

(No Model.)

C. HUEHN.  
VEHICLE AXLE.

No. 316,974.

Patented May 5, 1885.

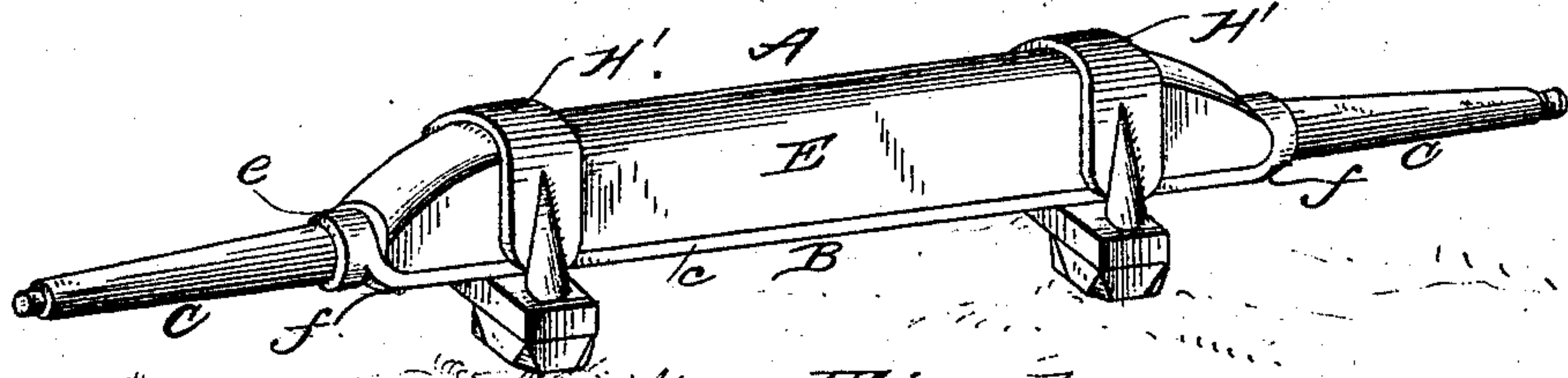


Fig. 1.

