

(No Model.)

J. R. DAVIS.
WHIFFLETREE HOOK.

No. 397,112.

Patented Feb. 5, 1889.

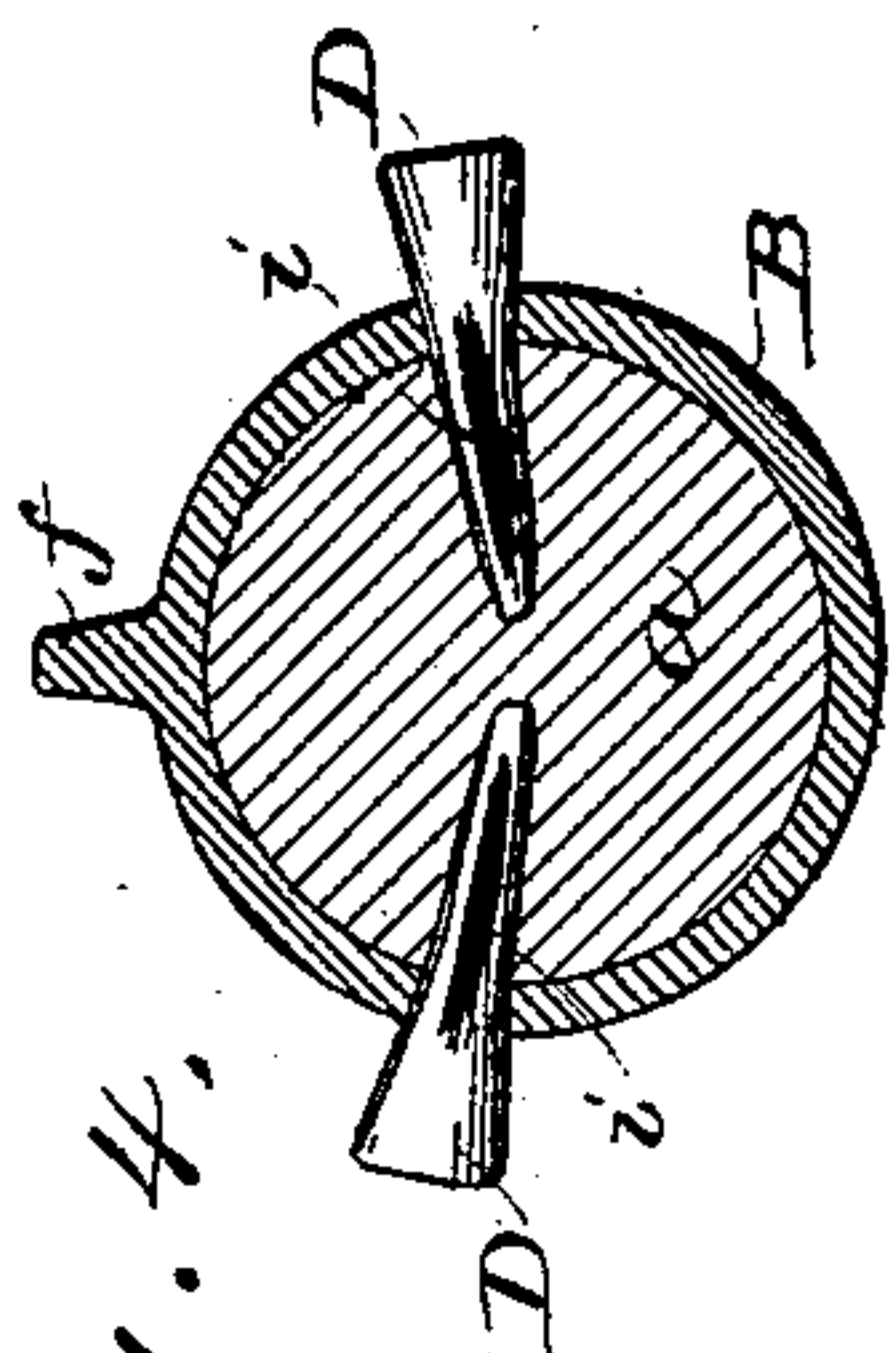


Fig. 4.

