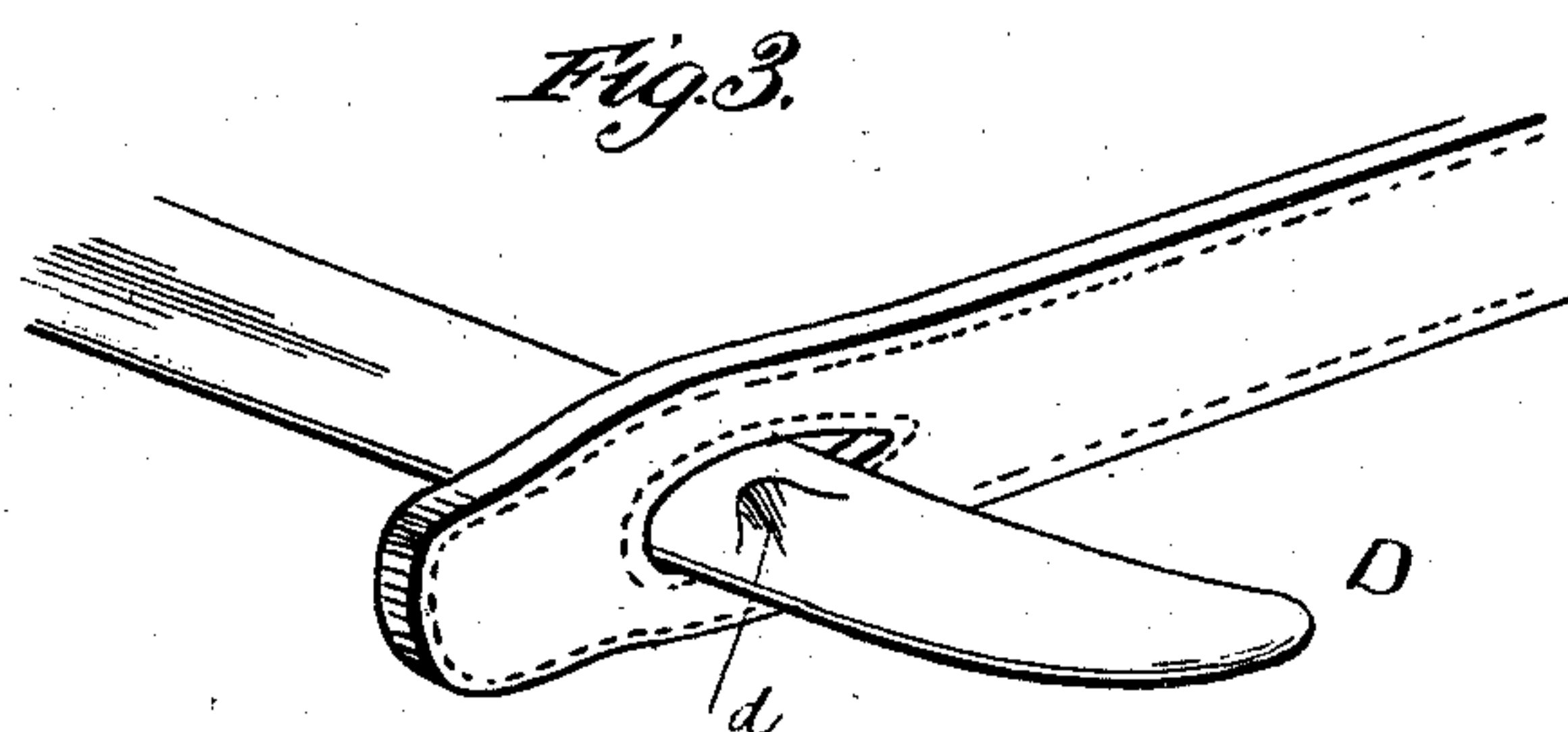