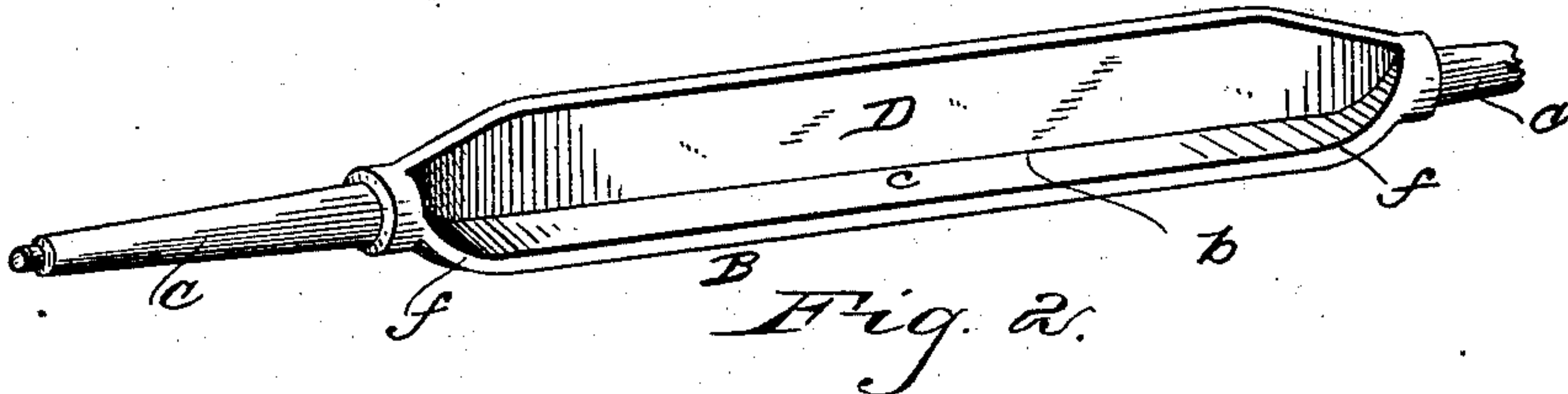
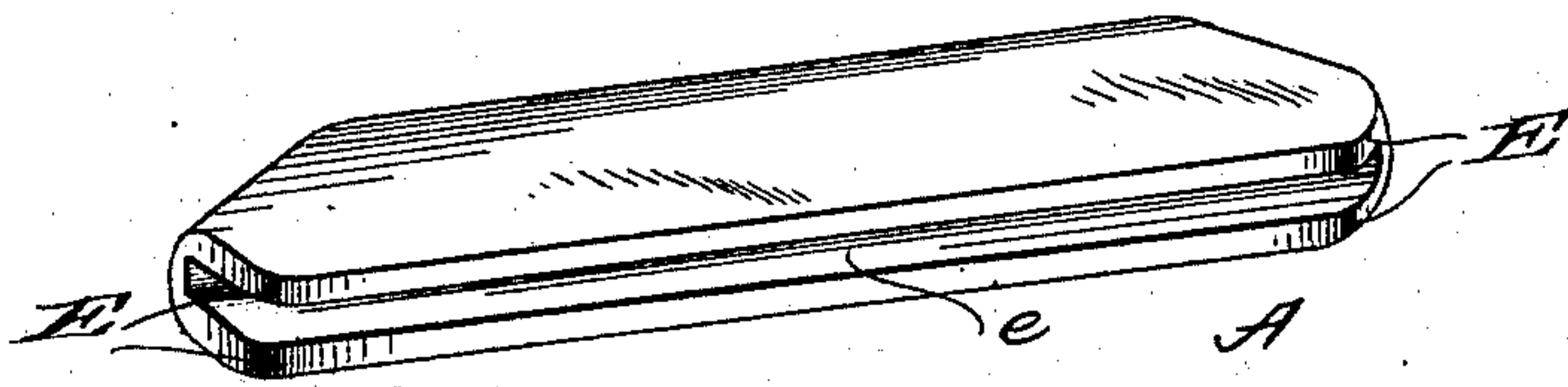


Fig. 2.

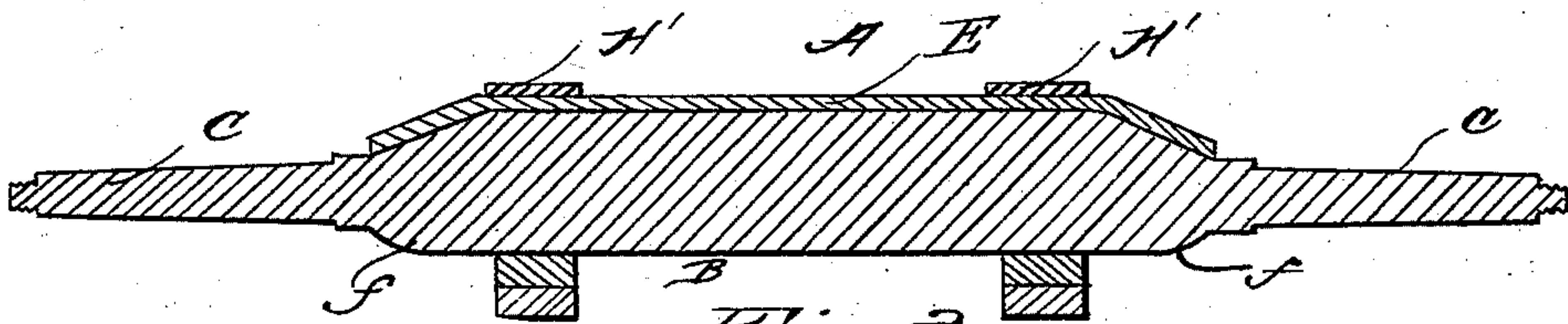


Fig. 3.