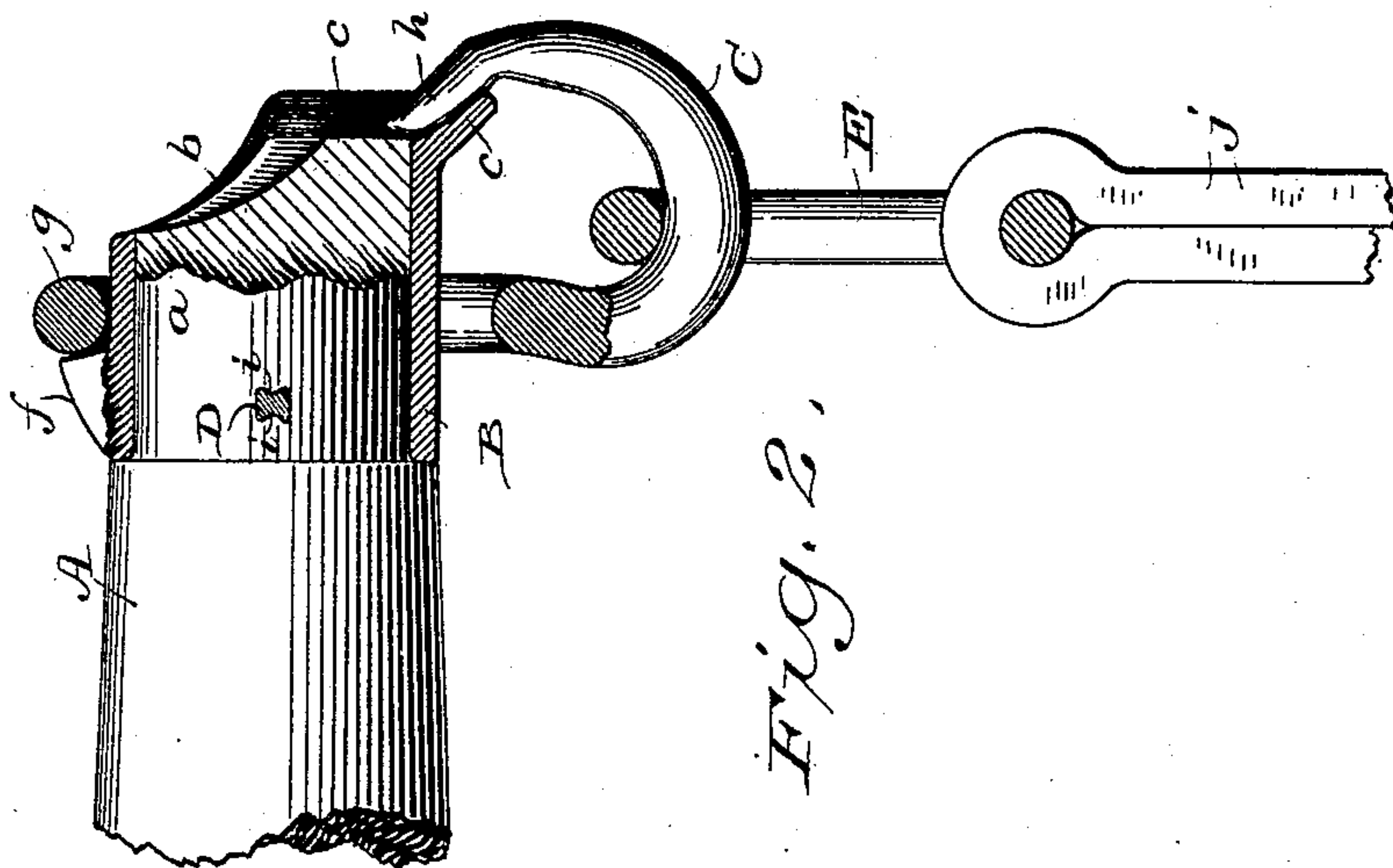


Fig. 2.

