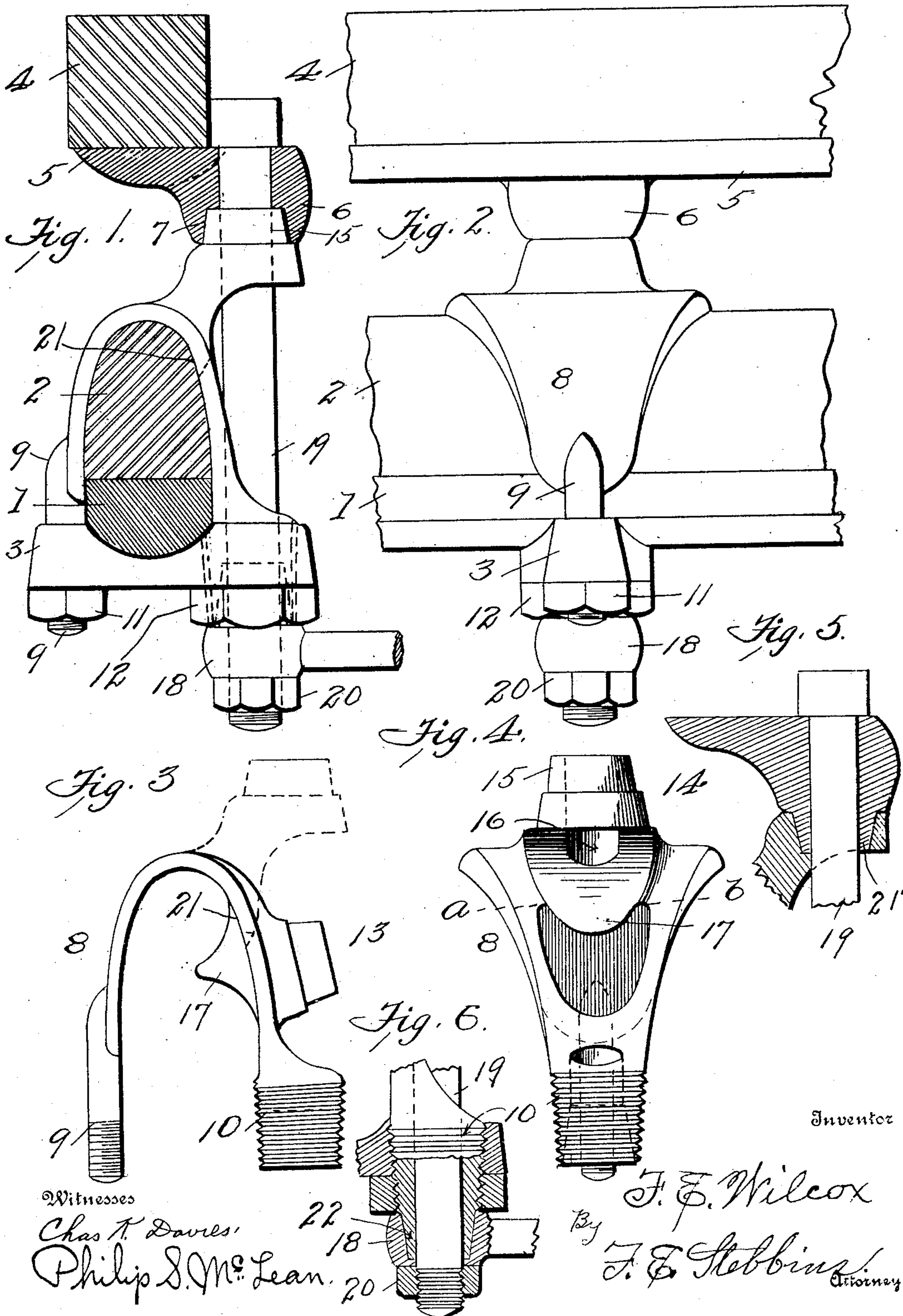


No. 839,913.

PATENTED JAN. 1, 1907.

F. E. WILCOX.  
VEHICLE GEAR.

APPLICATION FILED SEPT. 29, 1906.





