

No. 689,267.

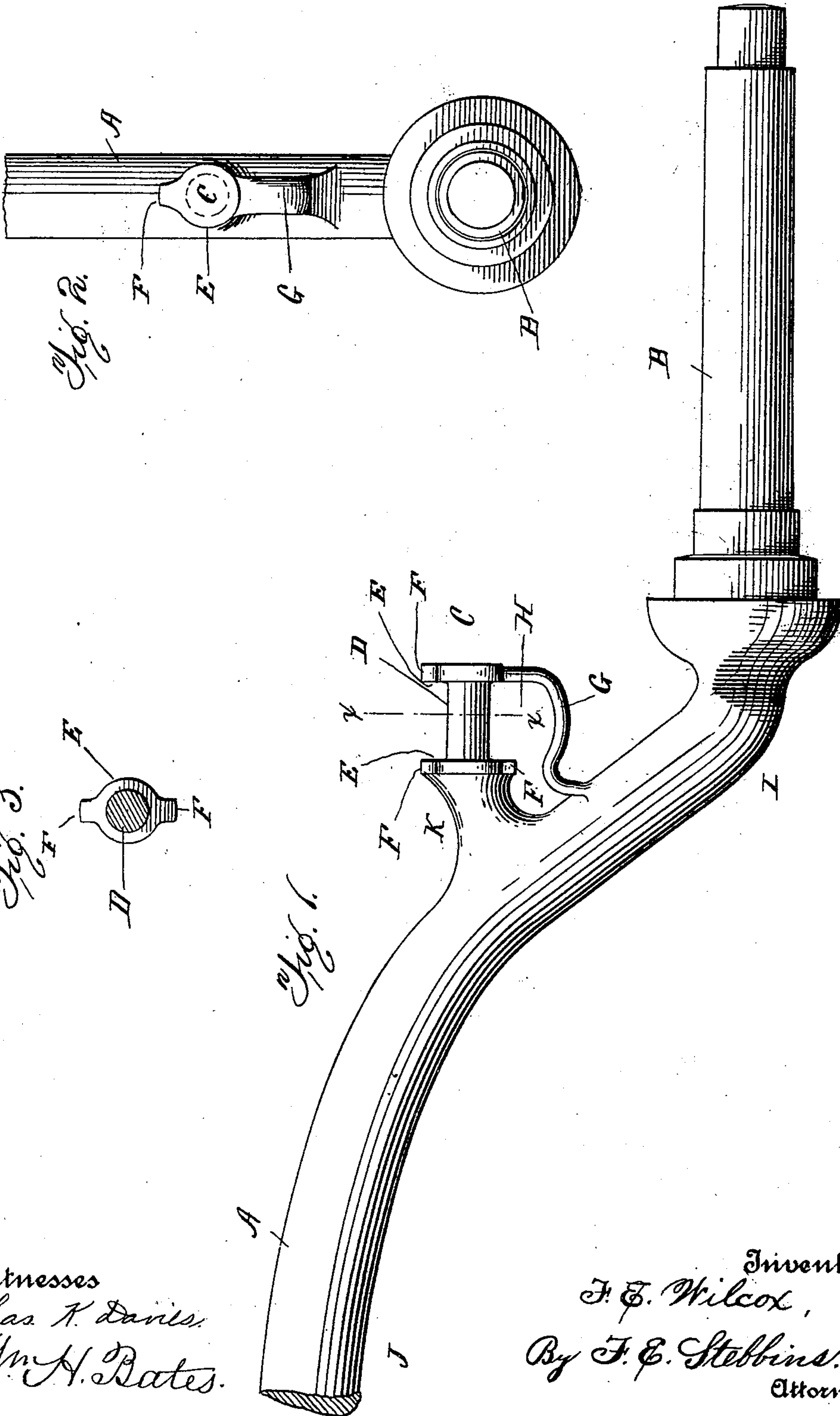
Patented Dec. 17, 1901.