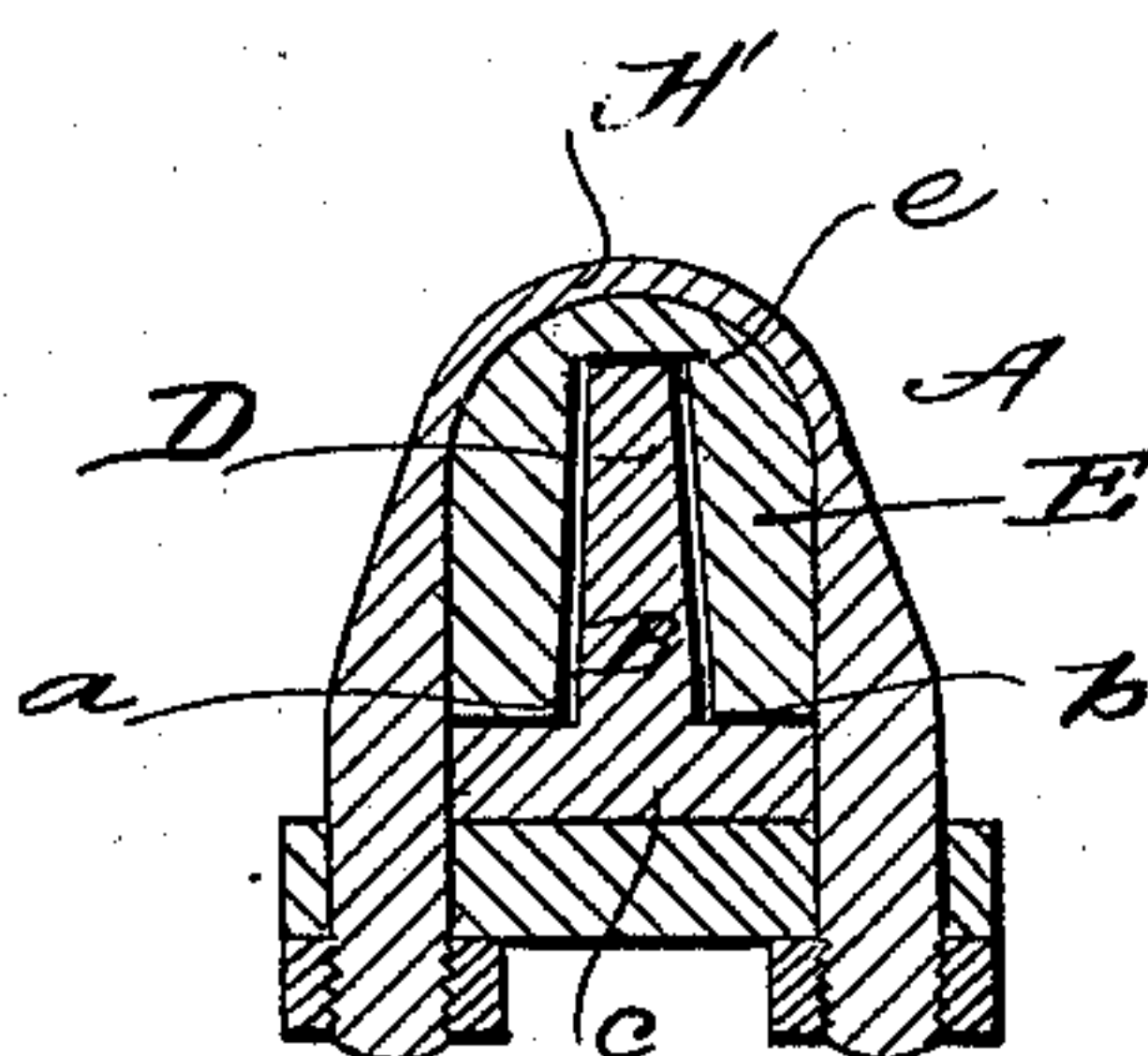


Fig. 4.