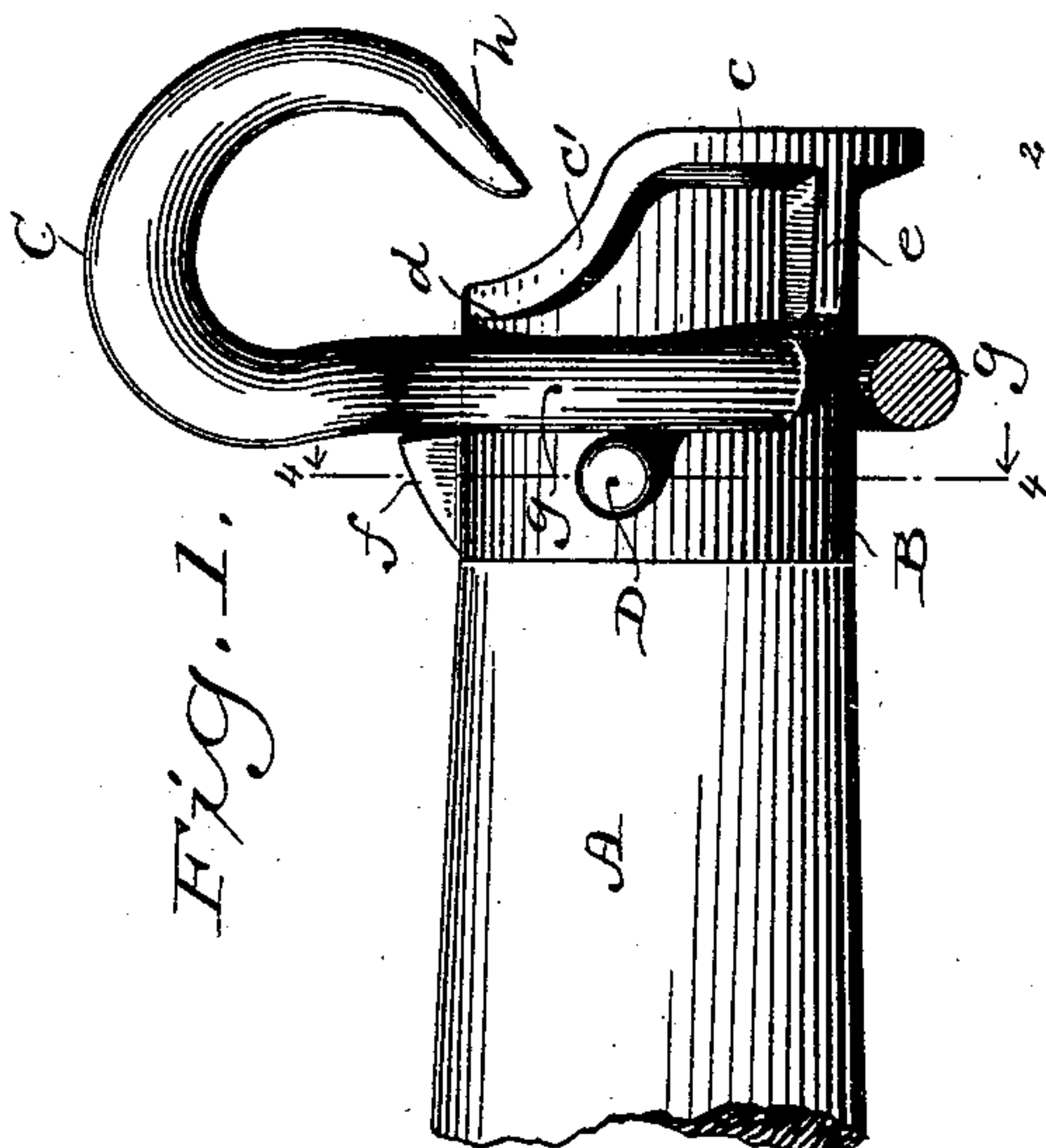


Fig. 1.

