No. 734,996. PATENTED JULY 28, 1903.

H. C. SWAN.

FIFTH WHEEL.

APPLICATION FILED DEC. 5, 1902.

NO MODEL.

*Fig. 1.*

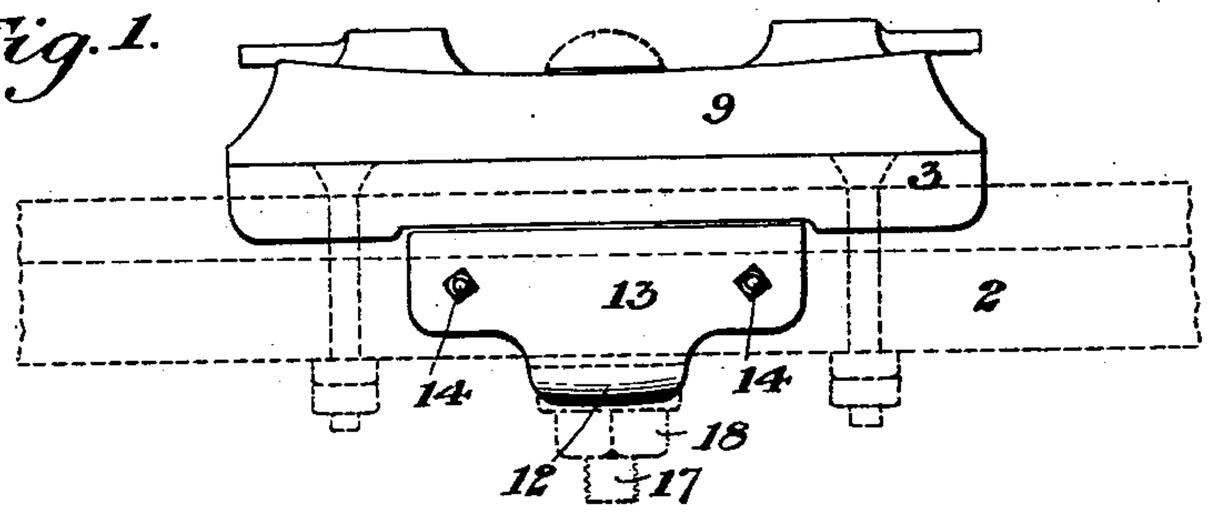



*Fig. 2.*