WITNESSES  
*C. M. Dashiell.*  
*E. G. Siggers*

INVENTOR  
*Conrad Huehn*  
By *C. A. Snow & Co.*  
Attorneys



# UNITED STATES PATENT OFFICE.

CONRAD HUEHN, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF TO  
JOHN SCHAKE, OF SAME PLACE.

## VEHICLE-AXLE.

SPECIFICATION forming part of Letters Patent No. 316,974, dated May 5, 1885.

Application filed November 3, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CONRAD HUEHN, a citizen of Germany, residing at Rochester, in the county of Monroe and State of New York,  
5 have invented a new and useful Improvement in Vehicle-Axles, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to axles for carriages, wagons, buggies, and other vehicles; and it has for its object to provide a device of this character which will be cheaper, lighter, stronger, and otherwise superior in every respect to those in common use.

15 With this end in view the said invention consists in certain details of construction and combination of parts, as hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the axle. Fig. 2 is a similar view of the parts detached. Fig. 3 is a longitudinal section of the axle. Fig. 4 is a transverse vertical section of the same.

25 Like letters are used to indicate corresponding parts in the several figures.

Referring to the drawings, A designates the axle, comprising the metallic portion B, having the spindles C C at each end to receive the hubs of the wheels, this metallic portion  
30 intermediate of the spindles being recessed longitudinally on each side, as at *a b*, a central partition or projection, D, extending upward from the base *c* along the same and separating the recesses, as shown.

35 E designates the wooden portion, provided with a vertical groove, *e*, extending longitudinally through the bottom thereof, so as to receive the projection or partition D of the metallic portion, the sides of the wooden portion  
40 on each side of the groove fitting within the recesses *a b* of the metallic portion. As shown, the outer faces of the wooden portion fit flush with the outer edges of the base *c*, and the two—metallic and wooden portions—  
45 when combined together, pertain of the general form of carriage-axles. The ends of the recesses *a b*, where they connect with the spindles, are curved upward at *f f*, to provide abutting-walls for the ends of the wooden portion E, and thus prevent lateral movement of  
50 the same. The under sides of the wooden portion on each side of the central groove, *e*,

rest upon the upper face of the base *c*, and clips H' H' are employed to bind the wooden portion in its seat.

55 The operation of my invention will be readily understood from the foregoing description, taken in connection with the annexed drawings.

The wooden portion is applied in position 60 and clipped as described. The projection or partition D of the metallic portion fits within the corresponding groove of the wooden portion, and prevents the latter from being displaced. The wooden portion is received by 65 the recesses *a b* of the metallic portion, so that there will be no projecting parts to the axle. The ends of the wooden portion bear against the curved shoulders or walls *f*, and the under side of the wooden portion rests upon the 70 base *c*.

The projection or partition D of the metallic portion is tapering in form, and the groove *e* likewise tapering, to provide a tighter connection; but it will be apparent that I am 75 not limited to this construction.

The axle when completed is of the same general form as those in common use; but it is far lighter than the ordinary solid metal axle, and consequently cheaper and stronger. 80 It will make the labor of drawing the vehicle much easier on the horses, and is a superior article in every respect for the purposes intended.

85 Having described my invention, I claim—

The herein-described axle, comprising the metallic portion having its base *c* provided with a vertical partition, D, which has its ends curved or inclined downward to connect with the spindles of the axles, the said base *c* 90 having its ends curved upward, as at *f*, and the wooden portion having a central groove, *e*, received by the projection, the ends of the wooden portion being correspondingly curved, to bear or abut against the end walls, *f*, and 95 clips for securing the parts together, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CONRAD HUEHN.

Witnesses:

JOHN SCHAKE,  
EDWIN A. MEDCALF.