# UNITED STATES PATENT OFFICE.

FRANK E. WILCOX, OF MECHANICSBURG, PENNSYLVANIA.

## VEHICLE-GEAR.

No. 839,913.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed September 29, 1906. Serial No. 336,705.

*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-Gears, of which the following is a specification.

My invention relates to vehicle-gears, and in particular to axle king-bolt clips for the same, my object being to improve the clip shown and described in the Letters Patent No. 746,219, issued to me on December 8, 1903.

My invention consists in certain novelties of construction hereinafter set forth and claimed.

The accompanying drawings illustrate the physical embodiment of my improvements.

Figure 1 is a cross-section of an axle, axle-cap, head-block, and head-block plate and a side elevation view of the axle king-bolt clip, brace, and king-bolt. Fig. 2 is a front view of Fig. 1. Fig. 3 shows the disposition of the metal in connection with the rear prong of the clip, which is fashioned into a lug or head and is to be turned up for engaging the head-block plate and to receive the king-bolt. Fig. 4 is a rear view in elevation of the finished clip. Figs. 5 and 6 illustrate modifications.

Referring to the several figures, the numeral 1 designates the axle; 2, the axle-cap; 3, the axle-yoke perforated at the ends; 4, the head-block; 5, the head-block plate; 6 a perforated lug at the rear edge of the plate; 7, a frusto-conical seat at the under surface of the lug coinciding with the perforation therethrough; 8, the clip; 9, the front threaded prong or bolt end; 10, the rear threaded and perforated prong or bolt end; 11, a nut on the front prong; 12, a nut on the rear prong; 13, (in Fig. 3,) the metal fashioned into a head which is to be turned up to the position shown in dotted lines; 14, the head of the clip; 15, a frusto-conical projection or lug at the top of the head which fits the seat at the under surface of the lug at the rear edge of the head-block plate; 16, a hole through the said projection 15 and the head; 17, a downwardly-extended foot to rest against the rear surface of the axle-cap and

reinforce the head and prevent the same bending when subjected to the superimposed weight of the vehicle-body and the strains in drawing and turning; 18, the perforated brace-head; 19, the king-bolt, and 20 a nut upon the threaded end of the king-bolt.

The several parts are united, as clearly shown in Figs. 1 and 2, and need not be described.

In manufacturing the king-bolt clip after the lug and projection 17 are formed between dies the metal upon the rear prong is cut away upon the curved line from *a* to *b*, so as to partly sever the same from the prong. The free end of the part severed is then bent away from the surface of the prong and relatively disposed, as shown by dotted lines in Fig. 3 and by full lines in Fig. 4, said head having the projection 15 and being reinforced by the downwardly-extended foot 17, which has a curved surface at 21 to frictionally engage the curved surface of the cap.

In Fig. 5 the frusto-conical projection 21' is formed on the head-block-plate lug and fits the hole in the head 14. In Fig. 6 a frusto-conical projection 22 is formed on the bolt 10 and fits a seat in the brace-head. The head-block-plate lug and the head of the clip and also the brace-head and the bolt end of the rear prong of the clip interlock in substantially the same way as in the example illustrated by Figs. 1 to 4.

From the foregoing description, taken in connection with the drawings, it is obvious that I have produced a very simple axle-clip and one which has a head adapted to engage the head-block plate and in part support the superimposed weight of the vehicle-body and other strains without bending and also hold the axle and cap in their proper relative positions.

What I claim is—

1. A king-bolt clip having a front threaded prong or bolt end, a rear prong, and a head fashioned and cut from the rear prong and turned upwardly and fashioned with a projection 15, the said head and projection being perforated.

2. A king-bolt clip having a front prong or bolt end, a rear prong, and a head cut from the rear prong and turned upwardly, said

head being reinforced by a foot 17, in substance as set forth.

3. The combination with an axle, axle-cap, and head-block plate having a perforated lug, of a clip, axle-yoke, brace-head,  
5 and king-bolt, said clip having a perforated head adapted to interlock with the lug of the head-block plate and a foot 17 bearing

against the surface of the axle-cap, for the purpose set forth. 10

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

FRANK E. WILCOX.

Witnesses:

H. C. BROWN,

F. E. STEBBINS.