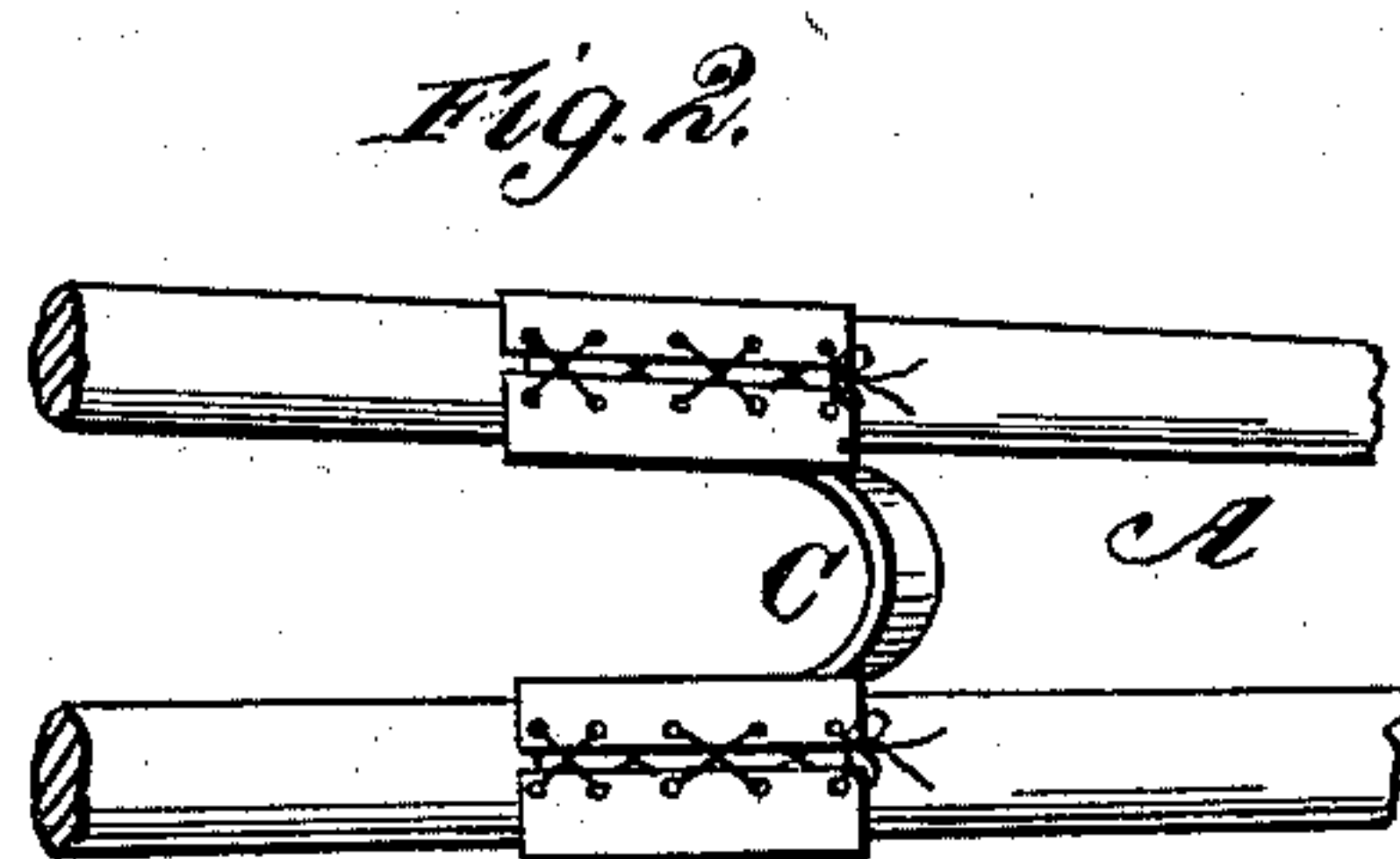
