clip-tie *e*, formed

with the perforated ears *d d* for the reception of the shackle-eye *i*, and a coupling-bolt passing through said ears and intervening eye, substantially as described and shown.

In testimony whereof I have hereunto signed my name, in the presence of two witnesses, at St. Paul, in the county of Ramsey, in the State of Minnesota, this 27th day of November, 1888.

HANS M. HANSON. [L. s.]

Witnesses:

ROBERT W. HARRIS,

H. O. SPROAT.