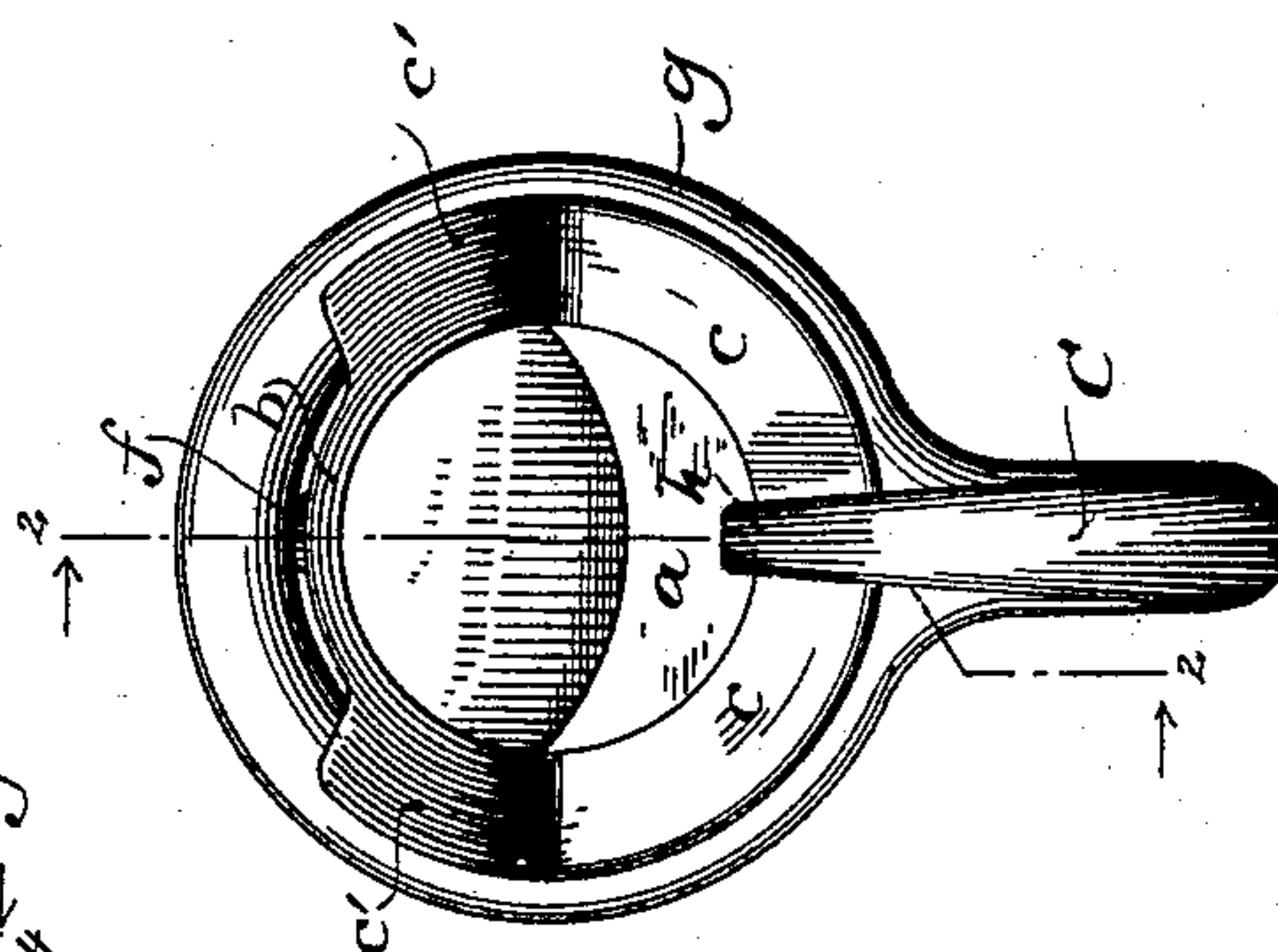


Fig. 3.

Witnesses.
Geo. W. Young,
N. E. Oliphant

Inventor,
John R. Davis
By Stout & Underwood
Attorneys

UNITED STATES PATENT OFFICE.

JOHN R. DAVIS, OF RACINE, WISCONSIN.

WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 397,112, dated February 5, 1889.

Application filed May 24, 1888. Serial No. 274,936. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. DAVIS, of Racine, in the county of Racine, and in the State of Wisconsin, have invented certain new and useful Improvements in Whiffletree-Hooks; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to whiffletree-hooks; and it consists in certain peculiarities of construction, as will be fully set forth hereinafter, and pointed out in the claims.

In the drawings, Figure 1 is a plan view of my improved device, partly broken away, showing the parts in an open position for the reception of the cockeye of a trace. Fig. 2 is a similar view, partly in section, on the line 2 2 of Fig. 3, but showing the cockeye in place and the parts closed. Fig. 3 is an end view, and Fig. 4 is a section on the line 4 4 of Fig. 1.

My present device is an improvement on that patented by me on August 31, 1886, No. 348,191, and like that device consists of a ferrule and ring, to be applied to the end of a whiffletree.