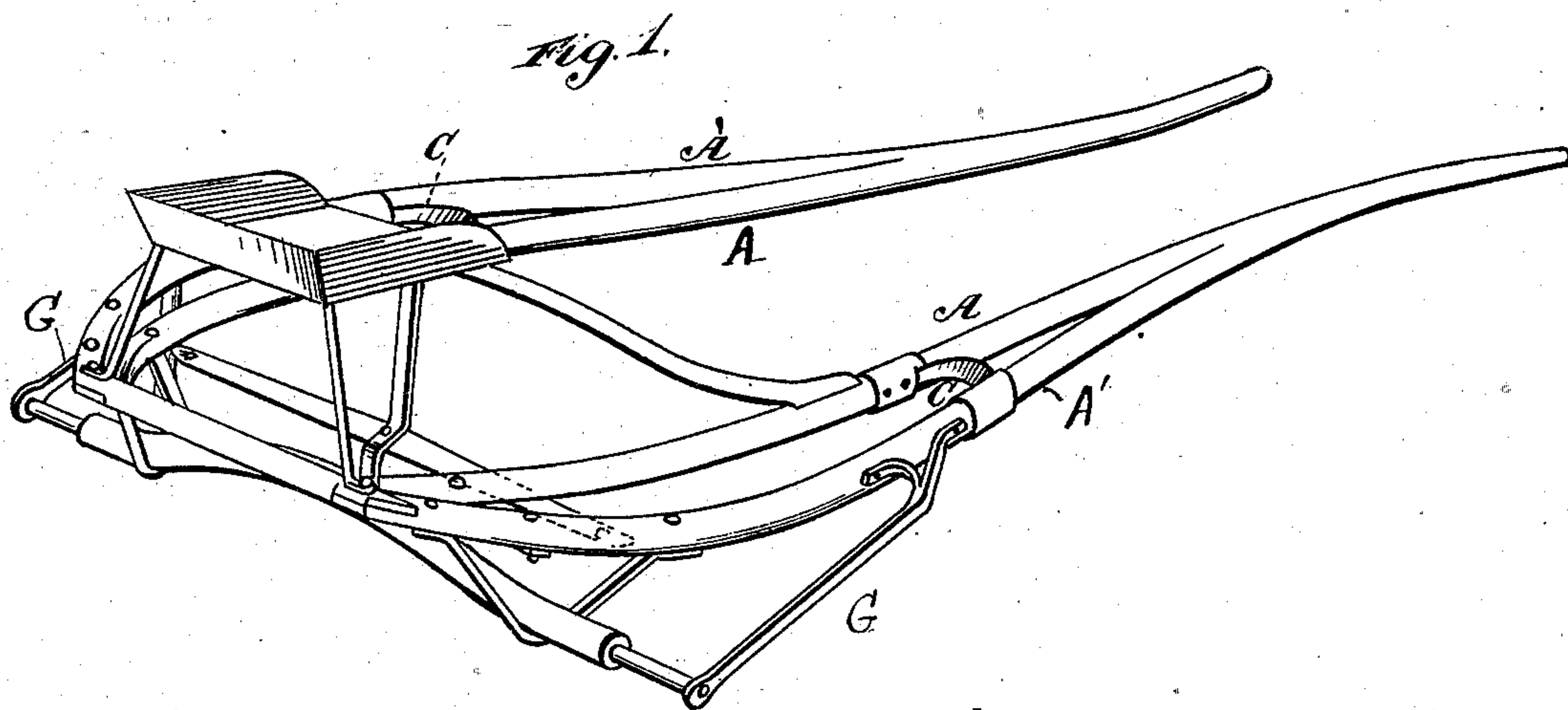