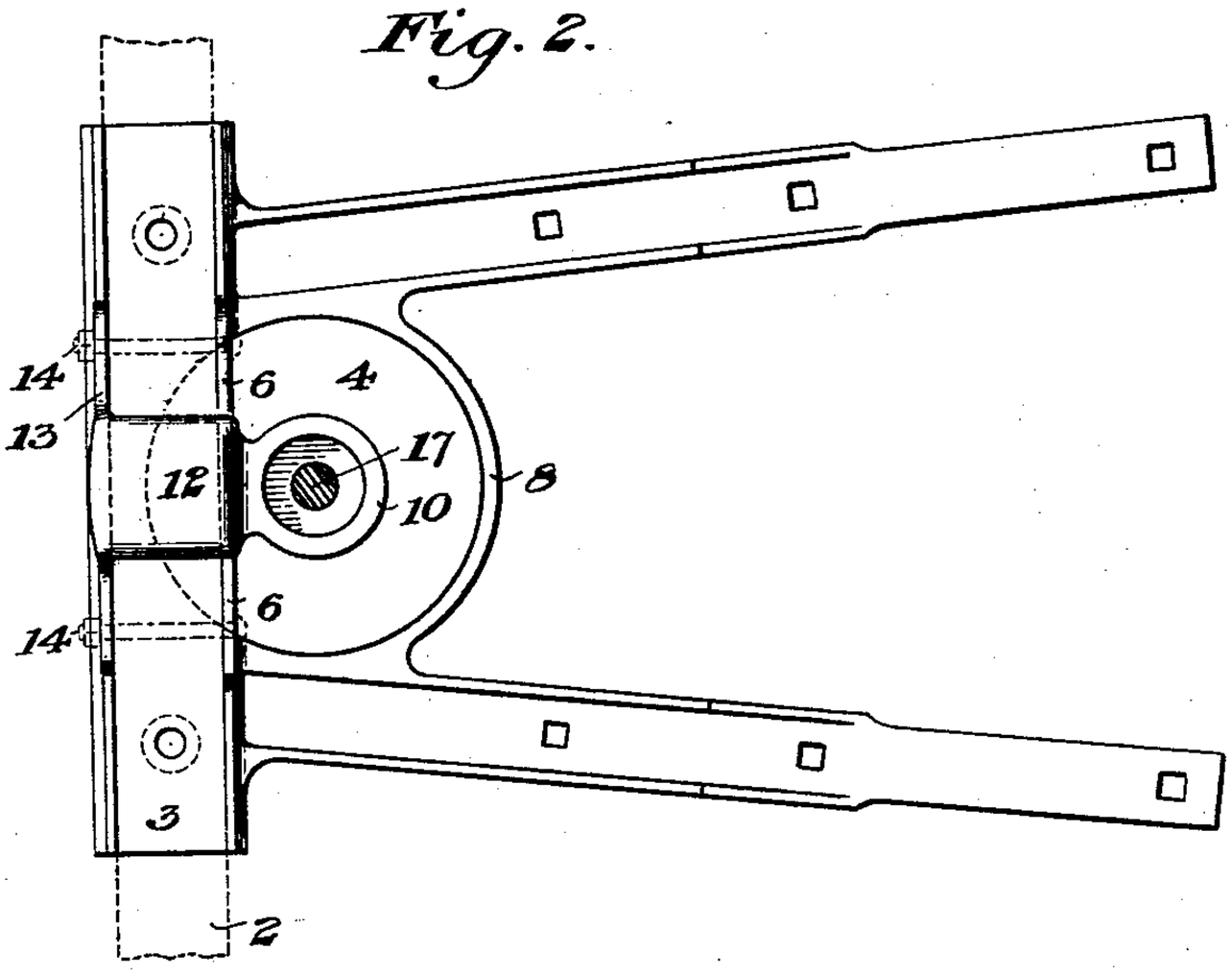
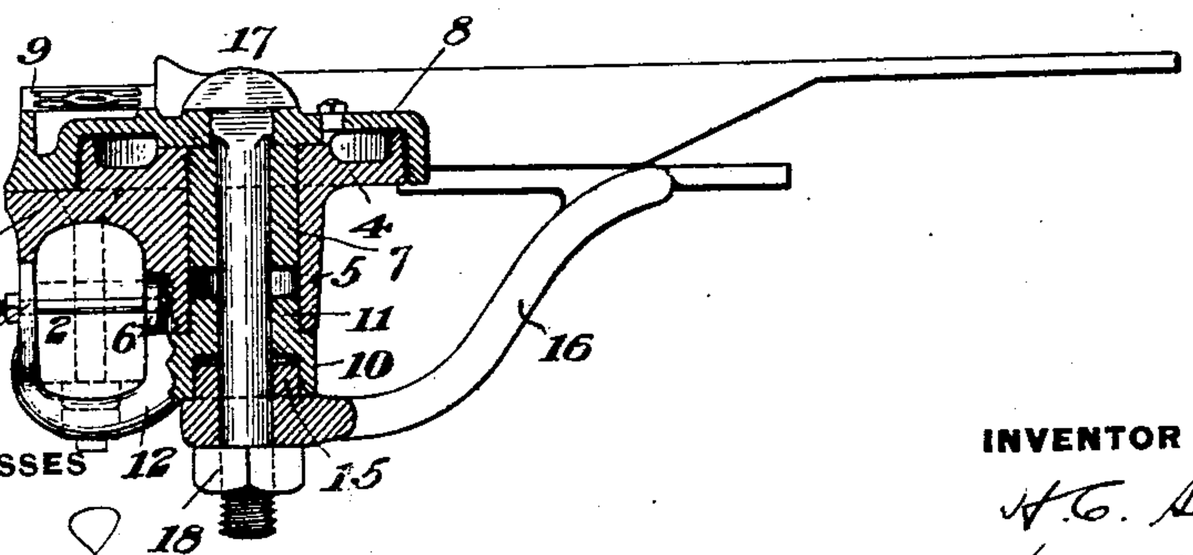



*Fig. 3.*




WITNESSES

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No. 734,996. Patented July 28, 1903.