A represents said whiffletree, having, preferably, a reduced end, *a*, on which the ferrule B is fitted. This ferrule B is cut out at its outer end from about one-third to one-half of its circumference, as shown at *b*, and the remainder of said circumference is formed into a beveled flange, *c*, which projects beyond the periphery of the ferrule, being continued along each side of the cut-away portion, as shown at *c'*, and terminating about in a line with the bottom of the notch *b*, so as to form on each side of said notch-bottom the lugs or stops *d*. There are two other lugs or stops, *e*, extending back from the flange *c* to the same distance as the lugs *d*, the four lugs *d d e e* forming, practically, the four corners of an imaginary square. In addition, at the inner end of the ferrule there is another lug, *f*, located about midway between the described lugs or flange ends *d d*.

C is the hook, formed in one piece with its ring *g*, encircling the ferrule, and having its extreme end *h* bent at an abrupt angle to the adjacent part of said hook, so as to exactly conform to the bevel of the inner face of the described flange *c* on the ferrule, as best shown in Fig. 2. The ferrule is formed with

two holes, opposite each other, one between the lugs *d* and *e* on each side, and when the hook-ring is in place on the ferrule and the latter fitted to the end of the whiffletree, a pin, D, is driven through each of said holes in the ferrule into the wood of the end *a* of the whiffletree. These pins are made of malleable iron, tapered as shown, so as to readily penetrate the wood, and notched out on opposite sides, as shown at *i i*, (the notch or groove being deepest and widest at its center and narrower and shallower at each end,) so that when once embedded in the wood it cannot readily be withdrawn therefrom, as the fact of driving will tend to unite the wood and pins closely together, and the natural elasticity of the former will serve to crowd its fibers into the described notches, besides which the malleable metal will spread somewhat while being driven and add to the firmness of its hold thereby.

E is the cockeye, and *j* the trace end, to which it is secured.

In my previous patent on which this is designed as an improvement I found that sometimes the ring of the hook, when the parts were in the positions shown in Fig. 1, had a tendency to slip back on the whiffletree beyond the ferrule, causing the parts to bind, which is entirely obviated by my present construction; and, further, I found that sometimes the point of my hook would slip off from the flange under great strain, and this I have remedied also, the angle of the point *h* and the inner surface of the beveled flange *c* now corresponding, as shown, which gives the said point a hold on the flange like a finger and entirely prevents it from slipping off, besides distributing the strain between the hook and ferrule, instead of causing it to be entirely borne by the former, as heretofore. Again, as the point *h* is now within the outer end of the flange *c*, it is effectually guarded from accidental contact with various objects, which might otherwise tend to interfere with its free action.

The operation and adjustment of my present device are practically the same as in my said prior patent and too obvious to require extended description, the wide recess *b* affording an opportunity for the insertion of the

cockeye flatly without twisting the latter to one side or inserting it from its edge, which is often inconvenient when attached to stiff leather traces.

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

10 1. The combination, with a whiffletree-ferrule having a beveled flange on its outer periphery, of a ring surrounding said ferrule and a hook projecting from said ring and terminating in an angular point conforming to and bearing against the inside surface of the said beveled flange, substantially as and for
15 the purpose set forth.

20 2. The combination, with a whiffletree end of a ferrule fitted thereto and provided with retaining-lugs and perforations, of a hook-ring surrounding said ferrule and malleable-iron pins adapted to be driven through said
25 holes into the wood of the whiffletree end, and to limit the play of said hook-ring between the heads of said pins and said lugs, substantially as shown and described.

3. The combination of a whiffletree end of

a ferrule fitted thereto and secured by malleable-iron pins driven through holes in said ferrule into the wood of the whiffletree end, said ferrule being notched or recessed at its periphery for from about one-third to about
30 one-half of its circumference, a beveled flange extending around the said periphery and down alongside the edge of the recess, terminating in lugs on each side thereof, other lugs extending back from said flange and forming
35 the corners of a square with the just-named lugs, a hook-ring surrounding said ferrule and confined between said lugs and pins, and a hook projecting from said ring and terminating in an abrupt angle-point conforming
40 to and bearing against the inner surface of said beveled flange.

In testimony that I claim the foregoing I have hereunto set my hand at Racine, in the county of Racine and State of Wisconsin, in
45 the presence of two witnesses.

JOHN R. DAVIS.

Witnesses:

F. Y. McMURRAN,

A. CARY JUDD.