(No Model.)

P. JONES.
Sulky.

No. 239,610.

Patented April 5, 1881.



Witnesses:
Robert Everett
W H Babcock

Inventor,
Phineas Jones
by *J. D. Kane Jr.*
his
Attorney.

UNITED STATES PATENT OFFICE.

PHINEAS JONES, OF NEWARK, NEW JERSEY.

SULKY.

SPECIFICATION forming part of Letters Patent No. 239,610, dated April 5, 1881.

Application filed May 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, PHINEAS JONES, of Newark, county of Essex, and the State of New Jersey, have invented certain new and useful
5 Improvements in Skeleton Wagons and Sulkies; and I do hereby declare that the following specification, taken in connection with the drawings furnished, is a full and complete description thereof, sufficient to enable others
10 skilled in the art to make and use the same.

This invention relates chiefly to the shafts, foot-rests, and whiffletrees of sulkies; and it consists in the construction and combination of said parts, as hereinafter more particularly
15 set forth and claimed.

Referring to the drawings, Figure 1 represents a perspective view of a sulky with my improvement in position. Fig. 2 represents a section of a shaft as improved with the foot-rest attached, showing one of the modes of
20 adjusting the same. Fig. 3 represents a section of my improved whiffletree with trace attached.

For a more full understanding of the case I
25 will explain more minutely and in detail. A represents the shafts, which are represented as formed in two parts, either by splitting a single piece, distending, and forming into the desired shape, substantially as shown, or by
30 taking two separate pieces and suitably uniting them at their points of connection by bolts, sleeves, rings, pockets, or any other desirable mode of uniting them, so as to secure the desired result.

35 The foot-rests are represented at letters C C in the drawings formed of leather, or leather and other material, for the purpose of giving a greater degree of rigidity. I have represented, however, in connection with the leather or other
40 adjustable flexible sleeves which surround the two parts which form the shaft, metallic pieces, which are riveted or otherwise properly secured thereto. The metallic pieces are adapted to add additional stiffness to the shafts with
45 less liability to spring than when dispensed with. The adjustability of the foot-rests may be secured by lacing (similar to the lacing of a shoe) upon the under side of the shaft or otherwise, or a screw or screws may be adopted
50 in lieu of the lacing, and it may be very conveniently applied to the sleeve or sleeves in

such a manner as to act as a clamp-screw, which may be in some instances more desirable than the lacing before mentioned.

The seat for the driver is supported in front 55 by a bow-shaped brace with its ends fixed by bolts or otherwise upon the shafts, and is curved or rounded upward in such a manner as to leave a clear unbroken space and without inward projections from a point beneath 60 the seat between and to the forward end of the shafts. The seat may be provided with other suitable supports. A convenient form is shown in the drawings. The whiffletree is provided with a projecting ear formed thereon and is 65 shown as formed upon the upper side, yet it is obvious that it may be applied or formed upon the under side with like results. Projections so formed upon or near the ends of the whiffletree render it impossible for the traces 70 to loosen from position except when removed by hand. By this method the greatest possible strength is secured without weakening, while the method of connection and disconnection is quite as easy as by the old method, to 75 which it is very similar. It is obvious that the shafts, whiffletree, &c., hereinbefore specified may be applied to vehicles of various kinds whenever desirable and useful.

By loosening the fastenings of the sleeves 80 which support the foot-rest, said sleeves are left free to be slipped along the thills toward or from the seat C, and they may be again tightened at any desired point. This allows the distance of the foot-rests to be adjusted to 85 the length of the driver's legs.

The knobs or hooks on the whiffletree are made in one piece therewith instead of attaching a separate hooked casting at each end, as has heretofore sometimes been done. 90

The inner part of each thill is the shaft proper, and has been designated by the letter A; and A' is employed to indicate the outer bracing-piece of said thill or shaft. G designates two metallic guards, which are arranged 95 one on each side of the thills, the forward end of each guard being attached to the outside of the proximate bracing-piece A', and their rear end to the end of the axle. These guards extend obliquely outward and backward, and 100 serve to prevent the locking of the vehicle-wheels.

In the drawings the whiffletree has been lettered D, and the knob formed thereon has been lettered d. The whiffletree tapers to a point at each end, and the knob is formed upon the
5 upper or lower face thereof. This construction gives greater strength than when a knob or hook is formed on a stud projecting from the end of a whiffletree, as has sometimes
10 hitherto been done. Only one end of the whiffletree is shown in the drawings, the construction of the ends being identical.

Having thus described my invention, what I claim is—

1. A pair of sulky-shafts provided with
15 braces, substantially as described, in combination with foot-rests supported by sleeves which are made adjustable backward and forward

on said shafts, and braces to suit the length of the driver's legs, substantially as set forth.

2. A pair of shafts provided with braces, 20 substantially as described, in combination with rearwardly and outwardly extending guards which prevent the locking of the wheels, said guards being attached to the braces and axle, substantially as set forth. 25

3. A whiffletree having its ends tapered and formed with knobs or projections above their upper face or below their lower face, substantially as set forth.

PHINEAS JONES.

Witnesses:

JOHN DANE, Jr.,
SILAS L. HAZEN.