# UNITED STATES PATENT OFFICE.

HENRY C. SWAN, OF CLEVELAND, OHIO.

## FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 734,996, dated July 28, 1903.

Application filed December 5, 1902. Serial No. 133,982. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. SWAN, of Cleveland, Cuyahoga county, Ohio, have invented a new and useful Fifth-Wheel, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation showing my fifth-wheel in position. Fig. 2 is a bottom plan view of the same with the bottom brace-arms removed, and Fig. 3 is a sectional side elevation showing the interfitting socket arrangement for the parts.

My invention relates to the class of fifth-wheels, and more especially to the means for fastening to the axle. Heretofore fifth-wheels of this character have been secured to the axle by means of rivets or bolts, and as the strains are brought directly upon these rivets or bolts they are liable to become loose under the jarring to which they are subjected. My invention is designed to overcome this difficulty, and it consists in providing a lower axle-guard, which extends beneath and upwardly in front of the axle-face to assist in receiving strains. This guard is preferably secured by a rivet extending transversely of the axle. The bottom guard is preferably formed with a sleeve surrounding the king-bolt, and I also preferably provide the king-bolt socket with a flange through which the rivet for the axle-guard extends.

In the drawings, 2 represents the axle, upon the top of which rests the longitudinal bar 3, which is formed integrally with the lower circle-plate 4. This lower circle-plate is provided with a depending collar 5 and also with a vertical flange or plate 6, which fits along the rear face of the axle. The hole through the collar 5 is of large enough diameter to receive a hub or sleeve portion 7, formed integrally with the upper circle-plate 8. This upper circle-plate is upwardly recessed, as shown, to receive the lower circle-plate, and has the longitudinal bar 9, to which the head-block is secured.

The lower end of the socket or sleeve 5 fits upon the shoulder of a collar 10, having an upper reduced portion or hub 11, which fits within the socket 5; and extending forwardly from the collar 10 is a strap or support 12, carrying the axle-guard 13, which fits along the front face of the axle. This guard may be secured by rivets or bolts 14, extending through it, through the axle, and through the flanges 6 of the socket.

I have shown the sleeve 10 as recessed to receive the hub 15 of the bottom brace 16, having rearwardly-extending arms. The king-bolt 17 fits within the holes through the parts 7, 11, and 15 and receives a nut 18 at its lower end.

In using this fifth-wheel when strain is brought on the guard-stay or bottom brace this tension is communicated by the axle-guard to the front face of the axle, and hence the strain is largely removed from the securing rivets or bolts. When, on the contrary, the strain is in the other direction, the plate or flanges at the rear of the axle bear against it and again relieve the rivets. The interlocking joints of the various collars largely relieve the king-bolt from strain.

The advantages of my invention result from the use of the axle-guard, which greatly improves the strength and durability of the device.

Many variations may be made in the form and arrangement of the fifth-wheel and its various parts without departing from my invention.

I claim—

1. A fifth-wheel having a ring or sleeve around the king-bolt, said sleeve having a projecting arm extending under the axle and carrying an axle-guard extending along the front face of the axle, and a transverse bolt extending through the front guard and the axle; substantially as described.

2. A fifth-wheel having a lower circle-plate with flanges extending along the rear of the axle, a lower ring around the king-bolt having an axle-guard extending under and along the front face of the axle, and securing devices extending through the circle-flanges, the axle and the front plate of the axle-guard; substantially as described.

3. A fifth-wheel having a king-bolt, a ring or sleeve surrounding the king-bolt and hav-

ing a front axle-guard extending under and substantially covering the front face of the axle, said guard having a rear portion fitting against the back side of the axle, and securing devices extending through said front guard and transversely through the axle; substantially as described.

In testimony whereof I have hereunto set my hand.

HENRY C. SWAN.

Witnesses:
GEO. B. SHEPARD,
H. J. MOORE.