F. E. WILCOX,
VEHICLE AXLE.

(Application filed Aug. 15, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK E. WILCOX, OF MECHANICSBURG, PENNSYLVANIA.

VEHICLE-AXLE.

SPECIFICATION forming part of Letters Patent No. 689,267, dated December 17, 1901.

Application filed August 15, 1901. Serial No 72,105. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. WILCOX, a citizen of the United States, residing at Mechanicsburg, in the county of Cumberland and State of Pennsylvania, have invented new and useful Improvements in Vehicle-Axles, of which the following is a specification.

My invention relates to vehicle-axles; and the object is the provision of improved means in connection with the same for the attachment of the shafts. Heretofore axles have been constructed with integral spools or projecting lugs for this purpose, but they have been deficient in strength, due in the main to the fact that one end only has been united to the axle, the other end being free and unsupported. My purpose is to obviate the objections appertaining to such constructions and to provide a strong, durable, and artistic means for the attachment of the thill-couplings or shafts.

My invention consists, objectively, in a vehicle-axle provided with loops thereupon and a part of each of said loops fashioned to receive a shaft or thill coupling.

Further, it consists of a vehicle-axle provided with spools or lugs for the reception of the shaft-couplings and each spool having a brace which connects its end with the body of the axle.

Finally, it consists in certain novelties of construction and combinations of parts hereinafter set forth and claimed.

The accompanying drawings illustrate two examples of the physical embodiment of my invention constructed according to the best modes I have so far devised for the application of the principle.

Figure 1 is a view in elevation of an end portion of an axle provided with my improvement. Fig. 2 is an end view of Fig. 1. Fig. 3 is a section on line xx of Fig. 1. Figs. 4, 5, and 6 illustrate a second example.

Referring to the several figures, the letter A designates the body of the axle; B, the spindle which receives the wheel; C, a spool projecting from the body of the axle and in this instance integral therewith; D, the cylindrical portion of the spool.

E represents flanges; F, in Figs. 1, 2, and 3, lugs which serve as guards or guides for a

coupling; G, a brace which unites the end of the spool and the body of the axle, and H an open space bounded by the axle, spool, and brace.

While I have illustrated and specifically described only two pictured examples of the physical embodiment of my invention, I do not thereby intend to confine the scope of the same to such examples, inasmuch as changes in shape and various modifications may be introduced in manufacture which will not constitute a substantial departure. The brace may be united to the body of the axle at any point between the spindle and the spool or between the end of the spool and the center of the axle, or it can unite the end of the spool and the part K of the lug, and the said brace may be of any shape whatever. The axle also may be of any shape in cross-section and arched from I to J or otherwise curved. The spool may be parallel with the spindle or disposed at an angle thereto and with a straight axle the spool may be supported by two braces, one at each end.

It will be observed that, as illustrated, the device as a whole for the support of a shaft or coupling constitutes a loop springing from and returning to the axle and that there is an open space H formed thereby. Any portion of the loop can of course be fashioned to form a spool or cylindrical bearing portion. When the brace extends from the end of the spool to the part K of the lug, the open space will obviously be bounded by the spool and brace.

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

1. A vehicle-axle provided with loops integral therewith and a part of each loop fashioned to receive a shaft or thill coupling.

2. A vehicle-axle provided with loops integral therewith and a part of each loop fashioned to form a spool to receive a shaft or thill coupling.

3. A vehicle-axle provided with loops integral therewith for the attachment of shafts.

4. A vehicle-axle provided with a spool integral with the axle, and a brace for the spool.

5. A vehicle-axle provided with an integral lug or spool, and a brace uniting the end of the lug or spool and the body of the axle.

6. A vehicle-axle provided with a lug hav-

a cylindrical portion D, and a brace extending from the end of the spool to the body portion of the axle between the spool and the spindle.

- 5 7. An arched vehicle-axle having loops integral therewith adjacent the spindles and a part of each loop adapted to receive a coupling.

8. An arched vehicle-axle having a spool

parallel with the spindle and a brace for the 10 spool.

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

FRANK E. WILCOX.

Witnesses:

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